

SECTION 5100 – TRAFFIC ENGINEERING

5104.2 Residential Traffic Management (Traffic Calming)

~~ACHD shall cooperate with residents, other local agencies municipalities, and neighborhood associations to manage residential traffic according and mitigate the negative effects of excessive traffic speed and/or volume on residential streets thresholds established in this policy. Traffic calming measures are roadway features and/or traffic controls that reduce the speed or volume of traffic on a street and are not intended to address serious safety deficiencies in roadway geometry or traffic controls. The measures may include, but are not limited to, speed humps, speed tables, raised crosswalks, chicanes and mini roundabouts.~~

5104.2.1 Eligibility Prerequisites to Traffic Calming

The following criteria shall be met for a street to be considered eligible for traffic calming:

- Residential streets greater than 750' in length with a posted speed limit of 30 mph or less and classified as a local or collector street (as identified in the ACHD Master Street Map)
- Minimum average daily traffic (ADT), as measured by a weekday count of at least three days duration, shall be at least 400 vehicles.
- Maximum average daily traffic (ADT), as measured by a weekday count of at least three days duration, shall be no more than 4000 vehicles.

~~Prior to implementing traffic calming:~~

Streets that do meet the eligibility criteria may be considered for traffic calming through a more detailed planning study, or capital project, as determined by ACHD Traffic Engineering staff.

~~1. A traffic safety investigation consistent with procedures outlined in Sec. 5104.1 shall be completed. This includes gathering data to determine eligibility for traffic calming, including speed and volume information as well as recent crash history.~~

~~2. If a roadway segment meets traffic calming criteria, residents shall submit a petition showing support of 75% of the households on the impacted section of the street. For a local street, signatures representing a minimum of 10 households are required and may include other residents within the neighborhood where the number of houses on the street do not allow for satisfaction of this requirement. For a collector street, signatures representing 50% of the households of the adjacent local streets that, as defined by ACHD on a case-by-case basis, depend upon the collector for major street access, are also required.~~

~~3. For continuous collector streets, additional notification and public involvement may be required. Collector streets with over 4000 vehicles per day (weekday average) are generally not appropriate facilities for speed humps or other measures that may divert traffic to other streets.~~

~~4. Input from emergency services (police, fire, EMT, etc.) should be obtained by ACHD. Should the roadway be considered a primary response route, ACHD may decline to install traffic calming measures.~~

~~5. Where public transit service is routed along a street that is considered for traffic calming measures, this shall not automatically disqualify the street from traffic calming implementation.~~

5104.2.2 Traffic Safety Investigation

~~Prior to implementing traffic calming, a traffic safety investigation consistent with procedures outlined in Sec. 5104.1 shall be completed prior to implementing traffic calming. At least three (3) years are required between investigations. Traffic safety investigations may recur less than three (3) years after completion of a prior investigation if street conditions have substantially changed (e.g., new development, land use changes, new street connection) or if approved by the ACHD Traffic Engineering Supervisor.~~

~~Eligibility
Only residential streets with a posted speed limit of 30 mph or less and functionally classified as a local or collector street are eligible for traffic calming.~~

~~5104.2.3 Neighborhood Participation and Financial Contribution~~

~~When the cut-through traffic threshold established in Sec. 5104.2.5 or Sec. 5104.2.6 is exceeded, ACHD shall conduct a study to determine appropriate traffic calming measures, perform the design, conduct the public information process, fund the construction in accordance with available funds and priorities, administer the construction contract, and install all supplementary traffic controls such as signs and pavement markings.~~

~~When the cut-through requirement is not met but traffic volume and/or speed thresholds are exceeded, the neighborhood is responsible for the construction costs. Payment shall be to ACHD in advance of any traffic calming construction and/or installation. ACHD shall provide the necessary supplementary traffic control devices such as appropriate signs and markings.~~

~~If traffic thresholds outlined in this policy are not met, options available to the neighborhood include the following:~~

- ~~• Placement of a temporary speed trailer (See Sec. 5104.2.9);~~
- ~~• Police enforcement.~~

~~5104.2.4 Minimum Criteria for Traffic Calming Eligibility~~

~~The following minimum criteria shall be met (applicable to both local and collector roads) for a street segment to be eligible for traffic calming:~~

~~1. The minimum street length to be considered for traffic calming measures shall be 750'. Additional information in how this distance is measured can be found in ACHD's Traffic Standard Details (TS-1121).~~

~~2. A 200' minimum and 500' maximum distance is required between traffic calming devices (measured center to center). A minimum of 300' is required between stop or yield control, horizontal curves with 45 degree or greater deflection and any traffic calming device (except curb extensions). Minor variations in the aforementioned standards may be accepted by the ACHD Traffic Engineer.~~

3. ~~The minimum average daily traffic (ADT), as measured by a weekday count of at least three days duration, shall be at least 400 vehicles.~~
4. ~~The maximum average daily traffic (ADT), as measured by a weekday count of at least three days duration, shall be no more than 4000 vehicles.~~

5104.2.35 ~~Peak Hour Traffic and Speed~~ Thresholds for Local Residential Roads

- ~~The minimum average daily traffic (ADT), as measured by a weekday count of at least three days duration, shall be at least 400 vehicles.~~
- ~~The maximum average daily traffic (ADT), as measured by a weekday count of at least three days duration, shall be no more than 4000 vehicles.~~

~~Based on the results of the Traffic Safety Investigation One of the following thresholds shall be met for a street to be considered for traffic calming; in order for a local roadway to be considered eligible for traffic calming:~~

1. ~~Peak hour traffic greater than 100 vehicles.~~
2. ~~15% of vehicles are traveling at or exceeding 28 mph.~~
3. ~~5% of vehicles are traveling at or exceeding 32 mph.~~

1. ~~Peak hour traffic greater than 100 vehicles.~~
2. ~~85th percentile speed of all vehicles, as measured by a count of at least three days duration, equal to or greater than 30 mph. The 85th percentile speed is defined as the speed at which 15% of vehicles are traveling at or exceeding. All speeds will be rounded to the nearest mile per hour. 95th percentile speed of all vehicles, as measured by a count of at least three days duration, equal to or greater than 35 mph. The 95th percentile speed is defined as the speed at which 5% of vehicles are traveling at or exceeding. All speeds will be rounded to the nearest mile per hour.~~

~~The speed requirement for both thresholds shall be reduced by 1 mph for each of the following:~~

1. ~~Lack of continuous sidewalks on at least one side of the street.~~
2. ~~Vertical or horizontal alignment that limits sight distance, based on the posted speed limit, as determined by ACHD.~~

~~Provided either the speed or volume requirement is met, ACHD shall defray the costs of traffic calming measures if the cut through traffic exceeds the percentage listed in the table below. Values between those listed shall be prorated linearly from the values provided:~~

ADT (Weekday)	% Cut-Through
400	50
800	40
1200	30

1600	20
>=2000	40

5104.2.46 Peak Hour Traffic and Speed Thresholds for Collector Roads or Local Roads Fully Improved to Collector Width

Based on the results of the Traffic Safety Investigation one of the following thresholds shall be met for a street to be considered for traffic calming:

~~2. — Peak hour traffic greater than 300 vehicles where no direct lot access is permitted and 150 vehicles where continuous direct lot access exists. Streets having a mixture of direct and non-direct lot access shall have a threshold volume determined by a proration based on the lineal feet of frontage of each type (for example, direct lot access on 50% of the roadway requires 225 vehicles in the peak hour to meet this requirement). Peak hour traffic greater than 300 vehicles where no direct lot access is permitted and 150 vehicles where direct lot access exists.~~

~~3.1.~~

~~4.2. 85th percentile speed of all vehicles, as measured by a count of at least three days duration, equal to or greater than 35 mph. The 85th percentile speed is defined as the speed at which 15% of vehicles are traveling at or exceeding 33 mph. All speeds will be rounded to the nearest mile per hour.~~

~~3. 95th percentile speed of all vehicles, as measured by a count of at least three days duration, equal to or greater than 37 mph. The 95th percentile speed is defined as the speed at which 5% of vehicles are traveling at or exceeding 36 mph. All speeds will be rounded to the nearest mile per hour.~~

As determined by the Traffic Engineering Supervisor the speed thresholds for Local Residential Roads may be used for Collector Roads where direct lot access exists or as supported by the land use context.

5. _____

~~The speed requirement for both thresholds shall be reduced by 1 mph for each of the following:~~

~~1. — Lack of continuous sidewalks on at least one side of the street.~~

~~2. — Vertical or horizontal alignment limits sight distance per the posted speed limit.~~

~~3. — More than 50% front-on housing.~~

~~Provided either the speed or volume requirement is met, ACHD shall defray the costs of traffic calming measures if the cut through traffic exceeds the percentage listed in the table below. Values between those listed shall be prorated linearly from the values provided:~~

ADT (Weekday)*	% Cut-Through
1000	50
1500	40
2000	30
2500	20
>=3000	10

*Cut through requirement shall be reduced from the value shown above based on direct lot access according to the following chart:

Direct Lot Access	% Reduction in Cut Through Requirement
0%	0%
20%	5%
40%	10%
60%	15%
80%	20%
100%	25%

5104.2.57 Procedure for Traffic Calming Installation Neighborhood Survey

If the prerequisites and eligibility criteria and thresholds for traffic calming are satisfied, ACHD shall determine the timing of device installation based on funding eligibility and priority facilitate a neighborhood survey.

- As part of the survey process support from 60% of affected households (property residents) shall be verified by ACHD Traffic Engineering.
- For local streets the survey area will include households directly abutting the street under consideration for traffic calming.
- For collector streets the survey area will include households directly abutting the street under consideration for traffic calming and households abutting adjacent local streets that depend upon the collector for major street access.

During the neighborhood survey process input from emergency services (police, fire, EMT, etc.) should be obtained by ACHD. If the roadway is a primary response route, ACHD may determine the street is not eligible for calming.

5104.2.6 Procedure for Traffic Calming Installation

~~A public involvement process, such as a public information meeting and/or survey of concerns, may be performed to identify and evaluate support and opposition for the proposed project.~~

~~If the eligibility criteria and thresholds for traffic calming are satisfied, and the survey process is completed with support as outlined in section 5104.2.5, ACHD shall perform the design and determine the timing of traffic calming installation.~~

~~ACHD may consider installation of the following traffic calming features, including but not limited to:~~

- ~~• Vertical Deflection (Speed Humps and Tables);~~
- ~~• Horizontal Shifts (Medians, Chokers, Lane Narrowing, Chicanes);~~
- ~~• Intersection Treatments (Roundabouts, Mini Roundabouts, Traffic Circles, Diverters, Bulbouts, Raised Intersections, and Raised Crossings);~~
- ~~• Vertical Elements (Street Trees or landscaping only for the purpose of traffic calming may be considered where there is an agreement for others to irrigate and maintain);~~
- ~~• Temporary Materials may be used as approved by ACHD Traffic Engineering to evaluate potential treatments prior to permanent installation.~~

~~After clearing all preceding requirements, design shall be completed and the contract submitted to the ACHD Commission for approval.~~

~~5104.2.7.1 Traffic Calming Consideration for Additional Measures~~

~~Additional traffic calming measures may be considered if a street already has previously installed traffic calming devices. The analysis procedure, including neighborhood support, shall remain the same as described in sections 5104.2.1 through 5104.2.6 of this policy. However, the speed criteria as outlined above shall govern additional mitigation.~~

~~5104.2.7.2 Traffic Calming Consideration for New Development~~

~~Traffic calming on new streets should be a part of the conditions of development for new neighborhoods (see Sec. 5104.2.8 for additional information). In the absence of any previously documented conditions or requirements for traffic calming installation, no roadway shall be eligible for traffic calming measures at District expense unless a minimum of 50% of the front on homes are occupied.~~

~~5104.2.8 Development Funded Traffic Calming Measures~~

~~Traffic calming measures may be required as a site related impact for any development which is likely to create or add to residential traffic exceeding thresholds outlined in Sec. 5104.2.4 or 5104.2.5. The volume or cut-through criteria specified in Sec. 5104.2.4 or 5104.2.5 shall be satisfied by projected traffic volumes as identified in a traffic impact study or, where no study is required, by ACHD determination.~~

~~Traffic calming measures required with development may be approved by the ACHD Commission based on the following:~~

- ~~1. Evidence of neighborhood support via petition;~~
- ~~2. The relationship of the proposed development's impact to existing and future traffic volumes;~~

~~3. Route importance for emergency response;~~

~~4. Response from affected emergency services personnel to the proposal.~~

~~The selection of traffic calming measures shall be limited to the most appropriate devices to mitigate speeding concerns. Where the measures are for an established neighborhood area, that neighborhood may request more costly traffic control measures, but shall be responsible for the additional cost.~~

~~5104.2.9 Policy for Radar Trailer (Visual Traffic Speed Indicator)~~

~~Requests for trailer use may be accepted by ACHD Traffic Engineering from municipalities, neighborhood associations or groups, law enforcement personnel, school districts or individual residents on a residential street. Requests may be made in writing, by phone, or via email. Location consideration shall respond to safety and sight obstruction factors.~~

~~Radar trailer availability is normally on a first come, first served basis, Monday through Friday. Display operation is all day (24 hours). Priorities for radar trailer placement may change due to special studies, weather, construction or other considerations.~~