

III. METHOD AND PREPARATION OF LOCAL AREA TRANSPORTATION REVIEW TRAFFIC STUDY

A. General Criteria and Analytical Techniques

The following general criteria and analytical techniques are to be used by applicants for subdivision, zoning, special exceptions, and mandatory referrals when submitting information to demonstrate the expected impact on public roadway intersections by the proposed development. The applicant's analysis should consider existing traffic, potential traffic that will be generated by their development, and nearby approved but unbuilt development (i.e., background).

The traffic study for a proposed development under consideration must include in background traffic all developments approved and not yet built and occupied prior to the submission of an application.

Transportation Planning staff may require that applications in the immediate vicinity of the subject application filed within the same time frame be included in background traffic, even if the Planning Board has not approved them. If an application is approved after a traffic study has been submitted for another project and both require improvements for the same intersection(s), then the traffic study for the pending application must be updated to account for the traffic and improvements from the approved application.

Staff has 15 working days to develop a study scope after receiving a written request and will supply the applicant with information on approved but unbuilt developments, (background development), nearby intersections for study, trip distribution and traffic assignment guidelines, and other required information.

The traffic study should be submitted along with the application, following the guidelines in the *Development Review Manual*. If a traffic study is submitted at the same time as the application, the applicant will be notified concerning the completeness of the traffic study within 15 working days of the Development Review Committee (DRC) meeting at which the application is to be discussed. If not submitted before the DRC meeting, Transportation staff has 15 working days after submittal to notify the applicant as to whether or not the traffic study is complete.

For a trip mitigation program or an intersection improvement to be considered for more than one application, the program or improvement must provide enough capacity to allow all the applications participating in the program or improvement to satisfy the conditions of LATR. An intersection improvement may be used by two or more developments to meet LATR even though construction of the improvement has not been completed and open to the public.

To be considered, the program or improvement must provide sufficient capacity to:

- result in a calculated CLV in the total traffic condition that is less than the congestion standard for that policy area, or

- a number of trips equal to 150 percent of the CLV impact attributable to the development (for the LATR test). Any type of mitigation listed in this document or acceptable to the Planning Board can be used to achieve this goal.

When development is conditioned upon improvements by more than one application, those improvements must be bonded, under construction, or under contract for construction prior to the issuance of building permits for any new development. Construction of an improvement by one applicant does not relieve other applicants who have been conditioned to make the same improvement of their responsibility to participate in the cost of that improvement.

If the Planning Board grants an extension of the Adequate Public Facilities requirements, for an approved preliminary plan for example, Transportation Planning staff will determine if the traffic study needs to be updated based on the APF validity period, usually three years from the date originally approved by the Planning Board.

In some cases, a Special Exception modification may be submitted where the observed traffic reflects a level of activity greater than that already permitted. In such cases, the petitioner must estimate the reduction in traffic activity that would be caused by reducing the operations to the permitted level, and use those conditions for establishing adequate public facility impacts.

B. Scope of LATR/PAMR Traffic and Transportation Study

At a meeting or in written correspondence with Transportation Planning staff, the following aspects of the traffic study will be proposed by the applicant and/or provided by staff and agreed upon.

1. Intersections that are to be included in the traffic study. The number of intersections to be included will be based on the trips generated by the development under consideration (see Section II.A.2 for specific criteria regarding “land at one location”). As a general guideline, Table 4 indicates the number of signalized intersections from the site in each direction to be included in the traffic study, based on the maximum number of weekday peak-hour trips generated by the site, unless staff finds that special circumstances warrant a more limited study. For large projects, i.e., greater than 750 peak-hour site trips, the number of intersections shall reflect likely future signalized intersections as determined by staff and the applicant.

Table 4
 Signalized Intersections to be Included in a Traffic Study

Weekday Peak Hour Site Trips	Minimum Number of Signalized Intersections in Each Direction
30 - 250	1
250 - 749	2
750 - 1,249	3
1,250 - 1,749	4
1,750 - 2,249	5
2,250 - 2,749	6
>2,750	7

The term “each direction” in the table above applies to every study intersection. For example, in a hypothetical grid, the first ring would include four intersections. The second ring would include not only the next four intersections along the streets serving the site, but also the four intersections among the cross streets encountered in the first ring. In this manner, as the number of intersections in each direction grows linearly from one to five, the number of total study area intersections grows at a greater rate.

Transportation Planning staff, in cooperation with the applicant, will use judgment and experience in deciding the significant intersections to be studied within Growth Policy parameters. Interchanges (future) will be afforded special considerations, including ramps/termini being treated as signalized intersections. The County’s urban areas, including CBDs and MSPAs, have more closely-spaced intersections, suggesting that the major intersections be studied. Site access driveways are not included in the first ring of intersections.

Transportation Planning staff will consider other factors regarding the number of intersections to be included in the traffic study, such as:

- geographic boundaries such as parks, interstate routes, railroads
- political boundaries, though intersections in jurisdictions for which the Planning Board does not have subdivision authority will not be included in the traffic study
- contiguous land under common ownership
- the type of trip generated for example, new, diverted, or pass-by
- the functional classification of roadways for example, six-lane major highway
- An unsignalized intersection may be included in the definition of rings if the intersecting streets are both master planned roadways

However, intersections distant enough so that fewer than five peak hour vehicle trips from the site will travel through the intersection need not be included in the traffic study, even if they would otherwise be identified as candidate locations. An applicant may develop a trip distribution and assignment pattern prior to the study scoping process and work with staff to

determine which candidate locations would not require full study. This process will be documented in the study scoping correspondence.

- 2a. approved but unbuilt (i.e., background) development to be included in the traffic study. As a general guideline, the background development in a traffic study will be in the same geographic area as the intersections to be studied, generally defined by a polygon connecting the intersections farthest from the site. Staging of large background developments beyond the typical time period for a traffic study will be considered on a case-by-case basis.
 - 2b. active trip mitigation programs, or physical improvements not completed, that have been required of other developments included in background traffic.
3. the adequacy of existing turning movement counts and need for additional data. Generally, traffic counts less than one year old when the traffic study is submitted are acceptable. Traffic counts should not be conducted on a Monday or a Friday, during summer months when public schools are not in session, on federal and/or state and/or county holidays, on the day before or after federal holidays, during the last two weeks of December and the first week of January, or when weather or other conditions have disrupted normal daily traffic.
4. factors, e.g., the specific trip pattern of development, to be used to compute the trip generation of the proposed development and developments included as background
5. the directional distribution and assignment of trips generated by the proposed development and developments included as background, in accordance with the latest publication of *Trip Distribution and Traffic Assignment Guidelines* (see Appendix D). Individual background developments that generate less than five peak hour trips (i.e., subdivisions of four or fewer single family detached dwelling units) are not generally included, as tracking those trips is not pragmatic.
6. mode split assumptions, if the traffic study is to include reductions in trips generated using vehicle-based trip factors.
7. transportation projects fully funded for construction within four years in the County's Capital Improvement Program (CIP), the State's Consolidated Transportation Program (CTP), or any municipal capital improvements program that are to be included in the analysis, along with techniques for estimating traffic diversion to major new programmed facilities.
 - a. Based on information provided by the SHA, two projects not listed as fully funded in the CTP should be assumed to be fully funded in the first four years of the CTP: the Intercounty Connector, and the grade separation of MD 355 at Montrose and Randolph Roads.
8. traffic circulation and/or safety concerns related to site access (generally applied to public or private facilities with 800 or more seats or which can otherwise accommodate 800 or more people during an event).
9. a feasible range of types of traffic engineering improvements or trip mitigation measures associated with implementing the development.
10. the number, size, and use of buildings or types of residential units on the site.

11. queuing analysis, if required (see Section V).

12. Pedestrian and Bicycle Impact Statement

To assure safe and efficient pedestrian and bicycle access and circulation to and within the site, the study will include:

- a. pedestrian and/or bicycle counts at intersections
- b. the project's effect on pedestrian and bicyclist access and safety on the site and in the surrounding area
- c. capital or operating modifications, if any, required to promote and maximize safe pedestrian and bicyclist access to the site and in the area around it
- d. inventory map of existing and/or proposed sidewalks, off-road shared-use paths and/or bikeways near the site, noting whether or not they are generally consistent with the County's Road Code design standards and for sidewalk/path and landscape panel width
- e. lead-in sidewalks to the site and connections to the local area
- f. existing and/or proposed bus stops, shelters and benches, including real time transit information
- g. pedestrian and bicycle accommodations at nearby intersections; e.g. crosswalks, pedestrian signals, push buttons, median refuges, ADA-compatible ramps and signals
- h. information on bus route numbers and service frequency
- i. sufficient bicycle racks and/or lockers on site
- j. recognition of peak pedestrian and/or bicycle activity periods.

13. Traffic Mitigation Agreement

An applicant proposing trip reduction must include the following information in a LATR or PAMR study for staff to find that the study is complete.

- 1) A description of proposed Traffic Mitigation Agreement (TMAg) elements that will also be included in staff report, and ultimately approved by and included in the opinions issued by either the Planning Board or the Board of Appeals:
 - a) The vehicle trip reduction goals, including the specific number of peak hour vehicles to be reduced in both the weekday morning and evening peak periods.
 - b) The TMAg's services or actions and a quantitative assessment of how they will achieve the required vehicle trip reduction objective.
 - c) The duration of the TMAg (the expectation is majority of TMAg provisions will extend in perpetuity).
 - d) Whether the TMAg will be enforced based on the provision of specified services or actions (regardless of outcome), the measured outcome (regardless of services or actions provided), or a combination of both approaches.
 - e) The effectiveness measures to be used in enforcement.
 - f) The method and frequency of monitoring.
 - g) The penalties if the vehicle trip reduction goals are not met.
- 2) Written statements from both MCDOT and Planning Department staffs concurring with the proposed approach.

In general, periodic TMAg performance monitoring by MCDOT and a Planning Board auditor will be required for Traffic Mitigation Agreements that are designed to mitigate at least 30 peak hour vehicle trips. For projects mitigating fewer than 30 trips, the Planning Board may allow binding elements of a preliminary plan or site plan in lieu of a formal TMAg. For projects located in a

TMD, applicable TMD requirements also apply independent of any PAMR or LATR Traffic Mitigation Agreement requirements.

PAMR trip mitigation requirements apply to both weekday morning and evening peak period trips.

To calculate mitigated trips for the Alternate Review Procedure or to meet LATR/PAMR, the applicant must explicitly document the conversion between person-trips and vehicle trips to account for transit use, vehicle occupancy, walk/bike use, internal site trip capture, and telecommute options. The estimates should document the effect of home-based work trips separately from all other trips. Special trip rates in the Appendices, such as for office uses within 1,000 feet of Metrorail stations outside the Beltway, or rates for any uses within the Bethesda, Silver Spring, and Friendship Heights CBDs should not be used in either non-mitigated or mitigated trip calculations. County wide rates in Appendices A and B are allowed, otherwise calculation rates and procedures recommended in documents published by ITE or the TRB must be applied and referenced for staff to consider the quantification of any trip reduction proposal.

For a zoning case, Transportation Planning staff may initiate a meeting with the applicant, the Hearing Examiner, and interested groups or individuals to establish the scope of the traffic analysis.