(DRAFT) Traffic Calming Observations and Recommendations

The committee may conclude that Traffic Calming process established by City could be improved to make initiating action more balanced, to provide scope guidance for traffic calming studies, and to facilitate appropriate traffic calming implementation. Draft recommendations fall into these categories as summarized below, then discussed in greater detail:

A. Process Recommendations Summary

- a. Initiating Traffic Calming Study
  - i. Clarify initial triggers to consider traffic calming
  - ii. Establish clearer roadway criteria for initiating study
  - iii. Revise resident criteria for petitions
- b. Determining Traffic Calming Needs and Alternatives
  - i. Follow good study design
  - ii. Differentiate measures among arteries and local streets
- c. Implementing pilot, interim, and temporary calming measures
  - i. Act promptly where studies reveal traffic calming needs
  - ii. Evaluate temporary versus permanent measures
- d. Consider other transportation safety issues
  - i. Acknowledge the larger traffic engineering context
  - ii. Consider rail safety measures

B. Discussion

1. **Initiating Traffic Calming Study:** Traffic calming is not merely a cost to the City, but a public safety issue. The City has a public responsibility to plan and implement measures that improve public safety, maintain infrastructure, and respond to residents' concerns. As such, initiating a traffic calming study should not be solely the responsibility of concerned citizens; the City may initiate a study, and should do so if it obtains information that merits action in the public interest. Traffic calming is also a quality of life issue for residents. In this context, concerned residents should be able to request a traffic calming study when they perceive traffic problems.

    a. **Clarify Initial Triggers to Action:** Where the City has generated, received, or otherwise obtained data and reports that indicate traffic calming criteria are exceeded, the City should be expected to notify affected residents. While the City should allow petitions to initiate city action (study whether traffic calming criteria are met), existing data made available to the City should initiate a survey of residents acceptance of traffic calming measures. This would certainly include accident data collected by the Police Department, and may include information indicating streets with speeding traffic (tickets, traffic speed surveys, etc.), and traffic count information obtained during other studies, either incidentally or by design. *The committee may agree that this would improve the current process by enabling the City to initiate communication with residents in the interest of public safety.*

b. **Establish Clearer Roadway Criteria:** Traffic calming measures may involve one or more intersections, but may not involve an entire street. The current policy is ambiguous whether the affected area includes only one or more intersections or the entire street, and has been interpreted inflexibly to be the entire street. *The committee may conclude that a criterion defining an entire street presents a barrier to effective traffic calming that may be implemented more cost-effectively at a smaller scale.*

   The committee could seek guidance on whether traffic calming measures can be effective if focused at key points along a street (e.g., intersections where stops are ignored, stretches where speed limits are exceeded, or locations where children and pedestrians cross frequently). For example, the West Park Place stretch between Orchard and Beverly may merit traffic calming, although it may be less important between College and Orchard. If so, the residents affected may not include residents west of Apple or east of College, and a petition generated by those affected residents should be sufficient to initiate a study. Following good study design, the study should include the entire street (especially if the cost is not greater), and the City should be encouraged to share results with residents along the entire street and adjoining streets (see Item 2, below).

c. **Revise Resident Criteria for Petitions:** The safety and quality of life benefits of traffic calming are not limited to residents (or property owners) along a street that qualifies for traffic calming. Certainly, residents along adjoining streets are directly affected, and absentee owners may also have interests. The process should be clarified to allow residents (not only those owning property) to be included in traffic calming issues while not excluding absentee owners. Residents who are on adjacent streets extending at least one intersection block should qualify to participate in traffic calming petitions, be included surveys, and informed by communications from the City. *The committee may help the City determine whether this should be extended beyond one block along adjacent streets.*

2. **Determining Traffic Calming Needs and Alternatives:** Streets in Newark may be categorized in two ways, as arterial streets for through traffic and local streets for neighborhood traffic. Of course, arterial streets are part of our neighborhoods, and serve both local and through traffic; examples include Park Place, College Avenue, Delaware Avenue, and Elkton Road.

   a. **Follow Good Study Design:** Traffic calming studies should conform to the good example set by the 2002 study, namely include a neighborhood perspective. This would mean conducting a study that considers whether traffic calming on one street would aggravate traffic on other neighborhood streets; if so, traffic calming measures for several streets may be merited. *The committee could endorse the quality and scope of the 2002 study, with comments that may benefit future study designs.*

This neighborhood study approach is important to ensure that a study initiated in Item 1 for small, localized areas (e.g., one busy intersection or one stretch of a longer road) is not conducted in isolation. It also ensures that resources spent on a study provide maximum value to City decision makers.

b. **Differentiate Among Arteries and Local Streets:** Traffic calming studies should consider whether and where traffic calming on an arterial street may need to be accompanied by complementary calming on local streets to prevent diversion of through traffic from arteries. As shown in Figure 1, most crashes between cars and pedestrians and between cars and bicycles occur along the main arterial streets; this should not be misinterpreted that safety would be improved if traffic diverted from these streets through local neighborhoods. In general, the traffic calming goal is to maintain through-traffic on arteries and to calm traffic overall (on both arterial and local streets).

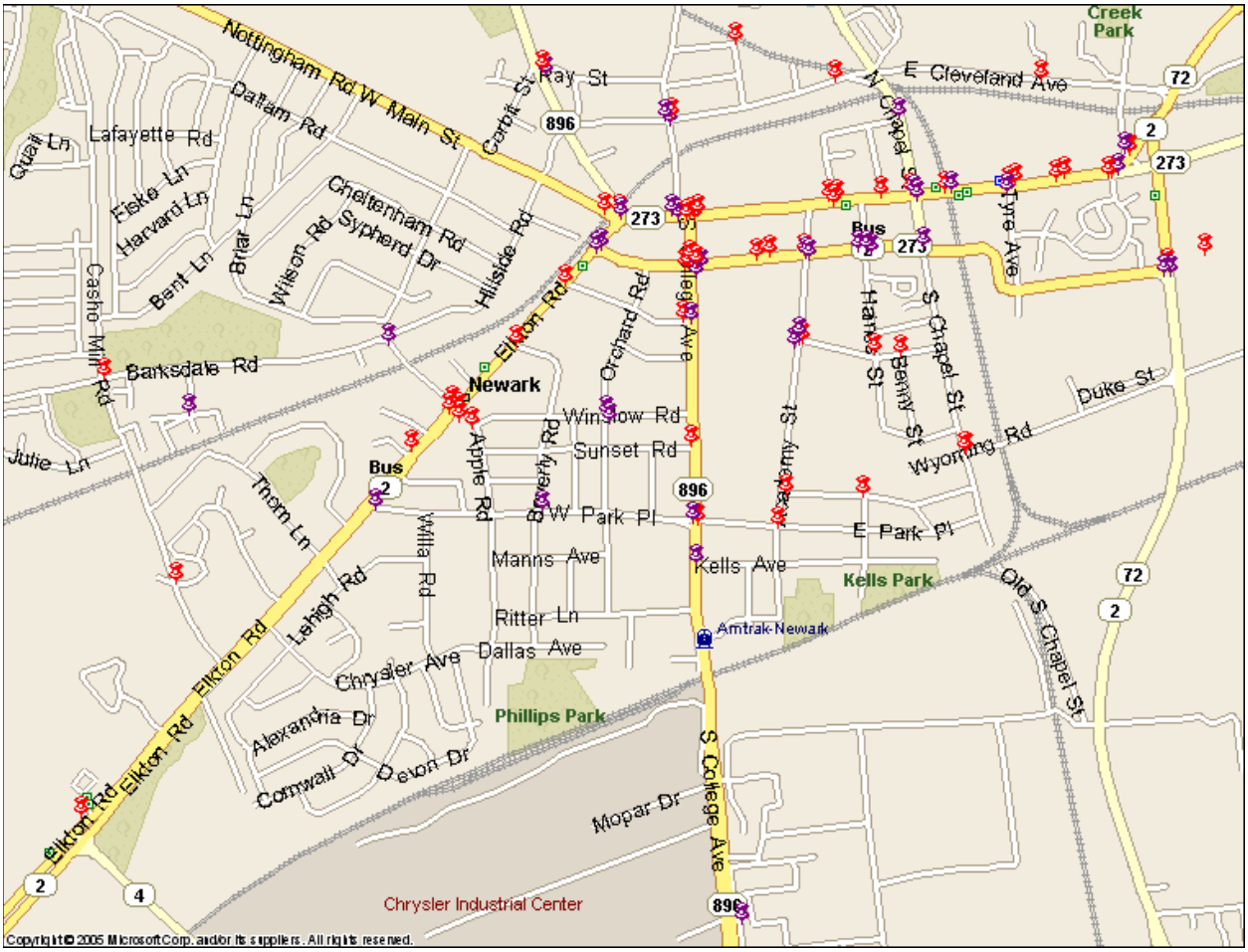


Figure 1. Summary of Crash Locations (Pedestrian and Bicycle Only)

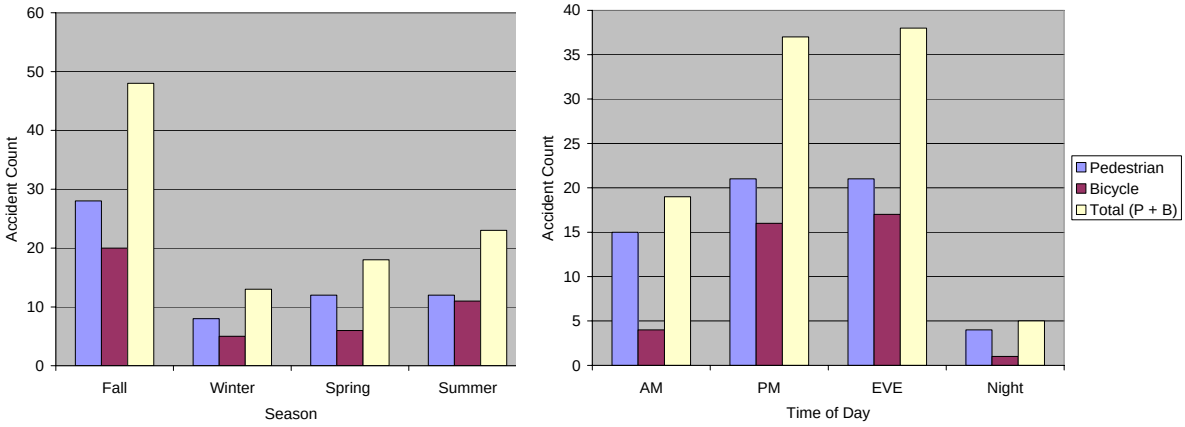
3. **Pilot Studies, Interim Measures, and Temporary Calming Actions:** As discussed at the first committee meeting, there are several ways that the City can implement traffic calming without expensive infrastructure projects. *The committee may agree with City staff concerns that capital and maintenance costs should be considered when choosing*

traffic calming measures. However, the committee may also conclude that cost need not be a unilateral barrier to implementation where public safety merits traffic calming action.

a. **Prompt Action Expectations:** Where a study concludes that traffic calming measures are needed and/or recommended (Item 2), the City should initiate traffic calming action as soon as feasible. This can be achieved with less delay, and perhaps at lower cost, through pilot studies or interim measures. *The committee may want to develop a set of example projects and even may want to rank order them in terms of cost-effectiveness, implementation cost, or even according to the streets identified in the 2002 study.*

b. **Temporary Versus Permanent Measures:** Depending on insights from pedestrian, bicycle, and automobile crashes that were provided in the binders and at the first meeting, *the committee may identify where temporary calming actions are already recommended and can be effective.*

For example, Figure 2(a) illustrates the pedestrian and bicycle crash data indicates that nearly half of all such crashes occur in the fall, and almost all (87%) of these crashes occur during months of good weather (Spring, Summer, Fall). Based on this information, removable traffic calming measures that can be implemented from spring through fall (especially late Summer and Fall, perhaps) may provide the greatest benefit, especially if they are less costly than permanent measures.



(a) (b)

Figure 2. Crash Statistics for Pedestrians and Bicycles by (a) Season and (b) Time of Day

Another example may be time of day, shown in Figure 2(b). About three-quarters (76%) of all pedestrian and bicycle crashes occur during afternoon and evening hours. This suggests that measures that helped calm traffic during afternoon commute times and during the peak pedestrian/bicycle usage times could be worth considering. Perhaps, drivers are more rushed coming home from work, more affected by setting sun or visibility issues, or less attentive overall. If so, targeted enforcement actions for speed and other inattentive behavior may be

warranted; on the other hand, the City may set out removable pedestrian signs or speed-clock trailers (both discussed at the first meeting) during these hours to increase driver awareness. *If these actions prove less costly than installed calming measures (temporary or permanent), then the committee may advise the City that traffic calming action could include these sorts of measures.*

4. Other City traffic and transportation issues

   a. Consider Larger Transportation Engineering Context: Initiating new throughways, imposing one-way or cul-de-sac barriers, or other road design issues may be justified from time to time. These involve general transportation engineering analyses; when the City determines the need for studies of this nature, they should also be evaluated for their traffic calming effects. However, traffic calming can be achieved with more modest measures that do not change the fundamental traffic network. *The traffic committee may advise the City to implement without delay traffic calming measures that don't adversely impact long-term transportation redesign plans, avoiding the extra costs and delays associated with larger transportation engineering projects.*

   b. Rail-pedestrian safety. Significant research into cost-effective measures has been contributed by John Norton. I will bring these materials to share with the committee at the August meeting. *If the committee considers these to be within our charter, recommendations or comments may be prepared for City consideration.*

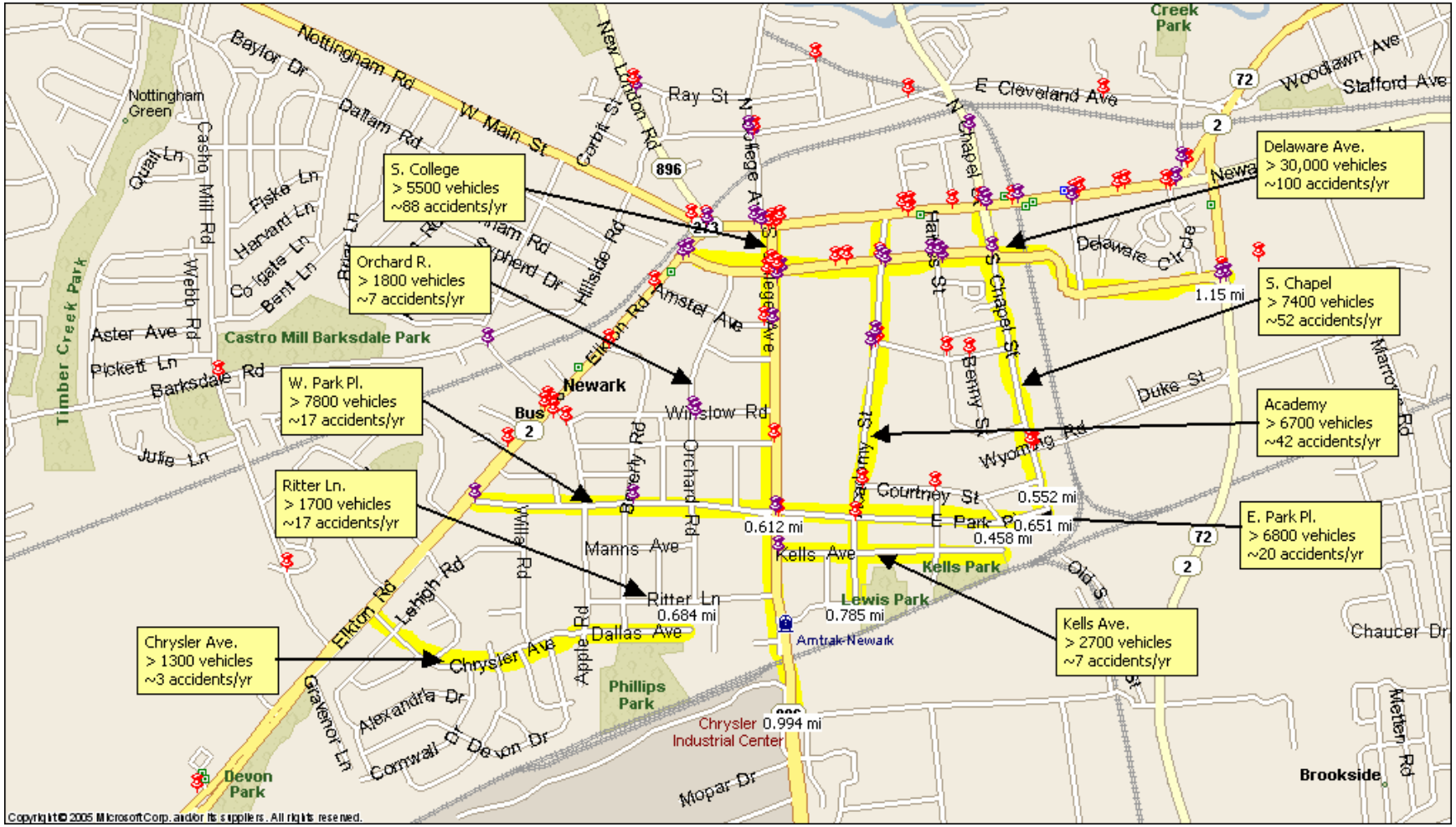


Figure 3. Automobile volumes and crashes from 2002 report, with pedestrian and bicycle crash data from Committee binder.