

COMMENTS by FRIENDS of BRIDGE COLUMBIA
on
FEASIBILITY STUDIES
by
HOWARD HUGHES PROPERTIES
of
BRIDGE COLUMBIA
and the
THE THIRD US 29 INTERCHANGE

April 10, 2012

Pursuant to THE DOWNTOWN COLUMBIA PLAN adopted February 1, 2010 Howard Hughes Properties (HHP) was obligated to produce feasibility studies of several Community Enhancements, Programs and Public Amenities (CEPPAs). HHP presented these studies to Howard County in January, 2012. Components of several of the studies evaluated the proposal by Friends of Bridge Columbia (FOBC) for the reconstruction or replacement of the existing pedestrian/bicycle bridge to provide a route for transit buses in addition to pedestrians and bicyclists.

These comments are directed at those portions of the HHP Feasibility Studies that address the Bridge Columbia proposal. These are the Downtown Transit Center and Circulator Feasibility Study Part 1 (**DTCCp1**) and Part 2 (**DTCCp2**), and the Little Patuxent Parkway/US29 Interchange Study (**ThirdIntUS29**). We have questioned specific details and conclusions of all the studies. However, in Chapter 3 of **DTCCp2** Recommendations are made that are underpinned by these details and conclusions. As a result of our review, we believe that these Recommendations are not valid.

Impact of Bridge Columbia on Possible Third Interchange with US 29

The basic goal of the Little Patuxent Parkway/US29 Interchange Study (**ThirdIntUS29**) is to demonstrate the feasibility of providing additional roadway capacity to Downtown Columbia when and if it is needed. Current estimates are that the additional capacity would not be needed until much later in the build-out of the Town Center Plan, at least 20 and perhaps 30 years from now.

The study evaluates 10 different interchange proposals. Concepts F, G, H, I and J incorporate a direct connection to Oakland Mills, allowing traffic bound for Town Center from East Columbia to bypass MD 175 and the Broken Land Parkway and travel through the Oakland Mills community instead. Concepts F, G, H, I and J should be eliminated from consideration now, because:

1. The connection to Oakland Mills is not necessary for the full build-out of the Town Center Plan;
2. They violate the Oakland Mills Master Plan, put together and endorsed by both the OM Village Board and Howard County. Oakland Mills doesn't want more vehicular traffic in its community;
3. Their environmental impacts are the most extreme;
4. They cost between 2 and 2 ½ times the cost of the least expensive concepts, making their eventual realization speculative at best;
5. It is disruptive to the life of the community and any rational planning process to leave these concepts hanging over everyone's head for 20 or 30 years on the unlikely chance that one of them might one day get built;
6. Most important, the Town Center Plan adopted in 2010 and the newly developed Howard County General Plan both recommend that the county develop a sustainable transportation system with less reliance on automobiles. The county can't begin to reach that goal if it continues to build connections for automobiles.

A point cited in support of Concepts F, G, H, I and J is that they would provide an improved transit, pedestrian and bikeway connection to East Columbia, which ignores the safety problems created by pedestrian/bicycle/vehicular conflicts at all of the ramp terminals and intersections of the new interchange. Bridge Columbia can provide much safer service, with less environmental impact, at one third the cost, and 20 years sooner.

Concepts A, B, C, D, E connect US 29 only to the Little Patuxent Parkway. All of them leave the existing pedestrian bridge in place to serve pedestrian/bicycle traffic to Oakland Mills. That means all of them would accommodate Bridge Columbia. Or, to put it another way, Bridge Columbia does not prevent the construction of any of these Concepts. Bus left turns onto the future interchange connection to the Little Patuxent Parkway would be required from Bridge Columbia's transit roadway. An intersection with signal pre-emption would have to be provided at the west end of Bridge Columbia to allow for this. However, given the expected transit headways, this connection should not have

a material effect on the Level of Service in the LPP/Connector intersection.

Indeed, it is necessary for Bridge Columbia to be in place for any of these Concepts to provide a decent level of pedestrian, bicycle or transit service to East Columbia. And Bridge Columbia can provide that service in 3 years. Why wait 20 or 30 years?

Ridership/Transit Conclusions

Part 2 of the Downtown Transit Center and Circulator Feasibility Study (**DTCCp2**) looked at the effect of Bridge Columbia on the existing Howard County bus system. We believe that Study focused too closely on the existing transit routes serving Columbia. The study assumes that some of the nine present routes would simply be re-routed to use the new bridge instead of crossing US 29 over Little Patuxent Parkway or Broken Land Parkway. Realistically, it would be safe to assume that, along with an investment of several millions of dollars to build the new bridge, a parallel study would be conducted to totally redesign the bus routes to best utilize the bridge and take full advantage of the new crossing opportunity.

The Study also attaches too great significance on the saving or losing two or three *minutes* to a route's travel time, missing the larger point of providing for increased safety for the hundreds of bike riders and pedestrians who use the existing bridge now, (and potentially many more with a new bridge) since the bus traffic will provide more "eyes" on the road. Even HHP's study projects 15 buses per hour using the bridge during the day, and increasing to 28 per hour during peak commuting periods. These frequencies translate to a bus passing over the bridge every 2-4 minutes, which would certainly be a deterrent to perceived and actual dangers on the bridge.

Further, sending buses over the new bridge instead of Little Patuxent and Broken Land Parkways, with their dearth of passenger pickup opportunities, would save time and miles for Howard County. With current operating costs at \$75/ hour and \$4.50 per mile, these could amount to significant annual savings, which **DTCCp2** does not address.

Appendix B of DTCCp2 identifies a number of shortcomings in the existing pedestrian/bicycle network in Oakland Mills. These shortcomings are given as a reason not to provide a transit connection across US 29. These shortcomings should be addressed in any case, a point the Columbia Association realizes and is now addressing in their pathway study. They should not be a decision factor in providing a transit crossing of US29.

In summary, we believe that, concurrent with the design of the new bridge, a substantive review and redesign of the Columbia bus route system is justified and necessary. This study will allow the future transit service to better serve residents who do not have other transportation options, increase the safety of bikers and pedestrians, and produce significant operating savings.

Town Center Circulator

DTCCp1 describes a "circulator" bus route that would circle the Columbia Mall area and its neighboring developments. Unless and until the mall areas density and destinations are greatly increased, this route would seem to be unwarranted and little used. It seems to us that a more useful "circulator" would connect Howard Community Hospital, Howard Community College, the Wilde Lake Village Center, the Mall (and neighboring developments), Lakefront, the Oakland Mills Village Center, and Blandair Park. In other words, the most valuable route for a circulator would be along the corridor established by Bridge Columbia. It would connect the three most important traffic generators in Columbia, the hospital, the college and the Mall with the county's newest recreational and environmental asset, Blandair. It would support the revitalization of Oakland Mills, a goal the county adopted five years ago with the approval of the Oakland Mills Master plan. And it would build on the success of the Green Route, which serves the hospital, college and Mall, and which is the one route in the county's system that has shown potential for ridership growth.

Structural Considerations and Costs

Appendix D of **DTCCp2** evaluates various engineering and environmental aspects of Bridge Columbia. We would generally agree with the comment that it would be preferable to start over with a brand new bridge and not try to reconstruct/widen the existing pedestrian bridge.

We also understand that any new bridge would be subject to SHA's Aesthetic Bridge User Guide. One of the founding members of FOBC, Fred Gottemoeller, wrote SHA's original Aesthetic User Guide, and he is quite familiar with the current edition. Thus, we were surprised to see the insinuation on **p. 51 of DTCCp2** that Bridge Columbia's proposed cable stayed bridge would not satisfy SHA's Aesthetic User Guide. We contend that it would handily satisfy the Aesthetic User Guide. If for some reason it did not, an alternative equally iconic design could be developed which did.

Also on **p. 51** the cable stay concept is criticized for being "fracture critical", unduly dependent on one key component, in this case the cable stays of Bridge Columbia's proposed design. However, current US practice in cable stay bridge design is to give each stay surplus capacity to make up for the possible loss of an adjacent stay. Thus, the survival of the bridge would not be threatened by the loss of a stay. The "fracture critical" issue is not a factor in contemporary cable stayed bridge design.

On **p. 53 of DTCCp2** a unit cost of \$600 per square foot is assumed for the cable stayed portion of the structure, which results in an estimated cost for the structure alone of \$14.25 m. We believe that this significantly overstates the cost of the bridge. Bridge costs estimates are usually based on the costs of recently completed similar structures. With no similar, recent structures in Maryland to go on, the estimate inevitably becomes a bit of a guess. However, we have learned of a structure in Eugene, OR of the same type and length, but for pedestrians and bicyclists only, that was completed last year for \$3.9 m. Adjusting this cost to account for the additional width of Bridge Columbia produces an estimate of \$11.7 m (see Appendix).

We also consider excessive the 30% contingency factor used in the table on **p.53**. After all, there is an existing bridge at the site. Matters like foundation conditions, environmental conditions and hydraulic conditions are well understood. There are not enough unknowns to justify a 30% contingency

factor.

Combining the \$11.7 bridge cost from Eugene with HHP's roadway cost estimate of \$2.17 m produces a total cost of \$13.87 m. Applying a more reasonable contingency factor of 20% results in the cost of the iconic option being \$16.64 m, just over the \$15 million we originally estimated.

We are pleased to see that the estimate for a "traditional" SHA girder bridge with a 20 % contingency factor would be \$9.84 m, just under the \$10 m we originally estimated.

As the study quite rightly points out, there are a range of alternative concepts between the traditional and the iconic design that could be investigated in the final design. The decision could be made at that time about what would be the appropriate premium to pay for an iconic design.

Right of Way Conclusions

We are aware that providing suitable alignment for a transit roadway will involve some additions to the land owned by the Columbia Association in the form of temporary grading easements and a few sliver purchases where it is necessary to ease curves (**p. 52, DTCCp2**). None of the private land potentially needed involves existing uses or structures. The new transit corridor will improve the values of all of the land served by the corridor. Thus, the owners of needed parcels on both the east and the west sides of US 29 have every reason to cooperate with the project, and the necessary acquisitions should not be a problem.

Environmental Conclusions

Pp. 51 & 52 of DTCCp2 list various environmental issues that must be addressed, including Storm Water Management (SWM) requirements that have recently been made more stringent. The implication seems to be that meeting these requirements would be unreasonably difficult or impossible. Given that the existing bridge is already there, given the small area of the bridge relative to the area of the flood plain, and given the county's recent success in installing a new sewer line with its own 50' corridor in the same flood plain, there is no reason to expect any unreasonable difficulty in meeting all of the relevant environmental requirements.

Appendix: Comparable Bridge: Delta Ponds Pedestrian Bridge, Eugene, OR

Completion: 2011, Cost: \$3.9 million
Cost of an Equivalent Bridge Capable of Carrying Buses: \$11.7 million
Plus Roadway @ \$2.17 million = Total Cost **\$13.87 million**

