MAYOR LINDA GORTON

LEXINGTON

JEFFERY NEAL
DIRECTOR
TRAFFIC ENGINEERING

TO: Whitney Baxter, 9th District Council Member

FROM: Roger T Mulvaney, PE, PTOE Traffic Engineer Manager

DATE: April 25, 2025

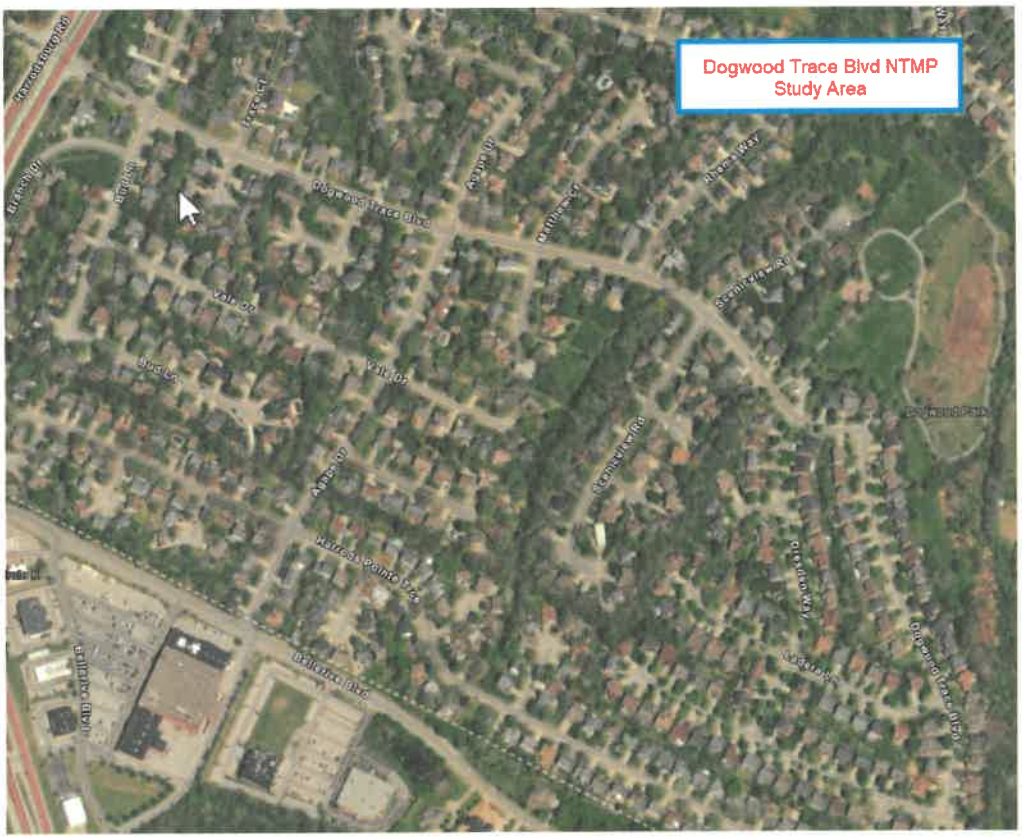
SUBJECT: **Speed Study on Dogwood Trace Boulevard**

Per a traffic engineering observation, a study was completed on Dogwood Trace Boulevard to determine if a speed reduction is warranted on this street.

Summary

In Summary, due to the traffic volumes, roadway geometry, and the recorded 85th percentile speeds, **Traffic Engineering recommends lowering the speed limit to 25mph from Agape Drive to the end of the street and no change to the 35mph designations between Harrodsburg Road and Agape Drive.**

The supporting analysis for this recommendation is detailed in the following pages.



Aerial of Dogwood Trace Boulevard, study areas and surrounding areas

The study looked at the volume and speed of vehicles utilizing the street for a 72-hour period. Volume and speed data were collected at four locations on Dogwood Trace Boulevard. This first location is between Trace Court and Charisma Court, second one is between Matthew Court and Rhema Way, third one is between Scenic View Road and Dresden Way, and fourth one is between Dresden Way and Ladera Lane. Traffic counts were placed at a fifth location between Ashmont Way and Dresden Way but were discarded due to corrupted data.

The Federal Highway Administration's Manual on Uniform Traffic Control Devises (MUTCD) Section 2B.21 addresses speed limits by stating"

Speed zones (other than statutory speed limits) shall only be established on the basis of an engineering study that has been performed in accordance with traffic engineering practices. The engineering study shall consider the roadway context.

Among the factors that should be considered when conducting an engineering study for establishing or reevaluating speed limits within speed zones 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-precentile speeds; and
F. A review of past speed studies to identify any trends in operating speeds.

Traffic Study

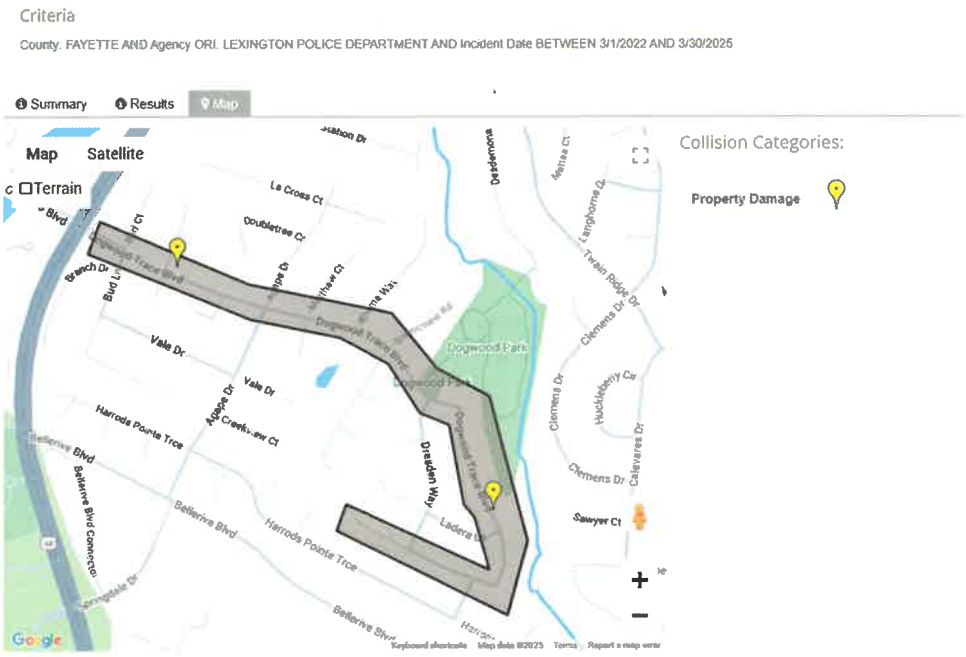
The findings of the speed analysis on Dogwood Trace Boulevard are as follows:

A. Dogwood Trace Boulevard is classified as a residential collector street. On street parking is permitted but most parcels that are adjacent to Dogwood Trace Boulevard include driveways. While the street consists mostly of single-family residential homes, the lot sizes are larger closer to Harrodsburg Road and more moderately sized in the back sections of this road after Scenicview Road. Dogwood Park is accessed from Dogwood Trace Boulevard and there is low to moderate pedestrian and bicycle use on this road typical for a suburban application.
B. The posted speed limit on Dogwood Trace Boulevard is 35 mph. Dogwood Trace Boulevard is typically a 40 feet wide street between Harrodsburg Road and Scenicview Road and is typically a 30 feet wide street between Scenicview Road and the end of the street. Utility strips, sidewalks and street lights are present on the entire length of Dogwood Trace Boulevard. Some pavement markings are present on Dogwood Trace Boulevard near Harrodsburg Road and Agape Drive.
C. Dogwood Trace Boulevard is the main thoroughfare through the Dogwood Trace subdivision in a suburban section of Lexington in the 9th Council District.

D. A review of the collision history of this roadway per crashinformationky.org registered 2 recorded collisions in the study area during the 3 years (36 months) prior to this analysis (March 1, 2022 to March 30, 2025).

E.

Collision Type	Collision Manner	Date	Severity
1 VEHICLE PARKING POSITION	ANGLE	2/25/2025	Property Damage Only
1 VEHICLE PARKING POSITION	BACKING	12/28/2023	Property Damage Only



Crash location map on Dogwood Trace Boulevard (crashinformationky.org)

F. The following table is a summary of the data collected along Dogwood Trace Boulevard.

Location	Avg. Speed (mph)	Mode Speed (mph)	% over 35 mph	85th PCTL Speed (mph)	Peak Hour Vol. (veh)		Avg. Daily Traffic Vol. (veh)	
Dogwood Trace Boulevard (EB 2461 Dogwood Trace Boulevard)	31.55	35	**15.62%**	**36**	167	**386**	1,271	**2,630**
Dogwood Trace Boulevard (WB 2461 Dogwood Trace Boulevard)	31.42	35	**15.40%**	**36**	219		1,359	
Dogwood Trace Boulevard (EB at 4797 Rhema Way)	32.97	35	**29.82%**	**32.97**	88	**190**	686	**1,369**
Dogwood Trace Boulevard (WB at 4797 Rhema Way)	31.81	35	**24.44%**	**37**	102		683	
Dogwood Trace Boulevard (EB 2397 Dogwood Trace Boulevard)	23.31	35	**2.62%**	**28**	66	**137**	521	**999**
Dogwood Trace Boulevard (WB 2397 Dogwood Trace Boulevard)	23.57	35	**0.30%**	**27**	71		478	
Dogwood Trace Boulevard (EB 2349 Dogwood Trace Boulevard)	25.53	35	**4.38%**	**32**	15	**30**	125	**228**
Dogwood Trace Boulevard (WB 2349 Dogwood Trace Boulevard)	24.84	35	**3.42%**	**30**	15		103	

The 85th percentile speed along Dogwood Trace Boulevard were found to be in the range of 37 mph in the westbound direction at 4797 Rhema Way to 27 mph in the westbound direction at 2397 Dogwood Trace. The 85th percentile speed, or the speed at which 85% of the vehicles are traveling at or below, is based on the theory that a large majority of drivers are reasonable and prudent, do not want to have a crash, and want to reach their destination in the shortest amount of time possible. The average speeds were 23 to 31 mph range.

G. For comparison, LPD provided a speed study from April 2024 that showed the 85th percentile speed in the area of Dogwood Trace Boulevard & Scenicview Drive to be 37 mph. This information is shared on the following page.

Lexington Police
Traffic Section
S.O R. Lyons
Traffic Survey Summary

Batch Number: 041824-A

Start Date: 04/18/24
End Date: 04/25/24

Start Time: 09:34 AM
End Time: 09:16 AM

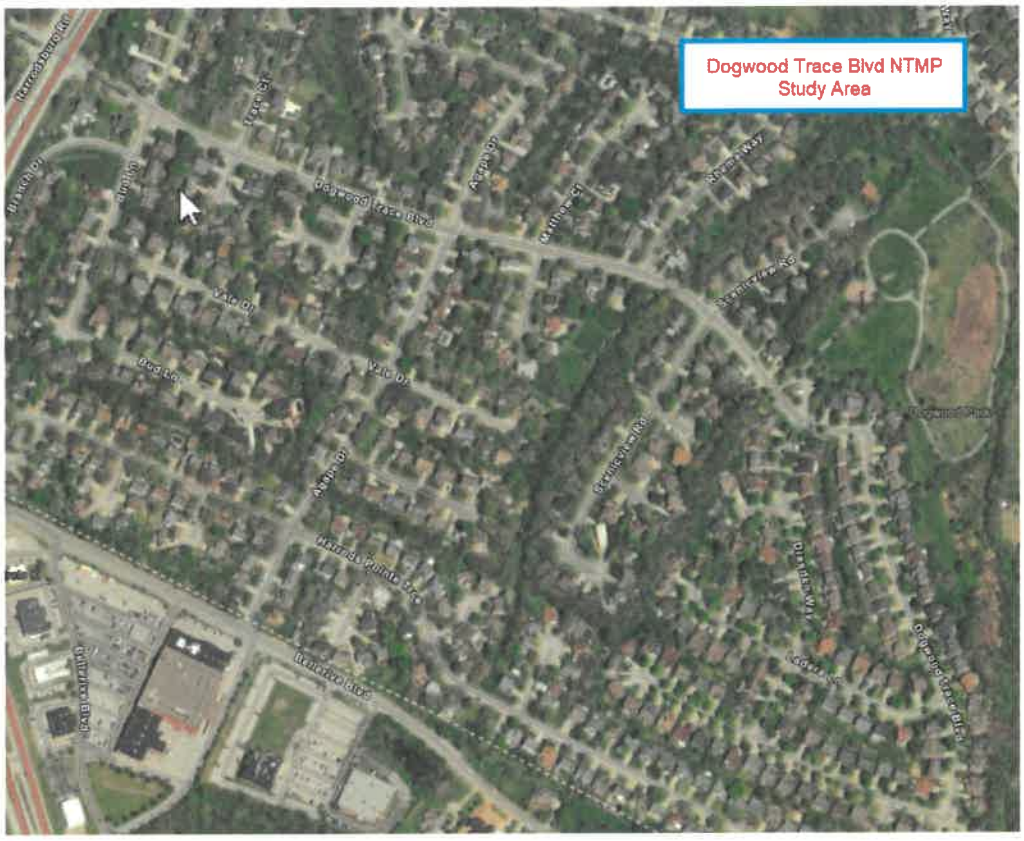
Zone: Residential
Location: Dogwood Trace/ Scenicview

Direction of Travel: South

Display Scheme: 15 to 70 by 5 MPH - Approaching Vehicles Only

Speed	1 - 14	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	50 - 54	55 - 59	60 - 64	65 - 69	70 - 999
Volume	0	187	259	921	2053	1329	218	13	3	0	0	0	0
% of Total	.%	3.75%	5.2%	18.48%	41.2%	26.67%	4.37%	.26%	.06%	%	.%	.%	.%
										Total Vehicles: 4983			

Speed Statistics			10 MPH Pace			Number Exceeding Limit				
Posted	35		Pace Speed	27 to 37		Speed	35+	45+	55+	Total
# At/Under Limit	3830		# in Pace	3751		Number	1140	13	0	1153
# Over Limit	1153		% in Pace	75 %		Percent	22.88%	.26%	.%	23.14%
Average Speed	31.8		85th Percentile	37						



Aerial of Dogwood Trace Boulevard, study areas and surrounding areas

Emergency Services Review

The Division of Traffic Engineering coordinated with representatives from the Division of Police and Division of Fire and Emergency Services to obtain input regarding traffic and safety operations of Dogwood Trace Boulevard.

- The Division of Police has reviewed this document and has no objections to the recommendations in this report.
- The Division of Fire and Emergency Services has reviewed this document and has no objections to the recommendations in this report.

Recommendation

In conclusion, due to the traffic volumes, roadway geometry, and the recorded 85th percentile speeds, Traffic Engineering recommends lowering the speed limit to 25 mph on Dogwood Trace Boulevard from Agape Drive to the end of the street and no change to the 35mph designation between Harrodsburg Road and Agape Drive.

Should you have any questions about the information included in this report, please contact Roger Mulvaney in the Division of Traffic Engineering at (859) 258-3480 or rmulvaney@lexingtonky.gov.

cc: Nancy Albright, PE, Commissioner of Environmental Quality & Public Works
Jeffery Neal, PE, Director of Traffic Engineering
Jim Woods, PE, PLS, Deputy Director of Traffic Engineering
Shannon Ison, Captain, Division of Fire & Emergency Services
Christopher Van Brackel, Lieutenant, Division of Police
Elizabeth Withers, Legislative Aide to CM Baxter