

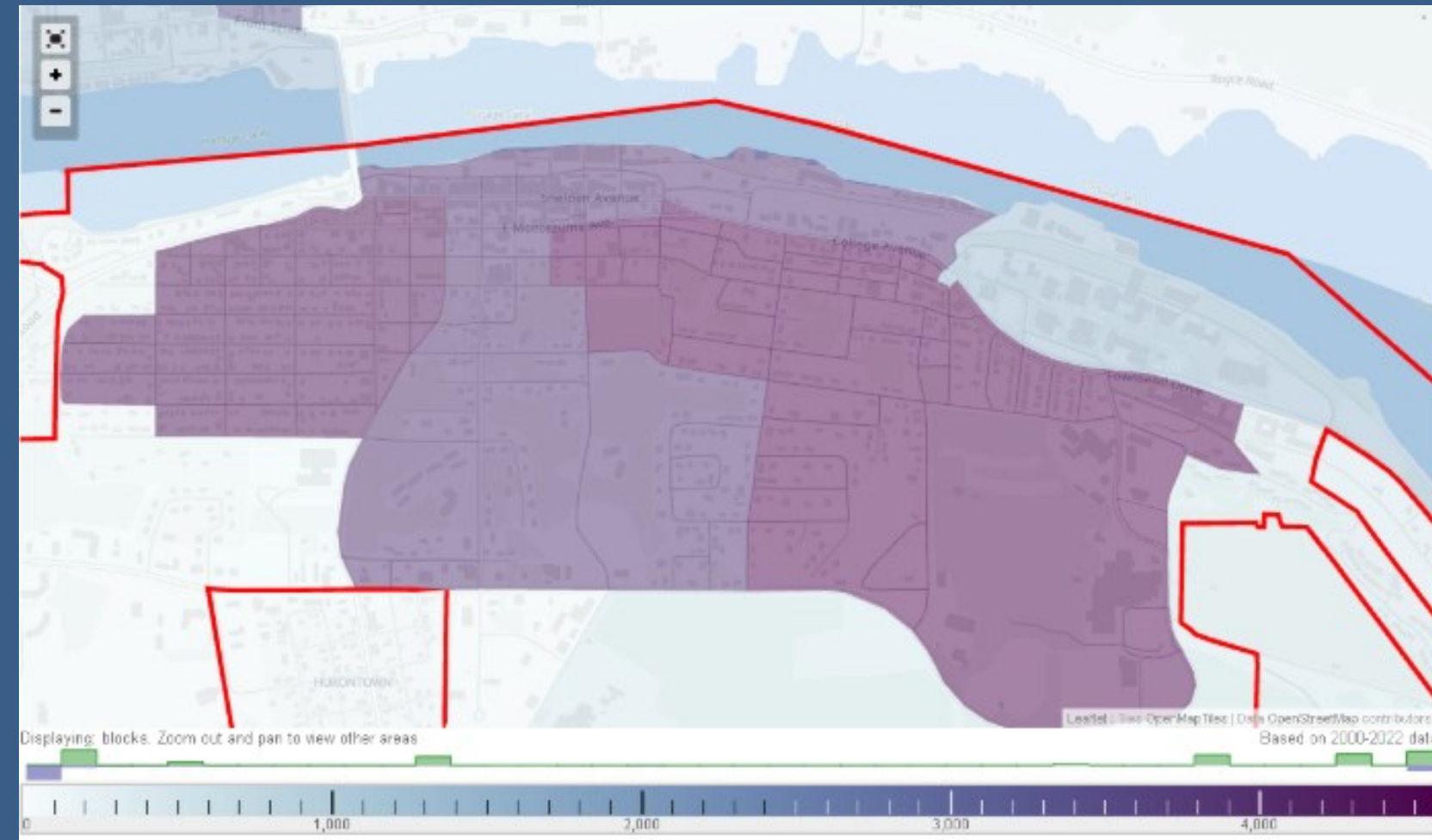


# NEW BUS ROUTE FOR MICHIGAN TECH



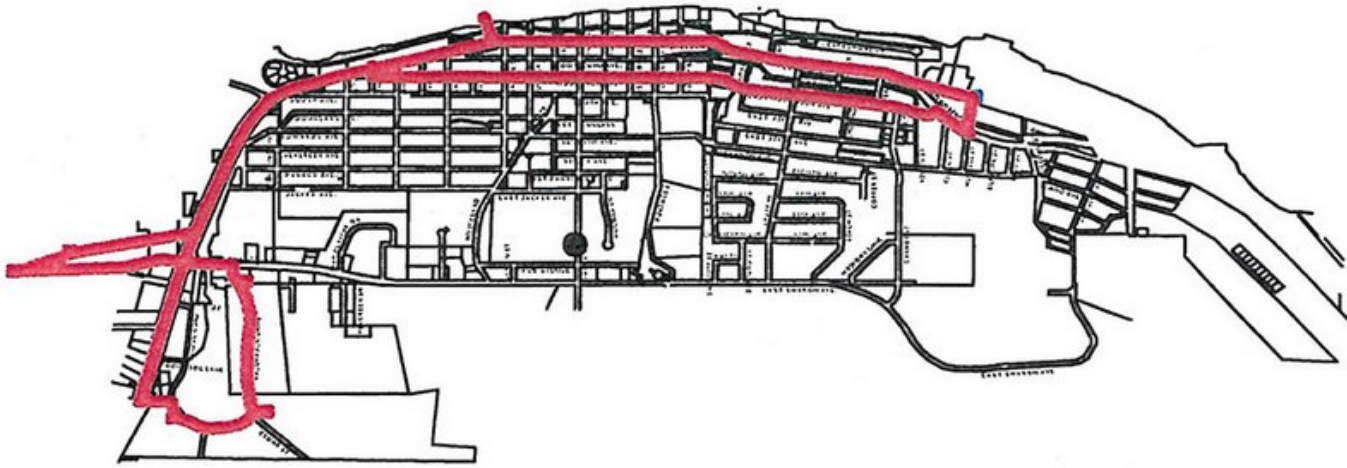
**WHY?**

# WHY?

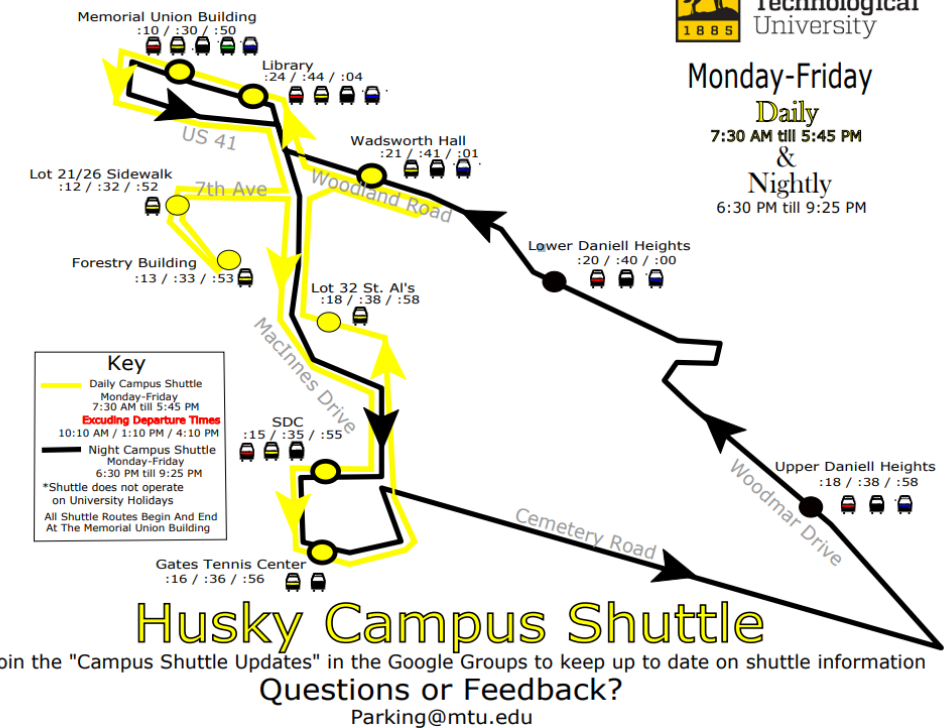


(FIG 1) Population Heat map of Houghton; [www.cityofhoughton.com/transportation/](http://www.cityofhoughton.com/transportation/)

# WHY?



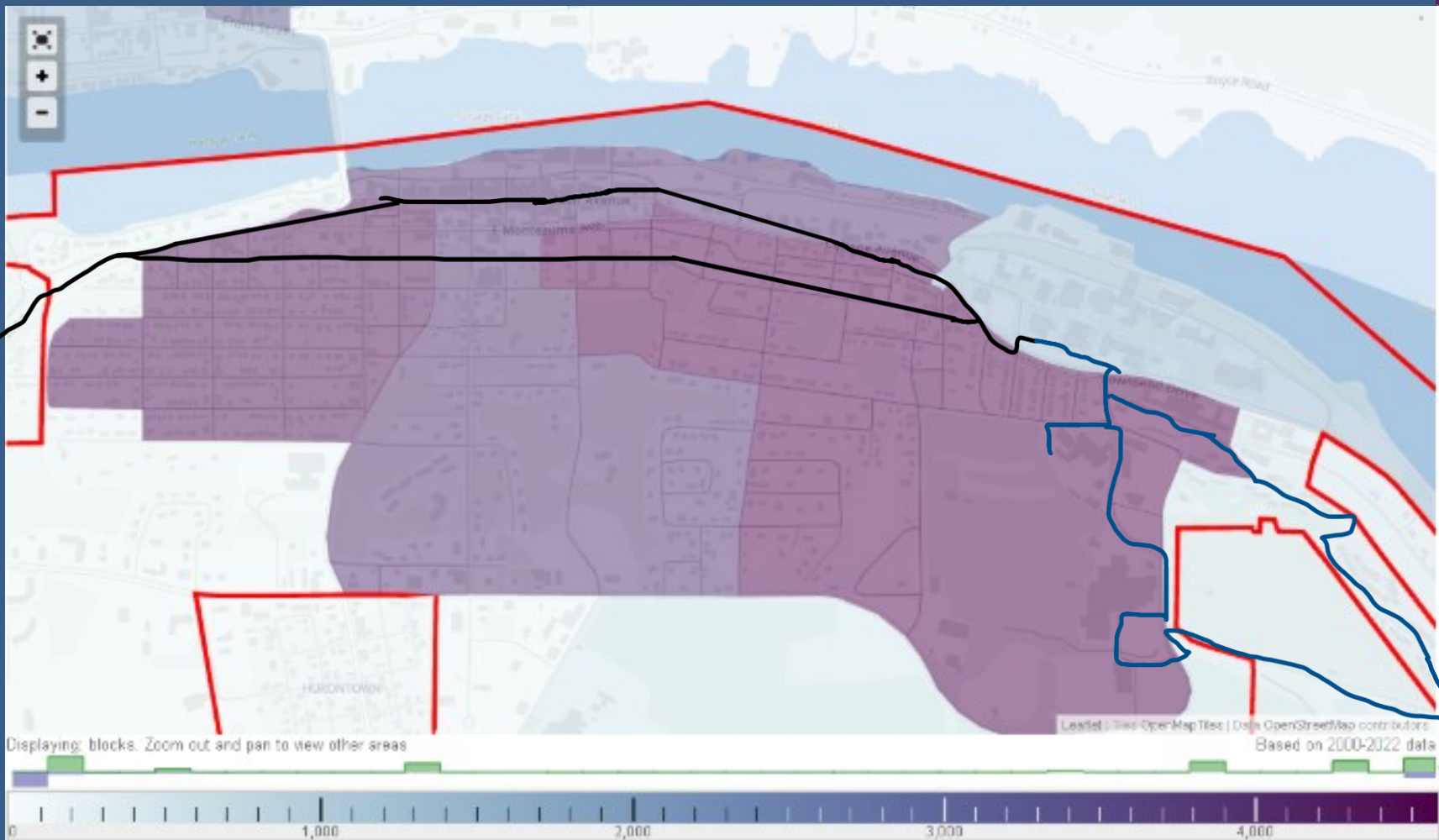
(FIG 1) Bus route map of Houghton;  
[www.cityofhoughton.com/transportation/](http://www.cityofhoughton.com/transportation/)



(FIG 2) Husky Campus shuttle;  
<https://www.mtu.edu/transportation/pdfs/route-maps.pdf>



# WHY?

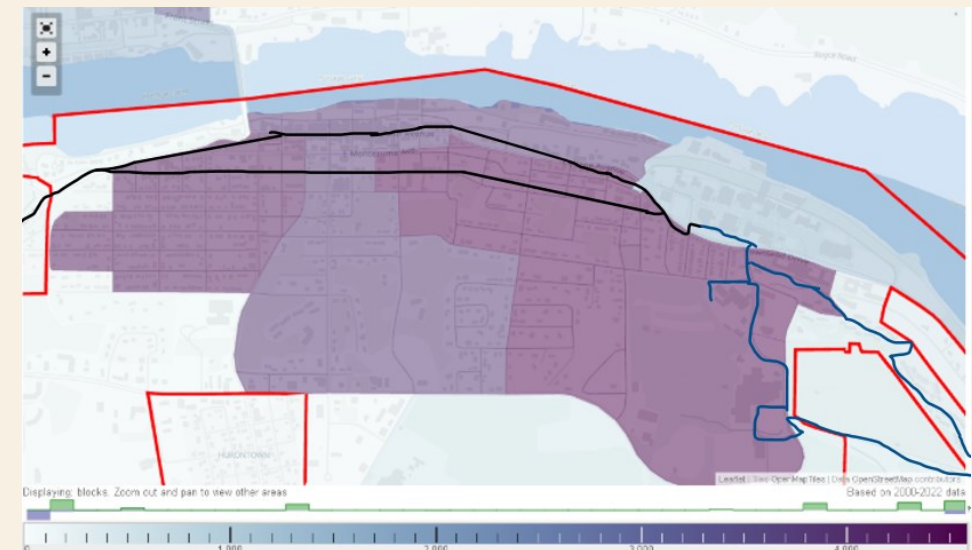




# ROUTE PLACEMENT?

# BRING THE BUS TO YOU

- Accounting for population density this route serves the highest number of people who previously had little access to a route
- Allows Hurontown and multiple population centers to have public transportation



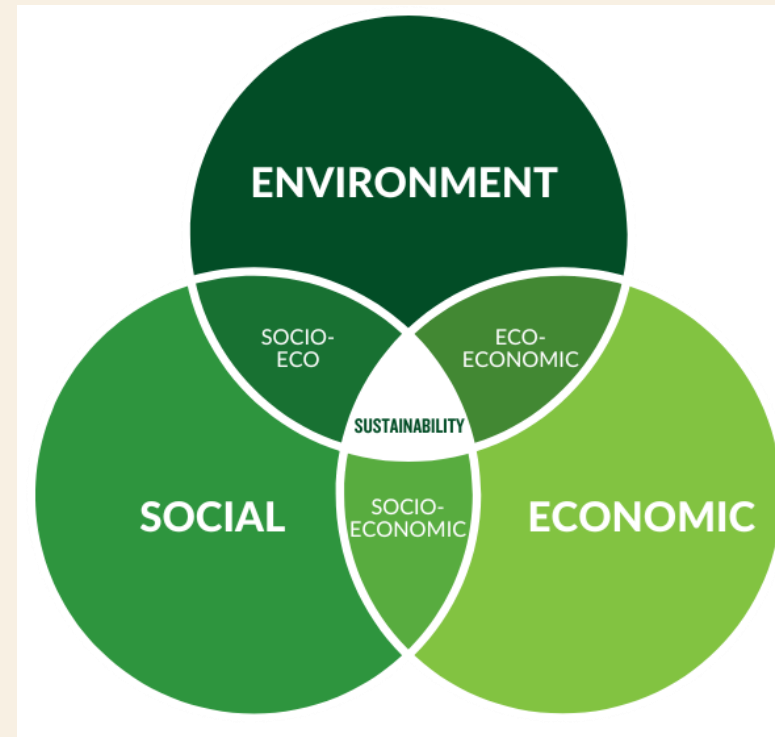


# **BENEFITS FOR SHAREHOLDERS?**



# BENEFITS

- Public perception
  - Increase in reach for prospective students
- Sustainability
  - Less cars on the road
- Equality for lower income students
  - Lower car dependency
- Opportunity to research
  - Collect route statistics





# COSTS?

# COSTS

- type A bus, which is a shorter frame vehicle for shorter trips with a cutaway front section ([www.spiraldesign.com](http://www.spiraldesign.com))
- An average driver's cost for employment is around \$17 per hour, equaling around \$35,360 a year to employ the driver (ziprecruiter)
- The reason only 6 hours a day was chosen is that for the first year a research study is highly recommended to be run to gauge effectiveness and use of the new route

## New bus

3 runs per hour * 6 hours	<b>18 runs/day</b>
18 runs/day * 7 miles	<b>126 miles/day</b>
126 miles/day * 300 days	<b>37,800 miles/year</b>
(37,000 miles/year) / 12 mpg	<b>3,150 gallons</b>
3150 gallons * \$3.105	<b>\$9,780 operating costs</b>

## Used bus

(37,000 miles/year) / 8 mpg	<b>4,725 gallons</b>
4,725 gallons * \$3.105	<b>\$14,671.13</b>

# COSTS

	New Bus	Used Bus
One time costs	\$55k	\$12.5k
Gas costs	\$9,780	\$14,671
Driver	\$35,360	\$35,360
Total first year	\$100,140	\$62,531
Total per following year	\$45,140	50,031

# CITATIONS

- Mdi. "Transportation." *City of Houghton*, 28 Feb. 2025, [www.cityofhoughton.com/transportation/](http://www.cityofhoughton.com/transportation/)
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- (www.spiraldesign.com), Spiral Design Studio. "Types of School Buses: A Comprehensive Guide - Tranfinder." *Tranfinder*, [www.tranfinder.com/resources/types-of-school-buses](http://www.tranfinder.com/resources/types-of-school-buses)
- Full Time Bus Driver Salary in Michigan: Hourly Rate (2025), [www.ziprecruiter.com/Salaries/Full-Time-Bus-Driver-Salary--in-Michigan](http://www.ziprecruiter.com/Salaries/Full-Time-Bus-Driver-Salary--in-Michigan). Accessed 28 Mar. 2025





# THANK YOU

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