

DRAFT # 2 Oct 16, 2016

To the folks that will be contemplating the creation of Durango's future e-bike policies,

Let's take a moment and step back into a more general discussion of bicycle transportation needs in our community. Let us first see if we can agree on a few facts:

### **Facts**

1. All of our citizens and visitors have the right to feel and be safe as they use the communities' various streets and trails.
2. While pedestrians can certainly feel at risk by higher speed bicycles, the risk of serious injury is greater when "slower speed" bicycles are mixed with busy and 35 mph automobiles and trucks on arterial streets like highway 550.
3. Everyone has a responsibility in "playing well together".
4. The City (from Three springs to the Iron Horse Inn) has:
  - a. Four bridges on Highway 550 and 160 (High Bridge, Santa Rita Bridge, 550/160 Intersection bridge, and Main Ave Bridge) which provide 35 mph travel of cars and sidewalk travel for pedestrians, but force bicycles to be in higher speed "arterial" lanes regardless of what speed the bicycles are going.
  - b. Three bridges on "collector" routes that provide 25 – 35 mph travel to cars and sidewalk travel for pedestrians, but again force bicycles into the automobile lanes regardless of their speed.
  - c. Seven paved path bridges which currently allow pedestrians and traditional bicycles but not pedal assisted bicycles (by High bridge, by Cundiff Park, by the Santa Rita Bridge, by 160 interchange bridge, by Schneider park, by the Fish Hatchery, and by the High School).
  - d. One pedestrian only bridge by the River City Hall.
5. In general the City has about 108 miles of streets, with 77% being local (under 25 mph), 13% being collector (25 – 35 mph) and 10% being arterial (35 and 35+ mph). It is only Highway 550, an arterial street that provides anything like contentious flow from one end of town to the other. In an effort to make the bicycle –automobile travel somewhat safer there are accommodations, like wide shoulders or bike lanes on some of the streets.
6. In general the City has about 85 miles of paved sidewalks exclusively for pedestrians.
7. In general the City has about 16 miles of shared use hard surface paths with about half 8 feet wide and half 10 feet wide.

### **Considerations**

8. If the various speeds of traveling public varies too greatly on a given path or street, this creates both uncomfortable and unsafe situations.
  - a. When compared to walkers who travel at 2 or 3 miles per hour, it seems reasonable that bikers on the same path should be limited to 12 or 15 miles per hour.

- b. When compared to cars and trucks traveling at 35 miles per hour on the arterial streets, it would be safer to avoid having bikes traveling any slower than 12 to 15 miles per hour on the same street.
9. One of the great challenges for utilizing the secondary streets for bicycle travel, especially in a north – south direction is that no secondary streets go more than a few blocks north – south before being interrupted. This creates additional pressure to use Main Avenue, Florida Road or the Animas River Trail for north – south travel.
10. What can be done about this?
  - a. First - we should look for any opportunities to improve the connections on secondary streets for north - south travel. For example if a child lives north of 27<sup>th</sup> street and west of Main Avenue, and they want to ride their bike to either Needham or Miller schools, they must ride on Main Avenue for some distance to get there. Wouldn't it be safer to let them ride on the river trail, at a reasonable speed rather than forcing them onto Main Avenue with the big trucks and heavy car traffic associated with the beginning or ending of the school and work day?
  - b. Second – we should promote the use of both secondary streets, and the Animas River trail in combination for cyclists riding at 15 mph or less. For example if someone lives west of Main Avenue and works east of the Animas river, in most cases the shortest and safest route between the two would likely include at least a short time on the Animas River Trail. So if I live by Needham and ride my bike to work at Fort Lewis, it would certainly be most direct and safest if I could cross Main at the high school, cross the river on the Animas River Trail bridge east of the High school and then utilize secondary streets to access either North Rim Drive or the Lion's Den trail to reach the college.
  - c. If we accept facts and assumptions, the obvious solution would be to encourage bikers who travel slower than 15 miles per hour to be on either secondary streets or trails, and bikers who travel faster than 15 miles per hour to be on streets.
11. Although the east – west streets are less obstructed by incomplete lengths, they are also only a few blocks long and all but a couple are interrupted by the river. This again makes secondary street travel challenging unless the Animas River Trail bridges are considered part of the overall travel system.
12. OK let's move on to a discussion of pedal assist e-bikes (classified as Category 1 e-bikes) compared to non-pedal assist bikes. While in a theoretical sense e-bikes could often be ridden a little faster than non e-bikes we have not any significant studies that can substantiate that this actually happens on in-town trails. Based on anecdotal information from current e-bike riders in Durango we have identified a couple of trends.

- a. If the e-bike riders choose to ride on the Animas River Trail, then 15 mph is generally considered a reasonable maximum speed for safety, and they would voluntarily abide by such a speed limit.
- b. The primary benefits of riding an e-bike vs a regular bike around town are:
  - i. The e-bike requires a moderate amount of energy from the rider, but helps particularly in starting up from stops and going up hills (like Riverview, Crestview, from Main to second Ave. or Fort Lewis) so the rider doesn't work up a sweat while on their way to school, work, or shopping.
  - ii. E-bikes make around town travel just a little easier than regular bikes, so they are likely to get used more often. This results in fewer cars on the already congested streets.
  - iii. Because e-bikes help with initial acceleration, it is more convenient to obey traffic controls like stop signs and stop lights because getting started again is easier on an e-bike.
  - iv. E-bikes are not normally chosen for around town travel to be faster on the flats, they are chosen because they are easier on the hills. However they would assist a moderate rider maintain a little higher speed if they were forced to ride on an arterial street. When climbing significant hills the e-bikes can more easily maintain speeds in the range of 8 to 10 miles per hour rather than the 3 or 4 miles per hour that many non-racer people are able to ride up the steep hills like to Fort Lewis. The higher rate of climbing speed is safer for both the cyclists and the drivers in cars.

## Conclusions

- 13. Therefore we who have considered the issues and have signed this pedal assist e-bike white paper would like to suggest the following:**
  - a. The City's shared use hard surface trails like the Animas River Trail should have a center stripe and a 15 miles per hour speed limit.**
  - b. Every effort should be made to connect secondary streets into longer sections so that bicycle riders can avoid either arterial streets or the Animas River Trail more easily.**
  - c. There should be no distinction made between historic human powered bicycles and category 1 pedal assisted e-bikes on the streets or shared use trails like the the Animas River Trail.**