Candidate **Rob Jung** sees 3 hurdles for the Milpitas PRT project.

Rob Jung, Candidate for MUSD Board, invests for a living, primarily in safer companies with proven results. From that perspective, he raised 3 challenges to the Milpitas PRT project:

- Demonstrated customer demand (i.e. what is the actual demand of a similar system, or do you have surveys that show the potential demand)
- A financial operating model that is sustainable.
- A funding proposal that is obtainable (i.e. I don't see any investors at the moment who would be willing to invest in the project because of the philanthropic ROI).

All 3 will be addressed in separate posts. Let's start by addressing the need for a funding proposal that is obtainable. As a conservative investor, Mr. Jung doesn't "see any investors ... because of the philanthropic ROI". Some investors, however, are not so conservative – and would find the potential of a $1T industry attractive enough to risk part or all of $60M ($0.00006T) to confirm the possibility. Many investment groups already risk funds on climate technologies with yet-to-be-proven ROIs. Many others will jump in once a sustainable financial operating model is demonstrated here in Milpitas.

In fact, if a financial case can be demonstrated, then LoopWorks need not depend upon philanthropic ROI because traditional financing tools such as long-term debt would be available. The financial case for a profitable PRT system has been made in the **LoopWorks Business Plan**. That gets to Mr. Jung's second challenge which will be addressed in another post. For now, note that most PRT companies pursue such investor funding.

While capitalist investors are more interested in the return to themselves than to the community, other groups are more concerned with the public benefits resulting from their investments. That is why LoopWorks' initial search for funding focused on foundations with an interest in solving our Climate Crisis. They are in the business of giving money away to good causes, especially those like PRT with the potential for replication, expansion, and increased social equity.

Because the proposed dual-loop system is like an R&D project run by a non-profit mutual benefit corporation, funding from foundations is more likely than it would be for an investor-owned for-profit corporation. Other groups that might engage in philanthropic ROI include what I call "blended investment groups" that have been spun off from charitable foundations to allow for more flexibility with their investments.

Thus far, LoopWorks has reached out to 6 investment advisory firms, 13 foundations, 10 foundation-blended investment groups, and 25 for-profit investment groups. The nearly universal response has been - no response. No questions, no objections, no comments, nothing. Whether the reason is not-

invented-here thinking, **Semmelweis reflex** (https://en.wikipedia.org/wiki/Semmelweis_reflex), or simply seen as outside their current area of focus, none have initiated a conversation.

So, now LoopWorks is investigating government agencies for funding. While the California Energy Commission is investing in climate-solving technologies, the approved investment areas are not open to a technology like PRT. So, our focus has shifted to federal grants and program opportunities where existing funding could expand dramatically if Congress passes Biden's Build Back Better plan early next year. The Feds have already invest $15B ($15,000M) in carbon capture and sequestration technology – without producing a working system. Surely they can afford $60M for a project far more likely to succeed.

What has been most surprising over the past 20 years is resistance from Valley Transportation Authority (VTA) that runs our buses and LRT. VTA provides a public transportation system that requires an 85% subsidy. Financially, that system is a poor investment, but it helps our fellow residents who are generally disadvantaged. Most of We the People want to help the less fortunate, so we pay the cost of the system, and encourage others to take it so the roads we use are less congested. What if we could provide better service with a smaller subsidy? Although that is what PRT promises, VTA has not been interested. Instead, they are leaving the heavy lifting to the City of San Jose that wants to link Diridon Train Station with the airport using PRT technology.

Given results to date, Mr. Jung's concern about "a funding proposal that is obtainable" is legitimate. However, there are many financing sources that can fund "philanthropic ROI" projects. Tailwinds that support PRT include our rapidly-worsening Climate Crisis, potentially big Democratic wins in November, and local increases in both population density and traffic congestion. Combine such external influences with small initial funding rounds of $600K and $6M gives LoopWorks confidence that funding will arrive soon.

If funding is not forthcoming, yet another backup plan exists. We will appeal to our **elected representatives who support this project**: Congressman Ro Khanna, Assemblyman Alex Lee, and Councilmember Karina Dominguez. Each has influence on rules that currently exclude PRT but could, with small changes, support PRT.

Because so many "philanthropic ROI" organizations exist, and $60M is a small sum in the world of climate solutions, LoopWorks is confident in success. Learn more at MilpiasPRT.com

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Candidate Rob Jung seeks a sustainable financing model for the Milpitas PRT project.

https://nextdoor.com/p/kfZHxfhhHLDC?utm_source=share&extras=MzI2NDQ0NA%3D%3D

https://www.facebook.com/groups/525712364235234/permalink/2647029998770116/
As outlined in a **previous post**, Rob Jung, Candidate for MUSD Board, raised 3 challenges to the Milpitas PRT project. This post addresses the need for a viable and sustainable financing plan.
As outlined in a **previous post**, Rob Jung, Candidate for MUSD Board, raised 3 challenges to the Milpitas PRT project. This post addresses the need for a viable and sustainable financing plan.

While the financial case for a profitable PRT system has been made in the **LoopWorks Business Plan**, Rob likely has 2 primary reasons for his concern: 1) LoopWorks is seeking gratis funding for the project, and 2) LoopWorks plans to offer free rides. Gratis/grant/free funding to build the project begs the question of what happens when the money runs out and the system needs to be maintained?

Before outlining LoopWorks' financial operating model, please note that getting "free" money is a prudent financial move if one can pull it off. LoopWorks believes this demonstration project is so valuable as a climate solution testbed as to be worthy of gratis funding. Without annual payments on an outstanding debt, balancing the books will be far easier.

So, how will LoopWorks earn the money (**$0.6M - $1.8M each year**) to operate and maintain (O&M) the system? LoopWorks anticipates funding from 2 primary sources – an endowment fund and alternative revenue streams. After granting the $60M required to build the system, funding sources may also be willing to fund all or part of an endowment that pays for O&M. Endowments for on-going expenses are common and will be the first choice pursued by LoopWorks simply because it represents the easiest way to cover O&M. When PRT service starts, any unused capital funds will be put into such an O&M endowment fund.

In all likelihood, additional funding will be needed. Thus, LoopWorks will investigate and evaluate each of the 29 currently identified potential revenue streams for likely return on investment (ROI). That research will determine which of these potential revenue streams to pursue. The 29 currently identified possibilities are clustered under these headings (with number of specific options):

- Advertising (5)
- Donations (2)
- Community Support (5)
- Data Sales (2)
- Add-On Services (14)

Obviously, many potential profit centers could be created under the heading of Add-On Services. Examples include leasing of utility conduits within guideways (broadband fiber-optic cable, electricity lines, telephone lines, traffic signal coordination), and charging fees for moving freight, recyclable materials, and waste. (See page 85 of the **LoopWorks Business Plan** for details.) Last on the list, but potentially out-performing the other revenue streams is switching from free service to a payment-based system. Because LoopWorks expects the network to expand beyond the original dual-loop system to

serve more of Milpitas, we could start charging fares for rides that start or end outside it – while maintaining free service within it.

Unlike both government agencies and publicly-traded corporations, LoopWorks has lots of flexibility in using the proposed dual-loop system to generate revenue. Learn more at MilpitasPRT.com

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Candidate Rob Jung seeks estimate of customer demand for Milpitas PRT project.

As outlined in a **previous post**, Rob Jung, candidate **for MUSD Board**, raised 3 challenges to the Milpitas PRT project. This post addresses the 3rd question, "what is the actual demand of a similar system, or do you have surveys that show the potential demand?" In other words, is there enough demand to justify the expense? The short answer is "yes"; here are a few ways to get there.

Of the 14,577 dwelling units approved for the Metro Area, nearly 7000 have already been occupied. At 3 people/dwelling unit, a population of roughly 20,000 people live in the area to be served by PRT, or 24% of the entire Milpitas population of 84,000. That density alone creates demand for transit.

Going further, the ITNS Business Plan (page 36) estimates that a square mile of city has 9000 residents and generates about 27,000 trips each day. If PRT captures only 20% of those trips, it will provide 7560 trips per day to the 1.4 square miles served by the dual-loop system. (Note that Metro Area density far exceeds the 9000 people/sq-mile figure used by ITNS.)

Compare PRT's estimated 7560 trips per day with the **Projected Daily Ridership** of the SMART Shuttle system now serving Milpitas: 417. For the 4 hubs that it serves, SMART is a big improvement over VTA's bus service in terms of timeliness, operating costs, and convenience. Although that daily average of 417 would increase if the system were run 24/7 like PRT (instead of 12/5), it currently provides less than 0.2% of all daily Milpitas trips. The dual-loop PRT system that will serve the 1/10th of Milpitas geography that houses 24% of its population will provide 6% of all Milpitas daily trips.

LoopWorks intends to offer free transit service which will increase equity and, more importantly, increase ridership. The traditional mass transit option - buses - capture about 3% of all trips due to poor levels of service. In the words of a local resident who tried public transit many times over the years but still does not use it, "Simply because it does not work. There are many delays. It gets more expensive by the day. And it offers too many opportunities for person-to-person crime." PRT promises high levels of service.

Thus, estimated ridership on a PRT system ranges from 25% to greater than 50% of the daily trips! (See page 214 of Contributions to the Development of Personal Rapid). For example, the **PRT system at the University of W. Virginia** at Morgantown connects the university's campuses via 9 miles of guideway, just over twice as much guideway as our dual-loop system. Daily average use is about 16,000 riders per day.

Another way to gauge the value of PRT is to compare its capital costs per daily rider with a known standard. As we know, the cost of extending BART from Fremont to the Berryessa station was $2.3B. VTA's estimate of combined ridership for Milpitas and Berryessa stations is 24,000 daily riders, or a capital cost of $95,833/rider. A $60M PRT project that attracts 7560 riders per day has a capital cost of $7937/rider, or one-fourth of BART's cost. Another example is the pedestrian overcrossing of Montague Expressway at the BART station. Clearly, the City of Milpitas believes that $14M structure is worth the money even though only a few hundred people use it on a daily basis.

Another financial perspective sees the public benefit of reduced transportation costs for Milpitas residents who switch from personal cars to PRT. On most neighborhood streets is a collection of cars valued above $1M that require ongoing expenses for insurance, fuel, and professional services. PRT, especially when combined with other alternatives, can dramatically reduce transportation costs for individuals – and keep money in the local economy!

Looking forward, several factors will make high-service-level transit even more attractive. In addition to the 7000 additional dwelling units expected in the Metro Area by 2040, a 300% increase in office space is planned. As the Milpitas Metro Specific Plan states, "traffic congestion will become increasingly challenging as a result of local and regional growth." Historically, that growth rate has been 3%/year. Fully one-half of Milpitas residents live between Montague and Calaveras, both of which intimidate most cyclists and inconvenience pedestrians. People wanting to go east-west across the south end of town want a safe crossing. PRT will provide that.

Of the 24 candidates running to represent Milpitas voters, **14 support the PRT project**. Learn more at **MilpitasPRT.com**