To: Lew May and BT Board
From: Buff Brown
Date: April 18, 2019
Subject: Route Optimization Study

This memo lists some concerns about the Route Optimization Study, and makes some recommendations.

Mission
As you may know, although I no longer live in Bloomington, I have a lasting interest in moving Bloomington toward more sustainable transportation. Transit is something I intensely support. The City of Bloomington should be a model for a new transportation paradigm for carbon reduction, equity, and safety and should partner with BT & IUCB to optimize transit as their prioritized mode of transportation. Seattle, for example, is creating streets and intersections with a transit priority, reducing right-of-ways for cars (road diets) and partnering with the transit providers to create reliable and frequent service everywhere, and in particular, in areas of high demand and areas of low-income.

Vision
The City of Bloomington's Transportation Plan and Bloomington Transit's Route Optimization Study should create a cooperative roadmap that moves the city of Bloomington forward quickly toward a green transit metropolis. However, there seems to be a lack of coordination.

In particular, the City's draft Transportation Plan has very little in it that indicates the city planners and administration are going to make a shift to transit. However, to their credit, they do provide some statements that I hope BT takes very seriously, by providing an additional scenario or two to your Optimization study that meets the vision of these statements. At this point, Scenarios 1 and 2 do not address these visionary statements.

The City's draft Transportation Plan
Below are two parts of the draft Transportation Plan with statements specific to bold transit plans. Only the parts that are transit related are included in these quoted sections.

Improve Multimodal Travel along Major E-W and N-S Corridors
College Avenue and Walnut Street, and 3rd Street and Atwater Avenue, are two one-way couplets that are currently designed to carry high volumes of traffic at higher speed. To support the Comprehensive Plan Objectives to "Nurture Our Vibrant City Center" and "Provide Multimodal Transportation Options," this Plan recommends immediate corridor studies of the major E-W and N-S corridors that pass through the center of Bloomington. The goal should be to determine how best to: … (3) provide buses and other forms of mass transit with safe and efficient ways to travel along the

corridors…. The corridor studies should consider a variety of possible options, including (but not limited to)… adding or reallocating right-of-way, … and amenities for pedestrians and users of mass transit; and designating certain travel lanes as bus-only. [p. 2, Executive Summary]

Access to Transit
…In addition to increasing the frequency, reliability, and connectivity of transit service, the City of Bloomington can enact ordinances to more efficiently manage curb space allocation and prioritize transit vehicles. Keeping access to bus stops clear of other vehicles through policy, infrastructure, and enforcement can help bus operators maintain their schedules and increase efficiency.

Several streets in Bloomington serve high-demand and high-use bus routes including 3rd Street, 7thStreet, and 10th Street. Transit should be given priority along these corridors, … For some areas, such as 10th Street, a corridor study that considers, among other options, restricting private vehicle access at all times or during certain hours would greatly improve the efficiency, convenience, and reliability of transit. … [p. 5 of draft plan]

Next Steps
BT should consider fully incorporating the above concepts into the future transit scenarios. In particular, the draft Plan currently recommends that Atwater and 3rd become 2-way streets; in combination with the above statements, I recommend a scenario 3 that includes a BRT with exclusive lanes along 3rd Street from Ivy Tech to the west, and to SR 446 to the east. The exclusive lanes should exist wherever 3rd is 4 lanes, and the section of 3rd along the campus (Jordan to Indiana) should be transit only, while allowing Atwater to carry all car traffic both directions.

As also noted in the draft Plan, 10th St along campus could also be transit only, at least for a portion of the day, similar to what 7th Street was decades ago. 25% of IU's classroom space is north of 10th St. This is a central campus street.

Likewise, downtown is a pedestrian-rich business district and would benefit from 2-way streets -- also suggested in the draft Plan. BT should include a BRT corridor of exclusive lanes along Walnut and/or College from Kroger to the south to the Bypass to the north.

Although the draft Plan does contemplate doing corridor studies along these corridors in the future, the Optimization Study should put these concepts in a scenario to be consistent with the draft Plan. This will bring this concept to the front for discussion and planning purposes.

As we know, a mode shift to mass transit is not only an answer to climate change, safety, and equity, but an answer to congestion. The people-moving capacity of a street increases with transit. Making Atwater/3rd streets 2-way, alone, does help

slow traffic and make walking across these streets safer, but such a plan has no transit emphasis. Those right-of-ways will have more congestion and less people-moving capacity. A plan to put all car traffic on Atwater, and transit-only on 3rd has a road-diet component and a people-moving capacity component, and creates a transit priority which make transit fast and reliable, and will cause a mode shift.

Other Optimization Study Comments:

The movement of transit, similar to the movement of traffic, has become a science. Transit routes can be quantitatively analyzed, and performance measures can be predicted for planned changes. In the current draft scenarios, it is difficult to know how these scenarios are going to perform relative to today's routes. This lack of quantitative comparison makes it very difficult to compare these scenarios with today's route system.

Quantitative Analysis

The Service Profiles document does have some quantitative analysis for each route, but this method of presenting and displaying the data makes it very difficult to compare to other routes to see what is working best. I recommend some summary graphics that compare each of the important performance measures for all the routes. These comparisons should also show how performance measures (e.g. ridership, service-hours, headways) change for each route on each scenario.

Equity

For the equity issue, which needs to be emphasized, it is important to understand the demographics that each route is serving, and the demographics of the areas where the scenarios indicate a change. This should include both coverage (e.g. # of people within ¼ mile access) and demographics, for example, how many low-income residents live within ¼ or ½ mile access to transit, and what level of transit are they getting.

Coverage Examples:

Neither of the new scenarios service High Street south of Hillside, which appears to have a reasonable number of riders in that area according to the service profile. What is the expected loss or gain of ridership or efficiency in changing that route to now follow Route 4's current path? What is the loss of coverage? This is usually described in bus-miles or population (+employment) within ¼ mile of transit.

Both scenarios completely change Route 4 West; one creates a new system of service, and one is a circulator that requires a transfer to get to downtown or campus. Data would be valuable to explain these major changes, and a prediction in ridership and service hours for their success.

Although Scenario 2 is a "Corridor" service model, it takes transit off sections of east 3rd and sections of south Walnut, which are major corridors. Hopefully, Scenario 3

will solve this. Also, it appears that Route 6 riders will need to transfer to another route to get east of the bypass. Route 6 is a huge success story of how express transit creates a transit-oriented community. A transfer could plummet ridership on your most successful route.

General Comments:
As a general rule, the new numbering concepts do not seem conventional from my experience, and I recommend that routes remain the same number on both sides of the hub. Otherwise, people are uncertain if they need to transfer to get across town.

Also, as transit gets more mainstream, routes do better staying on main corridors without deviation. Neither scenario does this very well. Scenario 2, with its many local loops, appears to be a serious step backward in creating streamlined routes to the important destinations. This would be easier to determine with data.

IUCB:
B-TOP did a study in 2010 that found that about 80% of the Park & Ride users at the stadium lived on BT routes, but were driving because it was easy. By creating a very frequent P&R service, and cheap parking, we are adding car trips to our streets and undermining our own BT ridership. As such, I recommend reducing frequency to the P&R, creating higher-priced parking or an eligibility requirement that parkers can't live in town. These IUCB shuttle-bus service-hours should then be redistributed to bring people from their homes to campus.

Please see my comments regarding the city's draft Transportation Plan.

Thank you for your time and consideration.