

The Potential for Use of A Public Private Partnership on the Southwest Transitway

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Executive Summary

Project Background

The Southwest Transitway is a proposed light rail transit (LRT) line from downtown Minneapolis to the southwestern third-ring suburb of Eden Prairie. The project is currently scheduled to be operational by 2015 and to date has followed the prescribed planning process for the Federal Transit Administration's (FTA) New Starts funding. As funds for fixed guideway transit projects across the United States require increasingly more local funding to compete for a federal match, more project sponsors are looking to public private partnerships as a way to put their projects within reach. The purpose of this paper is to understand the benefits and costs of PPPs to project sponsors and more specifically to evaluate the potential for a public private partnership on the Southwest Transitway project, while simultaneously pursuing New Starts funding.

The New Starts Program

The primary federal resource for fixed guideway transit systems like the Southwest Transitway is the FTA's New Starts program. Projects that would like to compete for federal funds through New Starts must complete each of the planning and project development phases required by the FTA: Alternatives Analysis, Preliminary Engineering and Final Design, as well as the requirements of the 1969 National Environmental Protection Act (NEPA): Draft Environmental Impact Statement and Final Environmental Impact Statement. The New Starts process in conjunction with the NEPA environmental review process is time and labor intensive, requiring several long planning and evaluation periods before a project is considered for a Full Funding Grant Agreement. Furthermore, completing the study requirements does not guarantee New Starts funding; competition for the grant agreements is stiff.

Public Private Partnerships

PPPs enable project sponsors to consolidate some combination of engineering, design, construction, financing and operations into one contract. This reduces the number of bid cycles and contracts within the development of the project, saving time, as well as the effort of contracting sub-contractors and negotiating labor and materials fees. Also, PPP contracts are fixed price and thus protect the owner from inflation. Furthermore, a 1990 Hennepin County Study on turnkey projects shows that they are finished 40-43 months after completion of preliminary engineering; the traditional methods of project procurement take 67-73 months. The shortened timeline results in reduced costs. The partnership allows risk, especially in the areas of cost and ridership, to be distributed to the entity that can best deal with that risk, so that all of the risk associated with the project does not fall to the project sponsor. Finally, the private entity may be able to attract other funding partners for the project.

There are several types of PPPs that can be used for fixed guideway transitways. They are listed below in order of least to greatest private involvement.

- Design-Build (DB)
- Design-Build-Operate-Maintain (DBOM)
- Build-Operate-Transfer (BOT)

- Design-Build-Finance-Operate (DBFO)
- Design-Build-Finance-Operate-Maintain (DBFOM)
- Build-Own-Operate

Lessons Learned: Fixed-Guideway Transit PPPs in the United States

The MAX light rail line from the Portland, Oregon, International Airport to downtown Portland was constructed using a Design-Build method public private partnership. There are several lessons that emerge from the Portland experience.

- First, project staff members stressed the importance of the leadership and the integral role of Portland's governmental structure in ensuring the success of the project. Portland's city government consists of a mayor and four at-large commissioners, which focus on assigned issues instead of on districts. This allowed one commissioner to direct his energies to this project and still be politically viable.
- Second, the Tri-Met staff was able to adjust to the fast track schedule imposed by Bechtel that contracted what would have been a five-year process into 18 months.
- Third, Tri-Met and the Port of Portland both had solid bond ratings and a history of completing projects on time, a crucial factor in securing highly rated bonds to fund the project.

Though the Portland Airport line is a strong example of public private partnership, the project did not pursue federal funding through the FTA New Starts program, and thus provides no evidence of how the partnership would interact with the New Starts application.

The New Jersey Transit used a design-build-operate-maintain (DBOM) method on the Hudson-Bergen LRT line, which runs north-south along the New Jersey Hudson River waterfront from Hoboken to Bayonne.

The Hudson-Bergen line is an example of how the FTA New Starts program and the use of public private partnerships are compatible, and was the first transit project in the United States to use a DBOM procurement method. As a result of the experience, New Jersey Transit fully endorses the use of DBOM for the procurement of light rail systems, though the transit agency offers several lessons:

- First, the Hudson Bergen project benefited from consultation with the DBOM contractor on utility relocation, integration of the project drainage system with the regional system, and system-wide facilities, which required continuous coordination and communication with local agencies, utilities, and stakeholders such as nearby business and property owners. The contractor was a crucial source of input on these design and coordination activities.
- Second, the inclusion of operations responsibilities in the contract greatly benefited the LRT line. Since the DBOM contractor is responsible for 15 years of operation on the line, it is in their best interest to optimize design and capital decisions for operations.

- Third, assigning acquisition of LRT vehicles to the DBOM contractor was important because the vehicles are ingrained in the both the capital components of the system, such as the tracks catenaries, and signals, as well as the operations of the system. Transferring responsibility for acquiring the LRT vehicles shifted the full risk of design, construction, integration testing, demonstration, start-up, operation and maintenance of the entire system to the DBOM contractor.
- Fourth, New Jersey Transit and the DBOM contractor agreed upon a guaranteed price for the operation and maintenance of the line, susceptible only to changes in inflation measured by the consumer price index. The arrangement protects New Jersey Transit from absorbing escalations in operations costs due to non-inflationary reasons, and gives incentive to the contractor to keep operations and maintenance costs low.
- Fifth, when operations and maintenance are part of the PPP, it is important to specify standards and incentives for serving the public in regard to both on-time performance, as well as station cleanliness and service change notifications.
- Finally, when selecting the prime contractor for a DBOM contract, New Jersey Transit has learned that proposals should specify that a prime contractor or a first tier subcontractor should perform the engineering design work. This allows the prime contractor to closely control the design decisions and responsibilities, which reduces communication delays to the project owner.

The design-build method was selected in order to speed the construction process on the Hiawatha LRT project in Minneapolis. Lessons from the Hiawatha LRT design-build experience:

- First, because MnDOT was responsible for the construction of the project and Metro Transit was the recipient of the FTA New Starts grant, each of the 138 change orders during the duration of project delivery had to be executed by both MnDOT and Metro Transit. Though the design team and the project office were located in same building, executing the change orders was timely and awkward (USDOT 2007).
- Second, the Metropolitan Airport Commission (MAC) used the traditional design-bid-build approach to complete civil construction and electrical work on the tunnels below the airport property. The contractor fell behind on the schedule, which would have caused the follow up work done by the LRT design-build contractor also to fall behind. The contractors and project sponsor were able to resolve the issue by working closely together, but the disconnect between the MAC contractor and the design-build contractor revealed the benefit of having the entire project coordinated by a single contractor (USDOT 2007).
- Third, it was important to congenially refuse requests from property owners and neighborhood associations for betterments around the stations and line that were outside the scope of the project (USDOT 2007).
- Fourth, design specifications should be exact for priority items so that the design-build contractor is obligated to follow sponsor-imposed standards.
- Finally, deciding on a design build process early on in the project would have given elected officials time to acclimate to the new procurement method and ease the acceptance of the project in the community.

MnDOT considered the design-build experience on Hiawatha a positive one (Brown 49), and has since used the design-build method for several highway projects (MnDOT 2008).

Analysis and Conclusions

Two USDOT publications were used to evaluate the application of a PPP to the Southwest Transitway project.

First, the *User Guidebook on Implementing Public Private Partnerships for Transportation Infrastructure Projects* (USDOT 2007) maintains that several project characteristics must be in place to warrant a PPP on a fixed guideway transit project.

- *Legal authority and stakeholder desire for a public private partnership*
- *A demonstrated transportation need*
- *The sponsoring agency lacks the resources to fund or deliver the project alone*
- *A strong commitment by key stakeholders, project champions*
- *A large and complicated project*
- *Adequate funding potential*

A review of the Southwest Transitway project finds that the project mostly or entirely satisfies all of these characteristics, indicating that the project is a good candidate for a PPP by the *Guidebook* standards.

Second, the kinds of state legislation that could prohibit PPPs on fixed guideway transit projects in Minnesota was reviewed, as an evaluative measure suggested by the *Report to Congress on the Costs, Benefits and Efficiencies of Public Private Partnerships for Fixed Guideway Capital Projects* (USDOT 2007). Minnesota statutes governing the potential for use of PPPs on transit projects are less restrictive than in other states. However, the legislation is in some cases specific to highway projects, and is silent on the application of a PPP to transit projects. Overall, however, the legal parameters are in place to support a design-build PPP on the Southwest Transitway, though legislative action may have to be taken to ensure the use of DBOM on an LRT project.

Third, though the Portland MAX project, Hudson-Bergen LRT, and Hiawatha LRT projects all offer lessons for adjusting and improving the PPP process, all three project sponsors endorse the use of a PPP on fixed guideway transit projects. Their endorsement and the opportunity to take advantage of their experience is the third recommendation for a PPP on the Southwest Transitway.

Fourth, though the Public Private Partnership Pilot Program (Penta P) is still underway, and results of Penta P will determine the extent to which the New Starts process is altered to accommodate PPPs, FTA has already recognized that PPPs offer ways to reduce risk to the Federal government. The reduced risk to the government allows an acceleration of the New Starts process, which brings transit benefits to the public sooner and saves project sponsor, and thus taxpayer dollars. Though politics are uncertain, it is possible that New Starts program regulations in the 2009 surface transportation bill will be more accommodating and rewarding of public private partnerships to encourage increased use

of PPPs. These potential changes in favor of using PPPs on fixed guideway transit projects further strengthen the recommendation to use a PPP on the Southwest Transitway.

Finally, even without changes to the New Starts program, a PPP approach on the Southwest Transitway still offers advantages.

- Shifting the risk of the construction phase on to a private sector firm can increase the financial rating of the project and in turn its overall New Starts rating. The project can also reduce costs by eliminating bid cycles, potentially boosting the cost-effectiveness rating of the project, both of which increase the attractiveness of the project to the FTA.
- Eliminating bid cycles also shortens the timeline of the project, making transit benefits available to Twin Cities residents sooner than with the traditional method of procurement.
- Projects like the Hudson-Bergen LRT line in New Jersey, the Portland Airport MAX, and Hiawatha LRT, provide valuable guidelines to successful management of a PPP.
- MnDOT and Metro Transit, as well as stakeholders in the Twin Cities have experience with the design-build approach; the lessons from the Hiawatha experience will help to smooth the way for a PPP on the Southwest Transitway, both politically and in regard to project management.
- Minnesota state law allows for use of PPPs on fixed guideway transit projects. This is a relative advantage that projects in Minnesota have over other states. The Southwest Transitway should exploit this advantage to increase the viability of the project in the competitive New Starts program.

The 2009 surface transportation bill, economic conditions, politics, stakeholder investment and support, and the ability to find well-matched private partners will all play a part in determining the suitability of engaging in a PPP. At this stage in the planning process, it appears that the Southwest Transitway is a strong candidate project for a public private partnership.

Introduction

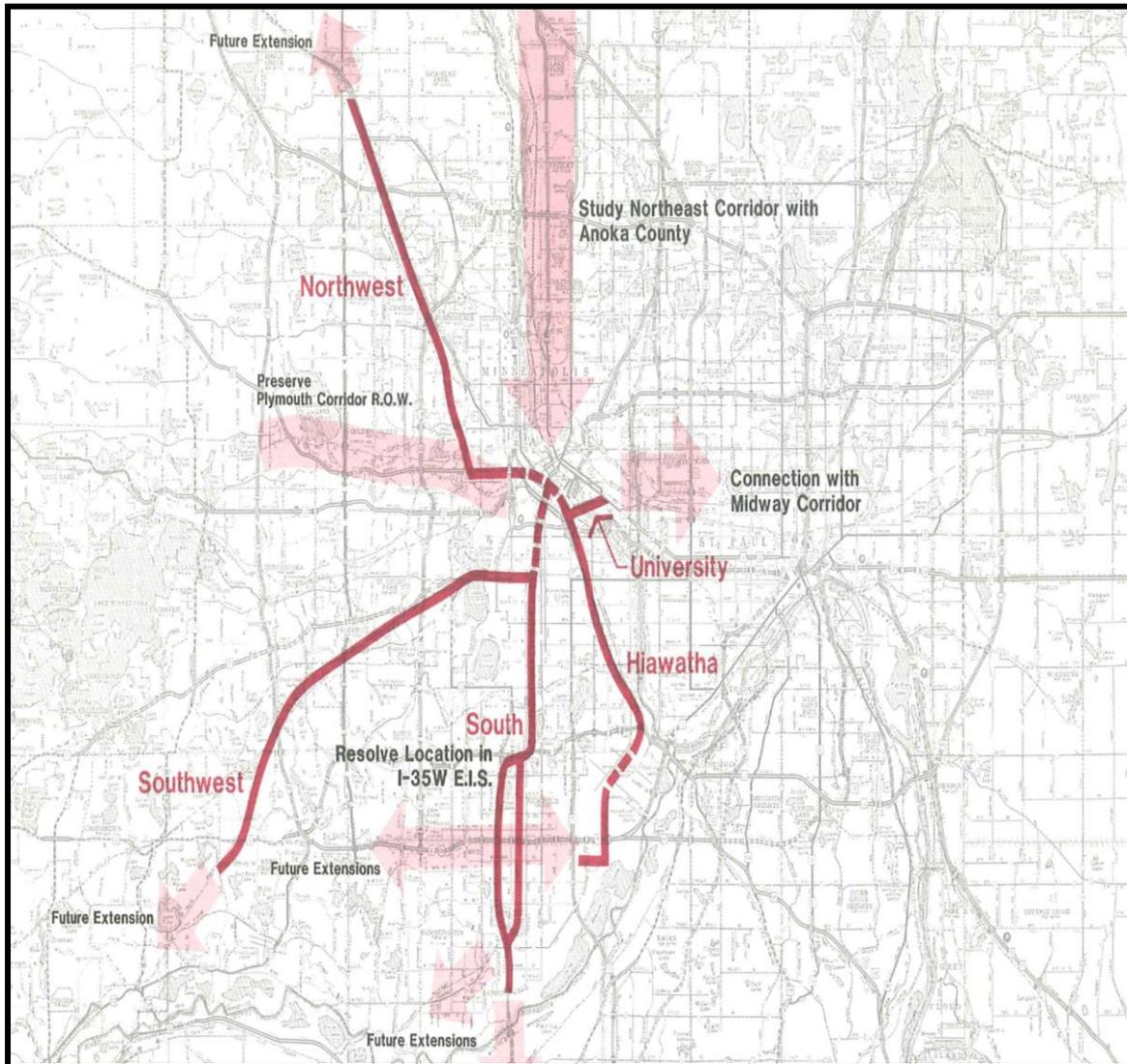
The Southwest Transitway is a proposed light rail transit (LRT) line from downtown Minneapolis to the southwestern third-ring suburb of Eden Prairie. The project is currently scheduled to be operational by 2015 and to date has followed the prescribed planning process for the Federal Transit Administration's (FTA) New Starts funding. As funds for fixed guideway transit projects across the United States require increasingly more local funding to compete for a federal match, more project sponsors are looking to public private partnerships as a way to put their projects within reach. The purpose of this paper is to understand the benefits and costs of PPPs to project sponsors and more specifically to evaluate the potential for a public private partnership on the Southwest Transitway project.

The first section of the paper is dedicated to defining the context and history of the Southwest Transitway to date. The second section considers the traditional New Starts process for funding the Southwest Transitway and other fixed guideway projects. The third section is devoted to an in-depth consideration of public private partnerships: the evolution of PPPs, costs and benefits of using PPPs in fixed-guideway transit projects, and the different kinds of PPPs possible. The fourth section reviews the use of PPPs in Portland, Oregon, Eastern New Jersey, and the Hiawatha LRT line in Minneapolis. The fifth section is an evaluation of the impact a PPP would have upon the Southwest Transitway New Starts application and uses a range of criteria to determine whether or not a PPP should be pursued for the Southwest Transitway. Finally, the conclusion sums up the results of the evaluation: a public private partnership would boost Southwest Transitway's New Starts rating, improving the chances of receiving federal aid for the project and making it a reality.

Project Background

In 1987, the Minnesota State Legislature directed the Hennepin County Regional Railroad Authority to develop a comprehensive plan for a light rail transit system in Hennepin County. In response to the legislative action, the HCRRA produced the *Comprehensive LRT Plan for Hennepin County*, which included a 20 year long-term plan as well as an eight year Stage One Plan. The 20 year plan, shown below in Figure 1, included the Hiawatha, University Connector (now referred to as the Central Corridor), Interstate 35W South, Southwest and Northwest Corridors, which had all been identified by the Metropolitan Council as candidate corridors for LRT service in the Regional Transportation Policy Plan. The eight year Stage One Plan consisted of the University Connector line as well as shortened segments of each of the other four corridors identified in the 20 year plan; all corridors would be connected by an underground downtown segment.

Figure 1: Twenty-Year Comprehensive LRT Plan for Hennepin County



Source: *Comprehensive LRT System Plan for Hennepin County*, HCRRA, June 1988

The preferred alignment for the Southwest Corridor followed the Soo Line right-of way from Baker Road and Interstate 494 in Eden Prairie, through Minnetonka, Hopkins, and St. Louis Park into Minneapolis along the Midtown rail corridor until Nicollet Avenue where the alignment turned north into a tunnel to downtown Minneapolis.

A Draft Environmental Impact Statement (DEIS) on the Southwest Corridor was completed in 1989 and localized planning for the light rail began. However, the Minnesota state legislature failed to approve funding to continue the project and the study was abandoned by Hennepin County in 1990.

In 2002 the Southwest Corridor project was revived; the Hennepin County Regional Railroad Authority (HCRRA) commissioned the *Southwest Rail Feasibility Study*. Four routes to access downtown Minneapolis were investigated:

- Via Highway 100: This alignment was eliminated during the preliminary screening due to lack of available right of way, as well as lack of transit service to population and employment concentrations in St. Louis Park.
- Lyndale Avenue At-Grade: This alignment was eliminated during the detailed screening phase because of traffic, business, visual/aesthetic, and cost impacts.
- Canadian Pacific Rail Corridor: This alignment was not recommended for further study due to the lack of service to population and employment concentrations in St. Louis Park, longer travel times, and less potential to improve ridership
- Kenilworth Corridor: This alignment was retained for further study.

Upon completion of the Rail Feasibility Study in 2005, the HCRRA commissioned the *Southwest Alternatives Analysis*. The Alternatives Analysis built upon the previous *Southwest Rail Feasibility Study* and input from each of the five affected cities as well as community meetings and open houses to form a refined set of three LRT alternatives and one enhanced bus alternative for the Southwest Corridor. Please see Appendix B for a map of the alignments.

- LRT Alternative 1A
- LRT Alternative 3A
- LRT Alternative 3C
- Enhanced Bus Alternative

Currently the Southwest Transitway is in the DEIS Phase of the planning process once again. The three LRT alignments and the enhanced bus alternative, as well as two additional LRT alignments submitted during the public comment period are under review. When the final locally preferred alignment is selected, the Alternatives Analysis will be complete and Hennepin County will submit the alignment to the Metropolitan Council for inclusion in the 2030 Transportation Policy Plan for the Region. Upon acceptance, the project will submit a New Starts application and enter Preliminary Engineering.

Funding a Fixed Guideway Transit Project Through the New Starts Program

The primary federal resource for fixed guideway transit systems like the Southwest Transitway is the FTA's New Starts program. The 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) authorized \$6.6 billion in New Starts funding through 2009. Of this pool, \$600 million has been set aside for "Small Starts" projects, those that cost less than \$250 million and require no more than \$75 million of federal funds (FTA 2005). Regardless of the alignment choice on the Southwest Transitway, the project will cost \$865 million to \$1.4 million¹ and thus does not qualify as a "Small Starts" project (Hennepin County 2008). Upon FTA approval to file a New Starts application, the Southwest Transitway will compete with over 330 projects across the nation for New Starts funding (FTA 2005). The criteria for approval of a New Starts project, outlined in SAFETEA-LU, are composed of three broad categories:

¹ Projected costs are in 2015 dollars.

Process: Alternatives Analysis, Preliminary Engineering & Final Design

The Alternatives Analysis, Preliminary Engineering and Final Design stages are considered the planning and project development phases. This is when the project justification is refined and the planning, environmental, engineering and design issues and requirements are addressed. A locally sponsored project such as the Southwest Transitway does not need FTA permission to enter into the first stage, the Alternatives Analysis, but FTA approval must be granted before a project advances to the Preliminary Engineering and Final Design stages (FTA 2008).

Project Justification

In order to qualify for New Starts funding, projects must be justified based on several criteria, outlined below in Table 1.

Table 1: New Starts Project Justification Criteria and the Measures of Each Criteria

Criterion	Measures
Mobility Improvements	<ul style="list-style-type: none"> • Travel Time Savings (transportation system user benefits per project passenger mile) • Number of transit dependent riders using the proposed New Starts project • Transit dependent user benefits per passenger mile on the project • The share of user benefits receive by the transit dependents compared to the share of transit dependents in the region
Environmental Benefits	<ul style="list-style-type: none"> • Environmental Protection Agency Air Quality Designation
Cost Effectiveness	<ul style="list-style-type: none"> • Incremental costs per hour of transportation system user benefit • Incremental costs per new rider
Transit Supportive Land Use & Future Patterns	<ul style="list-style-type: none"> • Existing land use • Transit supportive plans and policies • Performance and impacts of policies
Other Factors	<ul style="list-style-type: none"> • Economic development • Making the case for the project • Congestion pricing • Optional considerations

Source: FTA 2008

Local Financial Commitment

The FTA continually reviews the local financial commitments to projects vying for New Starts funds. The projects are rated based on the level of local funding proposed for the project, and the extent to which the funding is dedicated and in place. The project cost

estimates and revenue forecasts, as well as contingency funds are all reviewed for reasonableness and ability to address funding shortfalls or unanticipated project costs. The ability of the project sponsor to carry out operations and maintenance are also considered (FTA 2008).

When evaluating each project’s financial commitment, the FTA rewards projects with a lower share of expected funding from the New Starts program, shown in Table 2, below.

Table 2: Relationship Between FTA Financial Ratings & Requested New Starts Funding

Rating	New Starts Share	Non-New Starts Share
High	<35%	>65%
Medium-High	35% - 49%	51% - 65%
Medium	50% - 60%	40% - 50%
Low	>60%	<40%

Source: FTA 2007

In order to secure New Starts funding, projects have incentives to go above and beyond requirements in order to achieve higher ratings that will lead to Full Funding Grant Agreements.

Composite Rating

The FTA rates each of the three criteria, then criteria ratings are compiled for a project rating, which is updated annually, as well as each time a project requests approval to enter the next stage, whether it’s Preliminary Engineering or Final Design. Projects are rated on the following scale: high, medium-high, medium, medium-low, or low. Projects rated medium through high are eligible for New Starts funding, though the funding allocation is still uncertain and is determined by several factors:

- Existing Full Funding Grant Agreements must be met before additional funding recommendations are made.
- Full Funding Grant Agreements or Project Construction Grant Agreements will not be made until the project has progressed to the point where its scope, costs, benefits and impacts are considered final.
- Funding will be provided to the most worthy investments, determined by the results of the project evaluation process of project justification, local financial commitment, and overall project ratings.
- Additional costs above and beyond the Full Funding Grant Agreement amount are the responsibility of the project sponsor (FTA 2008).

The New Starts process also requires that projects comply with the 1969 National Environmental Protection Act (NEPA). Projects must undergo an environmental review which details the potential impact that the project will have on air and water quality, noise and vibration, historic and cultural properties, parklands, contaminated lands, displacement of residences and businesses, and community preservation. Alternatives to reduce the harm to the community as well as the environment must be identified (FTA 2008).

The New Starts process in conjunction with the NEPA environmental review process is time and labor intensive, requiring several long planning and evaluation periods before a project is considered for a Full Funding Grant Agreement. Completing the study requirements does not guarantee New Starts funding; competition for the grant agreements is stiff. In January of 2007 there were 21 projects in either Preliminary Engineering or Final Design and the New Starts funding requested from these 21 projects totaled nearly 11 billion dollars (FTA 2007). Project sponsors look for ways to increase their rating and make their projects more competitive; this is where public private partnerships come in.

Public Private Partnerships (PPP)

Background

In addition to the various kinds of public funds for transit, there is an increasingly popular method, used around the world, for delivering large scale public infrastructure projects: public private partnerships. PPPs are characterized by three components: First, there exists a legally binding agreement between a public entity and a private individual or organization; Second, the agreement includes some form of remuneration by the private to the public sector, either revenue payments or cost-sharing; Third, there is a voluntary agreement to all terms and conditions. Supporters of this method of finance contend that “collaborations that involve the private sector in the design, building, financing and operation phases have recently become common ways for governments to get help both raising funds for new public infrastructure and controlling the escalating construction costs and performance shortfalls that had been criticized in projects designed, financed and operated by the public sector” (Siemiatycki 2007).

Public private partnerships in the form that we know today emerged as a response to the failed federal urban renewal programs of the 1960s, when government attempts to revive downtowns, clear land and inspire development were faltering. Inflation was high, federal dollars to cities were short, and municipal officials looked to the value of publicly held land to increase the city coffers. Public officials were able to leverage the value of the land to create risk-sharing agreements with private developers and complete large-scale redevelopment projects (Sagalyn 2007).

The Carter administration responded to these local initiatives by creating the United Development Action Grant (UDAG) program in 1977, which allowed municipalities to compete for grants to form PPPs. With the grant money cities did not often turn around and make grants for new development, but instead used the money to make loans to private developers, which they fully expected to be paid back. Cities also bargained for clauses that included a long-term commitment from the developer, usually in the form of an agreement for shares of future profits. The probability of receiving a UDAG grant significantly increased for projects with the long-term component, and gave the project political clout. This new model defined what has now become a conventional relationship between public and private entities (Sagalyn 2007).

The benefit of the partnership to the public sector is the ability to leverage the support of investors, who will be motivated to make a profit from the project and thus motivated to keep the risk of cost overruns at a minimum. This can be an attractive feature on a New Starts application, increasing its rating and likelihood of receiving funding. Furthermore, since some private firms involved in the partnerships have stakes not just in the construction of the project, but also in the operation of it, there is extra incentive for these projects to create a system that is cost sensitive to capital, operations, and maintenance.

Benefits and Costs of Public Private Partnerships

Public private partnerships, also called turnkey contracting², provide several benefits to transit project owners, usually transit operators or local units of government. First, a public private partnership reduces the number of bid cycles and contracts within the development of the project. This saves time, as well as the effort of contracting sub-contractors and negotiating labor and materials fees. Second, these contracts are fixed price and thus protect the owner from inflation. Furthermore, a 1990 Hennepin County Study on turnkey projects shows that they are finished 40-43 months after completion of preliminary engineering; the traditional methods of project procurement take 67-73 months. The shortened timeline results in reduced costs; please see Appendix A. Third, the partnership allows risk of the project to be distributed to the entity that can best deal with that risk. For example, the private entity might manage the foreign exchange risk encountered with buying transit equipment from overseas, where much of it is produced. Fourth, the private entity may be able to attract other funding partners for the project. Finally, the FTA has summed up the benefits of public private partnerships in transit projects:

- Lower capital and operating costs
- More rapid project completion
- Better or more comprehensive product performance guarantees (ie: fewer opportunities for multiple contractors to pass off responsibilities)
- Access to sophisticated technology and methods
- Flexible financing
- Risk sharing
- Fixed price contracting (FTA 1998)

Costs of public private partnerships revolve around the enormity and long timeline of most fixed-guideway projects, which create uncertainty for both the public and private entity. First, there is the uncertainty that the project will ever proceed to the construction phase; funding, the state of the economy, politics, environmental hazards, or poor leadership can delay or end a project. Second, bidding for the projects is a major undertaking for contractors; outcomes are uncertain and proposal costs are high. Third, construction risks for fixed-guideway projects are very high because of the variety of conditions the alignment must pass through. Each bridge, tunnel, and at-grade crossing expands the risk of the project. Fourth, the conditions of the contract are likely to need modification throughout

²Turnkey contracting refers to the delivery of a building in finished condition, so that the owner may take possession by turning the key in the lock (FTA, Innovative Techniques for America's Transit Systems).

the life of the project. This presents a risk of litigation if negotiations do not proceed smoothly. Finally, the private partner may be concerned that the public sponsor will not meet its financial obligations. Risks include:

- Decline in the yield of a dedicated revenue source
- Failure to appropriate funds conditionally pledged
- Pre-emption or discontinuation of dedicated funding for other purposes by a higher level of government, by legal challenge, or by popular referendum
- Expiration of the legal authority to levy a dedicated tax
- Inadequacy of funding to build and operate the project due to rising costs, poor financial planning, or inadequate contingency reserves (FTA 1998).

The FTA maintains that, “The most realistic applications of vendor financing in turnkey projects occur in the area of construction financing” (FTA 1998). Because transit systems rely on grants to fund their projects, they have little credit. A private partner could be chosen partially based on their favorable credit rating and ability to finance the construction of the project.

The following section is devoted to describing the various forms of public private partnerships used in the United States, as defined by the United States Department of Transportation. Costs and benefits of each kind of partnership are also detailed.

Defining the Different Kinds of Public Private Partnerships

Public private partnerships are used to finance varying kinds of large-scale infrastructure and development projects. The United States Department of Transportation created definitions of the different kinds of PPPs to clarify the role of the partnerships in transit projects specifically. These definitions were presented to Congress in September 2007, in the *Report to Congress on the Costs, Benefits, and Efficiencies of Public-Private Partnerships for Fixed Guideway Capital Projects* and are briefly summarized below.

As a reference, the traditional method of designing and building a transit project, still used by the majority of transit projects in the United States, is called Design-Bid-Build (DBB). Generally, with the DBB method, the public unit of government sponsoring the project accepts bids for the assignment of preparing the preliminary engineering and design plans or the environmental review, and selects, based on qualifications, a private firm to perform this work. When this stage is complete the sponsor then accepts bids and selects, usually based on bid price, a separate firm to construct the project. Through all stages of the project, regardless of contracted firms, the project sponsor assumes the financing, operation and maintenance of the facilities, and the risk associated with implementation of the drawings and plans (USDOT 2007).

Public private partnerships vary in the degree to which the financing and risk is assumed by the private sector, and in the aspects of the project for which the private sector is contracted. The Build-Operate-Transfer (BOT), Design-Build-Operate (DBO), and Design-Build (DB) methods are considered to have lesser private sector involvement than the Design-Build-Finance-Operate (DBFO), Design-Build-Finance-Operate-Maintain (DBFOM) and the Build-Own-Operate methods; all are described below (USDOT 2007).

Using either a Build-Operate-Transfer (BOT) method or a Design-Build-Operate-Maintain (DBOM) method transfers the responsibility for the design, construction, operation and maintenance of the facilities to the contractor for a specified period of time. Within the contract are standards relating to the physical condition of the system, its capacity, congestion effects and ride quality. Because the contractor is responsible for operations performance, there are increased incentives for a high quality project that is efficient to operate as well as build. The New Jersey Transit Hudson-Bergen LRT line and the JFK Airtrain were both DBOM projects.

The Design Build (DB) process is a fairly new method to transit projects. It involves consolidating the design and construction work into one contract, though several private firms working together may carry out the work. The firm(s) under contract assume the risk that the plans and design specifications are correct, though the sponsor may still retain the risks associated with environmental review, permits, and right of way acquisition. Benefits of DB are the potential shortening of the project timeline through coordination of the designing and building processes, possible lower construction costs because of the shortened timeline, a reduced need for change orders, and the elimination of the bidding process between the two contract periods present in the traditional DBB approach. The Hiawatha LRT line in Minneapolis was built using the DB method.

The Design-Build-Finance-Operate (DBFO) and Design-Build-Finance-Operate-Maintain (DBFOM) methods add to the contractors' responsibilities from the BOT and DBOM models. DBFO and DBFOM have a financing component; the contractor assumes all of the financial risks associated with designing and building the project, in exchange for repayment through revenue taken in by the project, or through local tax revenue. These methods are appealing to local governments because they enable the community to build the project without incurring debt in the form of bonds. The Las Vegas Monorail was built using private funding only in the DBFOM approach.

With the Build-Own-Operate (BOO) approach, the contractor is responsible for the design, construction, operation, and maintenance of the project and resulting facilities. When the project is complete, the contractor is the owner responsible for all operations and risk associated with running the facility.

Public Private Partnerships in the U.S.

Portland Airport MAX Line, Oregon

The MAX light rail line from the Portland, Oregon International Airport to downtown Portland was constructed using a Design-Build method public private partnership. In this case, the initiative came from the private partner, Bechtel, an infrastructure-engineering firm, and the Port of Portland, which controls four airports, five marine terminals and six industrial parks (Smith 2001). Leaders at Bechtel and the Port invited local agencies to create a financial structure for the project. A group of five leaders, one from each of the organizations that would see the project through to completion, set up a structure for

managing the project. In “Financing the Airport Light Rail Line in Portland, Oregon: A Case Study of Public-Private Partnership”, Paul Smith documents the importance of the leadership on this project, “The heads of the four public agencies had worked closely together before. Instinct now guided them in gauging each other’s commitment to the project at hand” (Smith 2001). A plan emerged for Bechtel to design and construct the 5.5 miles of light rail in exchange for a plot of undeveloped Port property. The line was divided into three segments, each financed in a different way, but with risk assumed by the sponsoring agencies, not the private firms.

The first segment, the 1.2 mile, “Terminal Segment” was entirely on airport property. The Port of Portland financed this segment by seeking permission from the Federal Aviation Administration to use passenger facility charges to raise \$4.7 million of the \$24.6 million of which the Port was responsible. The remaining money would be raised through a general airport bond issue, which also included money for various aviation projects.

The second segment, called the Portland International Center Segment, was 1.4 miles long and budgeted for \$23 million. Bonds issued by the Portland Development Commission, which concurrently issued development rights to a joint venture company of Bechtel and Trammel Crow, a real-estate group, paid for this segment. The bonds will be repaid by the Bechtel-Trammel Crow venture over the course of thirty years.

The final segment was called the Gateway Segment and connected the line with the hub of the existing light rail system. Projected for \$73.7 million, the funding for this segment came from Tri-Met, Portland’s transit provider, the Portland Development Commission, and Metro, Portland’s regional government (Smith, 2001).

There are several lessons that emerge from the Portland experience.

- First, project staff members stressed the importance of the leadership and the integral role of Portland’s governmental structure in ensuring the success of the project. Portland’s city government consists of a mayor and four at-large commissioners, which focus on assigned issues instead of on districts. This allowed one commissioner to direct his energies to this project and still be politically viable.
- Second, the Tri-Met staff were able to adjust to the fast track schedule imposed by Bechtel that contracted what would have been a five year process into 18 months.
- Third, Tri-Met and the Port of Portland both had solid bond ratings and a history of completing projects on time, a crucial factor in securing highly rated bonds to fund the project.

The case study of Portland sheds light on a number of positive aspects that can come of a well-executed public private partnership, namely a project that is on time, on budget, and would never have been possible without the partnership. The Portland experience might not be perfectly applicable to other light rail projects; there are several characteristics about this project that eased its planning process and are worth noting. First, acquiring

right of way for rail passage is often the most expensive part of a project. In this case, most of the right of the way for the project was already in place. Second, a majority of the right of way passed through Port-owned land. Presumably there are few residents or business owners along these segments, reducing the chance of citizen opposition to the project. Third, this was a relatively short project, measuring only 5.5 miles, considerably reducing the magnitude of investment needed. Finally, though the Portland Airport line is a strong example of public private partnership, the project did not pursue federal funding through the FTA New Starts program, and thus provides no evidence of how the partnership would interact with the New Starts application.

Hudson-Bergen Line, New Jersey

The New Jersey Transit Hudson-Bergen Line used a design-build-operate-maintain (DBOM) method to construct, operate, and maintain the LRT line, which runs north-south along the New Jersey Hudson River waterfront from Hoboken to Bayonne.

Planning for the Hudson-Bergen line began in 1984 with a study of the area's transportation needs. Just a few years earlier, the Jersey waterfront was mostly abandoned industrial centers and vacant land, but its immediate proximity to New York City with Port Authority Trans-Hudson (PATH) train access were realized as opportunities for development and change, and as early transportation planning began, businesses were already starting to locate in the once-empty buildings (Birch and Fitzsimmons 2003).

The Alternatives Analysis and DEIS were completed in 1992 and the locally preferred alternative was selected in 1993. In 1994, New Jersey Transit decided to forgo the conventional design-bid-build approach and instead use the DBOM approach to shorten the construction period and deliver the transit service more quickly. By 1996, New Jersey Transit had received its Full Funding Grant Agreement, for the initial segment of the project, from the FTA; the remainder of the funding for the project came from the New Jersey Transportation Trust Fund (Forman 2001) and a separate FTA Urbanized Area Grant. Soon after the Full Funding Grant Agreement was secured, Washington Infrastructure Partners, a Washington, D.C. based contractor, was hired to construct the first segment of the LRT system. This contractor would also be responsible for the operation and maintenance of the line over a 15-year term. New Jersey Transit Executive Director Jeffrey Warsh said that, "The [DBOM] contract has allowed us to shave seven years off the construction schedule and an estimated \$300 million off construction costs" (American City & County 2000). The line was split into three Minimum Operating Segments (MOS). The first MOS opened in 2000, the second MOS in 2003, and the complete 20.5-mile system is expected to be fully operational in 2010 (Birch and Fitzsimmons 2003).

The Hudson-Bergen line is an example of how the FTA New Starts program and the use of public private partnerships are compatible, and was the first transit project in the United States to use a DBOM procurement method. In an FTA report on the DBOM procurement process, New Jersey Transit endorses the use of DBOM for the procurement of light rail systems, and states that "the project benefited greatly from the DBOM contractor's design philosophy and construction methodology while optimizing capital expenditures and

making design decisions that affected operations” (FTA 2001). However, the Hudson-Bergen Line management team also offers several lessons and recommendations for the most effective use of the DBOM.

- First, the Hudson Bergen project benefited from consultation with the DBOM contractor on utility relocation, integration of the project drainage system with the regional system, and system-wide facilities, which required continuous coordination and communication with local agencies, utilities, and stakeholders such as nearby business and property owners. The contractor was a crucial source of input on these design and coordination activities.
- Second, the inclusion of operations responsibilities in the contract greatly benefited the LRT line. Since the DBOM contractor is responsible for 15 years of operation on the line, it is in their best interest to optimize design and capital decisions for operations.
- Third, assigning acquisition of LRT vehicles to the DBOM contractor was important because the vehicles are ingrained in the both the capital components of the system, such as the tracks catenaries, and signals, as well as the operations of the system. Transferring responsibility for acquiring the LRT vehicles shifted the full risk of design, construction, integration testing, demonstration, start-up, operation and maintenance of the entire system to the DBOM contractor.
- Fourth, New Jersey Transit and the DBOM contractor agreed upon a guaranteed price for the operation and maintenance of the line, susceptible only to changes in inflation measured by the consumer price index. The arrangement protects New Jersey Transit from absorbing escalations in operations costs due to non-inflationary reasons, and gives incentive to the contractor to keep operations and maintenance costs low.
- Fifth, when operations and maintenance are part of the PPP, it is important to specify standards and incentives for serving the public in regard to both on-time performance, as well as station cleanliness and service change notifications.
- Finally, when selecting the prime contractor for a DBOM contract, New Jersey Transit has learned that proposals should specify that a prime contractor or a first tier subcontractor should perform the engineering design work. This allows the prime contractor to closely control the design decisions and responsibilities, which reduces communication delays to the project owner.

Hiawatha LRT Line, Minneapolis

Though Metro Transit, a division of the Metropolitan Council, would operate and maintain the line, Minnesota state law required that construction of the Hiawatha LRT line be managed by the Minnesota Department of Transportation (MnDOT). The design-build method was selected in order to speed the construction process and Minnesota Transit Constructors, a joint venture of four construction and design firms, won the contract. The Hiawatha LRT line was MnDOT’s first light rail construction project, as well as its first design-build project, and MnDOT project manager John Caroon noted that the design-build method took some acclimation because project construction moved at a much faster pace (Brown 46).

There were several advantages of the design-build process identified in the Hiawatha line construction:

First, after the scope of work had been agreed upon and construction had begun, the Metropolitan Council, in response to pressures from the FTA, moved the Mall of America Station from a location across the street from the mall to one inside an existing parking garage adjacent to the mall. This involved adding 0.4 miles of track as well as cutting away the garage floor to create sufficient overhead clearance for the trains without disturbing the pilings of the building. The design-build team was able to accommodate this last-minute change without lengthening the project timeline (Brown 46).

Second, Minnesota Transit Constructors took on the risk of extra work as a result of imperfect soil conditions. A geotechnical engineer accompanied the crew, measuring soils as the project moved along. If soils were poor, a team of engineers recommended a solution on the spot (Brown 46).

Third, the design-build team worked with the City of Minneapolis and electric companies to relocate the scattered utilities under 5th Street in Downtown Minneapolis. Because of these utilities and the basements of nearby buildings, the crew was only able to bore 18 inches into the ground in some areas, while still fitting the train and its overhead catenary wires beneath the skyways in Downtown (Brown 46).

The Federal Transit Administration reports that MnDOT and Metro Transit reduced overhead costs on the project by \$25 to \$38 million dollars because the line was completed one year ahead of a traditional method completion date.

Lessons from the Hiawatha LRT design-build experience:

- First, because MnDOT was responsible for the construction of the project and Metro Transit was the recipient of the FTA New Starts grant, each of the 138 change orders during the duration of project delivery had to be executed by both MnDOT and Metro Transit. Though the design team and the project office were located in same building, executing the change orders was timely and awkward (USDOT 2007).
- Second, the Metropolitan Airport Commission (MAC) used the traditional design-bid-build approach to complete civil construction and electrical work on the tunnels below the airport property. The contractor fell behind on the schedule, which would have caused the follow up work done by the LRT design-build contractor also to fall behind. The contractors and project sponsor were able to resolve the issue by working closely together, but the disconnect between the MAC contractor and the design-build contractor revealed the benefit of having the entire project coordinated by a single contractor (USDOT 2007).
- Third, it was important to congenially refuse requests from property owners and neighborhood associations for betterments around the stations and line that were outside the scope of the project (USDOT 2007).
- Fourth, design specifications should be exact for priority items so that the design-build contractor is obligated to follow sponsor-imposed standards.

- Finally, deciding on a design build process early on in the project would have given elected officials time to acclimate to the new procurement method and ease the acceptance of the project in the community.

MnDOT considered the design-build experience on Hiawatha a positive one (Brown 49), and has since used the design-build method for several highway projects (MnDOT 2008).

Analysis & Conclusions

First, the United States Department of Transportation commissioned a 2007 study, *User Guidebook on Implementing Public Private Partnerships for Transportation Infrastructure Projects*, which lists several key components for adoption of a public private partnership method of project procurement. Though the report's focus is on transportation infrastructure in general, and does not specifically address the issues of using a public private partnership on a transit project, there are several general requirements for using a public private partnership that are identified in the *Guidebook* and are applicable to considering the feasibility of a public private partnership on the Southwest Transitway.

- *Is there legal authority and stakeholder desire for a public private partnership?* Hennepin County is currently the project sponsor, but when the project enters into Preliminary Engineering it will be transferred to the Metropolitan Council, which will maintain the relationship with the FTA and continue the New Starts process. The Metropolitan Council and MnDOT have already demonstrated the ability and desire to engage in the public private partnership approach with the Hiawatha line. Furthermore, the Counties Transit Improvement Board (CTIB), a joint powers board that is one of the primary future funders of the Southwest Transitway, partnered with the Metropolitan Council and the University of Minnesota on the Accelerating Transitways Workshop, which included exploration of PPP as an option for building fixed guideway transit systems in the Twin Cities region.³
- *Is there a demonstrated transportation need?* The transportation needs to be fulfilled by the Southwest Transitway are outlined in the Purpose and Need Statement for the project and focus on the need to improve mobility and transit operating efficiencies in the Southwest Corridor. The *Southwest Transitway Scoping Booklet* states that travel on the roadways in the Southwest corridor has increased 80 to 150 percent in the last 25 years, due to rapid residential and employment growth and limited infrastructure improvements in the corridor (Hennepin County 2008). According to MnDOT, there are no plans to expand the roadway infrastructure in this corridor. Though the bus service in the Southwest corridor uses the freeway shoulders, it is limited to 35 mile per hour speeds during congested periods, and downtown Minneapolis has limited street capacity for

³ Minnesota state law requires that the commissioner of transportation to consider: the design-build method's ability to complete the project as desired; the time constraints for delivery of the project; the availability of able, experienced contractors; the suitability of the project for the design-build method in terms of time, schedule, quality and cost; the ability of MnDOT to manage the project; the unavailability of state employees to perform the work; the character of the product; there is statutory authority to enter the contract; and any other criteria deemed relevant (Minnesota Law §161.3414 "Determination to use Design-Build selection method" Accessed from <http://www.dot.state.mn.us/const/tools/design-build.html>.)

increasing numbers of buses to serve the ever-increasing ridership from the Southwest area (Hennepin County 2008).

Because the bus services run on the same congested roadways as cars, it is difficult to provide travel time advantages that will attract choice riders. Additionally, in and around downtown Minneapolis, the number of transit-dependent people is increasing. Especially in the North Loop, Bryn Mawr and Harrison neighborhoods, the road network makes time-efficient bus travel difficult. Furthermore, the Southwest Transitway will provide reverse-commute and off peak services to areas that currently have only one-way rush hour service or infrequent off-peak bus service (Hennepin County 2008).

- *Is the sponsoring agency lacking resources to fund or deliver the project alone?* It is expected that 50 percent of project funding will come from the FTA, ten percent from the Hennepin County Regional Railroad Authority, ten percent from the state of Minnesota, and thirty percent from CTIB, which dispenses revenues from the recently increased gas tax and motor vehicle sales tax, which are partially devoted to transit, and revenues from the .25 percent sales tax in five counties of the metro area, dedicated entirely to transit. However, the Central Corridor, a planned LRT line between downtown St. Paul and downtown Minneapolis, is also a New Starts candidate project, and will also use CTIB funds. There will not be sufficient funds for both the Central Corridor and Southwest Transitway to use the federal and local funds at the same time. This delays the Southwest Transitway project from a 2015 opening to 2018 or 2019, which adds inflation costs to the project, lowering its competitiveness as a project.
- *Is there a strong commitment by key stakeholders, project champions?* Hennepin County Commissioner Gail Dorfman is the lead elected official on the project. The Metropolitan Council has identified the Southwest Corridor as one of two remaining candidate corridors for light rail in the metro area. Though the Metropolitan Council is not yet charged with managing the Southwest Transitway project, it has been generally friendly to light rail projects under both the Ventura and Pawlenty Administrations, though its leadership is appointed by the Governor and could change after the 2012 Gubernatorial elections. Additionally, Southwest Transitway recently completed a period of public commentary in which residents, though sometimes concerned about environmental, noise, traffic, and vibration issues, came out strongly in favor of the LRT project.
- *Is it a large and complicated project?* Yes. The Southwest Transitway is projected to cost between \$865 million and \$1.4 billion and will run through five municipalities on already-existing rail right-of-way, as well as yet-to-be-acquired land.
- *Is there adequate funding potential?* As described above, there are several funding sources available for transit infrastructure projects. It is expected that 50 percent of project funding will come from the FTA, ten percent from the Hennepin County Regional Railroad Authority, ten percent from the state of Minnesota, and thirty percent from CTIB, using the recently levied .25 percent sales tax in Anoka, Dakota, Hennepin, Ramsey, and Washington Counties (Hennepin County 2008).

According to the parameters of the *Guidebook* the Southwest Transitway is a strong candidate for a PPP.

Second, the *Report to Congress on the Costs, Benefits and Efficiencies of Public Private Partnerships for Fixed Guideway Capital Projects*, prepared by the USDOT in 2007, outlines the legal and institutional issues of using PPPs. Table 3, below, outlines outstanding state legislation identified by the USDOT that can be detrimental to using a PPP for a fixed guideway transit project, and whether or not Minnesota has this prohibitive legislation on its books.

Table 3: Legal and Regulatory Issues

Issue	Impact upon Southwest Transitway
State Legal Authority to Use PPPs in Transportation Projects	Minnesota has passed legislation authorizing the use of PPPs in transportation projects (FHWA 2006).
Local Legal Authority to Use PPPs in Transportation Projects	Minnesota has passed legislation authorizing state, county, municipal, and joint powers authorities use of PPPs for transportation projects owned by the corresponding level of government (FHWA 2006). ⁴
Solicited and Unsolicited Proposals ⁵	Minnesota has legislation in place that allows for both solicited and unsolicited proposals, though the legislation is specified for toll roads (FHWA 2007).
Inflexible “Little Miller Acts” enacted by some states require general contractors on public works projects to provide performance and payment bonds equal to the amount payable under the contract. Because PPP transit project are large, and thus the amount of bonding is large, this limits the number of contractors that have the resources to bid on PPP projects.	Minnesota’s “Little Miller Act” requires that the penalty of the bond be no less than the value of the contract. However, MnDOT has the authority to reduce the limit to 75 percent of the value of the contract, somewhat reducing the impact of the “Little Miller Act” (Lambert et al 2006).
State statutes that prohibit the use of design-build for public works projects.	Minnesota does not prohibit the use of design-build on public works projects.
State statutes that prohibit state and local transit or other transportation agencies to contract out the operation of their transportation facilities, which effectively prohibits use of DBOM, DBFO, and DBFOM projects	Minnesota state law authorizes the public sector to issue leases or franchises for operations and maintenance of toll roads; no parallel legislation exists for transit facilities (FHWA 2007).
By state law, authority to enter into PPP is restricted to state DOT.	Minnesota does not restrict the authority to enter into a PPP to MnDOT (FHWA 2007).

The review reveals that Minnesota statutes governing the potential for use of PPPs on transit projects are less restrictive than in other states. However, the legislation is in some

⁴ These regulations are for road and not transit projects, though the USDOT maintains that “most of the same elements would apply to transit projects”. §160.84, Subd. 8 defines “road authority” as provided in §160.02, Subd. 25 which defines as the commissioner, as to trunk highways; the county board, as to county state-aid highways and county highways; the town board, as to town roads; and the governing bodies of cities when the governing bodies or city streets are specifically mentioned. Also includes joint powers authority of two or more road authorities.

⁵ Solicited proposals are those that are requested by the responsible unit of government for projects deemed appropriate for a PPP. Unsolicited proposals allow the private sector to participate in selecting a project, which may influence the public entity toward prioritizing that project because it has private support (USDOT 2007).

cases specific to highway projects, and is silent on the application of a PPP to transit projects. Overall, however, the legal parameters are in place to support a design-build PPP on the Southwest Transitway, and could be interpreted as supportive of a DBOM method as well.

Third, though the Portland MAX project, Hudson-Bergen LRT, and Hiawatha LRT projects all offer lessons for adjusting and improving the PPP process, all three project sponsors endorse the use of a PPP on fixed guideway transitways. Their endorsement and the opportunity to take advantage of their experience is yet another reason to recommend a PPP on the Southwest Transitway.

Fourth, the *Report to Congress on the Costs, Benefits and Efficiencies of Public Private Partnerships for Fixed Guideway Capital Projects* maintains that though the FTA New Starts regulations are relatively accommodating of innovative project procurement, the New Starts process is at the same time prohibitively lengthy, which discourages private capital investment. In order to better understand how PPPs can be used on fixed guideway transit projects, the Public Private Partnership Pilot Program (Penta P) was authorized in SAFETEA-LU to study the effect of public private partnerships upon project completion rates, project cost and benefit projections, and project performance. For projects that are fully funded by the government, the FTA must protect the government's risk exposure by rigorously evaluating the project. However, in a PPP, where the private partner made a financial commitment to the project, the FTA can assume that the private entity has assessed the project for financial stability and risk (USDOT 2007). Thus, the FTA can relax its own evaluation process. The regulations for the Penta P projects reflect the involvement of a private partner and relax many of the "finish to start" regulations in the traditional procurement process, which prohibit the commencement of a project development stage before its preceding stage is complete. Projects selected for Penta P will be eligible for incentives such as:

- New Starts Ratings Adjustments: costs paid for by equity capital will be eliminated from the cost effectiveness rating, and the project justification rating will be weighted by 20 percent to reflect Penta P status.
- Accelerated Design Approvals: preliminary engineering and final design will be permitted simultaneously so that final design may begin immediately after preliminary engineering is completed, without additional approval.
- Modified Review Process: risk assessments and project and financial management oversight reviews will be modified.
- Reduced User Benefit Reviews: subject to the private partner's assumption of risk, the FTA will accept, without further review, transportation user benefit projections.
- Funding Assurances: FTA will issue a Letter of Intent to obligate a specific amount of New Starts funds.
- Letters of No Prejudice: FTA will issue Letters of No Prejudice to accelerate commencement of pre-construction services and planning.
- Uses of Program Income: use of program income will be more flexible, with FTA discretion.

- Early Contract Incentives: to encourage project sponsors and contractors to enter into PPPs before a full funding grant agreement is issued, the FTA will streamline the project development process to obtain an earlier federal funding commitment (USDOT 2007).

Though the Pilot Program is still underway, and results of Penta P will determine the extent to which the New Starts process is altered to accommodate PPPs, FTA has already recognized in the Penta P incentives listed above that PPPs offer ways to reduce risk to the Federal government. The reduced risk to the government allows an acceleration of the New Starts process, which brings transit benefits to the public sooner and saves project sponsor, and thus taxpayer dollars. Though politics are uncertain, it is likely that New Starts program regulations in the 2009 surface transportation bill will be more accommodating and rewarding of public private partnerships to encourage increased use of PPPs. These potential changes in favor of using PPPs on fixed guideway transit projects further strengthen the recommendation to use a PPP on the Southwest Transitway.

Finally, even without changes to the New Starts program, a PPP approach on the Southwest Transitway still offers advantages.

- Shifting the risk of the construction phase on to a private sector firm can increase the financial rating of the project and in turn its overall New Starts rating. The project can also reduce costs by eliminating bid cycles, potentially boosting the cost-effectiveness rating of the project, both of which increase the attractiveness of the project to the FTA.
- Eliminating bid cycles also shortens the timeline of the project, making transit benefits available to Twin Cities residents sooner than with the traditional method of procurement.
- Projects like the Hudson-Bergen LRT line in New Jersey, the Portland Airport MAX, and Hiawatha LRT, provide valuable guidelines to successful management of a PPP.
- MnDOT and Metro Transit, as well as stakeholders in the Twin Cities have experience with the design-build approach; the lessons from the Hiawatha experience will help to smooth the way for a PPP on the Southwest Transitway, both politically and with regard to project management.
- Minnesota state law allows for use of PPPs on fixed guideway transitways. This is a relative advantage that projects in Minnesota have over other states. The Southwest Transitway should exploit this advantage to increase the viability of the project in the competitive New Starts program.

The 2009 surface transportation bill, economic conditions, politics, stakeholder investment and support, and the ability to find well-matched private partners will all play a part in determining the suitability of engaging in a PPP. At this stage in the planning process, it appears that the Southwest Transitway is a strong candidate project for a public private partnership.

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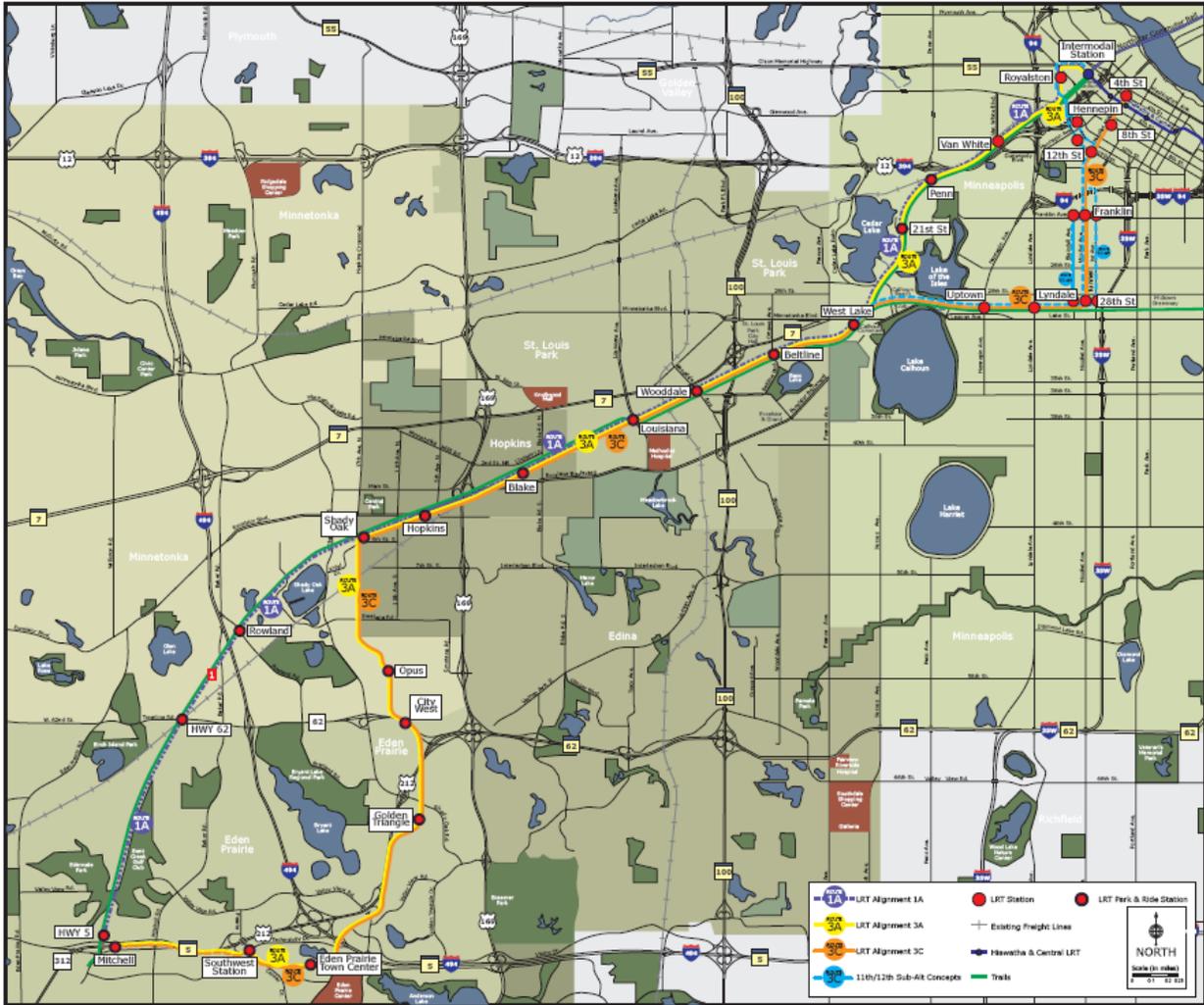
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Appendix A: Reduction in Project Costs Due to Project Acceleration in PPP

Year	<u>Construction Cost</u>		<u>Project Management</u>		<u>Combined Cost</u>	
	Standard	Turnkey	Standard	Turnkey	Standard	Turnkey
1	\$100.0	\$200.0	\$30.0	\$60.0	\$130.0	\$260.0
2	\$105.0	\$210.0	\$31.5	\$63.0	\$136.5	\$273.0
3	\$110.3	\$220.5	\$33.1	\$66.2	\$143.3	\$286.7
4	\$115.8		\$34.7		\$150.5	
5	\$121.6		\$36.5		\$158.0	
6	\$127.6		\$38.3		\$165.9	
Total	\$680.2	\$630.5	\$204.1	\$189.2	\$884.2	\$819.7
Saved		\$49.7		\$14.9		\$64.6

Source: FTA 1998

Appendix B: Southwest Transitway Alignments Currently Under Consideration



Source: Hennepin County 2008