

To: Mayor & City Council

From: Damion Pregitzer, P.E. PTOE – Traffic Engineer

Date: 9/16/2019

Subject: Status Update on Lincoln Way Pedestrian Safety Project

At the February 2019 goal setting session, City Council asked staff to provide an update regarding the success of the safety changes [after an appropriate time has elapsed], including data regarding vehicle collisions and pedestrian accidents.

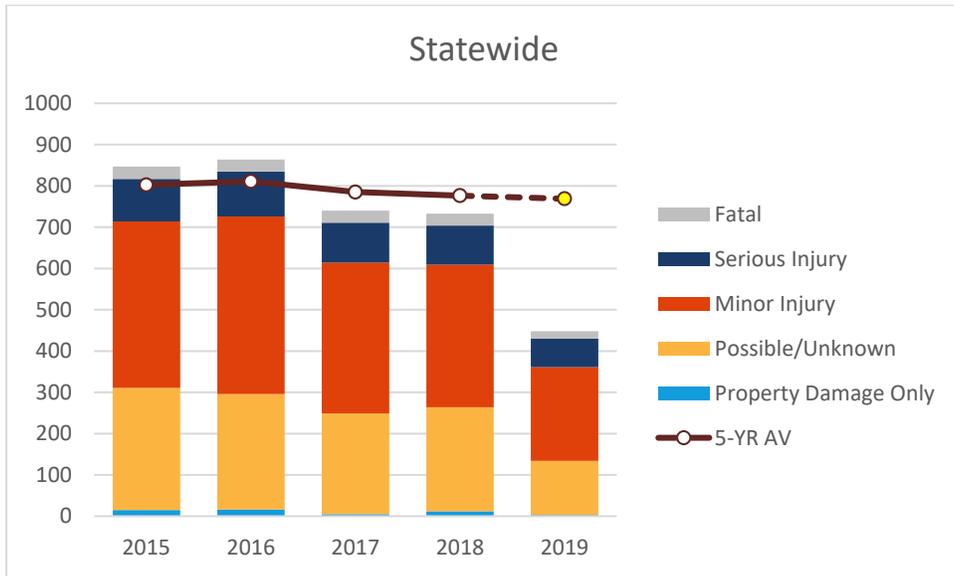
The improvements made include; 1) Pedestrian crossing enhancements at Stanton Avenue (ped ramps, high-viz crosswalk markings, and warning signs), 2) Left turn-lane changes at Welch Avenue to discourage unsafe crossing habits (removal of raised medians and repainting of lane markings), and 3) Leading Pedestrian Interval (LPI) at all signals in Campustown (Sheldon Avenue to Beach Avenue).

The improvements were completed in late summer of 2018, and since that time there have been two main ways to evaluate the success of the changes; 1) looking at the crash trends of available Bike and Pedestrian crash data, and 2) field observation of pedestrian behavior (crossing at crosswalks, compliance with walk signals, etc.)

CRASH DATA ANALYSIS:

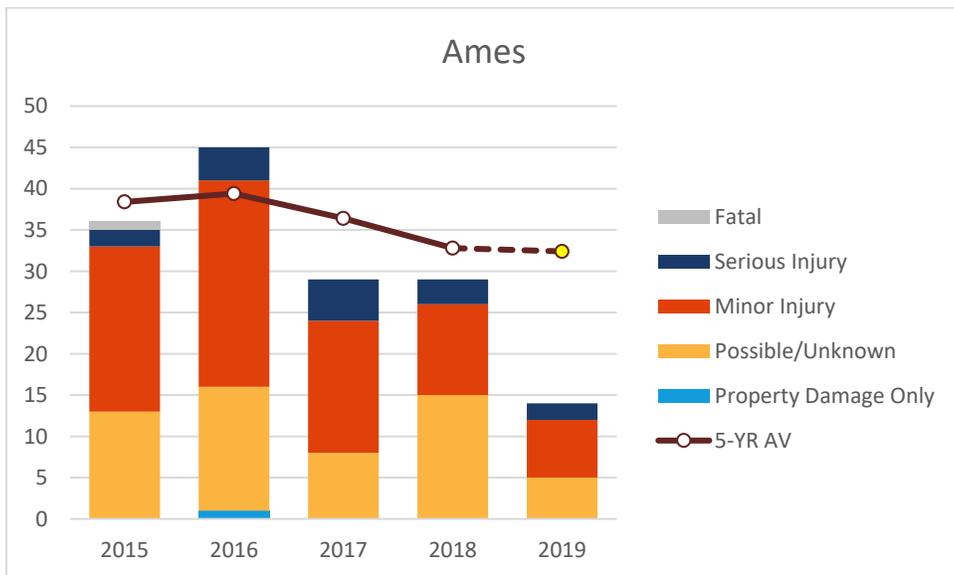
The Iowa DOT collects and verifies all crashes in the state. This data is made available for free to the public through their web data portal. Staff used this data to conduct a comparative trend analysis of Statewide pedestrian-bike crashes to Citywide Ames data to the Lincoln Way corridor data (Sheldon to Beach). It is important to note that crash data can be volatile (especially in the case of fatalities). Therefore, it is proper safety engineering practice to monitor 5-year rolling averages or crash trends rather than evaluating one year's worth of data.

First, for the statewide data, pedestrian and bicycle accidents have been trending down at a rate of approximately 10.4 crashes per year. Below is a graph showing data starting from 2015 to 2019:



As of September 16, 2019, there were 448 reported ped-bike crashes statewide with an estimated year-end total of 768.9 (5-year average). The forecasted total for 2019 is trending to be approximately 1.0% less than the 5-year average in 2018.

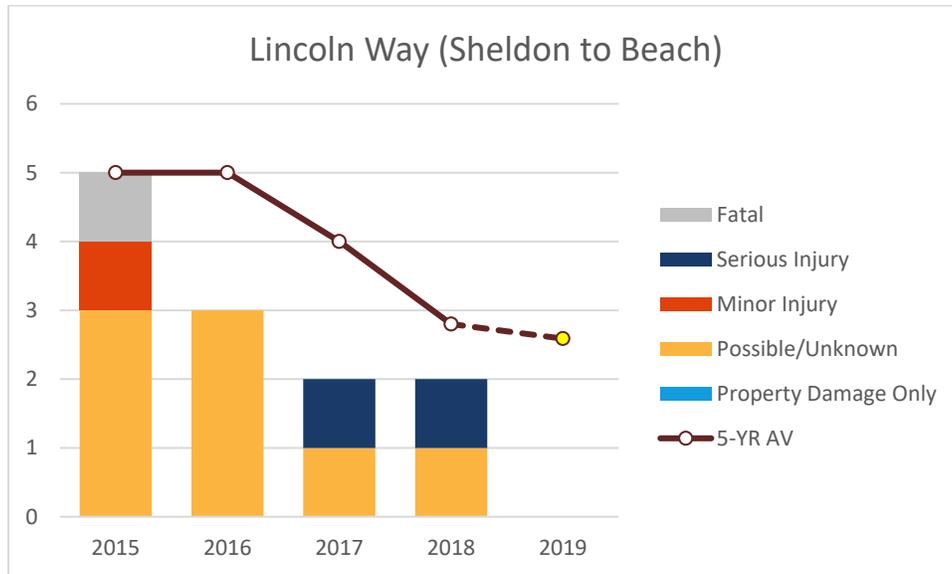
Next, looking at the Ames subset of the statewide data it shows the City ped-bike crashes trending down at a rate of approximately 2.0 crashes per year on average. Below is a summary graph of City of Ames data:



As of September 16, 2019, there were 14 reported ped-bike crashes in Ames with an estimated year-end total of 32.4 (5-year average). The forecasted total for 2019 is

trending to be approximately 1.2% less than the 5-year average in 2018. **Therefore, you can conclude that the City of Ames is seeing a slightly better rate of reduction in ped-bike crashes than what is experienced throughout the rest of Iowa.**

Finally, looking at the Lincoln Way corridor in Campustown as a subset of the Ames data shows that Campustown is trending down at a rate of approximately 0.8 crashes per year on average. Below is a summary graph of the City of Ames data:



As of September 16, 2019, there were no (zero) reported ped-bike crashes along Lincoln Way [Campustown] with an estimated year-end total of 2.6 (5-year average). The forecasted total for 2019 is trending to be approximately 7.6% less than the 5-year average in 2018. **Therefore, you can conclude that Lincoln Way through Campustown is seeing a noticeably better rate of reduction in ped-bike crashes than what is the average experience throughout the City of Ames.**

The most recent data shows a very encouraging trend for Ames and especially for the Lincoln Way corridor. Staff expects this trend is not only due to the improvements made in 2018, but a combination of targeted enforcement and the various educational events, the City has done to promote pedestrian and bicycle safety in Campustown. These public initiatives, in addition to other planned pedestrian & bicycle capital improvements, will only serve to further strengthen this positive safety trend into the future.

FIELD OBSERVATIONS:

Since the improvements were made along Lincoln Way, staff has observed better compliance of pedestrians using marked crosswalks. Improved compliance is especially noticeable at the Stanton Avenue and Welch Avenue intersections respectively where the physical improvements were made. At the other signalized intersections along Lincoln Way where a LPI phase was implemented, there appear to be varying degrees of improvement depending on how much vehicular traffic is present when a pedestrian wants to cross Lincoln Way.

There are still pedestrians using the medians to cross Lincoln Way at times of the day when traffic congestion is low, and there are gaps in traffic that allow mid-block crossings. Staff expects that other planned improvements such as traffic adaptive and other optimization technologies in the future will continue to improve the responsiveness and consistency of the signals. The more reliable the signals are for pedestrians, the better compliance with the walk signals, which was one of the conclusions from the SRF Lincoln Way Pedestrian Safety Study in 2017.

NEXT STEPS:

Because the data indicate that pedestrian and bike safety both along Lincoln Way and Citywide is trending in the desired direction, it is recommended that staff continue to monitor the safety trends as part of the regular business of the City. For now, it does not appear that the Lincoln Way corridor requires significant additional investment in infrastructure. It is noteworthy that the City's continued investment in Bike & Pedestrian improvements through the Capital Improvement Plan will support this positive safety trend.