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4 community Wide effort to keep elevated rail out of our city

A cost-disbenefit analysis of the Honolulu rail project

Disbenefit #1: Heavy rail's cost for a city our size is absurd. The City originally forecast \$5.2 billion to build the rail project. Today it forecasts \$10 billion and Dr. Panos Prevedouros believes it will be \$13 billion. Our population is 1,000,000. Thus, if Dr. Prevedouros is right, it would cost \$13,000 for every man, woman & child, or \$52,000 for every family of four, and be, by far, the most expensive rail project per capita in the U.S. It would cost \$650,000 per new commuter to build.

Operating losses would be another \$150 million annually to be paid for by future tax increases, and then there would be the periodic cost of refurbishment and replacement, which over the life of the system would total as much as it cost to build the system in the first place.

No wonder that the <u>latest Merriman poll</u> from Civil Beat shows that 86 percent of Oahu's population finds rail either bad or troubling — and that is across all ethnic and political groupings!

Disbenefit #2: The first 4 miles would <u>destroy the most</u> <u>productive farmland in the U.S.</u> Dr. Goro Uehara, professor of Soil Science at the University of Hawaii who has studied soils in many different countries, calls this the best farmland in the world. Why? Rich soil, year-round sun, gentle winds, abundant clean water, and four crop rotations annually.

Disbenefit #3: The negative environmental consequences of the elevated rail project has united the entire political spectrum from progressives to Tea Partiers.

Hawaii's 100-year old Outdoor Circle described it as, "In our 100-year history, the Outdoor Circle has seen no other venture that holds the potential to degrade the landscape of Oahu as the proposed Honolulu Rail Transit project." It describes the "horrific visual damage" and "an ugly scar across one of the most beautiful places on earth." Hawaii's 1000 Friends testified about, "the unprecedented visual blight that will impact our historic waterfront." Others point out that it would permanently wall off our waterfront.

There is a plan to install noise shields on both sides of the rail track but all that would do is deflect the noise upwards towards the surrounding condominiums.

Following are the "before" and "after" photos of the proposed Chinatown rail station. On the "after" photo, the Hawaii Chapter of the American Association of Architects have superimposed a rendering of the station to show the

impact on our waterfront. When every other city in the U.S. is beautifying their waterfronts, we are walling ours off.





Below is a rail station rendering that the City showed in 2013 describing it as having "A Hawaiian Sense of Place." How this elevated rail project became the "environmentally preferable alternative" is bewildering.



Disbenefit #4: Rail would result in much higher energy usage than we experience now. The City projected an average of 2,503 Btus per passenger mile, which was misleading because New York City's highly efficient subways (1,700 Btus

per passenger mile) account for 60% of all the nation's rail transit passenger miles. If you compare New York's experience with those of the others in the table below and bear in mind that it is 60% of total energy use you can see that using 2,503 Btus is absurd for Honolulu.

Note that the only two elevated systems, Miami and San Juan, together average 6,000 Btus per passenger mile, which is three times what TheBus uses today.

Comparing other cities' experiences in the table below, one would not expect energy usage of less than 4,000 Btus per passenger mile for a Honolulu system, which is *double* that of the current bus system, and far higher than even the national average for autos. For more details see here.

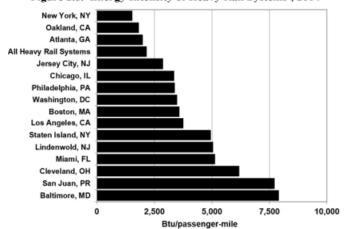


Figure 2.8. Energy Intensity of Heavy Rail Systems^a, 2014

Disbenefit #5:

For many years the city and our politicians implied and often asserted that rail would rid us of traffic congestion. Typical was Mayor Hannemann in a 2006 speech, "Our residents, particularly those in Leeward and Central Oahu, are crying for relief from traffic congestion. A mass transit system represents our best near- and long-term solution to this worsening problem."

But the Final EIS clearly states that "Traffic congestion will be worse in the future with rail than what it is today." It was buried on page 1251 of the 3,100-page Appendix A.

According to the City's forecast, auto traffic would increase 23% if we do not build rail, and 21.3% if we do — a 1.7% difference. No motorist would ever notice it. See the difference in Table 3-12 of the Final EIS in the next column

Even that 1.7% reduction depends on the City meeting its rail ridership forecast, which has no chance of happening. Even if the forecast were reduced by 50%, it would still forecast having the highest ridership per million population of any of the 15 rail cities with populations of less than 4 million.

The average of new U.S. rail lines has barely reached 50% of their ridership projections, according to the Federal Transit Administration (p.6). The only U.S. cities to build new elevated rail lines, Miami and San Juan, achieved ridership of only 15% and 24% percent respectively of their FTA forecasts.

We have detailed the faulty calculations that have contributed to the City's bogus rail ridership forecast in <u>a</u> recent article for Civil Beat.

The current City claim shown below it that rail will take 40,000 cars off our highways, but it is misleading. The 40,000 number may be literally true but it intends to deceive; it is a lie of omission.



The 40,000 reduction is from total trips of 2.8 million, or 1.7% as you can see from this official table from the Final EIS:

Trips by Mode	2007 Existing Conditions		2030 No Build Alternative		2030 Project	
	Daily Trips by Mode	Percentage of Total Daily Trips	Daily Trips by Mode	Percentage of Total Daily Trips	Daily Trips by Mode	Percentage of Total Daily Trips
Residents	Base		+23%		+21%	
Automobile—private	2,291,800	82.1%	2,815,800	81.5%	2,767,600	80.1%
Transit	166,400	6.0%	205,400	5.9%	255,500	7.4%
Bicycle and walk	333,000	11.9%	432,800	12.5%	431,700	12.5%
Total Daily Trips by Residents	2,791,200	100%	3,454,000	100%	3,454,800	100%

Dumb or dumber?

We wrote in a recent <u>Civil Beat article</u> that while it might be an almost unthinkably dumb idea to stop the rail where it is today and use the guideway as a recreational facility, it would be even dumber to finish construction all the way to Ala Moana Center.

To stop it now would cost in the region of \$3.5 billion after selling the assets and settling contractor claims. It would be an expensive "lesson learned."

But to build it all the way to Ala Moana Center would cost another \$9 billion. That is nine thousand million, just to remind you of what an enormous amount of money it is.

And what do you get for the \$9 billion? A one percent reduction in traffic? That would last for one year before population growth took over? And what about all the other disbenefits? And what about having to forego all the other travel improvements that could beneficially impact travel, such as intelligent traffic lights, automobile underpasses as proposed by Dr. Prevedouros, even fixing potholes promptly?

Ironically, by the time rail would get built, self-driving autonomous cars may well be literally a "driving" force in how we get around. CNN says, "The timeline for autonomous cars hitting the road en masse keeps getting closer," and they also say that by 2040, 75% of cars will be autonomous. The highway efficiency of platoons of autonomous vehicles on our freeways could well make transit obsolete.

You have to conclude from all this that stopping rail where it is today is the only sensible option.