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Title: ***Feasibility of Public Transportation in Prescott, WI***

The accompanying research report is submitted to the **University of Wisconsin-Stout**, **Graduate School** in partial completion of the requirements for the

Graduate Degree/ Major: MS Operations & Supply Management

Research Advisor: Dr. Jim Keyes, Professor, Operations Management

Submission Term/Year: Spring 2018

Number of Pages: 62

Style Manual Used: American Psychological Association, 6th edition

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Sizemore, Stephen A. ***Feasibility of Public Transportation in Prescott, WI***

Abstract

This study reviews the steps needed to determine is public transportation in and around Prescott, Wisconsin is feasible and sustainable. Consideration of route design in conjunction with costs and benefits were considered. Overall strategic planning and estimating were used with thought towards current and future enterprise resource planning. Included are charts, tables and maps created for the project to illustrate critical key points.

Acknowledgments

Thank you to my wife Karey for supporting me to accomplish the goal of completing a level of education that I would not have imagined. It took much patience to take on extra work while I was in the basement doing homework. To my children, Shelby and Clinton, who were supportive and often questioned what I was doing – I could not be prouder of them and I appreciate their support and understanding. Thank you to Dr. James Keyes for his support over the three years of my attendance. And Finally, thank you to the staff at the Graduate School, Katie and Amy who answered all my questions and helped to make sure all was well in the end.

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Chapter I: Introduction

Prescott, Wisconsin is a small community in Western Wisconsin, located thirty minutes from St. Paul, Minnesota. The city has a population of 4227 residents (Prescott, 2014). There is a transportation void, not only locally but with the ability to reach other communities. Much of the population commutes to the Minneapolis / St. Paul metro area while some maintain local businesses or commute to other areas such as Hudson, Wisconsin and Red Wing, Minnesota.

The community needed transportation options to service many groups including the elderly, students and general community members. Needs included transportation for the elderly to get to the grocery store, doctors offices and in between downtown businesses and housing specifically designed for retired citizens. Students needed additional transportation for alternate ways to get to school, for after school activities and to get to dentist and doctor appointments. The general population also had interest in transportation within the city due to weather, location of businesses, lack of downtown parking and the ability to use the service to be able to go for dinner and a few drinks and not have to drive.

In addition, the residents of the City of Prescott were interested in connections to other communities. Connection between all communities, but especially River Falls, WI and Red Wing, MN was important. Connecting with River Falls, WI was important considering the University of Wisconsin and other educational and work opportunities. The large employer in the Red Wing area, Treasure Island Resort and Casino, needed employees. They also needed a way for employees to get to their location. To add to this, a link between Prescott and Hudson, WI offered additional job opportunities as well as a wide variety of cultural areas and restaurants. Connecting to the neighboring community of Hastings, MN was also part of the focus. This community has a large hospital, many businesses that are used regularly and a large amount of

shopping opportunities not available in many of the smaller towns that this service would support.

Connection to the Twin Cities metro was a very important piece of this overall puzzle. Bringing people into Prescott was a factor, especially considering parking. In addition, people in Prescott wanted a way to connect to Minneapolis and St. Paul for work and for other outings such as sporting events, concerts and cultural events.

The primary connection to the Twin Cities Metro Transit system would take place in Cottage Grove, Minnesota. As a focal point to connect, Cottage Grove already had bus connections through Metro Transit busing. In addition, plans are underway for a new train corridor that would run through this community and could be another connection point.

Another piece of the transportation system is the often overlooked use of the park and ride system. There were lots in Prescott, River Falls, Hudson, Hastings and Cottage Grove that could be used. As the potential for this system was evaluated, consideration to grow the transit system included additional park and ride locations in smaller areas such as Hammond, Wisconsin.

There was an opportunity to create public transportation in Prescott. The City of Prescott was looking for a partner to develop a response to this need. The initial line of thinking was to look at starting a taxi service. There was support that suggested a public transportation system would be a better fit. Initially, it would be planned to start locally but quickly expand in to a regional transportation system.

A public transportation system would consist of bussing and an on-call type of transportation. Connectivity within the city was the initial priority. It was the intention to connect this service to a couple of stations connected with Metro Transit in Minnesota.

Organizations often consider how to prepare for the future. Prescott is run like a business and therefor has the ability to use the same strategy. Strategic planning and deployment, enterprise resource planning and organizational development were considered as a part of this project.

In a community the size of Prescott, some people thought that public transportation did not make sense. As with many things, people sometimes tend to look at their needs and wants only without looking at the big picture. This may be human nature, but for a service like this, it was important to look at not only the broad picture but to try and be somewhat visionary as to what the next 5, 10 and 20 years needs might be.

There are many places people in the community wanted to reach but could not due to lack of transportation connectivity with Minneapolis and St. Paul as well as a large employer in Red Wing, MN. Prescott is a developing community but without transportation arteries, the growth is likely to stagnate.

Statement of the Problem

The City of Prescott, WI needed public transportation. There was no connection to the Twin Cities metro area nor was there connection to available jobs and critical services.

Purpose of the Study

The purpose of this study was to solve the equation of feasibility of public transportation in Prescott, WI. This included the determination of feasible routes and the development of fee structures to maintain long term success. The implementation of the public transportation system could have a variety of positive impacts for the community as a whole. It was anticipated that the service would be valuable to the elderly for many reasons, but the community as a whole

would be able to embrace the service and use it for connections to other communities as well as within the City of Prescott.

Benefits to the City of Prescott included the financial justification to start public transportation in Prescott. This was accomplished through a combination of research of similar sized community public transportation systems and analysis into the cost and ongoing operations of the needed public transportation system. This could result in the development of a sustainable transportation service that can still evolve in the future. Indicators of success included ridership, interest of other communities to learn more about this business model and ongoing financial stability.

Assumptions of the Study

This study was executed with the assumptions described in this section.

The first assumption was that the City of Prescott Administration would be supportive of the need for a transportation system. This would include the assumption that the City Council in conjunction with the city administrator would be willing to commit to working with one specific private enterprise.

There is also a financial assumption. As this study determined the financial viability of this service, it was assumed that the city would be willing to work in conjunction with the private enterprise to source grant money. In this, the private enterprise would be a partner and a third party contributor to the City of Prescott.

In addition, there is an assumption that the data collected from other similar transportation organizations is applicable in the Prescott and surrounding regional areas.

Definition of Terms

The following are terms that may not be well understood because they are specific to topics addressed in this study.

Ambidextrous organizational design. Create distinct units that have their own unique processes, structures and cultures that are specifically intended to support early-stage innovation. (Innovation Point, 2018)

Applied research. Refers to scientific study and research that seeks to solve practical problems. Used to find solutions to everyday problems, cure illness, and develop innovative technologies. (Cherry, 2017)

Combination strategies. Corporate planning aimed at achieving two or more goals (such as consolidation, growth, stability) simultaneously. (Business Dictionary, 2018)

Enterprise resource planning. A process by which a company (often a manufacturer) manages and integrates the important parts of its business. (Investopedia, 2018)

Environmental change. A physical or material change to the economic, social, or physical environment. (Centers for Disease Control and Prevention, 2016)

Hoshin Kanri. A method for ensuring that the strategic goals of a company drive progress and action at every level within that company. This eliminates the waste that comes from inconsistent direction and poor communication. (Lean Production, 2017)

Organizational development. A field of research, theory, and practice dedicated to expanding the knowledge and effectiveness of people to accomplish more successful organizational change and performance. (Health Behavior, 2018)

Project management. The application of knowledge, skills, tools, and techniques to project activities to meet the project requirements (Project Management Institute, 2018)

Strategic planning and deployment. Using Strategy Maps and HoshinKanri, provides an organization with proven, visual and effective methods and tools to develop, communicate and align its business objectives, strategic initiatives, operating plans, targets and goals. (Operational Excellence Consulting, 2018)

Limitations of the Study

The following were limitations to this study. The study used a generous amount of assumed data and was based on higher costs of system set up such as purchase of new buses versus used buses. In addition, the actual knowledge of ridership was not known.

Methodology

There are many places that people in the community want to reach but cannot due to lack of transportation connectivity with Minneapolis and St. Paul as well as a large employer in Red Wing, MN. Prescott is a developing community but without transportation arteries, the growth is likely to stagnate. While working to understand and define the need for public transportation in Prescott, WI, various data points were considered including viable routes and cost/benefit analysis. This would include what a sustainable transportation service may look like while discovering where transportation routes should be located.

A major consideration was how to fund such a program. It was apparent with the perceived high property taxes that the community would not want to use tax dollars to make this a reality. There would need to be private dollars used in conjunction with partnering of a private party with the city to acquire funds and grant money from state and federal sources.

This research helped to better position the overall service including routes and fees. Since this program is to have some subsidizes by the state/federal government, this research and the information gained was critical to obtaining funding. Work on the state/federal dollars was

started as a joint effort between the private organization and the city, furthering the cooperation and cohesive nature of the enterprise that this study was developed for.

The benefits to the Prescott community and other regional communities would come from both the options of additional transportation as well as offering another avenue to gain employees and get customers to businesses. There was a large amount of organizational development that was needed since this was starting as a ground up organization. It also had the structure of a private enterprise working in partnership with a municipality. This presented additional steps, especially in consideration of operating funds.

Applied and quantitative research methods were used to develop a specific and systematic project to create transportation services for the people of the Prescott community with the appropriate variety of service offerings. The collection of data using these research methods allowed the interested parties to develop realistic options for Prescott and surrounding communities.

In the development of an ambidextrous partnership, the level of adaptability was critical since it allows an organization to adjust in volatile and changing markets to avoid complacency. Alignment is also key, since it gives the organization a clear sense of how value is being created in the short term and how activities are integrated and properly coordinated. Clear and compelling vision, tight coordination, integration and shared resources will have to be carefully coordinated so that both entities achieve success and see overall value. This will involve additional stake holders moving forward including business members and community members of the various communities.

A culture of entrepreneurship is one in which the search for venture opportunities permeates every part of the organization, or in this case, two organizations. This includes the

private entity and the City of Prescott. The key to creating value successfully is viewing every value-chain activity as a source of competitive advantage. This partnership strategic success is strongest when it permeates to all parts of an organization. It is found in companies where the strategic leaders and the culture together generate a strong impetus to innovate, take risks, and seek out new venture opportunities.

In organizations with an entrepreneurial culture, everyone in the organization is attuned to opportunities to help create new businesses. Many such firms use a top-down approach to stimulate entrepreneurial activity. This venture would be similar as the leaders of the private enterprise and the City of Prescott work together. Using aspects of enterprise resource planning and organizational development are key to maintaining an appropriate structure. In addition, for this to have continued success, feedback and innovative ideas will have to be nurtured from a bottom up stand point. Strategic planning and deployment practices including HoshinKanri will maintain communication and help to continue to develop a streamlined operations plan.

The opportunity to be creative and the freedom to try new things was a great position to be in. The one issue that often comes up is money and each entity has financial backing. This study aided in determining what the costs will be to start the transportation system as well as the ongoing costs.

For each of these entities, competitive dynamics will certainly come into play. New competitive action for example may create a dynamic where competitors will need to change their ways of operation to remain competitive. As a new entrant into this industry, this enterprise will be able to push competitors to be better. At the same time, these new enterprises may be able to partner with competitors to make the overall area more attractive to potential customers, possibly partnering with taxis, health care transportation and Metro Transit.

Pioneering new entry and differentiation are concepts that this enterprise is built on. The study helped to shape the overall concept of options for the management, including day to day management, scheduling management and human resources. In addition, using available resources, this study used historical data from other similar communities to evaluate the similarities and to build a baseline for comparison. To build a sustainable business, a combination of strategies was used to determine ways to grow the enterprise, while maintaining a stable system. The big picture included the potential for eventual integration into or as a part of other transportation systems.

Summary

While developing the study and accumulating information, facets of business development, community sentiment and environmental change had to be considered. It equates to a formula where compromise is a focus point. Using current technology and ecofriendly tactics lend to an overall good system design.

The Prescott community and surrounding areas needed public transportation options to better serve the people living in these areas as well as the businesses in the communities. This study included data that would build a foundation for the processes, application and funding that would be needed for a successful and sustainable public transportation system.

Chapter II: Literature Review

There are many places people in Prescott want to reach but cannot due to lack of transportation connectivity with Minneapolis and St. Paul as well as a large employer in Red Wing, MN. Prescott is a developing community but without transportation arteries, the growth is likely to stagnate. Consider that rural populations are declining but the number of rural and small town public transit agencies has increased over the past two decades to approximately 1,400 agencies. (Litman, 2017, p. 2)

Many small towns and rural communities across the world are faced with a multitude of organizational growth concerns. These range from fiscal concerns, school systems, economic systems and transportation. The process of understanding how to strategically plan and develop the appropriate organizational approach to maintain and improve these items of concern is a common discussion at many government meetings. One aspect of these topics that tends to tie them together is the availability of transportation in the communities. Transportation can serve as an artery for communication, movement of people, business opportunities as well as an alternate for emergency services. The need for transportation, the viability of transportation and the community support via transportation for small towns and rural areas will determine the best fit and transportation options that should be considered.

The development of strategic plans to determine the direction for resources needed to pursue any goal is one primary basis for research. The implementation is critical for success. As a part of the strategic approach, the structure of the organization can be sculpted using available resources and a logical approach using the current organizational structure. In addition, there will need to be consideration for resource planning for human and physical capital.

The literature review analyzed numerous journal articles, trade association reports and community research information to learn about solutions that other communities have developed. The review starts by looking at the need for transportation in small towns and rural areas transitioning into the viability of such transportation. The literature review concludes looking at how transportation can be used to support the community in which it exists.

Need for Transportation in Small Towns and Rural Areas

Public Transportation is often only thought of as important in large cities with large populations. Considering there are many types of public transportation including bussing and taxi service, it is feasible to offer public transportation in small towns and rural areas.

Well planned growth. Today, transportation is an important consideration in developing larger communities around the world. In this same scope, rural and small communities do not always see transportation as an important part of well-developed growth. Society today in the United States is very focused on the automobile. As roads become more congested and space more limited, other modes of transportation can be considered. The current system for planning, building, and maintaining transportation infrastructure in rural areas falls short of meeting the need for access within small cities and towns and their surrounding regions to jobs, shops, services, education, and healthcare. (Shoup & Homa, 2010, p. 4)

There may be a divide in a community regarding the need and want for growth. Some may want growth, new businesses and more families which can feed the circle to build better schools and offer more options to the community. Others may want things to stay the same, especially in a small town where the culture of the town is based on living what some call the simple life. Over the next 15 years, urban and rural communities in the United States will see their populations grow. But in rural areas, the increase will be mostly elderly citizens. (Pendall,

2016, p. 1) This point becomes even more daunting in light of the fact that the elderly population in rural areas is growing dramatically. According to this report, more than 15.5 million Americans over age 65 will live in areas with little to no access to public transportation. (Brubaker, 2015, p. 3) The report points out that the Baby Boomers were the first generation that grew up and reared their families in communities built on the assumption that everyone drives. With increasing age and spiking gas prices, this assumption cannot stand. Brubaker, (2015, p. 3) It is important to understand that everyone does not drive. Whether a person is not physically able or cannot afford a vehicle, there is a gap in need versus accessibility of transportation.

These issues are worldwide issues. Often transportation and the planning that needs to occur are driven by government agencies. This can pose a problem when tax dollars are stretched and transportation is not a priority. This is happening in Canada where the Canadian Chamber of Commerce recognizes the need for transportation in small communities and rural areas. Two key elements that they noted are the lack of a coherent plan and a seeming inherent bias against providing transit service to rural and small communities. (Government of Canada, 2010)

Variety of options needed. Each small town / rural area may have different specific needs and goals, so a variety of transit options can be considered.

The Shoup & Homa report (2010) indicated the following:

> Most rural U.S. counties can be classified into three main community types organized by their economic engine, population, and rate of growth. It should be noted, however, that many rural communities do not fit these broad typologies and in general most have a mix of several economic drivers. Of the 2,436 rural counties, 600 (25%) can be classified as exurban - that is, located on the fringe of a metropolitan area - 558 (23%) can be

> classified as destinations for tourism or recreation, and 1,279 (53%) can be classified as production communities. Production communities are dependent on mining, manufacturing, or farming. (p. 5)

Best transportation fit. Which transit options are a best fit for the community that is being considered; bussing, taxi cab, on call service, etcetera? This question is not easily answered due to the variance of community priorities, demographics and opinions regarding the direction of a community. For many rural and small communities, changing demographics will require new approaches to increasing available travel options. These groups, including persons with disabilities, often remain isolated in their homes with few options for getting around. (Shoup & Homa, 2010, p. 6).

Understanding the demographics will help to better determine the correct action for transportation in a community of any size. How people need to move and where they need to get to and from are important considerations for the best transportation fit.

> Leyrer (2015) brings up some interesting questions that can be applied to any town: Are we simply not big enough? Should we just give up on full-on bus service? Would it be cheaper (outside of the University bus system) to just subsidize the cab company in town? What's a growing municipality to do? There's no justification for say, a streetcar or light rail, but there's no will, money, or real reason to get a better bus system either. (p.19)

Missing services development. What services are currently missing that can be developed? The Brunswick Explorer is one of many innovators that are seeing transit as more than an engineering problem and trying to build transit that meets the needs of its residents. Margonelli, (2011, p. 6). Residents of the community will want and likely need to

have their opinions heard regarding what may be needed in a community. The difficulty will be prioritizing the needs assuming all people will not agree on what is needed or what is best.

What does the community want and need? This is a question that needs to be asked and answered by not only the leadership but also the community via research. For example, survey information from the community may not match what the municipality may hope for, but should be taken into consideration as to what services are truly needed. Many times, this question can be answered by an entrepreneur who sees a need. Jesse Dixon and Erin White moved from Atlanta Georgia to Forsythe, Georgia, a community of just over 4,000 residents. They wanted to open a coffee shop but were told that people would not walk to coffee shops in that community, and they had failed in the past. Dixon and White took their advice, bought an old DeKalb County school bus, painted it white and launched Forsythia Transit Company in June. (Cohen, 2015, p. 4)

Viability of Public Transportation in Small Towns and Rural Areas

Public transportation can be sustainable while meeting the needs to best serve the community where it is located. As a part of this, a sustainable business model may be developed. This business model may be different for each specific community.

Connectivity in transportation. Thoughtfulness and consideration of connectivity to other transportation systems to allow the community to be more connected with other communities. Connecting rural and small-town areas to metro areas can potentially offer positive and negative consequences. Constraints in rural transport infrastructure and services are often compounded by limitations in the development and resilience of technological infrastructures. (Velaga, Beecroft, Nelson, Corsar, & Edwards, 2012, p. 1). The intent in this

data is that they are pointing out that there is a difference between urban and rural transportation needs.

Another consideration of connectivity is the variety of transportation methods that are available. Certainly, motorized transportation is an option, but there are others. In many areas, there are many initiatives to develop trails for biking, walking and running. These projects can be less expensive than roads. Active transportation is a smart investment relevant to all Americans at a time when our nation grapples with budget deficits, high unemployment and rising energy costs. (Loh, Waljasper, Sonenklar, Mills, & Levinger, 2011, p. 3). Cost is a factor, but in the large picture, transportation is not only about transportation within a community, but also about connecting communities.

Available support organizations. There are support organizations worldwide that can help to develop and plan transportation systems. Discussion and evaluation of available support organizations and other available resources can be critical to success. This can allow for a community to have a good starting point and a depth of resources during the development. The Wisconsin Economic Development Corporation (Wisconsin Economic Development Corporation, 2018) has built a program to assist:

> The National Trust for Historic Preservation established the National Main Street Center in 1980 to assist nationwide downtown revitalization efforts. The Wisconsin Main Street Program, started in 1987, is based on the Trust's philosophy, which advocates restoration of the historic character of downtown while pursuing other complementary community development strategies such as: Marketing and promotions, business retention and recruitment, real estate development, public improvements and place making. (p. 2)

Another option for transportation systems are opportunities to for a service to work cooperatively with existing services. This could include private and public resources that currently exist. In Alabama, rural communities are able to use state and county vehicles, including school buses, to provide public transportation. (American Public Transportation System, 2018, p. 9)

Transit assistance programs. There are multiple programs available on federal, state and local levels to assist in funding transportation plans. These programs can assist in developing a sustainable transportation opportunity for rural and small-town residents. Currently 49 systems across the state of Wisconsin receive federal funds to operate bus or shared-ride taxi systems providing public transportation for rural residents. (Wisconsin Department of Transportation, 2017, p. 2).

Assuming there is a need for rural and small-town transportation, there are grants and other funding options that can be considered. Private entities can also be considered as a way to develop and fund transportation in cooperation with the local government. A good example is the Dunn County Transit Commission, located in Northwestern Wisconsin. This is an organization that is funded from state and federal funds as well as fees for using the bus service. This effort allows them to carry forward their mission to establish, maintain and operate a comprehensive unified transportation system. (Dunn County Wisconsin, 2018)

Sustainable business model. A sustainable system would include a transportation system that would allow for growth and be flexible enough to change with the needs of the people who use the services. Small towns throughout the country have been able to develop a sustainable business, but not all through the same model. The Brunswick Explorer is public; it is paid for by riders, who pay a nominal fare, and a combination of federal and local sources,

including the town of Brunswick. Another involves private entrepreneurs providing van service; and the third is a non-profit that has radically re-thought the terms of mobility. (Margonelli, 2011, p. 7).

There are multiple models for success. The variety of needs in a specific community situation will need to be determined as a part of the overall sustainability of the business. There may need to be groundwork laid to determine what an area may be willing to pay for.

In reviewing applicable bus routes, bus route evaluations standards were used. This synthesis was of interest to transit agency manager as well as operations, scheduling, maintenance and planning personnel. (Benn, 1995) This information was a guide for route evaluation standards using criteria from transit agencies in the United States and Canada.

The cost equation was based from community bus service design guidelines from the Virginia Transit Authority. Community Bus service is typically deployed to better meet the needs of individual communities and neighborhoods, improve general circulation within a fixed local area and access to higher-capacity transit systems (VTA Transit, 2007). Due to the similarities of the transportation needs in Prescott, these design guidelines were a good reference.

Transportation as a Support Mechanism

The transportation system in any size community could be viewed as a support mechanism for continued development and at the least, to help maintain what is in place.

Bring people into the area. To help the growth of a community that is interested in growth, a transportation system could help to bring people in. The system within the community could be connected to other outlying transportation systems. In this respect, the businesses in the community may be able to take an active role in supporting such an initiative. For example, what made the Emery Go Round (Emeryville, CA) really succeed was the decision by the

business property owners to form what's known as an improvement district. It meant the shuttle would be funded entirely by businesses taxing themselves. (Gonzales, 2013, p. 12) An option like this could be an opportunity for community and business leaders to work together and all invest in the transportation system.

Business connectivity. The design and planning needs to consider the inter-working of local businesses and how the transportation system can help to connect each of them. Connecting businesses with people in an accessible way is important. Not only the accessibility of the transportation itself, but the ability to use the services. (Velaga et al., 2012, p. 9) This community considered the importance of accessibility and connectivity.

Economic development. A well-developed transportation system has the potential to aid in continued economic development. The movement of people and trade could be accomplished in many ways, but a cohesive well thought out system would need to be considered.A community may realize that there is a cost to build a system and it could be considered as an investment. Investment in transport and well-placed, quality housing can give small towns a huge boost – but only when they are planned together. In Blyth, England, they work to create a wholistic picture to boost the overall local economy. If planning and transport bodies think about the whole picture, our small towns will see the benefits. (Walker, 2016, p. 12)

Housing and businesses can be looked at as cornerstones to a transportation system. These are where the users of the system are located, so it would make sense to take that into consideration. Getting the people from their homes to the businesses may be a focal point of any transportation plan.

Sustainability and green initiatives. There may be a need to have some focus on green initiatives and other environmental considerations. In the society that many people are a part of worldwide, sustainability in emissions, waste and other environmental concerns are important. Benfield (2015) notes:

> Residents of small and rural places are every bit as deserving of a clean and healthy environment as are city dwellers. Indeed, these places retain great significance for Americans: polling shows that more Americans would prefer to live in a small town or rural area (30 percent) than live there now (22 percent), and that more would prefer to live in a small town or rural area than would prefer to live in cities (28 percent). (p. 2)

Communities can work together on green initiatives in many aspects of their communities. Parks, walking paths and recycling, are among things that are being developed in many communities. Lower emission vehicles are also something to be considered, but on a larger scale. Small towns and rural areas can be lacking resources to carry through with sustainability and green initiatives. It seems in many instances, these smaller communities can work together cooperatively to move these types of initiatives forward. While these communities may frequently lack institutional capacity and fiscal resources to undertake big initiatives, they do have the benefit of agility (Benfield, 2015, p. 3). Creativity may be the best way for these small towns and rural areas to develop and grow sustainable initiatives. Public transportation could be a creative way of assisting the growth of sustainable and green initiatives.

Summary

As described in this chapter, small and rural communities across the world are developing transportation solutions to meet the needs of their communities. In many cases, a cooperative solution is being used due to lack of resources. It seems true to form that transportation is

helping to build communities, not only in the tangible form of moving people from place to place, but in the spirit of cooperation for the greater good.

This chapter also notes several ways to fund a transportation system. While developing a business structure that is sustainable, funding can be derived from businesses paying for services to charging customers per ride to state and federal grants, or a combination of any and all of these options.

Chapter 3 will discuss the instruments used to determine financial feasibility. In addition, route design methods and procedures will be detailed. This information will include data analysis and limitations as they related to the overall transportation project.

Chapter III: Methodology

This study focused on an opportunity to bring public transportation to Prescott, WI with connectivity to surrounding communities. There are many places people in Prescott want to reach but could not due to lack of transportation connectivity with Minneapolis and St. Paul as well as a large employer in Red Wing, MN. Prescott was a developing community but without transportation arteries, the growth was likely to stagnate. Chapter II identified three focus areas for the transportation service including the need for transportation in small towns and rural areas, viability of public transportation in small towns and rural areas and the transportation as a support mechanism for these areas. These focus areas were researched to provide background information in an effort to develop an understanding of what would be needed for a successful transportation system. The impact of financial risk along with the planning of appropriate routes were the two main criteria for building the transportation system.

This chapter includes the data collection and analysis methodology that supported the purpose of the study. The goal was to develop a sustainable business model that could grow as needed. By doing this, Prescott would gain a needed service that would enable the community to grow and be better connected. To be sustainable, multiple funding sources were considered in relation to the operational costs of the transportation services. The data collected came from the City of Prescott as well as many other similar sized communities who currently have successful transportation offerings. In addition, the City of Prescott was able to offer valuable survey data that was collected separate from this study. While working to understand and define the need for public transportation in Prescott, WI, various data points were considered including viable routes and cost - benefit analysis. This included what a sustainable transportation service may look like while discovering where transportation routes should be located.

Instrumentation

Applied and quantitative research was used to determine the viability of transportation service for the people of the Prescott community with the appropriate variety of service offerings. The research included a study of viable bussing routes with in the city limits as well as options to connect to other communities and transportation routes. The other critical item being studied was the ability for the transportation system to be financially sustainable.

A cost - benefit analysis was developed as a comparative assessment of the anticipated benefits and all the introduction costs that were incurred to develop, operate and support the service in the long term. A business plan was developed as a part of the process to determine costs and revenues. This analysis helped to determine whether the project should move forward. It also helped to develop measures for success and estimate the resources needed to carry the project to reality.

Within the framework of the research were steps to identify options for routes. Regional maps, potential routes and multiple service areas will be a part of this study in concert with specific population centers. Reviews of similar sized communities were completed.

Data Collection Procedures

This research was completed as part of the transportation department of S & C Consulting and Management in cooperation with the City of Prescott. A variety of methods were used including review of case studies and already operational transportation services in similarly sized communities, reviews of current documents and records of the City or Prescott and extrapolation of anticipated usage based on demographics and an existing survey conducted by the City of Prescott.

The first data collection point was the estimated costs and benefits of the transportation project. This is part of the operational budget development so the cost - benefit analysis included consideration of the capital expenses necessary to begin a transportation service. The second set of data included population density research in conjunction with research into the most used potential stopping points to develop feasible routes. Additional information was gathered from small communities who currently operate public transportation, similar to Dunn County Transit located in Dunn, County Wisconsin. This additional data offered information from similar communities with public transportation that included financial viability, service times, equipment needs, usage of public verses private funding and other historical data.

Planning

In review of collected data, it was important to maintain the integrity of the data. To do this, raw data was analyzed. The data reflected whether the public transportation project would be financially viable. Once the data was collected, data cleaning was needed to help eliminate duplicates, errors or incomplete information. The analysis that was completed included: available revenue streams, net and gross profit (loss), operational efficiency, initial capital expense, liquidity over time and route feasibility.

Population density data was collected and reviewed to determine where routes could be developed. Ridership and access was analyzed. As a part of the determination of routes, a location needed to be determined for a base of operations. This base of operations included a garage to house the transportation vehicles, a space for maintenance and office space. Considerations for the overall routes and facility locations included potential facility locations within the City of Prescott, distances that would need to be covered, ridership and locations of riders, and regional maps for expansion.

Data Analysis

A cost - benefit analysis was used to evaluate the total anticipated cost of this project compared to the total expected benefits in order to determine whether the proposed implementation is worthwhile for S & C Consulting and Management and the City of Prescott. If the results of this comparative evaluation method suggested that the overall potential benefits associated with a proposed action outweighed the potential costs, then the transportation project could move forward with the implementation. The cost - benefit analysis was also able determine options for future viability by projecting additional time periods.

The cost - benefit analysis, shown in Figure 1, was broken into two distinct data collection points. First, it was necessary to identify the potential costs associated with the transportation service. Second, it was necessary to identify the potential benefits associated with the transportation service. Once these two points of data were compiled, it was possible to determine a positive or negative net benefit.

Compiling potential costs included the following monetary costs: start-up fees, licenses, production materials, payroll expenses, user acceptance processes, training, and travel expenses, among others. In addition, Non-monetary costs included: time, lost production on other tasks, imperfect processes, potential risks, market saturation or penetration uncertainties, and influences on one’s reputation.

Next, there was an assignment of monetary values to associated monetary and non-monetary costs. Monetary values were stated in present value terms. Once all the monetary values were determined, the anticipated costs were added together to get a total cost value.

	Assigned Values					
	Year 1	Year 2	Year 3	Year 4	Year 5	
Costs						Totals
1						
2						
3						
Total						
Benefits						
1						
2						
3						
Total						

Figure 1. Cost – benefit analysis – costs and benefits example.

The next step was to identify and compile expected benefits as a result of successful implementation of the transportation system. To do this, the following items were collected: monetary benefits that include direct profits from the services, contributions from investors, state and federal grant allocations, decreased production costs due to improved and standardized processes, and increased production capabilities. In addition, non-monetary benefits included decreased down time, increased reliability and durability, greater customer base, greater market saturation, greater customer satisfaction, and improved company or project reputation.

Like the cost side of the equation, it was necessary to then assign monetary values to the monetary and non-monetary benefits. Once this was complete, the benefits were totaled to get a total benefit value.

The last step was to take the total present value benefit and subtract the total present value costs. This in turn showed the net benefit, as shown in Figure 2. If the total costs are much greater than the total benefits, the transportation project would not a worthwhile investment. If total costs and total benefits are roughly equal, reevaluation of the costs and benefits identified would be completed as well as a revision the cost benefit analysis. Items

could have been missed or incorrectly quantified. If the total benefits are much greater than the total costs, the project is potentially a worthwhile investment.

Cost – Benefit Analysis	
Total Present Value Benefits	$
Total Present Value Costs	$
Net Benefit	$

Figure 2. Cost - benefit analysis – net benefit example.

Moving from a cost - benefit analysis into location of feasible transportation routes, a consideration for fees was applicable in this discussion. While research was completed to compare what similar transportation enterprises are using, a base rate and schedule of service had to be determined. To focus on the need in Prescott, shown in Figure 3, four key service pricing categories are to be used: one-way trip, half day pass, full day pass, and monthly pass.

Feasible Routes

To determine the most feasible and user-friendly transportation routes in Prescott, data was collected from the City of Prescott Comprehensive Plan (Comprehensive Plan Work Group, 2015) based on density of population, location of businesses most used by residents, such as the grocery store, and where the need was most apparent, such as the assisted living care facility.

Cost to Use the Transportation Service – Dependent on Level of Service	
Regular Scheduled Service	Cost for Service
One Way Trip	$0.00
Half Day Pass	$0.00
Full Day Pass	$0.00
Monthly Pass	$0.00

Figure 3. Service costs example.

Once those locations were identified, the focus moved to developing routes between the locations while taking into consideration that routes moving from a starting point through the

route and back to the starting point should be less than sixty minutes in total duration. The specific locations for the stops along the routes were determined by need as well as safe stopping locations.

The first route, called the red line, had twelve stops, anchored at one end in downtown Prescott and the other end at Ptacek's grocery store. The second route, called the yellow line, had eight stops, anchored at the same locations. These routes connected the critical points including the grocery store, assisted living care facility, four school district buildings, downtown Prescott businesses, three banks and multiple other businesses and residential areas.

Figure 4 shows a map of the City of Prescott (Google, n.d.) in which certain specific locations were identified help develop appropriate transportation routes. The routes are on publicly used roads within the City of Prescott and do not use any state maintained roads but do cross such roads. Expansion of routes will include the use of state maintained roads.

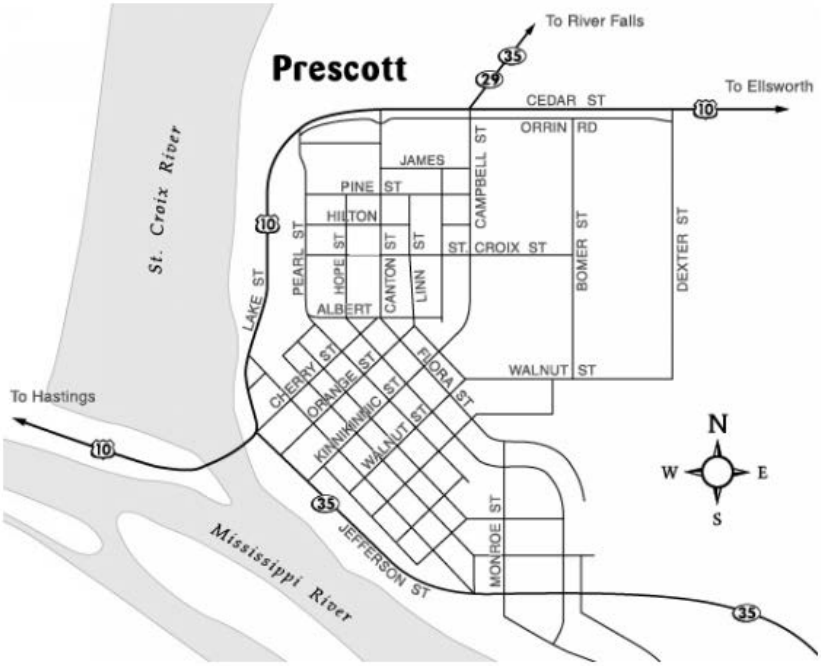

Figure 4. Map of city of Prescott.

Summary

This project looked at the financial and route viability of public transportation in Prescott. Focusing on these building blocks of small town and rural public transportation allowed for an analysis of the project potential. This data assisted the collaboration effort of S & C Consulting and Management and the City of Prescott to determine next steps.

In determining the benefits for the cost - benefit analysis, options were considered including private investment, public funding and user fees. This information was estimated based on various data collected from multiple points described in previous chapters.

In partnering with the City of Prescott, this study did not include data regarding the costs to infrastructure primarily focusing on the wear and tear to streets due to the additional bus traffic as a part of this service. The busses will be light in comparison to larger metro type busses, but will have some long term affect to the roadways. This cost will lie solely on the City of Prescott to maintain.

When looking at potential routes, consideration was taken as to the width of any roadway so as not to interfere with on street parking and other potential obstacles. Location of stops along the route was also considered taking into account anything around a potential stop such as residences, intersections and other considerations that might be of concern to community members.

In Chapter IV, the specific cost - benefit analysis will show the financial viability of transportation service for Prescott as well as the potential for growth to connect to other cities. This analysis showed the potential in short term and long-term transportation operations.

In addition, chapter IV showed specific routes that are based on the community need and key locations within the City of Prescott. The focus was the primary stops along the routes and the accessibility of the stops along the routes.

Chapter IV: Results

This study focused on an opportunity to bring public transportation to Prescott, WI with connectivity to surrounding communities. There are many places people in Prescott want to reach but could not due to lack of transportation connectivity with Minneapolis and St. Paul as well as a large employer in Red Wing, MN. Prescott was a developing community but without transportation arteries, the growth was likely to stagnate. Chapter II identified three focus areas for the transportation service including the need for transportation in small towns and rural areas, viability of public transportation in small towns and rural areas and the transportation as a support mechanism for these areas. Chapter III discussed the methodology of the research and what tools were used. The data collected was used to provide background information in an effort to develop an understanding of what would be needed for a successful transportation system. The impacts of financial risk along with the planning of appropriate routes were the two main criteria for building the transportation system.

This chapter analyses the data collected to support the viability of public transportation in Prescott and surrounding communities. As a result of this process, a sustainable business model was developed. By doing this, Prescott will gain a needed service that will enable the community to grow and be better connected. To be sustainable, multiple funding sources were sought for the operational costs of the transportation services. Private funding was determined to be the primary source of start up costs. Additional data collected came from the City of Prescott as well as many other similar sized communities who currently have successful transportation offerings. In addition, the City of Prescott was able to offer valuable survey data that was collected separate from this study.

Instrumentation

The first step was to develop a cost - benefit analysis as a comparative assessment of the anticipated benefits and all the introduction and operational costs that were incurred to develop, operate and support the service in the long term.

To begin this step, a business plan was developed to not only define the services and the expected growth development but to quantify expenses and revenues for the first five years of operation. Routes will be added each year reaching additional communities and businesses necessitating the need for additional costs. The cost – benefit analysis summarizes the primary categories for expenses and revenues.

Expenses and revenues were the focal points of the cost – benefit analysis. The first item in the expense category were the capital expenses including buses, property for the storage and maintenance facility, the building and maintenance facility and office construction. Year one is the most expensive capital expense year including the purchase of property and the construction of the storage maintenance and office facility. Included in this cost is $70,000 for the building, $15,000 for the office, $35,000 for concrete, $10,000 for excavation, $40,000 for plumbing & electrical and $2,000 for permits. In year one, three buses will be purchased for $30,000 each; $90,000 total. There will be a $510,000 cost for property to build the storage, maintenance and office facility. In addition $172,000 will be spent on the storage, maintenance and office building. Year one capital expense total would be $772,000. In year two, three buses would be purchased for $30,000 each; $90,000 total. In year three, two additional buses will be purchased for $30,000 each; $60,000 total. In year four, two additional buses will be purchased for $30,000 each; $60,000 total. There will be a $71,000 addition to the storage, maintenance and office

building. Year four capital expense total is $131,000. In year five, two additional buses will be purchased; one for $30,000 and one for $20,000; totaling $50,000 in capital expense in year five.

The second expense category, labor expense, was estimated through the first five years of operation. Year one includes $162,890 for bus driver pay considering: $13.00 per hour, 17.5 hours per day, 358 days of operation and two routes. Year one also includes $30,000 for outsourced maintenance staff, $65,000 for management, $25,000 for office support totaling $282,890 of labor cost for year one. Year two will add two additional routes and group rentals that will increase bus driver pay to $244,425. In year two, maintenance staff will be in house at a rate of $50,000; management at $75,000 and office support at $40,000 round out year two for a total of $409,425. Year three, the addition of two additional routes is planned. Bus driver pay will be $325,897, maintenance staff at $75,000, management at $125,000 and office support at $70,000 for a year three total of $575,897. Year four will add one bus route and the addition of an on call service. Bus driver pay will increase to $383,272, maintenance staff will stay at $75,000, management up to $135,000 and office staff to $70,000 for a year four total of $663,272. Finally, in year five, one additional route will be added as well as further expansion of the on call option. Bus driver pay moves up to $420,750, maintenance staff up to $100,000, management up to $165,000 and office support to $85,000 with a year five total labor of $770,750.

The third expense category consists of operating expenses including marketing, legal counsel, annual fees, insurance, CPA expense fuel, maintenance, facilities, office, cleaning, bank fees, consulting services and project management.

Operating expenses in year one include: $10,000 for marketing, $5,000 for legal counsel, $2,500 for annual fees, $20,000 for insurance, $7,500 for CPA services, $21,910 for

fuel, $15,000 for maintenance, $5,000 for facilities, $2,500 for office expense, $15,000 for cleaning, $1,500 for bank charges, $2,000 for miscellaneous, $15,000 for consulting services and $15,000 for project management for a total of $137,910.

Operating expenses in year two include: $10,000 for marketing, $3,000 for legal counsel, $3,000 for annual fees, $35,000 for insurance, $2,500 for CPA services, $43,819 for fuel, $25,000 for maintenance, $5,500 for facilities, $2,000 for office expense, $20,000 for cleaning, $2,500 for bank charges, $2,500 for miscellaneous, $10,000 for consulting services and $4,000 for project management for a total of $168,819.

Operating expenses in year three include: $10,000 for marketing, $3,000 for legal counsel, $3,500 for annual fees, $45,000 for insurance, $2,500 for CPA services, $65,729 for fuel, $35,000 for maintenance, $7,500 for facilities, $2,000 for office expense, $25,000 for cleaning, $3,500 for bank charges, $3,000 for miscellaneous, $7,500 for consulting services and $4,000 for project management for a total of $217,229.

Operating expenses in year four include: $10,000 for marketing, $3,000 for legal counsel, $4,500 for annual fees, $65,000 for insurance, $3,500 for CPA services, $87,639 for fuel, $45,000 for maintenance, $12,500 for facilities, $2,000 for office expense, $30,000 for cleaning, $4,500 for bank charges, $3,000 for miscellaneous, $12,000 for consulting services and $10,000 for project management for a total of $277,639.

Finally, included in year five of the operating expenses: $12,000 for marketing, $3,000 for legal counsel, $7,000 for annual fees, $65,000 for insurance, $4,000 for CPA services, $109,549 for fuel, $50,000 for maintenance, $14,000 for facilities, $2,500 for office expense, $35,000 for cleaning, $5,000 for bank charges, $3,500 for miscellaneous, $10,000 for consulting services and $5,000 for project management for a total of $325,549.

The first revenue category consists of revenues from sales of tickets for riders. Each year ridership will increase based on additional routes. Year one considers the bus running 33 routes with twelve passengers per route at $1.50 per rider for 358 operating days. Revenue from sales in year one will be $212,652. Year two maintains the year one routes and adds routes to Red Wing, Minnesota. Year two revenue from sales will be $536,652. Year three adds routes connecting to Metro Transit and River Falls, Wisconsin. Year three revenue from sales will be $865,296. Year four adds routes to Hastings, Minnesota and Hudson, Wisconsin. Year four revenue from sales will be $1,123,056. Year five will see additional routes connecting Hastings, Minnesota to Red Wing, Minnesota, routes from River Falls, Wisconsin to Red Wing, Minnesota and in town routes for Hastings, Minnesota and Red Wing, Minnesota. Year five revenue will be $1,288,656.

The second revenue category comprises revenue from group sales. There are no anticipated group sales in year one. Year two will have $6,500 in group sales revenues. Year three will have $9,500 in group sales revenues. Year four will have $14,000 in group sales revenues. Year five will have $35,000 in group sales revenues.

The third category of revenue consists of state and federal grants. These grants are based on routes and customers serviced as well as jobs being created. Year one will not have available grant funding. Year two will have $75,000 in grant funding. Year three will have $125,000 in grant funding. Year four will have $160,000 in grant funding. Year five will have $230,000 in grant funding.

The fourth revenue category will be derived from advertising revenue. This revenue will be from advertisements on the inside of the buses and from wrapping the buses in advertiser information. Revenue totals as a part of advertising revenue increase in conjunction with the

increased quantity of buses. Year one advertising revenue will be $15,000. Year two advertising revenue will be $30,000. Year three advertising revenue will be $40,000. Year four advertising revenue will be $45,000. Year five advertising revenue will be $50,000.

The fifth revenue category represents a subsidy from a large employer. They will pay for a portion of their employee's usage of the bus service. Year one is a higher number since the employer will aid in the purchase of buses. Year one bus subsidy will be $100,000. Year two bus subsidy will be $60,000. Year three bus subsidy will be $60,000. Year four bus subsidy will be $65,000. Year five bus subsidy will be $80,000.

The sixth revenue category is a onetime Tax Incremental Financing pay back for purchased land. While the land will be purchased in year one, the TIF funding will not be realized until year two. This amount will be $510,000 and will offset the cost of the land within the City of Prescott's business TIF district.

In addition to the financial portion of the research, it was necessary to identify optimal routes for the first two routes in the City of Prescott. Data was collected from similar size cities including Menomonie, WI, Morris, MN and Le Sueur, MN. Also, within this research was data taken from the City of Prescott which included information from a 2017 survey offered by the City of Prescott.

Data Collection Procedures

This research was completed as part of the transportation department of S & C Consulting and Management in cooperation with the City of Prescott. A variety of methods were used including review of case studies and already operational transportation services in similarly sized communities, reviews of current documents and records of the City or Prescott and

extrapolation of anticipated usage based on demographics and an existing survey conducted by the City of Prescott.

The first data collection point was the estimated expenses and revenues of the transportation project. This is part of the operational budget development so the cost - benefit analysis included consideration of the capital expenses necessary to begin a transportation service. Year one would include substantial capital expenses to begin operations.

The second set of data included population density research in conjunction with research into the most used potential stopping points to develop feasible routes. Additional information was gathered from small communities who currently operate public transportation, similar to Dunn County Transit located in Dunn, County Wisconsin.

Planning

In review of collected data, it was important to maintain the integrity of the data. To do this, raw data was analyzed. The data reflected whether the public transportation project would be financially viable. The analysis that was completed included: available revenue streams, real and assumed, net and gross profit, operational efficiency including cost savings from economies of scale such as the more buses, the less insurance costs per bus, initial capital expense including buses, buildings, and property, and liquidity over time. Route feasibility was also included in the planning of the analysis and included a review of routes that would reach the most people as well as the timing of routes to maintain a sixty minute round trip. The route was physically driven, timed and recorded for the analysis. Fuel costs were another important item that had to be calculated.

Population density data was collected and reviewed to determine where routes could be developed. Ridership from the City of Prescott survey and access including consideration of

streets and bus stops were analyzed. As a part of the determination of routes, a location needed to be determined for a base of operations. This base of operations included a garage to house the transportation vehicles, a space for maintenance and office space. This was to be located on six acres in the Eagle Ridge Business Park. Considerations for the overall routes and facility locations included potential facility locations within the City of Prescott, distances that would need to be covered, ridership and locations of riders, and regional maps for expansion.

Data Analysis

A cost - benefit analysis was used to evaluate the total anticipated five year expense of this project compared to the total expected five year revenue in order to determine whether the proposed implementation is worthwhile for S & C Consulting and Management and the City of Prescott. The results of this comparative evaluation method suggested that the overall potential revenues associated with a proposed action outweighed the potential expenses. Based on the available startup capital, this project is moving forward for the City of Prescott and surrounding communities.

The cost - benefit analysis, shown in Table 1, was broken into two distinct data collection points. First, it was necessary to identify the potential expenses associated with the transportation service. Second, it was necessary to identify the revenue associated with the transportation service. Once these two points of data were compiled, it was possible to determine a positive or negative net benefit.

Compiling potential expenses included the following monetary costs: start-up fees, licenses, production materials, payroll expenses, user acceptance processes, training, and travel expenses, among others. In addition, non-monetary costs included: time, lost production on

other tasks, imperfect processes, potential risks, market saturation or penetration uncertainties, and influences on one's reputation.

Next, there was an assignment of monetary values to associated monetary and non-monetary costs. Monetary values were stated in present value terms. Once all the monetary values were determined, the anticipated costs were added together to get a total present cost value.

The next step was to identify and compile expected revenue as a result of successful implementation of the transportation system. To do this, the following items were collected: monetary benefits that include direct profits from the services, contributions from investors, state and federal grant allocations, decreased production costs due to improved and standardized processes, and increased production capabilities. In addition, non-monetary benefits included decreased down time, increased reliability and durability, greater customer base, greater market saturation, greater customer satisfaction, and improved company or project reputation.

Like the expense side of the equation, it was necessary to then assign monetary values to the monetary and non-monetary revenues. Once this was complete, the revenues were totaled to get a total present benefit value.

The last step was to take the total present value revenues and subtract the total present value expenses. This in turn showed the net benefit, as shown in Table 2. If the total costs are much greater than the total benefits, the transportation project would not be a worthwhile investment. If total costs and total benefits are roughly equal, reevaluation of the costs and benefits identified would be completed as well as a revision the cost benefit analysis. Items could have been missed or incorrectly quantified. If the total benefits are much greater than the total costs, the project is potentially a worthwhile investment.

Table 1

Cost – Benefit Analysis – Costs and Benefits

	Assigned Values					
	Year 1	Year 2	Year 3	Year 4	Year 5	
Expenses						Totals
Capital	$772,000	$90,000	$60,000	$131,000	$50,000	$1,103,000
Labor	$282,890	$409,425	$575,897	$663,272	$770,750	$2,702,234
Operating	$137,910	$168,819	$217,229	$277,639	$325,549	$1,127,234
Total	$1,192,800	$668,244	$853,126	$1,071,911	$1,146,299	$4,932,380
Revenues						
Tickets	$212,652	$536,652	$865,296	$1,123,056	$1,288,656	$4,026,312
Group	$0	$6,500	$9,500	$14,000	$35,000	$65,000
Grants	$0	$75,000	$125,000	$160,000	$230,000	$590,000
Advertising	$15,000	$30,000	$40,000	$45,000	$50,000	$180,000
Subsidy	$100,000	$60,000	$60,000	$65,000	$80,000	$365,000
TIF	$0	$510,000	$0	$0	$0	$510,000
Total	$327,652	$1,218,152	$1,099,796	$1,407,056	$1,683,656	$5,736,312

Table 2

Cost – Benefit Analysis – Net Benefit

Cost – Benefit Analysis	
Total Present Value Benefits	$5,736,312
Total Present Value Costs	$4,932,389
Net Benefit	$803,932

Moving from a cost - benefit analysis into location of feasible transportation routes, a consideration for fees was applicable in this discussion. While research was completed to compare what similar transportation enterprises are using, a base rate and schedule of service had to be determined. To focus on the need in Prescott, shown in Table 3, four key service pricing categories are to be used: one-way trip, half day pass, full day pass, and monthly pass.

Table 3

Service Costs

Cost to Use the Transportation Service – Dependent on Level of Service	
Regular Scheduled Service	Cost for Service
One Way Trip	$1.50
Half Day Pass	$3.00
Full Day Pass	$5.00
Monthly Pass	$65.00

Feasible Routes

To determine the most feasible and user-friendly transportation routes in Prescott, data was collected from the City of Prescott Comprehensive Plan (Comprehensive Plan Work Group,

2015) based on density of population, location of businesses most used by residents, such as the grocery store, and where the need was most apparent, such as the assisted living care facility.

Once those locations were identified, the focus moved to developing routes between the locations while taking into consideration that routes moving from a starting point through the route and back to the starting point should be less than sixty minutes in total duration. The specific locations for the stops along the routes were determined by need as well as safe stopping locations. The first route, called the red line, had twelve stops, anchored at one end in downtown Prescott and the other end at Ptacek's grocery store. The second route, called the yellow line, had eight stops, anchored at the same locations. These routes connected the critical points including the grocery store, assisted living care facility, four school district buildings, downtown Prescott businesses, three banks and multiple other businesses and residential areas.

Within the framework of the research were steps to identify options for routes. Regional maps, potential routes and multiple service areas were part of this study in concert with specific population centers. Reviews of similar sized communities were completed. The red line and yellow line were designed with specific strategic stops detailed below.

Red line route stops: start finish – downtown Prescott (near many local businesses); stop 1 – Freedom Park; stop 2 – central to a large residential area; stop 3 – fire station, baseball field; stop 4 – residential stop and rider exchange location; stop 5 – elementary school; stop 6 – intermediate School, Senior Center; stop 7 – large residential area; stop 8 – library, city offices, police station, elderly residences; stop 9 – high school, industrial area; stop 10 – nursing home; stop 11 – bank, post office, convenience store; stop 12 – Ptacek's grocery store, UNFI, business park.

Yellow line route stops: start finish - downtown Prescott near many local businesses; stop 1 – middle School, public park, residential area; stop 2 – residential stop, rider exchange location; stop 3 – residential stop, hair salon; stop 4 – business complex, residential stop; stop 5 – bank, Dollar General, trailer court; stop 6 – Tractor Supply Company; stop 7 – bank, Allina Health Clinic, chiropractor; stop 8 - Ptacek's grocery store, UNFI, business park.

Figure 5 shows a map of the City of Prescott (Google, n.d.) in which certain specific locations were identified to help develop appropriate transportation routes. The routes are on publicly used roads within the City of Prescott and do not use any state maintained roads; but do cross such roads. Expansion of routes will include the use of state maintained roads.

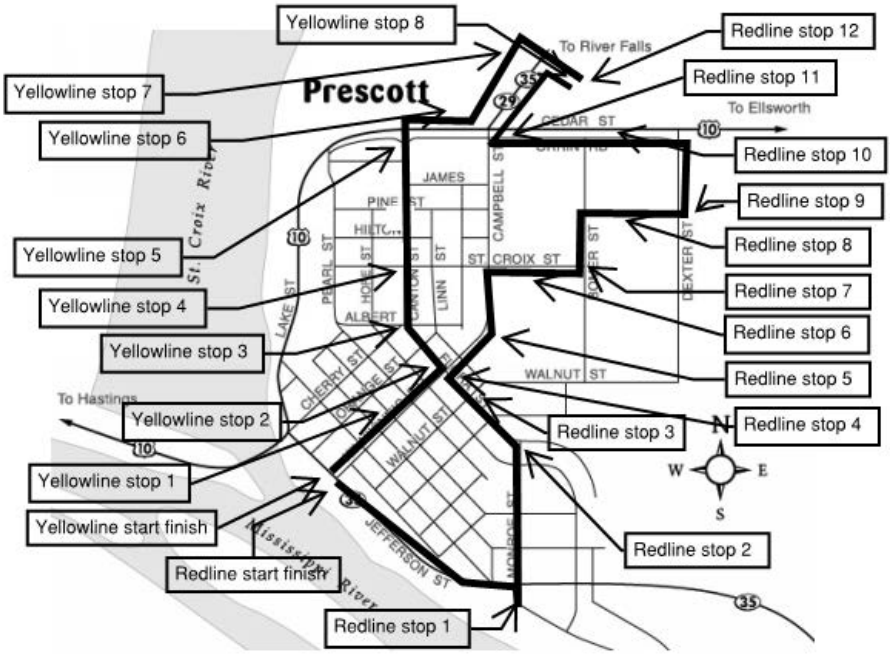

Figure 5. Map of city of Prescott with transportation routes.

Summary

This project looked at the financial and route viability of public transportation in Prescott. Focusing on these building blocks of small town and rural public transportation allowed for an

analysis of the project potential. This data assisted the collaboration effort of S & C Consulting and Management and the City of Prescott to determine next steps.

In determining the revenues for the cost - benefit analysis, options were considered including private investment, public funding and user fees. This information was estimated based on various data collected from multiple points described in previous chapters. The five year projection was favorable to move forward with the project. In fact, the progress was accelerated and six routes are to be opened in year one. This would work to create minimal additional capital outlay, while increasing revenue at a higher rate.

The analysis of the routes and the cost was within tolerances that were acceptable to riders. Since no direct tax dollars were used, riders were able to use the services consistently which was critical to the overall success of the transportation system. In addition, private funding was secured and cash was infused and accounted for on the balance sheet as a combination of equity and shareholder loans.

In response to the positive financial outlook, route determinations and no use of local property taxes, the Prescott City Council voted unanimously to move forward with the project. A letter from the City Administrator was received noting that they were ready to move forward working with S & C Consulting and Management to develop the transportation system.

Chapter V will discuss and review chapters I through IV. Limitations of the study will be reviewed with the considerations that created the limitations. The affect on the City of Prescott moving forward will be detailed as the overall findings were positive. Application to other similar situations will also be covered.

Chapter V will also include final recommendations moving forward for S & C Consulting and Management, the City of Prescott and surrounding communities. This information in a

broader format is not only important for future considerations and negotiations, but for future financial planning.

Chapter V: Discussion, Conclusion and Recommendation

This paper confirmed the financial and route viability of public transportation in the City of Prescott and surrounding communities. Focusing on the building blocks of small town and rural public transportation has allowed for an analysis of the project potential. This data has assisted the collaboration effort of S & C Consulting and Management and the City of Prescott to determine next steps. In determining the revenues for the cost - benefit analysis, all options were taken into account including private investment, public funding and user fees. This information was estimated based on various data collected from multiple points described in previous chapters.

Chapter I shared a statement of the problem and purpose of this study. Financial and data collection assumptions were discussed including the city of Prescott being supportive of the need for public transportation. Definitions of potentially unfamiliar terms were discussed. Limitations of the study were noted. In addition, methodology was considered including the options for how to fund this project.

Chapter II discussed findings of studies conducted in various communities with similar types of public transportation. These included studies of types of transportation, studies from communities in various parts of the world and studies on financial viability of public transportation. This study focused on rural and small town transportation and reviewed information retrieved from communities of similar size and with similar needs as the city of Prescott. Within the framework of the research were steps to identify options for routes. Regional maps, potential routes and multiple service areas where a part of this study in concert with specific population centers. Reviews of similar sized communities were completed.

Chapter III detailed the methodology of how the required data was collected and analyzed. This data was used to determine if the public transportation project could be sustainable. It was a critical part of this study to collect realistic and accurate data. As a part of this collection, a cost – benefit analysis was used to show a five year projection of the potential profitability.

The structure of the cost – benefit analysis was determined and the data collected. In addition, there was data collected relating to where the initial routes would be located. This data was derived from research of the service area as well as the use of a recently collected survey from the city of Prescott.

Chapter IV discussed the overall results of the routes and the financial viability of the project. Financial estimates were based on historical operating costs of similarly sized transportation companies in similar sized communities. A breakdown of the categories of expenses was provided.

Limitations

The study used a generous amount of assumed data and was based on higher costs of system set up: for example, the purchase of new buses versus used buses. Actual and specific ridership was not known.

In addition, the project may face the need to expand exponentially. This data had to be estimated for the cost and benefit sections of Chapter IV.

Conclusions

To realize the revenues estimated in this model, buses must run at an average of 50% capacity. To do this, management must focus on promotion and market penetration. It will also

be critical to search out possibilities of group sales and subsidization from positively affected organizations.

The State of Wisconsin provides funding from its general revenues and allocates rural transit funds from Federal Transit Administration (FTA) Section 5311 program to eligible entities. Working with the city of Prescott, there is opportunity to obtain a significant amount of state or federal funds to start and maintain this service. This project will explore every available opportunity to apply for additional funding for this service, and will enlist the assistance of the city of Prescott in making the case for the efficacy of state and federal organizations investing discretionary dollars to this project.

In partnering with the city of Prescott, this document does not include data regarding the costs to infrastructure primarily focusing on the wear and tear to streets due to the additional bus traffic as a part of this service. The buses will be light in comparison to larger metro type busses, but will have some long term affect to the roadways. This cost will lie solely on the city of Prescott to maintain. When looking at potential routes, consideration was taken as to the width of any particular roadway so as not to interfere with on street parking and other potential obstacles. Location of stops along the routes was also considered taking into account anything around a potential stop such as residences, intersections and other considerations that might be of concern to community members.

Public transportation for Prescott and surrounding communities can offer a needed and convenient transportation alternative. This service will enable residents and visitors to avoid the hassles of parking and traffic. In addition, this will provide an innovative form of advertising for companies who are seeking new ways to penetrate their market. This will enable focused advertising to have a constant physical interaction with the target market. The innovative

collaborations between the private and public organizations will include effective use of traditional, digital and promotional marketing opportunities to local, regional and national sponsors looking to make a meaningful connection with the city of Prescott through our service.

The service for Prescott and surrounding communities will allow residents and visitors to move safely, reliably, efficiently, and affordably. These communities will span west to the Twin Cities Metro area, south along the Mississippi River to La Crosse, Wisconsin, and North past Somerset, WI and to the east to Eau Claire, WI. This plan accounts for the diversity of the region by addressing the transit needs for both business and residents. Citizens will be able to travel to work, medical facilities, and for other area activities in a more cost effective and environmentally friendly way. The transportation service will make connections between population hubs to businesses, recreational activities, medical facilities and other places residents may wish to travel to and from.

The results of the cost – benefit analysis indicate that this transportation project can yield long term profits. The partnership of the private and public entities offers several options for revenue and operational funding. Additional routes will be completed in a timely manner in an effort to grow the service, increase ridership and generate additional revenue from rider fees and advertising. Based on the results and the available funding, the transportation project is moving forward. The specific data relating to this project was presented in Chapter IV.

Recommendations

This service should greatly enhance the city of Prescott. The additional connections to a variety of other communities will set Prescott up as a transportation hub in Western Wisconsin. This service is financially viable in the long term. First year capital expenses will be significant,

but can be accomplished through private, state and federal funding. The benefit of this service will greatly outweigh the costs – monetarily and socio-economically.

Negotiations have begun for the purchase of the property for the bus storage, maintenance and office facility. Data has begun to be collected to complete the state and federal funding documents to obtain grants. Private funding has been sourced. Negotiation with the Internal Revenue Service and Securities and Exchange Commission are ongoing in regards to managing and tracking the private funding dollars.

Other next steps include need for implementation and include the design of shelters, benches and signage, communication with the public regarding updates on planning, system look and feel, establishment of a marketing plan, purchase of buses and planning for the initial opening.

It is anticipated that the implementation will require a minimum of six months to deploy the needed infrastructure and complete final implementation planning, marketing and system startup activities. This period will allow for several items to be undertaken or developed at the same time, including the installation of signage, shelters, hiring and training drivers, marketing, and the production of route maps.

There are additional recommendations that may aid in pushing the transportation project forward. A development plan needs to be created detailing items to complete moving forward. The development plan will include a strength, weakness, opportunity and threat analysis, also known as a SWOT analysis, clearly defined goals, objectives, strategies and tactics. This plan will provide direction for the organization and its members. Some of these specific items would include development of a functional website, expanding relationships with area businesses, purchasing buses, locating sponsor and advertisers, and location of temporary storage space.

Hiring functions need to be started including planning for training, management hiring and development of resources for human resources functions. The specific positions have been identified in previous chapters, but this will need to be further detailed and then candidates will need to be identified, interviews held, background checks completed and job offers initiated. One specific job classification that should be recruited immediately is the transportation director. This person should have a vast background in public transportation, preferably with experience in a small town or rural situation. This candidate would ideally have transportation startup or development experience as a part of their background.

Since growth is important to the overall success of this project, it is important to move forward with additional route and services planning immediately. Negotiations with other cities as well as the state and federal governments need to begin as this work can be tedious and there can be significant red tape to work through. As a part of this growth planning, some key strategies should be used. Simple strategies using a clear vision and purpose should be developed which will include appropriate and regular communication with all invested parties. Capital expenses, labor expenses and operational expenses will need to be closely monitored to ensure responsible and proportional spending is in line with revenue growth.

Additional developmental focus areas can be points for additional growth moving forward. Innovation seeking to satisfy market needs by thinking of new ideas, developing solutions to problems and identifying opportunities. Resource development to sell the idea to others and secure resources to execute the idea. Project leadership to create a team leader planning and organizing organization to aid in balancing project goals with available resources and organizational needs. Gatekeepers to facilitate group communication and project coordination while tracking inside and outside influences of the idea through various channels.

And finally, coaching, promoting and encouraging as well as assisting team members and to protect the team from destructive outside forces while developing a positive and strong corporate culture.

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