MAYOR JIM GRAY

LEXINGTON

JEFF NEAL
DIRECTOR
TRAFFIC ENGINEERING

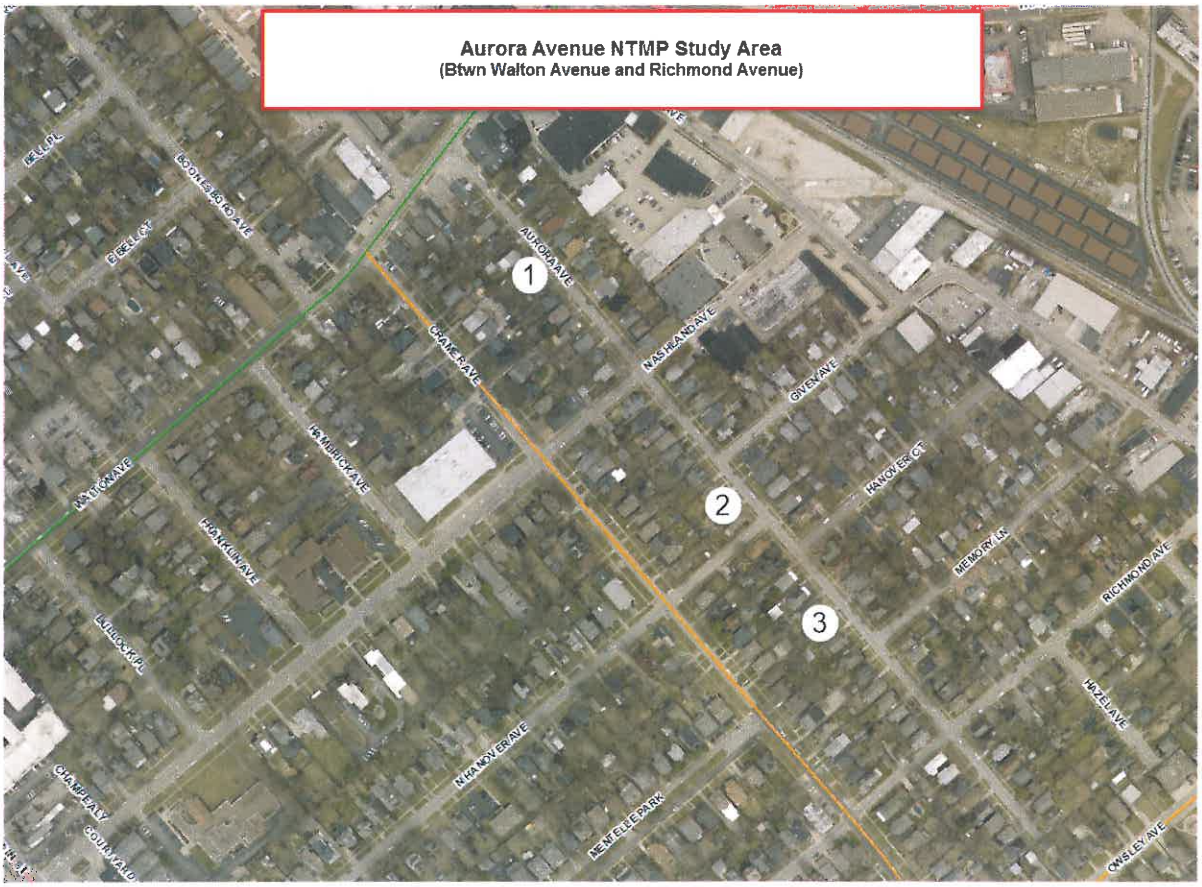
To: Sally Lambert-Warfield
Legislative Aide to Councilmember Jake Gibbs

From: Roger T. Mulvaney
Roger T. Mulvaney, P.E.
Traffic Engineer Manager, Division of Traffic Engineering

Date: September 29th, 2016

Re: Aurora Avenue Traffic Calming Study

Per your request, a study was completed on Aurora Avenue between Walton Avenue and Richmond Avenue to determine if traffic calming measures are warranted on this local residential street. The study looked at the volume and speed of vehicles utilizing the street. Volume and speed data were collected at three points on Aurora Avenue in the study area for a 96-hour period.



Aerial of Aurora Avenue study area and surrounding area

Data revealed that the average daily traffic over this 4-day period was 829 vehicles per day at 714/717 Aurora Avenue. The 85th percentile speed of vehicles on Aurora Avenue ranged from 24.38mph to 35.53mph traveling westbound towards Walton Avenue. In addition, it was documented that 10.42% to 48.42% of the vehicles traveling on Aurora Avenue were traveling over the posted speed limit of 25 mph. The average speed of the vehicles on Aurora Avenue ranged from 21 to 27 mph depending on the location. The table below shows the data that was obtained over the study time period:

Location	Average Speed (mph)	Mode Speed (mph)	% over 25 mph	85th Percentile Speed (mph)	Peak Hour Volume (vehicles)		Average Daily Traffic Volume (vehicles)	
EB Aurora Ave. (@ 714 Aurora Ave.)	23	20	**35.72%**	**29.57**	59	92	583	**829**
WB Aurora Ave. (@ 717 Aurora Ave.)	27	20	**48.42%**	**35.45**	33		246	
EB Aurora Ave. (@ 822 Aurora Ave.)	22	20	22.40%	27.62	48	75	516	801
WB Aurora Ave. (@ 823 Aurora Ave.)	21	20	10.42%	24.38	27		285	
EB Aurora Ave. (@ 910 Aurora Ave.)	22	20	23.80%	27.52	41	70	394	596
WB Aurora Ave. (@ 913 Aurora Ave.)	22	20	20.49%	27.28	29		202	

In the previous table, since the volume of traffic on the 700 block of Aurora Avenue was measured to be more than 750 cars in the peak day *and* there were more than 25% of vehicles traveling over the posted speed limit, Traffic Engineering also calculated the 90th percentile speed. The 90th percentile speed is also known as the lowest speed of the top 10 percent of fastest vehicles. For EB Aurora Avenue, the 90th percentile speed was found to be 32.15 mph and for WB Aurora Avenue, the 90th percentile speed was found to be 40.19 mph.

A review of the collision history revealed seven collisions in the last three years on Aurora Avenue in the study area, two collisions in 2013, two collisions in 2014, two collisions in 2015 and one in 2016. Two of the collisions were injury collisions, one being a collision with a pedestrian and the other being a collision involving a bicycle. Four of the non-injury collisions involved 1 vehicle in a parked position, two collisions were due to backing and the other two collisions were due to sideswiping a vehicle in the same direction. The seventh collision was a non-injury collision entering and leaving an entrance way. No fatalities were reported with the collisions.

Aurora Avenue is typically 25 feet wide, with on street parking permitted on the north side of the street, box curbs and no gutters, between Walton Avenue and National Avenue. Crosswalk and stop bar pavement markings are present at the intersection of N Ashland Avenue and stop bars at the intersection of Richmond

Avenue. Sidewalks and street lighting are present in this area. Aurora Avenue intersects Walton Avenue on the west side and Richmond Avenue on the east side of the study area.

Recommendations:

As detailed in the *Neighborhood Traffic Management Program* (NTMP) manual, the 700 block of Aurora Avenue meets the minimum criteria for mitigation actions along a residential local street based on the documented traffic volumes and speeds. The criterion includes Average Daily Traffic Volume greater than 750 vehicles per day with at least 25 percent of vehicles traveling at speeds in excess of the posted speed limit and where 10 percent of the vehicles traveling at speeds greater than 10mph over the posted speed limit. **Based on the traffic data and current NTMP criteria, Aurora Avenue meets the guidelines for Type 2 traffic calming devices including speed tables in the 700 block. Traffic Engineering will follow up with the property owners, residents, and neighborhood association regarding how best to proceed with the NTMP process.**

If you have any questions, feel free to contact me at 258-3830 at any time or via email at rmulvaney@lexingtonky.gov.

RTM/gmt

cc: Jake Gibbs, 3rd District Councilmember
Dowell Hoskins-Squier, Commissioner of Environmental Quality & Public Works
Jeffrey Neal, P.E., Director of Traffic Engineering
Jim Woods, P.E., P.L.S., Deputy Director of Traffic Engineering
Chad Bacon, Lieutenant, Division of Police
Sally Warfield, Aide to CM Gibbs