

NEIGHBORHOOD TRAFFIC SAFETY PROGRAM

Process for obtaining Traffic Calming and Physical Devices in
the Residential Area of SeaTac, Washington

Engineering Division
Public Works Department
City of SeaTac, Washington

THE PROCESS

The **Neighborhood Traffic Safety Program** represents the commitment of the City of SeaTac to the safety and livability of residential neighborhoods. The program addresses neighborhood traffic safety concerns while enabling citizens and community groups to become involved with the improvement process.

The Neighborhood Traffic Safety Program is a three phase program with each phase containing specific techniques for addressing traffic concerns in neighborhoods.

PHASE I or Neighborhood Enhancement Phase - passive, less restrictive measures.

PHASE II or Physical Devices Phase - more restrictive physical devices if needed.

PHASE III or Major Projects Capital Improvement Program (CIP), Transportation Improvement Program (TIP), or other special funding.

PHASE I:

Phase I measures strive to educate the residents on traffic safety issues, reinforcing these through enforcement and engineering measures. Phase I concentrates on less restrictive traffic operation improvements such as signing, select pavement markings, brush trims, and passive measures such as the enforcement of traffic laws.

Phase I Tools:

Signing - Some citizen requests can be satisfactorily handled with the installation of traffic signs. Some that are frequently used are "Speed Limit", "Road Narrows", or "No Outlet" signs.

Radar Reader - A Radar Reader Board is available to residents through the police department. The department will instruct residents on its use and make the vehicle available for use at the citizens request.

Traffic count & Speed Studies - The Public works department will at the neighborhoods request conduct traffic volume and speed studies. Often this type of information can identify time of day violation patterns and be useful to the police department for selective enforcement.

Brush Trims - Limited sight distance at intersections or curves may be solved by trimming excess vegetation. If the trees or shrubs are located in the public right-of-way, the City maintenance crews will notify the adjacent homeowner prior to trimming. If the trees or shrubs are on private property, efforts will be made to have the property owner do the trimming.

Pavement Markings - Some traffic information, such as school crossing, cross walk, edge of road, and stop point at intersections, is communicated by painting appropriate markings directly on the roadway.

Traffic Law Enforcement - Sometimes citizens are hesitant to call on their police department to enforce neighborhood traffic laws such as speed restrictions. They say their police officers, "Have better or more important things to do."

However, that is not the case for the City of SeaTac. The SeaTac Police Department wants to be made aware of chronic neighborhood traffic violations so that they may respond and apply enforcement to the problem.

Education - Brochures, flyers, and other materials are available to neighborhoods, homeowners associations, and other groups. The materials describe techniques motorists, residents, pedestrians, and parents can use to help address speeding issues and become aware of driver habits. The Public Works and Police Departments are available to meet with neighborhoods at their request and can address a variety of operational traffic issues and concerns.

PHASE II:

Phase II measures focus on physical traffic control devices placed in the roadway to control speed, reduce traffic volumes, or reduce accidents. The devices available are speed humps, traffic circles, curb extensions/chokers, and chicanes. These measures may be used after Phase I measures prove ineffective.

Minimum criteria to invoke Phase II improvements:

If Phase I measures are ineffective, the community's traffic data is matched against the following minimum criteria:

1. Average Daily Traffic (ADT) volumes greater than 200 daily vehicles.
2. 15% of the vehicles must be exceeding the posted speed limit by at least 10 miles per hour as determined from speed studies.

3. 60% or more of the residents residing on the street between arterial cross streets and within one block of the calming device must sign the petition requesting the improvement.
4. The street designated for a Phase II device must not be an arterial as defined in the SeaTac Comprehensive Transportation Plan.
5. The roadway grade where physical devices are to be installed shall not exceed 10%.
6. The stopping sight distance standards contained in the current edition of King County Road Standards Manual will be considered when installing devices on or near horizontal curves.

The Engineering Division will advise the neighborhood contact person whether or not the minimum criteria are met.

Phase II Tools:

Speed Humps - Speed humps are designed to allow most vehicles to drive over them at 25 mph. At higher speeds, drivers and passengers experience greater discomfort. Speed humps differ markedly from speed bumps used in parking lots, which are an abrupt pavement feature generally three to four inches in height and less than two feet long.

The recommended spacing for speed humps is 200 to 450 feet apart. Two or more humps should be placed in series along a given street. To be most effective, several humps should be used in series. Fewer humps or longer spacing between humps will decrease their effectiveness. Improperly spaced humps can result in vehicle speeds higher than the existing speeds prior to installation.

Care must be taken in using humps on streets without curbs so that drivers do not simply avoid them by driving around them on the shoulder. Humps are most effective on streets with vertical curbs and sidewalks.

PROS

- . Reduces vehicle speeds in the immediate vicinity of the device.
- . Can reduce volumes if there is an adjacent arterial.

CONS

- : Not attractive

- . Inconveniences neighborhood residents.
- : Impedes fire, police, and paramedic emergency vehicle access and response time.
- : Increase in noise.
- : Could divert traffic to other nearby residential streets.

Traffic Circles - These are circular raised islands placed in the center of intersections. They are usually landscaped to provide a visual impression that the street is not a through street. Traffic circles work best where there is a regular grid pattern of local streets with arterials nearby. Vertical curbs, gutter, and sidewalks are recommended for pedestrian safety.

PROS

- . Reduces right-angle accidents.
- . May reduce vehicle speeds in the immediate vicinity of the device.
- . Can be landscaped.

CONS

- . Inconveniences neighborhood residents.
- . Impedes fire, police, and paramedic emergency vehicle access and response time.
- . Increases risks to pedestrians and corner residents.
- . Can be expensive to install.
- . Trucks and busses have difficulty with them.

Curb Extensions/Chokers - Chokers narrow a street either at an intersection or at mid block in order to reduce the width of the traveled roadway. Chokers narrow the roadway crossing for pedestrians, reducing their exposure to moving traffic.

PROS

- . Can decrease traffic volumes.

- . Improves safety for pedestrians.
- . Slows traffic.

CONS

- . Car, busses, and trucks hit curbs.
- . Bicyclists consider them a barrier inhibiting their freedom of movement.
- . Expensive to install

Chicanes - Chicanes are barriers placed in the roadway generally extending from the shoulder to (or past) the centerline. They are placed on opposing sides of the street and force drivers to follow a "serpentine" route through the area of installation. They essentially narrow the roadway to one lane of travel. Chicanes may be landscaped areas or simple barriers. They work best when they are designed into the streetscape and where the streets have curbs and sidewalks.

PROS

- . Slows traffic.
- . Can decrease traffic volume.

CONS

- . Inhibit access by larger vehicles such as trucks, busses, and fire trucks.
- . Can be dangerous if improperly designed.
- . Expensive to install.
- . Some drivers may view them as a "race track" challenge.
- . The right-of-way for opposing vehicles is unclear.
- . Cars and trucks hit curbs.

GUIDELINES

In determining which traffic control device is most appropriate, and in designing each installation, a number of factors shall be considered. In some cases, the nature of the problem will determine the most appropriate solution. However, the most obvious choice may need to be modified or excluded depending on the physical conditions of the problem site. The following factors provide some guidance in selecting appropriate NTSP devices.

- . **Emergency Access** - Devices should not be installed on principal emergency access roads for police, fire, and aid stations due to the impact on response times and safety.
- . **Metro Bus Routes** - In general, Phase II type devices should not be installed on roads with Metro bus routes since it is difficult for large vehicles to negotiate around some devices. If transit use of the street is necessary, the design should be modified to accommodate them.
- . **School Bus Routes** - Phase II devices should not be installed on roads used as a school bus route.
- . **Presence/Absence of Curbs and Gutters** - The design of individual traffic control devices may need to be modified if the problem roadway does not have curbs or sidewalks. If there are no vertical curbs, drivers may drive onto the shoulders to avoid devices. In extreme cases, it may be necessary to install curbs, gutter, and sidewalks as part of the overall NTSP treatment.
- . **Roadway Width** - In general, Phase II devices should be limited to two way roads, one lane in each direction.
- . **Drainage Provisions** - All devices must be designed to ensure adequate drainage so that water will not pool around the devices and contribute to unsafe driving conditions.
- . **Pavement Condition** - Phase II devices should be limited to paved roadways with good surface conditions. If poor surface conditions exist, the roadway should be repaired or overlaid prior to or during installation of any traffic control devices.
- . **Pedestrian or Bicycle Facilities** - Adequate provisions must be made for non-motorized travel through any area where Phase II devices are installed. This may include special cuts for bicycles or even off-road pathways around the NTSP device.
- . **Surrounding Roadway Conditions** - The traffic operation on the arterial facilities in the area surrounding the community may influence the type of improvement as well as the level of congestion in the community. NTSP devices shall not displace traffic from one neighborhood to another.

TO START THE PHASE I PROCESS:

Have your neighborhood representative or contact person make contact with the Engineering Division in the Public Works Department (206) 241-1996.