

Note: Anyone wishing to speak at any Transportation Commission meeting is encouraged to do so. If you wish to speak, please rise and, after you have been recognized by the Chair, give your name and complete address for the record. You will then be allowed to speak. Please note the public testimony may be limited by the Chair.

ASHLAND TRANSPORTATION COMMISSION

April 18, 2019

AGENDA

- I. **CALL TO ORDER:** 6:00 PM, Civic Center Council Chambers, 1175 E. Main Street
- II. **ANNOUNCEMENTS**
- III. **CONSENT AGENDA**
 - A. Approval of Minutes: March 21, 2019
- IV. **PUBLIC FORUM** (6:05-6:20)
- V. **NEW BUSINESS**
 - A. Bicycle and Pedestrian Countermeasure Investigation (6:20-7:15, action required, review and select five sites for additional site investigation and potential countermeasure improvements)
 - Review bicycle and pedestrian crash data outside of downtown corridor and determine five (5) sites for additional site inspection and analysis for potential countermeasure improvements
 - A. Transportation Growth and Management Grant-Revitalize Downtown Technical Advisory Group (TAC) member selection (7:15-7:30, action required nominate member)
 - Select a Commission member to be part of the Revitalize Downtown technical advisory group
- VI. **OLD BUSINESS**
 - A. Traffic Calming Program (7:30-8:00, action required, define traffic calming program outline and next steps)
 - Discuss outline of traffic calming program outline and develop next steps
- VII. **TASK LIST** (If time allows)
 - A. Discuss current action item list
- VII. **FOLLOW UP ITEMS**
 - A. ADA Transition Plan
- VIII. **INFORMATIONAL ITEMS** (If time allows)
 - A. Accident Reports
 - B. Bicycle Map Development
- IX. **COMMISSION OPEN DISCUSSION** (If time allows)
- X. **FUTURE AGENDA TOPICS**
 - A. Election of Chair and Vice Chair (May)
 - B. Transportation System Plan Update-scope development (June)
 - C. MUTCD 4-way stop sign training
 - D. Crosswalk Policy
- XI. **ADJOURNMENT:** 8:00 PM

Next Meeting Date: May 16, 2019 Meeting

In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting, please contact the Public Works Office at 488-5587 (TTY phone number 1 800 735 2900). Notification 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to the meeting (28 CFR 35.102-35.104 ADA Title I).

**CITY OF
ASHLAND
Transportation Commission**
Contact List as of April 2019

| Name | Title | Telephone | Mailing Address | Email Address | Expiration of Term |
|-------------------------|--------------|---------------------------------|----------------------|--|--------------------|
| Vacant | | | | | 4/30/2018 |
| Joe Graf | Commissioner | 541-488-8429 | 1160 Fern St. | jlgrans15@gmail.com | 4/30/2021 |
| Corinne Viéville | Commissioner | 541-488-9300 or 541-944-9600 | 805 Glendale Ave. | corinne@mind.net | 4/30/2019 |
| Derrick Claypool-Barnes | Commissioner | 503-482-9271 | 1361 Quincy St #6F | dorkforest@gmail.com | 4/30/2021 |
| Vacant | Commissioner | | | | 4/30/2019 |
| Vacant | Commissioner | | | | 4/30/2020 |
| Bruce Borgerson | Commissioner | 541-488-5542 | 209 Sleepy Hollow Dr | wave@mind.net | 4/30/2020 |

Non-Voting Ex Officio Membership

| | | | | | |
|-----------------|------------------------|--------------|---------------------------|--|--|
| Paula Brown | Director, Public Works | 541-488-5587 | 20 E. Main Street | paula.brown@ashland.or.us | |
| Julie Akins | Council Liaison | | 20 E. Main Street | julie@council.ashland.or.us | |
| Brandon Goldman | Planning Department | 541-488-5305 | 20 E. Main Street | goldmanb@ashland.or.us | |
| Steve MacLennan | Police Department | 541-552-2433 | 20 E. Main Street | macleanns@ashland.or.us | |
| Vacant | SOU Liaison | 541-552-8328 | 1250 Siskiyou Blvd | | |
| Dan Dorrell, PE | ODOT | 541-774-6354 | 100 Antelope Rd WC 97503 | Dan.w.dorrell@odot.state.or.us | |
| Edem Gómez | RVTD | 541-608-2411 | 3200 Crater Lake Av 97504 | egomez@rvtd.org | |
| Jenna Stanke | ODOT | 541-774-5925 | 100 Antelope Rd WC 97503 | Jenna.MARMON@odot.state.or.us | |
| David Wolske | Airport Commission | | | david@davidwolske.com | |
| Vacant | Ashland Parks | | | | |
| Vacant | Ashland Schools | | | | |

Staff Support

| | | | | | |
|--------------|------------------------------|--------------|-------------------|--|--|
| Scott Fleury | Deputy Public Works Director | 541-488-5347 | 20 E. Main Street | fleury@ashland.or.us | |
| Karl Johnson | Associate Engineer | 541-552-2415 | 20 E. Main Street | johnsonk@ashland.or.us | |
| Taina Glick | Administrative Assistant | 541-552-2427 | 20 E. Main Street | taina.glick@ashland.or.us | |

ASHLAND TRANSPORTATION COMMISSION
MINUTES
March 21, 2019

These minutes are pending approval by this Commission

CALL TO ORDER:

Borgerson called the meeting to order at 6:03 p.m.

Commissioners Present: Bruce Borgerson, Joe Graf, Derrick Claypool-Barnes, Corinne Vièville

Commissioners Absent: None

Council Liaison Absent: Julie Akins

Staff Present: Paula Brown, Taina Glick, Steve MacLennan

ANNOUNCEMENTS

None

CONSENT AGENDA

Approval of Minutes: January 17, 2019

Graf/Claypool-Barnes M/S. Minutes approved as read.

Borgerson diverted from agenda to move Accident Report to beginning of meeting. MacLennan presented information about traffic collisions and radar trailer use.

Graf informed MacLennan of continued parking in a yellow zone at the corner of Elkader St and Ashland St. Vièville requested clarification on restrictions for parking with a handicap placard.

PUBLIC FORUM

None

NEW BUSINESS

Type III land use action

Derek Severson from the City of Ashland Planning Division introduced the pre-application project at 1511 N Main St. Amy Gunter and property owner presented maps and provided additional project information.

Commissioners made suggestions and expressed concerns. Using commission suggestions, Brown will draft a letter on behalf of the commission for submission to the Planning Division.

Capital Improvement Plan

Brown presented the Capital Improvement Plan and described the project prioritization and coordination process.

Borgerson requested data about length of sidewalks added per year. Claypool-Barnes suggested more money be directed at sidewalk/pedestrian projects.

Commissioners would like to see data represented by location not by category. Brown will work with GIS to have data represented on a map.

OLD BUSINESS

Commission Goals and Objectives 2019

Borgerson read the goals for the commissioners. Work on the new TSP will begin in July.

ASHLAND TRANSPORTATION COMMISSION
MINUTES
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Graf suggested changing the wording of 6.1 to read *Promote safe and convenient transportation options to allow people to go downtown without having to drive and park*. Change the wording of Goal 4 to *Implement counter measures at three locations where crashes involve bicycles or pedestrians and automobiles*. Graf moved to make suggested changes to the goals and objectives.

Borgerson indicated that he also had a revision and suggested adding Goal 2 Action 6 to update 2010 overall goals and objectives to incorporate planning for new technologies, including but not limited to vehicle electrification and on-demand transit options using computers and smart phones.

Vièville suggested removal of March 31, 2019 from section 4.1.

Graf moved that the goals and objectives be updated with the above described 4 changes. Vièville seconded. All ayes. Motion passed.

Draft ADA Right of Way transition plan

Brown described the draft ADA right of way transition plan.

Commissioners inquired about the plan, specifically location and prioritization of projects to improve ADA compliance and the role of the ADA coordinator.

Staff is requesting review and input from commissioners and will add missing portions to document.

TASK LIST

Discuss current action item list

Graf wondered if City Council approved the Transportation Commission Municipal Code revision. Brown indicated that revisions had been accepted.

Borgerson inquired when RVTD will know the status of the grant for their micro-transit pilot project

FOLLOW UP ITEMS

None

INFORMATIONAL ITEMS

Bicycle Map Development

Claypool-Barnes provided update to commissioners. Graf nominated Claypool-Barnes to chair a sub-committee for the Bicycle Map Development subcommittee. All commissioners agree. Claypool-Barnes inquired about the responsibility involved and suggested continuing to meet at the Siskiyou Room. Glick will send poll to determine availability for meetings.

COMMISSION OPEN DISCUSSION

Commissioners discussed ways to seek additional members to fill commission vacancies.

Claypool-Barnes informed Commissioners of a section of Ashland Municipal Code that requires bicycle registration at the Police Department and he is not in support of this as a requirement. Further he believed that the downtown area should be a commission high priority and suggested the area as a topic of discussion at a future meeting.

**ASHLAND TRANSPORTATION COMMISSION
MINUTES
March 21, 2019**

These minutes are pending approval by this Commission

FUTURE AGENDA TOPICS

ADA Transition Plan

Traffic Calming Program

Transportation System Plan update - scope creation

MUTCD 4-way stop sign training

Crosswalk Policy

ADJOURNMENT: 8:08

*Respectfully submitted,
Taina Glick
Public Works Administrative Assistant*

Memo

CITY OF
ASHLAND

Date: April 8, 2019
From: Scott A. Fleury
To: Transportation Commission
RE: Intersection Analysis

BACKGROUND:

The Transportation Commission previously defined a 2019 goal for the review, analysis and development of countermeasures with respect to five defined bicycle/pedestrian crash sites outside of the downtown core. The downtown core will be analyzed for safety concerns through the TGM grant project. ODOT will be conducting traffic counts and performing a level of stress analysis for bicyclists and pedestrians as part of the project analysis.

Goal 4: Implement countermeasures at three locations where crashes involve bicycles or pedestrians and automobiles.

Actions:

1. Review data and select five crash sites to investigate
 - a **Maps are attached for reference-time period 2014-2018 (bike/ped/auto)**
2. Work with a traffic engineer and police to examine the data, visit the sites and develop potential countermeasures
3. Select top three priorities and identify funding for countermeasures
4. Implement short term countermeasures
5. Develop implementation strategies for longer term or more costly countermeasures

CONCLUSION:

The Commission should work to develop a consensus on action #1 associated with the approved goal to begin the analysis phase.

Action #1

- Review citywide accident data, discuss with staff (public works/police) and select five crash sites

Action #2

- Once sites are selected public works staff to coordinate with Traffic Engineer and police to perform a formal review of data (accidents, traffic volumes, site conditions) and then document information for future Commission discussion

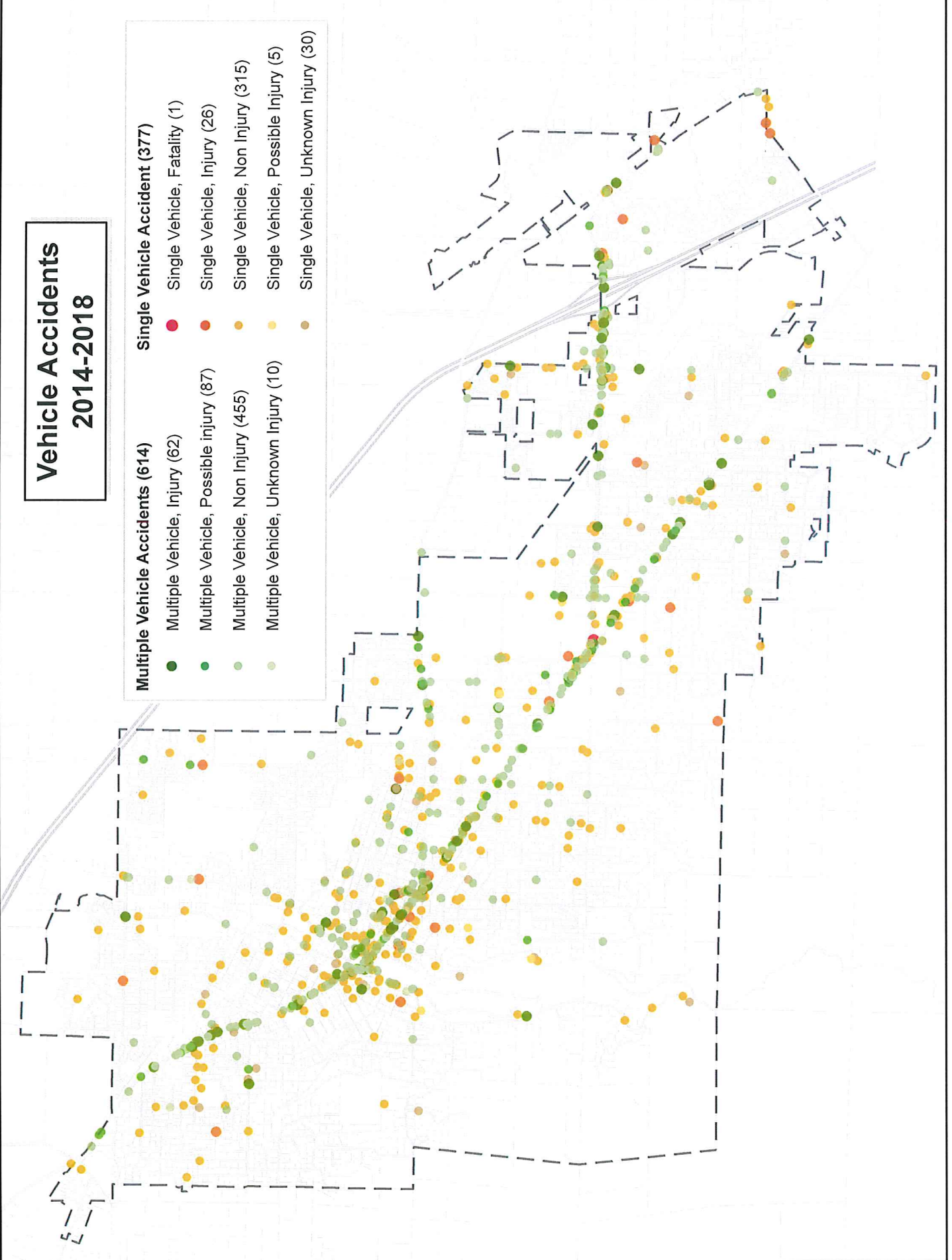
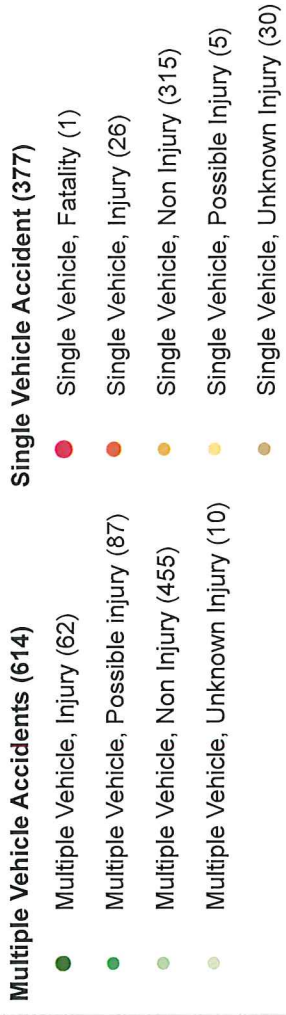
Action #3

- After formal review is complete public works staff to compile report for Commission discussion to select top three priorities. Cost estimates for countermeasures to be included in discussion. Commission to recommend to Public Works Director implementation of top three priorities for countermeasure improvements with budget biennium.

Action #4

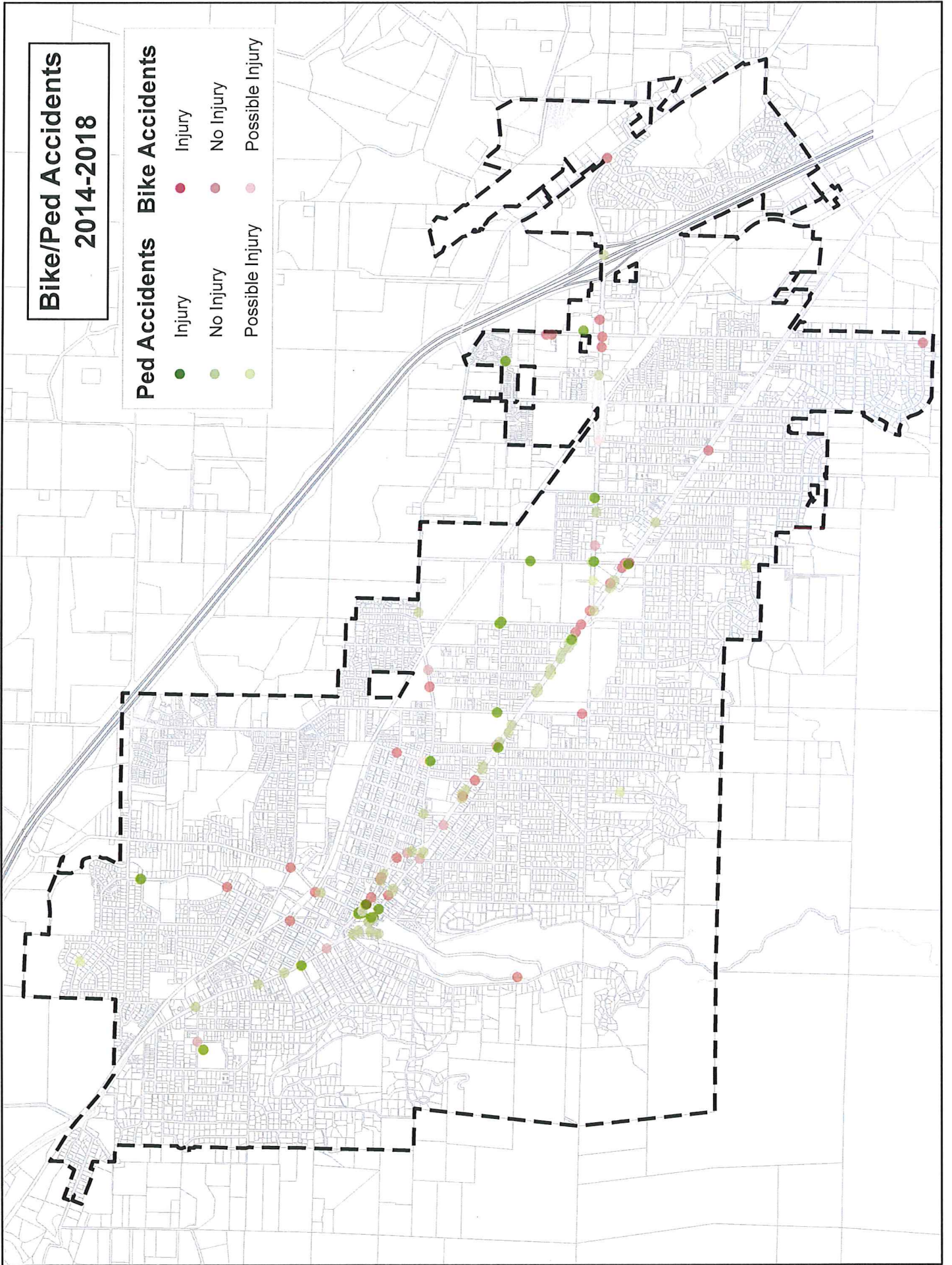
- Public Works to schedule and contract or self-perform countermeasure work.

Vehicle Accidents 2014-2018



Bike/Ped Accidents 2014-2018

- | Ped Accidents | | Bike Accidents | |
|-------------------|-------------------|----------------|--|
| ● Injury | ● Injury | | |
| ● No Injury | ● No Injury | | |
| ● Possible Injury | ● Possible Injury | | |



Memo

CITY OF
ASHLAND

Date: April 8, 2019
From: Scott A. Fleury
To: Transportation Commission
RE: Transportation Growth and Management Grant-Technical Advisory Committee Member

BACKGROUND:

The Transportation Commission created a 2019 goal:

Goal 6: Take an active role in the downtown TGM planning process

Actions:

1. Promote safe and convenient transportation options to allow people to go downtown without having to drive and park
2. **Appoint a commissioner to serve on the Technical Advisory Committee and report back to the Commission following each TAC meeting**
3. At least one commissioner will attend each public meeting and report back to the Commission
4. Hear regular updates on the process from consultant and provide recommendations

The Revitalize Downtown Ashland TGM grant study is about to begin and staff requests the Commission nominate a member to be part of the technical advisory group (TAC) throughout the duration of the study. The project scope details the appointment of a TAC and also a Citizen Advisory Committee (CAC) The project is expected to start in May of 2019 and end in May of 2020. First TAC meeting expected to occur in June/July after initial project kickoff meeting and site tour in May. Within the project timeline there are three (3) TAC meetings, three (3) CAC meetings and three (3) Open Houses planned.

CONCLUSION:

The Commission should discuss and nominate a member to be part of the TAC. The formal TAC will be approved by Council at a formal business meeting. A meeting schedule will be formalized between ODOT, Jacobs and the City shortly.

Memo

CITY OF
ASHLAND

Date: April 11, 2019
From: Scott A. Fleury
To: Transportation Commission
RE: Traffic Calming Program Outline Development

BACKGROUND:

The Commission has a defined goal and subsequent actions to formally develop and complete work on a traffic calming program. Informal work was begun previously with respect to review of other traffic calming programs employed by municipalities.

Goal 3: Complete Traffic Calming Program document

Actions:

1. Review templates and examples; develop program sections for PW approval
2. Set aside time to review program section by section during commission meetings
3. Complete draft by September 2019.

Traffic Calming Program Outline Development Process

Staff would like to coordinate the development of a formal outline for the program with the Commission. Once a formal outline is developed staff can draft specific chapters/sections for the program and include on Commission agenda for continued discussion and refinement. Staff has included three other municipal traffic calming programs as examples for reference.

In staffs research general traffic calming programs include the following elements:

1. Outline/Overview of program
2. Application process, time for review and ranking criteria
3. Analysis phase including ranking project via established criteria
4. Phase 1-passive measures (education, enforcement, other)
 - a. Analysis on effect of passive measures
5. Phase 2 active measures (construction of physical improvements)
 - a. Analysis on effect of active measures

Section 1: Traffic Calming Program Overview

1. Define problems the City's traffic calming program should address, typical traffic calming programs address the following:
 - Speeding
 - Cut-through traffic reduction
 - Vegetation/Vision clearance
 - Accidents reduction-Safety (auto/bike/ped)
 - Other?

- Things to consider:
 - What issues have we heard about during commission meetings?
 - What issues have been brought to the attention of public works in the past?
 - What issues were defined during our public process in January 2018?
 - Does the program only extend to residential roads-low volume or should it extend to all roadways within the City?

Section 2: Application Process and Timelines

1. Define how a neighborhood can apply to program.
 - a. How many residents/households needed as part of application process
 - b. Formal petition with described project boundary
 - c. Phase 1 different than Phase 2 for residential support (monetary assessments)
2. Define schedule for activities
 - a. Analysis phase-data collection
 - b. Rank project against developed criteria
 - c. Public meeting to discuss outcomes
 - d. Determination if applicable for phase 1 improvements
 - e. Phase 1 implementation
 - i. Phase 1 post analysis
 - ii. Determination if phase 2 is warranted
 - f. Phase 2 Implementation
 - i. Phase 2 post analysis

- Things to consider:
 - Development of criteria for evaluation, what will be the requirements....85th percentile, ADT, others?
 - How to rank and score criteria as part of evaluation?
 - Should there be a resident survey to gain insight of issues from their perspective?
 - What percentage of neighbors must agree on the solution?
 - How will those percentages be documented?
 - How will public works verify the problem?
 - What if the data doesn't align with neighbors' perceptions?
 - How will neighborhoods that qualify for improvements be prioritized?

Section 3: Phase 1 & Phase 2

1. Tools that can be employed in a comprehensive traffic calming program
 - a. Phase 1-Passive approach
 - i. Education
 - ii. Enforcement (radar trailer)
 - iii. Engineering
 - iv. Signage
 - v. Striping (street mural program link)
 - b. Phase 2-Active approach
 - i. Curb bumpouts
 - ii. Speed cushion
 - iii. Median
 - iv. Chicane

- v. Permanent radar sign
- vi. Traffic Circle
- vii. Entry treatments
- viii. Other as approved by engineer

➤ Things to consider:

- What new strategies could be used?
- How will tools be chosen? Will residents choose them? Will a traffic engineer need to review them?
- Will a plan be required and engineered? If so, at what point do we need a plan, vs when we could paint a curb or crosswalk? What triggers a plan?
- How will success of tools or strategies be assessed?

Finalizing the Program

➤ Things to consider:

- Who will write the document(s)?
- Will there be any public engagement before it is finalized? If so, what, how, when?

Policy Development: Funding-decide what sort of budget is available to address issues

➤ Things to consider:

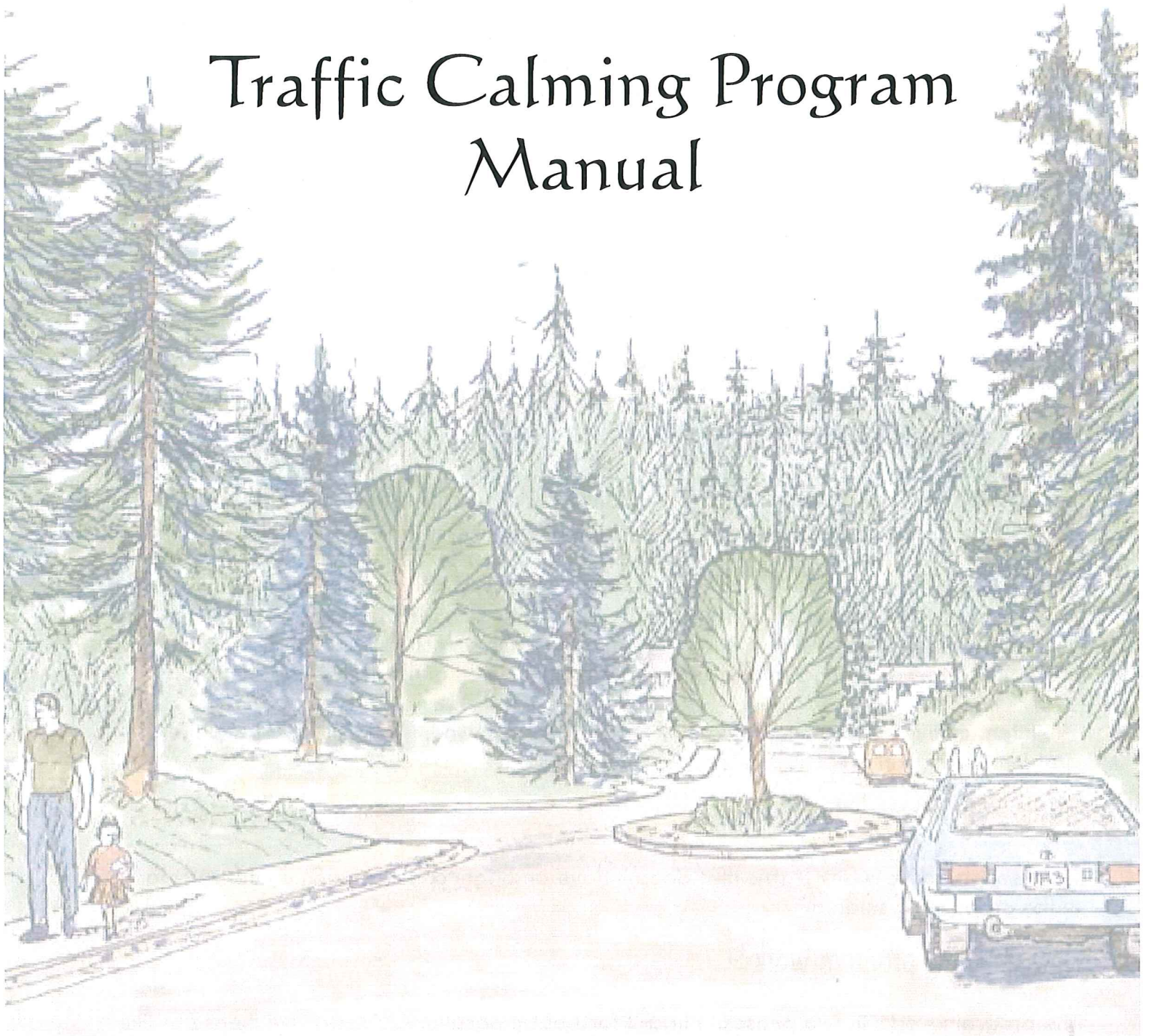
- Where will the money come from?
- Should residents be assessed?
- If so, what won't they have to contribute to? In other words, what will public works or enforcement do without charge?
- When will city funds be available, and how much will it be per year?
- What is the maximum allowable per program request?

CONCLUSION:

Commission should discuss outline and make recommendation to staff on specifics to begin drafting individual sections of the program to bring forward for future discussion and refinement. The goal of a final Traffic Calming Program should be to

City of Bothell
Department of Public Works

Traffic Calming Program Manual



City of Bothell

Traffic Calming Program

January 23, 2007

Traffic Calming

The Bothell Traffic Calming Program is developed to respond in a uniform manner to traffic related issues on local residential streets with Average Daily Traffic (ADT) of less than 3,000 vehicles and a posted speed limit of 25mph. It is the intent of the City to review this program every two years and modify the program as necessary to continue to respond to the needs of our neighborhoods.

While the Traffic Calming Program's focus is on local residential streets, many of the recommendations in the program can be utilized on arterial streets in residential areas. If improvements to arterial streets in residential areas are identified under this program, they need to be developed through the City's Capital Improvement Program.

Citizen involvement is an important part of all traffic calming projects. The people who live and work in the study area have the opportunity to become actively involved in the planning and decision-making process.

What is the Traffic Calming Program?

Bothell's Traffic Calming Program is part of the City's commitment to the safety and livability of our neighborhoods, and shall incorporate the goals, policies, and objectives of the City's Comprehensive Plan. It is a collaborative effort of City staff and local residents to reduce the impacts of traffic on local streets when traffic solutions are implemented. Through active participation by area residents, the City can identify the problem, plan the approach, implement the solutions, and evaluate the effectiveness. Traffic calming for residential areas is a concept that seeks harmony between automobiles and people.

The intent of this program is to **solve** the traffic problem where it exists, not **move** the problem to another local street.

What is Cut Through Traffic?

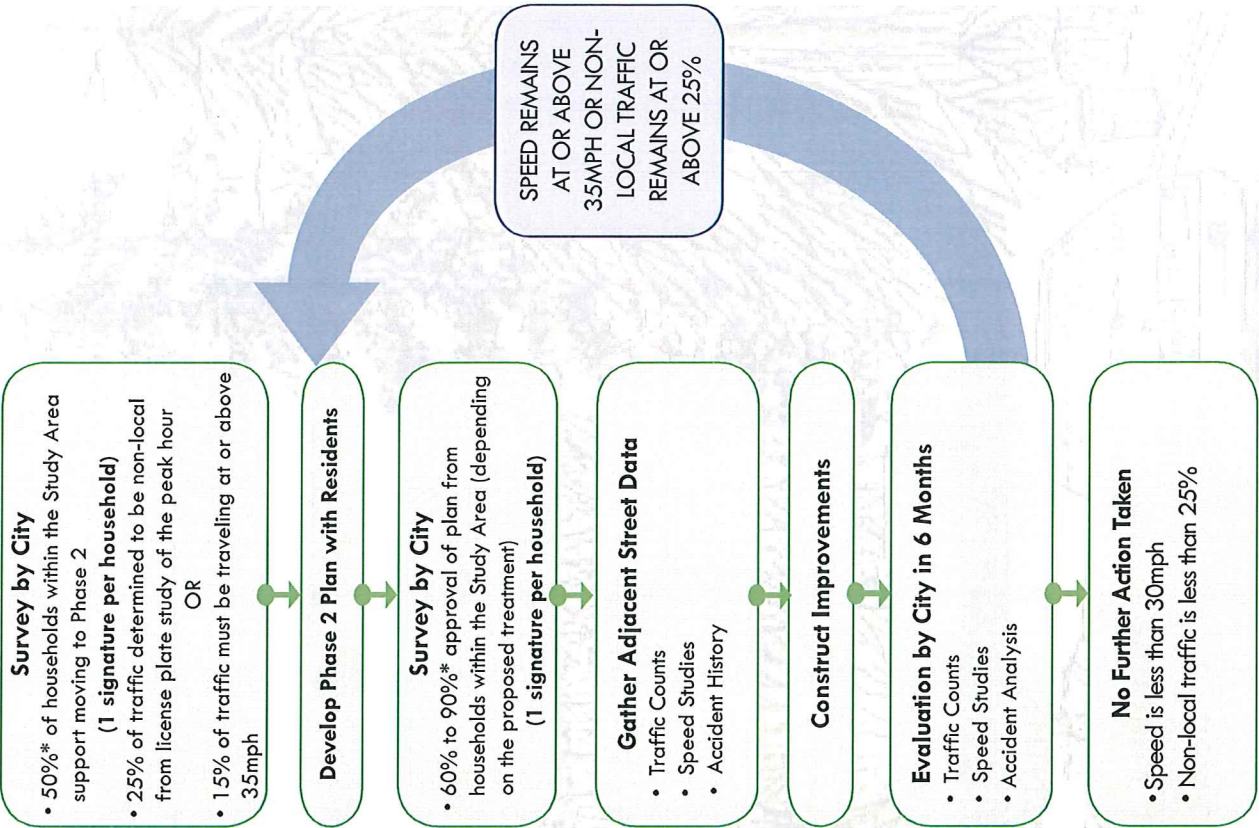
Cut through traffic is any traffic that doesn't have an origin or destination on the corridor or in the area being studied.

How does the program work?

The program works in two phases. Phase I focuses on passive, less restrictive measures like educational programs, enforcement, pavement markings, and signage. Should the Phase I measures prove ineffective at reducing excessive speeds or traffic volumes within a given time frame, then we proceed to Phase II of the program, which includes more restrictive methods.

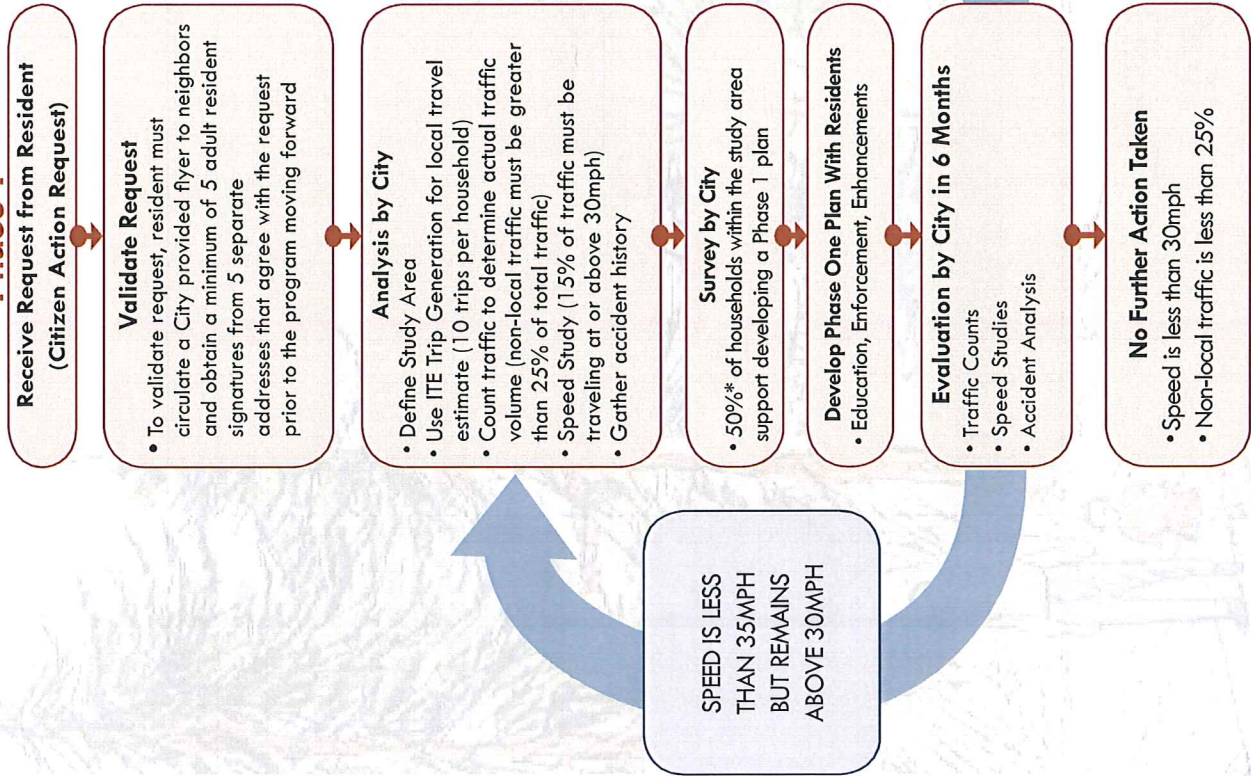
Traffic Calming Program

Phase 2

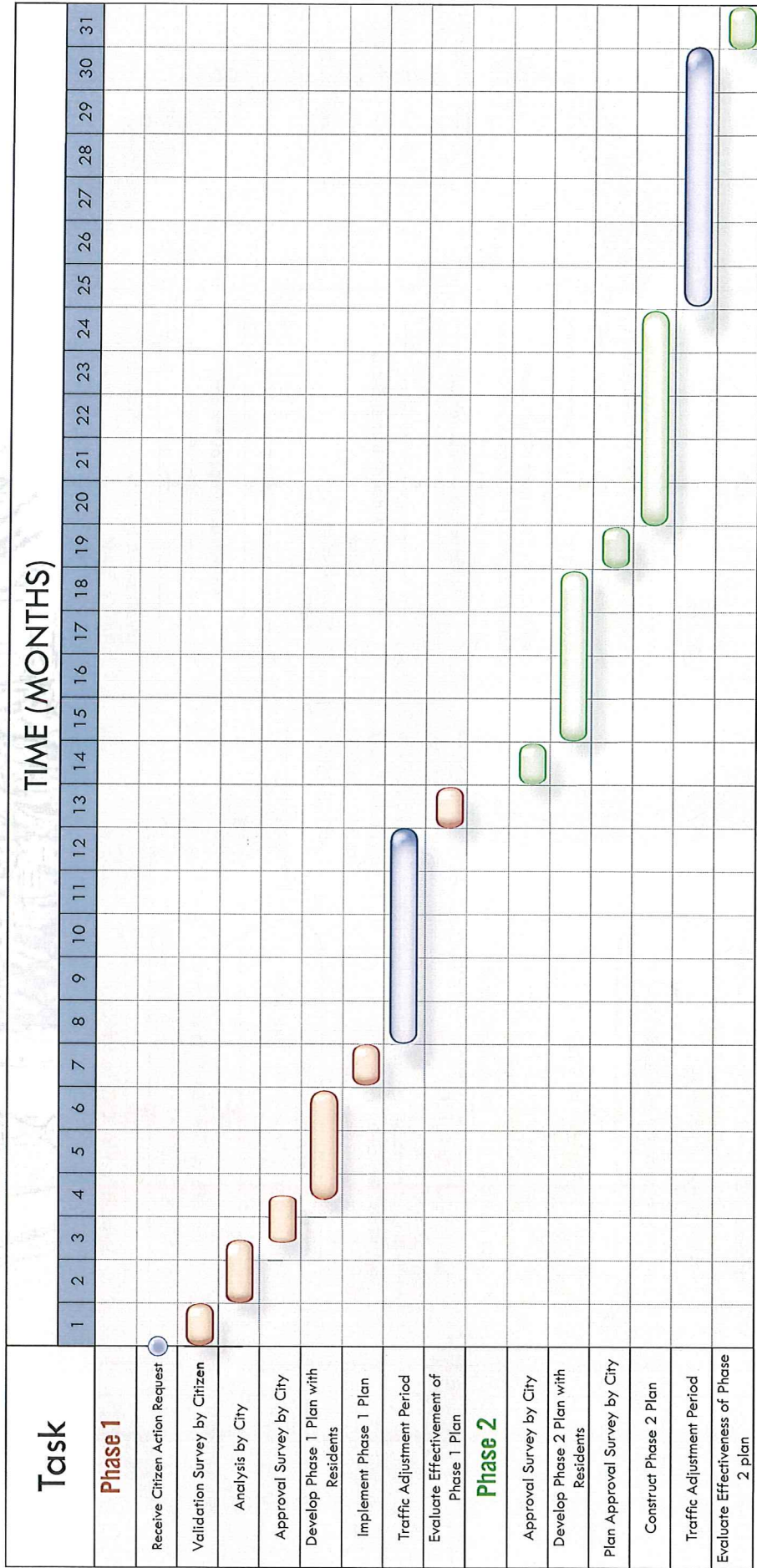


* Approval percentages are based on returned ballots only

Phase 1



Traffic Calming Program Typical Implementation Timeline



Phase I

Phase I

Phase 1 of the Traffic Calming Program begins when a Citizen Action Request Form is submitted to the City by a resident.

Once this occurs, the City will prepare a Validation Flyer that outlines the requested action for circulation by the resident. A minimum of 5 adult resident signatures from 5 separate addresses showing their support for starting a Traffic Calming Program will be required prior to going forward with the program.

Once the flyer is returned to the City showing neighborhood support, the City will define the study area and collect data from speed studies, accident histories, and traffic counts. This information, along with insights and suggestions from area residents, will help to determine which of the Phase 1 solutions to recommend to improve safety on local streets.

STUDY AREA DEFINITION

The study area will be determined by City Staff and will be influenced by configuration of the street system in the area, travel routes for elementary schools or local parks, and potential alternative local street routes where traffic could move to. Factors that will be considered when defining the Study Area will include:

- Location of arterial streets
- Potential parallel local street routes
- School boundaries
- Subarea boundaries as defined in the City's Comprehensive Plan
- Location of local parks

Once the City defines the proposed study area, a notice will be mailed to all households extending 500 feet beyond the proposed study area boundary. The notice will describe the traffic calming concern, identify the proposed study area boundaries, and solicit input from the citizens. This step allows for refinement of the study area boundary based on citizen input prior to finalizing the boundary.

To Qualify for a Phase 1 plan, the following criteria must be met:

- EITHER -

15% of the traffic will be travelling at 30mph or higher

- OR -

25% of the traffic is determined to be non-local, based on ITE trip generation guidelines

- AND -

50%* of the households within the study area show support for developing a Phase 1 Plan

Resident volunteers will be available to attend meetings to help develop a plan

* Approval Percentages are based on returned ballots only

Phase I Solutions

Examples of Phase I actions include:

Traffic Safety Campaign

An informational letter is prepared by the City and mailed to residents within the study area. The letter explains traffic volumes and speed study results in your area. Recommended traffic calming measures, along with information about traffic laws, pedestrian and bicycle safety are included in the letter. The goal is to heighten traffic safety awareness within the neighborhood. Many of the inattentive drivers who cause the majority of the traffic problems likely live in the immediate area.

Signage

Posting appropriate traffic control signs is a Phase I solution. Signs may include speed limit, parking, dead-end, school signs, etc.

Pavement Markings

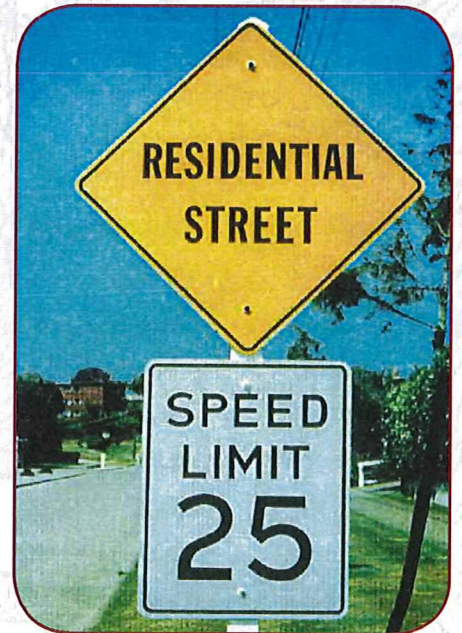
Painting legends and other markings on local streets can also be a Phase I solution. Pavement markings can include centerlines, fog lines, identification of school crossings, and speed limits.

Trimming Brush

Obscured lines of sight can create hazardous conditions. Sight distance can be improved when brush is trimmed and vegetation is cleared by homeowners or City crews.



Neighborhood Speed Reduction Program



Signs



Pavement Markings

Phase I

Target Police Enforcement

Increased enforcement by the Bothell Police Department's Traffic Division can be a part of a recommended Phase I solution.

Speed Watch Program

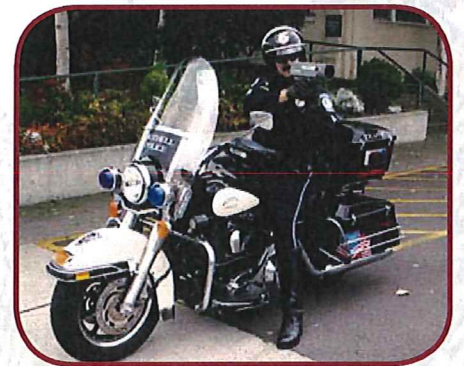
Bothell Police offer the Speed Watch Program. Residents who participate in the Speed Watch program are trained by police staff to use radar equipment to record vehicular speed. Records are turned over to Bothell Police, who contact by letter the registered owners of those vehicles found traveling at or above 30mph. These letters are not citations, but serve to remind drivers about the posted speed limit and the concern for community safety.

Radar Speed Trailer

A portable trailer equipped with a radar unit detects the speed of passing vehicles and displays it on a digital reader board. This device shows drivers their "actual" speed versus the posted speed limit. This information helps to promote compliance with the posted speed.



Sign Obscured by Bush



Police Radar



Radar Speed Trailer

Phase 2

Phase 2

Lack of progress in meeting the goals of traffic calming in the study area upon completion of the Phase 1 Plan may qualify your street for Phase 2 consideration.

Phase 2 begins approximately 9-12 months from the implementation of Phase 1 measures. We will again collect data on speed, accidents, and volume and compare it to the previously obtained information.

For your street to qualify for a Phase 2 Plan, the following criteria must be met:

- EITHER -

15% of the traffic must be traveling at or above 35mph

OR

25% of the traffic is determined to be non-local traffic, based on a license plate study of the Peak Hour

- AND -

50%* of the households within the study area show support for moving into a Phase 2 Plan

Resident volunteers will be available to attend meetings to help develop a plan

60% to 90%* (depending on the proposed treatment) of the households within the study area must approve the Phase 2 Plan before proceeding to construction

* Approval Percentages are based on returned ballots only

City of Bothell

Traffic Calming Program

Phase 2

Possible Phase 2 Solutions

The concept upon which a Phase 2 Plan is developed is based on the use of more active physical treatments to address traffic calming concerns.

Examples of Phase 2 improvements include:

Curb Extensions

Curb Extensions are used to narrow the roadway and increase sight distance at selected locations along a street corridor.

Speed Cushions

A raised area of road, approximately 3 inches high and either 12 or 22 feet long, used to slow vehicles by forcing them to decelerate in order to pass over them comfortably.

Traffic Circles / Speed Dots

Traffic Circles are built in the center of intersections or at mid-block locations that slow traffic by forcing it to keep to the right and travel in a counter-clockwise direction in order to continue on their traveling path.

Medians

Medians are raised islands that separate the traffic lanes and narrow the travel path, causing the traffic to slow down.

Chicanes

Chicanes are curb extensions that alternate from one side of the street to the other, forming S-shaped curves causing traffic to slow down.



Curb Extension



Speed Cushion



Traffic Circle



Median



Chicane

Entry Treatments

Usually consisting of pavement treatments or medians, Entry Treatments can potentially not only provide substantial enhancement to the community entry point, but also reduce the speed of the traveling motorist.

Stationary Radar Signs

Similar to the Radar Speed Trailer, Stationary Radar Signs can be used to draw a driver's attention to their actual speed and the local speed limit. Since many people do not realize how fast they are traveling in residential neighborhoods, these devices are installed to alert motorists of their traveling speed.

Diverter

Diagonal diverters are barriers placed diagonally across an intersection, blocking through movements and creating two separate, L-shaped streets.

Turn Restrictions / Partial Closures

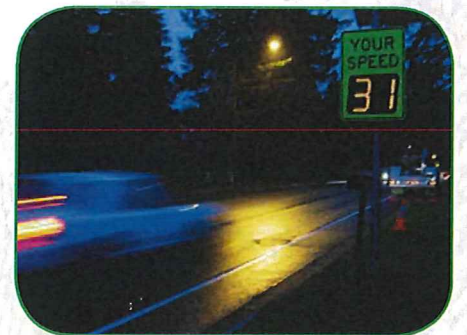
Partial Closures involve closing down one lane of a two lane roadway along with a "Do Not Enter" sign, in order to reduce cut through traffic.

Full Closures

Full Closures are exactly that, closing the whole road to prevent all cut through traffic. Sidewalks and bike lanes are kept open. Also, access for emergency vehicles will need to be provided at these locations. This is an extreme measure to be used only when all other measures have failed.



Entry Treatment



Radar Sign

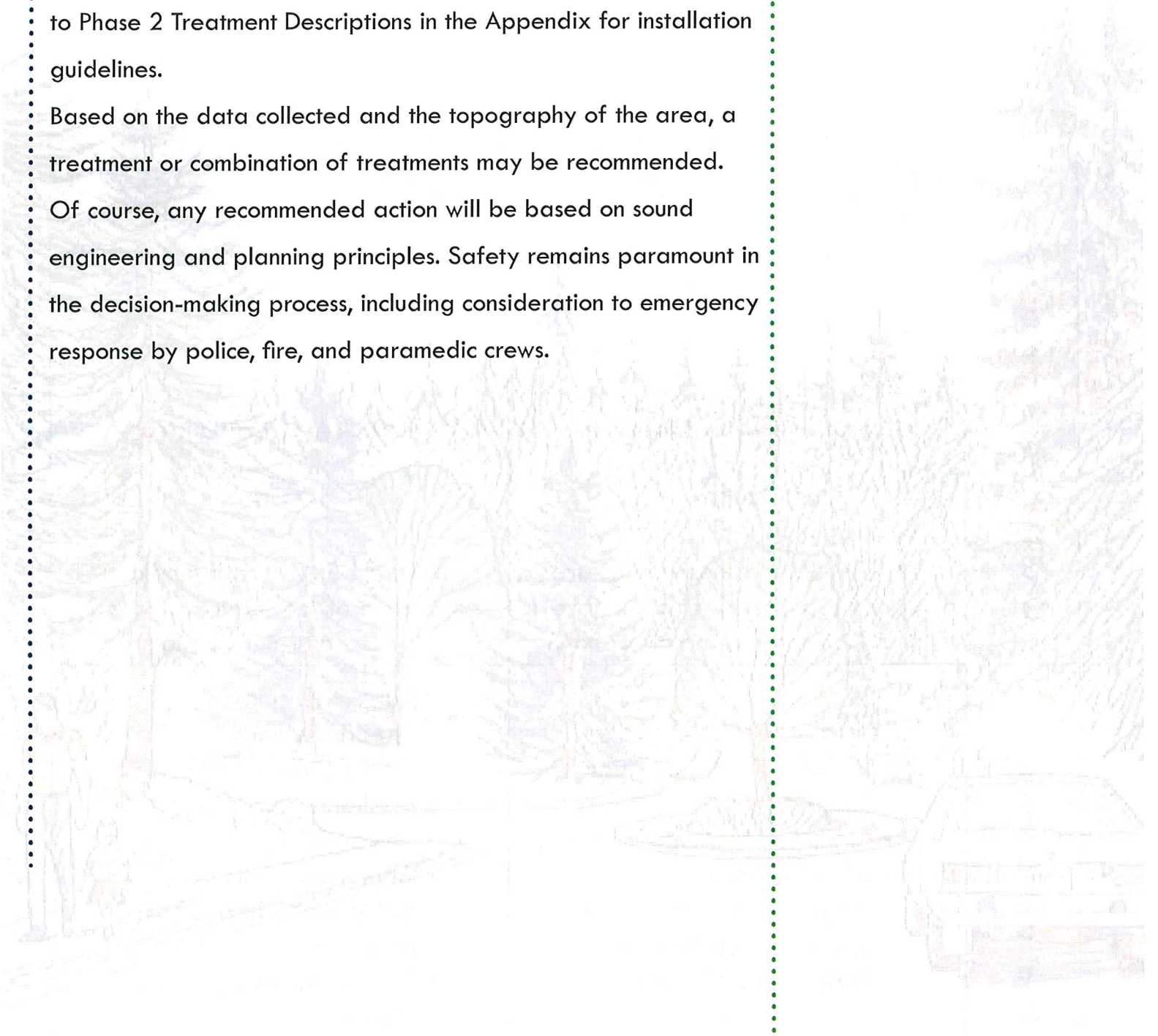


Partial Closure

Each of the treatments is unique, and specific guidelines have been established for when and where they may be used. Refer to Phase 2 Treatment Descriptions in the Appendix for installation guidelines.

Based on the data collected and the topography of the area, a treatment or combination of treatments may be recommended.

Of course, any recommended action will be based on sound engineering and planning principles. Safety remains paramount in the decision-making process, including consideration to emergency response by police, fire, and paramedic crews.



City of Bothell
TRAFFIC CALMING PROGRAM
City-Wide Traffic Calming Characteristics
Summary

| | PHASE 1 | PHASE 2 |
|-----------------------------------|--|--|
| Qualification Requirements | <p>15% of traffic traveling at or above 30 MPH</p> <p style="text-align: center;">OR</p> <p>25% of peak hour traffic is non-local</p> <p style="text-align: center;">AND</p> <p>At least 50% of households are supportive of developing a Phase 1 plan (based on returned ballots)</p> | <p>15% of traffic traveling at or above 35 MPH</p> <p style="text-align: center;">OR</p> <p>25% of peak hour traffic is non-local</p> <p style="text-align: center;">AND</p> <p>At least 50% of households supportive of moving into Phase 2, (based on return ballots)</p> |
| Treatment Options | <ul style="list-style-type: none"> • Traffic Safety Campaign • Signage • Pavement Markings • Trimming Brush • Target Police Enforcement • Speed Watch Program • Radar Speed Trailer | <ul style="list-style-type: none"> • Curb Extensions • Speed Cushions • Traffic Circles / Speed Dots • Medians • Chicanes • Entry Treatments • Stationary Radar Signs • Diverters • Turn Restrictions / Partial Closures • Full Closures |

City of Bothell
TRAFFIC CALMING PROGRAM
Phase 2 Household Support
Summary

Requiring 60% Approval

- Curb Extensions
- Speed Cushions
- Traffic Circles/Speed Dots
- Medians
- Chicanes
- Entry Treatments
- Stationary Radar Signs

- Diverters*
- Turn Restrictions*
- Partial Closures*
- Full Closures*

* Also require 90% approval from households whose only access is provided by the street proposed for these treatments.

City of Bothell

TRAFFIC CALMING PROGRAM

PROJECT PRIORITIZATION SCORING

(To be used when more than 1 Study Area
is under consideration for funding)

| CRITERIA | POINTS |
|--|--------------------------|
| <u>Average Daily Traffic (ADT)</u> 501 - 1000 1001-2000 2001-3000 | 1 2 3 |
| <u>Traffic Speeds (85th Percentile)</u> 5-7 8-10 More than 10 | 2 4 6 |
| <u>Non-Local Traffic</u> 25%-49% 50%-74% More than 74% | 1 2 3 |
| <u>Parks / Schools</u> Greater than 1/2 mile Between 1/4 and 1/2 mile Within 1/4 mile | 1 2 3 |
| <u>Accident History (Accidents / Year)</u> 1 2 3 More than 3 | 3 4 5 7 |
| <u>Street Conditions</u> Sidewalks both sides Sidewalks on one side No sidewalks | 1 2 3 |

Note: A maximum of 25 points available



Appendix

Traffic Calming - Citizen Action Request Form

Contact Name:

Address:

.....

City: Bothell State: WA Zip Code:

Daytime Phone:

E-mail Address:

Location of Concern:

.....

.....

What concerns do you have about the above location?

.....

.....

.....

Speeding

Pedestrian Safety

Accidents

Sight Distance

Traffic Volume

Other (Please describe above)

Return to:
City of Bothell
Attn: Traffic Engineering Division
18415 101st Ave NE
Bothell, WA 98011
425-806-6772
jamal.mahmoud@bothellwa.gov
www.bothellwa.gov

Sample Validation Flyer

We the Residents of _____, would like the City of Bothell to initiate a Comprehensive Traffic Calming Study in our neighborhood because of the following concerns:

- Speeding
- Cut-Through Traffic
- Commercial Vehicle Restriction

We understand that the Comprehensive Traffic Calming Study involves the active participation of our community. The decision making process requires us to hold neighborhood meetings and conduct petition member campaigns.

Please sign and return the form to:

City of Bothell
Attn: Traffic Engineering Division
18415 101st Ave NE
Bothell, WA 98011
425-806-6772
jamal.mahmoud@bothellwa.gov
www.bothellwa.gov

NOTE: One signature per household.

NEIGHBORHOOD REQUEST FOR COMPREHENSIVE TRAFFICE CALMING STUDY

Neighborhood/Street _____ Page ___ of ___

| No. | Name | Address | Phone | Signature One Per Household |
|-----|------|---------|-------|--------------------------------|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| 11 | | | | |
| 12 | | | | |
| 13 | | | | |
| 14 | | | | |



PHASE 2
TREATMENT DESCRIPTIONS

Curb Extensions
Speed Cushions
Traffic Circles / Speed Dots
Medians
Chicanes
Entry Treatments
Stationary Radar Signs
Diverters
Turn Restrictions / Partial Closures
Full Closures

Curb Extensions

PHASE 2

APPLICATION

- At intersections to increase sight distance and narrow roadway
- Mid-block to narrow roadway and shorten pedestrian crossings

QUALIFICATIONS

- 15% of the traffic is traveling at 35mph or higher
- OR-
- 25% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
- AND-
- 60% of the households within the study area approve the use of this treatment based on returned ballots

ADVANTAGES

- Reduces pedestrians' crossing distance
- Narrowed lanes can slow vehicles
- May increase sight distance at intersections

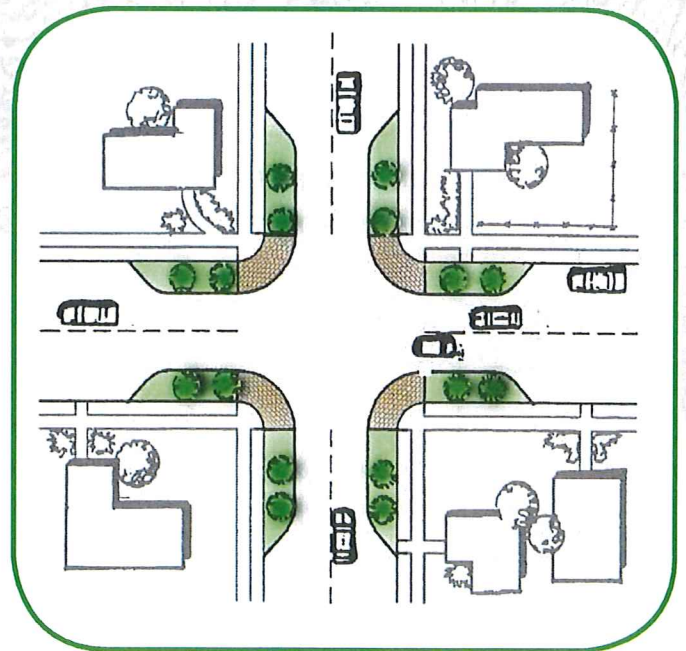
DISADVANTAGES

- May require removal of some on-street parking
- Effective curb extension design may limited marked bicycle lanes

SPECIAL CONSIDERATIONS

- Consideration of marked bicycle lanes and roadway widths
- Landscape Maintenance

COST - Moderate to High



Speed Cushions

PHASE 2

APPLICATION

- In the neighborhood where speed control is desired
- Neighborhood streets where cut-through traffic is to be discouraged

QUALIFICATIONS

- 15% of the traffic is traveling at 35mph or higher
-OR-
- 25% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
-AND-
- 60% of the households within the study area approve the use of this treatment based on returned ballots
- Traffic volume is less than 2000 vehicles per day

ADVANTAGES

- Slows traffic - potentially 5-10mph decrease in the vicinity of the speed cushion
- May divert traffic if adjacent arterial street exists
- Self-enforcing

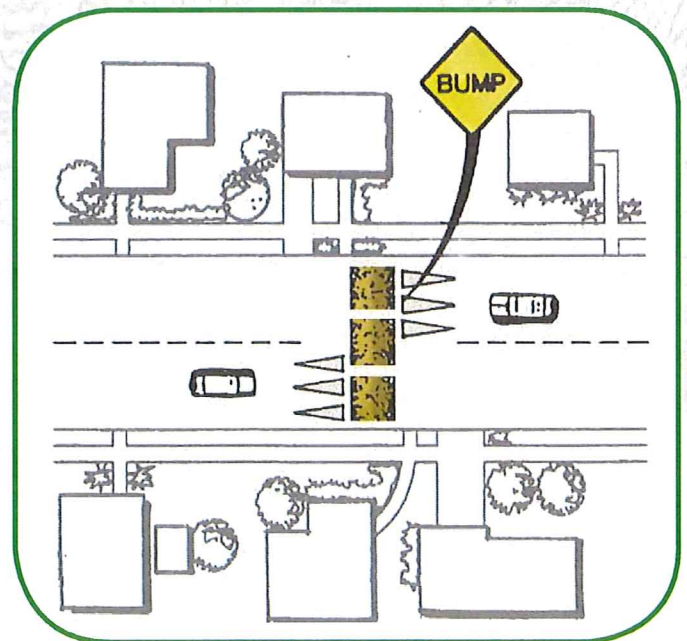
DISADVANTAGES

- May cause diversion of traffic to adjacent neighborhood streets
- Acceleration/deceleration noise adjacent to speed cushion

SPECIAL CONSIDERATIONS

- Adjacent to school zones or neighborhood parks
- Use of 22 foot design on higher volume roadways
- Minimum of two cushions per project site for speed control

COST - Low to Moderate



Traffic Circles / Speed Dots

PHASE 2

APPLICATION

- In the neighborhood where speed control is desired
- Neighborhood intersections where right-angle accidents are occurring
- Mid Block Locations (Speed Dots)

QUALIFICATIONS

- 15% of the traffic is traveling at 35mph or higher
-OR-
- 25% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
-AND-
- 60% of the households within the study area approve the use of this treatment based on returned ballots
- Traffic volume is less than 2,000 vehicles per day

ADVANTAGES

- Slows traffic with potentially 5-8mph decrease
- May divert traffic if adjacent arterial street exists
- Opportunity for landscaping and beautification

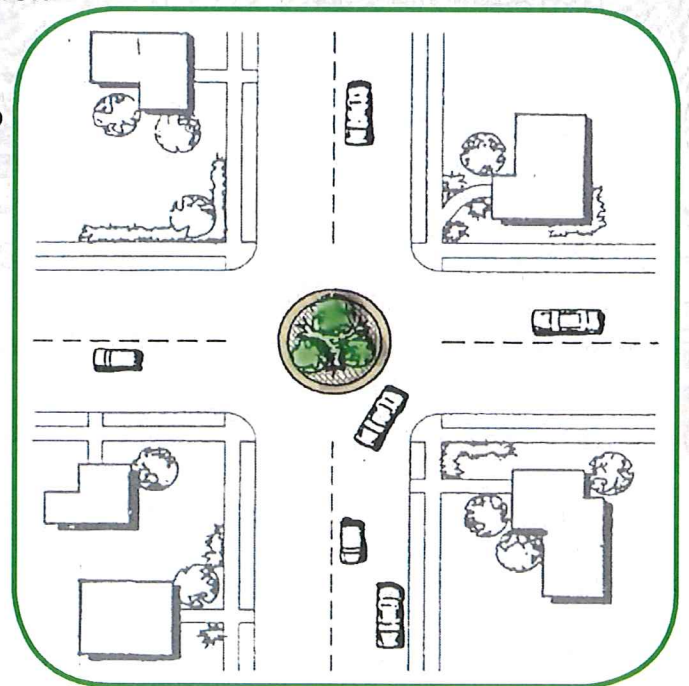
DISADVANTAGES

- Emergency response delay between 1 and 9 seconds
- May cause diversion of traffic to adjacent neighborhood streets
- May require removal of some on-street parking

SPECIAL CONSIDERATIONS

- Adjacent to school zones or neighborhood parks
- Landscape Maintenance

COST - Moderate to High



PHASE 2

APPLICATION

- In the neighborhood where speed control is desired
- In conjunction with a pedestrian crossing to provide a refuge area

QUALIFICATIONS

- 15% of the traffic is traveling at 35mph or higher
- OR-
- 25% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
- AND-
- 60% of the households within the study area approve the use of this treatment based on returned ballots

ADVANTAGES

- Narrowed lanes can slow vehicles
- Prevents passing
- Opportunity for landscaping and visual enhancement
- Separates opposing traffic

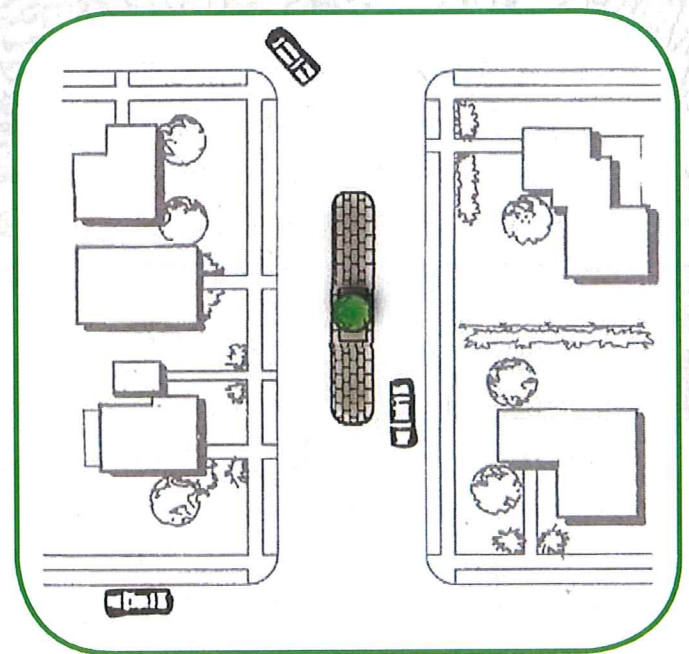
DISADVANTAGES

- May require removal of some on-street parking
- May prohibit or limit driveway access
- May affect emergency response during inclement weather, if installed on a grade

SPECIAL CONSIDERATIONS

- Roadway grades
- Consideration of bicycle lanes and road way width
- Landscape Maintenance

COST - Moderate to High



PHASE 2

APPLICATION

- In the neighborhood where speed control is desired
- Mid-block locations

QUALIFICATIONS

- 15% of the traffic is traveling at 35mph or higher
-OR-
- 25% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
-AND-
- 60% of the households within the study area approve the use of this treatment based on returned ballots
- Traffic volume is less than 2,000 vehicles per day

ADVANTAGES

- Narrowed lanes can slow vehicles
- Prevents passing
- Opportunity for landscaping and visual enhancement

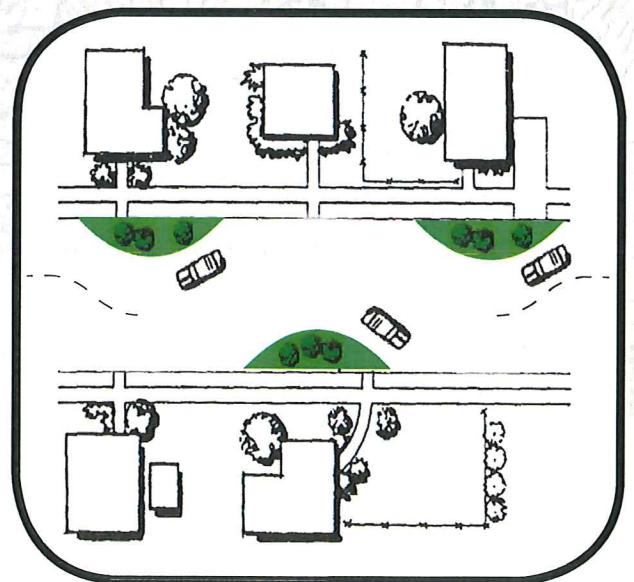
DISADVANTAGES

- May require removal of some on-street
- May prohibit or limit driveway access
- May affect emergency response during inclement weather, if installed on a grade

SPECIAL CONSIDERATIONS

- Roadway grades
- Consideration of bicycle lanes and road
- Landscape Maintenance

COST - Moderate to High



Entry Treatments

PHASE 2

APPLICATION

- Placed in the roadway to define the main entrance(s) into a neighborhood

QUALIFICATIONS

- 15% of the traffic is traveling at 35mph or higher
- OR-
- 25% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
- AND-
- 60% of the households within the study area approve the use of this treatment based on returned ballots

ADVANTAGES

- Notifies drivers that they are entering a neighborhood or residential area
- Narrowed lanes can slow vehicles
- Opportunity for landscaping and/or neighborhood signs
- May discourage non-local traffic

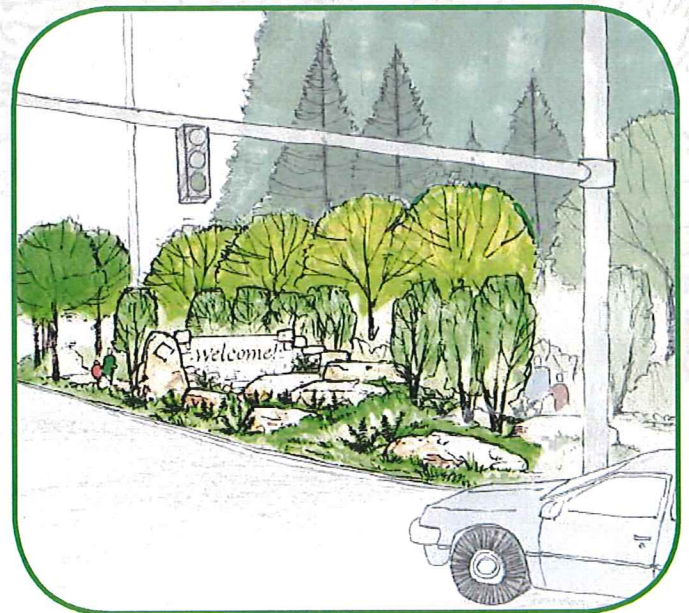
DISADVANTAGES

- May require parking removal near the treatment

SPECIAL CONSIDERATIONS

- Maintenance and upkeep of pavement treatments
- Landscape Maintenance

COST - Moderate to High



Stationary Radar Signs

PHASE 2

APPLICATION

- In the neighborhood where speed control is desired

QUALIFICATIONS

- 15% of the traffic is traveling at 35mph or higher
-OR-
- 25% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
-AND-
- 60% of the households within the study area approve the use of this treatment based on returned ballots

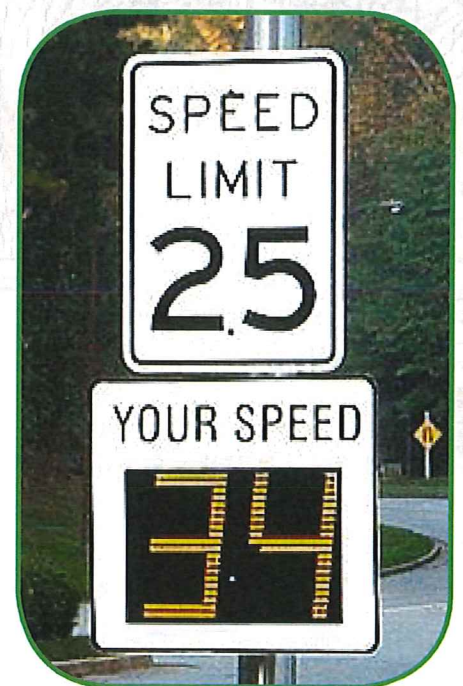
ADVANTAGES

- Heightens driver awareness to the posted speed limit
- Does not impact emergency response vehicles
- Slows traffic - potentially 1-6mph decrease in the vicinity of the sign
- May be installed on roadways which do not qualify for other devices due to roadway slopes, volumes, or other characteristics

DISADVANTAGES

- Installation sites must be near power source
- Effectiveness may decrease over time

COST - Moderate to High



PHASE 2

APPLICATION

- To restrict through movements and force a turn in all directions. Diverters are generally used only in neighborhoods with a gridded street system
- Must be installed on a temporary basis for evaluation before moving to a permanent installation

QUALIFICATIONS

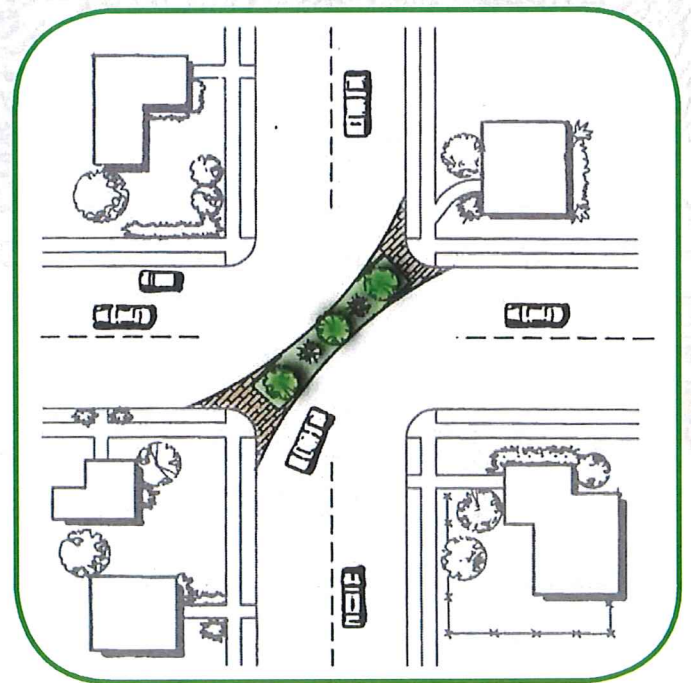
- 75% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
- AND-
- 60% of the households within the study area, and 90% of the households whose only access is provided by the street, proposed for this treatment approve of its use based on returned ballots for both temporary and permanent installation
 - Traffic volume is less than 2,000 vehicles per day

ADVANTAGES

- Reduces cut-through traffic
- Channels traffic flow, eliminating conflicts at intersections
- Opportunity for landscaping and visual enhancements

DISADVANTAGES

- May redirect traffic onto other local streets
- Increased travel time for local residents
- High installation costs
- May require removal of parking
- Not applicable for emergency response routes



COST - Moderate to High

Turn Restrictions / Partial Closures

PHASE 2

APPLICATION

- To close down either the entrance or exit lane of a street
- Must be installed on a temporary basis for evaluation before moving to a permanent installation

QUALIFICATIONS

- 75% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour
- AND-
- 60% of the households within the study area, and 90% of the households whose only access is provided by the street, proposed for this treatment approve of its use based on returned ballots for both temporary and permanent installation
- Traffic volume is less than 2,000 vehicles per day

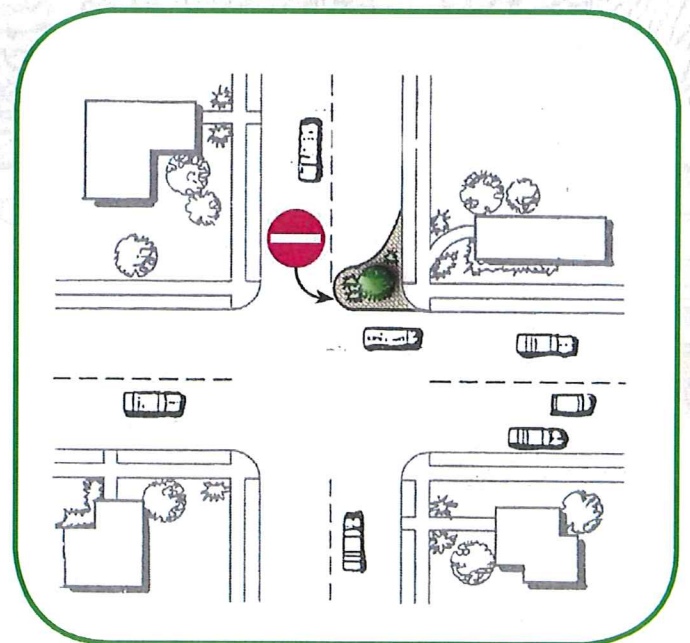
ADVANTAGES

- Reduces cut through traffic
- Pedestrian crossing distance reduced
- Landscaping opportunity

DISADVANTAGES

- May require removal of on-street parking
- May redirect traffic onto other local streets
- May increase trip length for local drivers

COST - Moderate to High



Full Closures

PHASE 2

APPLICATION

- Blocks both lanes of traffic, eliminating all through traffic
- Must be installed on a temporary basis for evaluation before moving to a permanent installation

QUALIFICATIONS

- 75% of the traffic is determined to be non-local traffic based on a license plate study of the peak hour

-AND-

- 60% of the households within the study area, and 90% of the households whose only access is provided by the street, proposed for this treatment approve of its use based on returned ballots for both temporary and permanent installation
- Traffic volume is less than 2,000 vehicles per day

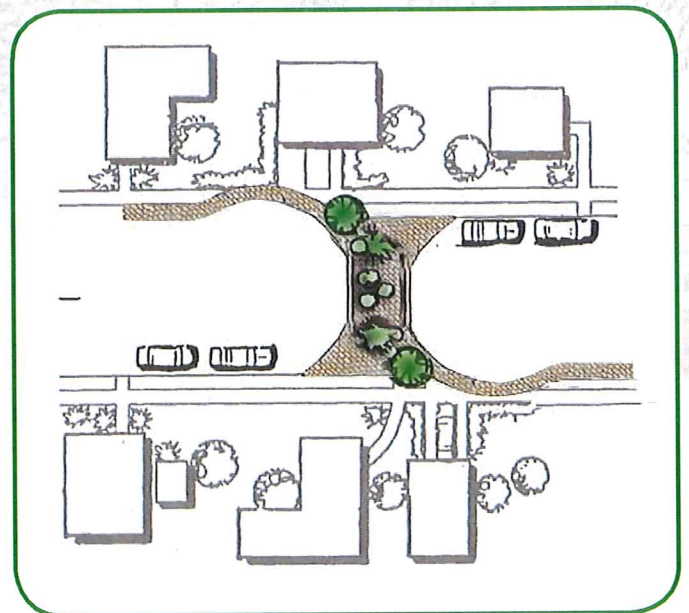
ADVANTAGES

- Restricts all through traffic
- Effective volume control measure
- Improves aesthetic quality of the street

DISADVANTAGES

- May redirect traffic to other streets
- May increase trip length for local drivers
- May require partial removal of on-street parking
- Not applicable for designated emergency response vehicle routes
- May result in difficult turn around conditions
- High Installation Costs

COST - Moderate to High



Technical Feasability, Constraints, Guidelines, and Factors Affecting Design

The following technical aspects would be considered when a physical treatment is considered:

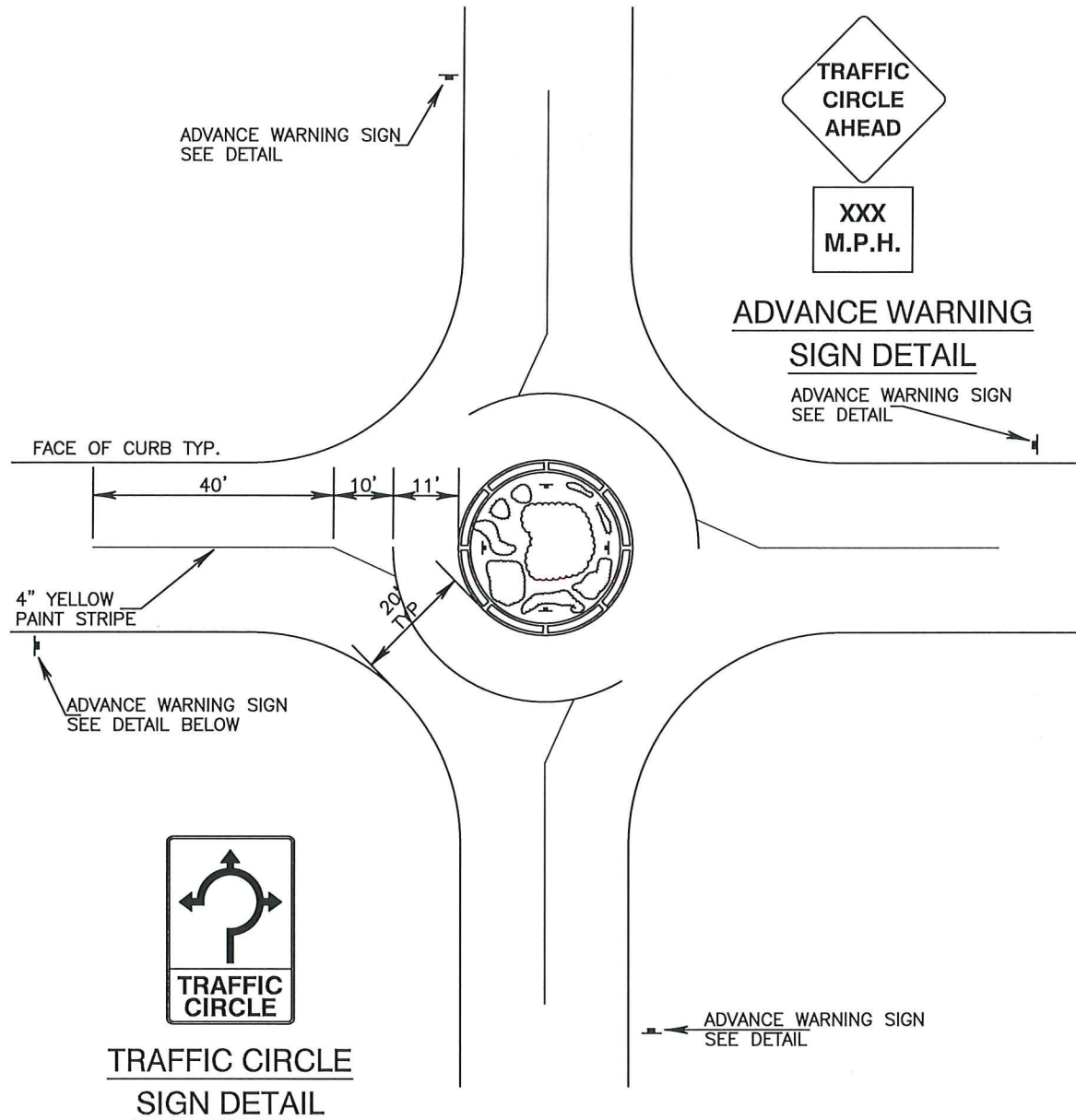
- It must be determined that the treatment will work for the defined problem
- Impact on parallel streets needs to be considered and addressed
- Stopping sight distance standards need to be evaluated
- Adequate provisions for buses (school, transit) garbage collection, moving vans, construction equipment, pedestrians and bicyclists need to be made
- Ensuring that the treatment will allow adequate drainage
- If curbs and gutters are not present, the design of individual traffic control treatments may need to be modified to restrict drivers from using the shoulders to avoid them
- The proximity to other calmed areas and intersections
- Physical treatments would only be installed on paved roadways with good surface conditions
- Appropriate spacing between treatments
- Roadway grade considerations. Some treatments will not be used on grades exceeding 8%
- Effect of treatment on street sweeping and other maintenance activities
- The cumulative effect of physical treatments on emergency vehicle response times would be considered
- Potential loss of on-street parking
- Increase in concentration of noise and air pollution levels due to the physical treatment
- Sight distance obstructions related to landscaping, fences, roadway alignment, grade, etc.
- Impact on driveway access to adjacent properties

STANDARD PLANS



- **Traffic Circle**
- **Speed Cushion**



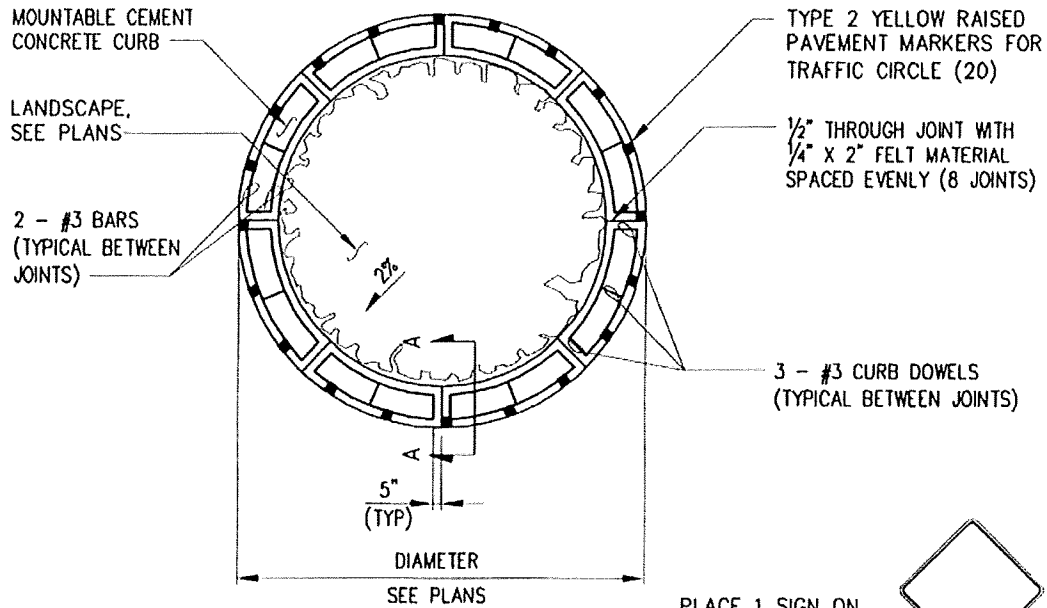
Standard Traffic Circle



TYPICAL TRAFFIC CIRCLE
DESIGN FOR 20 M.P.H.

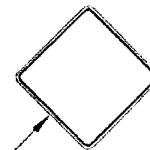
| | | | |
|--|--|---|---|
|  <p>City of Bothell PUBLIC WORKS COMMUNITY DEVELOPMENT</p> |  <p>EDDIE K. LOY PROFESSIONAL ENGINEER EXPIRES 08-24-05</p> | <p>TRAFFIC CALMING DEVICES TRAFFIC CIRCLE</p> <p>Alteration of this drawing is prohibited. Any approval of an altered drawing is unauthorized and void.</p> | <p>326 Revision Date Oct, 2000</p> |
|--|--|---|---|

Standard Traffic Circle

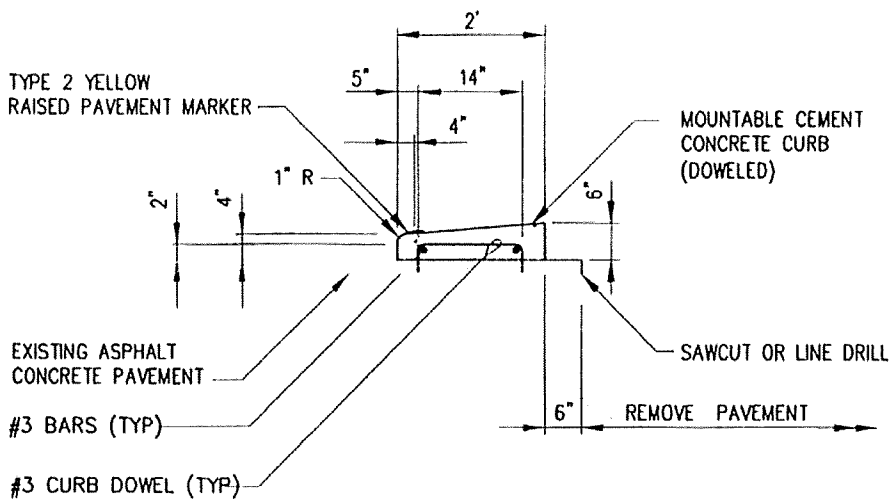


PLAN VIEW



PLACE 1 SIGN ON 4" X 4" WOOD POST ON EACH APPROACH OF TRAFFIC CIRCLE



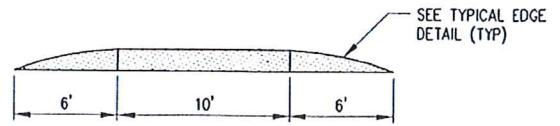
SIGN 1
18" X 18"
PLAIN YELLOW
MUTCD TYPE 1
OBJECT MARKER



SECTION A-A

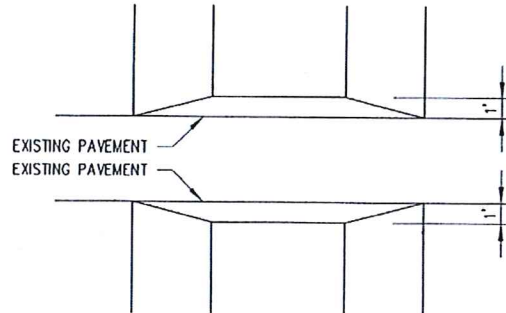
| | | |
|--|---|---|
|  <p>City of Bothell PUBLIC WORKS COMMUNITY DEVELOPMENT</p> |  <p>EDNIE K. LOW REGISTERED PROFESSIONAL ENGINEER NO. 214-02</p> | <p>TYPICAL TRAFFIC CIRCLE & MOUNTABLE CURB DETAIL</p> <p><small>Alteration of this drawing is prohibited. Any approval of an altered drawing is unauthorized and void.</small></p> |
|--|---|---|

Standard Speed Cushion



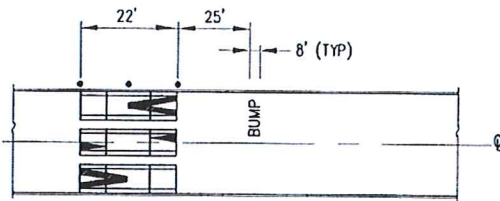
SPEED CUSHION SECTION

NTS



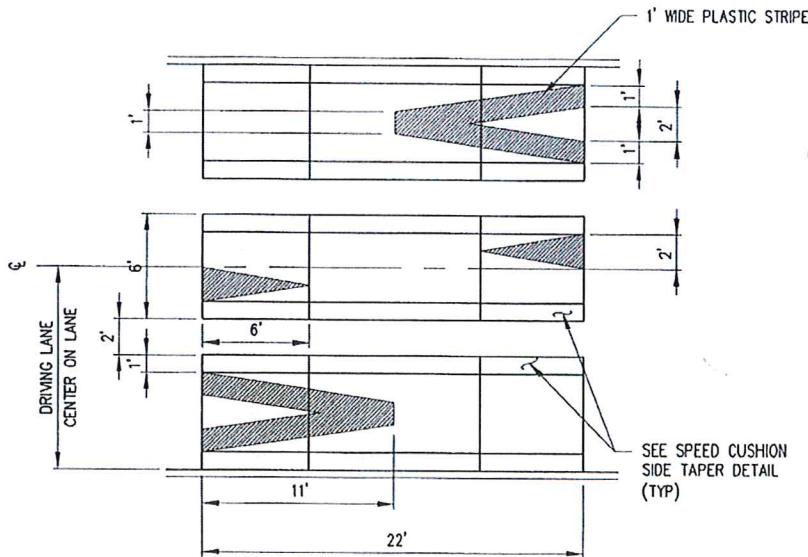
SPEED CUSHION SIDE TAPER DETAIL

NTS



NOTE:

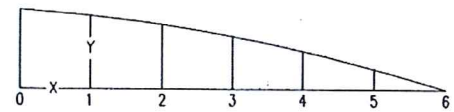
1. MARKINGS TYPICAL BOTH DIRECTIONS OF TRAVEL.
2. SIGNS TO BE PLACED BY OTHERS.
3. ALL SPEED HUMP MARKINGS SHALL BE PLASTIC, SEE SPEED CUSHION DETAIL, THIS SHEET.



MARKING DETAIL

SPEED CUSHION

NTS



NOTE:



SEE VERTICAL DIMENSION CHART

VERTICAL DIMENSION CHART

| X(FT.) | Y(FT.) = INCHES |
|--------|-----------------|
| 0 | 0.25 = 3.0 |
| 1 | 0.243 = 2.92 |
| 2 | 0.222 = 2.67 |
| 3 | 0.186 = 2.25 |
| 4 | 0.139 = 1.67 |
| 5 | 0.077 = 0.92 |
| 6 | 0.00 = 0 |

TYPICAL EDGE DETAIL

NTS

| | | |
|--|--|---|
|  <p>City of Bothell PUBLIC WORKS COMMUNITY DEVELOPMENT</p> |  <p>EDDIE K. LOW PROFESSIONAL ENGINEER NO. 2372 EXPIRES 08-24-05</p> | <p>TRAFFIC CALMING DEVICES SPEED CUSHION</p> <p><small>Alteration of this drawing is prohibited. Any approval of an altered drawing is unauthorized and void.</small></p> |
|--|--|---|

Norwalk Traffic Calming Program Implementation

The City of Norwalk has implemented traffic calming measures in several neighborhoods throughout the City in recent years. Using lessons learned from these projects, a traffic calming program was developed as part of the City-Wide Traffic Management Plan (TMP) to provide a process for selecting appropriate traffic calming measures and prioritizing project funding. The traffic calming program is a resident-driven process that ensures safety and livability for all road users.

3.1 Traffic Calming

Traffic calming is a relatively new concept, and many people do not know about the wide variety of tools and strategies that are available to their communities. This chapter provides an overview of the City's Neighborhood Traffic Calming Program and can be used as a resource for residents and neighborhood groups seeking to effect change in their communities. It is also intended for use by developers in order to support the establishment of more livable, walkable communities in Norwalk.

Norwalk residents and neighborhood groups may use the Traffic Calming Toolbox discussed in the Guidebook portion of this document to learn about the various traffic calming tools and resources, begin thinking about the roadway classification and characteristics of their neighborhood, and create a plan for garnering support for traffic calming in their neighborhood. Neighborhood groups may submit an application for the Norwalk Neighborhood Traffic Calming Program, provided in the Appendix, to request City funding consideration for a project in their neighborhood.

3.1.1 Neighborhood Strategy

Many communities throughout the United States have taken a reactive approach to traffic calming, installing speed humps and other measures in response to the traffic and speed complaints of a very small number of residents. Without proper planning and appropriate use, some of these traffic calming devices have had unintended consequences which negatively impacted residents, emergency responders, bicyclists



and other road users. Cut-through traffic that is removed from one street may spill over onto the next, impacting other residents. Traffic calming measures mistakenly placed along an emergency response route can slow response times for fire and emergency medical personnel. Bicyclists can be seriously injured if traffic calming devices are not designed properly to accommodate them.

For these reasons, the City of Norwalk is taking a proactive approach to traffic calming, with a structured program which considers technical aspects such as traffic volumes, speeds, and proximity to neighborhood pedestrian generators, as well as public support for the project. This collaborative approach with residents seeks to preserve neighborhood character while solving traffic issues. All new requests for traffic calming must be supported by the neighborhood, not just by residents of a particular street. Applications will be reviewed and prioritized for funding by the City, and the projects which receive funding will be designed by an engineer to ensure the safety and appropriateness of the proposed measures.

3.2 Norwalk Traffic Calming Program Overview

The Norwalk Traffic Calming Program was created to provide a clear structure for addressing traffic concerns in residential neighborhoods. The City of Norwalk will work with residents to design, implement and maintain measures that are effective in calming traffic and enhancing the neighborhood environment.

A Traffic Calming Advisory Committee (TCAC) should be established to advise the Director of Public Works on proposed actions. The committee will be chaired by the City Traffic Engineer and consist of representatives appointed by the respective department heads from the Police Department, the Fire Department, Norwalk Emergency Medical Services, Norwalk Transit District, the Board of Education, the DPW Engineering Division, and the DPW Operations Division.

The Director of Public Works will receive all requests for traffic calming measures on public streets. The traffic calming request is then investigated and studied for suitability by the Department of Public Works (DPW) and a recommendation is made to the Director. All plans which include devices that alter the physical roadway alignment will receive approval from the Common Council before implementation. All plans will receive approval of the Norwalk Traffic Authority.

Traffic calming improvements will be funded annually through the DPW Capital Improvement Program, unless specific funds are provided elsewhere in the city budget, or through grants. Individual projects will be selected for implementation based on the priority scoring system, public support, and available budget. The DPW may determine cut-off dates for the receipt of applications and public opinion surveys to coincide with the development of the City budget.

3.2.1 Due Diligence

Successful traffic calming programs have been created and implemented by many local governments across the United States and overseas. To help avoid liability issues, a municipality must maintain documentation that illustrates their program is appropriate, install traffic calming devices based on objective data, and follow procedures when considering and installing such devices. Therefore, the City of Norwalk has adopted a Program Policy to accomplish the goal of minimizing liability issues.

Through its implementation process, the City of Norwalk will design, implement and maintain the accepted traffic calming measures so that drivers, pedestrians, and bicyclists acting reasonably and exercising ordinary care are able to perceive the intent of the measure and safely negotiate it.

Traffic calming measures should be designed using recognized standards and practices of the Institute of Transportation Engineers, AASHTO, and the Connecticut Department of Transportation. Traffic calming designs shall also conform to the Manual on Uniform Traffic Control Devices and Regulations of the State Traffic Commission.

3.2.2 Existing Developments

The process for implementing traffic calming measures for existing developments consists of a series of steps designed to build community support, identify concerns, collect data, develop solutions and evaluate results. A two-tier process allows for implementation of traffic calming measures in a timely manner when problems can be resolved with fairly routine solutions. When dealing with more complex issues, the process allows for effective management and allocation of resources by prioritizing project areas.

3.2.2.1 Tier 1 Efforts

Tier 1 focuses on changing driver behavior through education efforts and enforcement. These measures consist of easily implemented, low-cost solutions such as neighborhood traffic safety campaigns, speed display units, targeted police enforcement, and pavement marking changes. Once implemented, these efforts are evaluated for up to one year to determine their effect on traffic. Most neighborhoods find these efforts effective in addressing the traffic concerns identified by the community.

- ◆ **Step 1** – Submit a Traffic Calming Request Form to the Director of Public Works detailing your traffic concerns, along with a petition of support.
- ◆ **Step 2** – If the area qualifies for traffic calming, the DPW determines the scope of the study area, conducts a field review of the site, and collects data.
- ◆ **Step 3** – The DPW evaluates the request and scores the application according to both threshold and priority scoring criteria.



- ◆ **Step 4** – DPW sends out information about the findings and recommendations.
- ◆ **Step 5** – DPW works with the neighborhood to develop and implement Tier 1 recommendations.
- ◆ **Step 6** – Over the next 6 to 8 months, follow-up data is collected and the TCAC reviews the effectiveness of the Tier 1 recommendations.
- ◆ **Step 7** – If the Tier 1 measures are unsuccessful, the TCAC can initiate the Tier 2 process in which physical devices are considered.

3.2.2.2 Tier 2 Efforts

If Tier 1 efforts are not effective, Tier 2 strategies may be considered. Tier 2 measures consist of physical treatments such as speed humps, median islands, traffic circles and curb extensions.

- ◆ **Step 1** – DPW meets with neighborhood residents (via a neighborhood association if active).
- ◆ **Step 2** – Residents are asked if they would be interested in serving on a Traffic Committee to develop a Traffic Calming Plan.
- ◆ **Step 3** – The recommended plan is approved by the DPW and presented to the neighborhood.
- ◆ **Step 4** – DPW surveys the neighborhood to determine the level of support for the recommended traffic calming plan. If 2/3 of the households surveyed support the proposed plan, then the request is recommended for approval by the Traffic Authority.
- ◆ **Step 5** – Once approved by the Traffic Authority, a final design is developed by DPW.
- ◆ **Step 6** – Approved projects are prioritized for inclusion in the Capital Improvement Program according to the priority scoring criteria developed under Tier 1 and available funding.
- ◆ **Step 7** – The DPW constructs the traffic calming device.
- ◆ **Step 8** – The traffic calming device is evaluated 6 months after installation and modified if necessary.

3.2.3 New Developments

Applicants for new subdivisions or other residential developments are encouraged to integrate traffic calming strategies into the site plan. Slow points should be constructed at regular intervals of 600 to 1,000 feet and, where possible, street parking and landscaping should be used to reduce the visual impact of roadways.

For new commercial developments, buildings should be placed on or close to the roadway so as to create a pedestrian-scale environment and a sense of visual enclosure that encourages lower speeds and increased driver awareness. Street furnishings such as street lights, signs, and fencing should be of a pedestrian scale and placed close to the roadway, but should remain out of the travelled way as to avoid potential contact with passing and turning vehicles. Street lamp heights of approximately 12 to 15 feet signal to drivers that they are in a pedestrian environment.

Benches, trash receptacles, bus shelters and other pedestrian amenities can be placed adjacent to the roadway to enhance the pedestrian environment. Care should be taken that space is allowed for opening car doors and for ADA compliance. Parking should be provided on-street or at the rear of buildings with several access points for vehicles and mid-block pedestrian walkways to parking areas. Members of the City Traffic Engineering staff are available to consult on the preferred methods of achieving the goals of this program.

3.2.4 Removal of Traffic Calming Devices

Traffic calming devices may be removed if the DPW determines they are ineffective or unsafe, or if they have created a negative impact that cannot be corrected. Removal of traffic calming devices may be requested by the neighborhood if they present a petition to the Director of Public Works with the signatures of 67% of the property owners. The final decision to remove the Traffic Calming Devices will be by the Traffic Authority. Streets from which devices are removed shall not be considered for further calming measures for a period of five years after the device is removed, unless initiated by the DPW to address specific safety concerns.

3.3 Tier 1 Process

3.3.1 Project Initiation

Implementing effective traffic calming measures in a neighborhood requires collaboration between community and governmental entities including Public Works, the Traffic Authority, and the Police and Fire Departments. Residents are encouraged to work through existing neighborhood associations as this allows for better communication and exchange of information.

Residents are asked to first visit the Norwalk DPW Website and utilize an on-line “Traffic Calming Toolbox” so that they can better understand the process associated with requesting traffic calming in their neighborhood and to determine if traffic calming is appropriate.

The traffic calming process begins once the Director of Public Works receives a request from a neighborhood group to initiate a study. The form must include a description of the existing problem and the names and signatures representing at least 50% of



households on the street requesting traffic calming, who are in support of installing traffic calming measures. Persons or groups interested in traffic calming along pedestrian or other routes that may extend beyond their street of residence, should contact DPW for a determination of the required petition area.

A blank Neighborhood Request Form is provided in Appendix A. The form may also be obtained from the DPW page of the City's website at <http://www.norwalkct.org/index.aspx?nid=19>.

3.3.2 Threshold Criteria

All applications will be reviewed by the Traffic Calming Advisory Committee (TCAC). To be eligible for the development of a physical Traffic Calming Plan, the road or street segment must meet the following threshold criteria:

- ◆ Street must be accessible to the public, maintained and classified as a Local Road by the City of Norwalk. A limited number of devices are eligible for use on roads classified by the City as collectors or arterials. Speed humps or other devices designed to cause an abrupt change in direction will not be allowed on collector or arterial roadways. Privately owned roadways are not eligible. State roadways may be eligible depending on its classification and volumes. Any traffic calming on state roads would be done in cooperation with ConnDOT via the TCAC.
- ◆ Streets must not have more than two travel lanes.
- ◆ Streets must have a posted speed limit of 35 mph or less.
- ◆ Streets must be primarily residential and not serve as the primary access to commercial or industrial areas.
- ◆ Speed humps or raised crosswalks will not be installed on primary emergency response routes.
- ◆ Traffic volumes must exceed 1,000 vehicles per day or 100 vehicles during the peak hour.
- ◆ A Traffic Speed Study must show that speeding is a problem based on the standard of an 85th percentile speed of at least 6 mph over the posted speed limit.

Roads or Street segments that do not meet these qualifications cannot be considered for the development of a Tier 2 physical traffic calming plan. The DPW and the Police Department will assist with Tier 1 educational and enforcement methods of reducing speed to the best of their ability.

3.3.3 Data Collection

Once DPW staff understands the scope of the problem in terms of geography and road use, the next step is to determine the boundaries of the study area and collect data

which will be compared to the threshold criteria. Depending on the areas of concern to be analyzed, some or all of the following data will be collected:

- ◆ Traffic Volume Counts (Peak and 24-hour)
- ◆ ATR Speed Studies (85th percentile)
- ◆ Origin/Destination Studies
- ◆ Resident Opinion Surveys
- ◆ Field observations
- ◆ Reported accidents within the last 3 years
- ◆ Other, to be identified as needed

DPW Staff will review the results of the data collected and compare with the established criteria for identifying traffic problems. They will also add the data to the traffic calming database for reference and program review.

3.3.4 Prioritization and Resource Allocation

Limited funding is available for traffic calming and should be allocated to those areas with the greatest need and where the use of traffic calming can have the greatest effect. Applications will be prioritized based on a series of criteria including speed, volume, accident history, proximity to schools, etc. as described in the Exhibit 3-1 below. Neighborhood traffic calming projects that are not selected for funding in the upcoming fiscal year remain eligible for funding in future years.



Exhibit 3-1 Priority Scoring Guidelines

| Criteria | Definition | Value | Points |
|------------------------------------|---|----------------|--------|
| Average Daily Traffic Volume (ADT) | Traffic volumes are measured for an average 24 hour period on a single street in the traffic calming area. | <1000 | 0 |
| | | 1000-1500 | 1 |
| | | 1500-2000 | 2 |
| | | 2000-3000 | 3 |
| | | 3000-4000 | 4 |
| | | >4000 | 5 |
| Peak Hour Traffic Volumes | Traffic volumes are measured during the peak hour for both directions on a single street in the traffic calming area. | <200 | 1 |
| | | 200-250 | 2 |
| | | 250-300 | 3 |
| | | 300-400 | 4 |
| | | >400 | 5 |
| Percentage of Cut-through Traffic | Percentage of traffic without an origin or destination within the study area versus the total peak hour traffic entering/exiting the area. | <20% | 1 |
| | | 20%-40% | 2 |
| | | 40%-60% | 3 |
| | | 60%-80% | 4 |
| | | >80% | 5 |
| 85 th Percentile Speed | Measured speed at which 15% of vehicles exceed. Scoring based on mph over the posted speed limit. | 6-7 | 1 |
| | | 8-9 | 2 |
| | | 10-12 | 3 |
| | | 13-15 | 4 |
| | | >15 | 5 |
| Accidents | Number of reported accidents, correctable by traffic calming on the project street in the last three years. | <5 | 1 |
| | | 6-9 | 2 |
| | | 10-12 | 3 |
| | | 13-15 | 4 |
| | | >15 | 5 |
| Pedestrian Generators | Public and private facilities on or near the project street, such as schools, parks, community houses, senior housing, etc., which generate a substantial amount of pedestrian traffic. | >1 mile | 1 |
| | | 3/4 - 1 mile | 2 |
| | | 1/2 - 3/4 mile | 3 |
| | | 1/4 - 1/2 mile | 4 |
| | | < 1/4 mile | 5 |
| Public Support | For DPW neighborhood surveys one additional point is given for every 5% of households supporting the proposed plan over 70% | 75%-79% | 1 |
| | | 80%-84% | 2 |
| | | 85%-89% | 3 |
| | | 90%-95% | 4 |
| | | >95% | 5 |

3.3.5 Public Involvement

Being a neighborhood based program, any proposed calming measure within an affected area requires a significant level of community input and support. Residents may have

strong opinions and emotions about any actions that affect the appearance and condition of streets in their neighborhood.

Once an application is accepted and the data collection is complete, the DPW staff will present its findings and solicit input on Tier 1 calming measures. For complex projects, a neighborhood advisory committee will be formed to work with DPW on the development the traffic calming plan.

3.4 Tier 2 Process

3.4.1 Public Approval Process

Before an application for a Tier 2 traffic calming device can be submitted to the Traffic Authority for approval, the DPW will conduct public outreach to gauge support for the proposed action. Surveys will be mailed to every household within the designated study area. If at least two thirds of all households within the designated area complete and return the original survey form indicating support of the proposed plan, then the plan will be presented to the Common Council for approval.

If at least two thirds of the households do not return affirmative surveys, the request may not proceed. For the purposes of this program, a household is defined as any owned or rented living unit with its own street address, regardless of how many people live in each unit. Each survey will represent one household.

The designated area will be determined by the Director of Public Works or designee to include residences on the proposed street, as well as residences on all streets that have major access to the street where the traffic calming device is installed. The DPW will work with the neighborhood, as well as police, fire and rescue services to select appropriate traffic calming measures for each location, and implementation will be based on priority ranking and available funding.

3.4.2 Design of Physical Devices

Traffic calming measures should be designed using recognized standards and practices of the Institute of Transportation Engineers, AASHTO, and the Connecticut Department of Transportation. Traffic calming designs shall conform to the Manual on Uniform Traffic Control Devices and Regulations of the State Traffic Commission. In addition, the devices should meet the City of Norwalk's specifications and details.

3.4.3 Temporary Installations

Temporary installations allow residents, bicyclists, emergency personnel and other street users to "try before they buy" and determine if a given traffic calming measure is



effective before the City pays for construction of a permanent device. These temporary installations may include portable speed humps and striping, cones and/or delineators to mark out the location of bump-outs, islands, chicanes and traffic circles. When appropriate, the City of Norwalk may set up temporary installations of Tier 2 traffic calming devices, subject to an assessment of impacts and support of the residents, for a period of up to six months before approving a permanent installation.

These installations may be used to evaluate the effectiveness of a proposed physical alteration to the roadway or to ensure the ability of Fire Department equipment or other vehicles to safely negotiate the altered roadway. Most importantly, this trial period allows residents time to adjust to the device and decide whether it is something they would like to be a permanent part of their neighborhood. In some cases, residents who



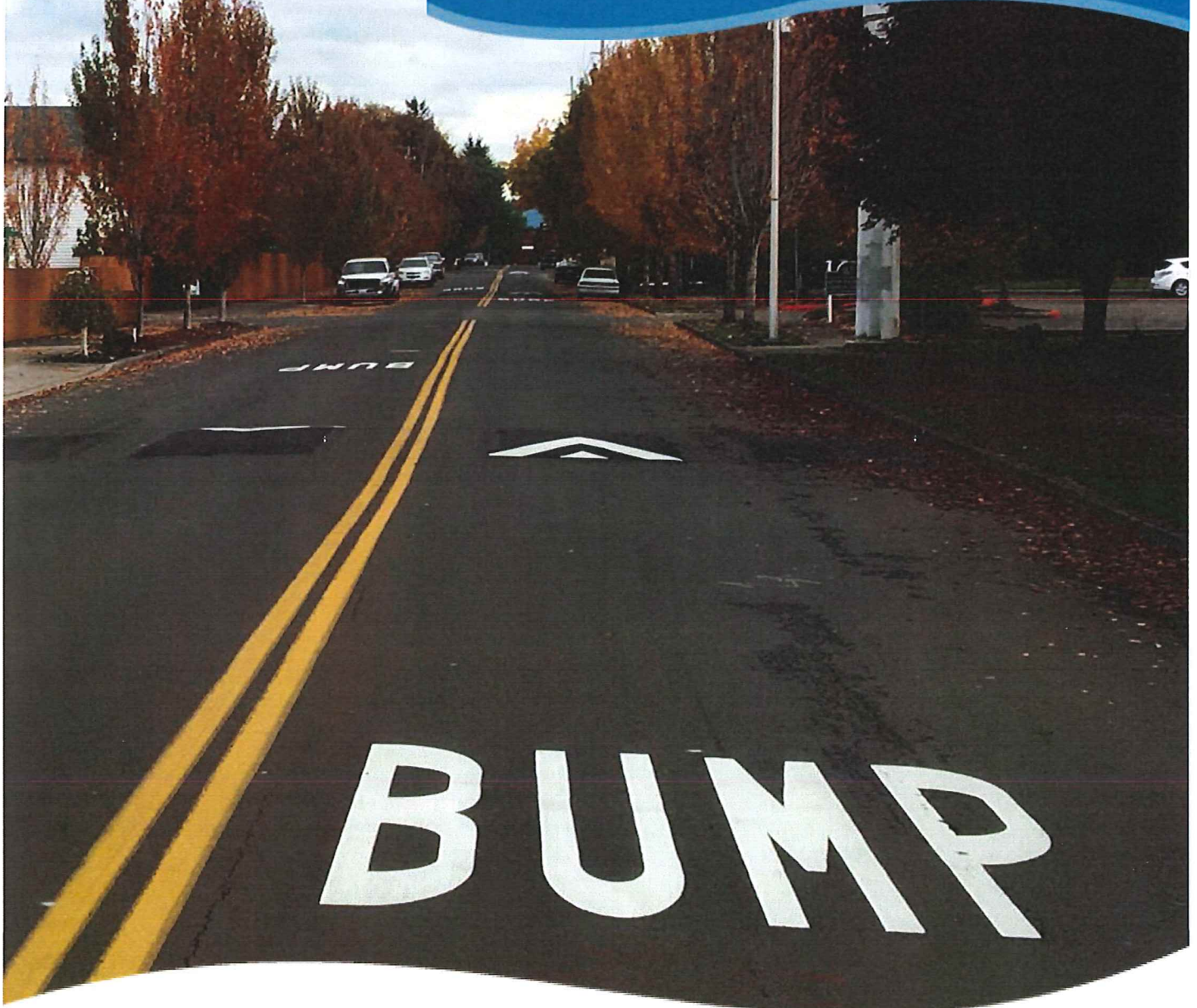
support a traffic calming project may raise objections to the noise generated by vehicles driving over a speed hump in front of their house day and night. Other times those who initially oppose a project come to support it after they are allowed to drive through the traffic calming device themselves. It should be noted that while temporary devices help determine the resulting travel speed and traffic volume changes, they are not often aesthetically pleasing.

3.4.4 Effectiveness Review

Six months after construction is complete (depending on weather conditions), the DPW will evaluate the effects of the project with a follow-up Traffic Study and an evaluation of any complaints, or compliments received. If any unacceptable or non-mitigatable impacts are identified, corrective measures will be reviewed by the DPW and the Traffic Calming Advisory Committee (TCAC) and recommended to the Common Council.

City of Vancouver Neighborhood Traffic Calming Program

2018



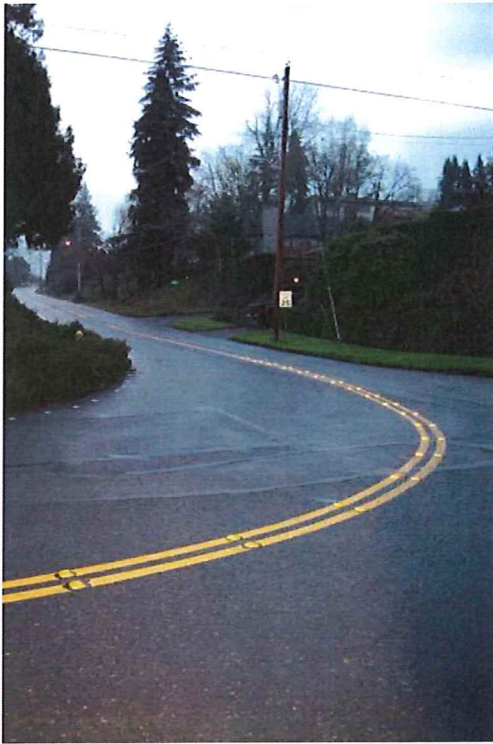
Americans with Disabilities Act (ADA): Individuals requiring reasonable accommodation for information above may request written materials in alternate formats, sign language interpreters, physical accessibility accommodations, or other reasonable accommodation. Contact the project manager, Jennifer Campos at 360-487-7728 between 8 a.m. and 5 p.m.

Title VI Statement: The City of Vancouver ensures full compliance with Title VI of the Civil Rights Act of 1964 by prohibiting discrimination against any person on the basis of race, color, national origin, or sex in the provision of benefits and services resulting from its federally assisted programs and activities. For questions regarding the City's Title VI Program, contact Chris Malone, Senior Civil Engineer, at 360-487-7130.

Este informe contiene información importante. Pídale a alguien que se lo traduzca o llame Jennifer Campos, 360-487-7728.

В данном отчете содержится важная информация. Попросите кого-нибудь перевести ее для вас или звоните Jennifer Campos, 360-487-7728.

Báo cáo này có thông tin bổ sung về dự án. Hãy nhờ người khác giải thích cho quý vị hoặc gọi cho Jennifer Campos, 360-487-7728.



Program Contacts

2018 program approval by the Neighborhood Traffic Safety Alliance anticipated for March 20, 2018.

Program originally endorsed by the Neighborhood Traffic Safety Alliance on November 20, 2012, and endorsed and initiated by the City of Vancouver in January 15, 2013.

City of Vancouver

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City staff can assist project applicants in determining the most appropriate traffic calming tools for their traffic concerns and can provide information and guidance on how to move a proposed project through the Neighborhood Traffic Calming Program process.

Neighborhood Traffic Safety Alliance

Ross Montgomery
Chair
360-281-9948
MontRE2ECS@aol.com
www.cityofvancouver.us/NTSA

THE UNIVERSITY OF CHICAGO
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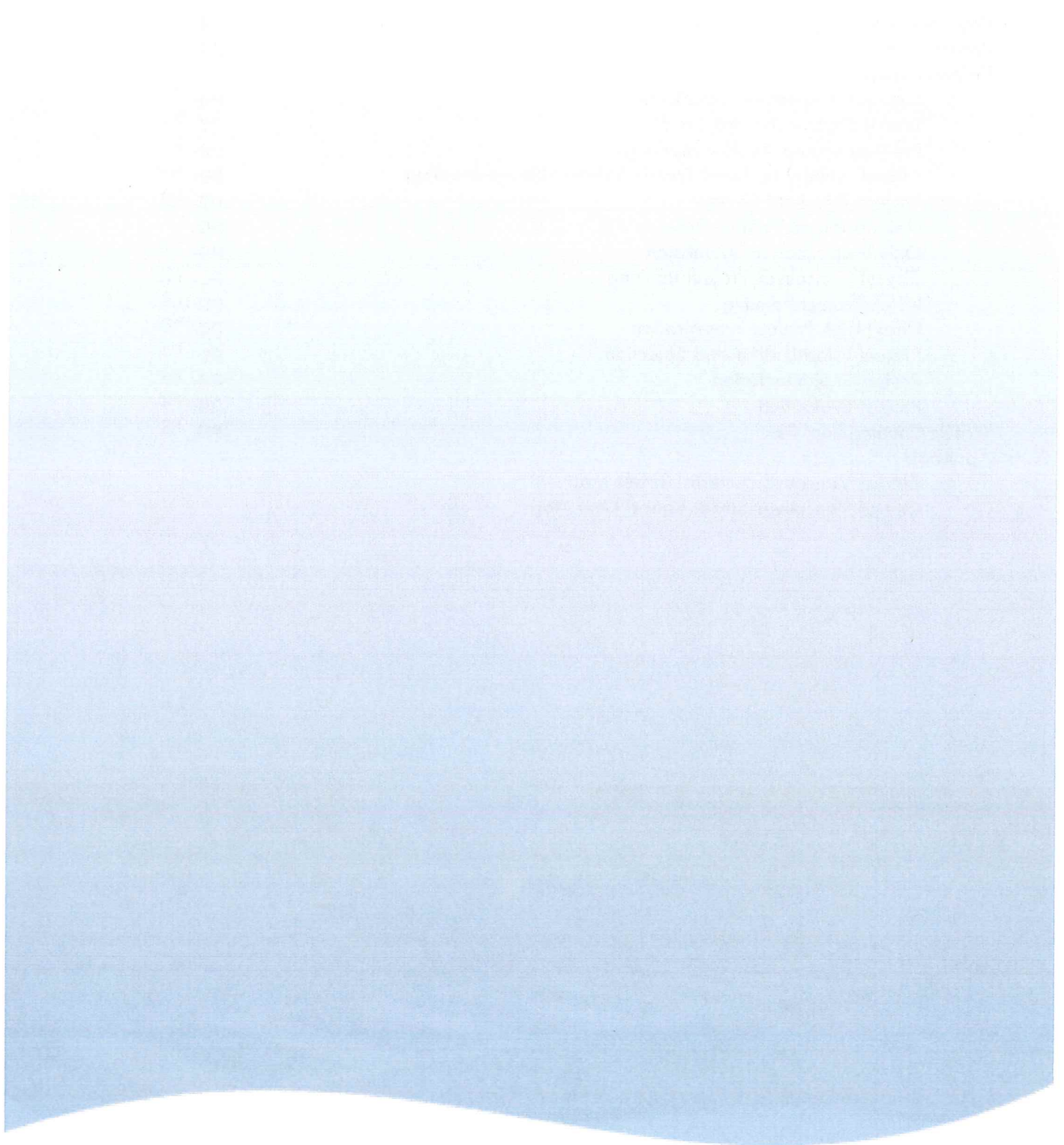
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Neighborhood Traffic Calming Program Overview

Increased driver speeds and high traffic volumes can affect the livability and safety of neighborhoods throughout Vancouver. To improve the existing quality of life and meet future needs, a citywide approach to neighborhood traffic management is needed to address safety concerns. The focus of this program is to address high priority needs within neighborhoods that have documented speed, safety or traffic issues.

Working in partnership with the Neighborhood Traffic Safety Alliance (NTSA), the City of Vancouver has developed a Neighborhood Traffic Calming Program to address the on-going needs of residents who want to improve safety and create more walkable and livable neighborhoods. The City is looking for projects that are efficient, low maintenance, long-lasting, and in some cases provide creative solutions to directly address identified speed, safety or traffic concerns.

The anticipated funding for the 2018 Neighborhood Traffic Calming Program will be available through a combination of City of Vancouver general fund revenue (\$60K), Real Estate Excise Tax (\$110K) and Street Funding revenue (\$100K), providing a total 2018 approximate budget of \$270,000. The funding allocations from the Real Estate Excise Tax (REET) can vary (increase or decrease) each year due to current economic conditions, so the City may adjust the program funding level as needed.

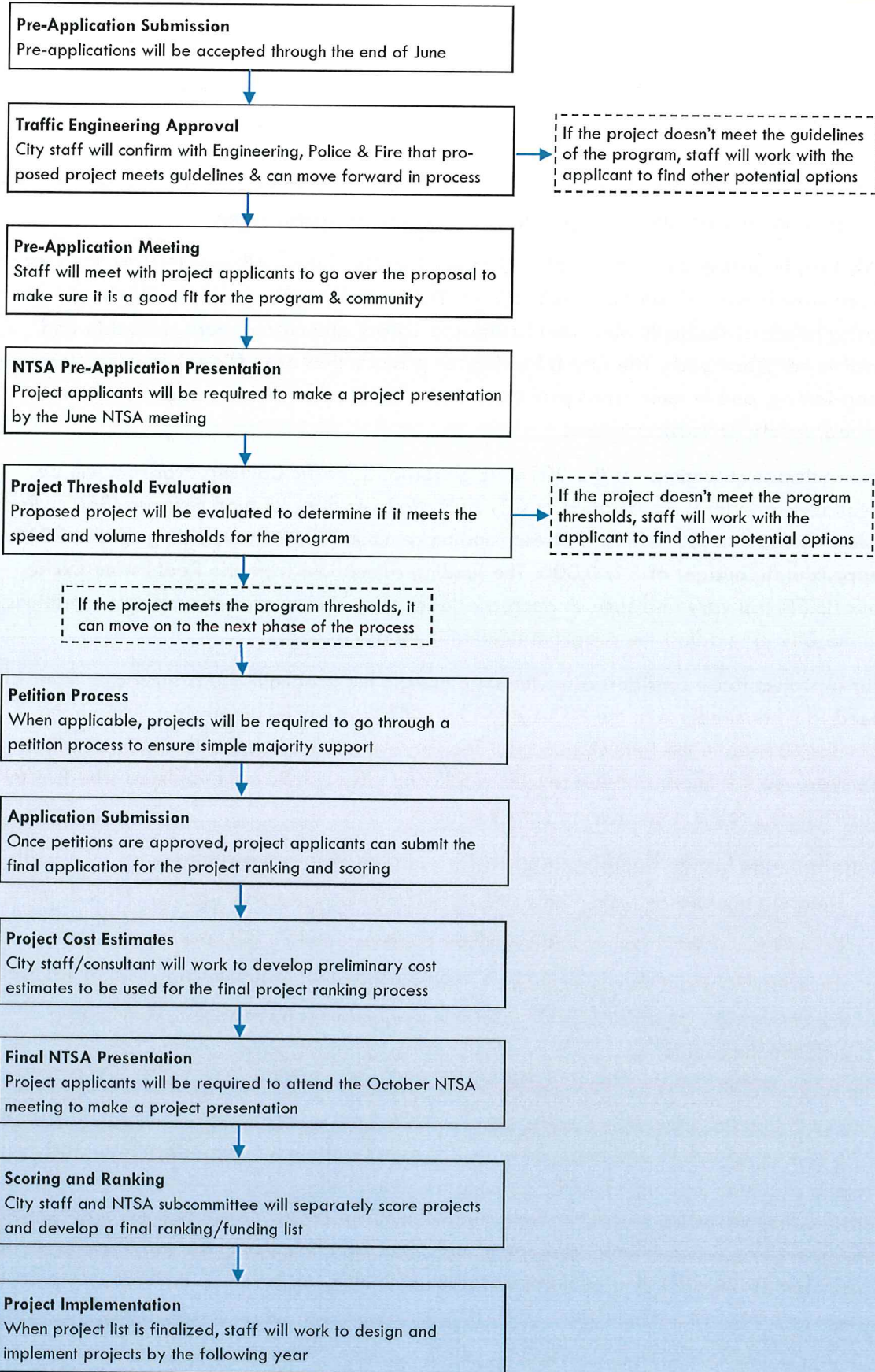
For a project to be considered for funding through the program, the project applicant will need to work closely with the NTSA and City staff to advance the project through the process outlined in the following pages. The City will accept applications only one time per year, so it is important that project applicants closely follow the outlined schedule to ensure their project is considered for all phases.

Requirements for the Neighborhood Traffic Calming Program include:

- Neighborhoods may submit only one application per program year
- Preliminary project cost estimates will be capped at \$120,000 per project
- Infrastructure projects will be limited to only residential and collector arterial streets
- Infrastructure and radar/school zone sign projects must meet speed, volume and petition thresholds

The process outlined in this document lays the groundwork for making sure projects that reach the final prioritization process are 1) well supported by the community and 2) meet a basic level of safety and need criteria. The chart on the next page details the different steps in the Neighborhood Traffic Calming Program. Following that is the 2018 program timeline that shows the amount of estimated time for each step in the process and specific due dates for process elements. Many of the steps run concurrently, so the timelines shown should not be considered a cumulative timeline from the beginning to the end of the process.

Program Steps



2018 Traffic Calming Program Process Timeline

| Program Elements | Jan 16 | Feb 20 | Mar 20 | Apr 17 | May 15 | Jun 19 | July | Aug | Sep 18 | Oct 16 | Nov 20 | Dec |
|--------------------------------|--------|--------|--------|--------|--------|---------|------|----------|--------|--------|--------|-----|
| Submit pre-applications | | | | | | Jun 22* | | | | | | |
| Pre-application meetings | | | | | | | | | | | | |
| Traffic engineering review | | | | | | | | | | | | |
| NTSA presentations | | | | | | | | | | | | |
| Project threshold evaluations | | | | | | | | | | | | |
| Petition process | | | | | | | | | | | | |
| Application submission | | | | | | | | Aug 24** | | | | |
| Project cost estimates | | | | | | | | | | | | |
| Project evaluation and ranking | | | | | | | | | | | | |

* Project pre-applications due June 22, 2018

** Final project applications due August 24, 2018

NTSA Committee will not meet in July, August or December

Neighborhood Traffic Calming Program Steps

1) Submit a Project Pre-Application

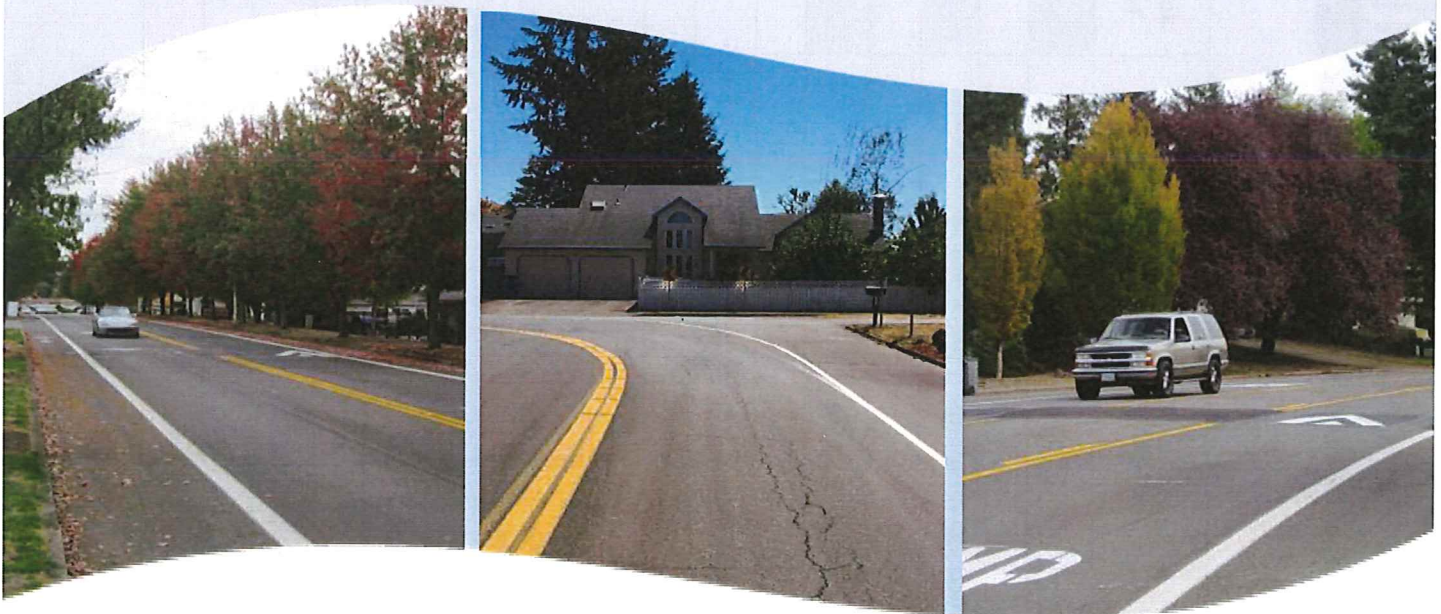
This first step in the program process is to submit a pre-application to the City with a project proposal. It is recommended that project applicants discuss their project with City staff prior to submitting a pre-application to ensure the project proposal is a good fit for the traffic calming program. Pre-applications will be accepted through the ZoomGrants online program which can be found at: www.cityofvancouver.us/TrafficCalmingProgram. Hard copies or electronic versions of the pre-application and application can be made available to project applicants if they are unable to utilize the online grant program.

2) Traffic Engineering Approval

Staff from the City's Public Works Department, Police Department, Fire Department, and Office of Neighborhoods will be part of a project review meeting to ensure projects do not pose negative impacts to fire or police emergency response and properly address the applicant's concerns. A project not approved by City Police or Fire Departments will not be eligible for implementation. The project applicant may be provided the opportunity to revise their proposal if it is found it impacts an emergency response route.

3) Pre-Application Review Meetings

Once City staff have met to review the project proposal, a meeting will be set up between the project applicant and City staff to discuss the project in further detail. If the project has been determined not eligible for the program, City staff will work with the project applicant to discuss other potential options.



4) Attend a Neighborhood Traffic Safety Alliance Meeting

Project applicants will need to attend a Neighborhood Traffic Safety Alliance (NTSA) meeting and make a brief presentation detailing the traffic safety concern and proposed solution. This will provide an opportunity to share concerns and project information with other Vancouver neighborhood leaders who may be able to offer additional input or advice.

5) Project Threshold Review

Once a project has been approved to move forward in the program by City staff after the initial project review, speed and volume counts will then be completed for applicable projects. The count information will be used to determine if the proposed project meets the minimum program thresholds (Table 2). While principal and minor arterials are not eligible for infrastructure projects under this program, signing and striping elements are eligible and have to meet the speed and volume thresholds for the program.

The City will conduct traffic counts during regularly scheduled school hours (if applicable), and the program deadlines have been set with this goal in mind. Traffic Engineering staff decide the placement of the counters, including specific location and length of deployment; counters are typically set out for a 24 hour count period on Tuesday, Wednesday or Thursday. The results will be made available to the project applicant once the counts are completed.

Table 2: Thresholds for Speeds and Volumes

| Street Category | Speed | Volume |
|-----------------------|---|--------------------------|
| Principal Arterials** | 10% or more of drivers going 10 MPH or more over the posted speed limit | > 1,500 vehicles per day |
| Minor Arterials** | 85%* speed is 5 MPH or more over the posted limit | > 1,500 vehicles per day |
| Collector Arterials | 85%* speed is 5 MPH or more over the posted limit | > 1,500 vehicles per day |
| Local Streets | 85%* speed > 30 mph | > 500 vehicles per day |

*The 85th percentile is a traffic engineering standard used to determine the predominant speed for a street. The measurement shows the speed at which 85 percent of drivers are comfortable driving at or below and is the typical standard used for setting street speed limits.

**Principal and minor arterials are only eligible for signing and striping projects and must meet the program thresholds

6) Neighborhood Petition Process

If a traffic calming device project meets the thresholds for speed and volume, the next step in the program is to initiate the petition process, as determined by City staff. In most cases, petitions will only be required if the project includes in-roadway infrastructure improvements such as speed cushions or raised crosswalks as well as radar feedback or electronic school zone signs. The project applicant must complete this step before a project will be considered for funding to ensure that there is enough neighborhood project support for the proposed project.

City staff will assist the project applicant by identifying the project impact area for the petition process. The applicant will then have two options for carrying out the petition process: 1) City staff can mail a postcard with a tear-off, self-stamped petition postcard or 2) project applicants can choose to contact property owners/residents on their own. If project applicants choose to move forward on their own, City staff can provide a petition template and property site address information.

A simple majority of support by property owners in the identified project impact area is required for a project to move forward in the program. Only one signature per address is required and any additional signatures from a single address will not be considered. In cases where signatures are received from both a renter and the property owner, the City will consider the property owner's petition in lieu of the renter's.

If a project does not receive enough supportive signatures to meet the simple majority requirement, the project will not move forward in the process. The City will then work with the project applicant regarding next steps to address their traffic issue or concern. The petition process cannot be repeated until a year after the original petition date.

7) Online Application Submission

The City of Vancouver has developed an online application that project applicants are required to fill out for their project to be considered in the next phase of the process. The application will be available on-line at www.cityofvancouver.us/TrafficCalmingProgram, but will only be accepted if the project has been taken through the previous steps. If for some reason project applicants are unable to fill out the on-line application form, the City can provide electronic or hard copies of the documents.



The on-line application allows for project applicants to submit photos, supporting documents, and other materials that may be helpful in providing information on the proposed project. Additional documentation or materials will not be accepted after the application deadline.

8) City of Vancouver Project Ranking

Once the online applications are received, City staff will review applications to ensure the information is complete and accurate. The City will then evaluate and rank the projects based on the set of criteria outlined below. These project scores will later be combined with the scores from the NTSA project review panel process to develop a prioritized list of projects. The criteria and their associated points are shown in Table 3.

Table 3: City of Vancouver Project Evaluation Criteria

| Criteria | Max Points | Basis for Scoring |
|---------------------------|------------|---|
| Speed | 25 | $(85\% \text{ speed} - \text{posted speed}) \times 2 \text{ pts.}$ |
| Volume | 10 | 1 pt. for every 200 vehicles per day |
| Sidewalks | 10 | 10 pts. no sidewalk, 5 pts. sidewalks 1 side, 0 pts. sidewalks both sides |
| Bike Lanes | 5 | 5 pts. if no bike lanes |
| Vicinity to School | 10 | 5 pts. for each school within $\frac{1}{4}$ mile of project area |
| School Walk Route | 10 | 10 pts. if project is along a school walk route |
| Transit/ School Bus Stops | 10 | 5 pts. if bus stops within $\frac{1}{4}$ of a mile from project area |
| Collisions | 20 | 10 pts. Per collision related to traffic concern in the last 3 years |

9) NTSA Project Ranking

The NTSA project review will occur either in conjunction with or just following the City's project review and ranking. Every year, the NTSA will assign a project ranking panel that will consist of no fewer than three (3) members, with panelists being a primary or alternate representative of a member neighborhood association in good standing with the NTSA. The panelists will be nominated and elected by representatives of NTSA members in good standing, and alternates will be identified in the same manner in case a panelist resigns or is unable to perform their duties. Panelists will be barred from ranking projects located within their own neighborhoods.

Program Steps

The NTSA project review panel will use the criteria listed below, with 60 points being the maximum score (evaluators are to start at zero and award points accordingly):

1. How well was the problem explained (3 points), documented (3 points) and observable (4 points)?
2. From the current tools available in the TCP Tool box, how well does the project's component(s) address the traffic issue in the short term (4 points) and long term (6 points)?
3. Who (such as pedestrians, bicyclists, motorists and property owners) will benefit from the project (6 points)? Are specific individuals identified who would benefit from the project (4 points)?
4. How strongly have the general neighborhood and adjacent residents/property owners demonstrated support for the project (4 points)? Is the project supported in the Neighborhood Action Plan or some other plan/study (2 points)? Has the project received recent endorsements from area organizations, such as the neighborhood associations, service organizations, schools, etc. (4 points)?
5. In comparison with the other projects in the same funding category (striping/signage or infrastructure/signaling), how high is the priority for this project (20 pts.)? Due consideration should be afforded to those projects which have ranked high in prior years, but were not funded.

10) Final NTSA Project Presentation

Project applicants will need to attend the October NTSA meeting to make a brief presentation detailing the traffic safety concern and proposed solution. This will provide an opportunity to share information about the project to the NTSA project review panel.



11) Project Prioritization and Selection

When all scores from the NTSA project review panel have been submitted, they will be combined with the City's scores to prioritize the projects based on the total City and NTSA scores. Upon acceptance of the combined scores by the NTSA, the prioritized project list will then be matched up with available funding to determine how many projects will receive funding. In most cases, not all projects will be chosen as there is a limited amount of funding for the City's traffic calming program.

Projects that are not selected due to funding restraints may be rolled over into the next year's project selection process. If it is not funded within those two cycles, the project will be removed from the list. Additional projects may be funded beyond the final project list if supplementary funding is made available to the program or a surplus of funds remain after the initial projects are constructed.

12) Project Implementation

Once the final project list is approved, City staff will meet with each of the project applicants to review design elements. Any feedback received through this review will be used to make final edits and changes to the design plans. The City will then schedule the projects into the next year's construction timeline for implementation.







13) Project Evaluation

As a tool to evaluate the effectiveness of a traffic calming project once it has been implemented, a follow-up evaluation process may be used depending on the project type. For projects that include a traffic calming device or activated sign, a traffic count will be conducted one year after the project has been completed. The post traffic count will use the same process as the previous project speed/volume threshold review.







For signing and striping projects, or to gather additional information on a traffic calming device or activated sign project, a resident survey tool can be used. City staff has developed a survey that can be sent out to residents or used in a meeting to obtain feedback regarding the process, community perception, project communications or overall expectations.



Tool Box

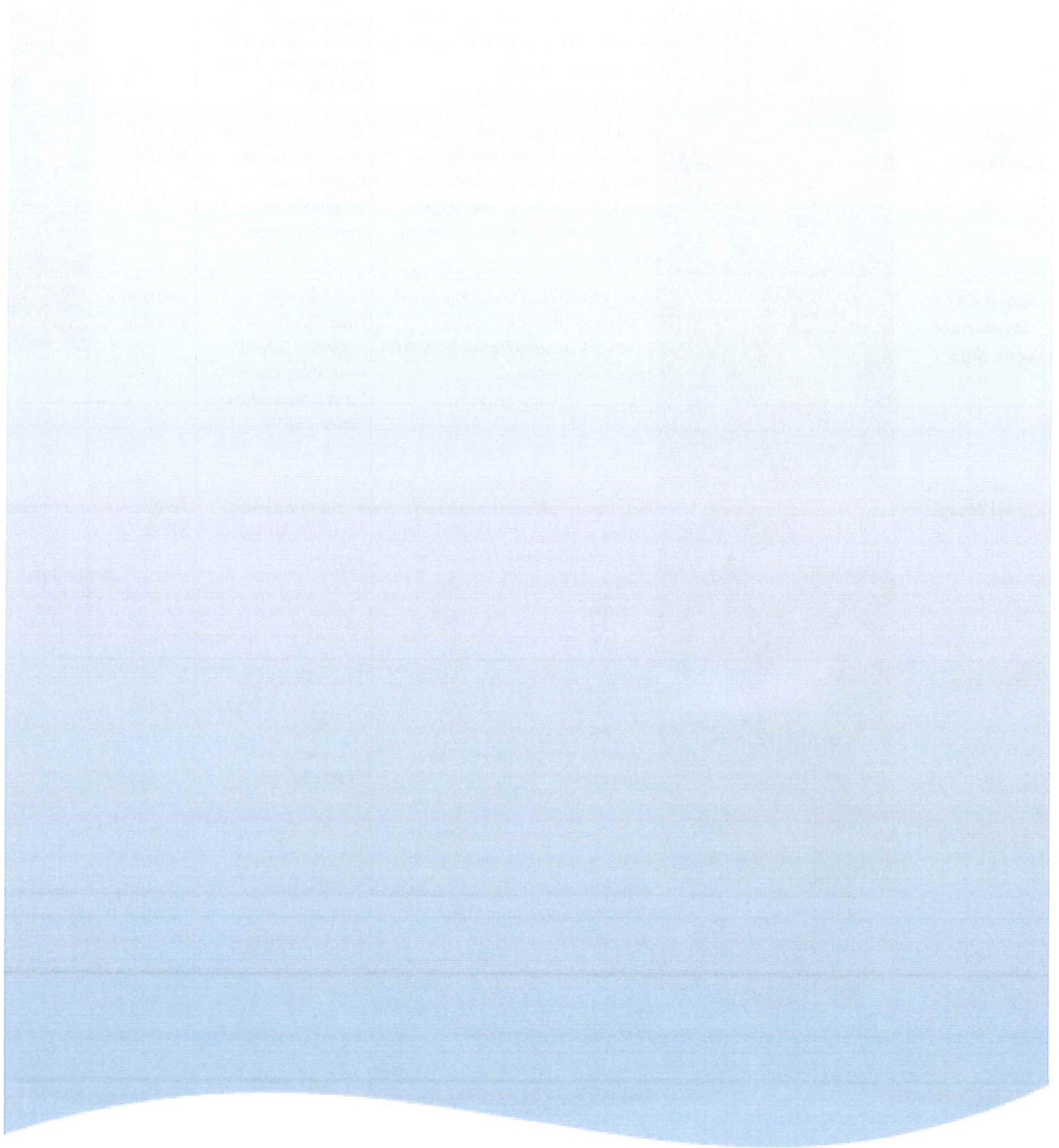
| Tool | Example | Description | Implementation | Conceptual Cost |
|--|---|---|---|---------------------|
| Crosswalks* |  | Adding ladder-style crosswalks to intersections or mid-block crossings | Requires approval from City Traffic Engineer. Curb ramps must be in place for crosswalks to be striped. | \$5,000 - \$10,000 |
| Choker/ Chicanes |  | Narrowing of the roadway by extending curb lines into the street area using striping or infrastructure to narrow the roadway. | Requires approval from City Traffic Engineer | \$5,000 - \$25,000 |
| Pedestrian Crossing Flashing Beacon Signs* |  | A set of two permanent signs that are push-button activated with flashing beacons to alert drivers of people crossing the street | Requires approval from City Traffic Engineer | \$40,000 - \$50,000 |
| Pedestrian Refuge Islands/ Medians/Entry Treatments |  | Physical devices placed in the middle of the roadway that typically provide landscaping opportunities | Requires approval from City Traffic Engineer | \$15,000 - \$20,000 |
| Raised Crosswalk |  | Speed hump that can be used in very limited circumstances for school crossings | Requires approval from City Traffic Engineer and completion of petition process | \$10,000 - \$15,000 |
| Roadway Striping* |  | Using lines, stencils or raised pavement markers to add bike lanes, center lines, fog lines or other markings to narrow the roadway and provide improved safety for people walking and biking | Requires approval from City Traffic Engineer | \$1,000 - \$15,000 |

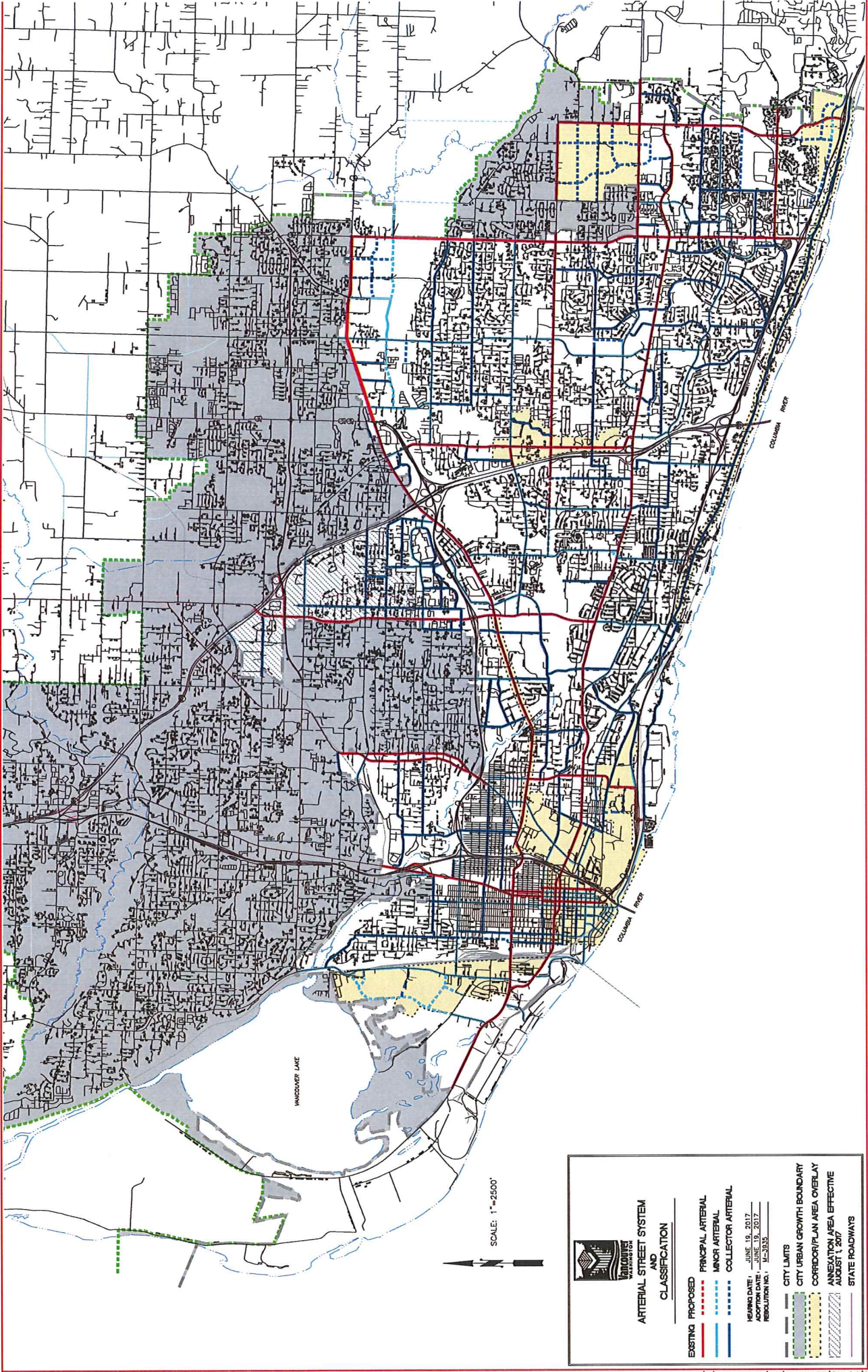
* Principal and Minor Arterials are eligible for these tools only

| Tool | Example | Description | Implementation | Conceptual Cost |
|------------------------------------|---|---|--|---------------------|
| Signs* |  | Signs can be added that supplement already existing conditions such as a school, park or bicycle/pedestrian crossing. Signs can also show drivers where they should yield or remind them of the existing speed limit. <i>(Stop signs are not eligible)</i> | Requires approval from City Traffic Engineer. NOTE: Stop signs are not used to slow traffic and will not be considered under this program. | \$1,000 - \$1,500 |
| Speed Cushions |  | Similar to a speed hump, but cushions are broken into two or three pieces to allow buses or emergency vehicles with larger wheel bases to pass over without impact | Requires approval from City Traffic Engineer and completion of petition process | \$5,000 - \$15,000 |
| Speed Radar Sign/School Zone Sign* |  | A set of two permanent signs that either provide radar speed feedback or school zone 20 MPH speed information | Requires approval from City Traffic Engineer. School zone signs must have approval from school district. | \$40,000 - \$50,000 |
| Street Murals* |  | Neighborhood or residents can create a design to be painted in an intersection or other areas. Can be used in conjunction with other elements. | Requires approval from City Traffic Engineer. | \$500- \$700 |
| Street Trees* |  | Adding trees to planter strips to visually narrow the roadway. Can be used in conjunction with other elements such as choker or curb extensions. | Typically involves working with Friends of Trees to coordinate tree plantings | \$1,000 - \$5,000 |
| Traffic Circles |  | A round island in the middle of an intersection used as a tool to slow entering and exiting traffic along with providing landscaping opportunities. | Requires approval from City Traffic Engineer and completion of petition process. | \$5,000 - \$15,000 |

* Principal and Minor Arterials are eligible for these tools only

Appendix





ARTERIAL STREET SYSTEM AND CLASSIFICATION

EXISTING

- PRINCIPAL ARTERIAL (Red solid line)
- MINOR ARTERIAL (Blue solid line)
- COLLECTOR ARTERIAL (Blue dashed line)

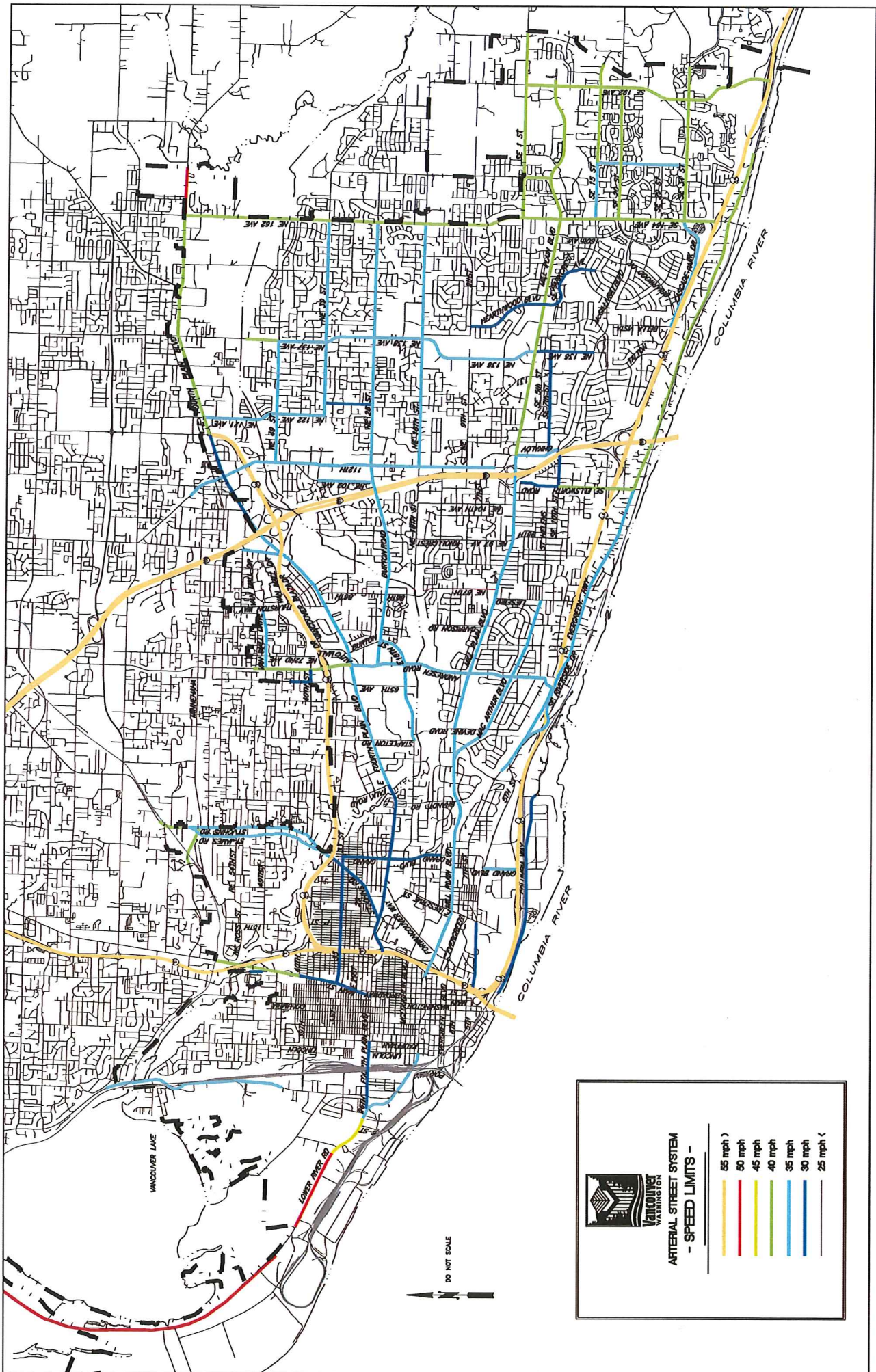

PROPOSED

- PRINCIPAL ARTERIAL (Red dashed line)
- MINOR ARTERIAL (Blue dashed line)
- COLLECTOR ARTERIAL (Blue dotted line)

HEARING DATE: JUNE 19, 2017
 ADOPTION DATE: JUNE 19, 2017
 RESOLUTION NO.: 12-3030

CITY LIMITS

- CITY URBAN GROWTH BOUNDARY (Grey shaded area)
- CORRIDOR/PLAN AREA OVERLAY (Yellow shaded area)
- ANNEXATION AREA EFFECTIVE AUGUST 1, 2017 (Green dashed line)
- STATE ROADWAYS (Black line)

**ARTERIAL STREET SYSTEM
- SPEED LIMITS -**

- 55 mph (Red line)
- 50 mph (Orange line)
- 45 mph (Yellow line)
- 40 mph (Light Green line)
- 35 mph (Green line)
- 30 mph (Blue line)
- 25 mph (Black line)

CITY OF ASHLAND

Transportation Commission **Action Item List**

April 18, 2019

Action Items:

1. Super Sharrow analysis for downtown (**no change**)
2. TSP Update and Internal Circulator Feasibility Analysis
 - g. Nelson Nygaard presented technical memo #2 to the Transportation Commission at the October 18, 2018 regular meeting
 - h. RVTD will present update on their long term 2040 master plan update and statewide transportation improvement funds that will be available for enhanced transit in the region at the November 15, 2018 regular meeting.
 - i. Nelson Nygaard will present technical memo #3 and complete findings to the Transportation Commission at the December 20, 2018 regular meeting
 - j. Staff presented a request to City Council for a letter of support for a micro-transit demand response pilot project grant to be submitted by RVTD. Council approved providing a letter of support. (January 2019)
 - k. RVTD applied for micro-transit grant, outcome should be known by August 2019**
3. Main St. Crosswalk truck parking (**no change**)
4. Citizen request for speed and volume analysis on Bellview along with traffic calming for right hand turn movements onto Bellview from Siskiyou Blvd. (**no change**)
5. Siskiyou Blvd: and Sherman St. intersection issues
6. Iowa St. safety concerns
 - k. 4-way stop and crossing striping installed at the Garfield and Iowa St. intersection. Additional curb striping to occur at intersections of Avery and Bridge to increase crossing site distance. Staff still looking at installing a marked crosswalk at these locations with appropriate lighting and signage.**
 - l. Staff has applied for a safe routes to school grant for sidewalk sections that merge into Iowa St. Iowa St. is not listed in TSP as a priority project and should be amended to include Iowa St. as a priority safe routes to school sidewalk infill project.
 - m. Staff was recently informed the grant application for safe routes to school sidewalk projects**

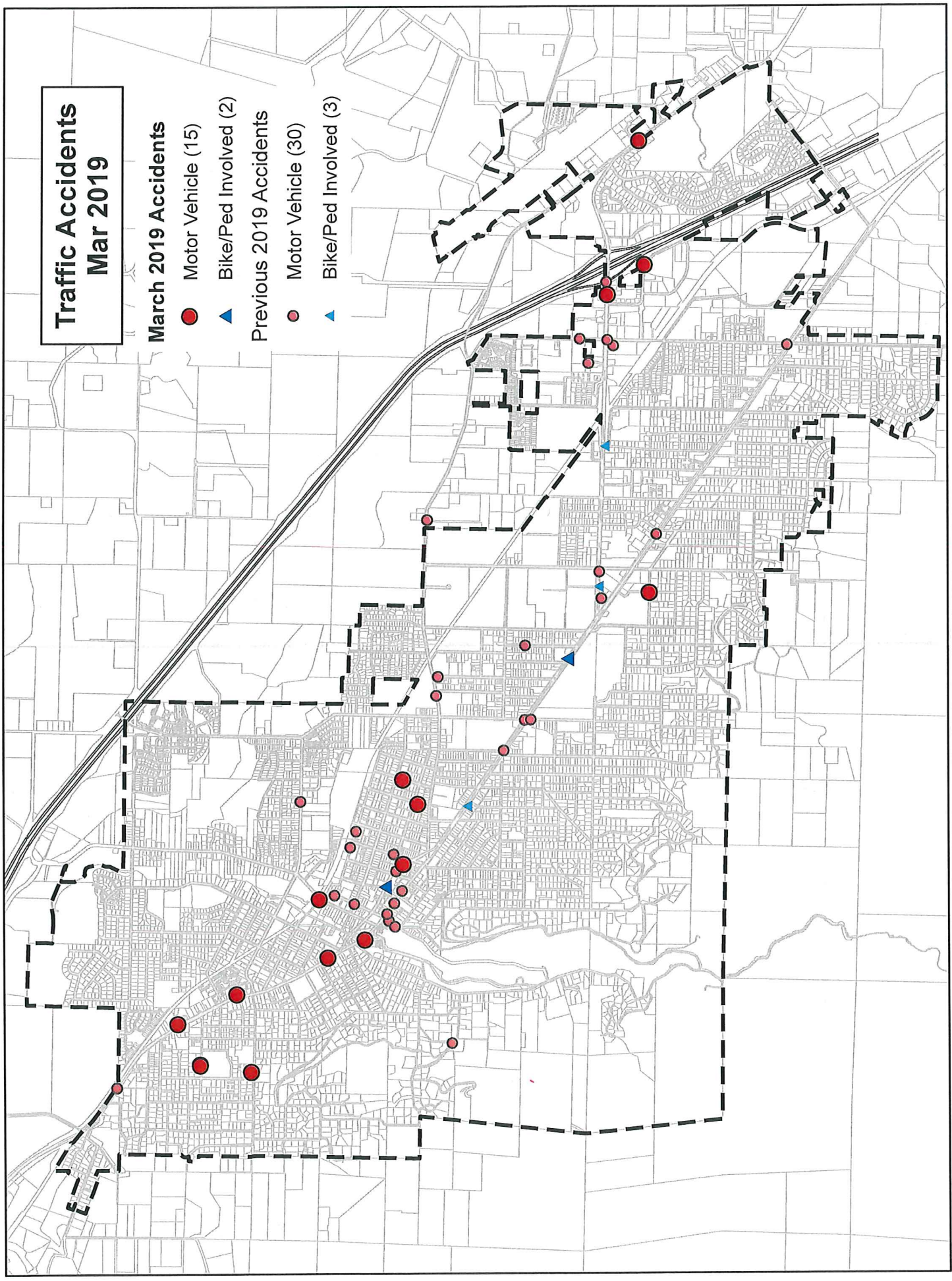
was not successful.

7. Traffic Calming Policy Development
 - a. *The Commission has identified a 2019 goal of working with staff to develop the formal policy.*
8. Siskiyou Blvd. and Tolman Creek Intersection Improvements
 - a. The Oregon Department of Transportation removed median island and restriped Tolman Creek portion of intersection to allow for better right hand turning truck movements.
 - b. *The Oregon Department of Transportation is also looking at curb ramp design changes to the intersection (January 2019).*
9. Crosswalk Policy Development (**no change**)



Traffic Accidents Mar 2019

- March 2019 Accidents**
- Motor Vehicle (15)
 - ▲ Bike/Ped Involved (2)
- Previous 2019 Accidents**
- Motor Vehicle (30)
 - ▲ Bike/Ped Involved (3)



MOTOR VEHICLE CRASH SUMMARY

MONTH: MARCH

NO. OF ACCIDENTS: 17

| Rep | DATE | TIME | DAY | LOCATION | NO. VEH | PED INV. | BIKE INV. | INJ. | DUII | Cited | Police On Site | PROP DAM. | HIT/ RUN | CITY VEH. | CAUSE - DRIVER ERROR |
|-----|------|-------|------|---------------------------------|---------|----------|-----------|------|------|-------|----------------|-----------|----------|-----------|---|
| NR | 4 | UNK | Mon | Maple St near Chestnut St | 2 | N | N | N | N | N | N | N | Y | N | V1 was struck while parked resulting in minor damage. No suspects. |
| NR | 6 | 14:01 | Wed | Seventh St near B St | 2 | N | N | N | N | N | Y | N | N | Y | Dv1, City of Ashland street sweeper, sideswiped parked v2 with the spray nozzle as it passed. Minor damage, Information exchanged. |
| R | 6 | 14:17 | Wed | Washington St near Jefferson St | 1 | N | N | N | N | N | Y | Y | N | N | Dv2 in a semi truck with a trailer was making a wide u-turn in the roadway and struck an electric cabinet causing damage. Information exchanged. |
| R | 7 | 13:26 | Thur | Oregon St at Frances St | 3 | N | N | N | N | Y | Y | Y | N | N | DV1 was struck by dv2 in intersection, v2 then toppled a yield sign, ran over a planter strip and came to rest against v3. Dv2 cited failure to obey tcd, no operator license, no seatbelt, no insurance. Dv1 cited no insurance. |
| R | 9 | 15:08 | Sat | Siskiyou Blvd at Avery St | 2 | Y | N | N | N | N | Y | Y | N | N | Dv1 stopped for ped in crosswalk and was rearended by v2. Information exchanged. |
| R | 9 | 15:29 | Sat | N Main St near Water St | 2 | N | N | N | N | N | Y | Y | N | N | Dv2 backed out of an angled parking spot striking v1 who was stopped in traffic. Dv2 warned about illegal backing. |
| R | 11 | 11:14 | Mon | Maple St near Chestnut St | 2 | N | N | N | N | Y | Y | Y | Y | N | Dv2 backed out of a parking spot and struck v1 then left the area. Dv2 found and cited for hit and run. |
| R | 11 | 15:16 | Mon | Ashland St near I5 | 2 | N | N | N | N | N | Y | Y | N | N | Dv1 in the center turn lane tried to merge into traffic but did not see v2 and sideswiped V2, extensive damage. Information exchanged. |

| Rep | DATE | TIME | DAY | LOCATION | NO. VEH | PED INV. | BIKE INV. | INJ. | DUII | Cited | Police On Site | PROP DAM. | HIT/RUN | CITY VEH. | CAUSE - DRIVER ERROR |
|-----|------|-------|-----|---------------------------|---------|----------|-----------|------|------|-------|----------------|-----------|---------|-----------|---|
| NR | 13 | 9:49 | Wed | Lithia Way near Third St | 2 | N | N | N | N | N | Y | N | N | Y | Dv1, City of Ashland street sweeper, sideswiped parked v2 with the spray nozzle as it passed. Minor damage, Information exchanged. |
| R | 13 | 20:23 | Wed | Oak St at Van Ness Av | 2 | N | N | Y | N | Y | Y | N | N | N | Dv1 operating a moped was traveling at night without lights and was wearing dark clothing. Dv2 did not see v1 and made a left turn, striking v1. Dv1 transported to ACH. Dv1 cited for driving suspended, no insurance and no lighting. |
| R | 17 | 3:23 | Sun | Highway 66 | 2 | N | N | P | Y | Y | Y | Y | N | N | Dv1 was stopped in traffic lane waiting to turn left when dv2 rearended v1. Dv2 arrested for DUII. |
| R | 18 | 19:34 | Mon | N Main St near Bush St | 1 | N | N | N | Y | Y | Y | Y | N | N | Dv reached for mobile phone, lost control, flipped car over and struck light pole. Driver found to be intoxicated and was arrested DUII. |
| R | 22 | 10:26 | Fri | Sixth St near C St | 2 | N | N | N | N | N | Y | Y | N | N | Dv1 struck parked v2. Information exchanged. |
| R | 24 | 10:15 | Sun | Lithia Way at First St | 1 | N | Y | Y | N | Y | Y | Y | N | N | Dv1 made a right turn, striking bicyclist travelling in the bike lane. Cyclist transported due to injuries. Dv1 cited for failure to yield. |
| R | 25 | 8:16 | Mon | N Main St near Maple St | 1 | N | N | Y | Y | Y | Y | Y | N | N | Driver ran off road and into electric transformer, totalling vehicle. DUII-marijuana. No narrative provided. Cited reckless driving, criminal mishchief 2. |
| R | 27 | 13:00 | Wed | N Main St | 1 | N | N | N | N | N | N | Y | N | N | Dv1 neglected to set parking brake, and it rolled backwards into a fence. Information exchanged. |
| R | 27 | UNK | Wed | Chestnut St near Wimer St | 2 | N | N | U | U | N | N | Y | Y | N | V1 was struck and damaged while parked, no suspects or leads. |

