Grahm Satterwhite
Instructor: Burford Furman
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Introduction

The Sustainable Mobility System for Silicon Valley (SMSSV) is an Automated Transportation Network (ATN) located within the City of Sunnyvale, California along Mathilda Avenue, also known as the 'Mathilda Corridor'. In the sections below, the funding for a trial project along the Mathilda Corridor is discussed. Federal, regional, and local funding sources, as well as competitive grants are described and their applicability to the SMSSV project discussed. Public-Private Partnership opportunities are also reviewed. Finally, recommendations on next steps are outlined. This discussion is meant to provide an overview of the SMSSV funding landscape and potential paths forward to implementation and operation. Over time, new funding opportunities will emerge, while current opportunities may expire. Monitoring funding opportunities throughout the development of the SMSSV project will be key to its success.

Federal Funding

The existing transportation funding programs that are potentially applicable to the SMSSV project are discussed below. Any potential hurdles to accessing the funding are also discussed. Traditionally, the federal government has provided funding for major transportation investments. The Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU) was the federal legislation

through which these funds were distributed. The legislation was set to expire in 2009, but was extended 10 times until it was replaced by the Moving Ahead for Progress in the 21st Century Act (MAP-21) in 2012. MAP-21 is set to expire in 2014 and much of the specifics regarding accessing the funds are still under development. Given the political volatility in Washington D.C., long-term projections regarding transportation funding sources at the national level should be viewed with a level of skepticism.

A final consideration when accessing federal funds is that a local match in funding is usually required. The ratio is usually an 80/20 split, meaning for every 80 dollars of funding provided by the federal government; 20 dollars of funding from non-federal sources would be required. The potential sources for these matching dollars are discussed in the Regional and Local Funding section of this report.

MAP-21

Moving Ahead for Progress in the 21st Century is the most recent federal transportation funding authorization, which replaced SAFETEA-LU. Much of the funding allocated under MAP-21 is considered "formula funding" which means funding distributions are dictated by formula calculations, often based on population or existing transportation infrastructure. All "formula funds" under MAP-21 require the recipient to be a recognized public transit operator. The SMSSV project would need to partner with an existing recipient of formula funds. There are two MAP-21 programs, new starts and small starts, that are specifically designed to implement new transportation infrastructure investments. The new starts program is intended for projects requiring over $250 million in funding. This program would

not apply to the trial project of the SMSSV. The small starts program is designed to fund projects requiring under $250 million in funding. A requirement of the small starts program is identifying the public entity that would be the grant recipient. The SMSSV project would need to partner with an existing transit operator, likely the Santa Clara Valley Transportation Authority (VTA), to access this funding source. Another consideration for this funding source is the existing level of demand. The funding needs for projects that score well on the small starts criteria set forth in the legislation exceeds the level of available funding. This results in almost a de-facto waiting list for funding even for the highest scoring projects.

All of the specific rules governing the administration of MAP-21 funds have not been determined and a number are currently under development. Pending the outcome of these rules, the SMSSV project could be eligible for other programs. The requirement that the recipient be a recognized public transit operator would likely apply under all conditions.

Regional and Local Funding

The San Francisco Bay Area includes one of the most diverse regional portfolios of transportation infrastructure in the country. This portfolio includes light rail systems in San Francisco and San Jose, BART, Caltrain, Golden Gate Bridge, Bay Bridge, Cable Cars, and even ferries to complement motor vehicle infrastructure. To support the financial needs of this infrastructure, a number of regional and local funding sources have been utilized. These are discussed below.

Vehicle License Fee

Each year the millions of registered vehicles in the Bay Area receive new car tabs. A majority of this registration fee is dedicated to automobile purposes, such as road repair and rehabilitation. However, up to a 0.65 percent fee is currently levied to fund local transportation investments. Most regions in California have fully utilized this funding mechanism and implementation of an additional fee would likely require legislation at the state level. Legislation to raise the fee to two percent is currently under development. Although collection of these funds would require voter approval, many municipalities see this as an opportunity to raise critically needed transportation funds. The SMSSV project could partner with an existing public transit agency, or with the City of Sunnyvale, to explore the opportunity to access this funding source.

Sales Tax Measures

Most major transportation investments have been at least partially funded at the local level using sales tax measures. This funding mechanism allows for bonding and accumulation of debt without which the large expenditures required during construction of transportation infrastructure would be extremely difficult to make. The SMSSV project would likely only require a relatively small increase in sales tax to fund the trial. This funding source would require a coordinated public campaign within the City of Sunnyvale, and likely multiple political "champions" who would be the public face of the tax measure and associated trial project. This is a viable source for the SMSSV project, but would require additional political considerations that are not within the scope of this report.

Development Related Fees

Development related fees are a promising funding source for the SMSSV project. The specific structures of these fees vary dramatically and are usually designed to be context specific. Generally, a fee or tax on development is applied to a specific geography that directly benefits from the transportation infrastructure investments being made. These fees are then used to pay down the debt amassed during construction of the infrastructure. Another approach is to levy fees on specific types of development, such as buildings above a certain height or residential density, however this approach can result in variable levels of fees actually being collected, making any debt accumulation a much riskier proposition. In either case, implementation of any fee structure requires some level of municipal government coordination and usually a vote by those affected by the fee, or the larger municipal body.

Parking Revenue

Although not generally considered a major transportation funding source. The use of public space for storage of privately owned automobile has the potential to generate significant amounts of funding in urban environments. Adjustment of parking rates has been a politically charged subject, but should not be overlooked. Accessing this revenue source would require coordination with the City of Sunnyvale and the potential amount of funds that could be raised should also be examined.

Public-Private Partnerships

Public-Private Partnerships (PPP) provide one of the most viable funding sources for the SMSSV project. Similar to development fees, the scope and structure of PPPs vary and are almost always unique to the specific context in which they are applied. For the SMSSV project three general approaches to PPPs are development credits, media or energy partners, or Transit Oriented Development at a system wide scale.

Development credits would provide incentives for developers to support the SMSSV project by providing space for a station or areas for the ATN guide way to be located. Landowners would then be allowed to increase the size or density of the development beyond what is allowed under normal use. This would also benefit the ATN because it would concentrate the commercial or residential uses in areas adjacent the ATN.

The solar power and automated technology of the ATN opens opportunities to partner with media or energy companies. Solar panel manufacturers may see the SMSSV project as opportunity to widen the market for their products and media outlets may be attracted to a transportation system that embraces technology and features modern media elements in the stations or even the pod cars.

Finally, construction of fixed guide way transportation was used as a method to develop real estate in the 19th and early 20th centuries in the United States. Property owners along the Mathilda Corridor would all likely benefit from an additional transportation option. This increase in accessibility would result in increased property values and likely demand for space in the Mathilda Corridor.

Bringing together property owners could result in development driven support, both politically and financially, for the SMSSV project.

Each PPP presents unique opportunities. These partnerships are not mutually exclusive and would likely work in conjunction, rather than against one another. Public-Private Partnerships are a viable funding source for the SMSSV project and have essentially no limitations on what is possible.

Competitive Grants

A number of competitive grant programs exist that could be applicable to the SMSSV project. These include both federal and regional grants. Nearly all sources are seen as highly competitive but the unique technology of the SMSSV project could be an asset in many cases and separate the project from its competitors.

Transportation Investment Generating Economic Recovery (TIGER)

The Transportation Investment Generating Economic Recovery (TIGER) grant program was developed to fund projects that would boost economic activity. There are separate urban and rural criteria, but generally the program funds innovative projects with multiple project sponsors that combine elements of transportation, land use, economic activity, readiness, environmental sustainability and livability. Projects should be of national or regional significance, which would qualify the SMSSV project. Although most recipients of this grant have been identified as regional priorities with the support from multiple jurisdictions, this is not necessarily a requirement. While the TIGER program generally distributes

award amounts between $10-20 million, these funds are usually only a small portion of the total project funding. The TIGER program also requires awarded project be ready to begin obligating the awarded funds within 18 months, which generally requires the project to be environmentally cleared when submitting an application. Although this is a viable source for funding the SMSSV project, a number of hurdles would need to be cleared before a competitive TIGER application could be submitted.

Cap and Trade

California's Global Warming Solutions Act (AB 32) established a Cap-and-Trade Program. This program is expected to generate millions of dollars that will be re-invested across numerous business sectors to reduce the green house gas emissions of the State of California. While the specific amounts and uses of these funds have not been fully determined, a portion of these funds would likely be invested in green house gas reducing transportation infrastructure. The solar energy used to power the SMSSV project would obviously lend itself to any program promoting the use of clean transportation modes. Any discussion of the eligibility of the SMSSV project, level of funding, or criteria used to determine funding would somewhat premature at this point, but further investigation is warranted as the rules and regulations surround AB 32 continue to develop.

Other Competitive Grants

A number of additional competitive grants exist for which the SMSSV project may be a competitive candidate. These include the Transportation Fund for Clean

Air (TFCA), Caltrans Planning Grants, and the One Bay Area Grant (OBAG) among many others. Each of these grants likely require some level of partnership with existing public transit operators or local governments. The level of potential funding and competitiveness varies by grant. As the SMSSV project becomes more clearly defined and gains project proponents these regional and local competitive grants should be further examined as potential funding sources.

Conclusions and Next Steps

The transportation funding landscape can be a difficult terrain to navigate. The number of potential funding sources can be daunting. In reviewing the current federal, regional and local, public-private partnership, and competitive grant opportunities a number of conclusions and recommendations can be made.

Federal funds are better suited for expansion of an existing ATN, rather than implementation of a new system. That does not mean that the SMSSV project would not be eligible under all federal programs, but the current structure of these programs favors established transit operators and modes. The SMSSV project could partner with an existing transit operator or municipal government, but this may be difficult and most public agencies are likely hesitant to take on additional responsibility without some level of guaranteed funding.

Regional and local funding sources are better suited for the SMSSV project. Although most sources require some level of either voter or political body approval, the level of flexibility of these funds is much greater compared to federal sources. A

major component of the viability of any regional or local funding is the level of political support for the SMSSV project.

Public-Private Partnerships provide one of the most viable funding opportunities for the SMSSV project. Because each partnership is custom developed the unique nature of the SMSSV project would not be a hindrance. The level of involvement of public agencies and municipal bodies is minimized under this approach, although it is not eliminated. One consideration is the involvement of private funders and for-profit companies may disqualify the SMSSV project from other funding sources.

The number of competitive transportation grants is vast. Many grants have very specific requirements that the SMSSV project may or may not meet. These sources should be further examined as the SMSSV project develops, but would likely represent only a small portion of the total funding source for the SMSSV project.

The potential funding sources outlined here is not a comprehensive list, but represent the most likely and viable sources known at this time. While none of the sources listed here should be eliminated from further consideration for the funding of the SMSSV project, the most viable funding source at this time is a Public-Private Partnership. To explore PPP opportunities, meetings and outreach with business and community leaders should be held. Developing a list of interested parties would be a first step, after which details of the SMSSV project could be discussed. The City of Sunnyvale would be a primary partner in any agreement and should be kept aware of any and all developments. Finally, development of a PPP is a highly complex agreement and would require expertise from a number of fields including

urban planning, construction, law, and real estate, among others. As the SMSSV project is further refined and potential partners become more committed, individuals with these areas of expertise should be brought onto the SMSSV team and the funding sources outlined here reexamined for applicability.