

Council Questions & Staff Responses concerning the Neighborhood Traffic Management Program (NTMP) 2015 Year End Report Program

Can solar powered signs (also known as Driver Feedback signs) be utilized?

Driver Feedback Signs are a tool utilized in school zones only. For consistency purposes staff would like to continue permanent placement only in school zones. A concern is that if permanent driver feedback signs are permanently installed in other areas it could result in lower compliance with the signs in school zones, hence making them less effective.

With that being said, purchasing deployable driver feedback units could be beneficial. The units would not be used for permanent installation as discussed above but instead could be moved to targeted locations. The cost of a driver feedback unit is comparable to a speed hump. Using some driver feedback units to deploy temporarily within the neighborhoods may be beneficial, as it would help create awareness of the speed limit.

How is the Speed Score and Collision calculated?

The following pages include a speed study work order that is provided to our Street Operations crews for placement of the plate counters. The plate counters gather speed and volume data used in scoring each street. An example has also been included showing how speed scores are calculated as well as collision scores.

Each street is analyzed showing where the highest speeds occur. The counters are then placed in those locations, per the speed study work order. The counter location that results in the highest score based on volume and speed is used as the score for that specific street. Although each location is scored, the highest score location is the one reported. The pedestrian generator, bike route, and collision scores remain constant throughout the multiple locations on the street, hence making the only variables the speed and volume.

Are traffic calming scores being used in conjunction with crime data?

Staff is not using crime data in conjunction with the Neighborhood Traffic Management Study. If the City were to coordinate traffic calming with crime data the DDACTS (Data Driven Approaches to Crime and Traffic Safety) model, could provide framework for doing so. This would likely require additional staffing from Public Works and Police Department.

Does staff continue to evaluate streets after calming devices have been implemented?

Once calming devices are implemented, the plate counters are placed on the street again to evaluate the effectiveness of the devices installed. Additional data has been included showing the pre-post data for Derby Ridge and College Park.

Traffic Calming Scoring

Speed Score

Speed Score is calculated by taking the recorded 85th percentile speed and subtracting the posted speed limited. Take that difference and multiply by three. Maximum score of 45.

e.g. ABC Drive has an 85th percentile score of 32 mph with a posted speed limit of 25 mph.

85th percentile score = 32 mph

Posted Speed Limit = 25 mph

$32 - 25 = 7$

$7 \times 3 = 21$

ABC Drive Speed Score = **21**

Include Level 2 applied with a difference on scoresheet.

Collision Score

The Collision score is based on a three year rolling average. Two points are given for each collision in a three year rolling average.

e.g. ABC Drive has the following collision history:

Year	Total Collisions
2013	2
2014	8
2015	2

Three year rolling average for collisions = 4

$4 \times 2 = 8$

ABC Drive Collision Score = **8**

Ex. of Speed Study Request Pg 1 of 2

Hi-Star Request Form



Date:	September 24 th , 2015
Requestor:	Lee White
Location:	College Park Drive
Completion Target Date:	October 23 rd , 2015
Number of counters needed:	8
Count Duration:	24 hours
Count Bin Interval:	15 minutes
Information to be collected is underlined:	<u>Volume</u> <u>Speed</u> Vehicle Length
	Council Request: No Neighborhood Petition: No Director Ordered: No
Special Instructions:	Place 1 NB and 1 SB counter 130' North of Dartmouth for College Park Drive traffic. Place 1 NB and 1 SB counter 180' south of Dartmouth for College Park Drive traffic. Place 1 NB and 1 SB counter 130' South of Princeton Drive for College Park Drive traffic. Place 1 NB and 1 SB counter 185' South of Oxford Drive for College Park Drive traffic.

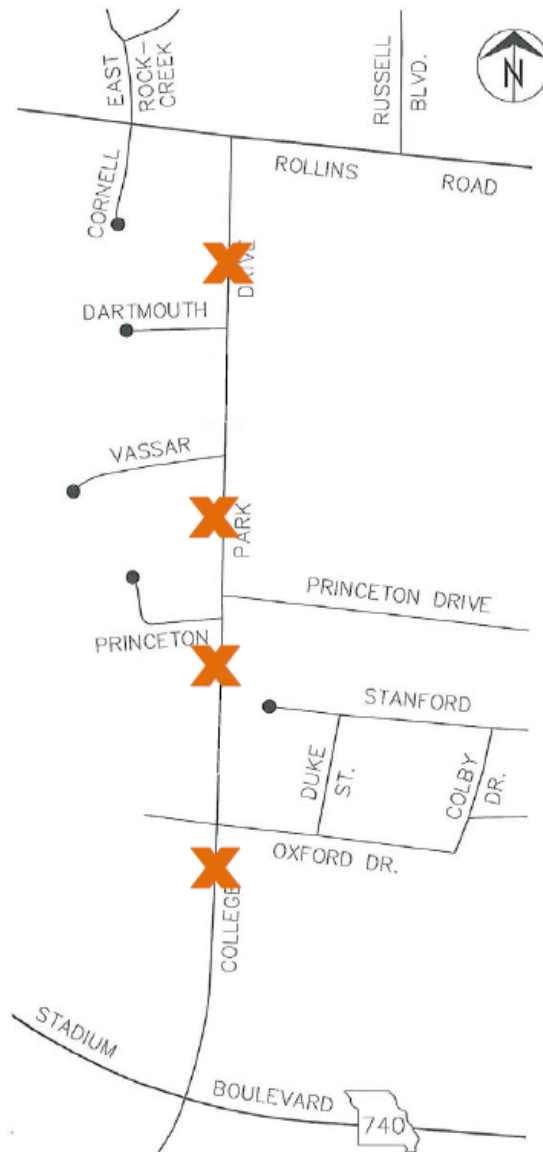
Sketch: See next page

Ex. of Speed Study Request Pg 2 of 2

Hi-Star Request Form



Sketch:



Derby Ridge Summary Post Installation

Riva Ridge

Neighborhood	Score	85th Speed	
Derby Ridge	95.62	39.65	Before
Derby Ridge	60.86	29.73	After
		-9.92	

Derby Ridge had an 85th percentile speed of 39.65 mph, this is nearly 15 mph over the speed limit. After the Level 2 traffic calming measures were applied, the 85th percentile speed taken in the same counter location (near Riva Ridge) as before had reduced by nearly 10 mph, to 29.73 mph. A score of 60.86 would put Derby Ridge 14th on the 2015 Year End Report.

Seattle Slew

Neighborhood	Score	85th Speed	
Derby Ridge	81.20	38.51	Before
Derby Ridge	62.13	32.82	After
		-5.69	

As discussed previously, multiple counter locations are placed on the street but only the highest resulting volume and speed scores are the official “score” for the street. Near Seattle Slew, on Derby Ridge the 85th percentile speed was previously 38.51, and now has been reduced to 32.82. This is a reduction in nearly 6 mph. A score 62.13 would put Derby Ridge 10th on the 2015 Year End Report.

Bold Ruler

Neighborhood	Score	85th Speed	
Derby Ridge	88.67	42.71	Before
Derby Ridge	74.63	35.32	After
		-7.39	

As can be seen in the table above, the 85th percentile speed was reduced by 7 mph near Bold Ruler. This portion of Derby Ridge maxed out the speed score because it's 85th percentile speed was more than 15 mph over the posted speed limit. Essentially it didn't receive any additional credit for 2.71 mph over 40 mph, which would reduce the score by an additional 8.13 points. Bold Ruler was at the north end of the project and didn't have any calming placed to the north, after confirming locations with the neighborhood. A score of 74.63 would put Derby Ridge 6th on the 2015 Year End Report.

College Park Summary Post Installation

Oxford Drive

Neighborhood	Score	85th Speed	
College Park	81.67	44.49	Before
College Park	72.79	38.04	After
		-6.45	

College Park had an 85th percentile speed of 44.49 mph prior to the installation of the speed humps and 38.04 mph after the installation of the speed humps. This resulted in a reduction of 6 mph. The counter was placed south of the speed table so this is measuring northbound traffic. The effect of the speed table can be seen in the anticipation of the speed table. The score doesn't change significantly because the speed above 40 mph results in the same speed score. The speed score theoretically was reduced by 19.35 but only got credit for a reduction of 5.88. A score of 72.79 would put College Park 6th on the on the 2015 Year End Report.

Princeton Drive

Neighborhood	Score	85th Speed	
College Park	81.67	43.06	Before
College Park	62.11	35.48	After
		-7.58	

The 85th percentile speed was reduced by nearly 8 mph near Princeton Drive. This resulted in the overall score being reduced by nearly 19 points. A score of 62.11 would place College Park 10th on the 2015 Year End Report.

Dartmouth Drive

Neighborhood	Score	85th Speed	
College Park	80.67	46.09	Before
College Park	73.61	36.98	After
		-9.11	

The 85th percentile speed was reduced from 46.09 mph to 36.98 mph. This counter was placed on the north side Dartmouth Drive so, the effect of the speed table can be seen in the anticipation of the speed table. This is a 9 mph reduction in the 85th percentile speed at this location. The score doesn't change significantly because the speed above 40 mph results in the same speed score. A score of 73.61 would put College Park 6th on the 2015 Year End Report.

Once again any original 85th percentile speeds above 40 mph don't show the full reduction in the speed score as the scores max out at 40 mph.