

## Tallyho Trail Traffic Calming Report

Date: June 23, 2014

Jeff Brubaker, Carrboro Planning Department

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Traffic calming requests in Carrboro are processed in accordance with the Residential Traffic Management Plan (RTMP), originally adopted by the Board of Aldermen in June 1996 and most recently revised in October 2006.

### Request

On May 3, 2012, Laura Wenzel of the Fox Meadow neighborhood submitted a traffic calming request for Tallyho Trail from Huntsman Ct. to Reynard Rd. Ms. Wenzel serves as the neighborhood's primary contact person for the traffic calming process, and Molly Mullin is the second contact person.

Ms. Wenzel described the following concerns:

- Tallyho Tr. is narrow with no sidewalks, bike lanes, or shoulders
- The road is windy and hilly with several blind corners
- Residents of the neighborhood and adjacent neighborhood, including many children, walk, jog, and cycle along the road
- Deer cross the road at night
- Driving faster than the 25 mph speed limit occurs frequently and is an easy habit to fall into

Ms. Wenzel offered the following possible solutions:

- Milled rumble strips that discourage higher speeds, are designed to not impede cyclists, and placed with enough distance from residences to avoid noise issues
- Stop signs (although Ms. Wenzel acknowledged they "would inconvenience residents and be subject to being ignored")

In a May 2014 email, Ms. Wenzel suggested that Stage 1 measures be tried before considering Stage 2 measures.

### Petition

After Town staff verified that Tallyho Tr. was a Town-maintained street, a petition packet was mailed by Town staff in June 2012. The petition packet included copies of

Attachment B of the RTMP (neighborhood petition form), an area of influence (AOI) map (see attachments), and an AOI property list.

A petition was received, signed by 69 of the 81 AOI properties. Staff were able to verify 65 of these, or 80% of the AOI. This surpassed the 75% RTMP threshold, so it was determined to be valid, and the evaluation period could begin.

## **Evaluation**

The RTMP states:

In general, streets that receive up to 25 points are eligible for Stage 1 Traffic Calming only. Streets that receive a combined total of at least 12 points in the "Traffic Volume" and "85th Percentile Speed" criteria and more than 25 points total will be eligible for both Stage 1 and Stage 2 Traffic Calming.

RTMP p. 3 lays out the evaluation criteria, performance measures, and scoring.

### *Traffic volume and 85<sup>th</sup> percentile speed*

On Tues., September 17, and Wed., September 18, 2013, Town staff conducted two-way, 48-hr. traffic and speed counts at four mid-block locations along the street:

- 1000 block, between Reynard Rd. and Bugle Ct.
- 1200 block, between Bugle Ct. and Lair Ct.
- 1400 block, between Bugle Ct. and Lair Ct.
- 1500 block, between Lair Ct. and Huntsman Ct.

The speed limit on Tallyho Tr. is 25 mph.

For each counter location, the higher 85<sup>th</sup> percentile speed of the two traffic directions surveyed was used for the analysis.

No segment traffic volumes exceeded the 800 expected vehicles per day threshold in the RTMP for collector/subcollector streets. Tallyho Tr. was considered a collector/subcollector for the purposes of this analysis.

The results are included in the attached sheets.

### *Pedestrian and bicycle volumes*

On Mar. 11, 2014, from 3:00 pm to 5:00 pm, Town staff conducted a two-hour pedestrian and bicycle count on the segment between Huntsman Ct. and Staffield Ln. While this is slightly outside of the area of influence, the location was chosen to allow

for as large of a stretch of road as possible to be visible, and staff believe it is a good proxy location for the entire street. Since it also included pedestrians crossing the street at Staffield Ln. and used the peak 1-hr. pedestrian volume from the 2-hr. period, staff believe it is likely to be a reasonable (or even above average) sample of day-to-day volumes.

The results are included in the attached sheet.

### *Bus stops*

Although the Chapel Hill Transit HS route serves adjacent Rogers Rd., there are no CHT buses on Tallyho Tr. itself.

Consulting a list of bus stops provided by CHCCS, there are three school bus stops on Tallyho Tr., one each at Staffield Ln., Lair Ct., and Reynard Rd.

### *Proximity to pedestrian generator*

This analysis, which applies to retail locations and parks, was conducted via ArcGIS Network Analyst. No parks or retail are within the threshold network distances.

Analysis maps are included as attachments.

### *Scoring summary*

The evaluation shows that three locations are eligible for Stage 2 traffic calming measures.

<b>Location</b>	<b>Total Pts</b>	<b>Vol/spd Pts</b>	<b>Eligible stage</b>
1000 block	23	12	None
1200 block	29	18	Stage 2
1400 block	35	24	Stage 2
1500 block	33	22	Stage 2

### **Initial transportation planner recommendation**

Note that the RTMP (p. 4) states:

For streets eligible for both Stage 1 and Stage 2 traffic calming, town staff may recommend that Stage 1 traffic calming measures be implemented prior to implementing Stage 2 measures. Once Stage 1 Traffic Calming measures are implemented, town staff will wait approximately three to six months and collect traffic speed and volume data and evaluate other traffic conditions on the street. The data would then be analyzed using the Traffic Calming Criteria to determine

if the Stage 1 Traffic Calming measures were successful. If the measures were successful, then the traffic calming process will end at this point. Otherwise, town staff will move on to analyze and recommend possible Stage 2 Traffic Calming methods.

Additionally:

- Ms. Wenzel has recently suggested starting with Stage 1 measures
- Given Tallyho Tr.'s length, the spacing of Stage 2 measures, if they were to be recommended, would first need careful consideration. Spacing them too far apart may reduce their effectiveness at calming mid-point speeds, but spacing them close enough will be more costly.

Given these points, the transportation planner recommendation brought to the staff-level Traffic and Parking Committee was that Stage 1 traffic calming measures be considered on Tallyho Tr.

The RTMP states that Stage 1 traffic calming “does not involve the use of physical controls or impediments on the roadway system” (p. 4). It lists Stage 1 measures as including:

- Neighborhood Awareness Campaigns and Education
- Radar Speed Trailer Deployment [Note: the Police Department has a radar speed sign.]
- Traffic Enforcement Actions
- Traffic Signs and Pavement Marking
- Alternative Transportation Modes

### **Traffic and Parking Committee recommendation**

The Traffic and Parking Committee considered the transportation planner recommendation on June 5, 2014, and recommended that Stage 1 traffic calming measures be implemented, including the use of the speed radar sign and consideration of a neighborhood meeting.

### **Transportation Advisory Board recommendation**

The Transportation Advisory Board considered the T&P Committee recommendation at its June 5, 2014, evening meeting. Two representatives of the neighborhood were also present at this meeting and were able to have a conversation about the reported speeding issues with TAB members.

The TAB recommendation consists of two Stage 1 measures:

1. Installation of a speed radar sign for a period of time
2. Neighborhood-oriented educational efforts

The TAB recommendation also states: "The Board should direct staff to re-evaluate the street after 3 to 6 months. If the Stage 1 measures have not been effective, the Town should begin a process of considering Stage 2 measures at that time."

### **For the Board of Aldermen to consider**

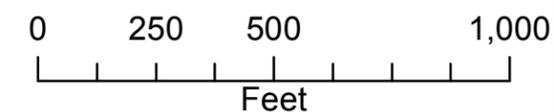
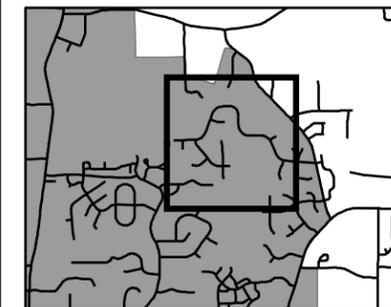
The Board of Aldermen should consider the TAB recommendation of Stage 1 measures. Please note that, per the RTMP, prior to a TAB or Board of Aldermen meeting discussing a Stage 2 recommendation, a 10-day advance notice must be provided to the area of influence. Given this, if the Board wishes to discuss Stage 2 measures, it is recommended that this take place at a future meeting before which the appropriate notice can be provided.

### **Additional notes**

- Tallyho Tr. is 1.07 miles in length.
- Tallyho Tr. has only one access and egress to the arterial street system: Rogers Rd.
- Tallyho Tr. is the only access for several subcollector or local streets:
  - Kit Ln.
  - Brace Ln.
  - Hound Ct.
  - Bugle Ct.
  - Lair Ct.
  - Huntsman Ct.
  - Stafffield Ln.
  - Brendan Ct.
  - Whitmore Cir.
- In total, Tallyho Tr. serves approximately 130 residential properties.
- Tallyho Tr. was previously a State-maintained residential subdivision road. It was accepted by the Town of Carrboro in July 2011, five years after annexation of the Northern Area in 2006. Prior to Town acceptance, it was resurfaced by NCDOT.
- The road is about 20 ft. in width with no centerline and no sidewalks, bike facilities, or curb. Horizontal curves in the road limit sight distance.



### Tallyho Trail: Area of Influence



#### Legend

-  Buildings
-  Area of Influence
-  Properties

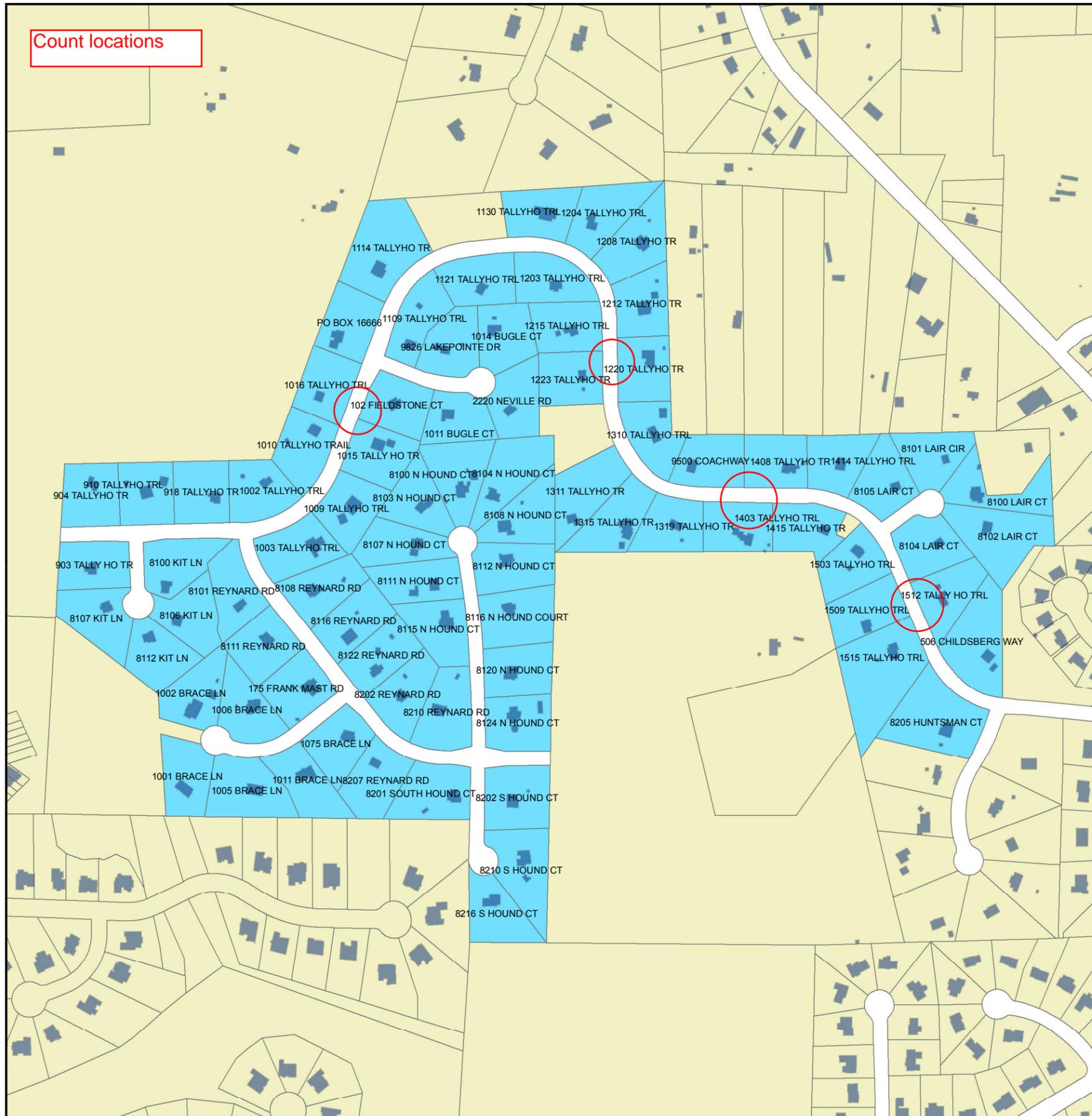


**TOWN OF CARRBORO**  
 301 W. Main St.  
 Carrboro, NC 27510  
 Created May 25, 2012

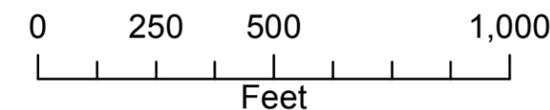
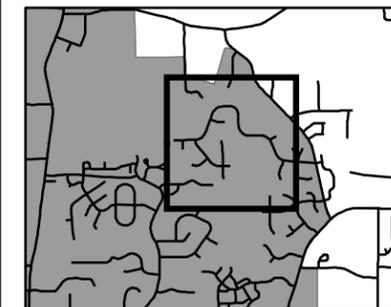
NC State Plane Coordinate System (NAD83)

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### Tallyho Trail: Area of Influence



#### Legend

- Buildings
- Area of Influence
- Properties



**TOWN OF CARRBORO**  
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<b>Location</b>	<b>Total Pts</b>	<b>Vol/spd Pts</b>	<b>Eligible stage</b>
1000 block	23	12	None
1200 block	29	18	Stage 2
1400 block	35	24	Stage 2
1500 block	33	22	Stage 2

## Traffic Calming Criteria

Street Name: Tallyho Trail 1000 block

Criteria	Application	Collected Data	Points	Notes
<i>Traffic Volume</i>	<i>Criteria</i> – 5 points for every 20 % of volume that exceeds the expected number of vehicles per day (vpd) on the street, based on the function of the street (75 vpd for minor streets, 200 vpd for local streets, and 800 vpd for subcollector and collector	304	0	Tallyho Trail classified as subcollector/collector
<i>85<sup>th</sup> Percentile Speed</i>	<i>Criteria</i> – 2 points for every mph that the 85 <sup>th</sup> percentile speed exceeds the posted speed limit	31.4 MPH (WB)	12	Highest HDM 85pct
<i>Pedestrian Volume</i>	<i>Criteria</i> – 1 point for every 10 pedestrians if the street has a sidewalk, 5 points per 10 pedestrians if no sidewalk. Counts are made in either the peak traffic hour or the hour when students are traveling to or from school	15	5	3/11/2014; peak hour within 3-5pm; Weather: 79 and clear
<i>Bicycle Volume</i>	<i>Criteria</i> – 1 point for every 10 cyclists if the street has bike lanes, 3 points per 10 cyclists if no bike lanes. Counts are made in either the peak traffic hour or the hour when students are traveling to or from school	3	0	3/11/2014; peak hour within 3-5pm; Weather: 79 and clear
<i>Bus Stops</i>	<i>Criteria</i> – 1 point for each transit stop and 2 points for each school bus stop on the street	3	6	No transit stops; 3 school bus stops on street (Staffield, Lair, Reynard)
<i>Proximity to Pedestrian Generator (Retail and Parks)</i>	<i>Criteria</i> – 5 points if within 0-0.2 miles; 3 points if within 0.21 and 0.4 miles; 1 point if within 0.41 and 0.6 miles.	0	0	Based on network distance
	<u>Additional Consideration:</u> In some situations the residents' concern is for a few drivers greatly exceeding the speed limit. In this case, town staff would also review the 95th percentile speed on the street.			
<b>TOTAL POINTS</b>			23	

## Traffic Calming Criteria

Street Name: Tallyho Trail 1200 block

Criteria	Application	Collected Data	Points	Notes
<i>Traffic Volume</i>	<i>Criteria</i> – 5 points for every 20 % of volume that exceeds the expected number of vehicles per day (vpd) on the street, based on the function of the street (75 vpd for minor streets, 200 vpd for local streets, and 800 vpd for subcollector and collector	399	0	Tallyho Trail classified as subcollector/collector
<i>85<sup>th</sup> Percentile Speed</i>	<i>Criteria</i> – 2 points for every mph that the 85 <sup>th</sup> percentile speed exceeds the posted speed limit	34.3 MPH (WB)	18	Highest HDM 85pct
<i>Pedestrian Volume</i>	<i>Criteria</i> – 1 point for every 10 pedestrians if the street has a sidewalk, 5 points per 10 pedestrians if no sidewalk. Counts are made in either the peak traffic hour or the hour when students are traveling to or from school	15	5	3/11/2014; peak hour within 3-5pm; Weather: 79 and clear
<i>Bicycle Volume</i>	<i>Criteria</i> – 1 point for every 10 cyclists if the street has bike lanes, 3 points per 10 cyclists if no bike lanes. Counts are made in either the peak traffic hour or the hour when students are traveling to or from school	3	0	3/11/2014; peak hour within 3-5pm; Weather: 79 and clear
<i>Bus Stops</i>	<i>Criteria</i> – 1 point for each transit stop and 2 points for each school bus stop on the street	3	6	No transit stops; 3 school bus stops on street (Staffield, Lair, Reynard)
<i>Proximity to Pedestrian Generator (Retail and Parks)</i>	<i>Criteria</i> – 5 points if within 0-0.2 miles; 3 points if within 0.21 and 0.4 miles; 1 point if within 0.41 and 0.6 miles.	0	0	Based on network distance
	<u>Additional Consideration:</u> In some situations the residents' concern is for a few drivers greatly exceeding the speed limit. In this case, town staff would also review the 95th percentile speed on the street.			
<b>TOTAL POINTS</b>			29	

## Traffic Calming Criteria

Street Name: Tallyho Trail 1400 block

Criteria	Application	Collected Data	Points	Notes
<i>Traffic Volume</i>	<i>Criteria</i> – 5 points for every 20 % of volume that exceeds the expected number of vehicles per day (vpd) on the street, based on the function of the street (75 vpd for minor streets, 200 vpd for local streets, and 800 vpd for subcollector and collector	447	0	Tallyho Trail classified as subcollector/collector
<i>85<sup>th</sup> Percentile Speed</i>	<i>Criteria</i> – 2 points for every mph that the 85 <sup>th</sup> percentile speed exceeds the posted speed limit	37.1 MPH (WB)	24	Highest HDM 85pct
<i>Pedestrian Volume</i>	<i>Criteria</i> – 1 point for every 10 pedestrians if the street has a sidewalk, 5 points per 10 pedestrians if no sidewalk. Counts are made in either the peak traffic hour or the hour when students are traveling to or from school	15	5	3/11/2014; peak hour within 3-5pm; Weather: 79 and clear
<i>Bicycle Volume</i>	<i>Criteria</i> – 1 point for every 10 cyclists if the street has bike lanes, 3 points per 10 cyclists if no bike lanes. Counts are made in either the peak traffic hour or the hour when students are traveling to or from school	3	0	3/11/2014; peak hour within 3-5pm; Weather: 79 and clear
<i>Bus Stops</i>	<i>Criteria</i> – 1 point for each transit stop and 2 points for each school bus stop on the street	3	6	No transit stops; 3 school bus stops on street (Staffield, Lair, Reynard)
<i>Proximity to Pedestrian Generator (Retail and Parks)</i>	<i>Criteria</i> – 5 points if within 0-0.2 miles; 3 points if within 0.21 and 0.4 miles; 1 point if within 0.41 and 0.6 miles.	0	0	Based on network distance
	<u>Additional Consideration:</u> In some situations the residents' concern is for a few drivers greatly exceeding the speed limit. In this case, town staff would also review the 95th percentile speed on the street.			
<b>TOTAL POINTS</b>			35	

## Traffic Calming Criteria

Street Name: Tallyho Trail 1500 block

Criteria	Application	Collected Data	Points	Notes
<i>Traffic Volume</i>	<i>Criteria</i> – 5 points for every 20 % of volume that exceeds the expected number of vehicles per day (vpd) on the street, based on the function of the street (75 vpd for minor streets, 200 vpd for local streets, and 800 vpd for subcollector and collector	490	0	Tallyho Trail classified as subcollector/collector
<i>85<sup>th</sup> Percentile Speed</i>	<i>Criteria</i> – 2 points for every mph that the 85 <sup>th</sup> percentile speed exceeds the posted speed limit	35.8 (WB)	22	Highest HDM 85pct
<i>Pedestrian Volume</i>	<i>Criteria</i> – 1 point for every 10 pedestrians if the street has a sidewalk, 5 points per 10 pedestrians if no sidewalk. Counts are made in either the peak traffic hour or the hour when students are traveling to or from school	15	5	3/11/2014; peak hour within 3-5pm; Weather: 79 and clear
<i>Bicycle Volume</i>	<i>Criteria</i> – 1 point for every 10 cyclists if the street has bike lanes, 3 points per 10 cyclists if no bike lanes. Counts are made in either the peak traffic hour or the hour when students are traveling to or from school	3	0	3/11/2014; peak hour within 3-5pm; Weather: 79 and clear
<i>Bus Stops</i>	<i>Criteria</i> – 1 point for each transit stop and 2 points for each school bus stop on the street	3	6	No transit stops; 3 school bus stops on street (Staffield, Lair, Reynard)
<i>Proximity to Pedestrian Generator (Retail and Parks)</i>	<i>Criteria</i> – 5 points if within 0-0.2 miles; 3 points if within 0.21 and 0.4 miles; 1 point if within 0.41 and 0.6 miles.	0	0	Based on network distance
	<u>Additional Consideration:</u> In some situations the residents' concern is for a few drivers greatly exceeding the speed limit. In this case, town staff would also review the 95th percentile speed on the street.			
<b>TOTAL POINTS</b>			33	

**Speed and volume calculations - Tallyho Trail traffic calming evaluation**

September 17-18, 2013

Tallyho Trail classified as subcollector/collector for this analysis. Serves 131 properties total.

	AADT			Exp VPD	% diff	Pts	85th percentile (mid bin)		85th percentile (HDM)		Limit	Difference (mid bin)		Pts (mid bin)		Difference (HDM)		Pts (HDM)	
	EB	WB	Total				EB	WB	EB	WB		EB	WB	EB	WB	EB	WB	EB	WB
<b>1000 block</b>	150	154	304	800	-248%	0	27	32	29.92	31.41	25	2	7	4	14	4.92	6.41	10	12
<b>1200 block</b>	196	203	399	800	-201%	0	32	32	32.56	34.34	25	7	7	14	14	6.41	9.34	12	18
<b>1400 block</b>	221	226	447	800	-177%	0	32	37	33.42	37.14	25	7	12	14	24	8.42	12.14	16	24
<b>1500 block</b>	252	238	490	800	-155%	0	32	37	34.35	35.8	25	7	12	14	24	9.35	10.8	18	22

Before-after analysis

	AADT			Exp VPD	% diff	Pts	85th percentile		Limit	Difference		Pts	
	EB	WB	Total				EB	WB		EB	WB	EB	WB
<b>1000 block</b>			0		0%	0			25	-25	-25	-50	-50
<b>1200 block</b>			0		0%	0			25	-25	-25	-50	-50
<b>1400 block</b>			0		0%	0			25	-25	-25	-50	-50
<b>1500 block</b>			0		0%	0			25	-25	-25	-50	-50

Date: March 11, 2014

Tallyho Trail

3:00 pm to 5:00 pm

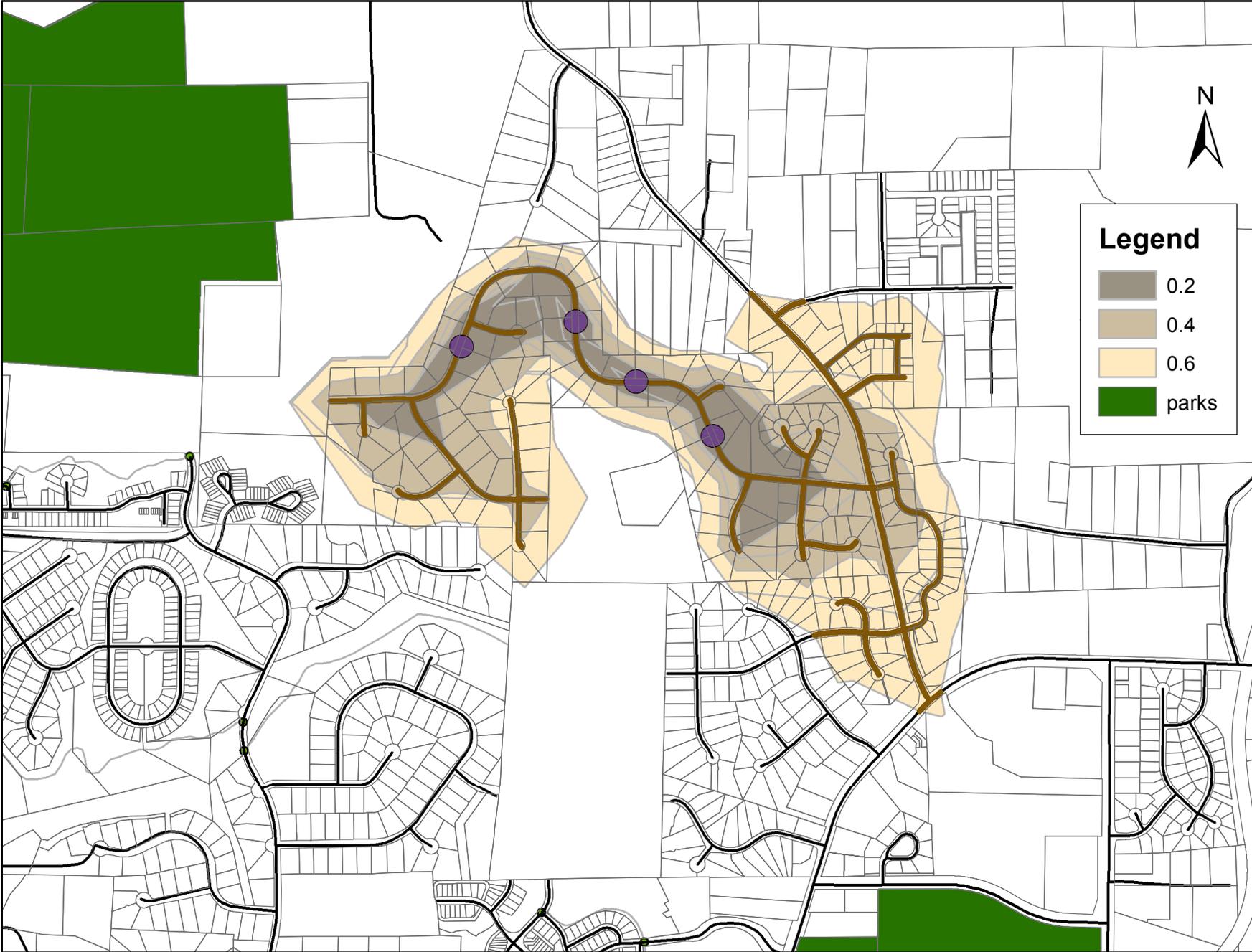
Weather: 79 and clear

Location: Between Huntsman Ct and Staffield Ln

Counter: Jeff Brubaker

<b>15-min period</b>	<b>Peds</b>	<b>Bikes</b>	<b>Ped 1-hr</b>
3:00 PM	5	0	
3:15 PM	6	0	
3:30 PM	3	0	
3:45 PM	1	1	15
4:00 PM	3	1	13
4:15 PM	0	1	7
4:30 PM	4	0	8
4:45 PM	0	0	7
<b>Total</b>	<b>22</b>	<b>3</b>	
<b>Ped peak</b>	<b>15</b>		

# Tallyho Trail traffic calming request: Pedestrian generator network analysis map: parks



# Tallyho Trail traffic calming request: Pedestrian generator network analysis map: retail

