Crawford County Transportation Coordination Committee

Bus Transit Feasibility Study

Funded in part by the Wisconsin Department of Transportation

Prepared For:
Crawford County Transportation Coordination Committee
City of Prairie du Chien
214 East Blackhawk Avenue
Prairie du Chien, WI 53821

Prepared By:
Vierbicher Associates, Inc.
999 Fourier Drive, Suite 201
Madison, WI 53717

400 Viking Drive
P.O. Box 379
Reedsburg, WI 53959

126 W. Blackhawk Avenue
P.O. Box 542
Prairie du Chien, WI 53821

Prepared On:
October 12, 2010

vierbicher
planners | engineers | advisors

Table of Contents

Maps

Appendix

Acknowledgements

Crawford County Transportation Committee Members
Kathy Leard
Garth Frable
Barbara Hernesman
Cindy Jelinek
Denece Udelhoven
Heidi Millin
Larry Kapinus
Lisa Swiggum
Pat Peterson
Pete Flesch
Peter Fletcher
Richard Running
Sharon Bliss
Thad McIntosh

With Special Assistance From
David Lowe, Wisconsin Department of Transportation
Lynda Wilke, Vernon County Unit on Aging
Pat Peterson, Vernon County Unit on Aging
Kathy Leard, Crawford County Aging and Disability Resource Center
Peter Fletcher, Mississippi River Regional Planning Commission
Garth Frable, City of Prairie du Chien
Noreen Kuroski, La Crosse County Unit on Aging

Prepared by
Vierbicher Associates, Inc.
600 Viking Drive
Reedsburg, WI 53959
(608) 524-6468

1. Introduction and Context

The southwestern Wisconsin counties of Crawford, Vernon, and La Crosse (hereafter, "the study area") face notable transportation challenges. These counties are rural in nature, with population, employment, and service centers spaced far apart and separated by a limited and aging road network that is forced to navigate the topographically diverse driftless area terrain of the region. Many individuals live in sparsely populated rural areas while the largest cities of the region, Prairie du Chien, Viroqua, and La Crosse, contain a wealth of the employment, medical, and other services that comprise the primary transportation destinations. Commuters often travel long distances to access jobs in these larger municipalities.

Travel throughout the area is done predominantly by personal vehicle, as extended travel times and low population density do not support public transportation. These issues combined with a significant concentration of elderly and disabled individuals, and those in poverty, make transportation an important concern for the area's residents. Many of these individuals do not have reliable access to a personal vehicle or cannot transport themselves due to age, health issues, or disability, and thus need an alternative transportation option to access employment, medical, and other services in the larger cities where such services are more varied and abundant.. As the population of this area continues to age, many older individuals are seeing younger relatives move out of the area, resulting in the loss of their support network to assist with transportation needs.

1.1 Project Goals and Objectives

The primary objective of this feasibility study is to identify the potential for a bus service in southwestern Wisconsin that would serve those needing transportation for commuting and medical reasons, but would also be available for recreational, personal, and other purposes. The focus area includes Crawford, Vernon, and La Crosse Counties, with the potential service making stops in key locations in each of these counties.

This study is partially funded by the Wisconsin Department of Transportation (WisDOT) and will assess the feasibility of establishing a bus service in the Prairie du Chien – Viroqua - La Crosse corridor. If operationally and financially feasible, the desire is to establish a service to be in operation within 12-18 months of the completion of this study. This study is being conducted through the Crawford County Transportation Coordination Committee (TCC), but integrates individuals representing private and public entities across the Crawford, Vernon, and La Crosse County area.

While the primary audience for this study is the City of Prairie du Chien and the Crawford County Transportation Coordination Committee, integration of this work with entities across Crawford, Vernon, and La Crosse Counties was necessary to ensure a comprehensive analysis and increased likelihood of future funding. The City of Prairie du Chien and Crawford County Transportation Coordination Committee will need to coordinate with Vernon and La Crosse Counties. A multi-jurisdictional grant application will receive more favorable grant funding options from WisDOT to establish bus service in the region.

The objectives of this study are to assess the existing conditions of the region, determine current demand and provisions for transportation services, and propose and evaluate potential service options. Transportation services examined and service options proposed will focus on providing transportation to employment and medical facilities, and for trips of a personal nature. There will, however, be some discussion regarding the potential for proposed service options to capture riders making recreational and other types of trips within the region.

The final result of this study is the recommendation of a preferred service option, a discussion of the specific characteristics and cost considerations of the service, and an implementation plan.

Any potential transportation service operating in the three county study area has the potential to attract riders from nearby communities in Iowa and Minnesota, and residents outside of Vernon, La Crosse, and Crawford Counties. This is dependent on the location of a potential route and the logistical structures of stops and timing. For the purposes of the initial assessment of existing conditions, the study area of Vernon, La Crosse, and Crawford County was made the focus due to the nature of the area, and the communities and destinations in each county. Also, expanding service into adjacent states affects the ability that this proposed service could acquire funding from the Wisconsin Department of Transportation. Future considerations may include integration of a potential service with surrounding states and counties, depending on the success and use of a new program.

The intent of this study is to target commuters as potential transit riders first and foremost. Any transit service set up cannot accommodate all types of riders at all times. The focus is placed on determining the feasibility of, and proposing potential options and recommendations for, a transit service geared towards commuters.

1.2 Existing Conditions: Context and Approach

Examining the existing conditions as they pertain to transportation services in the study area is essential to identifying potential service options that can supplement current provisions. The most important questions in the assessment of existing conditions are:

1. What current transportation and transit programs are in place and what is their success rate?
2. How many individuals currently use and/or rely on existing services to access employment, medical facilities, or other destinations?
3. What are the characteristics of these riders?
4. What is the unmet demand for transportation service in the study area? I.e., how does the coverage of existing services compare to the current demand and expected future demand based on local demographics?

Answering these questions will help to understand the demographics and characteristics of the area, the current demand for these services in comparison with the supply, and how a new service could help to supplement existing provisions.
The two primary segments of the population identified as the likely riders of the potential bus service are commuters accessing employment, as well as elderly and disabled individuals.

The primary segment of likely riders for a potential bus service, commuters, is one where potential demand exists, but there are no comprehensive services provided to transport individuals to employment locations. These trips are predominantly being made by personal automobile, and there are no major employers provide worker transportation programs. This indicates a potential demand for a service that would transport individuals to their places of employment and would allow individuals to accept employment because reliable transportation to the job site is available.

A 2008 report prepared by the Mississippi River Regional Planning Commission entitled, "SAFETEA-LU Regional Coordinated Public Transit-Human Services Transportation Plan for the Multi-County Region of Buffalo, Crawford, Jackson, La Crosse, Monroe, Trempealeau and Vernon Counties - 2008-2013," validates the need for more transportation servicing commuters, elderly and disabled individuals. The report indicates the region has a higher percentage of lower income individuals and more individuals below the poverty rate than the state average. Additionally, it indicates a high number of elderly (65 years and older) and disabled individuals across the region, and projects an increase in the number of elderly and disabled among all age groups, with many of these disabled individuals also being elderly.

A review of existing conditions suggests need in the study area for a service to be created to supplement existing options for commuters and the elderly and disabled segments of the population. Comparing current demand for transportation services with current service provisions and estimating future potential ridership will allow for the determination of how best to fill the gap in the services provided. Understanding where more supply is needed to meet the existing and future demand will provide the necessary insight to design and propose potential service options.

1.3 Study Area Characteristics

The project study area is defined as Crawford, Vernon, and La Crosse Counties in the driftless region of southwestern Wisconsin, with the Mississippi River as the western boundary of each of the three counties. This area was chosen as the initial focus for this feasibility study due to the regional nature of transportation issues across these three counties and the need to form a coalition to address these issues when developing solutions. Although a the potential bus service would likely offer service to and from the City of La Crosse because of the significant number of employers and services available, the majority of the miles will be traveled in Vernon and Crawford Counties and will affect its residents the most.

Crawford County is located furthest to the south in the study area. The largest city in the county, Prairie du Chien, serves as the county seat, with a population of 6,018 as of the 2000 U.S. Census. The most current data (2009 U.S. Census) estimates the population of Crawford County to be 16,371, an approximate 3.0% decrease from a 2000 U.S. Census population of 17,245.

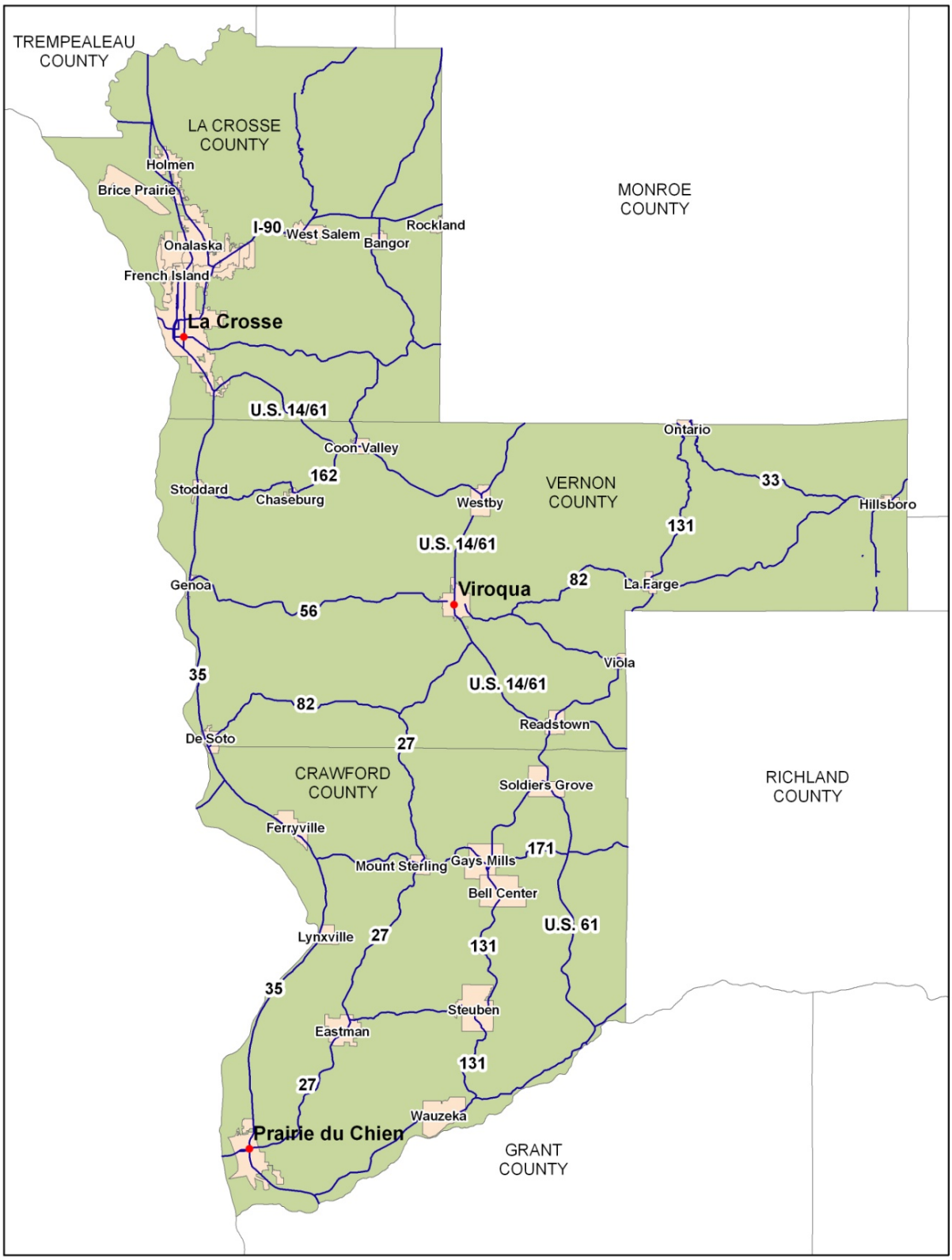
Vernon County is located north of Crawford County, and its largest city, Viroqua, is the county seat. Viroqua had a population of 4,335 as of the 2000 U.S. Census. The most current population estimate of Vernon County, from 2009 U.S. Census estimates, is 29,324, an approximate 4.5% increase in population from a 2000 U.S. Census population of 28,054.

Vernon and Crawford Counties are rural and sparsely populated in nature, as are many of the eastern parts of the La Crosse County to the north, also in the study area. La Crosse has the region's largest city, La Crosse, as its county seat, with a population of 51,818 as of the 2000 U.S. Census. The most current population estimate of La Crosse County, from 2009 U.S. Census estimates, is 113,679, an approximate 6.1% increase in population from a 2000 U.S. Census population of 107,120.

The major transportation routes in the study area include State Route 35 traveling north-south between Prairie du Chien and La Crosse, Wisconsin Highway 27 between Viroqua and Prairie du Chien, and U.S. Highway 14 between Viroqua and La Crosse. Other Wisconsin Highway routes provide most of the primary transportation connections throughout the study area. It is important to note that while these routes provide primary transportation access in the region, they are still winding, 2-lane roads covering diverse terrain, and contain access points from local roads. Travel can sometimes be inefficient or completely restricted in these areas without any alternative routes available. Inefficiencies may be caused by weather conditions, agricultural vehicles, Amish vehicles, vehicles entering and exiting the roadway, and other causes.

See Map 1.1 on the following page for a depiction of the study area, the major municipalities, and primary transportation routes.

Map 1.1. Study Area and Major Transportation Connections



2. EXISTING SUPPLY AND DEMAND

Discussions with key individuals knowledgeable about transportation issues and services in the study area provided useful information about the transportation currently available, the issues associated with providing these services, and the service demand within the region. This portion of the Study provides an overview of the information provided by those stakeholders most knowledgeable of the region's existing transportation concerns and needs.

General demand for transportation services throughout the study area is evidenced in a 2007 survey conducted by Kimberly Errigo for the Vernon County Transportation Coordinating Committee as part of the *Vernon County Transportation Planning Project Report*, where interest in various transportation services among individuals across Vernon County and outside of the county was assessed. Potential services included car-sharing, car or van pooling, county-wide volunteer driver network, bus service between municipalities, and daily bus service to La Crosse and to Madison. Daily bus service to La Crosse and between towns in Vernon County received high percentages of desirability at 75% and 76%, respectively, among surveyed county residents. Demand for a daily bus service to Madison was at 62% among those surveyed. Over 600 survey responses were received.

2.1 Commuter Transportation

Demand for Commuter Transportation Service

There are several employers in La Crosse, Viroqua, and Prairie du Chien which employ a large number of area residents from smaller communities throughout the region, and few job opportunities and unemployment in many of the smaller communities necessitates long distance commuter trips to cities like Prairie du Chien, Viroqua, and La Crosse offering more employment opportunities. Planners at the Mississippi River Regional Planning Commission and residents of Vernon and La Crosse Counties acknowledge that these longer distance commuter trips are common for workers in the region.

Although the majority of these employees commute using a personal vehicle, there is anecdotal evidence suggesting that some individuals could benefit from a bus service linking these employment centers to the communities in between. Potential riders could include individuals who do not have reliable access to a personal vehicle for transportation, individuals who may choose to ride public transportation instead of driving themselves, or individuals who are more willing to accept employment in another community now that a reliable source of transportation is available for their commute.

The primary employers in the study area are centered in the three largest cities of La Crosse, Viroqua, and Prairie du Chien, creating a situation that inherently forces individuals to commute longer distances from more rural areas into these cities for employment. Table 2.1 displays some of the largest employers in the three-county study area, and the number of employees at each location. These groups of employees are potential bus transit riders, and employers are key partners in any transit program created that targets commuters. These employers will be among the key partners.

Table 2.1. Major Area Employers and Number of Employees in Three County Study Area

Prairie du Chien		Viroqua		La Crosse	
Cabelas	750	Viroqua School District	350	Gundersen Lutheran Medical Center	5000 in county
City of Prairie du Chien	81	City of Viroqua	70	Franciscan Skemp Medical Center	3,225 in county
Prairie du Chien School District	175	Vernon County	500	Trane	2,900
Crawford County	130	Gundersen Luthern Medical Center	75	UW - La Crosse	1,000
Walmart	130	Fleetguard-Nelson	275	City of La Crosse	1,350
Memorial Hospital	370	Bethel Home and Service	410	La Crosse County	1,150
3M Company	550	Walmart	249	La Crosse School District	1,080
Prairie Industries	200	Running, Inc.	150	Century Tel/Century Link	750
Miniature Precision Components	275	Cummins	250	Wal-Mart	780 in county
Universal Forest Products	100	Vernon Manor	175	Kwik Trip, Inc.	900
Dillman Equipment	45	Vernon Memorial Healthcare	710	Reinhart Companies	2,000
Wyalusing Academy	140				
Design Homes	800				
Prairie du Chien Correctional Facility	152				

Sources: 2010 Prairie du Chien Chamber of Commerce, Vernon County, City of La Crosse

Phone conversations were held with a sampling of these employers (as available), including Cabelas, City of Prairie du Chien, Prairie du Chien School District, Gunderson Lutheran Medical Center, Walmart in Prairie du Chien, Trane, and Prairie Industries. Inquiries included residency of employees, travel mode (if available), and whether they thought employees would be interested in a transit program.

Conversations with these employers indicate that, although in some cases workers commute from long distances to access their place of employment, employee commuting programs have never been discussed or considered. There are many reasons for this, including the fact that individuals rely heavily on personal automobiles, and those who are able to access work in this region generally are the ones who can afford a personal automobile as a means of commuting. Additionally, workers are coming from all directions, making an employer-coordinated worker ride program difficult. Budget constraints further contribute to the lack of these types of programs. A commuter transit provider could target individuals that do not have access to a

personal vehicle, thereby creating employer opportunities for people who many not have been able to obtain employment easily.

One of the more heavily-travelled commuter routes within the study area, Viroqua to La Crosse along U.S. Highway 14, is a common trip that many workers make from the Viroqua area to access employment in the greater La Crosse area. Interest was present, and Vernon County was able to set up a daily bus route between the two cities hoping to service some of this market. A lack of local funding has prevented the program from becoming operational, but it appears considerable demand exists for service.

Area employers such as Walmart would especially benefit from a commuter bus service linking municipalities in the three-county study area. Walmart employs a number of older and lower income individuals, who often travel long distances from rural areas to access the dependable jobs Walmart provides. The Prairie du Chien Walmart store manager indicated that establishing a commuter bus service would allow his employees, especially the older individuals, to travel to and from work, reduce overall costs, enhance convenience. This will in turn expand Walmart's ability and reach to attract and retain employees.

Exploring the Data

An analysis of 2000 U.S. Census Transportation Planning Package Data reveals the extent of transportation made for commuting purposes in the region.

The Census Transportation Planning Package is a set of data derived from the 2000 Census designed for transportation planners, with information on place of work, worker, and residence characteristics, as well as "journey-to-work" information. The latter lists the number of individuals who make a particular commuting trip between two specific census tracts. These commuters are potential riders for any transit service created.

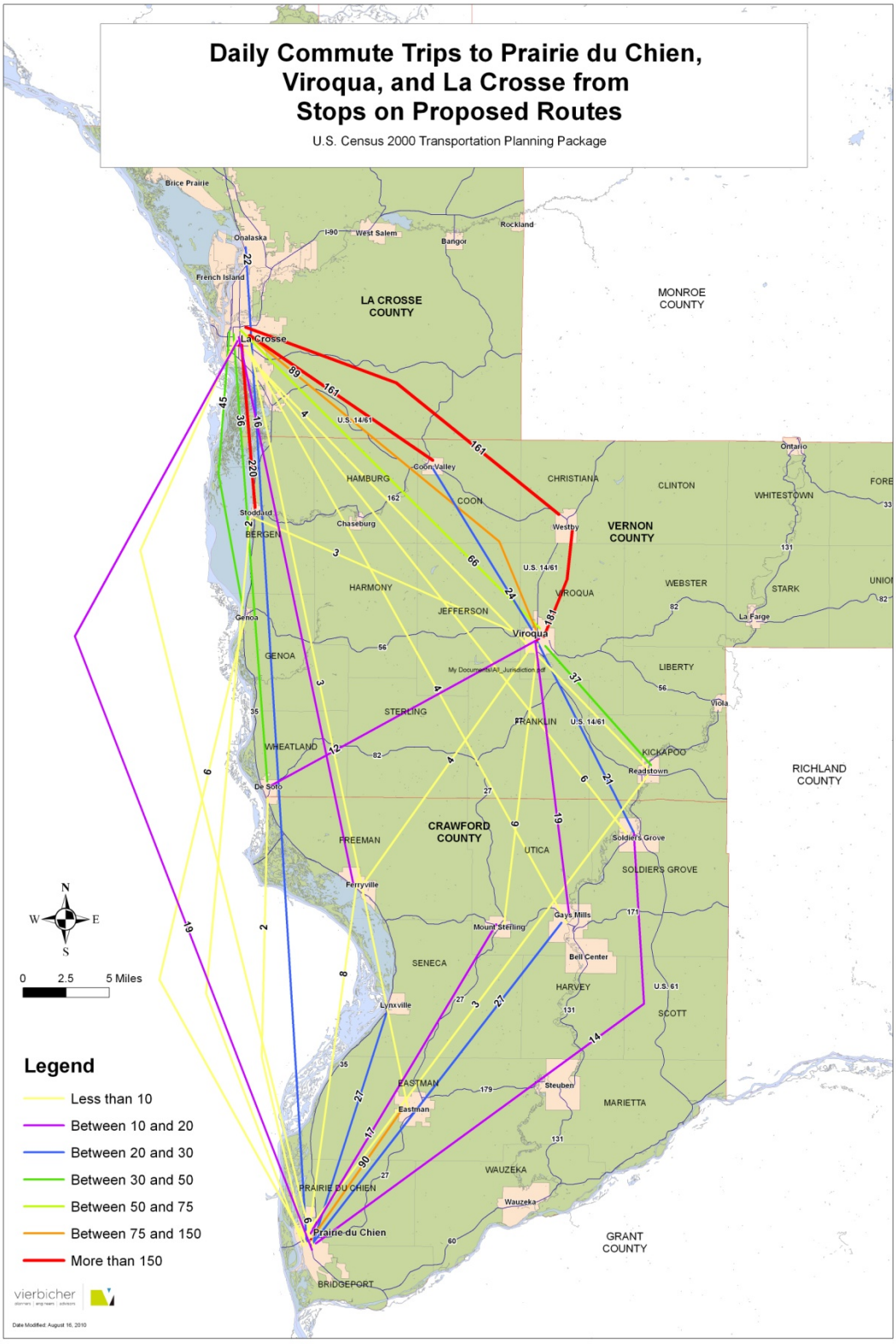
Trips made between census tracts in the study area were examined throughout the study area. Map 2.1 demonstrates the distribution of daily commute trips made from villages and cities throughout Vernon and Crawford County to Prairie du Chien, Viroqua, and La Crosse for employment purposes. These three cities are the largest in the region and represent the destination of most commute trips. Commute trip flows are shown for travel from select cities and villages in the region as the origin. These select municipalities are proposed as stop locations for proposed routes outlined in the next part of this study.

These trip flows are assumed to be consistent with current 2010 commuter trips, based on assessments made by regional transportation planners of the current economic, demographic, and employment dynamics in the study area. The only significant difference between 2000 trip flows and current flows is that more individuals are likely making the trip between the Viroqua area into La Crosse for employment as job losses and closings have mounted in Viroqua. After the 2010 Census is complete, updated commuter trip flow data will allow the numbers to be confirmed. The Mississippi River Regional Planning Commission confirmed the accuracy of commuting patterns observed in the 2000 data relative to current conditions.

Map 2.1 shows the high number of daily commuting trips into La Crosse, particularly from surrounding areas like Onalaska, Holmen, Rockland, and Bangor. Additionally, travel from Vernon County into La Crosse for employment is particularly high, especially from Stoddard, Coon Valley, and Westby, which saw 220, 161, and 161 daily trips made in 2000, respectively. The data indicate high amounts of commuter travel between Westby and Viroqua, as well as between La Farge, Viola, Readstown, and Soldiers Grove and Viroqua. Travel between Lynxville, Eastman, Gays Mills, and Wauzeka into Prairie du Chien is common. Some trips were made between De Soto and Prairie du Chien into the La Crosse area as well.

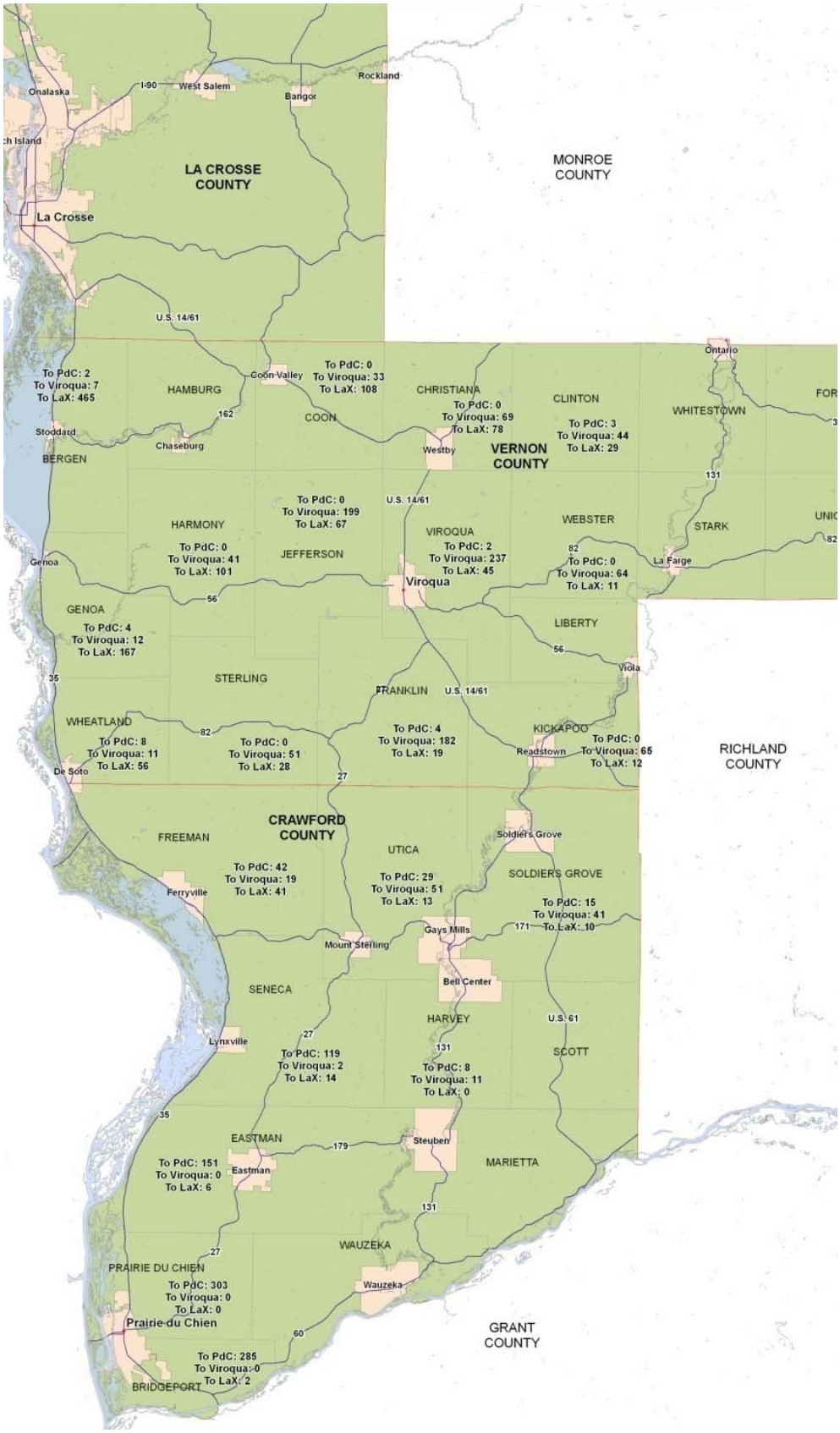
Although Map 2.1 only indicates commute trips flows between city and village pairs, commute trips made from more rural township areas to the cities of La Crosse, Viroqua, and Prairie du Chien also represent a significant number of trips. This demand is depicted in Map 2.2. Trips made from township areas adjacent to likely transit locations, to the cities of Prairie du Chien, Viroqua, and La Crosse for employment purposes, are depicted. A significant number of commute trips were made on a daily basis from the Town of Viroqua to the City of La Crosse (45) and the Town of Christiana outside of the City of Westby to the City of La Crosse (78) according to data. Any potential bus service providing transportation for commuters in the study area will most likely be operating with stops in cities and villages only, making it necessary for those who commute to and from town areas to make a connection into a city or village to use the service.

Map 2.1. Daily Commute Trips Made in the Study Area to the Cities of Prairie du Chien, Viroqua, and La Crosse



Map 2.2.

Daily Commute Trips Made in the Study Area to the Cities of Prairie du Chien, Viroqua, and La Crosse from Rural Township Areas



The data also provide information on the characteristics of those making these commute trips, and particularly relevant to this study is information on vehicle availability and income levels of commuters. These two measures are indicators of those desiring and those requiring public transportation. That is, those with no vehicle available in their household and with a lower income level may be more likely or inclined to take public transportation than other individuals. It is true that any established transit program has the potential to attract all types of commuters as riders, ranging from those that have a personal vehicle available to them and are in a high income category that choose to use the transit service, to those that depend on the service because of a lack of alternative means of transportation or financial reasons. Income characteristics are used to determine potential ridership later in this feasibility study. Examining income and vehicle availability in the CTPP data here, however, offers insight into the potential transit demand in the region.

According to the 2000 CTPP data, 165 people commuted from Crawford County to La Crosse County, and 354 from Crawford County to Vernon County, that resided in a household with no personal vehicle available to them. These individuals carpooled, took a taxi, or took some other means of transportation to work. A total of 2,724 commuters from Vernon County to La Crosse County in this category were recorded, as well as 165 commuters traveling from Vernon County to Crawford County on a daily basis. From La Crosse County to Crawford County, 84 commuters were recorded as being in this category, in addition to 445 that commuted from La Crosse County to Vernon County.

375 commuters from households making less than $30,000 per year were recorded as traveling from Crawford County to Vernon County, and 169 commuters falling in that same category commuting from Crawford County to La Crosse County. From Vernon County to La Crosse County, 2,785 commuters were in this category, and from Vernon County to Crawford County the number is 185 commuters. Finally, from La Crosse County to Crawford County, 80 commuters were recorded meeting these characteristics, while 465 commuters were recorded in this category traveling from La Crosse County and Vernon County. This information is summarized in Table 2.2.

Table 2.2. Commuters between Counties According to Presence of Vehicle and Income Level

			To		
			Crawford County	Vernon County	La Crosse County
From	Crawford County	Commuters from Household with No Vehicle Available	n/a	354	165
		Commuters from Household with Income Less than $30,000 per Year	n/a	375	169
	Vernon County	Commuters from Household with No Vehicle Available	165	n/a	2,724
		Commuters from Household with Income Less than $30,000 per Year	185	n/a	2,785
	La Crosse County	Commuters from Household with No Vehicle Available	84	445	n/a
		Commuters from Household with Income Less than $30,000 per Year	80	465	n/a

Source: 2000 U.S. Census Transportation Planning Package

Supply of Commuter Transportation Service

In the survey and analysis of existing conditions, no services offered by the major employers were encountered in the service area that provide transportation to individuals for commuting purposes, and no comprehensive, readily available, and consistent services being provided to commuters by other organizations.

Each 85.21 funded county mini-bus program does allow elderly and disabled individuals to make trips for employment reasons, but data suggests that these types of trips are rarely made.

Other programs include Workforce Connections, which offers loan programs for individuals to purchase an automobile, automobile repair programs, and a voucher program for friends or family of disabled individuals needing transportation assistance. These programs offer benefits both for elderly and disabled individuals, and working individuals needing transportation. Coulee Cap operates the Work-N-Wheels program, which offers zero-interest loans to enable low-income buyers to purchase an automobile for transportation to their jobs.

In the City of La Crosse, the La Crosse Municipal Transit Utility (MTU), the city's public transportation system, is an available and convenient service for making trips within the La Crosse area. Any future service linking rural areas of La Crosse, Vernon, and Crawford Counties with the City of La Crosse should be integrated to connect with the MTU both in space and time. In general, any future transportation service should give special considerations to drop-off and

pick-up locations, as well as travel times relative to places of employment and work schedules. These considerations and recommendations to address them will be presented in the next section.

The various taxi services offered by Running, Inc. provide transportation with some value to commuters in the region, particularly around the cities of Viroqua, Prairie du Chien, and Westby, and throughout the La Crosse area. This source of transportation must be reserved, and is appropriate only for local trips. A new transit service offering more fixed route, fixed schedule, long distance trips should integrate itself with these local taxi providers to connect people to their final destinations, be to work or to their home on their return trip.

2.2 Elderly and Disabled Transportation

Demand for Elderly and Disabled Transportation Service

There is significant demand in the study area for elderly and disabled individuals to travel to hospitals, clinics, and other medical facilities for medical needs and appointments, access senior meal sites, and to run important errands such as grocery shopping. Many of these individuals live in the more rural parts of Crawford, Vernon, and La Crosse Counties and must travel to Prairie du Chien, Viroqua, La Crosse, and sometimes outside of the region to Madison and other locations in order to meet their needs. In addition to not having use of a personal automobile, they often need physical assistance during the trip.

Although available transportation services are limited and do not reach all of the population in need, those that do use the services depend on them for their livelihood and well-being as they often have no viable transportation alternative.

The elderly and disabled segment of the population has its transportation needs only partially met by a set of public programs and private transportation services ranging from private taxi companies to state subsidized reduced fee on-demand options. Many of these programs and services are financially dependent on state support, Medicaid and Medicare payments, and, in many cases, nominal rider fees. These programs cannot meet all of the current demand for elderly and disabled transportation. Consequently, these programs struggle to remain operational, with strained budgets and the inability to meet all of the current demand.

All three of the counties in the study area operates some form of a mini-bus system, along with programs such as volunteer driver services. There are also numerous smaller, independent programs providing transportation for the elderly and disabled. A more detailed description of these and other services is included in the next section.

It is difficult to determine exactly the number of individuals in the three-county study area in this sector of the population that rely on an existing transportation service to make these types of trips, but conversations with La Crosse, Vernon, and Crawford County senior service officials suggest that there is a broad demand for this type of transportation service. The location of

medical facilities in the region, especially those offering specialized care, often dictate the transportation needs of the elderly and disabled. Traditionally, many of the medical trips have been to La Crosse, and sometimes Madison, but recent expansion of medical services and facilities in Viroqua, for instance, has helped to meet much of the Vernon County demand.

From northern Crawford County, trips are predominantly made to Viroqua in Vernon County, and a senior nutrition site in Gays Mills/Soldiers Grove. Originating in Prairie du Chien, trips are made to meal sites in Eastman and Gays Mills/Soldiers Grove, to Viroqua and La Crosse for medical reasons, and into Prairie du Chien from outlying areas for shopping. In Vernon County, the demand is predominantly for transportation from outlying areas into Viroqua, and northwest to La Crosse for medical services. Demand for medical trips is expected to increase throughout the study area, and existing service providers are expected to respond by adjusting their services to provide fewer trips to meal and nutrition sites in lieu of medical trips.

According to senior services officials in the three-county study area, transportation for the elderly and disabled has been an issue that has been discussed for many years as one that needs to be addressed more fully. Transportation planners in the region and other transportation officials note that they have seen a recent increase in the demand for transportation for elderly and disabled individuals to access medical facilities. In particular, individuals who are in need of specialized medical services require transportation to larger metropolitan like La Crosse and Madison.

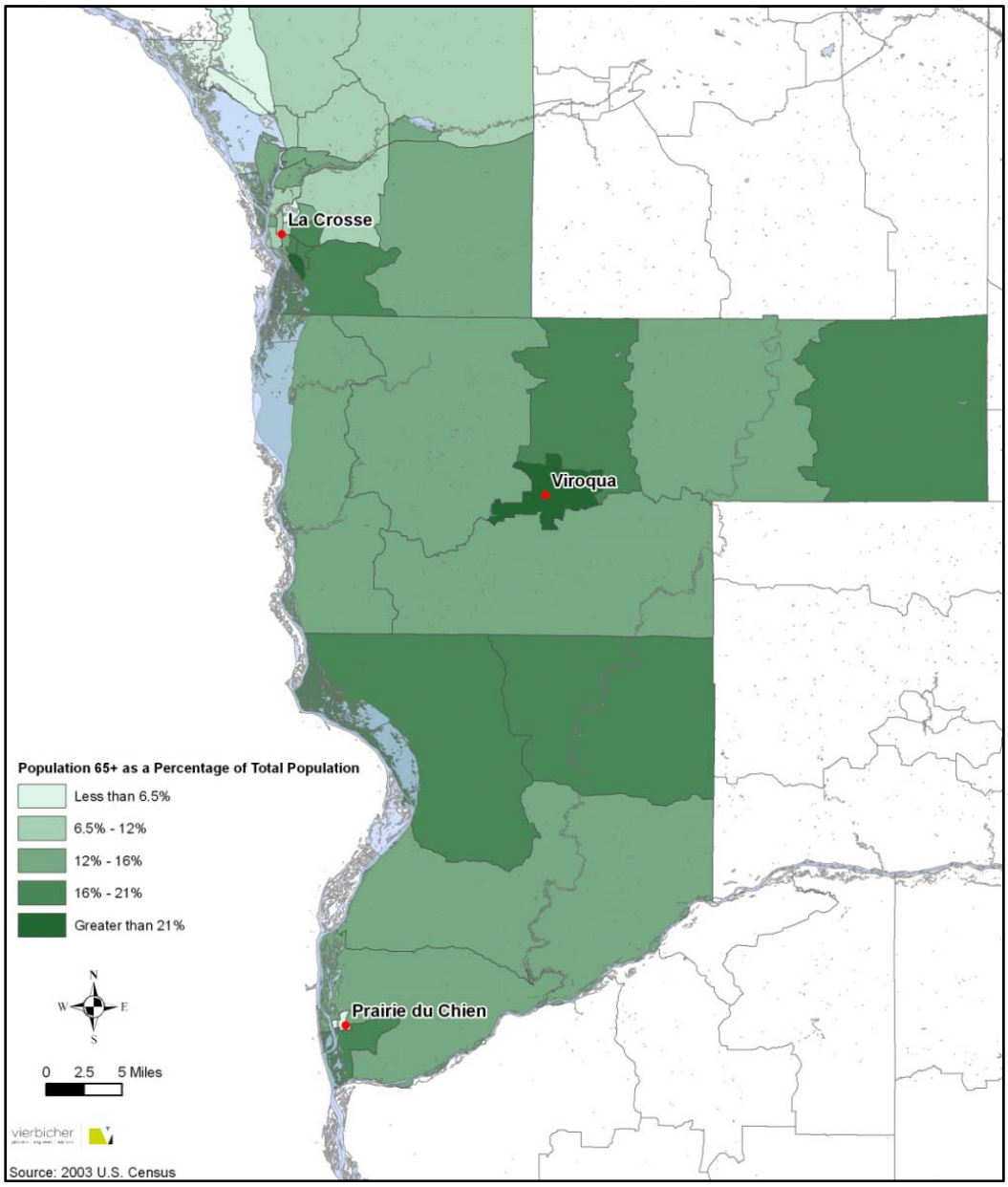
The number of specialized services providing this type of transportation signifies the high level of current and future demand, but there is a realization that more service must be provided to supplement existing options. A reliable and consistent service provided in this region would give many individuals more certainty in scheduling medical appointments and other engagements. Existing services could be used as “feeder” services, providing rides to individuals from very rural areas into the communities where the potential bus service will likely have established stops. Recommendations and considerations relating to establishment of a bus service in the study area are included in the final section of this report.

Exploring the Data

Examining census data from the three county study area demonstrates the potential demand among the elderly and disabled segment of the population for transportation services. The percentage of elderly (age 65 years and older) and disabled individuals relative to the total population of a census tract was determined for each census tract across the study area. This indicates the total breadth of all the possible demand for elderly and disabled transportation. Some of this demonstrated demand pool currently uses existing transportation services, some have alternative modes of transportation, while others may have not been reached yet by existing services and could be riders on a potential new service.

Map 2.3 displays the percentage of individuals in each census tract over the age of 65 across the study area, based on 2003 U.S. Census data figures. Census tracts across the study area contain a high percentage of individuals defined as elderly, particularly in northern Crawford County, near Prairie du Chien, in the more rural areas around La Crosse, and around Viroqua in Vernon County, where approximately 25% of the total population is defined as elderly.

Map 2.3. Populations 65+ as a Percentage of Total Population, Based on 2003 U.S. Census Data



Projections made by the Wisconsin Department of Administration, as included in the 2008 report by the Mississippi River Regional Planning Commission (MRRPC), are depicted in Table 2.3 below, indicating significant increases in the number and proportion of elderly and disabled individuals in the three county study area.

Table 2.3. Population Projections Age 65: 2000-2030

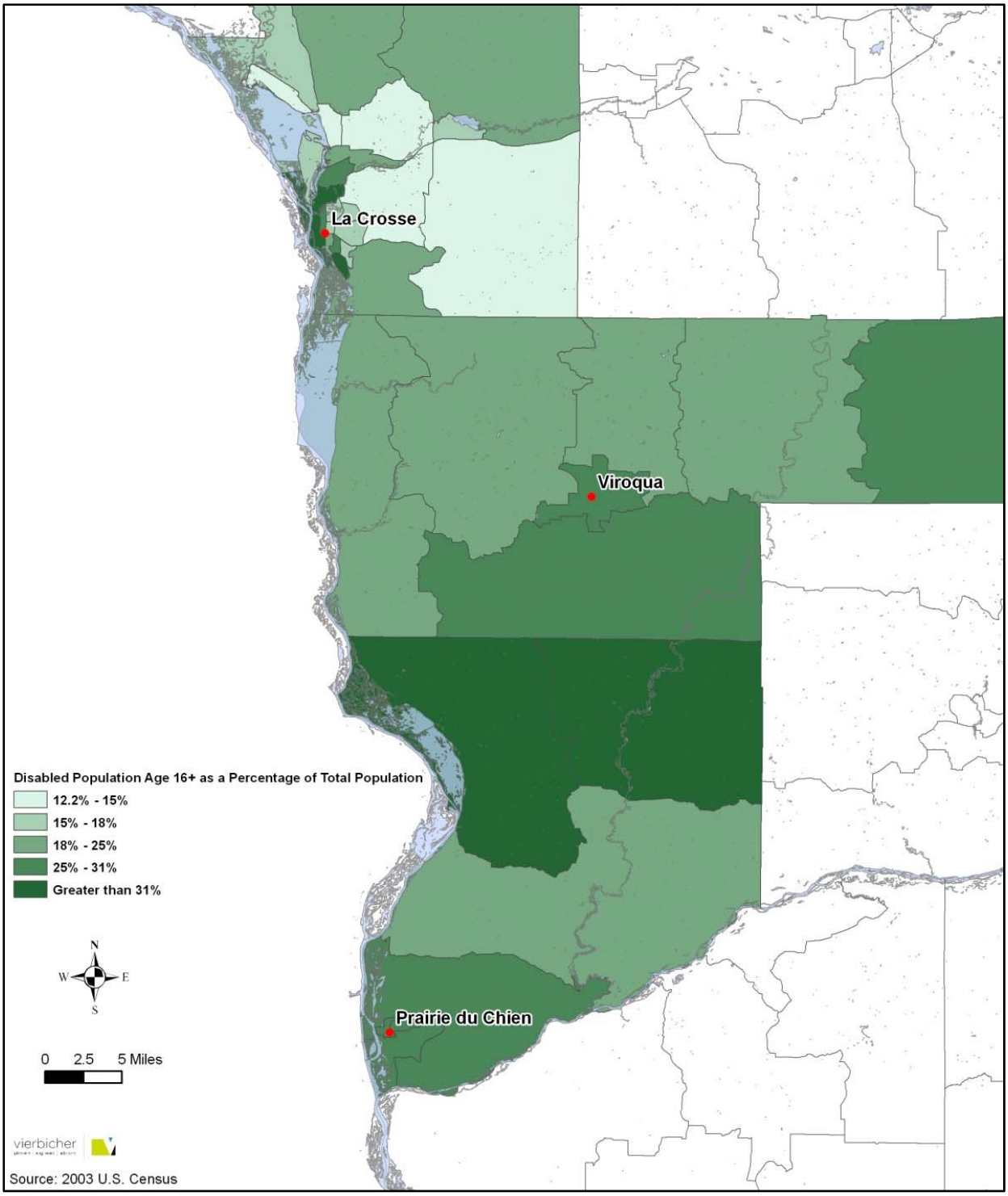
County	65+ 2000	65+ 2005	65+ 2010	65+ 2015	65+ 2020	65+ 2025	65+ 2030	% Increase 65+ 2000-2010	% Increase 65+ 2010 - 2020	% Increase 65+ 2020-2030	% Increase 65+ 2000-2030
Crawford	2,753	2,736	2,883	3,240	3,801	4,334	4,669	4.7	31.8	23.6	70.7
Vernon	4,769	4,684	4,847	5,362	6,141	7,112	7,726	1.6	26.7	25.8	62
La Crosse	13,440	13,788	14,673	17,101	20,540	24,249	26,947	9.2	40	31.2	100.5

Source: Wisconsin Department of Administration, 2008

Additionally, recent census data indicates a high percentage of individuals with disabilities across the study area, particularly among people 65 years and older. The MRRPC reports over 35% of the elderly population in Crawford, Vernon, and La Crosse Counties are disabled in some way, with these numbers only expected to increase. Map 3.2 displays the percentage of individuals age 16 and over in each census tract with a disability. Census tract percentages displayed are based on 2000 Census figures of disabilities, and 2003 Census figures of population.

Map 2.4 reveals a significant number of disabled residents in census tracts across the study area relative to total census tract population, particularly in the more rural census tracts in northern Crawford County, eastern and southern Vernon County, and areas around La Crosse in La Crosse County. Specifically, Map 2.4 displays the percentage of total census tract population composed of disabled individuals age 16 and older. Census tracts in northern Crawford County, as well as southern and eastern Vernon County show larger concentrations of disabled individuals age 16 and older than the rest of the region.

Map 2.4. Disabled Population Age 16+ as a Percentage of Total Population, Based on 2003 U.S. Census Data



High percentages of elderly and disabled individuals throughout the study area, and projections that these percentages will continue to increase, suggest strong demand for elderly and disabled transportation services. This is especially true when viewing these numbers in conjunction with the prevalence of individuals living below the poverty level, and in households without access to a personal vehicle. These two characteristics are strong indicators of demand for transportation services, and are evident throughout the study area. For instance, 12% of the population in Crawford and La Crosse Counties, and 14.4% of the population in Vernon County live below the designated poverty threshold, while the Wisconsin state average is 10.5%, according to 2008 U.S. Census data figures.

It is important to consider that although the census data display significant potential demand for elderly and disabled transportation services, the true extent of this demand is impossible to determine without supplementary survey research. This census data (Table 2.3, Map 2.3, Map 2.4) is meant to illustrate the pool of potential elderly and disabled individuals in the study area.

Supply of Elderly and Disabled Transportation

The major providers of transportation services for the elderly and disabled in the three-county study area are outlined in detail below. While the majority of existing services focus on transportation for elderly and disabled citizens, some are available to the general population for different trip purposes.

- Crawford County Department of Human Services and Senior Resources/Aging and Disability Resource Center – Mini Bus Paratransit

  This service, entitled "Senior Traveler," provides door-to-door transportation to the elderly (age 60 years and greater) and disabled thoughout Crawford County, with some trips to the La Crosse area. One 12-passenger van is used for service in northern Crawford County, while one 12-passenger van and one 7-passenger van is used in the Prairie du Chien area for making local trips. Individuals younger than 60 years of age may use the service when seats are available. Trips are made to senior dining, nutrition, meal sites, as well as to medical and personal appointments. According to the Crawford County Aging and Disability Resource Center website:

  - Senior Traveler I serves northern Crawford County: Soldiers Grove, Gays Mills & Mt. Sterling,
  - Senior Traveler II serves southern Crawford County: Eastman, Lynxville, Seneca, Wauzeka and Prairie du Chien,
  - Senior Traveler III serves the Prairie du Chien Senior Dining Site.

  This is an on-demand bus service with roughly 80% of the annual budget coming from WIsDOT 85.21 funding, and 20% of the annual budget provided by from Crawford County sources.

The service provides nearly 5,000 one-way passenger trips per year throughout its service area, charging nominal rider fees of $3.00 for one-way service to Prairie du Chien from Eastman and Wauzeka, and $12.00 for one-way service to La Crosse, for instance. These rider fees help to support the program and, although minimal, are often faced with resistance from riders with limited financial means. Drivers for the service are often retired men who are part of a drivers union and are limited in their ability to work more than 600 hours in a year. This creates a situation where it is often difficult to find drivers who have not exceeded their allowed annual hours.

Furthermore, demand for medical trips is increasing, and these trips are given preference over other trips. Medical trips, however, often create scheduling difficulties, as program coordinators are forced to schedule van service around individual needs and the medical appointment time that an individual is able to secure. Vans are sometimes occupied for the majority of the day traveling to La Crosse or Madison to take one or two people to a medical appointment for a rider fee that fails to cover even the cost of the driver's labor to make the trip.

- Vernon County Unit on Aging – Mini Bus Paratransit and Volunteer Driver Program

This mini bus paratransit service operates throughout a coverage area that includes all of Vernon County, and transportation to and from La Crosse, approximately 35 miles away. Rider fees range from $6 roundtrip for local rides, to $10 roundtrip for more distant destinations. The service is operated on an 80% grant from WisDOT 85.21 funding, with 20% coming from local sources. The service provides transport for medical reasons, as well as trips for personal business, shopping, and other pursuits. A handicap van is also available for disabled riders. Any adult is eligible, although preference is given to those ages 55 and older, as well as disabled individuals.

Trips are pre-scheduled to La Crosse, Madison, and other destinations, and interested riders are expected to schedule medical and other appointments around the mini-bus schedule. Riders are expected to reserve a spot on a pre-scheduled bus after medical appointment times are known. The Vernon County mini-bus program is aimed at elderly transportation services and has experienced a recent increase in use to over 1,200 riders per year.

Additionally, a volunteer driver program that gets its funds from the WIsDOT New Freedom Assistance Program (Section 5317) operates on an on-demand basis to provide transportation that is unavailable with the mini-bus service. The cost is $5 for every 25 mile increment traveled, with a coverage area of a 100 mile radius from Viroqua. The New Freedom Assistance Program is focused on helping remove the transportation barriers for individuals with disabilities to integrate themselves into the workforce of society. The Vernon County Unit on Aging volunteer driver program is a "door-through-door" service where volunteer drivers pick up riders at their homes and take them to appointments, offering assistance along the way. This allows seniors

and those with disabilities the option to remain in their homes and still have access to the mobility needed to lead independent and fulfilling lives.

- La Crosse County Aging Unit – Mini Bus Paratransit and Other Programs

  This mini-bus paratransit provides service for elderly (age 60 years and above) and disabled residents of the county for travel within the county. The service is an on-demand service requiring 24-hour notice to set up an appointment. Rider fees range from $3.50 - $4.50 for a one-way trip, depending on the distance of travel. The service is operated on an 80% grant from WisDOT 85.21 funding sources, with 20% coming from local sources. Over 20,500 one-way passenger trips were given by the service in 2009, with the majority of trips made in and around the immediate greater La Crosse area. Riders are not limited to medical trips, and can use the mini-bus service for employment, education, training, shopping, personal, social, recreational travel to nutrition/meal sites, and other types of trips.

  The La Crosse Aging Unit also has a volunteer driver program used to supplement the mini bus program. This program offers rides to disabled individuals and those ages 60 or greater, across La Crosse County, with 48 hours notice required prior to the time of the trip. This service is available for individuals who need extra care while traveling and may be used for any trip purpose. Upon receiving a request for service, the Aging Unit works to locate a driver from its volunteer driver network.

- La Crosse County Department of Human Services

  Separate from the La Crosse Aging Unit, the La Crosse Department of Human Services contracts with Abby Vans of Neillsville, Wisconsin to provide rural transit service to Bangor, West Salem, and Rockland in La Crosse County, Galesville and Trempealeau in Trempealeau County, and Stoddard in Vernon County. The service is a shared-ride taxi service with fixed schedules and fixed routes, and is used for individuals making medical trips, and is paid for by medical assistance. Most of the trips given are for medical reasons, and no age or other restrictions apply to riders.

  Also, the Department of Human Services contracts with First Transit to provide a paratransit service in La Crosse, Onalaska, and Holmen to provide connections with the La Crosse Municipal Transit Utility, which also contracts with First Transit to provide paratransit services in the City of La Crosse itself.

- Running, Inc.

  Running, Inc. is the parent company for several taxi service providers throughout southern and southwestern Wisconsin, and has been in operation since 1994. These services do not have the same trip and passenger restrictions as the state-subsidized services and, as a result, they service a wider passenger market for all types of trips. The following are the taxi services that Running, Inc. operates within the study area:

- Coulee Cab in Prairie du Chien
- Onalaska – Holmen – West Salem Shared-Ride Public Transit – (cannot come into La Crosse)
- Viroqua Cab
- Westby Cab
- La Crosse County Rural Transit (Bangor, Rockland, and Town of Holland)

All of the services operate on an on-demand, shared ride taxi basis, using vans that are handicap accessible. Senior discounted rates are offered, and a $1.75 per mile fee is charged for travel outside of the service area of each provider. Anyone may take advantage of these services, but they recognize the need for elderly and disabled transportation in the study area and provide attractive accommodations for these types of riders.

Although there are several other programs with lower ridership that operate, these programs are the most notable and well-used programs in the study area. The three-county senior services paratransit programs are funded with assistance from WisDOT 85.21 Rural and Specialized Passenger Transportation funding, as is the La Crosse County Department of Human Services program. WisDOT 85.21 funding is made available to Wisconsin counties to develop and operate programs providing transportation services to elderly and disabled individuals.

Programs supported under this fund must be designed with the intention of providing transportation to the elderly and disabled, and are given the ability to assign preference to rides for medical, nutritional, and work-related activities as defined by WisDOT. Due to the large demand for elderly transportation in particular, the majority of rides given by these programs are for elderly individuals to make "medical" and "nutrition" trips, which are defined as those related to the consumption, purchase, or receipt of food.

Other Programs

There are several other programs in the three-county area that provide necessary specialized transportation for both elderly and disabled citizens. These programs supplement those previously mentioned. Although there are likely numerous more localized and specific programs offered by particular non-profits or senior care centers, the primary supplementary programs are listed below.

Abby Vans is a private company offering specialized, non-emergency transportation services to elderly and disabled individuals throughout western and north central Wisconsin. Abby Vans operates as both a county contractor for Human Services Departments across the state, and as an independent transportation option, providing over eighty wheelchair/handicap accessible vehicles. Abby Vans operates in Vernon County and La Crosse County, but not in Crawford County.

The **Crawford County Department of Human Services and Senior Resources/Aging and Disability Resource Center** operates a **Medical Assistance Transportation Program** providing residents who

are eligible and receiving medical assistance non-emergency medical transportation to and from non-emergency medical services. The program operates with ten volunteer drivers who use their own personal vehicles, and make trips around Prairie du Chien, to Viroqua, La Crosse, and Madison throughout the week.

The **La Crosse County Aging Unit** sponsors a **Wisconsin Find-a-Ride Program**, a referral program for La Crosse County and seven surrounding southwestern Wisconsin counties, including Vernon County and Crawford County. The mission of this referral service is to connect inquiring individuals with the most appropriate transportation service to suit their needs. The program's target audience includes "those who do not drive anymore, do not have a car, or anyone who has a temporary or permanent need for transportation."

Coulee Region RSVP is a volunteer coordination program based in La Crosse offering a volunteer driver service for medical or other appointments. Furthermore, Caring Hearts Home Care Transportation, LLC, Is based in La Crosse County and offers full-service transportation for medical or personal reasons within La Crosse County, and to destinations beyond.

The **Opportunity Center** offers transportation for elderly and disabled individuals in the immediate Prairie du Chien area, as does the **Viroqua Area Rehabilitation Center (VARC)** in the Viroqua area, both funded by WisDOT 53.10 funding. These services may serve as a feeder program for any potential additional transportation service set up in the study area.

Currently, the **Franciscan Skemp Department of Elder Services** reports that they do not offer any formal transportation services to transport patients to and from medical appointments, but they try to match patients with the current offerings throughout La Crosse County and beyond. Franciscan Skemp has also expressed strong interest in coordinating a transportation service that could potentially enable patients to travel to and from their facilities.

Gundersen Lutheran Hospital is affiliated with a program called **Coulee Trails Transport** based in Viroqua in Vernon County. The program provides transportation service to medical appointments, with Medicaid being an eligible payment method. Doctor approval is required for use of the service, and vans are handicap accessible for door-to-door on-demand transportation service to and from medical appointments. Service is offered in La Crosse, Vernon, and Crawford Counties.

Additionally, the **"33 Express"** service began operation on June 28, 2010, providing daily service between Hillsboro in Vernon County and La Crosse Monday through Friday along Highway 33. The one-way cost of the service is $6.00 and the service is available to anyone. Service will leave Hillsboro at 8:00 am, and return in the afternoon. Stops include Ontario, Cashton, and St. Joseph's Ridge. This service is being funded by STRAP funding. The service is targeted for use by residents of Vernon, La Crosse, and Monroe Counties for all types of trips, with stops along the route. The potential exists for this service to connect users to county-wide mini-bus programs in Vernon and La Crosse Counties, as well as the Municipal Transit Utility of the City of La Crosse.

Ridership Information

Due to the limited detailed data available, since many of the service providers do not track detailed data regarding their ridership, there is a limited supply of data available to analyze existing ridership in the study area. Ideally, a formal demand-supply gap analysis would be conducted. Data provided by these services was compared to estimate supply relative to the demand (indicated by census data) and to evaluate the need for transportation in both space and time on a more conceptual level.

The primary providers of elderly and disabled transportation in the study area, recent ridership information, and characteristics on origins and destinations of rides are presented in Table 2.4 below. The programs were evaluated based on annual ridership data these programs keep, as required by the WisDOT 85.21 program. Although there are other programs providing transportation for the elderly and disabled, data provided by five specific programs was used as a relative measure of the general supply of this type of transportation. The La Crosse metropolitan area is generally well-served by public transit, and a potential service in the study area providing rides into the La Crosse area needs to be integrated with the routes and schedules currently provided there.

Table 2.4. Ridership Information of the Primary Elderly and Disabled Transportation Service Providers

Program	Ridership	Ride Characteristics
Crawford County Department of Human Services and Senior Resources/Aging and Disability Resource Center – Mini Bus Paratransit	2009 One-Way Passenger Trips: 4,882	Northern Route (in the Gays Mills/ Soldiers Grove area): 11% of the people travel to Viroqua, and 89% of the people travel to Gays Mills/Soldiers Grove Nutrition Site Vehicles originating in Prairie du Chien area: 47% of people travel to Nutrition Site in Eastman: 24% of the people travel to Gays Mills meal site; 16% of people make the trip from Eastman and Wauzeka to Prairie du Chien for shopping; 6% of people travel to La Crosse for medical services; 6% of people travel to Viroqua from Prairie du Chien for medical services.
Vernon County Unit on Aging – Mini Bus Paratransit	2009 Number of Riders: 1,280	Origin and destination characteristics: Pre-scheduled trips to and from La Crosse, Madison, Viroqua, and Richland Center; services Stoddard, Chaseburg, Westby, Genoa, La Farge, Readstown, De Soto, Viola, Ontario, Hillsboro, Retreat, Coon Valley -Provides 12 trips to La Crosse, 1 to Madison, 2 to Viroqua, 1 to Richland Center each month -Provides "in-town" service in Hillsboro each month
La Crosse County Unit on Aging – Mini Bus Paratransit	2009 One-Way Passenger Trips: 20,506	Origin and destination characteristics: Majority of trips made from areas into La Crosse and Onalaska from Richland, Bangor, Holmen, West Salem, and other areas.
La Crosse County Department of Human Services – Abby Vans Rural Transit	Approximate One-Way Passenger Trips Per Year: 22,000	Origin and destination characteristics: Majority of trips are made throughout rural La Crosse County between Bangor, West Salem, and Rockland, Galesville and Trempealeau in Trempealeau County, and Stoddard in Vernon County.
Running, Inc.	2009 Ridership: • Viroqua Cab: 40,322 • Coulee Cab (Prairie du Chien): 29,079 • Onalaska – Holmen – West Salem Shared-Ride Public Transit: 58,590 • Westby Cab: 7,578 • La Crosse County Rural Transit (La Crosse County Rural Transit- Bangor, Rockland, Town of Holland): 1,962	

Source: Agency officials and agency websites

These services offer transportation to segments of the population beyond the elderly and disabled, but all of the services provide accommodations for elderly and disabled travelers. Approximately 80% of travelers on the La Crosse County Rural Transit service are elderly and disabled, and 50% of Onalaska-Holmen-West Salem service is elderly or disabled. Viroqua Cab, Coulee Cab, and Westby Cab provide transportation in and around their respective bases of operation, and these services provide an important feeder or linking service to a potential bus service operating throughout the study area.

All of the existing services focusing on transportation to elderly and disabled individuals identified above operate primarily during normal business hours, catering to riders with appointments in the late morning or early afternoon hours, and returning them to the point of origin in the late afternoon.

Examining the spatial nature of trip flow indicates demand for travel into Prairie du Chien along State Route 60 from Wauzeka, and between Prairie du Chien and Eastman along State Route 27. Trips are frequently made to Gays Mills and Soldiers Grove along State Route 131, and into Viroqua along State Route 27. Additionally, travel from Viroqua to La Crosse along U.S. Highway 14, connecting Westby and Coon Valley, is a frequent route for elderly and disabled travelers (also a popular route for area commuters into La Crosse from Vernon County). Finally, frequent trips are made up the State Route 35 corridor along the Mississippi River into La Crosse, connecting communities such as De Soto, Stoddard, and Genoa.

It is evident that existing transportation servicing the elderly and disabled operate with the three primary cities of Prairie du Chien, Viroqua, and La Crosse as focal points. A new proposed transit service offering regular and consistent service throughout the region could allow existing providers to deviate from their existing service areas and offer transportation to individuals living in underserved parts of Vernon and Crawford County, acting as a connection to new established transit.

2.3 Recreation Transportation

Demand for Service

The driftless area of Wisconsin, of which Vernon and Crawford Counties are at the center of, is a popular destination for those seeking beautiful art, charming small towns, historic attractions, speciality food and agriculture offerings, bicycling on the varied terrain, and a varied natural landscape untouched by glaciers. There are various popular events throughout the year, and recreation and tourism play an important role in the economy of the region. Important area attractions include:

- Wyalusing State Park, Bagley/Prairie du Chien
- Kickapoo River State Wildlife Area, Bell Center
- Wildcat Mountain State Park, Ontario
- Upper Mississippi River National Wildlife and Fish Refuge, Ontario
- Great River Road (Wisconsin Highway 35)
- Lady Luck Casino, Marquette, IA
- Wisconsin 60 Scenic Byway
- Local agricultural attractions including Fleming Orchards (De Soto), Vernon Vineyards (Viroqua), and Shihata's Orchard (Prairie du Chien)

In addition to area attractions, major events throughout the year attract individuals from across the region. Some of the major events include:

- Driftless Area Art Festival, Soldiers Grove, September
- Larryfest, La Farge, August

- Prairie Dog Blues Festival, Prairie du Chien, July
- Apple Festival, Gays Mills, September
- Vernon County Fair, September

Essential to any travel or recreation destination or event is the ability to conveniently access it using a reliable transportation system. Travel for area residents accessing recreation pursuits within the region, or for those from outside the region, offers a potential pool of riders for a new transit service. Personal vehicle transportation is the primary way that individuals currently make these kinds of trips, but a bus service could provide targeted, special event transportation, or occasional weekend service to provide access to area recreation destinations.

2.4 Summary of Findings

Existing conditions surrounding employment in the region indicate potential demand for transportation for commuting purposes. The area is rural in nature and many individuals travel longer distances for work. Although there is a heavy reliance on automobiles, a potential bus service for commuters could convince some users to take transit instead, and may allow others to take a job with a reliable source of transportation available.

A transit service may also support the recreation and tourism industry. With its natural beauty and diverse landscape, this region is a popular recreation destination for artists, nature lovers, and other types of individuals seeking recreation. A transit service may offer service to area attractions and special events throughout the year, or may be offered as occasional service to area destinations. Examples include weekend service from key points in Crawford County and Prairie du Chien to the Lady Luck Casino in Marquette, Iowa, or offering service to the Vernon County Fair in Viroqua from points throughout Vernon County.

An initial assessment of existing conditions and the set of programs currently offered to elderly and disabled individuals indicate strong demand for service, and a set of well-used existing services. These services, however, are faced with financial difficulties, and could benefit from a an additional service that is able to coordinate with exist services.

Examining the major routes of service relative to the areas with a high prevalence of potential riders indicates that existing supply is consistent with primary centers of high demand. Services that currently operate are adequately responding to customer demand for transportation and are running routes where they can reach the most riders. A large number of rides are given by existing service providers. However, there is potentially unmet demand even in the areas where service exists, since the number and extent of the service providers is limited. This will surely be the case in the future, as the demographic need for transportation increases, unless more service providers begin to operate.

Existing service providers cover most of the area throughout Vernon and Crawford Counties. The newly established “Express 33” bus service will help bring individuals from the Hillsboro area in eastern Vernon County to larger destinations to the west, especially La Crosse. This service will

provide important connections to existing transportation services. While most current service providers focus on transporting the elderly and disabled, there is little opportunity for commuters to utilize public transit services. The new "Express 33" will help target this population, but there is a prevalence of long distance commuter trip flows to Prairie du Chien, Viroqua, and La Crosse for work purposes from cities and villages, as well as rural township areas throughout Vernon and Crawford counties. Ridership estimates later in this study will offer an idea of the potential ridership for a commuter-based service using a methodology that determines percentages of potential riders that are "likely" riders based on demographic information. Commuter demand is also evident from the Viroqua area into La Crosse along U.S. Highway 14, from Readstown, Soldiers Grove, and Gays Mills into Viroqua, from Eastman into Prairie du Chien, and from Genoa and Stoddard into La Crosse.

Coordination among all programs in the study area providing transportation to the elderly and disabled is of the outmost importance, particularly in order to reach more rural places where the demand exists, but supply is limited. Particular attention should be given to individuals living in rural township areas. These individuals may be one source of unmet potential demand for commuter and elderly and disabled transportation services. These areas have demographics indicating high demand for elderly and disabled transportation services, and coordination is required to increase the access of residents of these areas to the larger municipalities where transit services run more often and are more readily available.

Existing services offer some on-demand service to these areas, but their locations make them more difficult to reach and coverage is not as consistent and reliable as coverage along more major transportation corridors and in larger municipalities. New transit service in the region offering fixed route and fixed schedule service between primary city and village pairs will allow existing providers to expand service in more underserved rural areas. This is particularly important in areas such as eastern Vernon County. Service that is offered to individuals in these more rural township areas are door-to-door transportation situations where volunteer drivers are providing medical and/or personal transportation to elderly and disabled individuals.

A new transit service would offer a more consistent and reliable option for travel throughout the region. More of these individuals will be able to be reached as existing services could focus on offering door-to-door connections to these individuals to the new transit system. Riders will have access to a broader and more comprehensive set of transportation options with a new transit service than under current conditions.

Any new reliable and consistent service has the potential to reach these sets of unmet demand with added stops and more consistent and comprehensive frequency and scheduling. They could also conceivably attract "latent" demand, individuals who may have a means of transportation available, but who may choose to use a new service instead because of its greater convenience, accessibility, or affordability. If funding is secured, a new potential service will allow current services to be used as "feeder" services in conjunction with a new transportation arrangement, to help increase rider access to a new bus service. An additional bus service would help supplement and complement existing services in both the location of its stop and route coverage, and leverage existing services to enhance overall access and mobility

for a greater number of individuals. A comprehensive list of recommendations to consider when implementing a new transportation service option is provided later in this study.

3. Proposed Service Options

Drawing from the information gathered in the assessment of existing conditions, concerns, and needs in the study area, recommended service options have been developed as possible transit alternatives for the region. These transit service options were developed with the goal of providing the most efficient service to as many residents as possible.

This feasibility study focuses primarily on commuters, those persons traveling on a daily basis for work purposes, to develop the service route alternatives. Improving accessibility to jobs and employers is the primary goal of this study, but commuter patterns also provide the most reliable and consistent means of calculating potential ridership and developing a successful program. Information gathered about existing commuter demand is used as the primary basis for establishing route service options, with the goal of reaching as many of these potential riders as possible.

The majority of commuting trips in the region consist of individuals traveling to the three major cities in the region for work: Prairie du Chien, Viroqua, and La Crosse. Commuter data from the 2000 U.S. Census Transportation Planning Package detailed in Section 3.2 represents the basis for establishing the service options that are presented here. There are various important reasons for focusing on commuters when developing the service option alternatives including:

- Existing mini-bus and other paratransit services currently focus on providing transit service to the region's elderly and disabled.
- Commuters represent a large pool of potential transit users.
- Riders traveling for medical and personal reasons have the potential to adapt to any established schedule more easily than commuters.
- Those making trips in the study area for medical, personal, and other reasons exhibit similar travel patterns as commuters and are expected to be able to use any routes targeted at commuters.
- Existing paratransit and other programs can be leveraged to provide connecting service for the elderly and disabled from their place of residence to stops along any created route for continued travel.
- The rural nature of the region makes it more difficult for people without reliable access to transportation to find steady employment.
- Distributed population and location of jobs within the region sometimes makes it difficult for employers to connect with employees.

Five alternative routes were developed throughout the three-county area that would allow transit options to be added in phases, or to be altered, based on ridership. The possibility exists to select individual routes and configure them with other routes in various combinations depending on transit need, funding availability, level of intergovernmental cooperation, and other factors. Although flexibility is a key feature of the proposed service options, some of the route options are meant to operate in tandem with others, and there is an opportunity to package routes together into different service package options. Proposed service options and details are explained in the following section.

In organizing the potential routes and timing, each scenario is recommended because of its potential to reach the highest number of riders depending on travel direction and time of day. These potential scenarios will need to be revised as additional details are solidified and programs are implemented. Proposed route service options are intended to represent possible ways for bringing transit service to the region, and may be modified as desired. All communities listed as stops are assumed to be served by one 2-minute stop, unless otherwise noted. Additional stops may be added as ridership increases or changes and a demand for alternative stop locations is indicated.

Discussion of each potential route may include the elements outlined below. Some are the same for all routes, and are discussed here as appropriate.

- Travel Route
  Each of the five proposed service options identifies a recommended travel route through the region. In order to be efficient and effective with bus miles traveled, the different routes cover different portions of the region, with two separate scenarios within the northern portion of the planning area.

  These travel routes were identified based on the assessment of ridership identified in the first section of this feasibility study, along with components such as ease of traveling, efficient timing, and potential ridership of each route. There may be alternatives or modifications to each proposed route, but these recommendations identify the preferred travel patterns within the region.

- Times/Frequency
  Because this feasibility study is focused on connecting people to jobs, and employers to employees, it is assumed that any service option would operate at least two roundtrips routes per day at the peak commuting times. However, if this transit option is to be utilized by others, such as for medical or personal trips, or for tourism/recreation, additional mid-day and weekend routes may be desired. Also, there are a number of major employers within the region that operate on non-standard business hours, requiring employees to have access to transit services outside of the typical peak commuting hours. The ability to run mid-day transit services provides additional opportunity for these commuters to utilize this service.

  The timing or number of trips operated per day and week will need to be modified based on the level and location of employer interest moving forward with implementation and as demand for any particular route increases. For purposes of this study, each route is anticipated to make four complete trips per day. For some route options, this is a back-and-forth trip between two locations. For other routes, it is a pre-determined “loop” through the region.

  The majority of this analysis is established on the baseline of two daily routes, with additional mid-day and weekend trips recommended. Ideally, any potential service option would operate for at least twelve consecutive hours each day of the week, with

the exception of holidays. However, this may be limited, at least initially, by potential funding availability. Each route is identified based on its roundtrip length, with potential pick-up and drop-off timelines based on the time required to travel said route and allowing time for each stop. These times, and the frequency with which they occur, may be adjusted depending on the final details of a proposed service option and financial availability of the participating entities.

- Cost

  Costs for establishing, operating and maintaining a successful commuter bus are based on a number of factors, as outlined in various portions of this feasibility study. A new start-up service must consider the capital costs associated with purchasing vehicles depending on the number of routes that are going to operate. It is recommended by WisDOT that the operating agency not purchase any vehicles for the first several years, and instead lease them through the subcontractor of the system. While the initial vehicle is likely a 12-person van, the need for a different vehicle may change quickly in the beginning of the program depending on its success.

  In many cases, the actual service provider is contracted through a private agency; thus, the operating and maintenance costs of the system depend on the negotiated contract between the municipality and the private service provider. In order to estimate an average operating and maintenance cost for the proposed service options, staff with the Wisconsin Department of Transportation were consulted about other comparable systems.

  An operating and maintenance cost range of $1.50 – $1.75 per mile traveled was provided as the typical cost range for similar bus service operating in similar conditions. This includes all of the costs associated with operation of a transit service: fuel, insurance, driver/staffing wages, vehicle depreciation, and maintenance, as well as the mark-up charged by any private transit company hired to actually operate the service. This cost assumes the use of twelve passenger vans, with the capability of carrying two wheelchair passengers. An average cost of $1.60 per mile traveled for service in this region is used throughout this study to determine the cost of all proposed service options detailed and was agreed upon by WisDOT as a reasonable cost to utilize within this study.

- Alternatives & Modifications

  While the alternatives identified in each of these service options are recommendations based on observed demand and travel patterns, there are many variations that can occur within each individual scenario to further tailor them to meet demand. It is likely that some of these potential modifications cannot be known or made until a transit service is operating and is better able to recognize and respond to the needs of its riders or participants. Potential alternatives or modifications are identified within each scenario to provide insight into possible deviations from the recommendations in order to make the service more effective and ultimately more successful.

Each proposed route is identified by a color distinguish it from the others. This is only for the purpose of identifying and differentiating the various options. A recommended service package is identified and discussed later in this section, but an explanation of the options and characteristics of each are provided first.

3.1 Orange Route

The orange route is a back-and-forth route serving the Highway 14 corridor between the City of Viroqua and the City of La Crosse, with stops in the Village of Coon Valley and the City of Westby. This route was established to offer service to the large number of commuters observed traveling between communities in this part of Vernon County to the City of La Crosse for employment purposes. In addition to the quantitative data, discussions with residents, organization officials, and others indicate a high frequency of trips being made from the Viroqua area to the City of La Crosse. Additionally, the data suggests commuter travel flows into the City of Viroqua from the City of Westby and the Village of Coon Valley, municipalities along this proposed route. While the timing of this route is intended to transport a large number of employees into the City of La Crosse from Vernon County, the return trips of the bus will also allow people to access the City of Viroqua. The potential stops for this route identify major employers in the City of La Crosse that have work shifts not consistent with standard business hours. Such employers, like the medical facilities, may see a larger participation rate for route times that are not during typical peak commuting hours.

The distance between the City of Viroqua and the City of La Crosse is 33 miles. See Map 3.1 for a display of the proposed orange route.

Times/Frequency

The orange route should operate during the morning and afternoon commuting times, with the goal of carrying riders to La Crosse and to Viroqua for work purposes. This means, at a minimum, two round-trips originating in Viroqua per day are required, and this proposed timetable would cater to those that work during typical morning to late afternoon day shift hours. Additional mid-day service may be provided depending on funding availability, local needs, and the desires of those establishing the service. Based on these factors and the attempt to meet the needs of commuters, potential route times could occur as outlined in Table 3.1 below.

Table 3.1: Orange Route Timetable

Time at Stop Location						
Viroqua	Westby	Coon Valley	La Crosse	Coon Valley	Westby	Viroqua
6:30 AM	6:44 AM	6:58 AM	7:20 AM	8:10 AM	8:24 AM	8:38 AM
10:30 AM	10:44 AM	10:58 AM	11:20 AM	12:10 PM	12:24 PM	12:38 PM
1:30 PM	1:44 PM	1:58 PM	2:20 PM	3:10 PM	3:24 PM	3:38 PM
4:30 PM	4:44 PM	4:58 PM	5:20 PM	6:10 PM	6:24 PM	6:38 PM

Note: All route mileage and travel times determined by Google Maps Software

The times that are established for each route will need to remain consistent in order to provide consistent and reliable service, thereby increasing ridership. The complete round-trip route between Viroqua and La Crosse takes 2 hours, 8 minutes based on the proposed stop locations. The departure time of a bus from any location may be adjusted initially, but, once established, should be maintained. The number of times per day that a bus makes this loop may also be altered, but should remain consistent once a determination regarding frequency has been made.

This schedule assumes a two-minute stop at each location, with six proposed stops in the City of La Crosse, including:

- Shelby Mall Shopping Center
- Gundersen Lutheran Medical Center
- Franciscan Skemp Medical Center
- La Crosse Transit Center
- University of Wisconsin – La Crosse
- TRANE

A map of these proposed stop locations, along with the route traveled through the City of La Crosse, can be found in Section 6. The intent behind any system is to maintain consistency with the route pick-up times and locations, and to provide a schedule and route that benefits the highest number of commuters.

Costs

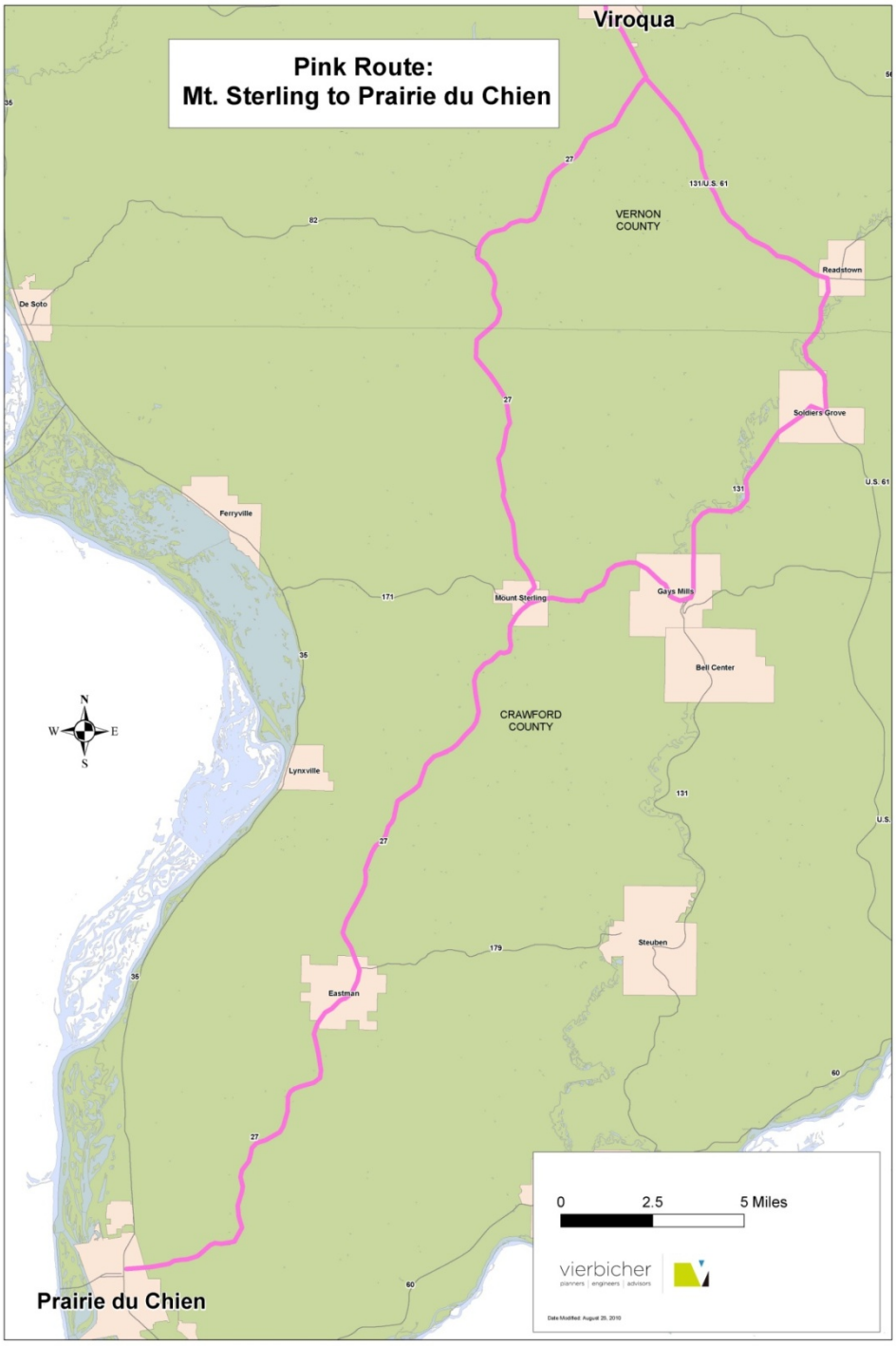
Based on the average operating and maintenance cost of $1.60 per mile, the cost to operate the orange route roundtrip from the center of the City of Viroqua through the proposed route in the City of La Crosse and back, a distance of 66 miles, is estimated to be $105.60 per roundtrip. The estimated total daily operating cost to provide two round trips per day is $210.20. Increasing the service provided to four roundtrip services each day would result in an estimated total daily cost of $422.40. A cost summary of all of the proposed route service options is presented in Table 3.6.

Possible Alternatives and Modifications

As mentioned, it is possible to eliminate the midday service runs suggested in the timetable in Table 3.1 depending on local needs, desires, and other factors. The intention of mid-day service is to offer service to those commuters who work atypical daily work schedules, as well as those traveling for medical, personal, and other reasons. Eliminating midday service will make it more difficult for these types of riders to use the transit service, as workers are not likely to be able to adjust their work schedules and those traveling to appointments will not want to wait until the evening for a return trip home.

3.2 Pink Route

The pink route is recommended in order to serve commuters traveling in the southern portion of the planning area between the City of Viroqua and the City of Prairie du Chien, and the number of smaller communities in between primarily along the Wisconsin Highway 27 and Highway 131 corridors. This service option is intended to move people throughout Crawford County and southern Vernon County. Travel between Mount Sterling, Gays Mills, Soldiers Grove, Readstown, and Viroqua will utilize Wisconsin Highways 171 and 131, and U.S. Highway 14/61. Travel between Viroqua, Mt. Sterling, Eastman and Viroqua will be via Wisconsin Highway 27. See Map 3.2 for a visual display of the proposed route.



Times/Frequency

In this proposed route service option, the bus run times and sequence of stops are proposed to serve the highest possible number of commuters, since the data suggests notable demand for each of these patterns from a commuting perspective. Mid-day service may be

offered as part of this option depending on the desire and needs of those establishing the service. This southern route is designed to deliver a large number of commuters traveling into the City of Viroqua from the communities to the south, including Readstown, Soldier's Grove, Gays Mills and Mount Sterling. In order to do this, the proposed route starts in Mount Sterling, travels north along Highway 131 to Viroqua, and then south along Highway 27 back to Mount Sterling, continuing on to Eastman and then into Prairie du Chien.

Although this route is not a direct back-and-forth between communities, it is most effective for addressing the highest demand of travelers throughout the area. A route that traveled only back and forth between Viroqua and Prairie du Chien would not be as effective in transporting commuters to their destinations and, therefore, not as widely used. The time needed for the transit route to travel between Mount Sterling and Viroqua, with three stops in between, is 52 minutes. The trip from Viroqua to Prairie du Chien is 73 minutes with stops in Mount Sterling and Eastman. The travel time back to Eastman from Prairie du Chien is 31 minutes, which results in a full roundtrip route time of two hours and 36 minutes. This longer route does not have as much flexibility in timing as the orange route because of the vast distance that it covers; however, it does have greater ability to move people throughout a largely rural area where transportation is a common concern for those without consistent access to reliable options.

It is not anticipated that riders on this route would often travel the full distance between Viroqua and Prairie du Chien, but instead, that it would provide access to each City for outlying communities in the region.

Table 3.2: Pink Route Timetable

Time at the Stop								
Mt. Sterling	Gays Mills	Soldiers Grove	Readstown	Viroqua	Mt. Sterling	Eastman	Prairie du Chien	Eastman
6:38 AM	6:46 AM	6:59 AM	7:10 AM	7:30 AM	8:08 AM	8:25 AM	8:43 AM	9:14 AM

Mt. Sterling	Gays Mills	Soldiers Grove	Readstown	Viroqua	Readstown	Soldiers Grove	Gays Mills	Mt. Sterling
9:31 AM	9:41 AM	9:54 AM	10:05 AM	10:25 AM	10:53 AM	11:04 AM	11:17 AM	11:27 AM
3:18 PM	3:28 PM	3:41 PM	3:52 PM	4:12 PM	4:45 PM	4:56 PM	5:09 PM	5:19 PM

Eastman	Prairie du Chien	Eastman	Mt. Sterling
10:44 AM	11:02 AM	11:33 AM	11:50 AM
5:36 PM	5:54 PM	6:25 PM	6:42 PM

Note: All route mileage and travel times determined by Google Maps Software

The goal of this proposed route service option is to provide timely connections for those commuting into the City of Viroqua and into the City of Prairie du Chien. By departing Mount Sterling at 6:45 am, the bus can offer morning service before 8:00 am to those working in Viroqua, and prior to 9:00 am for those working in Prairie du Chien. Return service in the evening consists of a bus arriving in Viroqua after 4:00 pm for its return trip south, and a bus picking up

passengers in Prairie du Chien shortly before 6:00 pm for return service to Eastman and Mount Sterling.

Traveling from Mount Sterling to Viroqua via Gays Mills, Soldiers Grove, and Readstown offers these villages, as well as those living in adjacent townships, with service to Viroqua. Traveling from Viroqua to Prairie du Chien via Mount Sterling and Eastman along Wisconsin Highway 27 provides the shortest connection to Prairie du Chien for those living along the corridor. There are opportunities for people living outside of this direct route to make connections within one of the communities. For example, someone living in Gays Mills and needing to travel to Prairie du Chien for work may board the bus in Mount Sterling as it makes it way south to Prairie du Chien from Viroqua.

By organizing the route in this way, the potential exists to also reach commuters traveling to Viroqua for work purposes, and also those traveling to Viroqua for medical, personal and other reasons. The proposed timetable schedules the bus to be in Viroqua three times per day, an important feature benefiting those living in Gays Mills, Soldiers Grove, Readstown, and communities to the south of Viroqua needing to access services. Although the proposed route provides less frequent service in Prairie du Chien, there is opportunity to work with existing service providers to bring people into connecting stop locations.

Costs

The cost to operate the first daily run of the pink route from the Village of Mount Sterling to the City of Viroqua, the City of Prairie du Chien, and returning to Mount Sterling, a distance of 108 miles, is estimated at $173.12. This would mean an estimated daily cost of $332.32 for two roundtrip services. A cost summary of all of the proposed route service options is presented in Table 3.6.

The red and purple routes are meant to work in cooperation with each other. The red and purple routes, serving northern Vernon and southern La Crosse counties, provide more effective and efficient service to this area of the region by operating as loops traveling in opposite directions. In theory, one could operate without the other, but one route alone would not provide the access to transit as effectively because it would only pick up half as many times in any given location, and would only allow people to travel in a single direction. The two routes combined allow people to travel in either direction multiple times a day at any of the individual pick-up locations.

3.3 Red Route

The red route originates in Genoa and travels in a clockwise direction, with connections in Stoddard, La Crosse, Coon Valley, Westby, Viroqua, and then back to Genoa. Travel from Genoa to La Crosse will be made via Wisconsin Highway 35, travel from La Crosse to Viroqua via U.S. Highway 14, and returning to Genoa along Wisconsin Highway 56. Notable commuter flow was observed from Genoa and Stoddard into La Crosse, as well as from Coon Valley and Westby into Viroqua. This option provides service along these routes in hopes of attracting commuters as well as other potential passenger types. There is a substantial rural population in western Vernon County that does not currently have access to reliable transportation. This route would be very effective for reaching areas that may be a greater distance from public goods and services. See Map 3.3 for a visual display of the proposed route.

Times/Frequency

By leaving Genoa at 6:50 am, the bus will reach La Crosse prior to the 8:00 am work hour, and will reach Viroqua prior to the 9:00 am work hour. The timing of these routes could easily be moved up an hour to accommodate earlier shifts depending on ridership and employer interest. For return service in the opposite direction, the intention is for passengers to use the purple route to make connections, and the two routes are timed to work in tandem with each other. The inclusion of midday service as part of this option expands potential ridership beyond those needing access to their places of employment at standard business hours. One possible timetable of daily runs and times, assuming four runs per day, is detailed in Table 3.3 on the following page.

Table 3.3: Red Route Timetable

Time at the Stop					
Genoa	Stoddard	La Crosse	Coon Valley	Westby	Viroqua
6:40 AM	6:52 AM	7:13 AM	8:03 AM	8:17 AM	8:33 AM
9:40 AM	9:52 AM	10:13 AM	11:03 AM	11:17 AM	11:33 AM
12:40 PM	12:52 PM	1:13 PM	2:03 PM	2:17 PM	2:33 PM
4:20 PM	4:32 PM	4:53 PM	5:43 PM	5:57 PM	6:13 PM

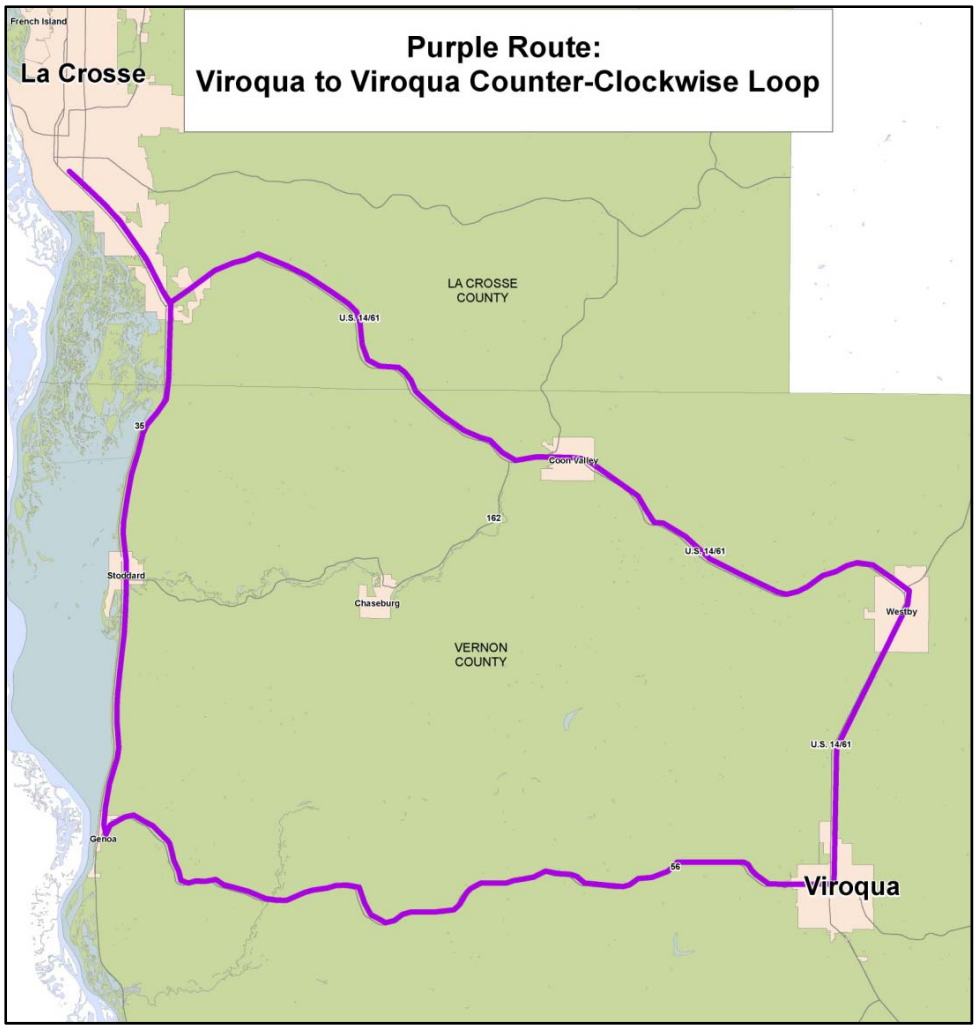
Note: All route mileage and travel times determined by Google Maps Software

Costs

The cost to operate one clockwise loop of the red route starting and ending in Genoa, a distance of 69.1 miles, is estimated at $110.56. Operating four loops each day would result in an estimated total daily cost of $442.24. A cost summary of all of the proposed route service options is presented in Table 3.6.

3.4 Purple Route

The intention of the purple route is to offer the opposite of the service offered by the red route. That is, those taking the red route to make one trip could take the purple route for the return trip, and visa versa. The two routes operate on the exact same travel pattern, but in opposite directions and starting in different locations. The purple route will originate in Viroqua and travel in a counterclockwise direction, with connections in Westby, Coon Valley, La Crosse, Stoddard, Genoa, and then returning to Viroqua. This particular route targets those individuals living in Viroqua, Westby, Coon Valley, and the surrounding areas and needing to travel to La Crosse for work purposes. See Map 5.4 for a visual display of the proposed route.



Times/Frequency

An individual living in Genoa and working in La Crosse could take the red route leaving Genoa at 6:40 AM, and arriving in La Crosse at approximately 7:13 am. For the return trip, the same individual would use the purple route departing La Crosse shortly before 6:00 pm, and returning to Genoa at approximately 6:48 pm. Midday service, operating in conjunction with the red route and its proposed midday service, expands the pool of potential riders beyond those working typical day shifts to include those working other shifts throughout the day, as well as individuals making trips to Viroqua and to La Crosse to access medical and other services.

One possible timetable of daily runs and times, assuming four runs per day, is detailed in Table 3.4 on the following page. Compared to the one-bus option for this region, it is easy to see that two buses make transit much more accessible to a wider population.

Table 3.4: Purple Route Timetable

Time at the Stop					
Viroqua	Westby	Coon Valley	La Crosse	Stoddard	Genoa
6:55 AM	7:09 AM	7:23 AM	7:45 AM	8:27 AM	8:48 AM
9:55 AM	10:09 AM	10:23 AM	10:45 AM	11:27 PM	11:48 PM
12:55 PM	1:09 PM	1:23 PM	1:45 PM	2:27 PM	2:48 PM
3:50 PM	4:04 PM	4:18 PM	5:20 PM	6:02 PM	6:23 PM

Note: All route mileage and travel times determined by Google Maps Software

Costs

The cost to operate one counterclockwise loop of the purple route starting and ending in Viroqua, a distance of 69.1 miles, is estimated at $110.56. The baseline cost of this route, assuming two loops per day, would be $221.12. Operating four loops each day would result in an estimated total daily cost of $442.24. This could occur either with two individual loops of each of the routes, or four loops of each of the individual routes. If each route provided four loops per day, the estimated operating cost would be $884.48 per day. A cost summary of all of the proposed route service options is presented in Table 3.6.

3.5 Blue Route

The blue route would provide coverage to areas not served by any of the other route service option proposals. It offers service in western Crawford County for travel south into Prairie du Chien and north towards La Crosse via a simple back-and-forth service between Prairie du Chien and Genoa. It is intended to operate with the red and purple routes to maximize possible connecting ability. If the red and purple routes are not available as connectors in Genoa to reach La Crosse, the blue route could be extended to La Crosse to the north to operate as a direct back-and-forth route to Prairie du Chien. The primary target riders for this route are those traveling from along the Wisconsin Highway 35 corridor into Prairie du Chien, and those traveling from Prairie du Chien and areas in western Crawford County to the City of La Crosse.

Although the distance along this route limits the number of potential commuters that travel the entire distance, there is evidence that a number of rural commuters travel from northern Crawford County and Vernon County into La Crosse, and from northern Crawford County into Prairie du Chien. There are also some employers that attract a pool of employees from the larger region during peak holiday hours, particularly some manufacturing facilities in the City of Prairie du Chien. The blue route

would provide a commuting option between the two cities that may benefit some of those seasonal employees, such as college students at the University of Wisconsin – La Crosse.

The greater distance of this route makes it less efficient than the other routes in terms of number of potential riders; however, it provides an important service to people in this area. Currently, there is little opportunity for potential transit users along this corridor, and this route, while not targeted at commuters, would provide substantial opportunity for other types of ridership.

There is also an opportunity for this route to serve other types of ridership needs, particularly recreational and tourism traffic between the cities. The attraction of this route may be its offering of more mid-day and weekend service, and less commuter service than the previously identified routes. Based on ridership forecasts, the number of potential commuters that would utilize this route may not justify the associated costs; however, increased ridership due to other types of trips generated may make up for this. This study does not investigate the full opportunity of this alternative ridership demand, but there is evidence that, by adding the baseline commuter ridership with additional trips generated through marketing this service to recreation and tourism users, it could be a successful transit option and used to generate economic growth within the region. See Map 3.5 for a visual display of the proposed route.

Times/Frequency

Departing Prairie du Chien around 5:25 am in the morning would allow a traveler to connect with both the red and purple routes for service to La Crosse and Viroqua shortly thereafter. For instance, the bus from Prairie du Chien would arrive in Genoa at 6:31 am, and then the red route would depart Genoa for La Crosse at 6:40 am. The trip from La Crosse back to Genoa can then be made on the purple route back, where a connection can be made to the blue route for travel back to Prairie du Chien.

The blue route's return trip traveling south to Prairie du Chien would arrive at approximately 7:41 am, in time for the 8:00 am start of the workday. Service departing Prairie du Chien after 5:00 pm would allow commuters to make the return trip home at the end of the work day. Additionally, according to this proposed timetable, the last bus of the day would depart Genoa around 6:30 pm, offering return service to Prairie du Chien for those individuals coming from La Crosse on the purple route.

One possible timetable of daily runs and times, assuming four runs per day is detailed in Table 3.5 on the following page.

Table 3.5: Blue Route Timetable

Time at the Stop								
Prairie du Chien	Lynxville	Ferryville	De Soto	Genoa	De Soto	Ferryville	Lynxville	Prairie du Chien
5:25 AM	5:43 AM	5:59 AM	6:12 AM	6:31 AM	6:52 AM	7:05 AM	7:21 AM	7:41 AM
8:25 AM	8:43 AM	8:59 AM	9:12 AM	9:31 AM	9:52 AM	10:05 AM	10:21 AM	10:41 AM
1:25 PM	1:43 PM	1:59 AM	2:12 PM	2:31 PM	2:52 PM	2:05 PM	2:21 PM	2:41 PM
5:25 PM	5:43 AM	5:59 AM	6:12 PM	6:31 PM	6:52 PM	6:05 PM	6:21 PM	6:41 PM

Note: All route mileage and travel times determined by Google Maps Software

Costs

The cost to operate one roundtrip service of the blue route from Prairie du Chien to Genoa and back, a distance of 83.6 miles, is estimated at $133.76. Running two roundtrips each day would result in an estimated total daily cost of $267.52. As discussed, it is important to weigh the cost and benefit of this route, considering the commuter data alone does not provide as much support for this route. However, when considering the potential positive impact that this transit option may provide to other users, there are more benefits to people in this part of the region.

3.6 Cost Comparison

As discussed above, there are different costs associated with serving different portions of the study area with transit options. Each of the routes identified are intended to transport people to different destinations at various times of the day. These costs will be broken down in a later section to identify the potential fares charged per route, which provides a better understanding of the effectiveness of the proposed options. This also helps to determine how efficient the cost is for the distance of each route traveled and for the number of people it is serving.

A cost summary of all of the proposed route service options is presented in Table 3.6 below.

Table 3.6: Summary of Route Miles and Costs

Route	Miles per Round-trip Route	Estimated Cost Per Roundtrip	Estimated Cost for 2 Round-Trips per Day	Estimated Cost for 4 Round-Trips per Day
Servie Option 1: Orange Route	66.0	$105.60	$211.20	$422.40
Service Option 2: Pink Route	108.2	$173.12	$346.24	$692.48
Service Option 3: Red Route	69.1	$110.56	$221.12	$442.24
Service Option 4: Purple Route	69.1	$110.56	$221.12	$442.24
Service Option 5: Blue Route	83.6	$133.76	$267.52	$534.04

3.7 Proposed Route Packages

This feasibility study looks at the demand for accessible, reliable commuter transit within the planning area. While a service options that includes around-the-clock access to any location is ideal, there may be a need to look at phasing or alternative options to get a program started. The options outlined in the previous section identify those routes that see the most potential demand and could support a successful commuter bus service. The route options were intended to be set up as different "packages" depending on availability of funding and demand at the beginning of the project. This study looks at each of the alternative routes and identifies two service "packages" based on a two-bus system and a four-bus system. As each route or system becomes more successful, more buses could be added to these routes, or other "add-on" routes to develop a more comprehensive transit system throughout the region. The two service packages identified here would provide alternatives and allow the participating entities to evaluate the advantages and disadvantages of each scenario. This helps to evaluate alternatives based on local needs, funding levels, and other applicable factors. It is important to note that these routes could be combined in a number of different configurations with various timings and frequencies to be catered to different groups. Any established program will also likely be tweaked as it is tested in a real-time scenario to ensure success of the overall program and to meet the needs of potential users throughout the region.

Two-Bus Scenario: Orange and Pink Routes

In order to implement an introductory program, a two-bus system could be utilized to reach the highest pool of riders and efficiency within the study area. AS discussed in the previous section, the pink and orange routes provide back-and-forth trips through the largest population centers. Because of their potential ability to reach the highest volume of people over the distance, they are most financially for feasible to use when initiating a new service.

Combined, these routes cover the all but the west side of Crawford and Vernon Counties with service to La Crosse, Prairie du Chien, Viroqua, and numerous smaller communities. This two-bus scenario would cost an estimated $774.72 to operate on a daily bus as the routes are proposed.

Notable about this potential package scenario is that service is not provided in eastern or western Vernon County, or western Crawford County, but instead focuses on the interior of the counties in the primary travel corridors. This package should likely be considered as the first phase of a long-term plan to add other route and service options to the region to establish a comprehensive transit package. See Map 3.6 for a visual display of the two-bus scenario on the following page.


La Crosse
Onalaska
Onalaska
French Island
LA CROSSE COUNTY
I-90
U.S. 14/61
35
Coon Valley
162
Stoddard
Chaseburg
U.S. 14/61
Westby
VERNON COUNTY
Ontario
33
131
82
La Farge
U.S. 14/61
Genoa
56
Viroqua
35
56
Viola
131/U.S. 61
27
131
82
Readstown
De Soto
27
Soldiers Grove
131
U.S. 61
Ferryville
171
Mount Sterling
Gays Mills
171
35
Bell Center
CRAWFORD COUNTY
Lynxville
131
U.S. 61
27
179
Steuben
35
Eastman
27
Wauzeka
60
Prairie du Chien
2-Bus Option Scenario
Route Option 1: Orange
Route Option 2: Pink
N
W
E
S
0
2.5
5 Miles
Date Modified: August 25, 2010
vierbicher
planners | engineers | advisors

Four-Bus Scenario with Red, Purple, Pink, and Blue Routes

As a more comprehensive alternative to the two-bus scenario, a four-bus system would provide greater effectiveness and a more complete transit package for the region. By combining the red, purple, pink and blue routes (route options 2, 3, 4 and 5), significantly greater coverage is created throughout the region with an enhanced ability to serve a more rural population in the western portions of Vernon and Crawford Counties.

Operation of the four-bus scenario costs more than twice as much per day, at an estimated $1,750.84, compared to the two-bus scenario. However, the advantages of reaching a much broader pool of potential riders with the four-bus scenario are evident. This scenario may also be completed in phases depending on the priorities identified at the time a service is established, or as funding becomes available. See Map 3.7 for a visual display of the four-bus scenario.

Rather than providing a back-and-forth route between Viroqua and La Crosse, this service package includes the two looping routes between these two cities, thereby optimizing the attractiveness and effectiveness of transit to potential users.

The blue route is also added to this service package, which travels between Prairie du Chien and La Crosse along the Highway 35 corridor on the western side of the region. While not likely to provide a substantial number of commuting trips, this is a more attractive route for other types of riders, particularly those traveling for medical trips or recreation and tourism users.

Throughout the remainder of this study, this four-bus scenario is identified as the preferred scenario, and all cost analysis will be based on operating the system in this manner. If a single route (orange) is preferred to the two northern looping routes, the ridership estimations, costs and fares would need to be re-visited based on funding availability.


La Crosse
LA CROSSE COUNTY
Onalaska
Onalaska
French Island
I-90
U.S. 14/61
Coon Valley
Stoddard
Chaseburg
Westby
VERNON COUNTY
Ontario
La Farge
Genoa
Viroqua
Viola
Readstown
De Soto
Soldiers Grove
Ferryville
Gays Mills
Mount Sterling
Bell Center
CRAWFORD COUNTY
Lynxville
Steuben
Eastman
Wauzeka
Prairie du Chien
131/U.S. 61
U.S. 61
4-Bus Option Scenario
Route Option 2: Pink
Route Option 3: Red
Route Option 4: Purple
Route Option 5: Blue
0 2.5 5 Miles
Date Modified: August 25, 2010
vierbicher

4. Ridership Estimation of Proposed Service Options

In order to quantify the service options and evaluate their potential success in serving transit needs throughout the study area, potential ridership for each service option was estimated, and other levels of service parameters, as well as costs and benefits for each option, were explored. Estimated ridership values can help determine potential revenue and quantify the benefits of improved connections for commuters, the elderly and disabled, and other individuals in the study area. Ridership and revenue values, viewed in conjunction with other cost-benefit and level of service scenarios for each route, assist in selecting the most appropriate route service options for a transit program.

Using 2000 U.S. Census Transportation Planning Package commuter flow data, as well as U.S. Census demographic data and the principles of travel demand, ridership was estimated for each proposed route service option and for travel between each pair of municipalities served by the proposed route options. Ridership was estimated for commuters based on an approach that determined the percentage of individuals living in the various communities that were likely transit riders and applied these percentages to the commuter flow data observed for work related travel between pairs of municipalities.

Ridership calculations were determined using two different scenarios, and the final figures represent an optimistic determination of the number of likely commuters who would use the service assuming it is offered at the appropriate times and transports these individuals to their destination of choice. This means that the determinations of ridership are not tied to the specific times and frequency proposed in the previous section for the proposed route service options. Rather, the ridership estimates represent the projected ridership among commuters on a transit line providing optimum service to access their places of work. Projected ridership would only reach these levels if the service parameters, such as stop location and arrival time, meet the riders' needs (work location and work start/end time).

Scenario 1

Scenario 1 includes an estimation of ridership based on individuals living within the boundaries of cities and villages only where stops are proposed. The assumption is that these individuals will be able to more easily access the transit stops located in their communities. Table 4.1 on the following page displays final ridership estimates for each of the proposed route service options as estimated under Scenario 1.

It is important to note that all projections are one-way trips. For the purposes of estimating ridership, it is assumed that all commuters would make two one-way trips per day on a transit service, the first from home to work, and the second to return home.

Table 4.1: Estimated Ridership among Commuters for Proposed Route Service Options for Scenario 1

Route	Estimated Ridership Among Commuters Each Way On Morning and Late Afternoon Return Service
Service Option 1: Orange Route	32.62
Service Option 2: Pink Route	9.47
Service Option 3: Red Route	23.51
Service Option 4: Purple Route	19.82
Service Option 5: Blue Route	2.56

Scenario 2

Scenario 2 expanded the potential pool of riders to include not only likely transit-riding commuters residing within the boundaries of cities and villages located along the proposed route service options, but also those within adjacent rural township areas that could access the transit service. Establishing transit services for this population is one of the primary goals of this feasibility study, and cooperation with existing transit providers, along with the ability to identify stop locations with park-and-ride areas, will promote use of this service. The estimations in Scenario 2 were made due to the large number of individuals observed traveling from rural township areas to cities and villages in the study area for work purposes. These riders needed to be included in the analysis to give a more comprehensive estimate of potential ridership and show the difference in potential ridership if people outside of the immediate communities are able to utilize this service.

Under this scenario, it is assumed that these individuals would travel from their home via a personal vehicle and utilize a park-and-ride facility located at a city or village serving as a stop along the proposed route service options. Another option for these commuters is to use an existing transit service to make the connecting trip from their home to a stop location if a service is available to them. The details of connections with existing providers are further discussed in a later section of this document. The assumption is that these individuals would use one of the proposed route service options to travel the remainder of the route to their destination once they got to the stop location nearest their home.

Since the pool of potential riders was expanded to include township areas, the township areas likely to use the transit based on proximity to city and village centers had to be determined. Certain township areas that were beyond the assumed distance that an individual would travel via personal vehicle to make a park-and-ride connection, or located in such a place that commuter travel is unlikely along the routes established in the proposed route service options, were excluded. Townships were paired with adjacent cities and villages where transit stops are proposed based on the travel patterns of these individuals. For instance, commuters from the Town of Viroqua were assumed to use the stop in the City of Viroqua to access the transit service and make a connection to their place of employment anywhere to the west or south of Viroqua.

With the inclusion of commuters within township areas as potential riders, ridership estimates for Scenario 2 are notably increased. Table 4.2 below displays final ridership estimates for each of the proposed route service options as estimated under Scenario 2.

Table 4.2: Estimated Ridership among Commuters for Proposed Route Service Options for Scenario 2

Route	Estimated Ridership Among Commuters Each Way On Morning and Late Afternoon Return Service
Service Option 1: Orange Route	60.99
Service Option 2: Pink Route	34.95
Service Option 3: Red Route	57.76
Service Option 4: Purple Route	41.10
Service Option 5: Blue Route	5.94

It is important to note that the data available only allows these calculations to be based on potential commuters. Any additional ridership due to medical, personal, recreational or other trips are not forecasted in these calculations, and would increase the total number of potential riders. Also, because this study is focused on commuters, all calculations have been established on a baseline of two round-trips made per day, per route. Additional midday routes that may be attractive to other types of riders are not included in this forecast. A thorough marketing plan and strong relationships with commuters, existing transit providers, and other organizations in need of or providing transit service could affect final ridership figures.

A more detailed discussion of the methodology used and key assumptions made to establish the estimation of ridership for both scenarios is located in Appendix 2 for reference. This outline, prepared by Professor Jessica Guo of the University of Wisconsin – Madison, identifies the detailed steps and analysis that were completed to establish these forecasts.

5. Cost and Revenue Analysis

Having established estimated ridership forecasts, cost and revenue projections for each proposed route service option can be made. These projections and analyses are based on the preferred service option of a four-bus scenario, as outlined in Section 3.7. Additionally, information gathered from the Wisconsin Department of Transportation on the potential amount of public funding through a combination of state and federal sources, and thus the possible amount to be covered by local match and passenger revenue, allows for the comparison of all of the route options to determine appropriateness and feasibility.

Any of the proposed service options presented here that operate in both Vernon and Crawford Counties require financial support from both Vernon and Crawford Counties. Vernon and Crawford Counties, as well as the City of La Crosse and La Crosse County stand to gain various economic benefits by bringing this type of transit service to the region. These benefits revolve around being able to attract and bring employees to employers within the counties, provide residents with access to employment so they can continue to maintain current residency, and allow individuals to access other goods and services thereby promoting local economic growth.

Funding from WisDOT has the potential to reach 65 percent of the total annual costs of the transit program, from a combination of funds through the federal 53.11 and state 85.20 programs. The remaining 35 percent of total annual costs must be covered by a combination of passenger revenue and local matching funds. These percentages can be applied to projected ridership figures to determine projected revenue, necessary passenger fares, and other parameters displayed on the following pages.

5.1 Detailed Route Costs

Table 5.1 below provides a summary of the overall operating costs for each route. Table 5.2 on the following page identifies the base cost of each individual route per year based on the estimate operating cost of $1.60 per mile. These routes are broken down by individual stops and costs calculated based on distance traveled. The operating cost for one round-trip of each route is then multiplied by four, ***based on the assumption that each route makes four trips per day and operates five days per week*** not to include Saturdays or Sundays. These assumptions are made for the benefit of getting a program started. As a new program is deemed successful and demand increases, additional routes or days may be added. Table 5.1 identifies the cost per route in order to easily understand the financial implications or adding or removing routes throughout the week.

Table 5.1 Route Cost Summary Assuming Four Round-trips per Day

Route	Per One-Way Trip	Daily	Weekly	Annually
Red	$110.56	$442.24	$2,211.20	$114,982.40
Purple	$110.56	$442.24	$2,211.20	$114,982.40
Blue	$66.88	$535.04	$2,675.20	$139,110.40
Pink	$119.68	$505.44	$2,527.20	$151,632.00
	$407.68	$1,924.96	$9,624.80	$520,707.20

Table 5.1 Route Cost Analysis

		A	B	C	D	E	F	G	H	I	J	K	L
		Minutes	**Miles**	**Cost per Gallon of Gas**	**Miles per Gallon**	**Cost for Commuter to Drive**	**Cost for Commuter to Drive Roundtrip**	**Cost Per Mile**	**Cost for Segment**	**One-Way Runs Per Day**	**Cost Per Day**	**Cost Per Week**	**Cost Per Year**
Red	Genoa to Stoddard	12	6	$2.75	23	$0.72	$1.43	$1.60	$9.60	4	$38.40	$192.00	$9,984.00
	Stoddard to La Crosse	19	10.6	$2.75	23	$1.27	$2.53	$1.60	$16.96	4	$67.84	$339.20	$17,638.40
	La Crosse to Coon Valley	20	16	$2.75	23	$1.91	$3.83	$1.60	$25.60	4	$102.40	$512.00	$26,624.00
	Coon Valley to Westby	12	9.6	$2.75	23	$1.15	$2.30	$1.60	$15.36	4	$61.44	$307.20	$15,974.40
	Westby to Viroqua	14	7.4	$2.75	23	$0.88	$1.77	$1.60	$11.84	4	$47.36	$236.80	$12,313.60
	Viroqua to Genoa	25	19.5	$2.75	23	$2.33	$4.66	$1.60	$31.20	4	$124.80	$624.00	$32,448.00
									$110.56		**$442.24**	**$2,211.20**	**$114,982.40**
		Minutes	**Miles**	**Cost per Gallon of Gas**	**Miles per Gallon**	**Cost to Drive One-Way**	**Cost for Roundtrip**	**Cost Per Mile**	**Cost for Segment**	**One-Way Runs Per Day**	**Cost Per Day**	**Cost Per Week**	**Cost Per Year**
Purple	Viroqua to Westby	14	7.4	$2.75	23	$0.88	$1.77	$1.60	$11.84	4	$47.36	$236.80	$12,313.60
	Westby to Coon Valley	12	9.6	$2.75	23	$1.15	$2.30	$1.60	$15.36	4	$61.44	$307.20	$15,974.40
	Coon Valley to La Crosse	20	16	$2.75	23	$1.91	$3.83	$1.60	$25.60	4	$102.40	$512.00	$26,624.00
	La Crosse to Stoddard	19	10.6	$2.75	23	$1.27	$2.53	$1.60	$16.96	4	$67.84	$339.20	$17,638.40
	Stoddard to Genoa	12	6	$2.75	23	$0.72	$1.43	$1.60	$9.60	4	$38.40	$192.00	$9,984.00
	Genoa to Viroqua	25	19.5	$2.75	23	$2.33	$4.66	$1.60	$31.20	4	$124.80	$624.00	$32,448.00
									$110.56		**$442.24**	**$2,211.20**	**$114,982.40**
		Minutes	**Miles**	**Cost per Gallon of Gas**	**Miles per Gallon**	**Cost to Drive One-Way**	**Cost for Roundtrip**	**Cost Per Mile**	**Cost for Segment**	**One-Way Runs Per Day**	**Cost Per Day**	**Cost Per Week**	**Cost Per Year**
Blue	Prairie du Chien to Lynxville	18	15	$2.75	23	$1.79	$3.59	$1.60	$24.00	8	$192.00	$960.00	$49,920.00
	Lynxville to Ferryville	14	8.3	$2.75	23	$0.99	$1.98	$1.60	$13.28	8	$106.24	$531.20	$27,622.40
	Ferryville to De Soto	11	7.3	$2.75	23	$0.87	$1.75	$1.60	$11.68	8	$93.44	$467.20	$24,294.40
	De Soto to Genoa	17	11.2	$2.75	23	$1.34	$2.68	$1.60	$17.92	8	$143.36	$716.80	$37,273.60
									$66.88		**$535.04**	**$2,675.20**	**$139,110.40**
		Minutes	**Miles**	**Cost per Gallon of Gas**	**Miles per Gallon**	**Cost to Drive One-Way**	**Cost for Roundtrip**	**Cost Per Mile**	**Cost for Segment**	**One-Way Runs Per Day**	**Cost Per Day**	**Cost Per Week**	**Cost Per Year**
Pink	Mt. Sterling to Gays Mills	8	5.4	$2.75	23	$0.65	$1.29	$1.60	$8.64	5	$43.20	$216.00	$11,232.00
	Gays Mills to Soldiers Grove	11	7.4	$2.75	23	$0.88	$1.77	$1.60	$11.84	5	$59.20	$296.00	$15,392.00
	Soldiers Grove to Readstown	9	5.3	$2.75	23	$0.63	$1.27	$1.60	$8.48	5	$42.40	$212.00	$11,024.00
	Readstown to Viroqua	18	11.3	$2.75	23	$1.35	$2.70	$1.60	$18.08	5	$90.40	$452.00	$23,504.00
	Viroqua to Mt. Sterling	28	20.7	$2.75	23	$2.48	$4.95	$1.60	$33.12	1	$33.12	$165.60	$8,611.20
	Mt. Sterling to Eastman	15	12.5	$2.75	23	$1.49	$2.99	$1.60	$20.00	6	$120.00	$600.00	$31,200.00
	Eastman to Prairie du Chien	16	12.2	$2.75	23	$1.46	$2.92	$1.60	$19.52	6	$117.12	$585.60	$30,451.20
									$119.68		**$505.44**	**$2,527.20**	**$151,632.00**

Table 5.3 utilizes the cost estimates developed in Table 5.2 and incorporates the projected ridership of each route to identify associated costs based on the percentage estimations for funding. Assuming 65 percent of annual costs are covered by a combination of state and federal sources, the remaining 35 percent is determined and presented as the amount required to be covered by local match and passenger revenue. The last column in this table, colored orange, suggests the amount required from passenger revenue, based on an assumption of fifteen percent of total annual costs, which is comparable to other similar programs based on input from WisDOT. This fifteen percent is part of the total 35 percent required from local matches in funding.

Given the project costs of each route, couple with the assumption of operating four routes per day, five days per week, the estimated annual operating cost for the entire four-bus system is projected to be $500,489. Of this total, 65 percent that could potentially be funded by WisDOT programs equals approximately $325,318. The local required match, equaling 35 percent of total costs, is estimated to be $175,171.

Of this 35 percent, approximately 15 percent should be collected by passenger fares, or about $75,073. This means that approximately $100,000 would need to be raised for local matching funds. These estimates can easily be revised based on the assumptions made regarding number of annual trips made by each route.

Table 5.3 Projected Ridership and Cost Information

	Projected Ridership - Scenario 1 (Municipal Population Only)		Projected Ridership - Scenario 2 (Including Township Population)		Cost Information					
Route	**Projected Number of One-Way Commuter Trips per Day Along the Route**	**Projected Annual Ridership (Number of One-Way Passenger Trips)**	**Projected Number of One-Way Commuter Trips per Day**	**Projected Annual Ridership (Number of One-Way Passenger Trips)**	**Estimated Daily Cost (Assumes four round-trips per day at $1.60 per mile)**	**Estimated Weekly Cost (Assumes operating 5 days per week)**	**Estimated Annual Cost (Assumes 260 days of operation per year)**	**Anticipated Funding from State and Federal Sources (65% of total annual costs)**	**Local Match Required (35% of total annual costs)**	**Suggested Annual Passenger Revenue (15% of total annual costs)**
Pink Route	18.94	4,924.40	69.9	18,174.00	$505.44	$2,527.20	$131,414.40	$85,419.36	$45,995.04	$19,712.16
Red Route	47.02	12,225.20	115.52	30,035.20	$442.24	$2,211.20	$114,982.40	$74,738.56	$40,243.84	$17,247.36
Purple Route	39.64	10,306.40	82.20	21,372.00	$442.24	$2,211.20	$114,982.40	$74,738.56	$40,243.84	$17,247.36
Blue Route	5.12	1,331.20	11.88	3,088.80	$535.04	$2,675.20	$139,110.40	$90,421.76	$48,688.64	$20,866.56
Four-Bus Scenario (All Routes Operating)	110.72	28,787.20	279.5	72,670.00	$1,924.96	$9,624.80	$500,489.60	$325,318.24	$175,171.36	$75,073.44

5.2 Funding Calculations

Tables 5.4 through 5.7 on the following pages present an analysis of fares and anticipated local funds required for match under four different scenarios of ridership, which are all based on the assumptions outlined in the previous section regarding number of routes and trips taken annually. All four tables present identical information, but with differing ridership projections.

Table 5.4 presents ridership as it is estimated and reported in this study in Section 4. As stated earlier, these projections are optimistic and are based on the assumption that the proposed routes can get all of the people to their intended destination at the right time. Since this service is new, it is unlikely that this ridership projection will be reached in early phases of implementation. The subsequent three tables are all identical to Table 5.4, but present the information based on 25, 50, and 75 percent reductions in ridership, respectively. Each table begins with a summary of "Baseline Information and Projections," displaying annual cost, local match required (35 percent of total annual costs), amount needed from passenger revenue (15 percent of total annual costs), and projected number of one-way passenger trips per year. Following this baseline summary section, five different fare scenarios are presented for each set of prjoections based on $2, $3, $4, $5 and $6 one-way charges. The "Break Even" scenario shows the average trip fare required, assuming the estimated level of ridership, in order to have passenger revenue equal 15 percent of total annual costs.

Each of the subsequent fare scenarios display the amount in passenger fares that the service could potentially earn at the average per one-way trip fare level, assuming the estimated number of riders all rode the service and could be accounted for. It is evident that as the average one-way trip passenger fare increases, the amount that the service is able to earn in passenger revenue increases, and thus the amount of local match funds required decreases. In some cases, negative numbers are displayed in the cells under the "Anticipated Final Local Funds Needed for Match," meaning that at that passenger fare and ridership level, the service earns more in passenger revenue than the total 35 percent of annual costs that is necessary to be covered locally. In this case of high passenger revenue, WisDOT will decrease funding levels accordingly, which means funding is provided for less than the anticipated 65 percent of total annual costs.

Table 5.4 Fare Analysis: Baseline Ridership Projection

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Baseline Information & Projections				"Break-Even" Trip Fare		$2.00 Charge (One-Way)		$3.00 Charge (One-Way)		$4.00 Charge (One-Way)		$5.00 Charge (One-Way)		$6.00 Charge (One-Way)	
Route	Annual Cost	Local Match Required (35% of total annual costs)	Amount Needed from Passenger Revenue (15% of total annual costs)	Annual Projected Ridership (Number of One-Way Passenger Trips)	Required Passenger Fare Per One-Way Passenger Trip to Equal 15% of Total Costs	Anticipated Annual Local Funds Needed for Match	Potential Annual Passenger Revenue	Anticipated Annual Local Funds Needed for Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match
Projected Ridership Scenario 1 - Municipal Population Only																
Pink Route	$131,414.40	$45,995.04	$19,712.16	4,924.40	$4.00	$26,282.88	$9,848.80	$36,146.24	$14,773.20	$31,221.84	$19,697.60	$26,297.44	$24,622.00	$21,373.04	$29,546.40	$16,448.64
Red Route	$114,982.40	$40,243.84	$17,247.36	12,225.20	$1.41	$22,996.48	$24,450.40	$15,793.44	$36,675.60	$3,568.24	$48,900.80	-$8,656.96	$61,126.00	-$20,882.16	$73,351.20	-$33,107.36
Purple Route	$114,982.40	$40,243.84	$17,247.36	10,306.40	$1.67	$22,996.48	$20,612.80	$19,631.04	$30,919.20	$9,324.64	$41,225.60	-$981.76	$51,532.00	-$11,288.16	$61,838.40	-$21,594.56
Blue Route	$139,110.40	$48,688.64	$20,866.56	1,331.20	$15.68	$27,822.08	$2,662.40	$46,026.24	$3,993.60	$44,695.04	$5,324.80	$43,363.84	$6,656.00	$42,032.64	$7,987.20	$40,701.44
All 4 Routes Operating	$500,489.60	$175,171.36	$75,073.44	28,787.20	$2.61	$100,097.92	$57,574.40	$117,596.96	$86,361.60	$88,809.76	$115,148.80	$60,022.56	$143,936.00	$31,235.36	$172,723.20	$2,448.16
Projected Ridership Scenario 2 - Including Township Population																
Pink Route	$131,414.40	$45,995.04	$19,712.16	18,174.00	$1.08	$26,282.88	$36,348.00	$9,647.04	$54,522.00	-$8,526.96	$72,696.00	-$26,700.96	$90,870.00	-$44,874.96	$109,044.00	-$63,048.96
Red Route	$114,982.40	$40,243.84	$17,247.36	30,035.20	$0.57	$22,996.48	$60,070.40	-$19,826.56	$90,105.60	-$49,861.76	$120,140.80	-$79,896.96	$150,176.00	-$109,932.16	$180,211.20	-$139,967.36
Purple Route	$114,982.40	$40,243.84	$17,247.36	21,372.00	$0.81	$22,996.48	$42,744.00	-$2,500.16	$64,116.00	-$23,872.16	$85,488.00	-$45,244.16	$106,860.00	-$66,616.16	$128,232.00	-$87,988.16
Blue Route	$139,110.40	$48,688.64	$20,866.56	3,088.80	$6.76	$27,822.08	$6,177.60	$42,511.04	$9,266.40	$39,422.24	$12,355.20	$36,333.44	$15,444.00	$33,244.64	$18,532.80	$30,155.84
All 4 Routes Operating	$500,489.60	$175,171.36	$75,073.44	54,496.00	$1.38	$100,097.92	$108,992.00	$66,179.36	$163,488.00	$11,683.36	$217,984.00	-$42,812.64	$272,480.00	-$97,308.64	$326,976.00	-$151,804.64

Table 5.5 Fare Analysis: Baseline Ridership Projection Minus 25%

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Baseline Information & Projections				"Break-Even" Trip Fare		$2.00 Charge (One-Way)		$3.00 Charge (One-Way)		$4.00 Charge (One-Way)		$5.00 Charge (One-Way)		$6.00 Charge (One-Way)	
Route	Annual Cost	Local Match Required (35% of total annual costs)	Amount Needed from Passenger Revenue (15% of total annual costs)	Annual Projected Ridership (Baseline Minus 25%)	Required Passenger Fare Per One-Way Passenger Trip to Equal 15% of Total Costs	Anticipated Annual Local Funds Needed for Match	Potential Annual Passenger Revenue	Anticipated Annual Local Funds Needed for Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match
Projected Ridership Scenario 1 - Municipal Population Only																
Pink Route	$131,414.40	$45,995.04	$19,712.16	3,693	$5.34	$26,282.88	$7,386.60	$38,608.44	$11,079.90	$34,915.14	$14,773.20	$31,221.84	$18,466.50	$27,528.54	$22,159.80	$23,835.24
Red Route	$114,982.40	$40,243.84	$17,247.36	9,169	$1.88	$22,996.48	$18,337.80	$21,906.04	$27,506.70	$12,737.14	$36,675.60	$3,568.24	$45,844.50	-$5,600.66	$55,013.40	-$14,769.56
Purple Route	$114,982.40	$40,243.84	$17,247.36	7,730	$2.23	$22,996.48	$15,459.60	$24,784.24	$23,189.40	$17,054.44	$30,919.20	$9,324.64	$38,649.00	$1,594.84	$46,378.80	-$6,134.96
Blue Route	$139,110.40	$48,688.64	$20,866.56	998	$20.90	$27,822.08	$1,996.80	$46,691.84	$2,995.20	$45,693.44	$3,993.60	$44,695.04	$4,992.00	$43,696.64	$5,990.40	$42,698.24
All 4 Routes Operating	$500,489.60	$175,171.36	$75,073.44	21,590	$3.48	$100,097.92	$43,180.80	$131,990.56	$64,771.20	$110,400.16	$86,361.60	$88,809.76	$107,952.00	$67,219.36	$129,542.40	$45,628.96
Projected Ridership Scenario 2 - Including Township Population																
Pink Route	$131,414.40	$45,995.04	$19,712.16	13,631	$1.45	$26,282.88	$27,261.00	$18,734.04	$40,891.50	$5,103.54	$54,522.00	-$8,526.96	$68,152.50	-$22,157.46	$81,783.00	-$35,787.96
Red Route	$114,982.40	$40,243.84	$17,247.36	22,526	$0.77	$22,996.48	$45,052.80	-$4,808.96	$67,579.20	-$27,335.36	$90,105.60	-$49,861.76	$112,632.00	-$72,388.16	$135,158.40	-$94,914.56
Purple Route	$114,982.40	$40,243.84	$17,247.36	16,029	$1.08	$22,996.48	$32,058.00	$8,185.84	$48,087.00	-$7,843.16	$64,116.00	-$23,872.16	$80,145.00	-$39,901.16	$96,174.00	-$55,930.16
Blue Route	$139,110.40	$48,688.64	$20,866.56	2,317	$9.01	$27,822.08	$4,633.20	$44,055.44	$6,949.80	$41,738.84	$9,266.40	$39,422.24	$11,583.00	$37,105.64	$13,899.60	$34,789.04
All 4 Routes Operating	$500,489.60	$175,171.36	$75,073.44	40,872	$1.84	$100,097.92	$81,744.00	$93,427.36	$122,616.00	$52,555.36	$163,488.00	$11,683.36	$204,360.00	-$29,188.64	$245,232.00	-$70,060.64

Table 5.6 Fare Analysis: Baseline Ridership Projection Minus 50%

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Baseline Information & Projections				"Break-Even" Trip Fare		$2.00 Charge (One-Way)		$3.00 Charge (One-Way)		$4.00 Charge (One-Way)		$5.00 Charge (One-Way)		$6.00 Charge (One-Way)	
Route	Annual Cost	Local Match Required (35% of total annual costs)	Amount Needed from Passenger Revenue (15% of total annual costs)	Annual Projected Ridership (Baseline Minus 50%)	Required Passenger Fare Per One-Way Passenger Trip to Equal 15% of Total Costs	Anticipated Annual Local Funds Needed for Match	Potential Annual Passenger Revenue	Anticipated Annual Local Funds Needed for Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match
Projected Ridership Scenario 1 - Municipal Population Only																
Pink Route	$131,414.40	$45,995.04	$19,712.16	2,462	$8.01	$26,282.88	$4,924.40	$41,070.64	$7,386.60	$38,608.44	$9,848.80	$36,146.24	$12,311.00	$33,684.04	$14,773.20	$31,221.84
Red Route	$114,982.40	$40,243.84	$17,247.36	6,113	$2.82	$22,996.48	$12,225.20	$28,018.64	$18,337.80	$21,906.04	$24,450.40	$15,793.44	$30,563.00	$9,680.84	$36,675.60	$3,568.24
Purple Route	$114,982.40	$40,243.84	$17,247.36	5,153	$3.35	$22,996.48	$10,306.40	$29,937.44	$15,459.60	$24,784.24	$20,612.80	$19,631.04	$25,766.00	$14,477.84	$30,919.20	$9,324.64
Blue Route	$139,110.40	$48,688.64	$20,866.56	666	$31.35	$27,822.08	$1,331.20	$47,357.44	$1,996.80	$46,691.84	$2,662.40	$46,026.24	$3,328.00	$45,360.64	$3,993.60	$44,695.04
All 4 Routes Operating	$500,489.60	$175,171.36	$75,073.44	14,394	$5.22	$100,097.92	$28,787.20	$146,384.16	$43,180.80	$131,990.56	$57,574.40	$117,596.96	$71,968.00	$103,203.36	$86,361.60	$88,809.76
Projected Ridership Scenario 2 - Including Township Population																
Pink Route	$131,414.40	$45,995.04	$19,712.16	9,087	$2.17	$26,282.88	$18,174.00	$27,821.04	$27,261.00	$18,734.04	$36,348.00	$9,647.04	$45,435.00	$560.04	$54,522.00	-$8,526.96
Red Route	$114,982.40	$40,243.84	$17,247.36	15,018	$1.15	$22,996.48	$30,035.20	$10,208.64	$45,052.80	-$4,808.96	$60,070.40	-$19,826.56	$75,088.00	-$34,844.16	$90,105.60	-$49,861.76
Purple Route	$114,982.40	$40,243.84	$17,247.36	10,686	$1.61	$22,996.48	$21,372.00	$18,871.84	$32,058.00	$8,185.84	$42,744.00	-$2,500.16	$53,430.00	-$13,186.16	$64,116.00	-$23,872.16
Blue Route	$139,110.40	$48,688.64	$20,866.56	1,544	$13.51	$27,822.08	$3,088.80	$45,599.84	$4,633.20	$44,055.44	$6,177.60	$42,511.04	$7,722.00	$40,966.64	$9,266.40	$39,422.24
All 4 Routes Operating	$500,489.60	$175,171.36	$75,073.44	27,248	$2.76	$100,097.92	$54,496.00	$120,675.36	$81,744.00	$93,427.36	$108,992.00	$66,179.36	$136,240.00	$38,931.36	$163,488.00	$11,683.36

Table 5.7 Fare Analysis: Baseline Ridership Projection Minus 75%

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	Baseline Information & Projections				"Break-Even" Trip Fare		$2.00 Charge (One-Way)		$3.00 Charge (One-Way)		$4.00 Charge (One-Way)		$5.00 Charge (One-Way)		$6.00 Charge (One-Way)	
Route	Annual Cost	Local Match Required (35% of total annual costs)	Amount Needed from Passenger Revenue (15% of total annual costs)	Annual Projected Ridership (Baseline Minus 75%)	Required Passenger Fare Per One-Way Passenger Trip to Equal 15% of Total Costs	Anticipated Annual Local Funds Needed for Match	Potential Annual Passenger Revenue	Anticipated Annual Local Funds Needed for Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match	Potential Annual Passenger Revenue	Anticipated Final Annual Local Funds Needed to Match
Projected Ridership Scenario 1 - Municipal Population Only																
Pink Route	$131,414.40	$45,995.04	$19,712.16	1,231	$16.01	$26,282.88	$2,462.20	$43,532.84	$3,693.30	$42,301.74	$4,924.40	$41,070.64	$6,155.50	$39,839.54	$7,386.60	$38,608.44
Red Route	$114,982.40	$40,243.84	$17,247.36	3,056	$5.64	$22,996.48	$6,112.60	$34,131.24	$9,168.90	$31,074.94	$12,225.20	$28,018.64	$15,281.50	$24,962.34	$18,337.80	$21,906.04
Purple Route	$114,982.40	$40,243.84	$17,247.36	2,577	$6.69	$22,996.48	$5,153.20	$35,090.64	$7,729.80	$32,514.04	$10,306.40	$29,937.44	$12,883.00	$27,360.84	$15,459.60	$24,784.24
Blue Route	$139,110.40	$48,688.64	$20,866.56	333	$62.70	$27,822.08	$665.60	$48,023.04	$998.40	$47,690.24	$1,331.20	$47,357.44	$1,664.00	$47,024.64	$1,996.80	$46,691.84
All 4 Routes Operating	$500,489.60	$175,171.36	$75,073.44	7,197	$10.43	$100,097.92	$14,393.60	$160,777.76	$21,590.40	$153,580.96	$28,787.20	$146,384.16	$35,984.00	$139,187.36	$43,180.80	$131,990.56
Projected Ridership Scenario 2 - Including Township Population																
Pink Route	$131,414.40	$45,995.04	$19,712.16	4,544	$4.34	$26,282.88	$9,087.00	$36,908.04	$13,630.50	$32,364.54	$18,174.00	$27,821.04	$22,717.50	$23,277.54	$27,261.00	$18,734.04
Red Route	$114,982.40	$40,243.84	$17,247.36	7,509	$2.30	$22,996.48	$15,017.60	$25,226.24	$22,526.40	$17,717.44	$30,035.20	$10,208.64	$37,544.00	$2,699.84	$45,052.80	-$4,808.96
Purple Route	$114,982.40	$40,243.84	$17,247.36	5,343	$3.23	$22,996.48	$10,686.00	$29,557.84	$16,029.00	$24,214.84	$21,372.00	$18,871.84	$26,715.00	$13,528.84	$32,058.00	$8,185.84
Blue Route	$139,110.40	$48,688.64	$20,866.56	772	$27.02	$27,822.08	$1,544.40	$47,144.24	$2,316.60	$46,372.04	$3,088.80	$45,599.84	$3,861.00	$44,827.64	$4,633.20	$44,055.44
All 4 Routes Operating	$500,489.60	$175,171.36	$75,073.44	13,624	$5.51	$100,097.92	$27,248.00	$147,923.36	$40,872.00	$134,299.36	$54,496.00	$120,675.36	$68,120.00	$107,051.36	$81,744.00	$93,427.36

5.3 Economic Benefit of Transit

In order to assess the attractiveness of public transit services for potential riders, it is necessary to look at the actual cost for commuters to travel these routes on their own. Assuming gas costs $2.75 per gallon, and the average fuel efficiency of a personal vehicle is 23 miles per gallon, the average cost to use a personal vehicle is estimated at 11.9 cents per mile. That means that a 30-mile trip in a personal vehicle costs $3.57. Therefore, charging any amount less than that for a transit ride makes this option financially attractive. There are other factors that must also be attractive, including pick-up location and times, and drop-off location and times, convenience, along with the need and ease of any transfers.

Tables 5.8 and 5.9 on the following page present total mileage between destinations served by the proposed transit services, as well as the cost to drive a personal vehicle between these pairs of municipalities, based on a cost assumption of $2.75 per gallon of gasoline and a vehicle that averages 23 mile per gallon. These tables provide a cost comparison to look at when considering the attractiveness of public transit from a financial perspective and determining fare rates for each individual route.

It is not uncommon for existing service providers to charge between $5 and $10 per one-way trip, so $6 was used as the ceiling for these calculations. The more attractive the system can be financially, the more ridership numbers are likely to increase. Also, it is important to note that these calculations are averages for all of the riders on all of the routes. It would be beneficial for the system to charge fares based on distance traveled, so the longer trips would charge more than the average, and the shorter ones less. For example, the ride from Prairie du Chien to La Crosse should charge more than the ride from Gays Mills to Viroqua.

The cost to operate each route is $1.60 per mile. If 15 percent is to be recovered by passenger fares based on previous calculations, the anticipated fare recovery would be $0.24 per mile. However, this amount would be divided amongst all ridership, not per person. Assuming 12 people are riding in a 12-person van at any one time, potential minimum rates for each municipal pair would be based on recovering $0.02 per mile per rider through fares. Because some routes will see higher ridership than others, the additional revenues on some routes will help to compensate for reduced revenues on more inefficient routes. Also, these projections make some assumptions about ridership. As discussed previously, these ridership projections may be optimistic for a new program. While this calculation provides a minimum fare requirement, the actual fare charge will need to be substantially higher.

As identified on Tables 5.4 through 5.7, most ridership projection scenarios fall comfortably into an average fair charge of between $3.00 and $4.00 per one-way trip. This is a reasonable charge that would be more attractive to potential users than existing services. Because this service is targeted for commuters, it is important to remember that round-trips will typically be required, and the trips will occur more often than those of elderly or recreational trips. Therefore the fare charge should be lower than a standard fee charged by other specialty services.

Table 5.8 One-Way Trip Miles Between Destinations

	Ending Point La Crosse	Coon Valley	Westby	Viroqua	Reedstown	Soldiers Grove	Gays Mills	Mount Sterling	Eastman	PDCH	Lynxville	Ferryville	De Soto	Genoa	Stoddard
Starting Point															
La Crosse	0	16	25.6	33	44.3	49.6	51	45.6	55.4	58.4	43.4	35.1	27.8	16.6	10.6
Coon Valley	16	0	9.6	17	28.3	33.6	41	37.7	50.2	62.4	46.5	38.1	31	19.8	14
Westby	25.6	9.6	0	7.4	18.7	24	31.4	28.1	40.6	52.8	38.3	38.6	32	26.9	23.6
Viroqua	33	17	7.4	0	11.3	16.6	24	20.7	33.2	45.4	30.9	31.2	24.6	19.5	25.5
Reedstown	44.3	28.3	18.7	11.3	0	5.3	12.7	18.1	30.6	42.8	28.3	28.6	30.1	30.8	36.8
Soldiers Grove	49.6	33.6	24	16.6	5.3	0	7.4	12.8	25.3	37.5	23	23.3	30.6	36.1	41.1
Gays Mills	51	41	31.4	24	12.7	7.4	0	5.4	17.9	30.1	15.6	17.9	23.2	43.5	48.5
Mount Sterling	45.6	37.7	28.1	20.7	18.1	12.8	5.4	0	12.5	24.7	10.2	10.5	17.8	29	35
Eastman	55.4	50.2	40.6	33.2	30.6	25.3	17.9	12.5	0	12.2	12.2	20.5	27.8	39	45
PDCH	58.4	62.4	52.8	45.4	42.8	37.5	30.1	24.7	12.2	0	15	23.3	30.6	41.8	47.8
Lynxville	43.4	46.5	38.3	30.9	28.3	23	15.6	10.2	12.2	15	0	8.3	15.6	26.8	32.8
Ferryville	35.1	38.1	38.6	31.2	28.6	23.3	17.9	10.5	20.5	23.3	8.3	0	7.3	18.5	24.5
De Soto	27.8	31	32	24.6	30.1	30.6	23.2	17.8	27.8	30.6	15.6	7.3	0	11.2	17.2
Genoa	16.6	19.8	26.9	19.5	30.8	36.1	43.5	29	39	41.8	26.8	18.5	11.2	0	6
Stoddard	10.6	14	23.6	25.5	36.8	41.1	48.5	35	45	47.8	32.8	24.5	17.2	6	0

Table 5.9 Cost For Commuter to Drive; One-Way Trip

	Ending Point La Crosse	Coon Valley	Westby	Viroqua	Reedstown	Soldiers Grove	Gays Mills	Mount Sterling	Eastman	PDCH	Lynxville	Ferryville	De Soto	Genoa	Stoddard
Starting Point															
La Crosse	$0.00	$1.91	$3.06	$3.95	$5.30	$5.93	$6.10	$5.45	$6.62	$6.98	$5.19	$4.20	$3.32	$1.98	$1.27
Coon Valley	$1.91	$0.00	$1.15	$2.03	$3.38	$4.02	$4.90	$4.51	$6.00	$7.46	$5.56	$4.56	$3.71	$2.37	$1.67
Westby	$3.06	$1.15	$0.00	$0.88	$2.24	$2.87	$3.75	$3.36	$4.85	$6.31	$4.58	$4.62	$3.83	$3.22	$2.82
Viroqua	$3.95	$2.03	$0.88	$0.00	$1.35	$1.98	$2.87	$2.48	$3.97	$5.43	$3.69	$3.73	$2.94	$2.33	$3.05
Reedstown	$5.30	$3.38	$2.24	$1.35	$0.00	$0.63	$1.52	$2.16	$3.66	$5.12	$3.38	$3.42	$3.60	$3.68	$4.40
Soldiers Grove	$5.93	$4.02	$2.87	$1.98	$0.63	$0.00	$0.88	$1.53	$3.03	$4.48	$2.75	$2.79	$3.66	$4.32	$4.91
Gays Mills	$6.10	$4.90	$3.75	$2.87	$1.52	$0.88	$0.00	$0.65	$2.14	$3.60	$1.87	$2.14	$2.77	$5.20	$5.80
Mount Sterling	$5.45	$4.51	$3.36	$2.48	$2.16	$1.53	$0.65	$0.00	$1.49	$2.95	$1.22	$1.26	$2.13	$3.47	$4.18
Eastman	$6.62	$6.00	$4.85	$3.97	$3.66	$3.03	$2.14	$1.49	$0.00	$1.46	$1.46	$2.45	$3.32	$4.66	$5.38
PDCH	$6.98	$7.46	$6.31	$5.43	$5.12	$4.48	$3.60	$2.95	$1.46	$0.00	$1.79	$2.79	$3.66	$5.00	$5.72
Lynxville	$5.19	$5.56	$4.58	$3.69	$3.38	$2.75	$1.87	$1.22	$1.46	$1.79	$0.00	$0.99	$1.87	$3.20	$3.92
Ferryville	$4.20	$4.56	$4.62	$3.73	$3.42	$2.79	$2.14	$1.26	$2.45	$2.79	$0.99	$0.00	$0.87	$2.21	$2.93
De Soto	$3.32	$3.71	$3.83	$2.94	$3.60	$3.66	$2.77	$2.13	$3.32	$3.66	$1.87	$0.87	$0.00	$1.34	$2.06
Genoa	$1.98	$2.37	$3.22	$2.33	$3.68	$4.32	$5.20	$3.47	$4.66	$5.00	$3.20	$2.21	$1.34	$0.00	$0.72
Stoddard	$1.27	$1.67	$2.82	$3.05	$4.40	$4.91	$5.80	$4.18	$5.38	$5.72	$3.92	$2.93	$2.06	$6.00	$0.00

5.4 WisDOT Rural Transit Systems Funding

Discussions with WisDOT officials reveals the details of the process of applying for and securing funds to help financially support a new transit service in the region. Applications for both state and federal transit aid are due **October 15** for a combination of funds from federal 53.11 and state 85.20 sources. WisDOT notes that the level of combined state and federal financial support for applicants has been 65% of total costs for the past several years, and it is anticipated that funding will reach this level again for 2011.

In order to ensure that the maximum amount of financial assistance can be secured, either the City of Prairie du Chien or the City of Viroqua must be the sponsor on the application. That is, counties are not eligible for the state sources of funding. According to the Wisconsin Department of Transportation, 2/3 of the transit system miles must be within the "urban area" participating in the program. In the case of the proposed routes in this feasibility study, the majority of the miles are within Crawford and Vernon Counties, and thus these counties are deemed the program's "urban area" and must contribute in a meaningful way to the program in local match dollars, and participate in the program, in order to be assured state funding. WisDOT holds that any unit of government contributing funding is part of the of "urban area."

The application will include space where the sponsor must denote the percent sources of local match funds, and confirmation of these local match funds must be confirmed by WisDOT before funding is finalized. The amount of funds contributed by local match sources should be reflective of the benefit that is received by the match source from the transit service. No specific minimum amount must be given by a local match source for them to benefit and be involved in the transit service, although Wisconsin DOT states that "token contributions" are not allowed and the Wisconsin DOT reserves the right to accept or deny local match funding sources.

After receiving applications on October 15, WisDOT conducts budget, program, and other reviews of the proposals on-site, and finalizes budget numbers used for funding distribution. This process will happen from **November 2010 until January 2011**. In **March and April of 2011**, funding amounts will be finalized in order to determine the amounts of federal and state assistance awarded to each recipient. Contracts are issued in this time period for state and federal assistance to those receiving funding. State funds are paid automatically, while federal funds are paid quarterly in conjunction with quarterly program progress reports. **March 2011**, therefore, is a logical start date for any new transit service established. It is recommended that the new transit service use existing vehicles for a limited-scope service in year one, and then put the program out for bid to be operated by a private transit operator for more expanded service after year one.

State payments are made in the following manner: 25% in April (or as soon as the distribution is complete), 25% in July, 25% in October and 15% of the contract amount the following January. The other 10% is withheld pending audit, which is done by WisDOT staff once every 2 or 3 years.

The following are important expectations of the program sponsor to remember, according the Wisconsin DOT:

- Complete application and file with WisDOT prior to October 15
- Assure availability of local share (portion of costs not covered by WisDOT's state and federal contracts and passenger fares). Local share cannot include any Federal Transit Administration funds, but all other sources of funds are eligible, including public funds and private funds
- Perform any necessary procurement and contracting duties
- Pay contractor and bill WisDOT for reimbursement

6. Logistics & General Considerations

Section 3 of this feasibility study outlines five proposed service options for commuter bus service in southwestern Wisconsin. These proposed options identify different routes serving various areas of the region, proposed times and frequencies for each route, potential costs, and alternatives or modifications for each option. In addition to all of these individual components, there are many other considerations that need to go into identifying and implementing a package for commuter transit services. A discussion of these items is below, with additional details and recommendations incorporated into the Implementation Plan in Section 7.

6.1 Transferring Between Systems

There are a number of existing service providers, as discussed in Section 2, which can assist riders by making connections with proposed stops along these routes. It is not feasible for any transit system to pick people up in all areas of the region, but there are people in all areas that need access to reliable transportation services. As part of the recommendations, particular portions of the planning area may need to be picked up and transferred in order to offer these services to everyone that needs them. Since the counties have different agencies available, all of which have varying responsibilities and availability, different providers will be able to cover different portions of the region, thereby having the ability to connect people from the entire study area to their nearest stop location.

One of the details that must be addressed in the implementation of a system is how, logistically, these transfers occur. They must be simple, seamless, and not create any confusion in order to be successful. The elderly population, in particular, will require a very clear process and instruction for transferring between systems in order to be willing to use it. If there are any complicated processes or undue costs associated with these transfers, they will not be utilized and therefore not attract the people that could most benefit from the service. This transfer does not only entail the physical transfer of people between different vehicles, but also the cost sharing for rides between different service providers.

Transfers between these service providers should be made at any of the identified stop locations along the established routes in order to minimize delays of the schedule.

Transfers between different transit services need to be convenient, particularly for the elderly population and the potential commuters who are on restricted schedules. If agreeable, all entities offering public transportation services could allow passengers to purchase transfer ride passes if they are connecting to another service. The cost for the transfer ride pass would equal the cost of using all of the services that the rider wishes to connect with for that particular day, and could be used for roundtrip service.

For instance, a rider looking to take the new transit service to Viroqua but lives in Steuben will need to be picked up in Wauzeka by a separate provider and delivered to the pick-up location in Gays Mills. This person could be charged one fare and issued a day transfer ticket. This ticket would be good for outgoing service on the Crawford County service to Eastman from their

home, a transfer to the new transit system for travel to Viroqua, as well as a return trip on both services for the trip home. The cost of the transfer ticket would reflect the total cost of all four legs of the journey, and the transfer ticket would clearly state the trip routes and segments it is eligible to be used for so as to not allow for the abuse of the ticket. The ticket would be good for one trip on that particular day on each leg of the journey, so the rider is allowed to travel at any time in the day.

In order for all services to be able to issue transfer tickets that allow for cross connections, the services must have knowledge of each other's routes and fares, and must be amenable to a high level of cooperation. Services will also have to be able to keep track of ridership and divide revenue appropriately on a regular basis based on how trips were made. This is particularly important for ridership and revenue reporting purposes with the Wisconsin Department of Transportation. It is recommended that all transit service that are willing to engage in cooperative transferring and ticketing coordinate before implementation of the transit service with the private transit service operator to establish a plan of cooperation and operating agreement.

6.2 Stopping Locations

One of the primary goals of a transit system is to get people to the right destinations at the right time. While proposed stop locations are identified for each route, it is important the system maintain the flexibility to add, remove or revise stop locations based on demand. These locations may depend on who is utilizing the service and where they need to go, businesses that do or do not want to advocate the use of the system by their employees, or events that may be occurring in different locations. As tweaks are made to stop locations, it is very important to communicate any proposed changes with patrons that are riding the system. Reliability is of utmost concern to maintain ridership and increase the possibility of success. If the system becomes unreliable, or people have not been informed of changes, the patronage is likely to be negatively affected.

This section details proposed stop locations in the three largest cities in the region: La Crosse, Prairie du Chien, and Viroqua. These locations were chosen with the goal of bringing riders to areas with large concentrations of adjacent employment and other services, as well as connections to local transit services. Stop locations in the smaller cities and villages along the proposed routes are not specifically defined here. These stops should be located at convenient and accessible sites within the community, and provide safe and comfortable accommodations to the greatest extent possible for potential riders. Stops should also be located adjacent to parking facilities so that routes may attract potential "park-and-ride" transit users. There are funds available through WisDOT specifically for establishing these types of facilities.

Ideas for potential park-and-ride style stop locations include hospitals, libraries, community parks, grocery stores, and the like. These stop locations would ideally have an indoor area for passengers to wait in the cold winter months, and should also be located at sites easily accessible to the transit bus.

Communication with business owners, municipal officials, or whoever owns the parking lots is necessary to ensure appropriate approvals are in place for use of the parking lot. Parking lot and building owners should be agreeable to passengers using indoor spaces as waiting areas, parking and leaving cars in their lot for an extended period of time, and the operation and idling of vans and taxis in the parking area during passenger pick-up and drop-off. These agreements need to be negotiated prior to use of the facility and implementation of the service.

One specific requirement for the stop proposed for the new Grand River Transit Center in the City of La Crosse is that a process for determining logistics must be conducted with the La Crosse Municipal Transit Utility (MTU) for the use of the transit center as a stop location. Details on moving forward with this process can be gained by contacting the MTU Transit Manager, Keith Carlson, at 608-789-7350. Maps 6.1 through 6.4 on the following pages identify the proposed stop locations in each City, which are also provided in the table below. In addition to these stops, locations need to be identified in each of the other communities along the routes. These communities include:

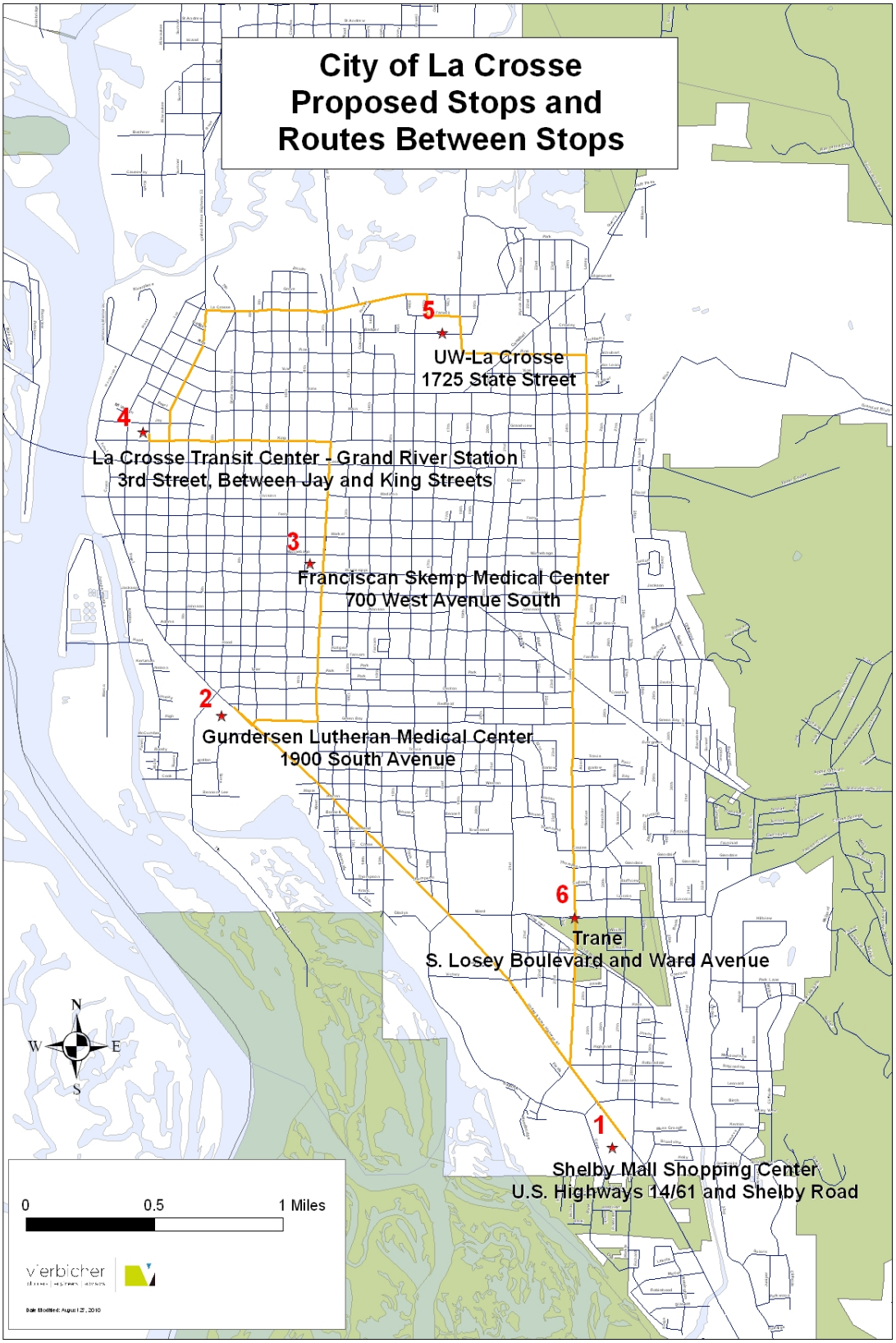
- Coon Valley
- Westby
- Readstown
- Soldiers Grove
- Gays Mills
- Mount Sterling
- Eastman
- Lynxville
- De Soto
- Genoa

Table 6.1. Proposed Stop Locations in Cities of Prairie du Chien, Viroqua, and La Crosse

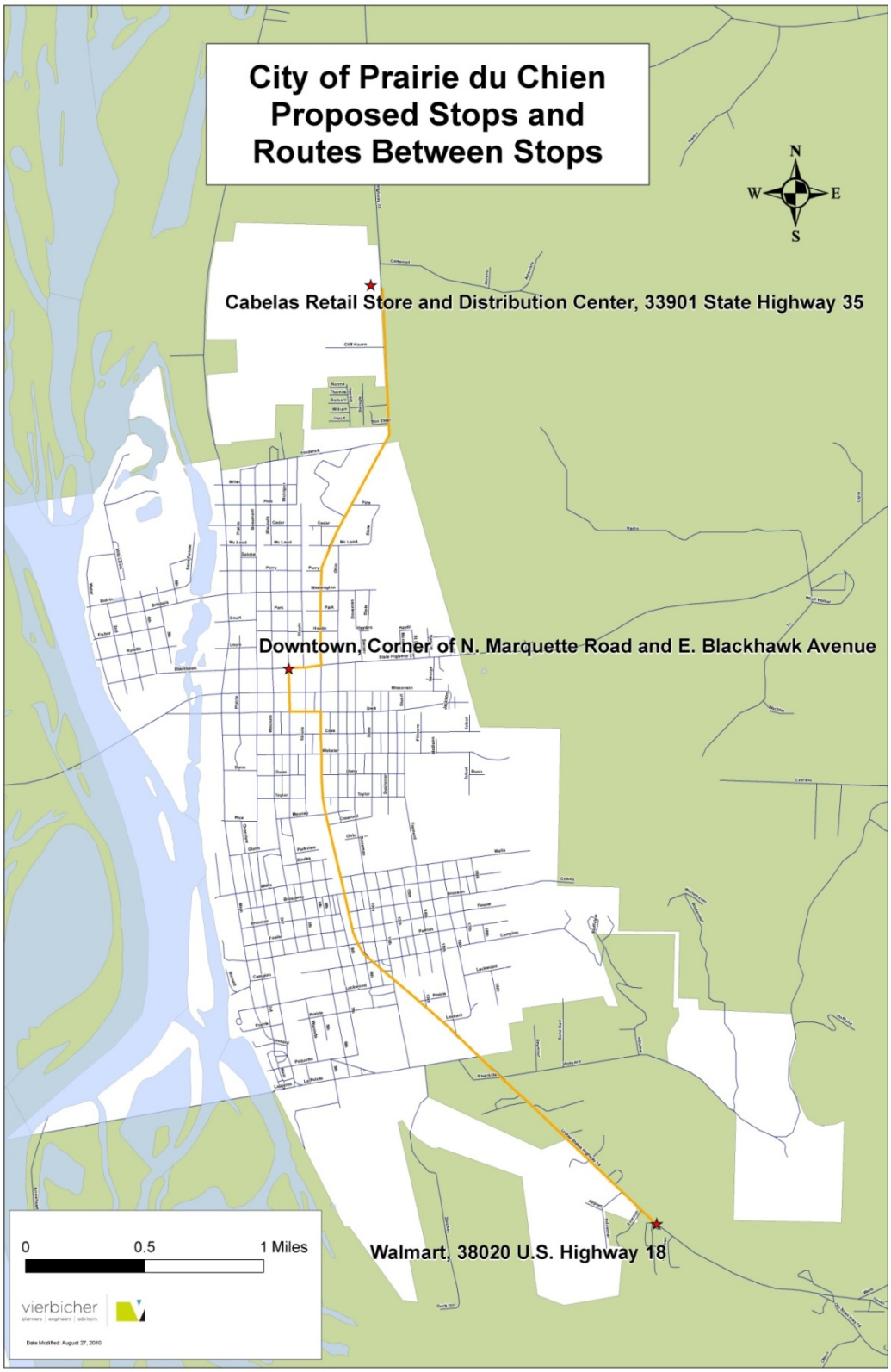
City of Prairie du Chien	Cabela's	33901 State Hwy 35
	Downtown	E. Blackhawk Ave
	Walmart	38020 US Hwy 18
City of Viroqua	Vernon Memorial Hospital	507 South Main Street
	Viroqua Village Market	1230 North Main Street
City of La Crosse	Shelby Mall Shopping Center	U.S. Highways 14/61 and Shelby Road
	Gundersen Lutheran Medical Center	1900 South Ave
	Franciscan Skemp Medical Center	700 West Avenue South
	La Crosse Transit Center – Grand River Station	3rd Street, Between Jay and King
	UW – La Crosse	1725 State Street
	TRANE	S. Lose Blvd and Ward Ave

Map 6.1. Overall Proposed Stop Locations

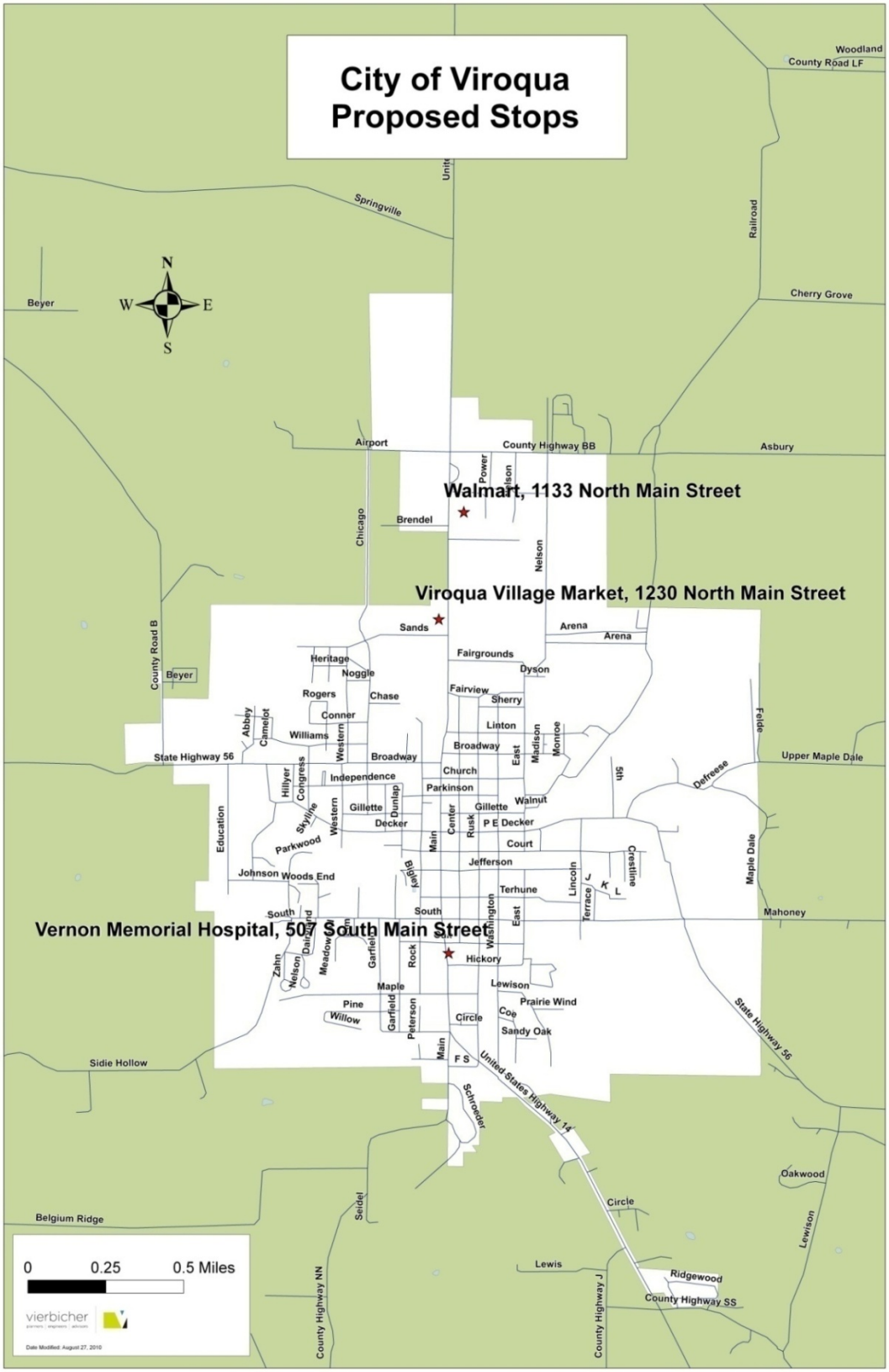
Map 6.2. Proposed Stop Locations and Routes Between Stops in La Crosse



Map 6.3. Proposed Stop Locations and Routes Between Stops in Prairie du Chien



Map 6.4. Proposed Stop Locations in Viroqua



6.3 Days of Operation

The number of days that each route operates per year will have an impact on ultimate ridership rates, types of riders served, operating costs and revenues. However, this is a very flexible factor depending on how much funding is available for a program and the change in demand as the service begins to operate. It may be appropriate to have alternative routes on the weekends or additional mid-day routes to accommodate more of the potential recreation and tourism riders. However, many of the employers that would utilize this service do not operate on standard business hours. Many manufacturing facilities and retailers operate on non-standard shift hours, thereby creating demand at times not consistent with peak commuting traffic. They also provide shifts on the weekends, thereby creating demand seven days per week instead of only five. All detailed projections and assumptions in this study recommend the initial service be established five days per week, with the opportunity to expand to seven days in the future based on success and demand of the service.

If additional routes are added for weekend days, they should not only accommodate non-standard employment hours, but also encourage additional use for tourists by establishing non-standard location stops. As discussed in Section 2, this region has a number of amenities that attract visitors from outside of the area. Special stops at these locations, such as recreational areas or agri-business sites, would encourage tourism and economic growth within the area. Regional events could also be promoted through the use of special transit trips specifically for those destinations.

6.4 Balancing Cost with Effectiveness

Portions of this feasibility study analyze the cost of proposed route options along with possible ridership that may be attracted to each of the routes. These factors allow any system to be compared to the others based on how effective there are. Basically, is the system supporting as many riders as possible when compared to the costs that are going into operating it? Shorter routes that carry higher numbers of riders will be more efficient, financially, than longer routes that only carry a few riders.

However, the basis for making recommendations about service options cannot rely alone on these costs and rider comparisons. The intent of this study is to develop opportunities for connecting jobs and employees in an area of the state that is largely rural and where there is a need to provide transportation to people who don't currently have access to it. While some of the proposed service options may not be as efficient as others, that doesn't mean that they don't create a substantial benefit for the people who utilize them. There are many qualitative standards for efficiency and effectiveness outside of the pure numbers, which always need to be balanced when establishing or modifying a system.

6.5 Ticket Purchasing

Purchasing tickets for this transit service must be convenient and straightforward to attract and retain riders. The cost for a transit trip will vary depending on the distance traveled by that trip and potentially will vary based on time of day. Riders should be able to purchase tickets as they

board the bus, or have a method of purchasing a frequent user pass through an online method. The transit operator will likely have a method for taking care of passenger boarding and ticketing, either through an automated machine that accepts fares based on intended destination, or through personal fare collection. Whatever the method used, it is essential for different riders to be able to enter and exit the transit service at different stops and be able to purchase tickets in a timely manner.

6.6 Supplementing Existing Transit Providers

Proposed transit service should be viewed as a supplemental service designed to work with, and not replace, existing transit services in the area. Existing programs including the Vernon and Crawford Counties Unit on Aging Mini Bus service, the newly created Highway 33 Express service, and various local taxi services all provide valuable transportation to individuals in need throughout the region. With the operation of a new transit option in the region, these existing services should re-direct their resources to areas and riders not covered by the new service. This means existing programs, particularly the mini-bus programs, should focus on providing service to elderly and disabled riders in rural township areas throughout Vernon and Crawford Counties. Particular areas of concentrations should be eastern Vernon County and eastern Crawford County, where fixed schedule route coverage is lacking with the new transit service.

New regional transit services allows the Vernon County Unit on Aging to redirect and potentially save resources and increase ridership by offering connecting service from places of residence in rural Vernon County into Viroqua, Westby, or any nearby stop. These individuals would then use the new transit service to make the trip to La Crosse, or other destinations in the region. The Unit on Aging currently offers a mini-bus service and volunteer driver program. A new transit service could allow the Unit on Aging to use the mini-bus to offer service from fixed points in more rural parts of Vernon County where a transit stop does not exist to stops along the new proposed routes. In addition, volunteer drivers currently doing work for the Unit on Aging might be able to offer personal transportation to transit stops for individuals to transfer to the new transit service and access medical and other appointments instead of taking these individuals directly to their appointments in other communities.

One area of particular concentration should be eastern Vernon County, an area uncovered by the new transit service. This includes the Villages of Viola, La Farge, and areas to the east. This area should be looked at as a potentially important area in offering connecting service for individuals seeking to ride the transit service.

With new regular service, existing service providers could lessen the number of long-distance trips to regional destinations and instead focus on providing connecting trips for area residents. This will allow the mini-bus service to be able to reach more potential riders with a series of shorter trips, potentially leading to cost savings and increased ridership.

Furthermore, existing taxi companies operating in Vernon and Crawford County by Running, Inc. may be able to establish a niche in offering connecting service from outlying areas to transit stop locations.

6.7 Marketing

A strong marketing effort geared towards commuters is necessary to ensure the success of the transit program, especially initially when people are just beginning to become familiar with it. Recommendations for marketing the new service include:

- Develop a relationship and communicate with local employers. Contact local employers through Chambers of Commerce, the UW-Extension Economic Development Office, or through a local business organization. These organizations can provide the gateway to employers of the new transit program, its benefits to their business, and ways the employers can become involved in the transit service. Additional details discussed below.
- *Make promotional materials accessible*. Promotional materials should be provided at key regional locations where they are readily accessible, such as libraries, hospitals, government buildings, post offices, senior facilities, or other public locations for individuals to pick up.
- *Get the media involved.* Local newspaper and radio advertising will pique curiosity and interest about a new program, and typically, these sources are eager to distribute new information about such opportunities.
- *Leverage existing service providers.* Marketing the service to potential riders using it for personal and medical reasons involves leveraged existing services to help inform. Existing services provide valuable transit to elderly, disabled, and other individuals for personal and medical reasons across the region. Having these providers be champions of the new transit service and inform riders of the routes and the potential connections and routes that will be made will help riders adjust to the situation of the new transit service working in an integrated fashion with existing providers. Existing service providers will act as important liaisons between any new transit service and the elderly, disabled, or other users that they currently serve. They must have the necessary information to make the integration of all service as successful as possible.

6.8 Connecting with Employers

Establishing relationships with employers located near proposed stop locations is important to generate riders and develop a successful transit program. While this study and proposed service is targeted for commuters, it is important that employers be supportive and encouraging of their employees using the transit service to make connections to and from work. While the service will not be able to accommodate every employer and all of their employee's schedules, there are a number of ways that operators of the program could work with these employers to create an effective transit system. Some of these cooperative efforts could include:

- *Establishing a discounted bus pass program*. Under such a program, an employer could offer their employees a bus pass at a discounted rate. Depending on negotiations, the bus service provider may be able to offer these passes to employers at a reduced rate, or the employer would pay the difference.

- *Providing flexible work shifts*. It is important for the employers to work with their employees to provide flexibility in starting and ending times for standard work shifts. For example, if an employer understands that an employee typically starts their shift at 8:00, but the commuter bus does not arrive until 8:15, arrangements can be agreed upon between the two parties to start their shift accordingly. The same is true if there are weather delays or other unforeseen circumstances that occur due to the use of the commuter bus system.
- *Marketing the program*. As part of larger marketing efforts, promotional materials should be developed and distributed to employers. A marketing piece targeted to this audience should explain the system and stress the benefits of becoming involved in the program. Benefits include improved worker morale, reduced financial burden and access to a larger pool of workers with enhanced transportation options. A separate marketing piece should be developed that employers, regardless of whether they provide assistance, can provide to their employees to promote the use of public transportation and the new system.

6.9 Vehicle Types and Amenities

As discussed earlier in this study, it is recommended that the system utilize leased vehicles for at least the first year of operation. This provides that ability to change or up-grade vehicles without the expense of purchasing if the transit system should require different or larger vehicles after implementation. It is important for insurance purposes that no 19-person vans are ever used within the system. There are safety concerns regarding these vehicles and very difficult to obtain proper insurance coverage on. For the purposes of getting a system started, a 12-person van is recommended for each route. Any transit vehicle that operates should be safe, clean, comfortable, well ventilated, and accessible to different types of riders.

A positive user experience is particularly important for "choice" riders and recreation riders who have an alternative means of transportation but choose to use the transit service for financial or other reasons. One specific amenity to consider is providing means for transporting bicycles on the transit service. This was mentioned by several potential riders as a desired amenity of the service so that they can use their bicycle to make connections once they reached their destination.

7. Implementation Plan

The implementation plan is intended to combine all of the actionable items outlined in this feasibility study and organize them into more manageable pieces. These items then identify an action item, the time frame, and parties involved. This information in the following tables is intended to create a road map towards the potential implementation of a new transit service explored throughout this document.

Implementation Plan: Southwest Wisconsin Commuter Bus Program			
#	**Action Item**	**Timeframe / Deadline**	**Parties Involved**
Funding			
1	Prepare application materials for WisDOT funding.	10/15/2010	City of PDCH; La Crosse Co.
2	Identify preferred route and fare amounts to determine overall operating costs of proposed system. This is largely based on the funding matches secured and financial assistance provided by WisDOT programs.	Fall 2010	Municipalities; Counties; RPC
3	Develop a promotional bulleting targeted to businesses to promote the system and solicit private funding.	Fall 2010	All
4	Contact individual business owners or managers and meet with them to introduce and discuss the new program - distribute promotional materials.	Fall/Winter 2010	All
5	Draft a template contract for private funds, including businesses, bio-fuel representatives, etc.	Fall/Winter 2010	All
6	Negotiate and obtain written commitments from businesses that are interested in partnerships or funding.	Fall/Winter 2010	TCC
7	Draft a template resolution for municipalities to adopt to commit funding.	Fall 2010	TCC
8	Meet with individual municipalities regarding system and neogiate potential funding; provide template resolution for adoption.	Fall/Winter 2010	All
9	Establish a cost-sharing system and promote with employers to reduce cost of transit for employees. Develop contract template to prepare written agreements for program users.	2011	TCC; WisDOT
10	Contact and meet with bio-fuel resource companies and representatives as a potential source of private matching funds.	Winter 2010	All
11	Enter into contract with WisDOT for grant funding of program.	Spring 2011	La Crosse Co.; WisDOT
12	Develop templates for all logs or other methods of recording for annual reports to WisDOT and participating funding sources.	Winter 2010	WisDOT to provide template reports
13	Establish a "Steering Committee" to guide and implement the establishment of the system. Committee should include members of each County Transportation Coordination Committee as well as economic development professionals within the region.	Fall 2010	All
Transferring			
13	Establish a series of meetings between operating agencies to negotiate terms of transfer system. System should address transfer between different routes of the new system, as well as between different service providers. Transfer system should include the following characteristics: 1) No physcial money should be exchanged during transfers; 2) Transfers should bring people to the exact pick-up/drop-off location of the connecting service; 3) No service provider should be expected to wait for another, drop-offs should be made based on the anticipated service times for each stop; 4) A physical record of transfer will be required between systems, whether it be a ticket, punch card, etc; 5) is the transfer voucher a pre-pay or pay-as-you-go system; 6) is the voucher for one-way or round-trip?	Fall/Winter 2010	La Crosse MTU; Aging Units; TCC; City of PDCH; City of Viroqua
14	Draft and execute written agreements between all cooperating agencies that identify all details and provisions, including fee sharing methods and calculations.	Winter 2010	All
15	Once identified, design and print physical transfer vouchers.	Spring 2011	Dept. Workforce Development
16	Create appropriate logs or records to be kept by each service provider.	Spring 2011	WisDOT to provide template reports
Marketing			
17	Develop promotional brochure. Print and distribute materials to public facilities throughout region for distribution.	Spring 2011	TCC w/ assistance from Vernon Co. Aging
18	Develop a public notification and distribute to local and regional newspaper for publication.	Month prior to implementation	TCC

19	Schedule interviews with local and regional radio stations to promote system.	Month prior to implementation	TCC
20	Estabish a website for the service to be linked to by all local municipal and county websites for information and routing schedules.	2012	All
21	Promote and market the bus routes to citizens and employers thrughout regiona.	On-Going	All
22	Develop brochures with routes and route scheduling for public distribution.	Spring 2011	All
Stop Locations			
22	Identfy potential "park and ride" facilities or locations within each municipality along routes.	Fall/Winter 2010	RPC; TCC
23	Meet with property owner for each proposed stop location and negotiate a written agreement to accommodate stop of commuter bus. Written agreement should identify physial location of stop, number of times per day vehicles are making connections, etc.	Winter 2010	Dept. Workforce Development
24	Negotiate and secure written agreements with businesses that request or agree to stop locations for their employees.	Winter 2010	All
25	Identify signage needs for individual stop locations; design, manufacture and install/hang signage.	Spring 2011	Dept. Workforce Development w/ assistance from Vernon Co. Aging
26	Discuss MTU stop location in City of LaCrosse with MTU Manager. Formal application is not required, but coordination regarding timing, signage, number of times per day, etc.	Winter 2010	MTU; TCC; RPC
Contracting Service Provider			
27	Contact existing service providers for cost estimates regarding implemeting service for remainder of 2011.	Winter 2010	City of PDCH; La Crosse Co.; WisDOT
28	Secure written agreemet between proposal sponsor and service provider for service in remainder of 2011.	Winter 2010	City of PDCH
29	Draft RFP for issuance to service providers for 2012 service.	Fall 2011	City of PDCH; WisDOT
30	Issue RFP for service provider for 2012.	Fall 2011	City of PDCH
31	Review responses of RFP process and negotiate contract, if not the same provider as 2011.	Winter 2011	City of PDCH; La Crosse Co.; WisDOT
32	Identify and develop all necessary documentation required by service provider.	Spring 2011	City of PDCH
33	Review all records of service provider regarding ridership and costs on an annual basis to identify demand and utilization of system.	Annually	TCC

Appendix

1 Summary of Public Open House & Feedback

2 Sketch Planning Model for Estimating Commuter Bus Ridership in Crawford, Vernon and La Crosse Counties, Jessica Guo

Appendix 1 : Public Open House and Feedback

The proposed service routes were introduced at two pubic open houses held in the cities of Prairie du Chien and Viroqua on August 18, 2010. The intent of these meetings was to gather feedback on the proposed service options and associated information. A group composed of area residents, municipal officials, transit agency officials, and others attended the two meetings to offer feedback. Maps of the proposed service options were presented, including suggested stop locations, timing, and other logistics. Attendees were asked to complete a questionnaire to gauge their interest and opinions. Results of the public meeting are discussed below and are incorporated appropriately into the final recommendations of the implementation plan.

Route Options

Attendees were supportive with the proposed routes presented. In Viroqua, attendees were particularly interested in the orange, red, and purple routes, or route service options 1, 3, and 4, given the service these routes offered to and from the City of La Crosse. One gentleman was particularly interested in using these routes to access La Crosse for medical and personal appointments, as well as the pink route, route service option 2, to travel to Viroqua from his resident senior living facility in Readstown. For this gentleman, a timely return trip departing La Crosse was important, so that he could travel to a morning appointment in La Crosse and depart La Crosse to return home a few hours later. He commented that senior facilities are located in several of the villages being proposed as stops for the proposed route service options, and these facilities may be logical places for the transit service to pick up passengers.

Another attendee in Prairie du Chien commented that a short deviation from the blue route, route service option 5, to Lansing, Iowa would be beneficial in her using this route for transit purposes. Other attendees indicated that a short deviation from the fixed route transit to stops within one mile or so would help them to connect to the transit service. This would eliminate the need for them to travel all the way to the primary stop locations to access the service. One of the primary goals of cooperating with existing transit providers in the region is to transport people to centralized stop locations in order to benefit residents in more rural areas.

Stop Locations

Proposed stop locations were presented for the three primary destination cities in the study area (i.e., Prairie du Chien, Viroqua, and La Crosse). In La Crosse, the suggested stops at Shelby Mall, the City Transit Center, Gundersen Lutheran and Franciscan Skemp Medical Centers, and University of Wisconsin – La Crosse were agreed to be appropriate initial stops. Attendees also suggested Western Technical College, the La Crosse Airport, and the VA River Valley Medical Clinic as additional appropriate stops. TRANE was also mentioned as a potential stop, considering the natural loop that the bus could take down Losey Avenue to return to the south side of the City when returning to Viroqua.

In Viroqua, additional suggested stops included the Vernon Medical Center, which is centrally located and has an interior space for waiting passengers and parking available nearby. In Prairie du Chien, suggested locations included the Opportunity Center, Design Homes, the 3M

facility, and Prairie du Chien Memorial Hospital. All suggested stop locations were considered and some have been incorporated into the recommendations provided in this study.

General Comments

Of the attendees that completed a written survey, the purpose identified for potentially utilizing the service varied between recreation, personal appointments, commuting purposes, and meetings throughout the region during the work day. In order to serve all of these purposes, it is important that the service provide more than the two baseline trips being discussed in the majority of these scenarios. At least four roundtrip services, or potentially having non-stop service throughout the entire day and evening, would be most beneficial.

Attendees were asked to identify their most preferred traveled route, including the origin and destination. All of the locations identified were included on at least one of the proposed routes. The most common responses included:

- Viroqua to La Crosse
- Prairie du Chien to Gays Mills
- Prairie du Chien to La Crosse
- Prairie du Chien to Viroqua

There were also a variety of responses to a question regarding the attendees' potential frequency of use of this service. Responses ranged from once per month to multiple times per week. A question about the potential fare someone would be willing to pay also provided a large range, starting at $2.00 and ranging to $10 for a round-trip ticket. However, this question was asked of participants without providing information about the cost for a commuter to drive the same route or the fares on comparable systems.

Other general comments included the following:

- A statement from one couple indicating that they would not depend on the transit service as they own their own personal vehicle, but would choose to use the service for travel from rural Viroqua to the City of La Crosse for recreation and personal reasons. This couple would like to see the ability to carry bicycles onto the transit vehicle, as well as the ability to connect with the service anywhere along its route.

- Marketing and outreach of any transit service is of the utmost importance for individuals to learn about the program, and in reaching as many riders as possible.

- One individual active in compressed natural gas vehicles in the La Crosse area suggested looking into funding from Clean Cities of Wisconsin and the Wisconsin Office of Energy Independence, in conjunction with Wisconsin DOT funding, to help establish the transit program.

- An individual from Coulee Cap indicated that her organizations could provide a vital referral service for any transit service created. Coulee Cap could help refer individuals to the transit program who need transportation to work, job interviews, or other activities.

Appendix 2

Sketch Planning Model for Estimating Commuter Bus Ridership in Crawford, Vernon, and La Crosse Counties

Jessica Y. Guo, Ph.D.

Introduction

This memo provides an overview of the methodology developed for estimating the number of commuters using the two bus service option scenarios proposed by Vierbicher.

Data

The primary source of data used for the ridership analysis is the 2000 Census Transportation Planning Package (CTPP). This dataset is chosen for the analysis because it is the most recent data available that provides information, with the desired level of spatial and demographic levels of detail, about the commuter flow pattern within the study region. Other data sources such as the American Community Survey, National Household Travel Survey, and existing local transit ridership data were carefully evaluated. But these data were considered unsuitable for the analysis either because of incomplete geographic coverage or limited sample size.

Scenarios for Analysis

The service areas of the proposed commuter bus service are assumed as follows:

	Residential End	Work End
Scenario #1	Covering all areas defined within the administrative boundaries of the following cities, villages, and towns (CVT) where the commuter buses make stops: • C. Prairie du Chien (C) • V. Eastman (C) • V. Mt. Sterling (C) • V. Gays Mills (C) • V. Soldiers Grove (C) • V. Lynxville (C) • V. Ferryville (C) • V. Readstown (V) • C. Viroqua (V) • C. Westby (V) • V. Coon Valley (V) • V. De Soto (V) • V. Genoa (V) • V. Stoddard (V) • C. La Crosse (L)	Covering all areas defined within the administrative boundaries of the following cities, villages, and towns (CVT) where the commuter buses make stops: • C. Prairie du Chien (C) • V. Eastman (C) • V. Mt. Sterling (C) • V. Gays Mills (C) • V. Soldiers Grove (C) • V. Lynxville (C) • V. Ferryville (C) • V. Readstown (V) • C. Viroqua (V) • C. Westby (V) • V. Coon Valley (V) • V. De Soto (V) • V. Genoa (V) • V. Stoddard (V) C. La Crosse (L)
Scenario #2	The service areas of the CVTs	Same as defined above for

	listed above for Scenario #1 are expanded beyond their respective administrative boundaries to include their neighboring CVTs: • T. Eastman (C) • T. Seneca (C) • V. Mt. Sterling (C) • T. Utica (C) • T. Seneca (C) • V. Gays Mills (C) • T. Utica (C) • T. Haney (C) • T. Clayton (C) • V. Bell Center (C) • V. Soldiers Grove (C) • T. Clayton (C) • V. Lynxville (C) • T. Seneca (C) • V. Ferryville (C) • T. Freeman (C) • V. Readstown (V) • T. Kickapoo (V) • V. Viola (V) • C. Viroqua (V) • T. Viroqua (V) • T. Jefferson (V) • T. Liberty (V) • T. Webster (V) • T. Franklin (V) • C. Westby (V) • T. Christiana (V) • T. Clinton (V) • V. Coon Valley (V) • T. Coon (V) • V. De Soto (V) • T. Wheatland (V) • T. Sterling (V) • V. Genoa (V) • T. Genoa (V) • T. Harmony (V) • V. Stoddard (V) • T. Bergen (V)	Scenario #1.

The above service area definitions imply that:

Key Assumption
• In Scenario #2, commuters residing in the expanded service areas will have the appropriate means of reaching the nearest designated bus stops. This connection would either be made by the commuters' own transportation (e.g. park-and-ride) or be provided through local paratransit service.

- In both Scenarios #1 and #2, commuters will be able to reach their places of employment either by walking or using local transit service once getting off the bus.

Analysis Methodology

Step 1

Determine the income distribution of workers residing in the residential CVTs. This involves taking the CTPP P1-030 table at the county-subdivision level (503243404_P1-030) and calculating the % of workers in each CVT who fall within each of the following four income categories:

FIPSCODE	NAME	Less Than $30,000	$30,000-$49,999	$50,000-$74,999	$75,000 Or More	Sum
65050	C. Prairie du Chien	22.0%	31.4%	27.4%	19.2%	100.0%
21900	V. Eastman	27.1%	37.7%	25.1%	10.1%	100.0%
82925	C. Viroqua	28.0%	34.6%	25.6%	11.9%	100.0%
74550	V. Soldiers Grove	33.3%	38.9%	20.4%	7.4%	100.0%
66450	V. Readstown	50.3%	31.1%	14.1%	4.5%	100.0%

Key Assumption

- The income distribution obtained for year 2000 using the above described method is assumed to represent the current income distribution, despite the fact that the underlying population may have evolved and changed.

Income is considered as a key factor that correlates with mode use.

Step 2

Determine the commute mode split by income category. This is based on the CTPP P3-007 table at the census tract level (80991717_P3-007). The table provides the number of workers by household income by means of transportation to work. The process entails first selecting the tracts that have transit service provided in 2000 (as reflected by a non-zero count of transit users). Then, the mode splits of workers within each income category are aggregated over the selected tracts:

Mode	Less Than $30,000	$30,000-$49,999	$50,000-$74,999	$75,000 Or More
drive alone	68.9%	79.1%	81.3%	71.6%
car pool	10.5%	9.6%	8.0%	10.8%
transit	5.8%	3.1%	2.4%	3.5%
other	14.2%	8.8%	7.5%	13.7%
sum	99.3%	100.5%	99.2%	99.6%

The transit user percentage is then applied to all CVTs in the subsequent analysis process.

Key Assumption

- The mode split percentages obtained for year 2000 using the above described method is assumed to be applicable to the entire study region today, despite the fact that the nature/quality of the service back then could differ from the proposed service and that many of the tract-tract pairs were within the urbanized La Crosse area.

Ideally, we would have liked to develop a mode choice model that explicitly accounts for commuter characteristics *and* service parameters such as in-bus travel time, transfer

time, access time, and access mode. However, no local data was available for estimating such a model. Nor did a search of literature led to a mode choice model of comparable service (mid-long distance commuter bus) and study area of similar characteristics (i.e. non-urban Wisconsin) that could potentially be transferrable to our analysis scenarios.

Step 3

Determine the CVT to CVT commuter flow using the CTPP P3-001 table at the county-subdivision level (2kresmcd_WI). This table provides the total number of workers going from each residential-end CVT to each work-end CVT in year 2000:

	TO				
		C. Prairie du Chien	V. Eastman	C. Viroqua	V. Soldiers Grove
FROM	C. Prairie du Chien	2273	8	0	7
	V. Eastman	90	23	0	0
	C. Viroqua	0	0	1379	25
	V. Soldiers Grove	14	0	21	69

These commuter flows are then applied in the subsequent analysis process.

Key Assumption

- The commuter flows obtained for year 2000 are assumed to represent the current flows, despite any changes in population size/distribution and job market.

The 2000 commuter flows were verified against present commuter flow data collected for selected employers in the region. While a direct comparison cannot be done due to very limited data from present employers, there was no evidence to suggest that the 2000 data was inconsistent with the present setting. Conversion between Kevin White and local planners also indicated that the study area has not undergone any significant changes in population or jobs to render the 2000 data inapplicable.

Step 4

Calculate the number of workers who would use transit to go from each residential-end CVT to each work-end CVT. Taking the Village of Eastman (residential end) and City of Prairie du Chien (work-end) as an example, this involves first dividing the 90 Eastman workers going to Prairie du Chien into four income category (using data from steps 1 and 3):

Less Than $30,000	$30,000-$49,999	$50,000-$74,999	$75,000 Or More
90 X 27.1%=24.4	90 X 37.7%=33.9	90 X 25.1%=22.6	90 X 10.1%=9.0

Then the transit share percentages obtained from step 3 are applied to their corresponding income category:

Less Than $30,000	$30,000-$49,999	$50,000-$74,999	$75,000 Or More
24.4 X 5.8%=1.42	33.9 X 3.1%=1.04	22.6 X 2.4%=0.55	9.0 X 3.5%=0.31

This results in a total of 3.32 commuters from the Village of Eastman that will use transit to go work in the City of Prairie du Chien.

Key Assumption

- The transit user estimates obtained using 2000 data are assumed to apply to current condition without any manual adjustments to account for any demographic/economics changes taken place over the past 10 years.

Step 5

Add up the number of riders for each pairings of CVT-CVT possibly served by the proposed commuter service under the two options and two scenarios. The results for scenario #1 are shown below. Note that the numbers in red are the total number of commuters estimated to use the respective proposed bus route. They represent the estimated ridership for the morning and late afternoon services. Mid-day ridership is outside of the scope of this analysis.

Option A Bus 1			Option A Bus 2			Option B Bus 1			Option B Bus 2			Option B Bus 3			Option B Bus 4		
On	Off	# Riders	On	Off	# Riders			# Riders	On	Off	# Riders	On	Off	# Riders	On	Off	# Riders
Viroqua	Westby	4.79	Mt. Sterling	Gays Mills	0.37	Genoa	Stoddard	0.10	Viroqua	Westby	4.79	Prairie du Chien	Lynxville	0.00	Mt. Sterling	Gays Mills	0.37
Viroqua	Coon Valley	0.00	Mt. Sterling	Soldiers Grove	0.00	Genoa	La Crosse	1.45	Viroqua	Coon Valley	0.00	Prairie du Chien	Ferryville	0.00	Mt. Sterling	Soldiers Grove	0.00
Viroqua	La Crosse	2.45	Mt. Sterling	Readstown	0.00	Genoa	Coon Valley	0.00	Viroqua	La Crosse	2.45	Prairie du Chien	De Soto	0.00	Mt. Sterling	Readstown	0.00
Westby	Coon Valley	0.40	Mt. Sterling	Viroqua	0.20	Genoa	Westby	0.06	Viroqua	Stoddard	0.19	Prairie du Chien	Genoa	0.29	Mt. Sterling	Viroqua	0.20
Westby	La Crosse	5.80	Gays Mills	Soldiers Grove	0.82	Genoa	Viroqua	0.00	Viroqua	Genoa	0.00	Lynxville	Ferryville	0.08	Gays Mills	Soldiers Grove	0.82
Coon Valley	La Crosse	5.47	Gays Mills	Readstown	0.00	Stoddard	La Crosse	7.90	Westby	Coon Valley	0.40	Lynxville	De Soto	0.00	Gays Mills	Readstown	0.00
La Crosse	Coon Valley	0.74	Gays Mills	Viroqua	0.74	Stoddard	Coon Valley	0.07	Westby	La Crosse	5.80	Lynxville	Genoa	0.00	Gays Mills	Viroqua	0.74
La Crosse	Westby	1.36	Soldiers Grove	Readstown	0.27	Stoddard	Westby	0.11	Westby	Stoddard	0.04	Ferryville	De Soto	0.24	Soldiers Grove	Readstown	0.27
La Crosse	Viroqua	3.46	Soldiers Grove	Viroqua	0.81	Stoddard	Viroqua	0.11	Westby	Genoa	0.00	Ferryville	Genoa	0.00	Soldiers Grove	Viroqua	0.81
Coon Valley	Westby	0.82	Readstown	Viroqua	1.62	La Crosse	Coon Valley	0.74	Coon Valley	La Crosse	5.47	De Soto	Genoa	0.15	Readstown	Viroqua	1.62
Coon Valley	Viroqua	0.82	Viroqua	Mt. Sterling	0.00	La Crosse	Westby	1.36	Coon Valley	Stoddard	0.00	Genoa	De Soto	0.00	Viroqua	Mt. Sterling	0.00
Westby	Viroqua	6.52	Viroqua	Eastman	0.00	La Crosse	Viroqua	3.46	Coon Valley	Genoa	0.00	Genoa	Ferryville	0.00	Viroqua	Eastman	0.00
		32.62	Viroqua	Prairie du Chien	0.00	Coon Valley	Westby	0.82	La Crosse	Stoddard	0.00	Genoa	Lynxville	0.00	Viroqua	Prairie du Chien	0.00
			Mt. Sterling	Eastman	0.00	Coon Valley	Viroqua	0.82	La Crosse	Genoa	0.47	Genoa	Prairie du Chien	0.19	Mt. Sterling	Eastman	0.00
			Mt. Sterling	Prairie du Chien	0.56	Westby	Viroqua	6.52	Stoddard	Genoa	0.22	De Soto	Ferryville	0.15	Mt. Sterling	Prairie du Chien	0.56
			Eastman	Prairie du Chien	3.32			23.51			19.82	De Soto	Lynxville	0.00	Eastman	Prairie du Chien	3.32
			Prairie du Chien	Eastman	0.29							De Soto	Prairie du Chien	0.08	Prairie du Chien	Eastman	0.29
			Prairie du Chien	Mt. Sterling	0.00							Ferryville	Lynxville	0.00	Prairie du Chien	Mt. Sterling	0.00
			Prairie du Chien	Gays Mills	0.14							Ferryville	Prairie du Chien	0.27	Prairie du Chien	Gays Mills	0.14
			Prairie du Chien	Soldiers Grove	0.25							Lynxville	Prairie du Chien	1.11	Prairie du Chien	Soldiers Grove	0.25
			Prairie du Chien	Readstown	0.00									2.56	Prairie du Chien	Readstown	0.00
			Prairie du Chien	Viroqua	0.00										Prairie du Chien	Viroqua	0.00
			Eastman	Mt. Sterling	0.00										Eastman	Mt. Sterling	0.00
			Eastman	Gays Mills	0.07										Eastman	Gays Mills	0.07
			Eastman	Soldiers Grove	0.00										Eastman	Soldiers Grove	0.00
			Eastman	Readstown	0.00										Eastman	Readstown	0.00
			Eastman	Viroqua	0.00										Eastman	Viroqua	0.00
					9.47												9.47

For Scenario #2, the above process requires the assignment of those CVTs in the expanded service area to the CVTS where the commuter bus makes stops. This assignment is based on distance, access, and direction of travel. The assignments are summarized below:

Expanded service area	Assigned CVT for boarding
T. Prairie du Chien (C)	C. Prairie du Chien (C)
T. Bridgeport (C)	C. Prairie du Chien (C)
T. Eastman (C)	V. Eastman (C)
T. Seneca (C)	V. Eastman (C)
T. Utica (C)	V. Mt. Sterling (C)
T. Seneca (C)	V. Mt. Sterling (C)
T. Utica (C)	V. Gays Mills (C)
T. Haney (C)	V. Gays Mills (C)
T. Clayton (C)	V. Gays Mills (C)
V. Bell Center (C)	V. Gays Mills (C)
T. Clayton (C)	V. Soldiers Grove (C)
T. Seneca (C)	V. Lynxville (C)
T. Freeman (C)	V. Ferryville (C)
T. Kickapoo (V)	V. Readstown (V)
V. Viola (V)	V. Readstown (V)
T. Viroqua (V)	C. Viroqua (V)
T. Jefferson (V)	C. Viroqua (V)
T. Liberty (V)	C. Viroqua (V)
T. Webster (V)	C. Viroqua (V)
T. Franklin (V)	C. Viroqua (V)
T. Christiana (V)	C. Westby (V)
T. Clinton (V)	C. Westby (V)
T. Coon (V)	V. Coon Valley (V)
T. Wheatland (V)	V. De Soto (V)
T. Sterling (V)	V. De Soto (V)
T. Genoa (V)	V. Genoa (V)
T. Harmony (V)	V. Genoa (V)
T. Bergen (V)	V. Stoddard (V)

The analysis results for Scenario #2 are shown below:

Option A	Bus 1		Option A	Bus 2		Option B	Bus 1		Option B	Bus 2		Option B	Bus 3		Option B	Bus 4	
On	Off	# Riders	On	Off	# Riders			# Riders	On	Off	# Riders	On	Off	# Riders	On	Off	# Riders
Viroqua	Westby	12.34	Mt. Sterling	Gays Mills	1.24	Genoa	Stoddard	0.41	Viroqua	Westby	12.34	Prairie du Chien	Lynxville	0.00	Mt. Sterling	Gays Mills	1.24
Viroqua	Coon Valley	0.36	Mt. Sterling	Soldiers Grove	0.15	Genoa	La Crosse	10.59	Viroqua	Coon Valley	0.36	Prairie du Chien	Ferryville	0.07	Mt. Sterling	Soldiers Grove	0.15
Viroqua	La Crosse	7.58	Mt. Sterling	Readstown	0.07	Genoa	Coon Valley	0.14	Viroqua	La Crosse	7.58	Prairie du Chien	De Soto	0.00	Mt. Sterling	Readstown	0.07
Westby	Coon Valley	0.47	Mt. Sterling	Viroqua	0.27	Genoa	Westby	0.31	Viroqua	Stoddard	0.26	Prairie du Chien	Genoa	0.29	Mt. Sterling	Viroqua	0.27
Westby	La Crosse	9.92	Gays Mills	Soldiers Grove	4.76	Genoa	Viroqua	1.85	Viroqua	Genoa	0.07	Lynxville	Ferryville	0.08	Gays Mills	Soldiers Grove	4.76
Coon Valley	La Crosse	9.25	Gays Mills	Readstown	0.54	Stoddard	La Crosse	22.54	Westby	Coon Valley	0.47	Lynxville	De Soto	0.00	Gays Mills	Readstown	0.54
La Crosse	Coon Valley	0.74	Gays Mills	Viroqua	3.57	Stoddard	Coon Valley	0.20	Westby	La Crosse	9.92	Lynxville	Genoa	0.07	Gays Mills	Viroqua	3.57
La Crosse	Westby	1.36	Soldiers Grove	Readstown	0.67	Stoddard	Westby	0.33	Westby	Stoddard	0.11	Ferryville	De Soto	0.89	Soldiers Grove	Readstown	0.67
La Crosse	Viroqua	3.46	Soldiers Grove	Viroqua	2.46	Stoddard	Viroqua	0.33	Westby	Genoa	0.00	Ferryville	Genoa	0.00	Soldiers Grove	Viroqua	2.46
Coon Valley	Westby	2.60	Readstown	Viroqua	4.70	La Crosse	Coon Valley	0.74	Coon Valley	La Crosse	9.25	De Soto	Genoa	0.30	Readstown	Viroqua	4.70
Coon Valley	Viroqua	1.97	Viroqua	Mt. Sterling	0.00	La Crosse	Westby	1.36	Coon Valley	Stoddard	0.00	Genoa	De Soto	0.26	Viroqua	Mt. Sterling	0.00
Westby	Viroqua	10.93	Viroqua	Eastman	0.00	La Crosse	Viroqua	3.46	Coon Valley	Genoa	0.00	Genoa	Ferryville	0.00	Viroqua	Eastman	0.00
		60.99	Viroqua	Prairie du Chien	0.23	Coon Valley	Westby	2.60	La Crosse	Stoddard	0.00	Genoa	Lynxville	0.00	Viroqua	Prairie du Chien	0.23
			Mt. Sterling	Eastman	0.00	Coon Valley	Viroqua	1.97	La Crosse	Genoa	0.47	Genoa	Prairie du Chien	0.34	Mt. Sterling	Eastman	0.00
			Mt. Sterling	Prairie du Chien	1.77	Westby	Viroqua	10.93	Stoddard	Genoa	0.28	De Soto	Ferryville	0.30	Mt. Sterling	Prairie du Chien	1.77
			Eastman	Prairie du Chien	13.20			57.76			41.10	De Soto	Lynxville	0.00	Eastman	Prairie du Chien	13.20
			Prairie du Chien	Eastman	0.38							De Soto	Prairie du Chien	0.37	Prairie du Chien	Eastman	0.38
			Prairie du Chien	Mt. Sterling	0.00							Ferryville	Lynxville	0.00	Prairie du Chien	Mt. Sterling	0.00
			Prairie du Chien	Gays Mills	0.29							Ferryville	Prairie du Chien	1.87	Prairie du Chien	Gays Mills	0.29
			Prairie du Chien	Soldiers Grove	0.32							Lynxville	Prairie du Chien	1.11	Prairie du Chien	Soldiers Grove	0.32
			Prairie du Chien	Readstown	0.00									5.94	Prairie du Chien	Readstown	0.00
			Prairie du Chien	Viroqua	0.00										Prairie du Chien	Viroqua	0.00
			Eastman	Mt. Sterling	0.11										Eastman	Mt. Sterling	0.11
			Eastman	Gays Mills	0.22										Eastman	Gays Mills	0.22
			Eastman	Soldiers Grove	0.00										Eastman	Soldiers Grove	0.00
			Eastman	Readstown	0.00										Eastman	Readstown	0.00
			Eastman	Viroqua	0.00										Eastman	Viroqua	0.00
					34.95												34.95

Summary of Results

		Scenario #1	Scenario #2
Option A	Bus 1	33	61
	Bus 2	9	35
	Total	**42**	**96**
Option B	Bus 1	24	58
	Bus 2	20	41
	Bus 3	3	6
	Bus 4	9	35
	Total	**55**	**140**

Final Remarks

The transit rider estimates presented herein need to be interpreted in the context of the key assumptions stated in this document. Furthermore, it is important to recognize that these projected riders would use the proposed service only if the service parameters such as stop location and arrival time meet the riders' needs (work location and work start/end time).