



Safe Speed Study

March, 2024

Acknowledgments

The City of Lake Forest Park would like to thank and recognize the efforts of everyone who gave their time and energy to complete this study.

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And a special thanks to all community members who spoke up and encouraged Lake Forest Park to be proactive about transportation safety and vehicle speeds within Lake Forest Park.



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Introduction

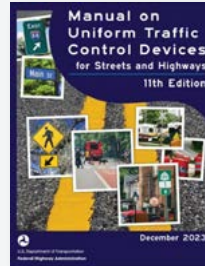


Based on Ordinance 1252 adopted by City Council in October 2022, speed limit setting policy was modified to confirm that posted speed limits be based on the overall land use context and desired functionality of the street system. Using the updated policy guidance, a safe speed study has been completed that has evaluated the posted speed limits for all public streets owned and maintained by the City. The objective was to identify a comprehensive set of speed limit changes, employing an updated methodology that prioritizes consistency and safety throughout the entire city.

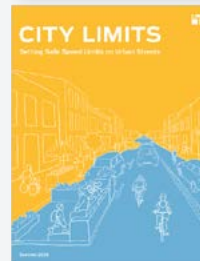
More recent industry research has focused on the link between vehicle speeds and roadway safety. The significance of reviewing vehicle speeds and the associated posted speed limits on city arterials lies in their direct correlation to crash severity. Research has persistently demonstrated that vehicle speed is a key determinant of crash severity. Even a marginal increase in speed significantly elevates the risk of serious injury and fatality for pedestrians and cyclists. Higher vehicle speeds limit a driver's perspective of the road, reducing reaction time and posing substantial safety risks.

Many recent industry publications have focused on best practices for setting speed limits, and were reviewed and utilized for the purpose of this study.

These include:



The Manual of Uniform Traffic Control Devices (MUTCD) recently updated its guidance to expand the focus away from 85th percentile speeds to incorporate additional information into the recommended process for speed limit setting.



The National Association of City Transportation Offices (NACTO) released City Limits: Setting Safe Speed Limits on Urban Streets guidance in summer 2020 which establishes a data driven and a roadway context-based approach to setting speed limits.



The National Cooperative Highway Research Program (NCHRP) established Posted Limit Setting Procedure and Tool User Guide as NCHRP Report 966.



Lastly, Washington State Injury Minimization and Speed Management Policy Elements and Implementation Recommendations was released in October 2020.



The Lake Forest Park City Council officially adopted the 2020 NACTO City Limits publication on October 13, 2022, through Ordinance 1252. The speed limit setting methodologies outlined in the NACTO City Limits document have provided the basis for how this study was conducted. The NACTO City Limits publication introduces a range of criteria distinct from the historical approach of setting speed limits based on prevailing speeds.

The primary goal of this study is to establish a uniform methodology for setting speed limits employing a data-driven approach. The data was used to identify correlations between speed and other roadway variables. Consistent speed limits are also crucial to preventing driver confusion and accounting for various factors beyond prevailing speeds.

The study exclusively concentrated on minor arterials, collectors, and local roadways. It did not evaluate speed limits on the state routes within the city; SR 104 and SR 522.

The Case for Lowering Speeds

Driver speed emerges as a prominent contributing factor in the majority of fatal and serious injury crashes in Washington State. In 2019, 86 percent of fatal and serious injury collisions occurred on roadways with a posted speed exceeding 25 mph. This compelling data underscores the significance of reassessing how speed limits are established, particularly in areas with a higher concentration of vulnerable road users. The ultimate aim is to cultivate a safer environment by aligning speed limits with data-driven methodologies and prioritizing public safety for all road users.



86%

of serious/fatal crashes
were on roadways with
limits above 25mph

SPEED
LIMIT
30

YOUR
SPEED
23

NE 198 PL
PRIVATE ROAD
DEAR END

Summary of Existing Roadway Conditions



To provide more context of roadway characteristics and existing vehicle speeds along corridors within the city, roadway factors influencing safety and vehicle speeds were reviewed. The review included an analysis of roadway characteristics including roadway functional classification, posted speed limit, crash records, and observed vehicle speeds. The analysis aims to paint a clearer picture of current operational conditions and pinpoint areas where safety concerns could be addressed by adjusting the posted speed limit.

Roadway Functional Classification

NACTO defines roadway functional classification as “an ordering system that defines the part that any particular road or street should play in serving the flow of trips through a highway network”. This system defines how roadways are expected to be used by each mode and balances mobility and accessibility. Roadways of a higher functional classification (i.e. highways or principal arterials) prioritize vehicle throughput while minimizing access and, therefore, typically have higher speed limits than collectors or local streets. This concept is illustrated in Figure 1.

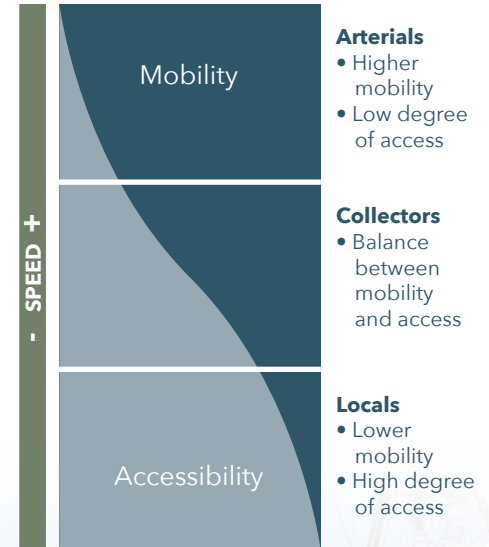


Figure 1. Functional Classification Roadway Priorities



The City of Lake Forest Park roadway system comprises four roadway functional classifications: Principal Arterial, Minor Arterial, Collector, and local streets as shown in Figure 2. This study primarily focuses on developing a speed limit setting methodology for arterial and collector roadways. A total of 13.2 center lane miles of arterials and collectors were subject to review and analysis to assess safety performance and roadway characteristics. The analysis excludes the two state highways SR 522 and SR 104, which are designated by the City as principal arterials, as their speed limits fall under the jurisdiction of the Washington State Department of Transportation (WSDOT).

The roadway functional classification is an important consideration in speed studies due to its designation of the intended role each street plays within the City's network.



Figure 2. Functional Classification of Lake Forest Park Roadways

Posted Speed Limits

Existing posted speed limits within Lake Forest Park range from 20 mph to 35 mph. However, as the focus of this study is on arterial and collector street speeds, the speeds shown on Figure 3 only include collector and arterial roadways within the City.

Most speed limits on roadways within Lake Forest Park were set many years ago, when most roadways were still within unincorporated King County, before incorporation or annexation by the City. This led to irregularities between speed limits set by Lake Forest Park and King County. Establishing a comprehensive speed limit setting methodology ensures that all roadways within the City are set to the same standard, and no discrepancies exist between similar roadways. Figure 4 highlights the breakdown of existing speed limits along arterial and collectors within Lake Forest Park. Almost eighty percent of arterials and collectors have a posted speed limit of 25 mph.

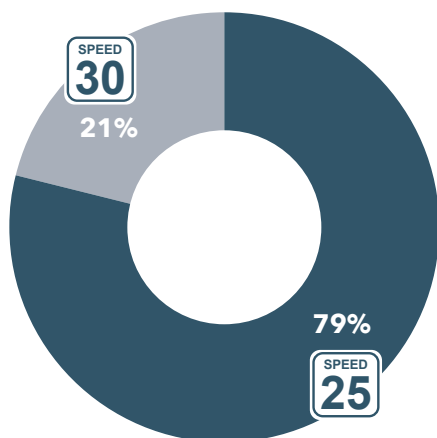


Figure 4. Range of Posted Speed Limits for Arterials/Collector Roadways in Lake Forest Park

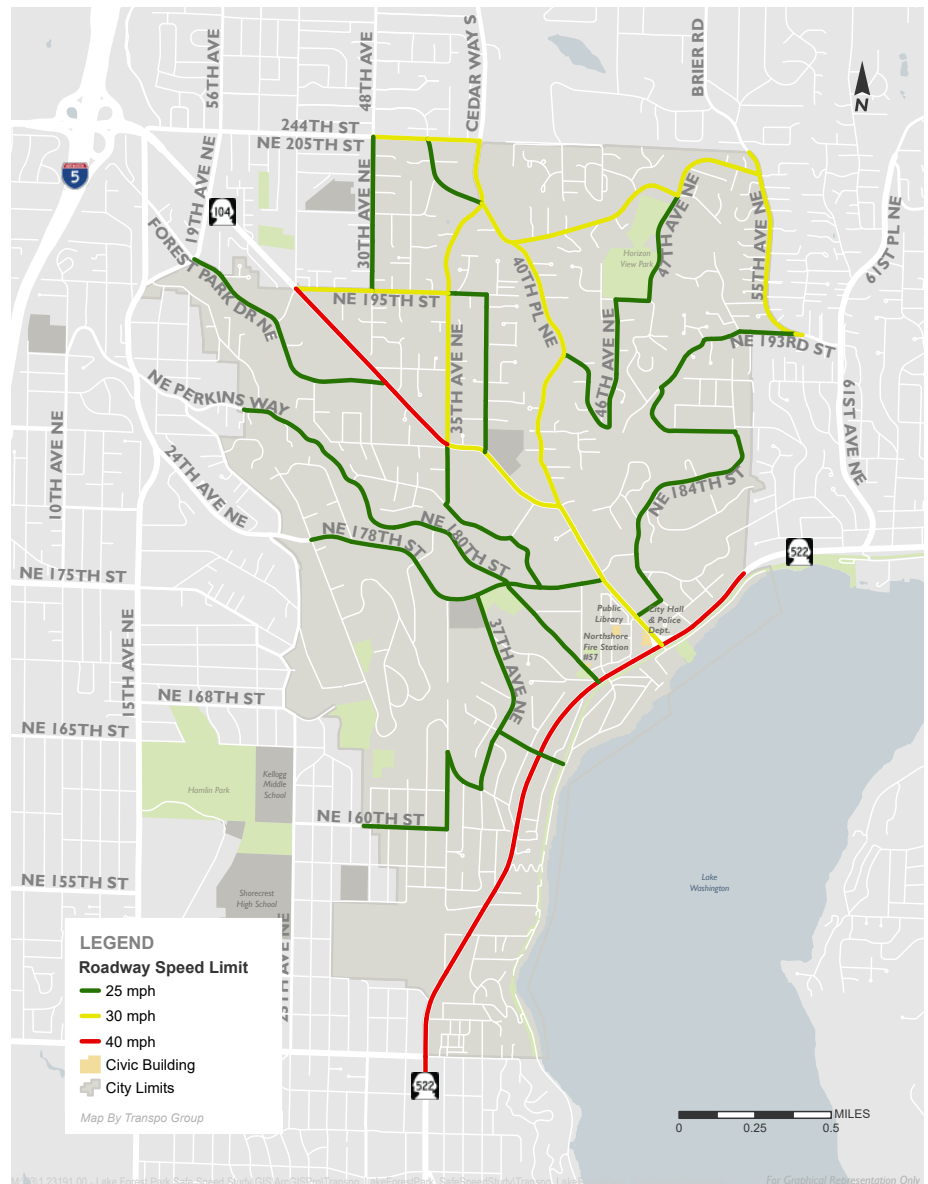


Figure 3. Posted Speed Limits in Lake Forest Park (Arterial and Collectors Only)

Crash History

In addition to functional classification, roadway safety is another important metric to consider when setting speed limits. Five-years of collision data from WSDOT's collision database from calendar years 2018 through 2022 was evaluated across the City. Figure 5 shows the location, type, severity, and frequency of collisions from 2018 to 2022 within Lake Forest Park.

Most pedestrian and bicycle collisions occurred within the town center, with one pedestrian collision resulting in serious injury. No fatal collisions occurred within the city between 2018 and 2022.

Generally, there are relatively low collision rates across most city collectors and arterials. There are a few intersections within the city limits that have had a high number of collisions, particularly around the town center and near the northern city limits. Notably, NE 178th Street has been shown to have a higher collision rate at its intersections compared to other roadways across the city.

The collision data also indicated that approximately 10 percent of crashes that resulted in an injury were due to drivers exceeding the speed limit. Additionally, the data shows that pedestrian and bicycle collisions have primarily occurred on roadways with posted speed limits over 25 mph. These data points further emphasized the need for speed limit adjustments within Lake Forest Park to address roadway safety concerns.

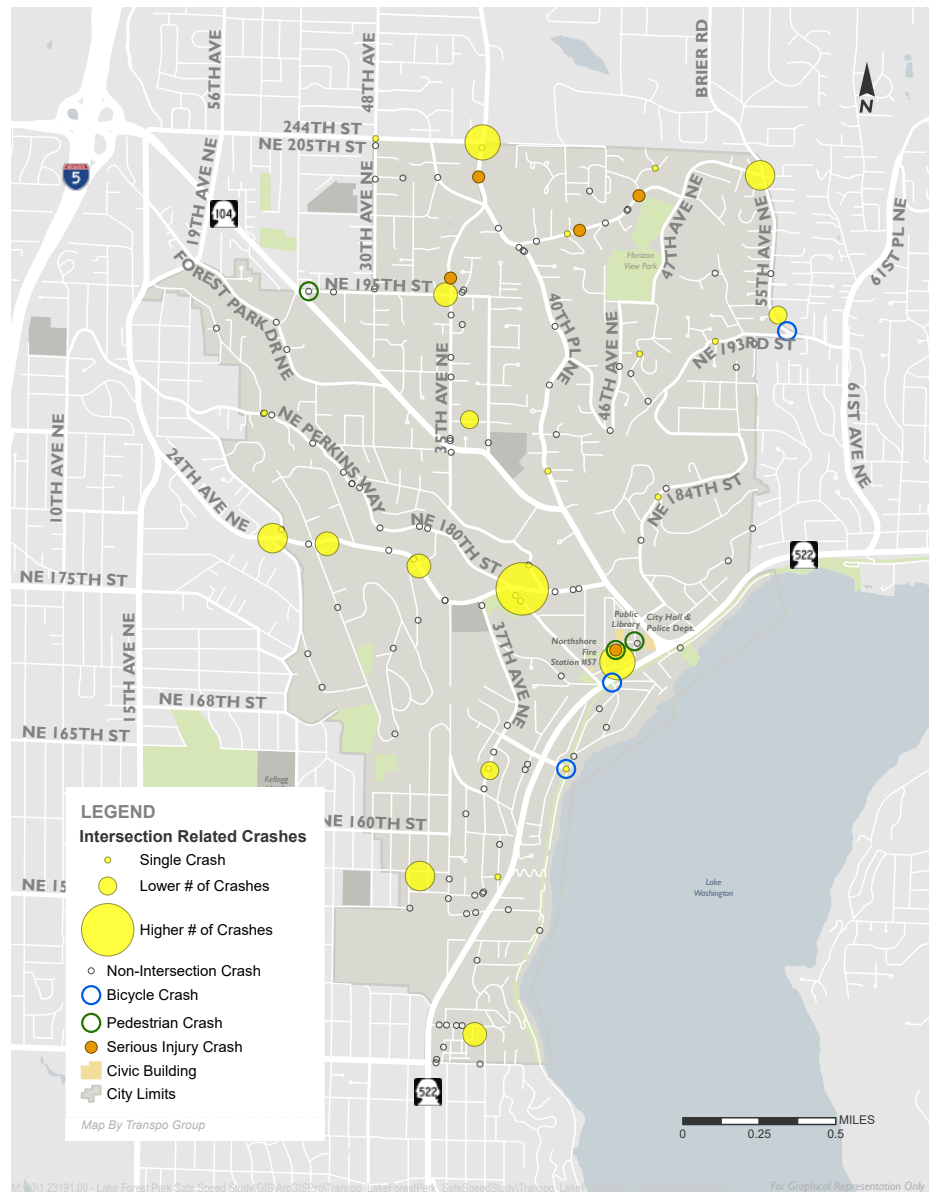


Figure 5. Citywide Collisions (not including State Routes) for 2018-2022

Vehicle Speeds

Another important data point to analyze in addition to functional classification and safety data is existing roadway speed information. No new data was collected as part of this study, but historic data was compiled from previous data collection efforts and permanent speed radar signs and cameras. Figure 6 shows a map of speed cameras, radar speed signs, and locations where speed data has been collected along arterials or collectors.

The evaluation of speed data across the City included review of: average speed, 85th percentile speed (the speed at which 85 percent of vehicles are traveling at or below), the ratio of traffic exceeding 5 mph and 10 mph of the speed limit, and total traffic volumes.

The data reveals that almost 80 percent of roadways have 85th percentile speeds higher than the speed limit, averaging 6 mph more than the speed limit. The data also showed that roadways with 25 mph speed limits tend to have a higher gap between the posted speed limit and the 85th percentile speed, suggesting that speeding is more prevalent on 25 mph roadways. This data suggests that additional traffic calming measures may be an important consideration to re-enforce new speed limits.

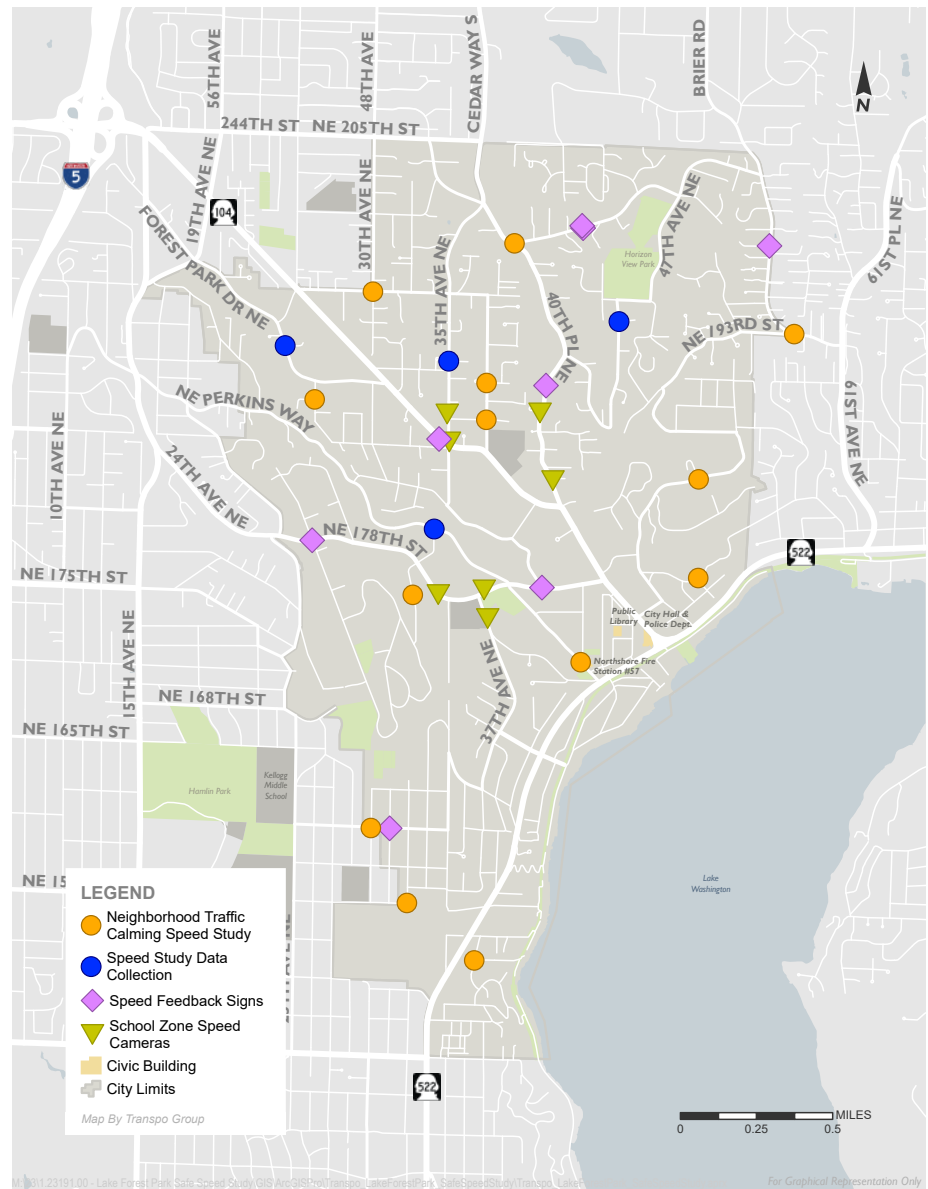


Figure 6. Enforcement Cameras and Radar Speed Signs Map in Study Area

Figure 7 provides a comparison of speed limits to average and 85th percentile speed across all minor arterial streets within Lake Forest Park where data was available.

As shown on Figure 7, two arterial corridors have average and 85th percentile speeds below the existing speed limit: 55th Avenue NE and 40th Place NE (between SR 104 and 45th Place NE). This suggests that these corridors would be ideal candidates for speed limit reductions, as the existing speeds on both roadways are already below the speed limit.

Many minor arterial roadways with 25 mph speed limits have average speed values approximately equal to the speed limit, with 85th percentile speeds three to five mph greater than the average speed. This suggests that drivers are generally following speed limits, and no speeding issues are identified.

Of the minor arterials with 30 mph speed limits, 40th Place NE (35th Avenue NE to 45th Avenue NE) and NE 195th Street have both average and 85th percentile speeds greater than 30 mph. This speed value suggests that lower speed limits on these corridors would likely require additional traffic calming or enforcement, as drivers are already speeding on these corridors.

Arterials–Speed Data vs Speed Limit

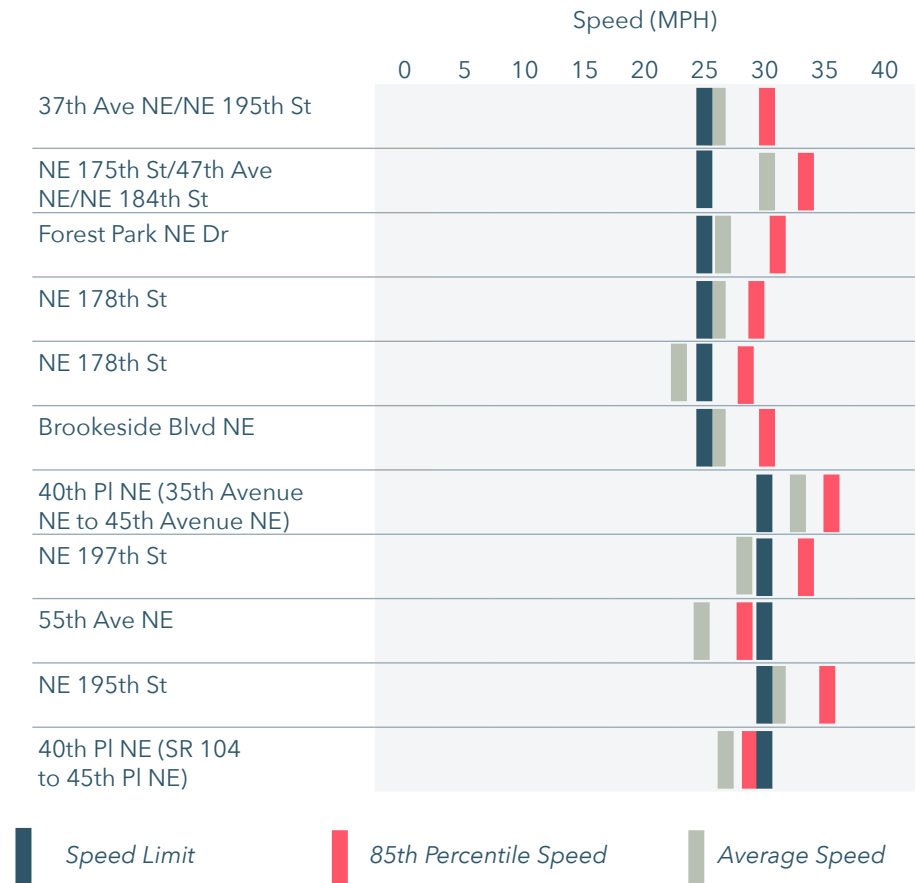


Figure 7. Summary of Recorded Speed in Minor Arterials

Comparisons of average and 85th percentile speeds to speed limits along Collector streets are shown in Figure 8.

All collector roadways within Lake Forest Park have 25 mph speed limits. The data in Figure 8 shows that some corridors have speeding challenges, including NE Perkins Way and 45th Place/46th Avenue NE. These corridors have 85th percentile speeds almost 10 mph over the speed limit which suggests additional enforcement or traffic calming may be recommended.

Given all the available data, the following section summarizes the methodologies reviewed for changing speed limits on the minor arterial and collector roadways within Lake Forest Park.

Collectors—Speed Data vs Speed Limit

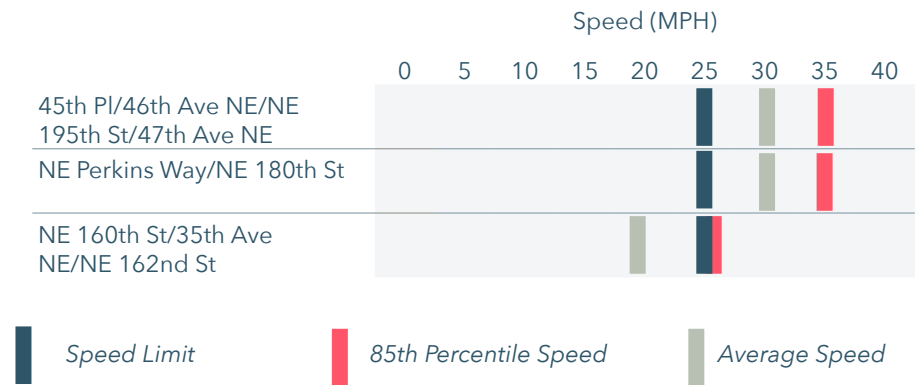


Figure 8. Summary of Recorded Speed in Collectors



Methodologies for Speed Limit Setting



Historically, speed limits were evaluated and set primarily using the 85th percentile speed. As mentioned within the introduction, industry best practice has shifted to include a more holistic review of speed and safety data as well as roadway context information. For example, the most recent version of the MUTCD says:

“Among the factors that should be considered when reevaluating speed limits are the following:

- A. Roadway environment (such as roadside development, number and frequency of driveways and access points, and land use), functional classification, public transit volume and location or frequency of stops, parking practices, and pedestrian and bicycle facilities and activity;
- B. Roadway characteristics (such as lane widths, shoulder condition, grade, alignment, median type, and sight distance);
- C. Geographic context (such as an urban district, rural town center, non-urbanized rural area, or suburban area), and multi-modal trip generation;
- D. Reported crash experience for at least a 12-month period;
- E. Speed distribution of free-flowing vehicles including the pace, median (50th-percentile), and 85th percentile speeds; and
- F. A review of past speed studies to identify any trends in operating speeds.”

In an effort to follow industry best practices, a comprehensive database was compiled to capture posted speed limits, speed data (where available), traffic counts, collision records, surrounding land use details, proximity to pedestrian and bicycle generators, roadway functional classification, and roadway geometry for each minor arterial and collector within the city. The database was then linked to an online GIS map system to provide an interactive map for both the project team and city staff to review available data.

Using the compiled dataset and discussion with city staff, three approaches were identified to establish citywide safe speed limits. These methodologies included:

Option 1—85th percentile speeds

Option 2—NACTO City Limits-based method

Option 3—Setting a citywide default speed limit on arterials and collector

These three methodologies are explored in the following report sections.



Option 1–85th Percentile Speeds

The 85th percentile speed limit methodology, previously employed by MUTCD, involves identifying the 85th percentile of free-flowing driving speeds within the corridor and setting the speed limits within 5 mph of that. However, the updated MUTCD (11th edition) does not recommend relying solely on the 85th percentile as the primary factor in setting speed limits. The new methodology suggests considering contextual factors such as land use, pedestrian activity, and crash data to establish a safe speed limit.

Previously, MUTCD used the 85th percentile method for setting speed limits on roadways. The 85th percentile speed checks the speed at which 85 percent of drivers are traveling at or below on a road segment. Speed data collected during a 24-hour weekday period is utilized to determine this speed. The speed limit is then set to the nearest 5 mph increment to the 85th percentile speed.

For the purpose of this study, the 85th percentile speed option is primarily included as a point of comparison for the other two methodologies. Setting speed limits based solely on 85th percentile speeds is an outdated methodology that Lake Forest Park staff were interested in including only for comparison purposes.

Assuming that this methodology were to be applied, the traffic data summarized in Figure 7 indicated that two roadways would be candidates for lower of speed limits, as shown in Figure 9.

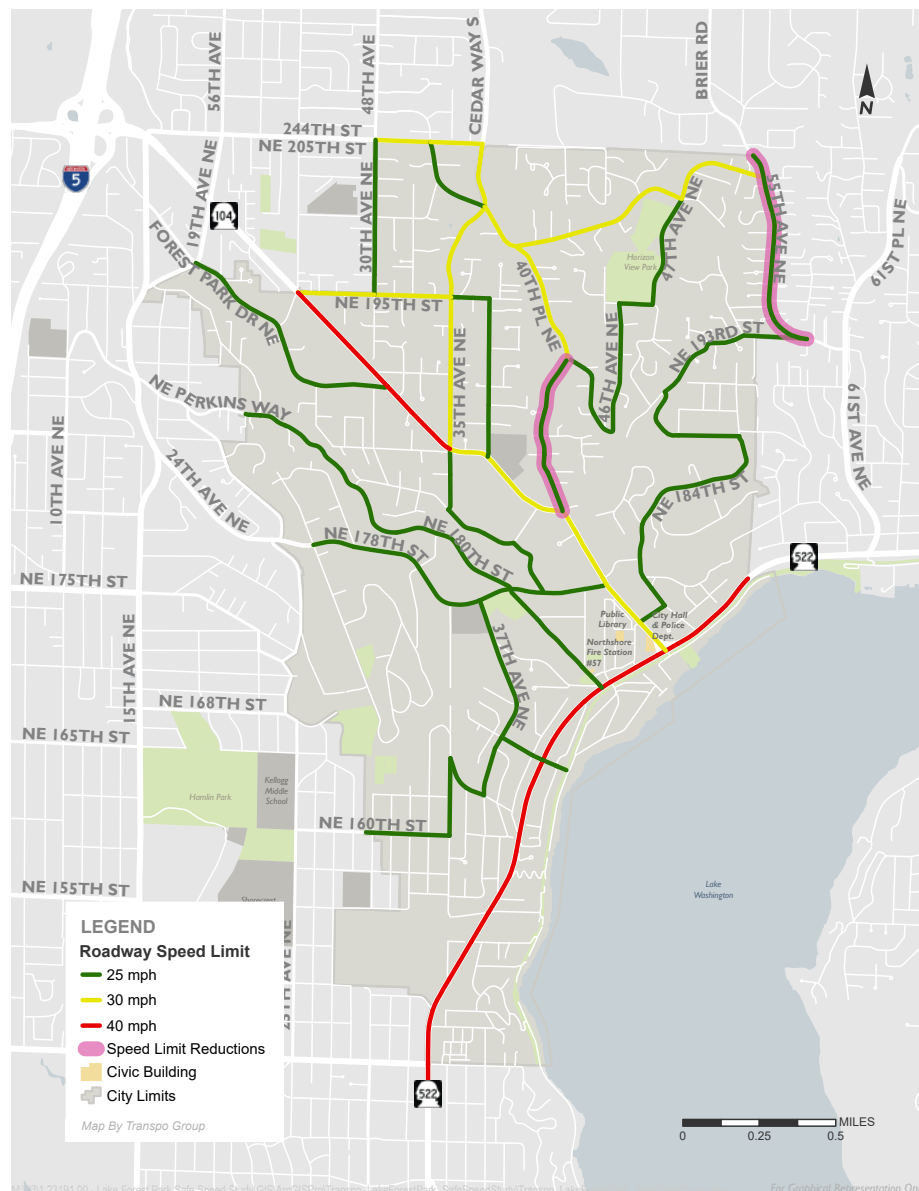


Figure 9. Map of Speed Limit Resulting from 85th Percentile Option

Option 1 Findings

Adoption of a speed limit methodology relying exclusively on 85th percentile speeds would result in speed limit decreases on two roadway corridors: 40th Place NE and 55th Avenue NE. This methodology acknowledges a subset of drivers who may be resistant to changing their speed, regardless of the established speed limit. However, it is designed to address extremes and considers the perspective of drivers, aiming to establish a dynamic target based on driver behavior. However, this methodology falls short in setting speed limits based on safety targets, limiting a city's ability to mitigate safety concerns. Additionally, it fails to account for contextual factors that influence the appropriate speed limit. It is therefore recommended that the city not adopt a speed limit setting methodology based exclusively on the 85th percentile speed.



Option 2–NACTO City Limits based Methodology

The second option for setting speed limits within Lake Forest Park is built upon the City Limits method outlined in “Setting Safe Speed Limits on Urban Streets” by the National Association of City Transportation Officials (NACTO) and Publication Report 966 by the National Cooperative Highway Research Program (NCHRP) on posted speed limit setting procedures and tools.

NACTO’s City Limits methodology employs a conflict density (how frequently potential conflicts arise on a given street) and activity level (how active a street currently is or is expected to be) matrix to determine the appropriate speed limit. The NACTO City Limits methodology was developed particularly for urban roadways but can be adapted and changed to fit the context of any jurisdiction. The NACTO City Limits methodology was tailored to the unique nature of Lake Forest Park roadways, and uses two indices; roadway context and multimodal activity/safety to determine the speed limit. These factors are evaluated in a matrix, with each component scored as an index.

The multimodal activity and safety index (on the vertical, or Y axis), is an effort to gauge the expected level of pedestrian and bicycle activity and the relative safety of the roadway, ranging from 1 to 3. A roadway with high multimodal activity or a history of safety issues is ranked as 1, while a score of 3 indicates a roadway with minimal pedestrian or bicycle presence and no safety concerns. The result of this system is that roadways with higher pedestrian and bicycle volumes or a history of safety issues result in lower speed limits.

The roadway context index (on the horizontal, or X-axis) evaluates adjoining land use and designated pedestrian and bike routes, ranked from A to C. Roadways with a Roadway Context score of A are roadways in urban areas with a higher likelihood of conflict density. In contrast, roadways with a score of C are more rural, with fewer conflict points. This scoring system means that roadways bordered by higher-density land uses and urban areas warrant lower speed limits.

Figure 10 shows the City Limits speed-setting methodology applied to Lake Forest Park minor arterial and collector roadways.

Roadway Context				
		A	B	C
Multimodal Safety Index	1	SPEED 20	SPEED 25	SPEED 25
	2	SPEED 25	SPEED 25	SPEED 30
	3	SPEED 25	SPEED 30	SPEED 30

Figure 10. City Limit Speed Setting Matrix for Lake Forest Park

Roadway Context

Determining the roadway context for each minor arterial and collector within Lake Forest Park is evaluated through a yes-no flow-chart, as depicted in Figure 11.

Within this methodology, roadways receive a higher roadway context score (and thus a lower speed limit) in areas of higher density and/or activity, as measured by surrounding land use and pedestrian or bicycle route designations within the City's Comprehensive Plan. Currently, no roadways fall into Roadway Context A in Lake Forest Park, but the category was nevertheless developed to 'future-proof' the methodology to account for potential future increased density.

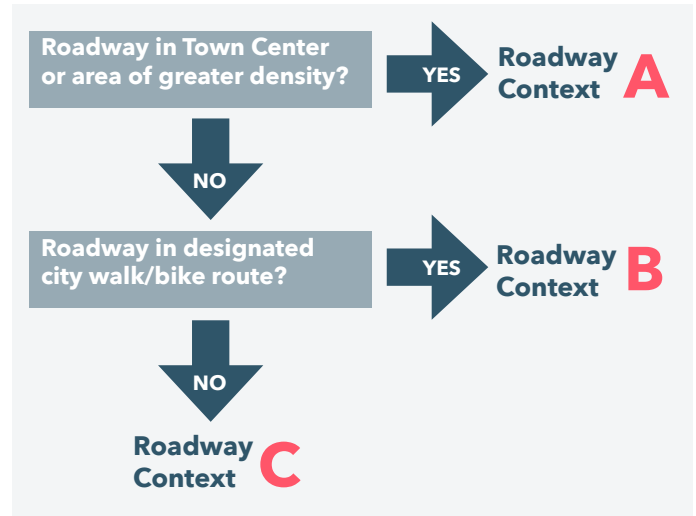





Figure 11. Flowchart to Determine Roadway Context Index

Multimodal Activity and Safety Index

The objective of the multimodal activity and safety index is to have streets with higher pedestrian and bicycle activity or a history of safety issues result in lower speed limits. Given there is limited pedestrian and bicycle count data for Lake Forest Park roadways, proximity to pedestrian and bike generators, such as schools, parks, and town centers, is used as a proxy to estimate the level of multimodal activity. Safety data was captured from the five years of WSDOT collision history data.

The developed methodology assesses four criteria for assigning points to road segments: multimodal activity, collision history, traffic speed, and daily traffic. Based on point values, index values are assigned for multimodal activity and safety index scoring. Figure 12 shows the criteria and their corresponding safety index. The higher the points, the lower the resulting speed limit.

Criteria	Measure	Points	Total Points
Multimodal Activity	Proximity to School	3	 1 >6 pts
	Proximity to Park	2	
	Proximity to Town Center or Neighborhood Business Land Use	2	
Collision History	Roadway has at least one serious injury/fatal collision in last five years	3	 2 3-6 pts
	Roadway has at least one pedestrian or bicycle collision in last five years	1	
Vehicle Speeds	Roadway has 85 percentile speed 3 mph or less of speed limit	3	 3 <3 pts
Daily Traffic	Average Daily Traffic Volumes < 2,000 vehicles	2	

Up to 16 possible points

Figure 12. Roadway Multimodal Activity and Safety Index Scoring

To apply this methodology, a speed limit setting tool was developed, built off the database containing information for each roadway segment. The tool automatically calculates the roadway context and multimodal activity and safety index scores to identify the appropriate posted speed limit. The tool also highlights the overall change from the current

speed limit. However, changes to speed limits are limited to 5 mph, based on best practice research and national guidance in the MUTCD indicating that speed limits are not decreased by more than 5 mph at one time. Figure 13 shows a screen capture of the developed speed limit setting tool.

Segment ID	Segment Name	Functional Classification	Existing Speed Limit	95th Percentile Speed	ADT	Sensor or Fatal Coll.	Ped or Bike Coll.	School Zone	New Park	Land Use	City Designated Walk/Bike Route?	Roadway Activity and Safety Index	Roadway Activity and Safety Index	Roadway Context
01	20th Ave NE (SR 10th St to NE 20th St)	Collector	25			No	No	Yes	No	RS 7	Walk	7	1 B	
02	NE 20th St (20th Ave NE to 27th Ave NE)	Minor Arterial	30			No	No	No	Yes	RS 7	Bike	6	2 B	
03	33rd Ave (NE 20th St to 25th Ave NE)	Minor Arterial	25			No	No	No	No	RS 7	No	4	2 C	
04	35th Ave NE (19th St to NE 20th St)	Minor Arterial	30			Yes	No	No	No	RS 9 & RS 7	Walk and Bike	7	1 B	
05	40th Pl NE (25th Ave NE to 45th Pl NE)	Minor Arterial	30	35	2,252	No	No	No	Yes	RS 9 & RS 7	Walk and Bike	2	3 B	
06	NE 197th St (40th Pl NE to 47th Ave NE)	Minor Arterial	30	33	3,562	Yes	No	No	Yes	RS 9	Walk and Bike	5	2 B	
07	NE 204th St (NE 20th Pl to 25th Ave NE)	Minor Arterial	30			No	No	No	No	RS 9 & RS 7	Bike	4	2 B	
08	55th Ave NE (City limits to NE 193rd St)	Minor Arterial	30	28	2,944	No	Yes, Bike	No	No	RS 9 & RS 7	Bike	3	3 B	
09	45th Pl / 45th Ave NE / NE 195th St / 47th Ave NE (40th Pl NE to NE 20th Pl)	Collector	25	34	2,271	No	No	No	Yes	RS 9	Walk (partial)	2	3 B	
10	NE 195th St (SR 104 to 25th Ave NE)	Minor Arterial	30	35	2,735	No	Yes, Ped	No	No	Rtn 1 & Rtn 2 & RS 7	Walk (partial)	1	3 B	
11	35th Ave NE (195th St to SR 104)	Minor Arterial	30			No	No	Yes	No	RS 7 & RS 10 & Neighborhood business	Walk and Bike	5	1 B	
12	37th Ave NE / NE 195th St (SR 104 to 25th Ave NE)	Minor Arterial	25	30	555	No	No	Yes	No	RS 7 & RS 10 & Neighborhood business	No	7	1 C	
13	40th Pl NE (SR 104 to 45th Pl NE)	Minor Arterial	30	29	200	No	No	Yes	No	RS 9 & RS 10	Walk and Bike	7	1 B	
14	NE 197th St / 45th Pl NE / NE 197th Pl / NE 193rd St (53rd Ave to 56th Ave NE)	Minor Arterial	25			No	No	No	No	RS 9 & RS 7 & RS 15 & Neighborhood business	Walk (partial)	6	2 B	
15	NE 175th St / 47th Ave NE / NE 184th St (SR 104 to 53rd Ave NE)	Minor Arterial	25	33	1,020	No	No	No	No	RS 7 & RS 15 & RS 20	Walk (partial)	2	3 B	
16	Forest Park Dr (NE 195th St to SR 104)	Minor Arterial	25	31	738	No	No	No	No	RS 1 & RS 10 & RS 15	Walk and Bike	2	3 B	
17	35th Ave NE / NE 192nd St / 45th Ave NE (SR 104 to NE 175th St)	Collector	25			No	No	Yes	No	RS 10 & RS 20 & RS 15	Walk and Bike	7	1 B	
18	NE Perkins Way / NE 188th St (City limits to NE 175th St)	Collector	25	34	1,451	No	No	No	No	RS 10 & RS 15 & RS 20 & RS 9	Walk and Bike	2	3 B	
19	NE 175th St (25th Ave NE to 37th Ave NE)	Minor Arterial	25	29	355	No	No	Yes	No	RS 7 & RS 15 & RS 20	Walk and Bike	5	2 B	
20	NE 175th St (37th Ave NE to SR 104)	Minor Arterial	25	28	2,249	No	No	Yes	Yes	RS 15 & RS 20	Walk and Bike	5	2 B	
21	Brookside Blvd NE (NE 175th St to SR 522)	Minor Arterial	25	30	355	No	No	No	Yes	RS 15 & RS 7	Walk and Bike	4	2 B	
22	37th Ave NE (NE 162nd St to NE 175th St)	Collector	25			No	No	Yes	Yes	RS 15 & RS 7	Walk	9	1 B	
23	NE 160th St / 25th Ave NE / NE 162nd St (city limits to 27th Ave NE)	Collector	25	25	1,125	No	No	No	No	RS 7	Walk (partial)	4	2 B	
24	NE 155th St (27th Ave NE to Beach Dr NE)	Minor Arterial	25			No	No	No	No	RS 7	Walk and Bike	4	2 B	

Figure 13. Speed Limit Setting Tool

Option 2 Findings

Based on the NACTO City Limit-based methodology, a total of six roadways are recommended for speed limit reductions from 30 mph to 25 mph. Two roadways, NE 195th Street and a section of 40th Place NE, are recommended to remain at 30 mph due to limited multimodal activity, existing speeds already above the speed limit, low traffic volumes, and no history of safety concerns. Figure 14 displays the proposed speed limit maps using the NACTO City Limit-based methodology.

The customized City Limits methodology offers a flexible, data-driven approach to setting speed limits across the city. It standardizes the approach to speed limit setting and eliminates inconsistencies in speed limits on similar roadways across the city. This methodology is also designed to be 'future-proof' such that it will be sensitive to changing land use patterns. If future land use changes occur, such as increased density, the methodology will result in further speed limit reductions.

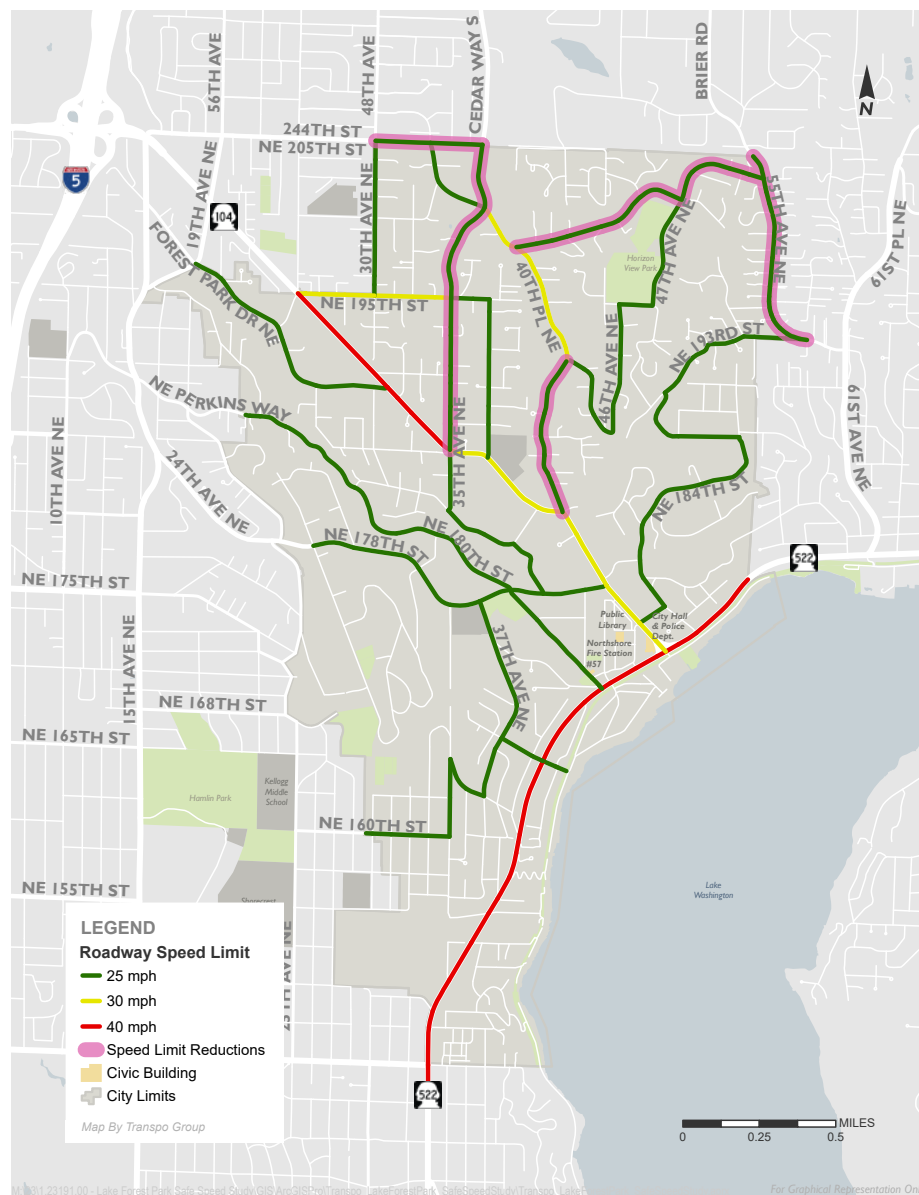


Figure 14. Map of Speed Limit Resulting from NACTO City Limits Option

Option 3—Default 25 MPH on Arterial & Collector Streets

The third option for setting speed limits that was explored in this study establishes a default speed for all arterials and collectors. Default speed limits are also identified as one of two recommended options within NACTO's City Limits Methodology (the other being the activity level and conflict density matrix methodology used in Option 2). This streamlined approach simplifies the process, treating all roadways uniformly, thereby reducing the number of factors to consider and facilitating clearer communication. Setting or lowering default citywide speed limits is an inexpensive, scalable way to quickly improve safety outcomes, and establish a basis for larger safety gains. Default citywide limits also provide consistent expectations and messages about speed across the jurisdiction, which is easy for drivers to follow.

By implementing this approach, the posted speed limit for roadway segments across Lake Forest Park with a 30 mph limit would be adjusted to 25 mph. Figure 15 illustrates this transition in speed limits based on the proposed approach.

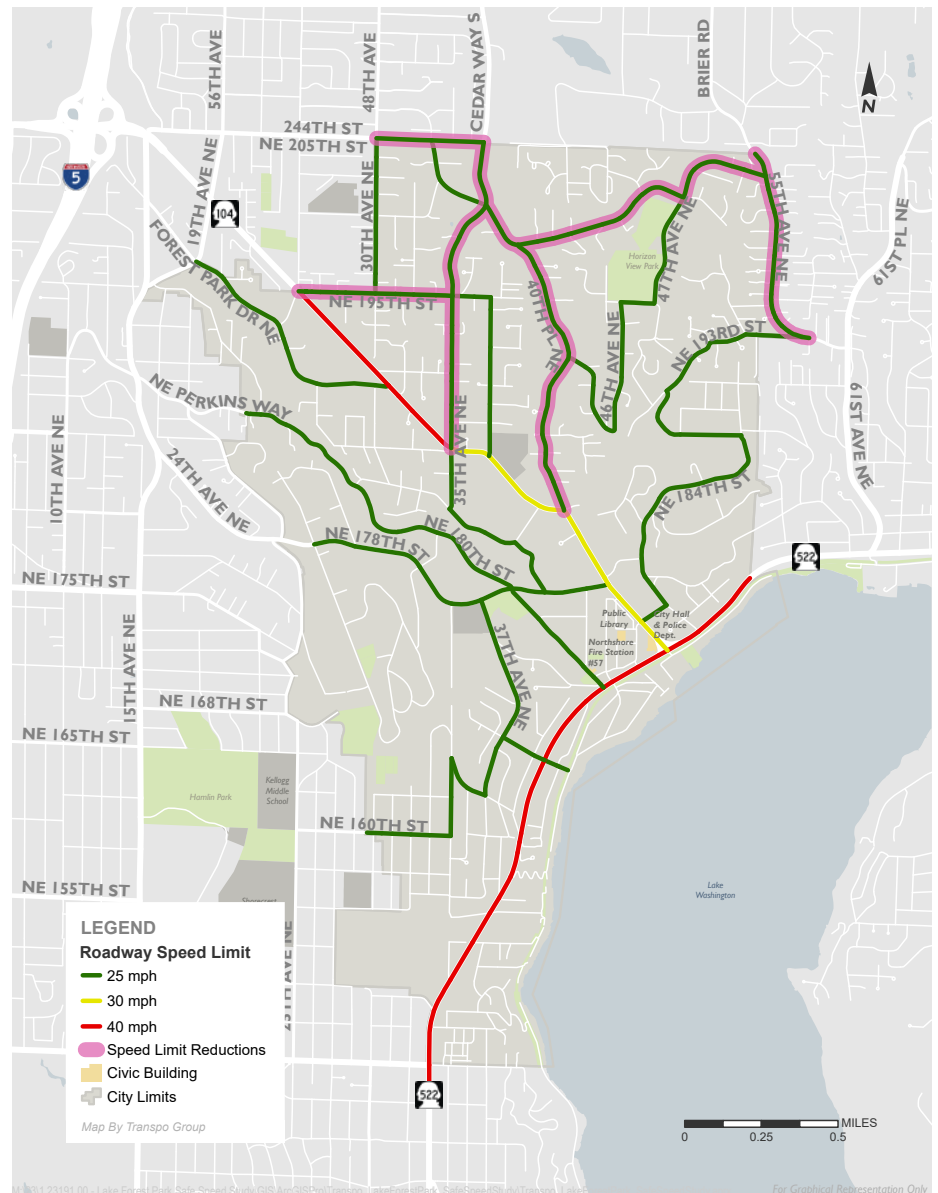


Figure 15. Map of Speed Limit Resulting from Default 25 mph Limit on Arterials/Collectors

Option 3 Findings

The resulting speed limit changes from Option 3 (default 25 mph speeds) are similar to those in Option 2 (City Limits based methodology). The only differences are that NE 195th Street and a section of 40th Place NE would also decrease to 25 mph in Option 3. Existing speed data on these roadways suggest that lowering roadways may require additional traffic calming measures because both roadways have 85th percentile speeds over 35 mph.

The primary advantage of this methodology is that it creates a simple and clear public message, that all city collector and arterial streets will be 25 mph.



Speed Limits on Local Access Streets

In addition to the modifications made to the arterial and collector roadways, potential adjustments to local access street speed limits were also considered. Local streets are those that are not designated as arterials or collectors and were not included in any of the three methodologies for setting speed limits. The key characteristics of local streets include low traffic volumes, more direct property access, and slower vehicle speeds. The City currently maintains approximately 39 miles of local streets.

Under the provisions of RCW 46.61.415, local jurisdictions are granted the authority to establish a maximum speed limit of 20 mph without necessitating an extensive engineering or traffic investigation. The roadways shown Figure 16 would all be candidates for a 20 mph speed limit. Lake Forest Park has already reduced speed limits on some local roadways south of SR 522 to 20 mph.

A 20 mph speed limit on local streets supports the safe movement all users since local streets tend to have low volumes and operating speeds.

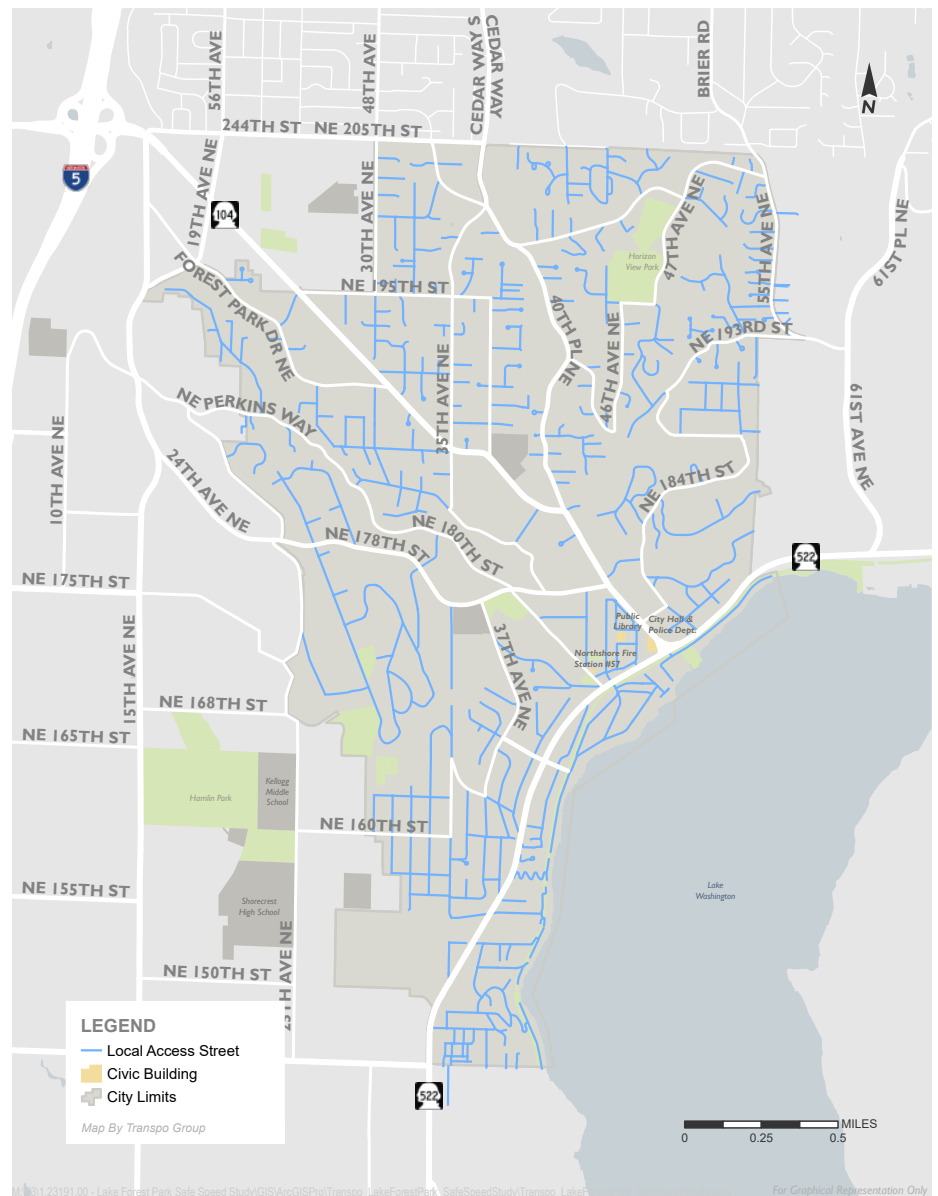


Figure 16. Local Access Streets in Lake Forest Park

Other Applications of 20 mph Speed Limits

This regulatory framework, allowing for a 20 mph speed limit on local streets, has found widespread acceptance and application across various agencies. Noteworthy examples include the cities of Seattle, Tacoma, and Bainbridge Island in Washington State, as well as cities like Boulder, Denver, Washington DC, Portland, and Salt Lake City.

Conclusion



The Safe Speed Study was undertaken to formulate effective speed management strategies and posted speed limit methodologies for the City of Lake Forest Park. Employing a variety of industry best practice methodologies, the City's citywide speed limits were analyzed. Recognizing the diverse conditions and contextual roadway classifications in Lake Forest Park, a comprehensive speed limit-setting strategy was crafted to integrate various roadway parameters and characteristics when determining safe posted speed limits along different roadway segments.

The speed limit setting methodology, based on the NACTO City Limit framework, takes into consideration crucial factors such as nearby land use, roadway classification, pedestrian and bicycle activity, safety data, as well as traffic and speed data.

Three speed limit setting methodologies were presented to the Lake Forest Park City Council on December 14, 2023. The discussions resulted in members of City Council providing general direction that the default 25 mph speed limit for arterials and collectors within the City (Option 3), was the preferred methodology.

Based upon evaluation of speed limit setting methodologies and incorporating feedback from the city council, it is recommended that posted speed limits across the City are modified to be consistent with the study findings. Specifically, the Safe Speed Study suggests **a reduction in the speed limit to 25 mph for all arterial and collector roadways**, with a further reduction to **20 mph on local access streets**. This adjustment aligns with the overarching goal of enhancing safety within Lake Forest Park and follows industry best practices in speed limit setting practices.

Next Steps

Should the City choose to implement default 25 mph speed limits across its arterials and collectors, an implementation plan should be developed. The implementation plan should consider the following items:

1. Inform road users about the revised speed limits within city boundaries through effective outreach and communication strategies. This ensures that the community is aware of the changes and can adjust their driving habits accordingly.
2. Perform some targeted enforcement and providing drivers with warnings for a period of time to help re-enforce the speed limit changes.
3. Re-visit existing traffic calming policies and funding allocations in context of any citywide speed limit modifications.
4. Consider additional traffic calming measures in the context of any revisions to the City's traffic calming policies and funding allocations to continue addressing ongoing vehicle speeding concerns and to assist in adapting drivers to the new citywide speed limits.
5. Evaluate the existing speed limits on state routes within the City limits. This assessment will provide insights into whether adjustments are needed to further enhance roadway safety and will help the City work with WSDOT on modifying posted speed limits along the state highways.

