

La Crosse Market Segment Plan

La Crosse Municipal Transit Utility Market Segment Plan

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Background: The City of La Crosse, WI contracted with Bourne Transit Consulting, LLC of Ames, IA in October, 2008 to assist in the analysis of market segments and development of strategies that will increase ridership on the La Crosse Municipal Transit Utility (MTU).

The scope of the project includes:

1. Compile demographic data on current riders from recent surveys and compare ridership data with general demographic data in order to identify potential markets or market gaps.
2. Compile income data on where people with the next higher level (than current passengers) live and determine if those people can be targeted for improved service or if service expansion to new areas is feasible.
3. Determine a long-term strategy to leverage the student target market with the non-student market in approximately equal shares such that the MTU is balancing the available resources with various market segments.
 - a. Identify corridors for more frequent service (15 minutes peak times)
 - b. Campus shuttle design and discussions with UW-L decision makers
 - c. Student surveys or trip journal designs
4. Assess MTU needs in terms of physical plant, staffing, training, etc. if service expansions were made.
5. Develop survey/trip journaling for larger employers (e.g. hospitals, county, CenturyTel, etc.)

The consultant visited La Crosse November 18 to November 20, 2008. During the visit there was discussion with administrators and students from University of Wisconsin-La Crosse (UWL) including Chancellor Joe Gow, and administrators and students from Western Technical College (WTC) including President Lee Rasch. The consultant also made a visit to Gunderson Lutheran Medical Center with Tom Thompson, Sustainability Coordinator. Tom Faella, La Crosse Metropolitan Planning Organization (MPO) Director and Jackie Eastwood, Transportation Planner were also interviewed. There was also extensive discussion with Larry Kirch, Director of City Planning, and Keith Carlson, Transit Manager. A second visit occurred on February 4 and 5, 2009.

The La Crosse Municipal Transit Utility (MTU) Board has powers and duties prescribed by statute relating to the acquisition, management and operation of a Transit System and has jurisdiction, powers and duties extending to any comprehensive local transportation system whether within or without the corporate limits of the City. The operation of any transit system is deemed a public utility pursuant to the provisions of the Wisconsin Constitution and the laws of the State of Wisconsin.

The Municipal Transit Utility Board is comprised of the Board of Public Works; two unpaid citizen residents of the City, preferably persons who regularly utilize or ride the Municipal Transit Utility buses, who serve two-year terms; one La Crosse County Board Supervisor, who serves a term of two years or until the end of his/her elected term on the County Board, whichever is earlier; and an unpaid student representative from each of the City's institutions of higher education for a one-year term. The Mayors of Onalaska and La Crescent and Chairperson of the Town of Campbell are also voting members provided those communities continue to have fixed route service. The Board also has three unpaid alternates appointed by the Mayor and confirmed by the Council.

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Route and service level decisions are made by the MTU board. Financial decisions, which affect the amount of money available for routes and services, are made by the La Crosse City Council. Financial decisions for service in adjacent cities are made by the city councils of those cities.

Project Overview: The general philosophy of this document is to provide additional bus service and not to move bus service from one area of the community to another, which would cause a negative impact on existing transit riders. It is a general recommendation that more service is needed in La Crosse and rearranging routes does not accomplish this. Moving routes usually results in minimal gain as some existing riders will be disenfranchised.

The transportation market share for MTU is less than two percent of all travel. This indicates that there is a large untapped market potential for transit service. The recommendations outlined in this document, supported by the existing good transit infrastructure, will create strong opportunities to significantly increase transit ridership in La Crosse.

Planning Documents Review: The consultant reviewed the La Crosse Area Planning Committee Regional Transportation Plan (RTP), Multi Modal Transit Element, dated January 2004, and the 2008-2015 Transit Development Plan (TDP) for the La Crosse Municipal Transit Utility, Adopted May 16, 2007.

Both documents identify Environmental Justice issues, document the service levels at the time of preparation, and call for improved service, including more frequent service. The 2004 RTP also calls for regional transit routes and the creation of a regional transit authority. The marketing section calls for a new position, Mobility Manager, to work on marketing and to coordinate transit services and outreach activities. It also states that marketing programs had been less than successful. One of the strategic implementation steps recommended was to survey resident travel behavior with travel diaries to measure the effectiveness of transit improvements. This document will also discuss travel diaries and pragmatic marketing actions.

Transit propensity measurement is a technique used to determine areas where people would most likely use transit service. The 2007 TDP identifies areas of the community with a high transit propensity using generally accepted transit planning principles that identify low income and minority population concentrations using census data. Areas with high transit propensity are identified and a standard of 30- or 60-minute intervals is used. More frequent service is mentioned, but specific areas are not identified. Several of the issues raised in the 2007 TDP have been implemented.

This document builds on the information provided in the 2004 RTP and the 2007 TDP and provides implementation steps to increase transit ridership and address the infrastructure needed to support increased ridership.

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TASK 1: DEMOGRAPHICS AND ROUTE STRUCTURE.

Demographics: The City of La Crosse has a population of 51,480 and the urbanized area of La Crosse, WI, Onalaska, WI, and La Crescent, MN, has a population of 89,966 (2000 Census). Downtown La Crosse has a variety of large and small employers with an estimated 8,000 jobs in the immediate downtown area. The other large employer is Gunderson Lutheran Medical Center with over 5,000 employees and approximately 2,500 patient and visitor trips per day. Gunderson Lutheran Medical Center is located 1.5 miles south of downtown.

UWL has 9,975 students, with an estimated 8,500 living in La Crosse. WTC has two campuses in the La Crosse area with an estimated 8,000 living in the MTU service area. Viterbo University has approximately 2,000 students. The total student population of the three schools is approximately 18,500 living in the MTU service area.

A review of demographic data supplied by the City of La Crosse Planning Department shows that the high ridership routes of the La Crosse MTU generally follow the lower income block groups from Census data. This is typical of many small city urban bus systems in the United States. The MTU has focused on connecting low and moderate income people, generally living in the western part of the service area, with employment opportunities at Gunderson Lutheran Medical Center, downtown La Crosse, and the industrial and commercial areas in the northern portion of the service area.

These areas were identified in the 2007 TDP (p. 5-5) as high transit propensity areas and high transit-supportive areas. Traffic Analysis Zones (TAZ) are a methodology used by transportation planners to determine current and future travel patterns in a geographic area. The TDP indicated that some high-density Traffic Analysis Zones had a transit market share as high as five percent of all trips, which is close to the national average of 4.9%.

MTU Ridership by Route			
2008			
Route	Ridership	% Total	Pass/Rev Hr
4/5	384,144	35.5%	20.8
1/6	376,677	34.8%	21.1
2/3	170,397	15.8%	19.1
Safe Ride	59,176	5.5%	54.0
7/8	37,705	3.5%	12.2
9	32,305	3.0%	11.6
10	18,529	1.7%	7.5
Trolley	2,862	0.3%	14.3
Total	1,081,795	100.0%	19.8

More than 70 percent of daily MTU ridership is on two route pairs, the # 4/5 and the # 1/6. The # 4/5 serves campus as well as connecting Valley View Mall with the downtown transfer point. The #1/6 serves the high transit propensity areas in the north/south travel corridor closest to the Mississippi River. The most productive MTU route is Safe Ride which averaged 54.0 passengers per revenue hour. An examination of route options to enhance the high ridership areas is included in the report.

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Student Residence Locations: One of the tasks performed by the La Crosse Planning Department was to plot locations of the residences of UWL and WTC students. This provides a basis for determining how the transit network serves the important purpose of class trip transportation.

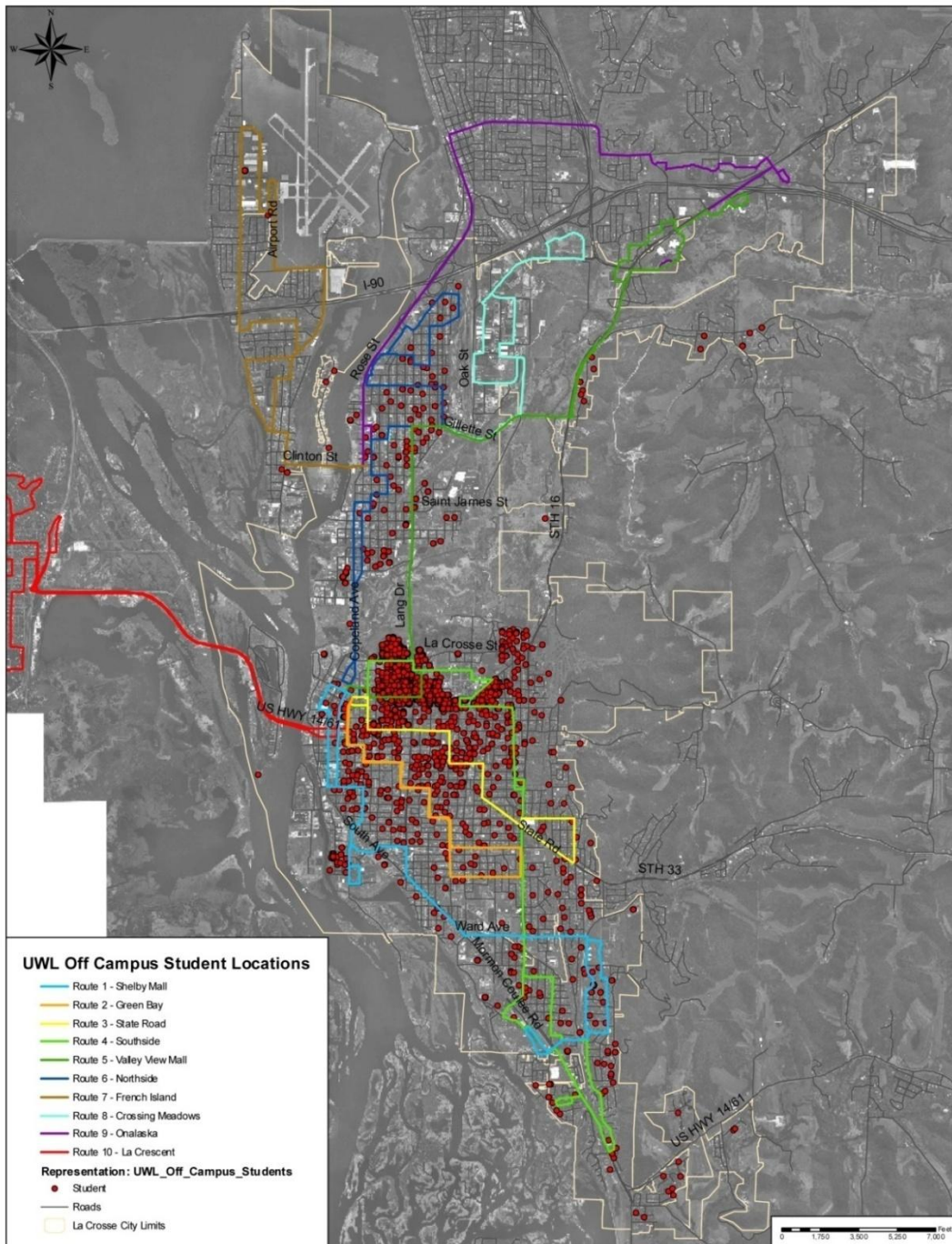


Figure 1: UWL Off Campus Student Locations

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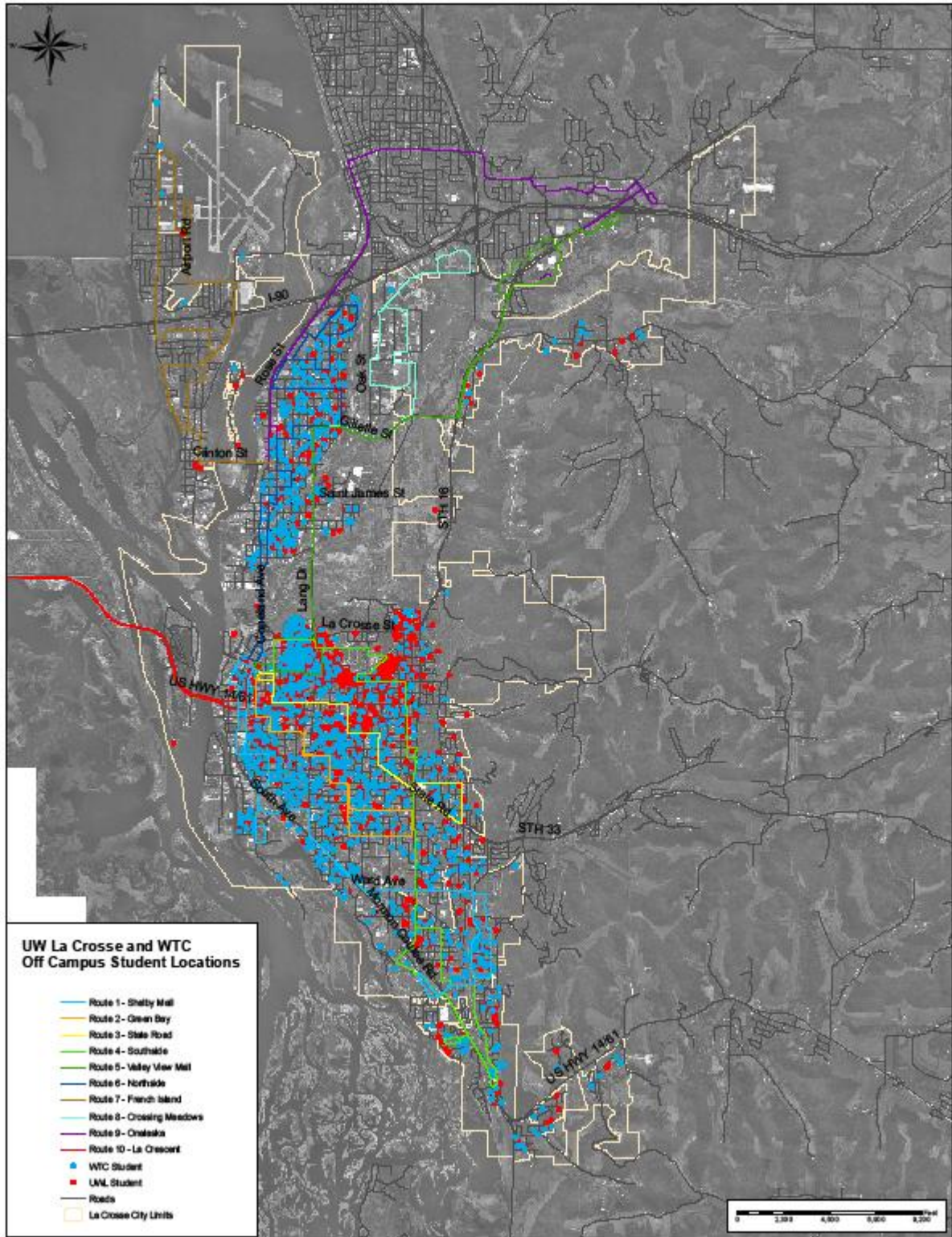


Figure 2: UW-L and WTC Off Campus Student Locations.

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It appears that the UW-L off campus student residences are clustered relatively close to campus with the greatest concentrations located to the south and west of campus. While there is a concentration of WTC students near the WTC campus, the overall distribution of student residences is more disperse throughout the entire community.

Current Route and Schedule Structure: The primary routes that serve the western edge of La Crosse are the #1 and #6 which also connect with other MTU routes at the downtown transfer point. Access to the entire service area is provided at the downtown transfer center.

At Clinton St. and Caledonia St., in North La Crosse, transfers between the #6, #7, #8, and #9 are conveniently scheduled. Convenient, timed transfers occur at these locations allowing passengers to easily transfer between buses to complete their journey, although the frequencies on the #7, #8, and #9 (60 minutes) do not match the frequency on the #6 (30 minutes). Some passengers may have to wait 30 minutes for their connecting northbound bus.

Travel time is an important factor that consumers consider when making mode choice decisions. It is rare that bus travel will be faster than automotive travel and a goal of no more than twice the auto travel time is desirable. Straight routes tend to be more time competitive with automobile trips since they are more efficient. Routes with loops or excessive turns tend to be three or four times longer than a comparable automotive trip as measured in travel time.

The #1 and #6 are generally straight routes with a minimum of turning movements (except the far south end of the #1 and north end of #6). In general, the central part of the route network is linear with few loops and redundancies. The southern and northern portions of the route network tend to have several loops. This routing structure in the central portion of the network provides the most direct and time competitive transit service compared to automobile trips.

Routes #1 through #6 operate at 30 minute intervals during the day on weekdays. Routes # 7 through 10 operate at 60 minute intervals. Weekend service is provided on Routes #1 through #6 at 60 minute intervals except for Route #5 which operates at 30 minute intervals when UWL is in session.

The 2007 TDP analyzed transit Level of Service (LOS) using the Transit Cooperative Research Program (TCRP) *Transit Capacity and Quality of Service Manual*. LOS is measured on a scale from A to F with A being the highest level of service. Several criteria are used to measure LOS and higher levels of service generally have higher levels of ridership.

The LOS for LaCrosse MTU service coverage and span of service on the core fixed routes is A and B. The LOS declines to a D or E for frequency of service and span of service on the contracted fixed route. **The ability to increase ridership when the Level of Service is D or E is very limited.** MTU has made a strong investment in area coverage and hours of service but is deficient in frequency of service. Ridership will increase as the Level of Service is increased and this document will show where to increase service levels to produce the quickest ridership increases.

The MTU has been responsive to the planning process and has implemented some of the changes recommended in the 2007 TDP. Additional route changes in the northern portion of the service area were implemented in January, 2009.

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Market Gaps: MTU routes serve the La Crosse area fairly well with the geographic distribution of routes and that has been documented in the TDP. The low and moderate income population is served well by the location of the fixed route network, but not well by the frequency of service. Improvements to the current frequency levels will benefit the current riders as well as attract people in similar demographic groups.

The bus **schedules do not coordinate with UWL and WTC class times**. Buses operate at 30 minute intervals during the day and the class schedules are on a 65 minute cycle. There are only a few times during the day that the bus schedules provide convenient service to and from UWL and WTC. The bus schedules also do not coordinate well with the bell times of the high schools and middle schools in the service area.

Middle School and High School Market: Under Section 121.54(2), Wisconsin Statutes, “a pupil attending a public elementary or secondary school, including four- and five-year-old kindergarten, is entitled to transportation by the public school district in which the pupil resides if the pupil resides two or more miles from the nearest public school the pupil is entitled to attend.” Students living less than two miles from a public school must provide their own transportation to and from school.

Middle school and high school students are often frequent users of bus systems in cities similar to La Crosse. They are usually able to use the public bus service while elementary school students usually do not have the maturity needed to navigate the bus system. Some bus systems have an active outreach program to students in grades 6 – 12 to encourage safely riding the bus to and from school as well to after school and weekend activities.

There are 7,640 students in pre K – 12 in La Crosse. A review of bell times compared to bus arrival and departure times shows that the bus system serves some schools well and others not very well. For this document only the larger schools with students in grades 6 – 12 were surveyed. The smaller schools may also benefit from future service changes designed for the larger schools.

A good schedule in the morning will get students to school between 10 and 20 minutes before the first bell to give them adequate time to get to their first classroom assignment. After school, buses should arrive between 8 and 15 minutes after the last bell. Scheduled times highlighted in green are convenient, while those highlighted in yellow fall outside of the suggested guidelines.

Serving middle school and high school students can be challenging for bus systems. However, the travel patterns of this market are generally complementary to the other market segments and usually will not cause overcrowding on buses to the detriment of other passengers traveling to downtown or UW-L or WTC. This market is also quick to change travel patterns and may be easily induced to use high quality, frequent bus service.

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School Coordination Times								
School	Students	Grades	AM Bell	Route	Arrival	PM Bell	Route	Departure
Aquinas HS	469	9 - 12	7:55am	3 SB	7:42am	3:05pm	3 NB	3:35pm
Aquinas MS	206	7 - 8	7:55am	3 NB	7:35am	3:05pm	3 SB	3:35pm
Central HS	1,431	9 - 12	7:40am	2 SB	7:25am	3:20pm	2 NB	3:25pm
				4 SB	7:24am		4 NB	3:49pm
				4 NB	7:19am		4 SB	3:54pm
Logan HS	1,007	9 - 12	7:40am	5 NB	7:15am	3:20pm	5 SB	3:33pm
				8 WB	7:30am		8 EB	3:50pm
				6 SB	7:29am		6 NB	3:55pm
				6 NB	7:15am		6 SB	3:49pm
Lincoln Middle	311	6 - 8	7:35am	2 NB	7:05am	2:35pm	2 SB	2:45pm
				2 SB	7:15am		2 NB	3:05pm
Logan MS	577	6 - 8	7:35am	6 SB	7:22am	2:35pm	2 NB	2:54pm
				8 EB	6:53am		8 WB	3:27pm
				6 NB	7:24am		6 SB	2:53pm
Longfellow MS	677	6 - 8	7:35am	2 NB	7:26am	2:35pm	2 SB	2:26pm
Onalaska HS	899	9 - 12	7:30am	9NB	7:00am	2:35pm	9 SB	3:15pm
				9SB	7:15am		9 NB	3:30pm
Green indicates good schedule/bell coordination								
Yellow indicates poor schedule/bell coordination								

The La Crosse school district contracts school bus service to First Student. Currently, the La Crosse school district adheres to the state minimum of providing service more than 2.0 miles from school. The Onalaska School District operates its own fleet of school buses.

Improving frequency of service on some routes will coordinate service with bell times and draw additional middle school and high school students to MTU service. It will have no adverse impact on the school bus operators if the target market is students living less than two miles from school and not served by school supported transportation. More frequent service will also attract other community riders who will find more convenient times to coordinate with their work schedules. Development of the middle school and high school market is a logical step in transit development that will benefit the total community.

The existing MTU service meets basic needs of low and moderate income residents of La Crosse and some student trips. Residential areas are connected to employment areas and service operates seven days per week. **The primary service gaps are that college student needs are not being well met and there is an opportunity for greater middle school and high school ridership.**

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TASK 2: TRANSIT PROPENSITY.

The purpose of the second task was to compile income data on where people with the next higher level (than current passengers) live and determine if those people can be targeted for improved service or if service expansion to new areas is feasible. This task is a typical marketing task that is usually done as part of a Transit Development Plan or within a year or two of the completion of a Transit Development Plan.

The 2007 TDP provides more information than a typical income distribution and yields more valuable information than an income distribution. It has a Transit Propensity Model that examines vehicle availability, race, and income levels, which are all key indicators for transit usage. It develops each census tract into a five-category model that assigns a value to each zone. The propensity to use transit is discussed in Chapter 5 of the 2007 TDP and is shown graphically on page 5-5.

For this report, the very high and high propensity zones are considered important in developing a marketing strategy. They are generally located in the Route # 1/6 and #3/4 MTU service areas. It is unnecessary to duplicate the tasks in the 2007 report and the income information and transit propensity model in that report is used for making recommendations in Tasks 3 and 4 of this report.

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TASK 3: STUDENT MARKET DEVELOPMENT.

Peer Group: The transit market for college age students in La Crosse has been developed through the creation of the UPASS for students at UWL, WTC, and Viterbo University. While the number of students using the pass is good and has been increasing, there is still a greater market potential with continued development of bus service to meet student needs.

The highest utilized student oriented MTU service is Safe Ride. It meets the needs of students traveling late at night between their residences and the entertainment areas of downtown La Crosse. It is a narrowly focused service that has the highest productivity and best frequency of any service offered by MTU.

Examination of a peer group of similar sized Midwestern cities with high student populations shows that La Crosse is on the low end of average riders per capita (23.4), but near the national average for larger cities (14.0). The data in the table is based on the National Transit Database totals for 2007. The average for large UZA (200,000+) Vehicle-Miles/Capita has increased to 11.8 and Vehicle-Hours/Capita has increased to 0.77 in 2008.

LaCrosse Peer Group		Jan. 2009						
City	Passengers	Rev-Mi	Veh-Hrs	Pass per Rev Mile	Population	Rides/ Capita	Veh-Mi/ Capita	Veh-Hrs/ Capita
Ames, IA	4,314,151	1,095,398	103,109	3.94	50,726	85.0	21.6	2.03
Lafayette, IN	4,664,861	1,471,327	130,542	3.17	125,738	37.1	11.7	1.04
Bloomington, IN	2,606,093	1,113,876	101,128	2.34	92,456	28.2	12.0	1.09
Kenosha, WI	1,740,038	1,201,734	82,132	1.45	110,942	15.7	10.6	0.72
St. Cloud, MN	2,029,789	1,493,049	108,617	1.36	91,305	22.2	16.4	1.19
Bloomington, IL	1,418,687	1,143,740	79,568	1.24	74,593	19.0	15.3	1.07
Oshkosh, WI	1,196,250	1,154,452	73,194	1.04	71,070	16.8	15.8	1.00
LaCrosse, WI	1,165,174	1,257,839	95,798	0.93	89,966	13.0	13.2	0.99
EauClaire, WI	1,087,739	1,233,756	79,590	0.88	91,393	11.9	16.9	1.14
Lawrence, KS	714,607	923,221	74,310	0.77	79,647	9.0	11.6	0.93
Peer Group Average	1,903,399	1,098,945	84,363	1.56	79,803	23.4	13.2	1.02
Avg UZA 200,000+						14.0	11.3	0.75
Source: NTD 2007								

La Crosse MTU performance compares well with the peer group average in terms of service supplied (Revenue-Miles and Vehicle-Hours). MTU provides higher than average amounts of service for these two categories. However, ridership does not compare well with the higher performing systems that are within 15% of Vehicle-Hours (Ames, Bloomington, IN, St.Cloud). Comparing ridership per capita shows that La Crosse MTU is underperforming in rides per capita.

Transit systems with strong student ridership (Ames, Lafayette, and Bloomington, IN) tend to have a set of routes that circulate around campus and within nearby residential areas with high frequency service, often five minutes or less during peak times. They also have a strong route network within the community that features relatively direct routes to campus with frequencies of 15 minutes or less during peak travel times.

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Other cities with higher ridership have bus services that connect the university area with the total community and MTU fills this function well with its current route structure that geographically serves La Crosse and neighboring communities. However MTU does not provide a high level of service for students that live close to campus and does not provide good circulation to destinations on and near campus.

UWL Student Survey: An online survey was posted in early December, 2008 for all UWL students. The survey was developed by the consultant and modified by UWL staff to meet a variety of needs.

One of the objectives of the survey was to attempt to determine how many students who live in the student intensive residential area use their car to drive to campus. 70 respondents out of 473 (14.8%) indicated that they parked on city streets.

24 of the 70 respondents who park on city streets indicated that they parked three or more blocks from campus. This usually indicates that close-to-campus parking on city streets is full when the distances are three or more blocks and validates the claims by city residents that it is difficult to park in front of their homes on some class days.

Only 2.0% of respondents indicated that they use MTU to get to campus five or more times per week, a very low number. If this percentage is extrapolated to the overall UWL population (8,500), it indicates that only 170 students are regular MTU commuters. However, 16.9% (1,436) indicated that they used the bus at least once per week for a variety of trip purposes. This indicates that students are familiar with MTU bus service and how to use it. La Crosse is fortunate that more than 1,400 students are familiar with the bus service and use it at least once per week.

36.2% of students (3,077) use their auto to access campus at least once per week and 18% (1,530) are automobile passengers. It is possible that some of the respondents may use their auto for some trips and MTU for other trips to campus. The challenge is to get the occasional bus user to use MTU more often.

43.7% of students live within ten blocks of campus and 34.1% (2,899) live three to ten blocks from campus. This indicates a strong market for short distance travel that may be too long for walking trips and may be currently accommodated by auto trips.

When all travel (campus plus off-campus purposes) is considered MTU does very well. 57.9% of students (4,922) indicated that they had used MTU at least once in the last month. However, when Safe Ride is factored out of the question; the percentage falls to 24.7% (2,100) which is still a significant indicator of familiarity with the bus service. It also indicates that 33.2% (2,822) of students only use MTU for Safe Ride trips. An additional research project could be undertaken to interview the group of students who only use Safe Ride to determine their propensity to use MTU for other trip purposes.

55.2% (4,692) of students indicated that they would use the bus more often if the buses ran more frequently. This is consistent with the peer group cities that have high ridership with high frequency service. The peer group cities with lower ridership tend to have lower frequency levels.

Perhaps the most interesting results came from trip purposes in the last month. 39.5% of respondents indicated that they used the bus for shopping purposes. Shopping typically is not a

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daily activity and it usually has a lower response rate in cities similar to La Crosse. The high response for shopping trips again indicates familiarity with the bus service and this response correlates well with the indicator of high occasional riders and low steady, daily riders.

The distribution of destinations is also interesting. Downtown (38.4%) and Valley View Mall (37.6%) were almost equal. High occasional ridership to these destinations may indicate that on-campus students who do not have cars are using MTU for relatively long distance, infrequent trips.

42.9% (3,646) of respondents do not have a car in La Crosse but only 24.7% of respondents indicate that they use MTU for purposes other than Safe Ride. This indicates that there is a lucrative market segment for bus transportation. The people who do not have cars are using other means to meet their travel needs or they are not making trips at levels comparable to people with more mobility options.

UWL Survey Summary						
Percent	Number of					
Respondents	Students					
2.0%	170	Use MTU to go to campus five or more times per week				
16.9%	1,436	Use MTU at least once per week				
57.9%	4,922	Used MTU once in last month				
33.2%	2,822	Use Safe Ride				
36.2%	3,077	Use automobile to go to campus				
18.0%	1,530	Automobile passengers				
34.1%	2,899	Live three to ten blocks from campus				
55.2%	4,692	Would use bus more often with better frequency				
42.9%	3,646	Do not have access to a car				

Review of comments attached to the surveys had many positive comments about the bus system. The most consistent negative comment was that buses should run more often.

WTC Survey: A similar survey was conducted with WTC students. Total responses were only 95 which is less than 2% of the total student body. This low response rate makes extrapolation of results to the larger student body difficult.

However, the percentages on the responses provide some interesting information. 59.6% of respondents drove to campus and 55.8% live between five blocks and five miles from campus. This is the market opportunity for improved fixed route service. 75.8% did not ride MTU in the week before the survey and only 5.3% rode Safe Ride. The destinations and trip purposes of WTC students were more even than UWL students with no specific destination or trip purpose dominating travel behaviors. 18.1% of respondents do not own a car in La Crosse.

Review of a housing survey conducted by WTC show that 78% of WTC students live off campus and 49% (4,000) live less than five miles from campus. There were 48,069 WTC passengers on MTU service in 2008, which only about six rides per student per year. The high number of students living within five miles and low usage of the bus service indicate an opportunity to enhance the WTC market.

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Campus Circulator Options: Student ridership can be developed through improvements to the existing fixed-route system as well as meeting short distance travel needs within a two-mile radius of campus. Short routes serving these short trips are called circulator routes and are common on many campuses to serve people who live adjacent to campus as well as to serve a distribution and circulation function on campus.

In La Crosse, a good campus circulator system will meet the needs for short distance travel connecting the UWL campus, WTC downtown campus, and the high-density student residential area between the two campuses. In addition to trips to and from campus, there is travel between the two campuses. The Allied Health Center Building provides classroom instruction for students from UWL and WTC and also provides programming for Viterbo University, Franciscan Skemp Healthcare and Gundersen Lutheran Medical Center. This requires travel between WTC and the Allied Health Building which is a distance of 0.6 miles.

Anecdotal conversation indicated that UWL students living in the student intensive area drive their autos short distances and park in campus lots or on nearby residential streets. This creates parking problems on city streets in the areas adjacent to campus. An on-street parking observation indicated that students were parking within approximately three blocks of campus on the streets immediately south of the UWL campus. With approximately 22 parking spots per block, it appears that there are about 660 cars parked in the 30 block segments south of campus. Turnover of cars during the day and residential on street parking would provide a better estimate of how many cars are parked for commuting purposes.

Greenhouse Gas Emissions: Short distance automotive travel has a negative effect on the environment that is disproportional to the distance of the trips. Automobile emission control systems work most efficiently at normal engine operating temperatures. With short trips of less than one mile, the automobile motor does not have time to warm up. Consequently, emissions are excessive for the short trips.

UWL has signed the Tallories Agreement. The University Joint Committee on Environmental Sustainability (UJCES) has identified a series of actions to reduce the carbon footprint of UWL. It recommends that UWL “Take steps necessary to continue and expand effective linkages and partnerships, locally and internationally, publicly and privately, that will further support the University’s efforts for creating a sustainable future.”

While transportation to and from campus is not directly addressed, the MTU bus pass system is identified as a possible future action. Encouraging efficient transportation will have an environmental benefit in La Crosse and would be consistent with the UJCES mission.

Using American Public Transportation Association (APTA) data, a student living in the center of the student intensive housing area can generate more than 200 pounds of Greenhouse Gases per year traveling by automobile to and from UWL five times per week. A student living two miles from campus can generate over 900 pounds of GHG per year going to and from campus for classes.

Investment in the circulator bus route will also allow campus planners the flexibility to replace parking lots with new buildings and allow the university to intensify activities. Intensification of land use reduces utility infrastructure and allows the physical footprint of the university to remain the same while increasing university growth and activity. A good bus system with a circulator network and a high level of service outside the university area will reduce or slow the demand for parking.

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Experience from other transit systems indicates that at distances longer than 0.5 miles, students will use a bus for about 50% of their travel. At 0.75 miles, approximately 90% of trips will be made by bus. The average walking distance from the center of the student intensive residential area (Pine St. and Ninth St.) to Murphy Library is approximately 0.6 miles.

There is no daytime circulator route on the UWL campus. Safe Ride functions as a circulator during Thursday through Saturday evenings. It provides bus service for short distance trips between downtown, student intensive residential area, and the UWL campus and the on-campus residence halls. **With a 15-minute frequency, Safe Ride is the most frequent service in the MTU system and is the most productive service operated by MTU.** In 2008 the productivity of Safe Ride was 54.0 passengers per revenue hour compared to 21.1 passengers per revenue hour on the #1/6 route and 19.8 passengers per revenue hour for the entire MTU system.

The online survey of UWL students indicated short-distance automobile travel was used to access campus. The student residential plot locations shown in Figures 1 and 2 indicate a large number of students live close to campus as expected. There is also travel demand between the UWL and WTC campus that is centered on the Allied Health Center. Students from both schools attend classes at Allied Health Center. These factors combined with the concern about parking near campus and environmental concerns support the development of a campus circulator bus system.

Based on the survey results, residential locations, and Safe Ride usage, it is apparent that **a circulator route connecting UWL, WTC, and student intensive residential areas would have transportation, social, and environmental benefits.** Route design and frequency of service are critical to making a circulator route successful.

Service Alternatives: There are two alternatives for circulator service in this area:

- Improve frequency on MTU Route #4 and #5.
- Establish a separate circulator route independent of the MTU system.

Route #4 and #5: The first alternative improves connections between campus and the student intensive residential areas west of campus and immediately south of campus with improvements to Routes #4 and #5. Route #4 operates from the downtown transfer facility through the student intensive area on 7th St., La Crosse St., West Ave. It provides a convenient route between WTC and the Allied Health Center. It also serves some student housing immediately south of campus on 17th St. S., and Main St. to 23rd St. S.

UWL Classes are 55 minutes long with a 10-minute interval between classes. This type of schedule with a 65-minute cycle does not coordinate well with bus routes that operate on an easy to remember interval of every 30 minutes. Improving the current 30-minute interval to 10 minutes would provide better coordination with class times, although there would still be several class break times where the bus would be arriving a minute or two late and leaving just before classes dismiss.

The improved frequency would only operate on the north end of the #4 and not along the entire route. The south end of the route does not have a high student residential density and the current 30-minute interval would be adequate to meet current transit needs.

A 10-minute interval can be accomplished by adding two buses that operate from downtown to approximately the corner of 23rd /Main where they would turn around and return downtown. The

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exact location of the turnaround route would be determined by MTU staff. The improved service would operate on UWL class days only.

Another part of this option that would provide circulation to the west side of campus would be to modify the current #5 to operate from downtown to campus via State, 15th, Pine, to West. This route touches the western edge of the UWL campus. A change in the #5 would connect students living along State St. with central campus. Buses from campus to downtown would operate at 10-minute intervals in a similar manner as proposed for Route #4. This would also make the #5 more attractive to students traveling to Valley View Mall and Onalaska destinations as it would cover a greater area of student concentration and require a shorter walk to the nearest bus stop. It would not serve WTC students well who need to travel between WTC and the Allied Health Center. The two extra buses needed to provide the 10-minute interval would operate between downtown and Badger/West. The exact turnaround route would be determined by MTU staff.

The extra time required for the longer route through campus would have **a negative impact on non-student riders who use the #5** to travel to work and shopping opportunities at the north end of the route and also for North La Crosse residents traveling to downtown. The current demand response section of Rt. #5 at the north end of the route would be eliminated because there would not be enough time in the schedule to accomplish that service.

The cost for improving the frequency on Routes #4 and #5 to a ten minute interval would be \$275,616 for service that operates only on class days. If service is desired during the January break or summer, costs would increase proportionally. These estimates assume that service would begin in January, 2010 when federal and state funding would be available to offset 53% of the cost. If federal and state revenues are not available for 47% of operating cost, as currently available, UWL will be required to offset the difference of next year's non local subsidy compared to the current year.

There would also be a onetime capital cost of approximately \$200,000 to buy four used buses for the 10 minute interval. Implementation in January, 2010 would require UWL to pay for 100% of the cost of the used buses.

Circulator Route: The second alternative is to connect UWL, Allied Health Center, WTC, and the student intensive residential area with a separate route. The circulator route would not connect with other buses at the central transfer terminal. The function of a circulator is to move people short distances in and around campus and to connect WTC, UWL, Allied Health Center, and student intensive residential areas. Typically, a circulator route is free to students, faculty, staff, and visitors and the circulator options assume that it is fare free. Dwell time is minimized at each stop when there is no fare collection.

The intervals at the peak time would be seven minutes, and would lengthen to ten minutes when demand is lower during the middle of class periods. This interval change saves some mileage and fuel and provides a restroom break time for drivers. Buses would operate at the frequent intervals from 7:00am to 5:00pm and then one bus at 20-minute intervals until 10:00pm. Three vehicles would be needed for this service.

The circulator route could also operate during the winter J term at a reduced schedule using two buses operating at a 10-minute interval. The bus stop near 7th/Pine would serve as the terminal location to provide drivers with short breaks and to allow time recovery when a bus is behind schedule. Bus stop locations would be existing MTU stops on streets with bus routes. On streets

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The student survey indicated high percentages of occasional trips to downtown and Valley View Mall. A fast, direct route operating at 20- or 30-minute intervals would provide a good connection to these two end points for students living on campus and in the student intensive residential area. Direct service to the dorms is important to reduce the overall travel time of walking to the bus, waiting time, and travel time on the bus. There were several comments in the UWL survey about long travel times to the commercial area in the northern portion of the MTU service area.

The current walking distance from Reuter Hall to the nearest #5 bus stop is 0.6 miles. While this recommendation may appear to duplicate the #5, it would serve the on-campus residence halls with quicker and more direct service. The current #5 weekend service that is funded through student fees only serves the west edge of campus. It does not serve the residence halls well.

A similar service was operated several years ago, but was unsuccessful and was discontinued. However, factors affecting student ridership have changed and the route should be re-established.

- High gas prices will come back.
- The commercial area near the Mall has expanded providing more shopping and work opportunities.
- Students are more comfortable and familiar with MTU services as shown by the increasing ridership.

A 30-minute interval service operating via Hwy 16, La Crosse, East, Badger, 13th, State to downtown could provide 15-minute intervals between downtown and the Mall when scheduled in between the current #5 schedule. This would provide 30-minute service to the dormitory areas and 15-minute service in the overlap area of student intensive residential housing and downtown when the #5 is operating at 30-minute intervals

There are a variety of service times that could be funded. Saturday service would operate from noon to 9:00pm on Saturdays and Sunday service could be from noon to 6:00pm. Weekday service could be provided in the afternoons when students are most likely to travel for shopping or employment trips.

Safe Ride Frequency: Safe Ride is the most productive service in the MTU system averaging 54 passengers per revenue hour. Even with a high productivity, several comments from students indicated that buses are sometimes crowded to capacity. MTU staff indicated that an extra bus is added on some nights and sometimes on short notice.

Adding a third bus would provide a 10 minute interval and may reduce the crowding. In most Safe Ride type services, early evening travel is distributed over the first few hours of service. Crowding on the buses usually occurs when students are returning home. Additional service at the 10 minute interval should be designed around the typical peaking times. Generally this occurs on Friday and Saturday nights. Five hours per evening are recommended for additional service for 80 evenings per year. More detailed analysis is needed to determine the best usage of those hours.

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Additional Fixed Route Services							
						Hourly	
		Buses	Daily	Days of	Yearly	Cost with	Yearly
Alternative	Frequency	Required	Hours	Service	Hours	State/Fed	Cost
5A Weekdays	30	2	18	180	3240	\$34.80	\$112,752
5A Saturdays	30	0	18	40	720	\$34.80	\$25,056
5A Sundays	30	0	12	40	480	\$34.80	\$16,704
Safe Ride	10	0	5	80	400	\$34.80	\$13,920
Daily hours includes time to and from garage							

Improve Frequency on Existing Routes: In addition to the circulator route, it is important to improve service on the fixed route network. Analysis of student housing locations shown in Figures 1 and 2 indicates that there are concentrations of UW-L students living along the north end of Route #4; the south end of #5; and portions of #1 and #6. There are also a reasonable number of students living between Routes #2 and #3. WTC students are more evenly distributed throughout the community and improved frequencies on these route segments would be a benefit to them as well as the UW-L students.

Increasing service to 15-minute intervals along the densest portions of Routes #1, #4, #5, and #6 will stimulate student ridership for those students who do not live near campus. Improved service will be more attractive to the general population of La Crosse that lives near these routes. These areas are high transit propensity areas and have the highest possibility of increased ridership compared to other service improvements.

In the 2004 Regional Transportation Plan (RTP), the Route #1/6 combination was recommended to have 15-minute peak intervals. In the 2007 TDP, the frequency Level of Service is defined as D or E for all fixed-route services. Increased frequencies are dismissed in the 2007 TDP because residential density is not high enough to support better service.

What is missing in the 2007 analysis is that college students will use frequent service disproportionately to the general population when higher frequency service is provided. **At a 15 minute interval, the Level of Service improves to Level C.** Because the 2007 TDP does not recommend citywide improved frequencies, this study recommends increasing frequency only on those areas where there are large numbers of college students. Residents who are not students will also benefit from more frequent service which will allow them more flexibility in meeting required work times and discretionary trip times for non work purposes.

Route #1 could support a 15-minute interval between Green Bay/West Ave. and downtown. This would provide better service between Gunderson Lutheran Medical Center and the central transfer point as well as the downtown area. Route #1 could be modified to have the 15-minute interval bus serve the Benora Lee Ct. area every 30 minutes and allow the regular #1 to bypass this area, thus providing faster service between downtown and the south end of the #1. This option would also provide more choices of travel times for Viterbo students traveling to and from downtown.

Frequent service on the #6 between Logan Middle School and downtown would be provided to serve residents living along the Copeland Av. corridor. If there is adequate time in the schedule, the route could be extended to Logan High School to provide better connections with bell times. Route #6 does not have a high concentration of UWL students. The #1/6 corridor between

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Gunderson Lutheran Medical Center and Logan Middle School is the second most productive route in the MTU system and has a high proportion of low and moderate income people that would benefit from more frequent service.

15-minute intervals would be provided on Routes #4 and #5 as discussed in the circulator section without any changes to the current routing. It is necessary to add these frequencies if the #1 and #6 are improved so that people arriving downtown on the new 15-minute interval buses have a connection to WTC, Allied Health Center, and UWL. The improved frequency on these routes will also benefit the student intensive area. As ridership increases, the 15 minute interval can be extended to Valley View Mall on Route #5 in three to five years.

Improved frequencies on these route segments will immediately benefit UWL students as well as Western and Viterbo students. Faculty and staff members of these institutions that live close to campus will also benefit. The general community will benefit if their trip making is within the 15-minute service area.

Four additional buses will be needed to provide this improvement to the existing fixed-route network. Service should operate on all weekdays and not just on class days. Low and moderate income passengers traveling to and from work as well as faculty and staff at UWL and WTC will become regular users of the improved service and they will require service on all weekdays. Improvements can be made in stages as funding becomes available and it is not necessary for all four routes to improve the service level at one time.

Route 1, 4, 5, 6 Improvements							
						Hourly	
		Buses	Daily	Days of	Yearly	Cost with	Yearly
Alternative	Frequency	Required	Hours	Service	Hours	State/Fed	Cost
Route 1	15	1	12	255	3060	\$34.80	\$106,488
Route 4	15	1	12	255	3060	\$34.80	\$106,488
Route 5	15	1	12	255	3060	\$34.80	\$106,488
Route 6	15	1	12	255	3060	\$34.80	\$106,488
Total							\$425,952
Daily Hours includes time to and from garage							

Implementation Schedule: While La Crosse, UWL, and WTC could benefit immediately from the service improvement recommendations, it is necessary to implement them in phases so that adequate funding can be secured.

There are four distinct service improvements that will increase ridership on MTU significantly.

- **Establish Circulator Route.**
- **Improve Safe Ride.**
- **Establish New Route #5A.**
- **Improve Frequency on Routes #1, #4, #5, #6.**

Phase I should occur in August, 2010 and would include the new Circulator Route, improved Safe Ride frequency, and Route 5A on Saturdays. This would allow MTU to tap into available federal and state funding and allow MTU, UWL, and WTC to determine the ratios for their local

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support of the services. These negotiations could take several months. **Phase I should be primarily supported by the educational institutions with secondary support from the MTU.** Most of the benefits in Phase I will accrue to the two schools and their students, while the citizens of La Crosse will benefit from reduced student parking on residential streets and greater mobility by students which results in increased local spending.

Phase II should occur in August, 2011 and would include the 15 minute intervals on the four MTU routes. It would also include Sunday service on Route #5A. **Primary local funding should come from the MTU with secondary funding from the students and educational institutions.** Viterbo students would also benefit and a slightly higher increase from Viterbo should be planned. Gunderson Medical Center would also benefit from improved service for employees and visitors and additional financial assistance should be sought from Gunderson.

Phase III should occur in August, 2012 and would include the weekday afternoon service on Route 5A and any adjustments to the changes made in Phase I and Phase II. J-Term and summer service could also be added in Phase III.

The table below summarizes capital cost, yearly operating cost, estimated passengers and farebox revenue, and net operating cost. Typically, it takes two to three years for a new campus focused service to mature and the ridership estimates are based on similar services in other universities and cities. The University of Montana ASUM transit system provides circulator service to residential areas near campus and carried 312,790 passengers on a four bus system in the 2007-08 school year. Circulator services in Macomb, DeKalb, and Ames average between 32 and 50 passengers per revenue hour at maturity.

Phase and Cost Summary						
		Capital	Yearly		Farebox	Net
Phase I	Frequency	Cost	Cost	Passengers	Revenue	Operating Cost
Circulator	7 - 10	\$150,000	\$238,032	205,200	\$0	\$238,032
5A Saturdays	30	\$0	\$25,056	14,400	\$0	\$25,056
Safe Ride	10	\$0	\$13,920	3,000	\$0	\$13,920
Phase II						
Route 1	15	\$50,000	\$106,488	31,000	\$5,670	\$100,818
Route 4	15	\$50,000	\$106,488	36,700	\$6,480	\$100,008
Route 5	15	\$50,000	\$106,488	36,700	\$6,480	\$100,008
Route 6	15	\$50,000	\$106,488	31,000	\$5,670	\$100,818
5A Sundays	30	\$0	\$16,704	4,800	\$500	\$16,204
Phase III						
5A Weekdays	30	\$100,000	\$112,752	64,800	\$2,000	\$110,752

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Local Funding Model: The local funding model is subject to negotiations between the MTU, WTC, UW-L and their students. With several local funders involved, there is an opportunity to leverage the local funding so that no one group will bear most of the cost. Student fees at UW-L are very low compared to similar student funded transit services. Contributions by university administrations through parking, administrative, or green initiatives are possible. Each university will need to determine its cost and benefits for the services.

Funding from the MTU in relation to the other local funders is also difficult to quantify. There will be a community benefit of more frequent service on existing routes. The circulator will eliminate auto traffic and parking on city streets which is also a community benefit. The MTU may offer a bus from its spare fleet instead of a \$50,000 capital contribution. Financial involvement in the operating costs of the circulator route will show a cooperative effort by the MTU to fund a service that appears to benefit mostly WTC, UW-L, and their students.

This report cannot quantify the benefits to each school, its students, the MTU board, and the La Crosse community. For the purpose of beginning the discussion among the funders, the following table is offered. The final amounts will be determined after negotiations are completed. With an August, 2010 start date for Phase I, there is adequate time for a thoughtful discussion that will lead to adequate local funding for the service improvements.

Funding Model			UW-L	Net		
	Capital		WTC	Operating		UW-L
Phase I	Cost	MTU	Students	Cost	MTU	Students
Circulator	\$150,000	\$50,000	\$100,000	\$238,032	\$23,803	\$214,229
5A Saturdays	\$0	\$0	\$0	\$25,056	\$0	\$25,056
Safe Ride	\$0	\$0	\$0	\$13,920	\$0	\$13,920
Phase II						
Route 1	\$50,000	\$25,000	\$25,000	\$100,818	\$33,606	\$67,212
Route 4	\$50,000	\$25,000	\$25,000	\$100,008	\$33,336	\$66,672
Route 5	\$50,000	\$25,000	\$25,000	\$100,008	\$33,336	\$66,672
Route 6	\$50,000	\$25,000	\$25,000	\$100,818	\$33,606	\$67,212
5A Sundays	\$0	\$0	\$0	\$16,704	\$0	\$16,704
Phase III						
5A Weekdays	\$100,000	\$50,000	\$50,000	\$110,752	\$36,917	\$73,835

Task 3 Recommendations:

- **Establish UWL-WTC Circulator Route.**
- **Operate Safe Ride at 10 minute intervals.**
- **Improve service to 15-minute interval on portions of Routes #1, #4, #5, and #6.**
- **Establish Route #5A on weekday afternoons, Saturdays, and Sundays.**
- **Begin discussion on local funding models for added service.**

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TASK 4: MTU PHYSICAL PLANT AND STAFF IMPROVEMENTS.

System Strengths: MTU has several elements needed for a successful transit system. It has an experienced management team led by Keith Carlson. The buses are a mix of new and older buses that are satisfactorily maintained and have a good average age. The span of service is good with evening service and Sunday service. MTU has provided a niche service with Safe Ride that meets very specific travel needs of college students in La Crosse. The physical facilities are in good condition and there is room for expansion at the current maintenance site. The system is in relatively good financial shape and has earned FTA Transit Intensive Cities payments, although these funds do not go directly to La Crosse as intended in the federal legislation.

Future growth will require some changes including additional drivers, an additional supervisor, and at least one mechanic, as well as additional buses, vehicle storage, repair bays, and additional locker room space. A pragmatic marketing program will be needed.

Garage: The physical plant of the current system is adequate. There are three bays dedicated to buses in the city maintenance building. Indoor storage for all buses is in a separate 80 foot by 200 foot building. Fueling and servicing is done indoors in a dedicated service lane. Buses are washed after servicing and then driven outside before entering the storage building.

There is adequate room on the site to enclose the south end of the current wash bay and storage building to allow indoor circulation after washing and provide additional vehicle storage. This would be approximately a 10,000 square foot addition extending approximately 90 feet south of the current entrance and including the exit from the wash bay. This would provide interior circulation of buses, added security, and storage for approximately eight buses.

The north end of the storage building can be extended approximately 90 feet to allow 12 more parking spaces for 40-foot buses. This would be approximately a 7,200 square foot addition. As the MTU system grows there is adequate space at the current site to double the current fleet size.

The first phase of infrastructure improvements should be construction on the south side of the building to enclose the circulation area and provide storage for up to eight buses. Additional growth will require a second construction project on the north end of the building. When both areas are built out, there will be well designed storage for 40 buses, with a maximum storage (including service lane and turning areas) of up to 46 buses. An Architect/Engineering firm should be retained to perform the necessary work to secure federal grants for expansion of the storage facility.

There is adequate space on the current maintenance campus for additional automobile parking needed by the additional employees that will be hired. Additional locker room space of approximately 250 square feet will be needed.

As the fleet expands, it will be necessary to add maintenance bays. The current maintenance area is 56' by 44' (2,464 square feet). There is room for an additional four maintenance positions by adding to the west end of the current city maintenance building. This addition would be approximately 3,200 square feet.

A feasibility study for expansion of the storage facility, maintenance facility, and parking would be the next step to determine construction costs. This study should then be programmed into the Transit Improvement Program (TIP). The feasibility study can be funded through FTA Section 5303, 5307, or 5309 programs and should be included in the next TIP.

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Buses: The current fleet consists of mostly 35-foot Gillig buses. There are three 35-foot high-floor Gillig Phantoms; sixteen Gillig low-floor buses; one 30-foot rubber tired trolley; and one leased 25-foot BlueBird. The average age of the fleet is 7.0 years, which is close to the national average of 7.8 years and within the guidelines for normal fleet replacement. The three oldest buses are near the end of their design life (2011) and the Blue Bird is past its design life.

While the current fleet is adequate for the current ridership patterns, if this project is successful, it will be necessary to purchase additional 35-foot low-floor buses for the campus circulator route and possibly for some of the 15-minute interval route buses. When funding is secured for the circulator route, **it may be necessary to purchase used buses to start the service.** The purchase of new buses can take up to two years after federal funding is secured, and used buses will be needed to start new service. The spare ratio should also be examined to determine if some of the buses for expanded service can be taken from the current fleet.

LA CROSSE MUNICIPAL TRANSIT UTILITY
FLEET INFORMATION - 2008

COACH #	YEAR	MODEL/CAP.	SERIAL #	LIC #	FLOOR	LENGTH	SEAT CAPACITY	LTD MILEAGE
58	1999	DUPONT TROLLEY 28	2D9P22323X1070539	15858	HIGH FL	30'	28	50,061
101	2000	BLUE BIRD 24	1BAGBCPA71F200469	907-969	HIGH FL	25'	20	236,768
1001	1999	GILLIG PHANTOM 36	15GCB1816X1110239	59560	HIGH FL	35'	36	324,043
1002	1999	GILLIG PHANTOM 36	15GCB1812X1110240	59559	HIGH FL	35'	36	348,738
1003	1999	GILLIG PHANTOM 36	15GCB1814X1110241	59558	HIGH FL	35'	36	336,104
1101	2001	GILLIG LOW FLOOR 32	15GGB181X11072548	59562	LOW FL	35'	32	318,531
1102	2001	GILLIG LOW FLOOR 32	15GGB181111072549	59563	LOW FL	35'	32	335,039
1103	2001	GILLIG LOW FLOOR 32	15GGB181811072550	59561	LOW FL	35'	32	310,524
1104	2001	GILLIG LOW FLOOR 32	15GGB181X11072551	59564	LOW FL	35'	32	296,608
1105	2002	GILLIG LOW FLOOR 32	15GGB181021072270	61160	LOW FL	35'	32	305,149
1106	2002	GILLIG LOW FLOOR 32	15GGB181221072271	61161	LOW FL	35'	32	279,042
1107	2002	GILLIG LOW FLOOR 32	15GGB181421072272	61162	LOW FL	35'	32	288,237
1108	2002	GILLIG LOW FLOOR 32	15GGB181621072273	61163	LOW FL	35'	32	295,111
1109	2002	GILLIG LOW FLOOR 32	15GGB181821072274	61164	LOW FL	35'	32	295,754
1110	2002	GILLIG LOW FLOOR 32	15GGB181X21072275	61165	LOW FL	35'	32	295,077
1111	2002	GILLIG LOW FLOOR 32	15GGB181121072276	61166	LOW FL	35'	32	292,907
1201	2007	GILLIG LOW FLOOR 32	15GGB291171078154	72762	LOW FL	35'	32	70,809
1202	2007	GILLIG LOW FLOOR 32	15GGB291371078155	72763	LOW FL	35'	32	74,719
1203	2007	GILLIG LOW FLOOR 32	15GGB291571078156	72761	LOW FL	35'	32	71,372
1204	2007	GILLIG LOW FLOOR 32	15GGB291771078157	72760	LOW FL	35'	32	72,843
1205	2007	GILLIG LOW FLOOR 32	15GGB291971078158	72759	LOW FL	35'	32	68,801

Leased

The next La Crosse MTU TIP should include the purchase of new 35-foot buses for the expanded service. Current delivery time for new buses is 18 to 24 months after award of the FTA grant. Inclusion in the TIP is the first step in securing federal funding for new buses. If all steps are successful, new buses could be delivered in 2013. However, some good quality used buses, which cost between \$50,000 and \$60,000 each, will be needed to start the expanded services.

Currently replacement buses are secured through a statewide FTA earmark that is administered by the Wisconsin DOT (WisDOT). Discussion with WisDOT should begin soon to determine if there is likelihood that new buses for the expanded service will be a priority of WisDOT. If the new service is successful and new buses cannot be secured through the normal process, La Crosse MTU should discuss the possibility of applying for a direct appropriation through the earmark process. Similarly, the garage expansion may require an earmark. Close consultation with WisDOT will be needed when the capacity of the current facility is attained.

Staffing: Immediate needs for new service will be additional drivers. The circulator options will require an additional 38 to 44 hours of service per week which requires at least five additional drivers. It may be necessary to increase the extra board by one driver within one year as the new drivers accrue vacation time and use sick leave time. The current ratio of four extra board drivers for 27 runs (14.8%) should be maintained as the number of work assignment increases. For every seven drivers hired in the expansion, one would be assigned to the extra board.

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There is no industry standard for the ratio of mechanics to vehicles due to the uneven use of outside contractors for some repair work. Some bus systems do almost all of their work in house while others outsource body work, motor, and transmission repairs. The age of the fleet, annual mileage, and a guaranteed funding for a fleet replacement program also affect the ratio of mechanics to buses.

La Crosse MTU does not have a financially guaranteed fleet replacement program. Decisions on fleet replacement are made by the WisDOT, which distributes available discretionary federal funding to bus systems in the state. Average mileages and vehicle age may increase depending on the availability of federal funding for vehicle replacement. Prudent management would assume that there should be one mechanic for every five to six peak period buses. MTU operates 13 buses in the peak period and has three mechanics. If the circulator system is established, the peak requirement will increase to 16 or 17 buses. If the 15 minute intervals are added on four routes, the peak requirement could increase to 21 buses. Weekly mileage will be much higher during the school year and the total yearly mileage will not increase in proportion to the peak vehicle increase.

At a 17-bus peak, the current maintenance staff will be strained, especially if used buses are purchased to start the service. A fourth mechanic should be programmed into the second year of the growth plan so that the maintenance program does not deteriorate with the new service. This would also position MTU for continued growth with a good maintenance program to support the growth.

Transit Intensive Cities Funding: A new program in the last federal reauthorization of the transportation program (SAFETEA-LU) was designed to provide additional federal funding for cities between 50,000 and 200,000 population. The intention of the program was to provide additional federal assistance to small cities that were performing above the national average for cities in the 200,000 to 999,999 population category. Originally, the program was designed for capital assistance, but operating expenses are also eligible.

Transit Intensive Cities (TIC) is not be distributed by the WisDOT as intended in the federal legislation although it is being distributed legally and within FTA guidelines. In La Crosse an 11.3% increase in ridership would have generated an additional \$125,348 for La Crosse, but these funds would go to WisDOT which distributes it to urban transit systems.

Task 4 Recommendations:

- **Feasibility study for expansion of storage and maintenance facility.**
- **Purchase used buses for expansion.**
- **Program new buses in TIP to replace used buses purchased for expansion.**

La Crosse Market Segment Plan

TASK 5: TRIP JOURNAL AND MARKETING.

Trip Journal: A trip journal survey should be developed for UWL students and WTC students. This is based on a recommendation from the 2004 LRTP (p.69) to conduct annual employee travel behavior and biennial resident travel diary studies to measure effectiveness of improvements.

- LAPC staff should use peer examples to design and develop an employee travel behavior survey and resident travel diary.
- LAPC should mail survey biennially to a random sample of the regional population in both WI and MN.
- Use the travel behavior survey to ask existing transit riders questions about service quality and availability.
- Use the annual survey results to more effectively allocate service hours and levels.
- Target specific transit improvements.

A trip journal can be completed online or via a paper survey. It is essentially the same format as that used by television research firms. The success of television research has resulted in specific programming for target markets as well as specific advertising to those markets. Relevant, persuasive messaging that focuses on the key benefits identified from user surveys maximizes the return on investment for the advertiser because it is much more likely to resonate with your target audiences and inspire them to the action you want them to take.

Similarly, trip journals can show how people travel, by mode, time of day, time sensitivity, price sensitivity, and trip purpose. The mobility planner that analyzes the trip journals can decide which trips are not likely to be accommodated by transit. Examples would be trips to a store where the purchases will not fit on a bus, such as a lumber yard or grocery store where the person buys a large quantity of groceries. Trip chaining where a person makes multiple stops are often not conducive to transit use. This could include picking up a child at a school, stopping at two stores, dropping the child for a music lesson, stopping at a grocery store, picking up the child, and then returning home. A well designed automotive trip chain as described could be accomplished in 90 minutes, while these trips might take two to three hours on transit. The types of trips that can be easily accommodated on transit are repetitive trips (daily or weekly) such as a work trip or a child going to an after-school activity independently (music lesson, library, etc).

To determine the ability of the transit system to attract people from automotive trips, it would be necessary for the mobility planner to document total travel time. For a work trip, this would include time they leave their house to the time they arrive at their workplace. The time that people arrive before the start of their work day would also be included. After work, the departure from the workplace and final arrival time would be recorded, and then compared to the time that would be required to use transit. When transit travel times exceed two times the automotive time, then the trip should be examined as to whether transit supply improvements (frequency, routing, hours of service, travel time) can be improved to meet the two times automotive travel time guideline.

The mobility planner would also use the travel diary to examine other trips made before work, during lunch break, or immediately after work. An effective marketing program would explain the benefits of transit (pollution, energy consumption, greenhouse gas reduction, cost) and the trade-off of automotive convenience.

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The typical trip journal would look like:

LaCrosse Trip Journal							
Name							
Home Address							
Work Address							
Dates:	From:		To:				
Day	Start Time	From	To:	Arrival Time	How	Purpose	With
Mon							

Sample entries would include information such as:

Day	Start Time	From	To:	Arrival Time	How	Purpose	With
		(home)		(home)	(car/truck)	(to/from work)	(solo)
		(store name)		(store name)	(bus)	(school)	(one child)
		(address)		(address)	(bicycle)	(medical)	(two children)
		(school)		(school)	(car pass)	(shopping)	(parent)
		(work)		(work)	(walk)	(educational)	(friend)
					(motorcycle)		(relative)
							(coworker)

The results would help the mobility planner identify segments of the transit route network that would benefit from improvements.

The mobility planner would analyze the data to determine if the trips could be made on transit. Each line completed by the respondent would be analyzed for the amount of time that the respondent would have needed to make the trip via MTU. Trip chaining would also be separated. Where people drove very short distances such as between parking spots in a Mall or downtown, the equivalent trip would be calculated as a walk trip.

The trip journal functions could be offered online in order to streamline the data gathering process and simplify the planner or mobility manager’s duties. The convenience of an online trip journal would encourage participation from the public, in particular the student audiences, which will result in more opportunities for the mobility planner to work directly with prospective customers.

Setting up these functions online will also encourage viral or “word-of-mouth” marketing, as those who use the service will begin to talk about it with their peers, who will most likely be in similar target demographics. This will create a positive “buzz” about the service and encourage additional participation. This viral effect will not only promote the program but will also maximize the marketing investment.

The goal is not the elimination of automobile trips, but rather intelligent trip-making by the most effective (cost, time, convenience, GHG) mode. If people whose transit option is reasonable used the bus only one day per week, there would be a 20% reduction in GHG for their work trips.

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It may be necessary for people to make minor adjustments to their travel patterns, such as making their shopping trips after work on the days that they drive or only making a journey to and from work on their bus days. The travel journey analysis would tell the planner how many days the respondents went to and from work only and these would be likely transit days. Convincing people to change their travel behaviors is a difficult, but not impossible task.

Market Research/Marketing Function: MTU has done some marketing of its system in the past, but it is mostly advertising and not basic market research. Basic market research provides information on how the bus system is perceived by non-riders, what aspects of the service it provides can be improved, what the market potential is, which market segments offer the highest potential for increased ridership or conversion from auto usage, and finally, what key persuasive messaging points need to be communicated to convince people to use transit where it makes sense on a trip by trip basis.

The 2004 Long Range Plan (LRP) recommended a series of marketing recommendations including:

- Mobility manager or marketing person should be more than just senior center,(p.57) should be the hands on marketing person making sales calls on individuals as well as organization.
- Existing transit system is often perceived as difficult to understand by first time users.
- Positive examples: City council and government officials should use the bus (p.60); if they cannot or it is inconvenient, they have the ability to change the service to make it work for them, and by extension, many of their demographic peers.
- Designated staff to work on marketing, coordination of transit services, and outreach within the various communities in the region (p.60).

In general, **students are the most flexible travel consumers** and will easily use the most appropriate mode for their trip. They are also most easily convinced to use transit for economic, social, and environmental reasons.

Low-income people will also use transit frequently, but often will share rides with other people in the family or neighborhood who have access to automobiles. This group is familiar with transit and will use it more often when the service meets their needs. Improved frequencies will meet more of their travel needs.

The Transit Cooperative Research Program (TCRP) has done extensive research into transit travel patterns and transportation behaviors. TCRP Report #28 *Transit Markets of the Future* has identified the 10 target market groups that are most likely to use transit. In La Crosse, the target markets are easily identified. The market research function would identify the people in those markets and then interact with them to help them use transit. The function would also identify trips where the transit system fails the target markets, quantify those trips, and put that information into the planning process.

Small urban bus systems that have marketing personnel generally focus on advertising and “feel good” marketing, but not specific assistance with trip making. Investing in effective marketing activities will establish a resource for existing and prospective customers to call upon to assist them with using the service—or in deciding to use the service—and would be a smart strategy to ensure future growth.

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The mobility planner would create a positive image of the bus system and ensure that relevant, persuasive communications are reaching the key target audiences in order to achieve growth and conversion. The position should also be to function as a troubleshooter for people who have problems accessing the bus service and document those problems. They could also address system deficiencies such as lack of pedestrian access that has been identified in the 2007 TDP.

Finally, the person performing this function must meet with individuals to assist them on their “first trip” on MTU to show them how easy it is to use transit. “First trip” anxiety is prevalent in all transit systems, but people who become regular riders are amazed that they had anxiety after they become familiar with the system.

The current transit planning position within the La Crosse MPO does not have enough available time to perform these tasks. Similarly, the Transportation Coordinator in the La Crosse County Aging Unit does not have adequate time. **It is recommended that 0.75 FTE position of mobility planner should be established.** This position should be within the MPO.

Technology: New technology and communication techniques, such as Web site enhancements, e-mail communications, blogs, and social marketing techniques would help continue to create and maintain the initial bonding of the new customer and the bus system. Eventually, passengers relate to other passengers, their drivers, and the system image; but getting them to try the bus and return a second time are major obstacles that the mobility planner can overcome to create loyal customers who use transit when it makes sense.

La Crosse MTU is technology deficient in terms of interaction with customers and potential customers. Real time information that customers can access on their cell phones is well developed and has been refined in recent years. Other technologies that notify passengers of service delays or interruptions are easily available and reasonably priced. One example is the Marguerite Shuttle at Stanford University which is available at http://fops.cf.stanford.edu/stanford_ivl/. **The La Crosse Metropolitan Planning Organization (MPO) must adopt an ITS communications architecture** as the first step in developing currently available, easy to use technology that will assist passengers in using the MTU system.

Publicity Campaign: It would be the role of the mobility planner to use the analysis to publicize to La Crosse citizens how to use the bus effectively and how to use their car effectively. This would require the mobility planner to be comfortable with becoming a high-profile personality with the local media. Many television stations provide weekly time for local pet adoption organizations or other social service organizations. The mobility planner would assume this role and would be fortified with data from recent surveys to explain how to integrate transit into a person’s weekly travel activities. The mobility planner would also communicate the benefits of all non automotive modes, including transit, vanpool, carpool, bicycle, and walking. When high gas prices return, local television and radio will be interested in related newsworthy topics to complement their daily stories of high gas prices. **It is recommended that the high profile role of mobility planner should be assigned to the La Crosse MPO planning staff.**

Task 5 Recommendations:

- **Establish trip diary program for planning and marketing purposes.**
- **Develop market research and pragmatic marketing program.**
- **Hire 0.75 FTE mobility planner.**
- **Develop technology to assist passengers, drivers, and management.**
- **Define high profile role for mobility planning in the MPO office.**

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SUMMARY OF RECOMMENDATIONS:

The La Crosse MTU, City of La Crosse Planning Department, and La Crosse MPO have an opportunity to improve and expand bus service in La Crosse. Expanded service will meet the travel needs of UWL, WTC, and Viterbo students as well as improve service for the general public. A phased program of improvements in the next two years will allow La Crosse to prepare for increased ridership, reduce overall Greenhouse Gas Emissions in the area, reduce energy consumption, and improve mobility for everyone.

Task 3 Recommendations:

- **Establish UWL-WTC Circulator Route.**
- **Operate Safe Ride at 10 minute intervals.**
- **Improve service to 15-minute interval on portions of Routes #1, #4, #5, and #6.**
- **Establish Route #5A on weekday afternoons, Saturdays, and Sundays.**
- **Begin discussion on local funding models for added service.**

Task 4 Recommendations:

- **Feasibility study for expansion of storage and maintenance facility.**
- **Purchase used buses for expansion.**
- **Program new buses in TIP to replace used buses purchased for expansion.**

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- **Establish trip diary program for planning and marketing purposes.**
- **Develop market research and pragmatic marketing program.**
- **Hire 0.75 FTE mobility planner.**
- **Develop technology to assist passengers.**
- **Define high profile role for mobility planning in the MPO office.**