Breezeway Memo Comments Jack Cochrane 6/15/17

Providing a network of quality bikeways has long been a goal of MoBike. I wholeheartedly agree with the objective of providing for more efficient and safe bike travel, both for "low stress" riders and more experienced riders. But the memo's description of the breezeway concept contradicts the reality that such facilities are often not fast or intuitive to use, regardless of how hard we try. The facilities could have a significant negative impact on trip times, especially for longer trips. While the facilities have value, I certainly wouldn't call them "breezeways". I also hesitate to use the term to describe paths and protected bike lanes whose safety is more a matter of perception than reality. Finally, I have concerns that the breezeway network is being positioned as the *only* bike route network in the county, supplanting the onroad network and meeting the needs of only one type of rider who is less likely to ride long distances.

The memo says that breezeway routes will introduce "minimal intersection delay" and "provide minimal delays and detours". Yet the breezeway network would rely heavily on bikeway types that are among the least efficient, namely sidepaths and protected bike lanes, where cyclists must often deal with oblivious drivers at street and driveway crossings, encroaching pedestrians, doubly long waits at traffic lights, awkward start/end transitions, grit and debris, pavement built only to path standards, decaying pavement, and intersections that seem to require an instruction manual. Delays are minimized only with respect to other protected facilities, not with respect to roadways and conventional bike lanes.

Even where cyclists can physically ride fast, the high potential for conflicts – and the inability to avoid them – forces cautious riders to go slow. Just as with roads, bike facilities have a "perceived" maximum safe speed in their users' minds. With roads, that can be reduced by making drivers feel confined or exposing them to frequent stops or conflicts, and with bikeways it's no different.

As for actual conflicts, on just one quick Sunday ride in the Nebel and Woodglen protected bike lanes recently, I had to deal a car blocking the bike lane, someone walking their dog in the bike lane, and a car waiting to pull out with windows so tinted that I feared passing in front of the car (I couldn't see where the driver was looking). The physical barrier makes it difficult to avoid potential or actual conflicts by shifting into the roadway.

Saying breezeways provide "complete separation from traffic" is inaccurate unless the street has no intersections.

The language saying breezeways provide "separation between bicycling and walking" is optimistic at best, because pedestrians will encroach into any bike facility protected from car traffic if it's near the sidewalk or parking. Sometimes encroachment will be frequent (in commercial areas) or even sanctioned (next to parking or bus stops). *Separated* bike lanes require a barrier between bikes and cars, so a bikeway with no barrier between it and the sidewalk can hardly be characterized as separated.

I applaud the better width standards and buffer standards proposed in the memo.

The memo's recommended treatments to improve crossings and reduce intersection delays are all good.

The memo says intersection and driveway crossings should be "intuitive and safe", but again, I don't see how this is possible. Whenever I use protected bike lanes or shared use paths, I must always be wary of drivers pulling out as well as right and left hooks. Two-way facilities are worst of all. At signalized intersections or four-way stops, it can be difficult to cope with what essentially is an eight-way intersection (four streets and four protected bike lanes). It's hard to figure out which vehicle goes next. Protected intersections can be quite complicated. The existing use of "green bars" for bikeway crossings, combined with the white bars of crosswalks, can make intersections into a confusing sea of bars.

Protected bike lanes should provide a gap or similar way for cyclists to "escape" the bike lane when approaching an intersection. This way a rider can establish his or her position in the flow of car traffic in order to avoid right-hooks, make convenient left turns, improve visibility, etc.

The memo says the riding surface of breezeway paths will be smooth. I appreciate the list of paving technologies to be investigated. But it's going to be very difficult to create high quality pavement that's flat and smooth enough to go 20 mph on a road bike, whether up- or downhill. I'm told that smooth trail pavement requires heavy but small paving equipment. I have doubts regarding the pavement technologies. Pervious pavement may present special problems.

Trails require good maintenance, which is a county operating budget issue, not something a master plan can mandate. To keep protected bike lanes and trails free of debris and grit, they require frequent sweeping, which costs money. I've lobbied for sweeping enough to know that officials will be resistant to funding it. Realize that the county only sweeps *roads* once a year, except in downtowns and environmentally sensitive areas.

I agree that "transitions between breezeways and standard bicycle facilities should be direct, seamless and intuitive". If only that were possible.

This is not to say that no path could be called a breezeway. Some, like Great Seneca Highway sidepath or the Millennium Trail along West Gude Drive, are wide and have few street crossings, even if pavement quality is not ideal. But the majority of sidepaths are not that good.

Regarding branding: The county already has a system of signed bike routes – namely the spine + local routes as well as the off-road trail network. A fair number have already been signed. Simply supplanting all that with a breezeway network could unfortunately turn the planned road route network into an afterthought. The planned road route network opens up more routes and gives cyclists better options because its criteria aren't so strict. It better serves cyclists who ride longer distances, whereas low stress routes tend to be used more by shorter distance riders. Thus the need for low stress routes decreases as links get longer (e.g. Tuckerman Lane or Bonifant Road compared to Battery Lane or Nebel St). The planned road route network does try to use low stress streets (greenways) within neighborhoods, the better to serve families looking for good routes in their neighborhood. So there would be overlap there with a breezeway network.

The breezeway memo says neighborhood greenways may funnel into breezeways, but keep in mind that greenways (residential streets) often work quite well as the "arterials" of the bike route network, whereas sidepaths on major roads like Georgia Ave are likely to be slower, more awkward and less comfortable than local streets.

Some kind of integration between road routes and breezeway routes should be possible, including integration of the branding and marketing. My philosophy has long been to provide overlapping networks that serve medium stress riders and low stress riders, respectively. The planned road route network has something of a hierarchy itself, with its long spine routes and shorter non-spine local routes. The intent is to give spine routes an identify by numbering them. (Originally mileage indicators were proposed on signs as the way to do this, but route numbers are more clear). Keep in mind that Rockville has declared its own network of spine routes which are not all low stress, and those will have numbers as far as I know. A problem plaguing the county's spine route system is that some routes simply can't achieve the level of quality we want, relying on sidewalks or primary roads without shoulders in some places. So the latest thinking is that the lower quality spine routes would be numberless spine routes, distinguished from local routes by certain cues (more use of arrows, further destinations listed on the signs). Anyway, a possible integration could consist of a set of spine road routes and spine breezeways, all of which would be given route numbers if they meet a certain level of quality. Furthermore, the routes qualifying as breezeways could get a special identifier or icon on the signs. The identifier could even be unique to each breezeway (like San Francisco's "Wiggle"). Where a brief split occurs between a low stress option and higher stress option within the same route, this could be noted on signs at the fork. But there would still be some long distance routes that are not breezeways, and they should be acknowledged in the

branding effort. For the many lesser routes that aren't spine routes – breezeways or not – the usual bike route sign with a graphic of a bike might suffice. I wouldn't give every low stress route a special graphic or change the existing bike route graphic for it, as it could quickly become onerous. Maybe you're saying there wouldn't even be local breezeways.

Using colored pavement for breezeway facilities might be either prohibitively expensive or impractical, depending on the method. At least that's what I'm told whenever I ask for solid green crossings instead of green bars, and that's just at intersections.

Identifying a breezeway network for planning and prioritization purposes is fine. But how we characterize our bike route network to users is a different thing entirely. The branding scheme should also highlight major on-road routes. The term "breezeway" should be replaced with another term. The breezeway network should be carefully integrated into the overall bike route network and trail network. Finally, the memo is a little rosy in how it characterizes breezeway facilities in terms of safety, conflict reduction, intuitiveness, and pavement quality.

Thanks.

Jack Cochrane