

REPORT / RECOMMENDATION



To: Edina Transportation Commission

Agenda Item #: VI. B.

From: Joseph Totten, Traffic Safety Coordinator

Action

Discussion

Date: January 17, 2015

Information

Subject: 2014 Bicycle and Pedestrian Count Results

Action Requested:

None.

Information / Background:

Traffic Safety Coordinator Joe Totten will present the results of the non-motorized transportation counts that were conducted in the City of Edina as part of the statewide counts on the subject. The reason for conducting the counts, how the counts were conducted, what the data can be used for, and what we can learn from the current data sets will also be presented/discussed.

Summary

Traffic Volumes are a basic input for transportation planning and engineering¹. Currently sophisticated models and monitoring systems exist to estimate vehicle traffic and its attributes. Recently, there has been a greater emphasis on non-motorized transportation modes and their use as alternate forms of transportation, as well as for enjoyment and exercise. With this increase in attention to these forms of transportation, the City of Edina has started evaluating how these modes are used. This is the first year of this program, using past data that was provided courtesy of Transit for Livable Communities, which ran previous counts, limited multi-year analysis was possible.

In the future, more data in these locations and others will be able to determine the effectiveness of improvements to the infrastructure for non-motorized transportation, the changes in use over the course of several years, establish benchmarks and standards for facilities' use, improve the system planning for bicyclists and pedestrians, and otherwise gather information for the use of residents, businesses, staff, the state, and outside researchers. Currently few final conclusions can be reached, however trends have started to show themselves. Further investigation in the future will allow the City of Edina to determine if these trends continue and how they may change over time.

Together with the Minnesota Department of Transportation (MnDOT) the Minnesota Department of Health (MDH) and statewide communities, Edina staff was trained in how to conduct these counts. The state was

interested in investigating the use of walking and bicycling as transportation modes, and the exercise that is associated with walking or bicycling in conjunction with its Statewide Health Improvement Plan.

Counting was conducted by city staff, placing cameras and analyzing the videos in the office. Full weekdays (Tuesday-Thursday) were recorded and analyzed in 15 minute segments. This was done under the instruction of MnDOT, to get the most consistent data. The Traffic Safety Coordinator and an Engineering Intern analyzed the video into the categories of bicyclist and pedestrian, with pedestrian also consisting of the subcategory of assisted pedestrian (using any sort of additional assistance that could not be considered a bicycle, i.e. wheelchairs, strollers and skateboards). An attempt was also made to record children as opposed to adults; however the definition of the cameras, as well as the question of how to determine how someone signifies that they are grown made this analysis difficult and the data unreliable.

By counting for twenty-four (24) hours at each location, the city was able to create a general graph of users by time of day. This graph (shown on page 4) closely reflects the shape of a typical vehicle travel model. Other analysis (from this years' data only) that is worthy of note, is where the counts took place, the relative uses of these different locations, and the surrounding area of the counts, as well as an aggregate count of bicycling users and pedestrian users. Using the recently collected and past data, we can observe that from 4:00-6:00 PM, the general use of non-motorized use has been increasing with time in the three locations studied.

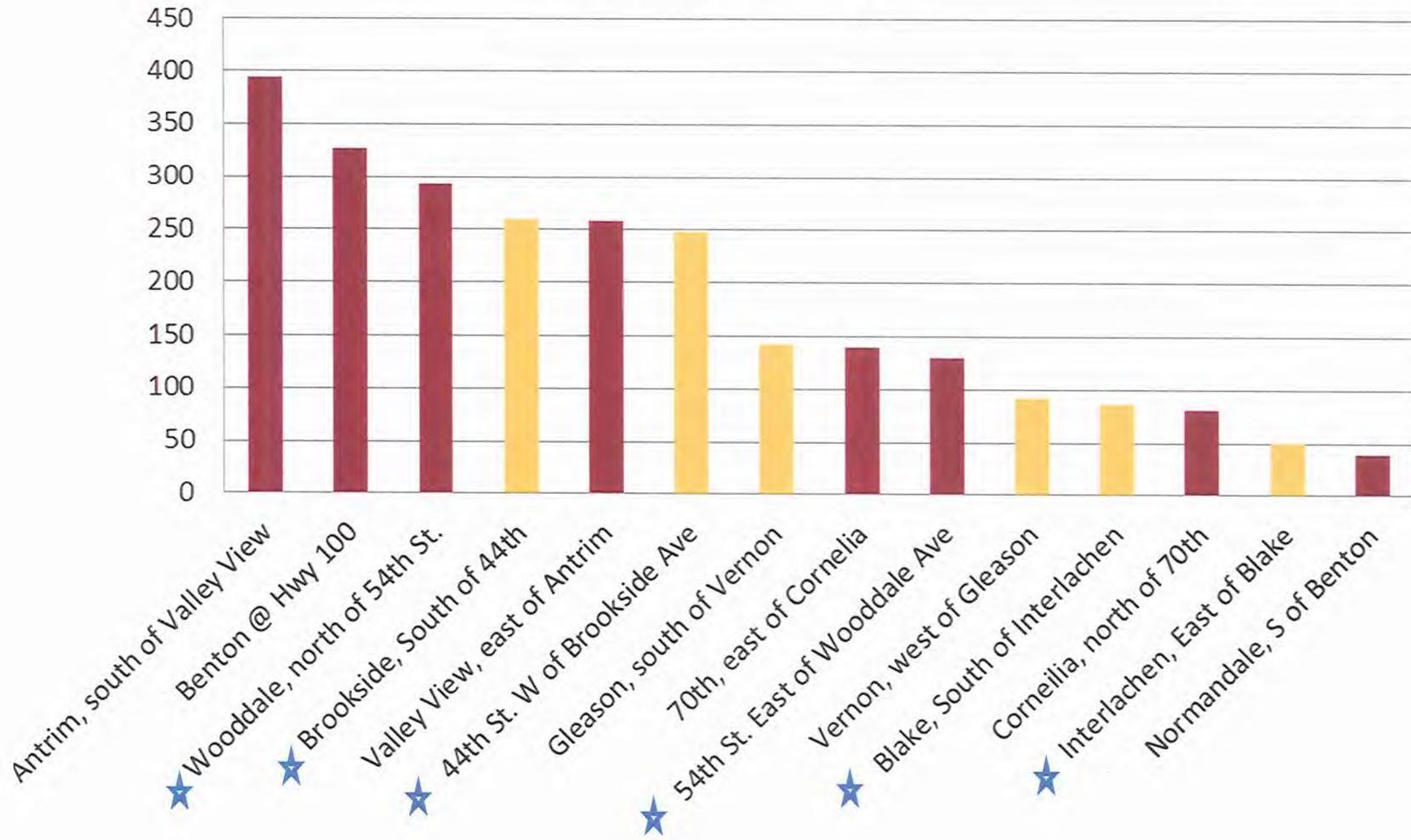
¹ This is taken from the MnDOT report "The Minnesota Bicycle and Pedestrian Counting Initiative: Methodologies for Non-motorized Traffic Monitoring, Final Report"

Attachments:

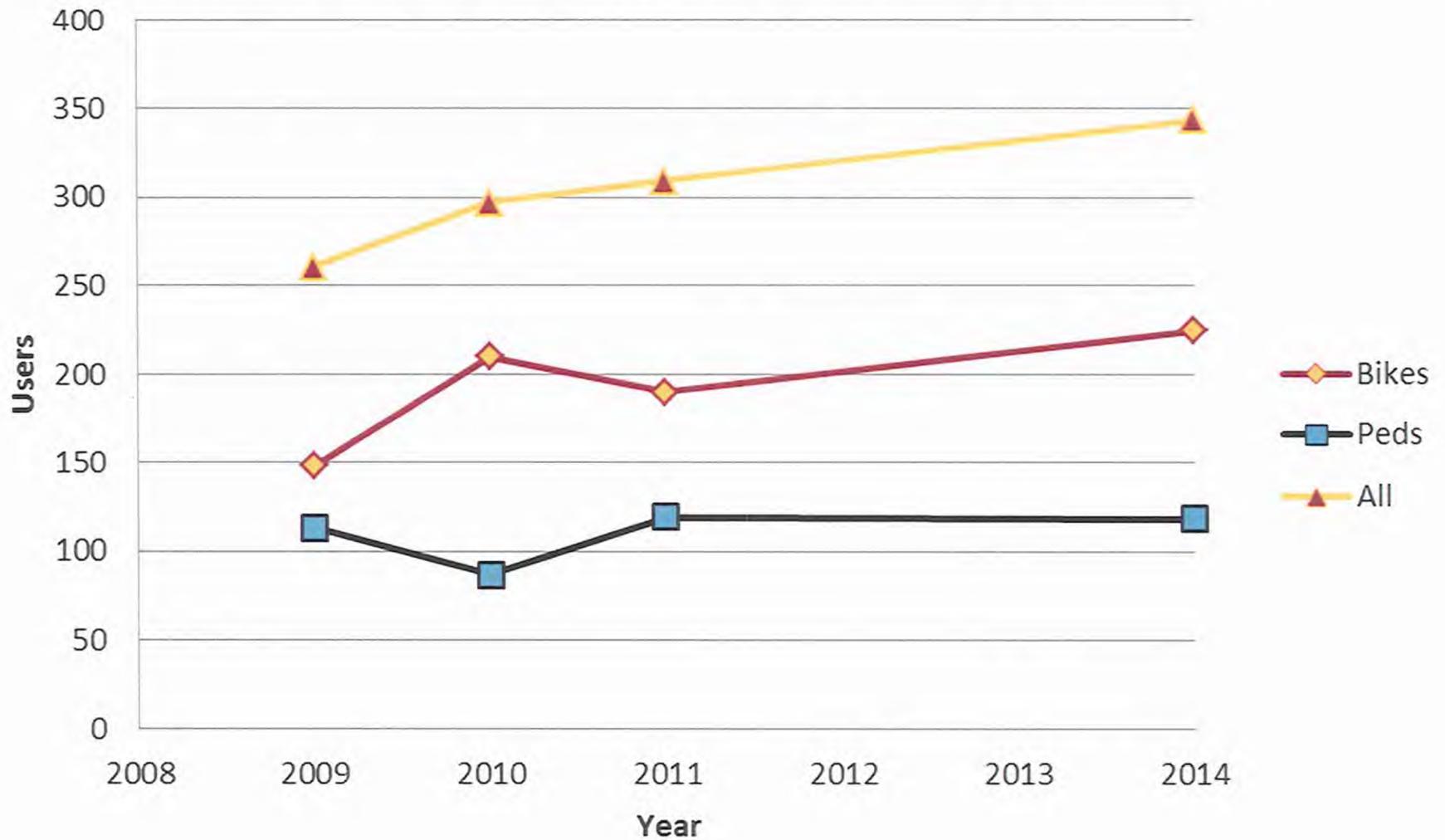
Four charts detailing some of the results for the count program

A map of the count locations throughout the City of Edina

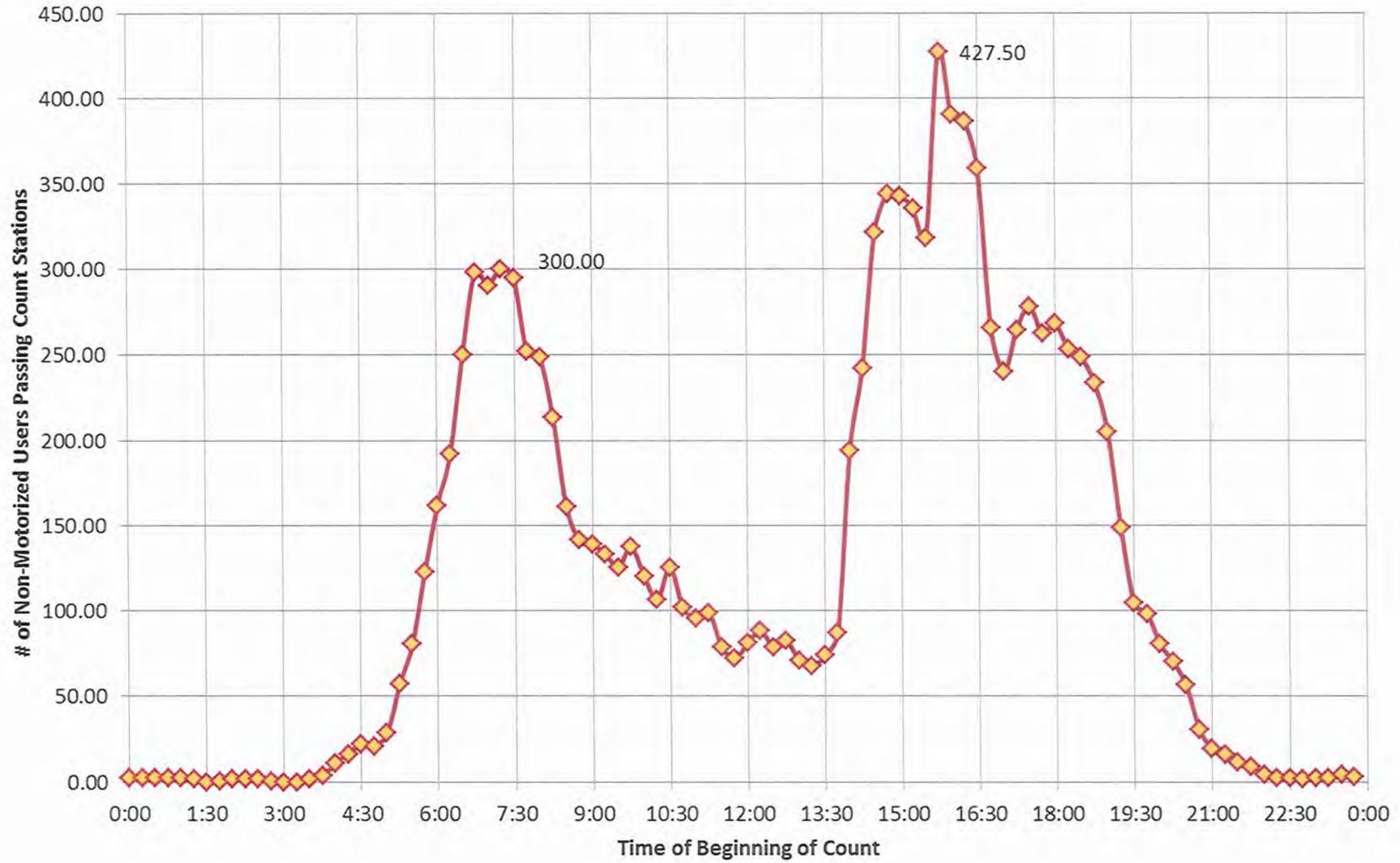
Full Day averages



Non-Motorized Transportation Users, 4-6 PM



Sum of all Non-Motorized Counts (Hour Long), City of Edina



Non-Motorized Transportation by Mode

