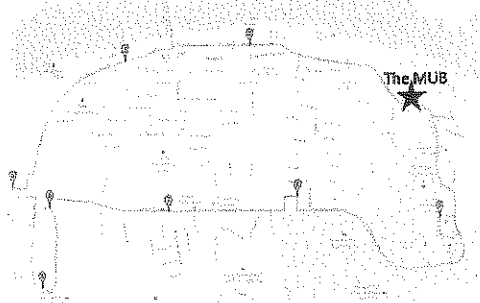


Proposal for New Bus System

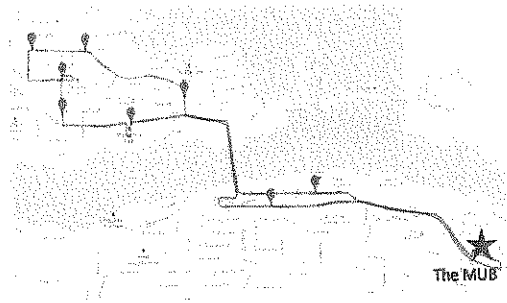
Linking Michigan Tech University to Houghton and Hancock

The Transportation Enterprise (TE) has designed a new transit system that would provide regular bus service from Michigan Tech University throughout the local community. In this proposed new transit system, Michigan Tech University would team with the cities of Houghton and Hancock to offer six new fixed bus routes. The new fixed routes are shown below with schedule and cost information on the other side. Larger bus route maps and additional financial detail is available at the project website <http://transportation.enterprise.mtu.edu/transit/>

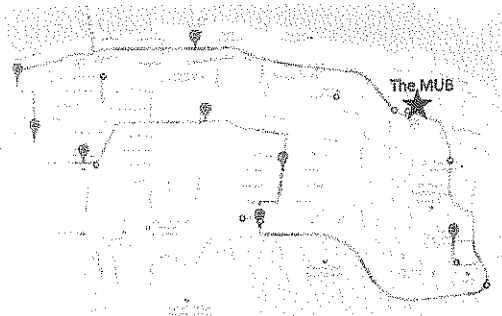
Houghton Express Route



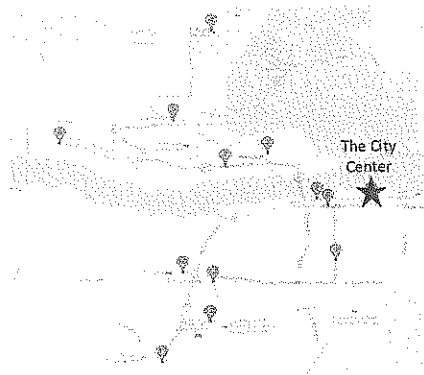
Houghton Express Route - ~6.5 mile, 30 min loop



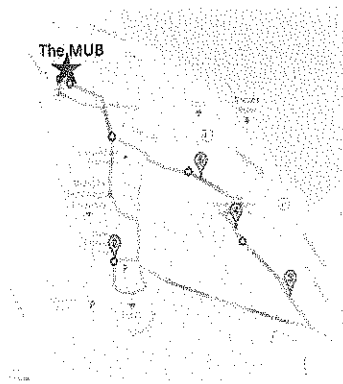
Hancock Commuter Route - ~5.8 mile, 30 min loop



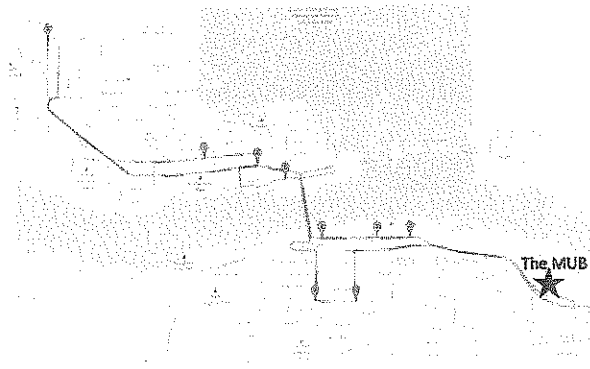
Houghton Commuter Route - ~5.5 mile, 30 min loop



Hospital - Mall Route - ~13.2 mile, 60 min loop



Campus Shuttle - ~2.6 mile, 20 min loop



After Hours Shuttle - ~7.7 mile, 30 min loop

The Transportation Enterprise proposes that the new bus system be funded by 1) consolidating the existing transit resources of Houghton and Hancock, 2) the cost of the existing MTU campus shuttle operations, 3) the revenue from existing MTU service contracts with Houghton Transit, and 4) additional revenues from Michigan Tech University equivalent to the cost of an annual U-Pass for all students and employees. In the new transit system, all Michigan Tech Students and employees would have unlimited fare-free access (U-Pass) on all fixed bus routes and reduced fare access for on-demand bus service. The estimated cost of the new transit system, and the resulting price of the U-Pass, will depend on the number and frequency of fixed routes that will be offered. The TE has proposed two possible levels of fixed-route service including the preferred *Full Service* option, as well as a *Reduced Service* option. Both options are summarized below, including which bus routes would be in operation by time of day and week and the estimated costs.

Full Service Fixed-Route Option

Reduced Service Fixed-Route Option

Morning: Mon-Fri, 7-9 am
Houghton Commuter (x2 buses)
Hancock Commuter (x2 buses)
Campus Shuttle

Morning: Mon-Fri, 7-9 am
Houghton Commuter
Hancock Commuter
Campus Shuttle

Mid-Day: Mon-Fri, 9am - 5pm
Houghton Commuter
Hancock Commuter
Houghton Express
Hospital-Mall
Campus Shuttle

Mid-Day: Mon-Fri, 9am - 5pm
Hancock Commuter
Hospital-Mall
Campus Shuttle

Evening: Mon-Fri, 5-7pm
Houghton Commuter
Hancock Commuter
Houghton Express
Campus Shuttle

Evening: Mon-Fri, 5-7pm
Hancock Commuter
Houghton Express
Campus Shuttle

Weekend: 9am - 5pm
Hancock Commuter
Houghton Express

Weekend: 11am - 5pm
Hospital-Mall (Modified to Include MUB)

Late Night: Fri-Sat, 10pm - 2am
After Hours Shuttle

Late Night: Fri-Sat, 10pm - 2am
After Hours Shuttle

Total System Cost: \$1,320,000
Semester Cost/Student: \$40
Weekly Bus Stops @ MUB: 625

Total System Cost: \$928,400
Semester Cost/Student: \$16
Weekly Bus Stops @ MUB: 350



Sustainable Transit Partnership with Houghton and Hancock

What is Being Proposed

As part of a two year project funded by a Ford Foundation *College Community Challenge Grant*, the Transportation Enterprise (TE) is proposing that Michigan Tech students pay a \$40 per semester fee to help combine and expand the current Houghton and Hancock transit systems to better connect the Michigan Tech campus with fare-free service to business and residential areas on both sides of the bridge.

Existing Houghton-Hancock Transit Systems

Currently, the cities of Houghton and Hancock operate very limited and separate bus systems. The current Houghton system consists of a single fixed route with one hour between buses and on-demand bus service in Houghton. Hancock currently only has on-demand bus service in Hancock.

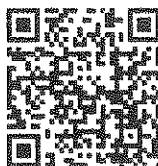
In assessing the existing bus systems, the TE found that the current systems are sparsely used and, other than the campus shuttle, do not provide good service to Michigan Tech. For instance, if you want to get from Michigan Tech to Walmart by bus, you may have to wait an hour for the next bus and it would then take 40 minutes to get from campus to Walmart.

The Transportation Enterprise Sustainable Transit Project

The TE Transit Team performed a systematic study of local ridership demographics and destinations. By conducting a community forum along with community and student surveys, the team got lots of good feedback on the current systems and how best to align local bus services with where people shop, work, live, and (essential for the student heavy population) go to school. Within the potential ridership pool, a desire was expressed for extended service hours, increased bus frequency with decreased wait times, and additional bus stops near desirable destinations. As a result of this study, the TE Transit team has proposed expanding and combining the resources of the Houghton and Hancock transit systems to provide:

- Six new fixed-routes to serve campus and community members in Houghton and Hancock
- Extended hours of operations to service school, work, and social life. Fixed routes will operate from 7 am to 7 pm weekdays, 9 am to 5 pm weekends, plus a *Late Night Bus* Friday and Saturday from 10 pm to 2 am
- Increasing bus frequency with shorter wait times to provide more timely commutes
- All buses will be equipped with GPS units for easy online tracking
- On-demand bus service from 7am to 5 pm weekdays

Detailed route information is available at <http://transportation.enterprise.mtu.edu/transit/>



What will it Cost?

The TE developed a unit cost model using current Houghton transit expenses to estimate the cost of the new transit system. The projected cost of the new fixed routes plus the on-demand service is \$1.32 million per year. A detailed financial analysis of the proposed system costs and revenues is available on the TE website. It is proposed that the new transit system costs be equally split between the university and the local community. The TE has proposed that the university share include a \$40 per semester fee paid by all students. The university and the community will split the equivalent annual cost for university employees since they are typically permanent residents in the community. In exchange for this transit fee, students and employees will have fare-free access to all fixed bus routes and half price fare for the on-demand bus service.

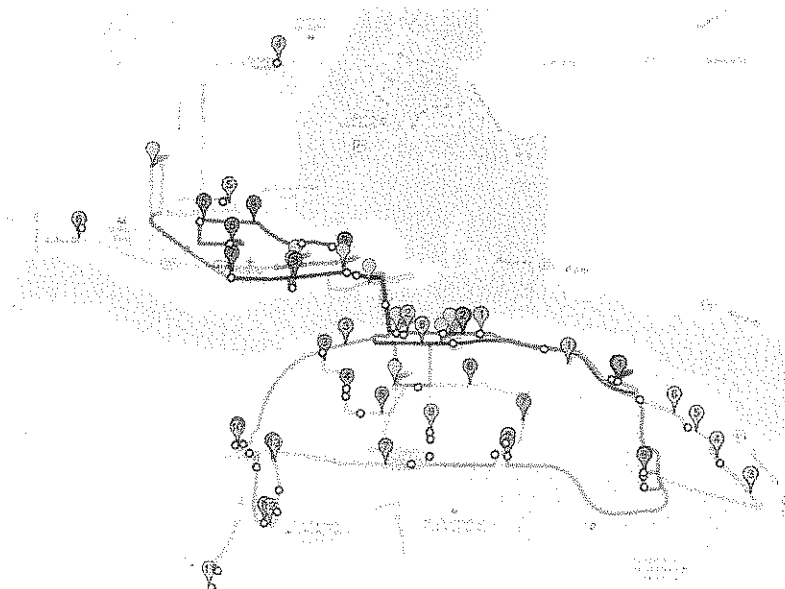
Many other university communities have developed successful partnerships for improved transit service and fare-free access. Universities pay for these transit partnerships in a variety of ways including parking fees or other general fund sources, but the most common method is to use a per semester student fee. The TE looked at 27 other universities with transit partnerships and found a wide range of services offered and an average student transit fee of \$43 per semester, which is in line with what is being proposed at Michigan Tech. A detailed list with links to other universities with local transit partnerships can be found in the "Useful Links" tap on the TE transit website.

The TE is also proposing that a local Transit Advisory Board be established to provide input and feedback to the two cities on improving the transit service over time. It is expected that Michigan Tech students would have representation on this Advisory Board.

Benefits of Proposed New Transit System

Currently, there are few options besides a personal car to get around the Houghton/Hancock community. This proposed new transit system offers a convenient fare-free option to either commute to campus or to get from campus to many destinations in the community. The TE believes that this proposed partnership between Michigan Tech and the cities of Houghton and Hancock offers a number of benefits that will increase the quality of life for both students and community members. With fixed-route buses making over 100 stops per day at the MUB, this proposed transit partnership offers many benefits including:

- Better transportation options to get to work, go to school, or visit friends
- An affordable, and for many, necessary, alternative to driving
- Savings in the form of fuel, expensive repairs, vehicle storage, and parking permits
- Reduced carbon footprint for Michigan Tech and the community
- Reduced traffic and congestion on and around campus
- Better parking access on campus for those that choose to drive to campus
- Late Night Bus offering a safer alternative to driving





Sustainable Transit Partnership with Houghton and Hancock

Benefits to Michigan Tech University

The Transportation Enterprise (TE) would like to encourage Michigan Tech University to support a proposal to help fund a new bus transit system connecting campus to both Houghton and Hancock. For the previous three semesters, the TE has been working with the cities of Houghton and Hancock and the Western Upper Peninsula Planning & Development Region Office (WUPPDR) to design a new transit system that better connects campus to residential and business areas on both sides of the bridge.

The result of this effort is a proposal to combine the existing transit resources of Houghton and Hancock and expand the system to include six new fixed routes (five of which connect to campus) with extended hours of operation. It is proposed that the \$1.32 million per year cost of the new transit system be approximately equally divided between the University and the two communities. The university contribution could be accomplished with a \$40 per semester fee paid by all students and \$40 per year fee paid by the university for all employees.

As part of implementing recommendations contained in a recent Carl Walker *Campus Transportation & Parking Plan*, Michigan Tech has been implementing transportation demand management actions including increased costs for parking. This report also recommends encouraging *“the use of alternative modes of transportation to mitigate campus parking needs, reduce campus traffic, and minimize the environmental impacts of driving. This will be accomplished through the use of programs designed to encourage the use of available campus transit and local transit”* Recognizing the value of public transit, the report also noted options for funding transit including a transportation fee charged to students, incorporating transit costs in parking fees, as well as subsidizing transit costs.

Since most cars currently coming to campus are single occupancy vehicles, every additional person who takes a bus to campus represents one less parking space that is required. With the loss of existing parking proposed in the Alumni Way campaign, the increased use of transit can help the university avoid significant future costs for new campus parking and the loss of land that would otherwise be used for open green space or other campus buildings.

In addition to reduced parking demand, the increased use of transit would reduce traffic on and around campus resulting in less traffic congestion, better traffic flow, and making campus more pedestrian-friendly. It would also make it a safer environment for bicyclists. Fewer cars coming to campus would also reduce Michigan Tech's carbon footprint.

The well documented health benefits of public transit should also be of interest to Michigan Tech. The Center for Disease Control and Prevention (CDC) recommends that to maintain health and fitness levels, adults should engage in an average of at least 22 minutes per day of moderate activity. A number of studies have shown that the use of public transit significantly increases physical activity resulting in most transit users meeting this minimum level of activity while walking to and from transit stops (Besser and Dannenberg 2005; Weinstein and Schimek 2005). Other research has noted that obesity rates are inversely related to active transportation modes including walking, cycling, and use of public transit (Rundle, et al. 2007). As a result of these positive health impacts, the CDC encourages increased funding to improve public transportation options. These improved health outcomes resulting from increased use of public transit can be expected to result in reduce healthcare costs.

Another positive outcome of this expanded transit system would be to help improve the "town-gown" relationship. Actively engaging the local communities to improve and expand the public transit system would have positive outcomes for both the university and community residents. This type of engaged university activity would result in an improved quality of life for all area residents. Community residents would also reap the same benefits of transit including increased transportation options, reduced traffic, lower parking demand, and improved health outcomes. This expanded transit system would promote a stronger connection with the local community resulting in a win-win situation for both the university and the Houghton/Hancock community.