



NEIGHBORHOOD TRAFFIC MANAGEMENT ELEMENT

As a result of continued growth in the community, there is a greater potential for the quality of life in neighborhoods to be impacted by increased traffic volumes and speeding. Many neighborhoods in Salem already experience these problems and their detrimental effects on safety and livability. Left unmanaged, the City could find itself responding to these issues in an inefficient, case-by-case manner. This element of the *Salem Transportation System Plan* (TSP) provides a citywide framework for addressing neighborhood traffic issues now and in the future.

History and Context

The purpose of Neighborhood Traffic Management (NTM) is to address the negative impacts of unchecked traffic speed and volume on neighborhood streets. Neighborhood traffic management encompasses a wide range of measures and activities that are effective in curbing the cause of these impacts, thus improving the livability of a neighborhood. While there are a wide range of issues that are commonly addressed by NTM, the bottom line is mitigating the speed and volume of vehicle traffic on local streets.

While the need for NTM can generally be attributed to growth in the community, other—more direct—factors also play a role in creating this need. One of these factors includes the growth in the VMT and the continued reliance on the automobile as the primary mode of transportation. Another is the decline in road building in general, and particularly in Salem, where policies in the TSP have placed limits on the maximum width of arterial streets. Combined, these factors lead to a congested arterial street system and the need for drivers to find alternative routes. Many times these alternatives are local, neighborhood streets.

The City of Salem adopted its original NTM program in January 1985¹ and implemented an initial priority list of projects. In 1987 a status report on the NTM program² was developed and, due to several considerations (principally funding and vandalism), little has been done on a citywide basis since that time. As Salem has grown over the past ten years, so have issues associated with neighborhood traffic. Several cities in Oregon, such as Portland and Beaverton, have implemented citywide NTM plans successfully. This plan element provides a foundation for public and private transportation investment in NTM that builds from the prior experience and focuses on the needs of the community.

The NTM plan was developed through a Transportation/Growth Management grant provided by the State of Oregon. Its development has included organized public participation from neighborhood associations in a citizen advisory committee and special stakeholder interviews. The meeting minutes and technical memorandums prepared in the development of the NTM plan are provided in a separate technical appendix to this plan element.

The following sections summarize the goals of NTM, sample measures for Salem, procedures for implementation, and prioritization methodology.

Policy Framework

Arterial congestion and lack of connectivity are the leading causes of cut-through traffic on neighborhood streets. The City should identify the causes of congestion, or lack of connectivity, and correct these issues—if possible—before looking to implement NTM measures. Solutions to congestion or lack of connectivity may be the best long

1 *Neighborhood Traffic Management Program*, City of Salem. A report to City Council by the Citizens Advisory Traffic Commission, adopted by City Council January 21, 1985.

2 *A Status Report on the NTM Program*, City of Salem, March 1987.



term NTM measure. The City recognizes, however, that traffic impacts are immediate concerns to neighborhoods. As such, implementable and less-expensive solutions should not be postponed for the sake of long term design and construction of arterial capacity.

Neighborhood traffic management measures are a means of addressing traffic safety issues on a citywide basis. As such, their application should not be limited to just local streets. NTM measures should be used to increase safety for pedestrians, bicyclists and motorists regardless of street classification. However, it should be recognized that not all NTM measures are appropriate for all streets. Where appropriate, NTM measures may be installed in neighborhoods to limit speed and volume of traffic; on collector streets to reduce speeding traffic and enhance pedestrian safety; and on arterials to enhance neighborhood pedestrian safety. Often a combination of solutions may be required.

The NTM element provides a means to implement other policies outlined in the TSP. The TSP policies provide background related to implementation and funding of NTM. While there are many TSP policies which could be related to NTM, the key policies for implementation of NTM are listed below:

OVERALL:

Comprehensive Transportation Policy 19: Neighborhood Livability

Local Street Connectivity Policy 3.2: Discouraging Cut-through Traffic

DESIGN:

Comprehensive Transportation Policy 15: Public Safety

Comprehensive Transportation Policy 20: Aesthetics and Landscaping

MONITORING:

Street System Policy 5.1: Traffic Impact Analysis Requirement

FUNDING:

Street System Policy 5.2: Exactions Required of Development

Goals, Objectives, and Policies

The City of Salem has the following goal, objectives, and policies for the planning and operation of its Neighborhood Traffic Management Program.

GOAL: To preserve and enhance neighborhood livability and safety through community supported education, enforcement, and engineering measures that address vehicle speed and volume appropriate to the street's designated functional classification.



OBJECTIVE NO. 1

The City will carry out a process to identify and address neighborhood traffic issues and the implementation of neighborhood traffic management in a consistent, citywide manner.

Policy 1.1 The City Shall Create and Carry Out a Neighborhood Traffic Management Program

The NTM program shall identify neighborhood traffic problems in a consistent manner and assure that solutions do not simply move the problem elsewhere, or worse, create other neighborhood traffic issues.

Policy 1.2 Use Established Guidelines to Address Problem Identification, its Impacts, and Types of Solutions

The NTM process shall address neighborhood needs in combination with the realities of the fiscal constraints and administrative efficiencies needed to assure successful implementation. This will be accomplished by implementing the program described in this element of the TSP.

Policy 1.3 Neighborhood Traffic Measures Shall be Multimodal and not Limit the Use of the Street by Public Transit Services, Emergency Response Vehicles, School Buses, and Other Service Delivery Vehicles

NTM projects shall not prevent and should not negatively impact the flow of pedestrians and bicycles on the street system. NTM projects shall not prevent public transit and emergency response vehicles from using a street needed to provide these services. NTM should enhance pedestrian safety and provide a more desirable environment for bicyclists (e.g., slower vehicle speeds) and transit users (e.g., curb extensions). NTM should not significantly slow the response time of emergency vehicles.

Policy 1.4 Develop Design Standards for NTM Applications

For the City to provide a program that is consistent in implementation and limits liability, a set of design standards shall be developed. As with all design standards, they should be based upon successful designs already implemented (in Salem and elsewhere) and be refined over time to reflect experience in the field. The NTM material shall become a part of the *City of Salem Street Design Standards*.

Policy 1.5 Use a Prioritization Process for the Efficient Use of Transportation Resources

A point scoring system shall be used to evaluate NTM projects citywide. The scoring system will provide a mechanism with which to allocate limited resources to the most critically needed projects. The criteria for scoring the projects should reflect the values of the community.

Policy 1.6 Apply Land Use Review Guidelines for NTM

To implement NTM only as retrofits of already built streets will miss the opportunity to address the impacts of additional traffic and potential speed at the land use review approval. The City shall apply the following approaches to addressing new development and NTM: (1) incorporate appropriate portions of NTM into the design of new residential areas; and (2) have developments that create significant neighborhood impacts provide mitigation as part of the project approval process. The same measures used to retrofit neighborhoods with NTM should be applied in the site planning and original construction of a new street system.



Policy 1.7 Monitor the Effectiveness of the NTM Program

Each NTM project is viewed as an opportunity to learn more about what is still an emerging concept. The City will conduct before/after studies to demonstrate the performance of these measures. Additionally, design standards should be reviewed over time to reflect the best construction, safety, and maintenance characteristics.

OBJECTIVE NO. 2

The City will work to identify and correct problems of congestion and lack of connectivity at locations within the transportation system that cause neighborhood traffic infiltration.

Policy 2.1 The City Shall Carry Out a Program of Identifying Congested Arterial and Collector Streets

Through existing programs of data collection and analysis, arterial and collector streets that do not meet the adopted level of service standard (as defined in other elements of the *Salem Transportation System Plan*) will be identified. Street congestion problems that are the cause of neighborhood traffic infiltration will be given added priority. Capacity enhancement projects will be developed and prioritized in the *Salem Transportation System Plan* and, as appropriate, placed in the Capital Improvement Program for future construction.

Policy 2.2 A Proposed NTM Project Should not be Delayed due to a Planned Capacity Enhancement Project

While the City recognizes that arterial and collector capacity enhancements will lead to reduced traffic intrusion onto neighborhood streets, proposed NTM projects should not be delayed for planned capacity enhancement projects (projects not yet funded for construction). The City should delay NTM projects where a funded adjacent project may lead to reduced traffic intrusion on neighborhood streets.

Policy 2.3 NTM Projects Shall not be Proposed in Lieu of Arterial and Collector Capacity Improvements

Arterial and collector street capacity improvements are the key to alleviating most of the cut-through speeding and traffic volume intrusion on neighborhood streets. As such, these projects should take precedence in improving the City's transportation system. NTM projects do not take the place of these improvements and shall not be proposed as either a substitute to a major street improvement nor subsequent to a decision to not construct a funded improvement.

Policy 2.4 Use of Neighborhood Traffic Control Devices to Address Temporary Impacts

The City shall amend the *City of Salem Street Design Standards* to allow for the use of temporary neighborhood traffic control devices to mitigate impacts caused by detoured traffic resulting from street construction projects.

NEIGHBORHOOD ROUTES

Recent work in the area of neighborhoods and their specific street needs provides an additional level of functional classification—the *neighborhood route*. Neighborhood routes are commonly used by residents to circulate into or out of their neighborhood. They have connections within the neighborhood and between neighborhoods. These routes



have neighborhood connectivity, but are not intended to serve as citywide streets. They are the most sensitive routes to through and speeding traffic due to their residential frontages.

In past plans, many communities defined these routes as minor collectors or neighborhood collectors; however, use of the term collector is not appropriate for these neighborhood streets. Collectors provide neighborhood connectivity and circulation. There is a level between collector and local streets that is unique due to its level of connectivity. Local streets provide access to property—typically homes. They can be part of a grid system with extensive connectivity or they can be short streets or culs-de-sac with limited or no connectivity. Because neighborhood routes provide some level of connectivity, they can commonly be used as cut-through routes in lieu of congested or less direct arterial or collector streets that are not performing adequately. Cut-through traffic has the highest propensity to speed, creating negative impacts for these neighborhoods. It is important to note, however, that well connected neighborhood streets are important to the delivery of emergency and public transportation services.

A process was used to identify the neighborhood routes in Salem by working together with the Citizens Advisory Committee and City staff for input. A definition was prepared for the TSP of the neighborhood route, as follows:

Neighborhood routes are typically longer than the average local street and usually connect other local streets to collectors or arterials. Because neighborhood routes have greater connectivity, they have more traffic than local streets and are used by residents in the area to get into and out of the neighborhood, but are not intended to serve citywide/large area circulation.

Because the traffic needs on neighborhood routes are greater than a local street, certain measures should be considered to retain the neighborhood character and livability of these routes. Neighborhood traffic management measures are often appropriate (including tools such as traffic circles or other devices—refer to a later portion of this section). However, it should not be construed that neighborhood routes automatically qualify for NTM measures.

NTM PROGRAM

The process for determining appropriate NTM measures is established through the City’s NTM Program. The policies included in this element of the Salem TSP guide the City’s NTM Program. The details of this program and the process used to implement it are set forth in the *Neighborhood Traffic Management Handbook*.

LAND USE REVIEW PROCESS GUIDELINES INCLUDING NTM

Policy 1.6 acknowledges that the most opportune time to address neighborhood needs is at the point of development. Whether it is a residential subdivision, commercial development, or a transportation project, incorporating NTM elements into the design, development, and mitigation of the off-site impacts of the project assures that the inventory of neighborhood problems does not grow. To best address this through policy, a two-tiered approach is recommended. The first tier is aimed at new residential development planning and the second tier is focused on mitigating impacts of new land use or transportation development. If, in either case, it is desired to consider a NTM measure not part of the tool box (refer to *Neighborhood Traffic Management Handbook*), the applicant—through a registered professional engineer—will be required to provide and certify the appropriate performance and design standards.

Tier 1: Design of New Residential Street System. Using the existing Traffic Impact Analysis requirements, an additional level of analysis should be added into the guidelines for studies. The site plan for a residential site should designate neighborhood routes (based upon the description provided in this element). On all single family



residential projects, any internal street that is forecast to have 500 vehicles per day (either at project completion or ultimately due to stub street connections) will be designed utilizing NTM measures or concepts to ensure traffic speeds and volumes will remain at acceptable levels. For example, long, straight, wide, steep streets should be avoided for neighborhood routes and local streets. In project review, this criteria will be evaluated and if adequate measures are not identified, staff can request that the site plan be modified to reflect the future neighborhood needs for NTM measures.

Tier 2: Mitigating the Impact of New Development. All new major land development projects will be required to provide information in their Traffic Impact Analysis (TIA) that identifies the potential impact on neighborhood or local streets. This goes beyond the capacity analysis that is conducted presently. A section would be added to the TIA that assesses the impact of a land use or transportation project on neighborhood routes or local streets. The TIA should identify if the project add more than 25 vehicles per hour (two-way—AM, PM, and/or retail peak hours) to a street and the street volume is projected be greater than 800 vehicles per day. An estimate will be made of the potential for a neighborhood or local street to exceed 800 vehicles per day. Determination of potential streets for consideration for each project should be reviewed with City staff prior to submitting the TIA.

If a project exceeds this threshold, they will be required to:

- Mitigate the impact below the threshold levels without impacting connectivity.
- Implement NTM measures to mitigate the impact.
- Provide a cash contribution, equivalent to the applicant's fair share impacts, to the NTM program to be used in future NTM projects in the area, developed by the neighborhood through the process identified above. The cash contribution should be determined by staff case by case and reflect the cost to install NTM measures.

STANDARDS FOR NTM

Implementing NTM measures can impact several stakeholders who use public streets—from utilities to garbage companies, from delivery companies to school buses, from emergency services to maintenance, from the postal service to the school district. The needs of all the stakeholders should be considered in any NTM measure. To best address the input of key stakeholders, it is recommended that a series of design standards be developed, reviewed, and approved for inclusion in the *City of Salem Street Design Standards*. This process will allow critical input and review by the stakeholders at one point, rather than having to seek each stakeholder's input for each NTM project that is contemplated.

The benefit of developing design standards is that NTM can be uniformly applied in Salem. The standardization of NTM elements also helps keep the costs down. Most importantly, by going through a process of adopting the design standards with stakeholder input, the potential liability to the City is significantly reduced.

The development of standards can build off experience in Oregon with NTM and throughout the United States in tailoring a set of standards that meets Salem's needs. As long as the standards of design are adhered to, the stakeholders can be assured of the character and nature of what may impact the street related to their operational needs.

The *Manual of Uniform Traffic Control Devices* (MUTCD) provides a reference for most traffic signing and striping needs. While the MUTCD does not address many of the NTM measures outlined in the tool box, many other cities



and Salem itself have working design experience with all of the measures. The following standards should be developed for the City of Salem. In some cases, samples from other cities are attached for reference.

- Speed Humps
- Circle (prior installations in Salem)
- Medians
- Street Width
- Street Curvature (possibly 50-foot radius, reversing curves for curvilinear)
- Chicane
- Curb Extensions
- Pavement Texture

FUNDING

Funds for NTM projects would most likely come from the approved Capital Improvement Program for the current year budget. Funding may be limited or not available in any given year. NTM projects with private funding will be able to proceed through the NTM process even if public funding is not available at the time.

There are several options for funding NTM measures in Salem. They will include:

- Full funding through the CIP
- Partial funding through the CIP
- New voter approved funding dedicated to NTM
- Private funding NTM without public funds
 - Local residents pay cash
 - Local residents agree to a local improvement district
 - Private development funds NTM as mitigation measure of project approval or as an element of site plan design
- Full funding as a mitigation measure of a transportation project (public funds)

