

## **Draft EIS comments regarding Honolulu Rail Transit**

Submitted Feb. 6, 2009 by Dennis Callan, co-chair, Stop Rail Now

1011 Prospect St., #702, Honolulu, HI 96822

phone 528-4411 email callan@hawaii.rr.com

Please address each paragraph specifically, and explain why you agree or disagree.

At the beginning, let me explain that the following document represents a listing of most of the major objections our organization has raised about Honolulu's proposed rail system. While our statements may not specifically refer to particular sections of the draft, they are all relevant to the big picture of rail, its supposed advantages, its true problems, and the alternatives, and are thus relevant to EIS considerations.

Our concerns have now taken on even greater urgency considering the nation's economic crisis. How has your financial picture changed as a result of these events which transpired subsequent to your initial planning? How can we pay for rail, upward of a billion of local money, when the state and county are running deficits and the public has lost uncounted billions in home equity and personal savings? Are there not pressing social needs we must fund? Will the state's new highway improvement plan provide a larger, more effective solution than rail? Was the state's new highway improvement plan considered in your studies? If that plan were fully implemented how would it affect your numbers about traffic congestion projections? Is it more important to build rail or should state workers be forced to work an additional 10 years before retirement as has just been suggested by the Senate and the House?

Most grievous of all the many EIS deficiencies listed below is your lack of proper study of the HOT lane alternative. Why was your AA study so superficial and biased?

Because the following issues are so major and have not been properly addressed in your draft EIS, we ask that a supplement be created that will fully deal with these issues. Merely revising your draft is not sufficient. We need a major new study.

In the days before the Nov. 4 election the city made claims that the draft EIS showed that traffic would be reduced by up to 50% on rail, giving the public the misleading impression there would be a reduction from today's levels. Is this what you meant? How could you be so flagrant in trying to mislead and misdirect the voters days before the election? Where in the draft EIS is any substantiation for those claims?

### **SECTION 1:**

#### **Why rail transit never improves traffic congestion and why relief must come from highway options, such as HOT lanes**

1. Since the advent of the Model-T, followed by the first suburban shopping center in 1923, and then the incredible explosion of suburbs after World War II, we have radically changed our means of getting to work. Not only getting there, but what we do on the way there — and on the way back. We take our children to school, go for exercise, or go shopping. We no longer shop downtown.
2. Nor do we shop at the small local store, but in supermarkets, and lately, even more distant big box stores like Costco. Our children are in larger, more distant, schools whether public or private, and most of us drive them there.
3. As we move to the suburbs from town, say, Kaimuki to Mililani, we find that bus service is now every hour instead of every few minutes, and so we use it less.
4. We have always valued our time but now, because of increasing incomes, our time is more valuable than it used to be. Accordingly, it plays a bigger role in the decision about how we commute.

5. These are some of the factors that have altered the way we live, and why the percentage of commuters using public transportation has declined every decade since the U.S. Census began measuring it in 1960.
6. It is not that we are in love with our automobiles; it is that we value our time.
7. This is the principal reason that public transportation's share of commuters is declining on Oahu, the mainland, Europe, and virtually everywhere else. This share is critical.
8. To hold rush hour traffic congestion on Oahu in 2012 at year 2000 levels we would have to keep the number of the commuters who are driving to work in 2012 the same as the year 2000. Given the state's forecast of a 10 percent increase in all commuters for 2000-2012, we would have the result shown in the lower table. As you can see, it tells us that, assuming all else being equal; we would have to double the percentage of commuters using public transportation. How likely is that?
9. Before we go on, let's get our terms straight. We must use Metropolitan Statistical Areas (MSA's or metro areas) and not cities. It is useless to discuss the city of San Francisco without including Oakland and all the other cities that are contiguous to it. And that is why the federal government's data is usually about metro areas, for example, the San Francisco MSA. Similarly, the city of Portland does not run its public transportation but rather Trimet, the three county contiguous area. San Diego's transit is run by SANDAG, the San Diego Association of Governments.
10. Further, we must discuss combined bus and rail transit use because we cannot, in any sensible way, separate them. Data on one without the other is not reliable. For example, Vancouver, Canada, and many other cities offer passes for bus and rail combined and so there is no accurate data about who is using what. In discussing commuting, the most relevant statistics are those of the U.S. Census and the U.S. Department of Transportation and that is what we use here. We also use the well recognized Texas Transportation Institute studies on traffic congestion.
11. U.S. metro areas essentially stopped building rail lines around 1920 as rail transit ridership peaked and the first serious reliable bus service appeared. From that point on until the 1970s, hundreds of U.S. cities removed their streetcar lines and substituted motor buses because it was so much less expensive.
12. Then starting in the 1970s, U.S. transit agencies projected significant increases in public transportation commuting and reinstating rail transit. It did not work out that way.
13. What happened was that of the 15 metropolitan areas with new rail transit, only one managed to increase the percentage of commuters using public transportation during the 1980 to 2000 period. That was San Diego and it only managed a slight increase from 3.3 percent to 3.4 percent — hardly earth shattering — all others declined.
14. Note that outside of the New York metro area, the percentage of commuters using public transit is very small; nationally those commuting by automobile are twenty times greater than those using transit.
15. This is why, as we see with the earlier Honolulu example, any significant population growth results in new drivers and not overwhelming new transit users. Without major increases in this percentage, new drivers will always overwhelm new transit users.
16. Nationally, 13 million more commuters resulted in 13 million more drivers and a slight decrease in transit commuters.
17. The Texas Transportation Institute recently divided U.S. metro areas into four groups according to population size and the following results:
18. **Very Large:** 11 metro areas with over 3 million population all with rail lines except Houston — it had the least increase in traffic congestion of the group.
19. **Large:** 27 metro areas with 1 to 3 million population, half with rail lines. Aside from those areas with little or no population growth, the four best performers had no rail lines.

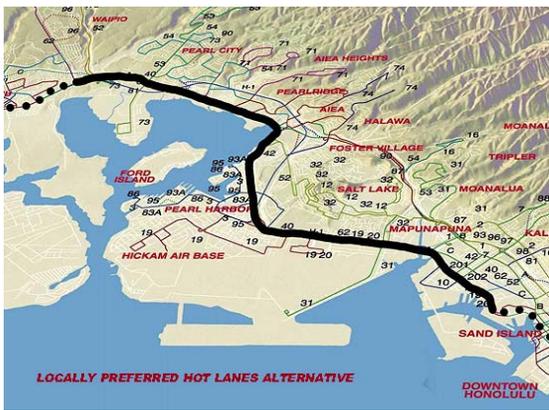
- 20. **Medium:** 30 metro areas with 1/2 to 1 million population including Honolulu. Only Salt Lake City had rail and the third worst showing of the 30.
- 21. **Small:** less than 1/2 million, none with rail lines.
- 22. This meant that all U.S. metro areas with significant increases in commuters saw a dramatic worsening of traffic c — rail transit had made no difference.
- 23. Everyone agrees that we have a traffic congestion problem and that the worst on Oahu is that found on the freeway highways along the Leeward Corridor.
- 24. However, since rail transit has done nothing to relieve traffic congestion in any other U.S. city, it begs the question makes anyone think it will do it here?



- 25. Instead, we believe that the new high-tech High Occupancy Toll lanes (two-lane reversible, elevated HOT lane highway) have shown such promise and such public acceptance that they are a far preferable alternative.
- 26. Our proposal is for a two-lane reversible, elevated HOT lane highway between the H1/H2 merge near Waikele and Pier 16 near Hilo Hattie.
- 27. Buses and vanpools would have priority and travel free, other vehicles would pay a toll that would be collected electronically by way of a pre-paid toll card, as is quite commonplace on the mainland today. As on the San Diego 15 HOT lanes, the toll price would be dynamically calculated every 15 minutes to keep the lanes full, but free flowing.

28. One of the more surprising outcomes of implementing HOT lanes is that they are popular with motorists across all income groups. Even those who use them rarely favor them because it is an option that can be used in an emergency.

- 29. A single highway lane with free-flowing non-stop traffic carries up to 2,000 vehicles per hour and with two lanes can remove 4,000 vehicles from the roadway during the rush hour traffic now using the Leeward Corridor.
- 30. Our projection of the HOT lanes does not have to be calculated since existing highways are always fully used; we just price them to keep the HOT lanes from San Diego's I-15 and Orange County's SR-91 the average toll will be about \$4.50 under normal circumstances and up to \$10 for special periods such as Friday afternoons.
- 31. A major advantage of HOT lanes is that they provide uncongested freeway speeds of up to 60 mph whereas the regular freeway is still only average 22.5 mph because of stops every half mile. The HOT lane speed enables buses to make two trips in the time it now takes to make one. Further, buses on HOT lanes may travel door-to-door whereas rail nearly always requires a transfer. HOT lanes offer both motorists and bus riders a choice of avoiding traffic congestion. The regular freeway is still available for free with less congestion than before.



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- 32. The last issue is that of cost. The Mayor and DOT have been using \$2.6 billion for a Kapolei to Iwilei first segment and the Legislature has added 15 percent per mile for the difficulty of in-town construction and going over H-1 at University Avenue.

adds \$1 billion to the cost. Since the federal funding has a practical limit of \$0.5 billion that will leave \$3.1 billion in funding as shown in the table below.

33. The ½ percent increase in the G.E. Tax does not come close to funding this system, especially considering annual \$59 million and making sufficient allowance for bond interest. Our calculations show that in the out years the revenue from the tax will barely cover the operating losses and bond interest leaving little or nothing for capital repayment. In addition, there has been no consideration for cost overruns.
34. When one considers that this rail transit project would entail a local per capita cost five times greater than any other transit system in the U.S., even after allowing for inflation, that alone should give us pause, even if we are under the mistaken impression that a rail system would have benefits.
35. On the other hand, the 10-mile long elevated HOT lanes would have a total cost of \$1 billion, or \$100 million a mile. Our proponents have said that we cannot build it for that price and that it is too wide to use pedestal construction. The rendering shows the Tampa Expressway now under construction which uses pedestal construction and is three lanes wide. Even though it is 30 percent wider than our proposal, it will open this June 2006 at a cost of \$52 million a mile. Our consultants at the 2002 Governor's Conference on Reversible Tollways had initially calculated the cost at \$70 million per mile and then added \$30 million for unforeseen problems and other cost overruns.
36. HOT lanes are eligible for the same federal fixed-guideway funding as the rail proposal, which means that with \$1 billion total cost and \$500 million federal funding, it would only need \$500 million in local funding, there being little or no operating costs.
37. Of this \$500 million, toll revenues of \$20 million annually would pay off \$300 million over 25 years using five percent bonds. Another \$13 million annually would pay off the remaining \$200 million balance over 25 years. If we cannot raise \$13 million annually from city and state budgets without raising taxes someone is not making an effort.
38. Summary
39. Rail has never improved traffic congestion anywhere,
40. We have a traffic problem — not a transit problem,
41. Tax-free HOT lanes give motorists a choice,
42. Tax-free HOT lanes outperform rail transit easily,
43. We can afford HOT lanes and we cannot afford rail.

Why did you not give proper consideration to the following? Please address each statement specifically, and explain why you agree or disagree.

## Section 2

### Alternative Solutions:

1. Staggering work and school hours
2. Implement 4/5 day work schedules (one week 4 days, next week 5 days, days off alternate)
3. Implement 4x10 work shifts (four 10 hr shifts 4 days)
4. Change UH class hours to not commence during peak rush hours; possibly only lecture
5. courses before 10:00am which are broadcast over the internet so students can stay at home until after 9:00am

6. Reversible elevated lanes on Nimitz viaduct. The State Transportation Department has already made plans this project which would be very effective, improving existing traffic needs.
7. Decrease response time to roadway accidents/debris removal/investigations
8. Incentives to businesses for home-based employment (which will become more ubiquitous with technology)
9. Pay at the pump insurance
10. Require developers on the west side to build commercial and industrial space equal to every residential space built
11. Develop a FUNCTIONING traffic management system that can synchronize and control traffic lights to address problem areas. Install more "smart" traffic lights that can read traffic flow/speed.
12. Remove all unregistered cars, cars without insurance or safety stickers from the roads
13. Employees that don't drive cars to work should be credited for not requiring parking
14. stalls (most employers offer parking stalls for employees but DON'T pay them \$200+
15. month or more, which is the cost of parking in town, if they don't need them)
16. Create a better urban plan with higher density housing in the urban core and discourage continued suburban sprawl in suburbs. Change Land Use Ordinance to allow grandfathering of existing higher-density homes, to curb urban sprawl
17. More dedicated HOV lanes.
18. Install traffic lights at freeway entrances
19. Expanded contraflow lanes (e.g. Dillingham)
20. Fix potholes which cause accidents, tire blowouts, and slow cars down
21. Advanced tow truck deployment system for accidents and stalls
22. Install more bicycle lanes.
23. Free public parking for microcompact cars (e.g. Smart car, et al)
24. Tax credits for developers of commercial and industrial space in West Oahu
25. Expanded carpooling program utilizing hybrid and electric van
26. Build a REAL ferry system (NOT THE BOAT)
27. Provide incentives to encourage use of electric riding vehicles, such as electric mopeds and electric-powered bicycles  
"cages" or lockers for parking)
28. More grade-separated underpasses at critical intersections.
29. More distance learning courses for colleges and high schools
30. Raise parking rates for government workers to market rates

### Section 3 BRT Success

Why would these success stories not apply to Honolulu? Please address each paragraph specifically.

1. While early adopters of bus rapid transit, such as Curitiba (whose system opened in 1974), Pittsburgh (1977), and (1983), have shown that BRT is an effective transit mode, it is only over the last decade and a half that interest in it skyrocketed to its current level as its ability to serve lower-density neighborhoods and its cost advantages over other modes have become better known. Today, BRT systems operate in 19 countries on five continents, with many more systems constructed or planned. Interest in the mode has also come from the federal level. Since 1999, when the Federal Transit Administration launched a BRT demonstration program, BRT systems have been implemented in Boston; Eugene, Ore.; Springfield, Ore.; Santa Clara County, Calif.; and are currently being implemented in Cleveland; Hartford, Conn.; New York City; Westchester County; and other places.

### Las Vegas

2. In 2004, the Regional Transportation Commission of South Nevada introduced MAX (Metropolitan Area Express) bus rapid transit line acting as a supplement to the heavily-used Route 113 bus line in Las Vegas. This service incorporated architecture pleasing stations, highcapacity European buses with multiple doors, off-vehicle fare payment, dedicated bus lanes along the route, signal priority, and level boarding at bus stations. After six months, ridership on the corridor had increased 25 percent (from 7,800 to 9,800 passengers per day), and 25 percent of MAX riders said they were new to transit. MAX also cut travel time on the 7.5-mile corridor in half (to 25 minutes) and gained a reputation for reliability and convenience (as measured by passenger surveys).

### Los Angeles

3. Los Angeles is often considered the city of the automobile, but it has also engineered two successful experiments in bus rapid transit. In 2000, the city unveiled “Metro Rapid” bus service on two demonstration corridors. Metro Rapid incorporated simple routes, frequent service, signal priority, level boarding, and an aggressive branding and marketing campaign; this “BRT-lite” (not incorporating dedicated lanes, high-capacity buses, off-vehicle payment, or multiple boarding) service improved travel time on both corridors by more than 20%, increased ridership by about 40% (daily ridership on the two corridors was 77,000 before Metro Rapid service began, and 107,400 after), and was perceived by riders as “a quantum leap in service performance and quality.”<sup>38</sup> About a third of the increase in ridership was from transit users. Los Angeles has since created additional Rapid corridors and will have a total of 28 Rapid lines by 2012.
4. In 2005, Los Angeles opened the Orange Line, a full-fledged BRT service which featured a dedicated busway, off-vehicle fare payment, and the Metro Liner, a 60-foot bus that the LA Metropolitan Transit Authority bills as “the most advanced transit vehicle ever introduced in North America... the biggest leap in style and appearance our industry has seen in 30 years.” During preliminary studies, Los Angeles’ MTA projected 22,000 daily boardings on the 14-mile corridor by 2020. The Orange Line averaged 21,828 daily weekday boardings in May 2006, nearly meeting this prediction 14 years ahead of schedule.

### TOD

5. In addition to providing commuters with an effective alternative to driving, a cross-corridor transit system like bus rapid transit could afford municipalities the opportunity to pursue transit-oriented development (TOD). TOD is a land-use strategy whereby residential, office, and retail development is concentrated around transit stations. The term also refers to the developments themselves. TODs are typically mixed-use, walkable developments with higher than average density. Compact development oriented around transit stations has been proven to increase transit ridership and increase real estate values around the station.<sup>41</sup> A comprehensive assessment of TOD as practiced in the United States identified many benefits.<sup>42</sup> Transit-oriented developments tend to command higher rents than comparable developments not close to transit, yet are also natural locations for affordable housing as residents of TODs do not need to own as many automobiles as often as non-TOD residents. TOD is therefore a strategy that can both revitalize struggling neighborhoods and attract development. Because transit-oriented developments are denser and create less car use than non-TODs, a large

strategy focusing on TODs preserves open space and reduces the cost of infrastructure such as roads and sewage lines. Reduced car use means reduced traffic congestion and air pollution. Proponents of TOD do not claim that these benefits magically appear through the creation of a transit stop; rather, they accrue from the synergy between transit access, use development, and density. Maximizing these benefits requires careful design; there is no “one-size-fits-all” TOD blueprint. Project for Public Spaces is one internationally known nonprofit which focuses on what it calls “placemaking” for example. In addition, some private developers specialize in building TODs.

6. In poor market conditions, development is less likely to occur. But when market demand exists, land-use regulations and developer incentives can focus growth around transit stations. For example, New Jersey’s Transit Village Initiative provides funding and technical assistance to 19 designated “transit village” municipalities which engage in TOD around NJ rail and bus stations (see left). Boston’s TOD-supportive policies include a cap on downtown parking, a requirement that development plans for large developments include transportation mitigation, and increased police presence around transit stations considered unsafe.<sup>44</sup> In many municipalities, zoning regulations must be tweaked to allow for mixed-use development.
7. It has been argued that developers shy away from bus transit-oriented development because of buses’ lack of permanence. Unlike a rail line, a bus route can be easily changed, hurting businesses built to take advantage of proximity to transit. This criticism is not particularly relevant to high-end, capital-intensive bus rapid transit systems. BRT may be cheaper to implement than rail, but it still represents a sizeable investment, particularly when dedicated busways are involved. A recent review of the academic and government literature on bus rapid transit and transit-oriented development concluded that the argument that fixed rail infrastructure has more magnitude and permanence compared to busways is weak.”
8. In Ottawa, transit-oriented development centered around BRT has been wildly successful. Strong land-use controls concentrated commercial development around Ottawa’s Transitway.<sup>46</sup> Between 1988 and 1991 alone a billion Canadian dollars of development was built or in the process of being built along the Transitway. Stations anchor office parks, shopping malls, and mixed-use developments; one station is even directly connected to a hospital. More evidence of transit-oriented development comes from Pittsburgh’s busway system. A 1996 analysis of Pittsburgh’s 9.1-mile East Busway found that between 1983 (when the busway opened) and 1996, 59 new developments (including retail, office, residential, and medical complexes) valued at \$302 million had been built within a 6-minute walk of busway stations. This was despite terrain constraints which limited development opportunities, despite declining population in the communities adjacent to the busway, and despite the absence of Ottawa-style land-use planning.
9. The Port Authority of Allegheny County estimates that another \$203 million in development occurred between 1990 and 2004.<sup>48</sup> These are not the only successes. Areas as far-flung and different as Seoul, Korea; Curitiba, Brazil; and Boulder, Colorado have had success with bus-centered TOD.<sup>50</sup> It can happen here as well. At a recent land use charrette, the Plan Association identified several spots in the Rockland half of the Tappan Zee corridor that could support transit-oriented development, including Nanuet, Airmont and Montebello, and Suffern. The Westchester Department of Planning identified Tarrytown, White Plains, and Port Chester as areas primed for downtown density increases.<sup>51</sup> The success of transit-oriented developments depends on multiple factors, including political leadership, government incentives, land-use regulations, the strength of the real estate market, and the level of traffic congestion in the area (which affects demand for transit-oriented living).
10. But it cannot be overemphasized that one of the most critical factors is the effectiveness of the transit system. Only a transit system effectively connects places does access to transit—the heart of the TOD concept—become a valued commodity. And so the question of which transit mode can best support TOD is inextricably linked to the question of which transit mode is best suited to the development and commuting patterns of a given area.

#### Section 4 HOT Lanes

Why would these success stories not apply to Honolulu? Please address each paragraph specifically.

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1. Mark Muriello discussed the Exclusive Bus Lane (XBL) in New York City. He described the tunnels and bridges by the Port Authority of New York and New Jersey, the operation of the Lincoln Tunnel, and the XBL. He also highlighted recent studies examining options for enhancing operation of the tunnel and increasing capacity.
2. The Port Authority of New York and New Jersey operates a number of bridges, tunnels, and terminals in the New York City area. These facilities include the George Washington Bridge, the Bayonne Bridge, the Goethals Bridge, the Holland Tunnel, and the Lincoln Tunnel.
3. The Lincoln tunnel serves the midtown corridor into and out of Manhattan. The tunnel includes three tubes, each with two traffic lanes. In the morning, two tubes, or four traffic lanes operate in-bound toward Manhattan. In the midday, the third tube operates with one lane in each direction of travel, providing a total of three lanes inbound and three lanes outbound. In the afternoon, two tubes or four traffic lanes, operate outbound from Manhattan.
4. The XBL provides priority for buses approaching the Lincoln Tunnel in the morning, inbound direction. The XBL is a contraflow lane for buses only on I-495. The XBL uses the inside lane of the westbound freeway for buses. The current configuration provides for three general-purpose lanes and the XBL lane in the eastbound direction and two general-purpose lanes in the westbound direction.
5. The XBL is the busiest bus lane in the U.S. Some 1,700 buses use the lanes on a daily basis. These buses serve 62,000 weekday commuters. The XBL serves more commuters to Midtown than PATH, Ferries, or Penn Station commutes. The XBL saves commuters 15-20 minutes each day compared to traveling in personal vehicles.
6. The Lincoln Tunnel and the XBL are significant parts of the mass transit system in the New York City area. Buses carry nearly 80 percent of all trips through the Lincoln Tunnel during the 6:00 a.m.-to-10:00 a.m. time period. The XBL carries over 50 percent of these commuters. Approximately 55 percent of all bus commuters to the Manhattan CBD use the XBL via the Lincoln Tunnel.
7. The number of buses using the XBL has increased significantly over the past 25 years. A number of operational improvements have been made to deal with these increases and to enhance bus operations. A new acceleration lane was added to help maintain travel speeds and traffic flow at merge points. The acceleration lane helped increase throughput through the XBL.
8. Capacity shortfalls have also been addressed with operational changes to enhance efficiency. Examples of these operational changes include prohibiting charter buses prior to 9:00 a.m. and prohibiting empty buses at all times. Other examples include the requirement that all XBL buses have E-Z Pass electronic toll payment tags and opening the XBL 15 minutes earlier.
9. Planning is also underway examining the long-term transportation needs in the corridor. A range of options for the future are being assessed in partnership with an array of partners. These partners include federal, state, regional, and local agencies. Planning activities include a simulation of the Lincoln Tunnel corridor, and XBL expansion feasibility studies, a West Midtown bus parking and staging study. Other efforts include the Lincoln Tunnel HOT/express bus lane options study and the Lincoln Tunnel HOT/commercial vehicle priority lane options study.
10. The Federal Transit Administration (FTA) is sponsoring a study to evaluate the feasibility of creating a second priority lane. The objective of the study is to increase the passenger throughput of the corridor and to enhance the reliability of the XBL. A full array of options are being explored. These options include operational alternatives to improve traffic flow, safety, physical alternatives for lane separation and ramp connections, and capital options to expand capacity. Capital options include the potential of widening the roadway, removing the center piers in the tunnel, and an elevated roadway scheme. Very limited right-of-way and the geometry of the existing facility provides significant challenges for many of the options.
11. The FHWA's Value Pricing Pilot Program is sponsoring a study of pricing options to manage demand on the XBL and HOT lanes. A second XBL lane would be underutilized initially, so the study is examining the potential to fill some of the available capacity with non-bus HOVs or with non-HOV vehicles. The study is exploring pricing options that balance

demand with non-HOVs. Stated preference surveys of motorists are being conducted to help determine the tradeoffs between price and LOS variables, including travel time savings and trip-time reliability.

12. The Lincoln Tunnel HOT lane study will help quantify and address concerns with potential lane conversion. The study will examine the LOS and delay in the remaining two regular travel lanes. It will also assess traffic queuing in the remaining two regular travel lanes and the residual impacts on the local street network. The study will consider the need to balance the cost for a new managed lane to ensure bus priority treatment and effective capacity utilization.
13. The HOT commercial vehicle priority options study will explore the potential for commercial vehicles to receive priority treatment in a new special-use lane during the shoulders of the morning peak-period. The objective of this study is to explore ways to take advantage of the presence of a separated lane to create travel time advantages and reliability improvements for small package and local delivery trucks.

### ***The Evolution of Houston's Express Bus System***

14. Jeff Arndt discussed the evolution of the express bus services in Houston associated with the development of the HOT lanes. He described the initial bus services operated with the I-45 contraflow HOV lane demonstration project, the implementation of more extensive services as the HOV lane system developed, and the integrated bus system in operation today.
15. The I-45 North contraflow lane demonstration project was implemented in 1979. The bus service initiated with the contraflow lane focused on downtown Houston. Bus service was constrained by very limited access. There was no direct access to and from park-and-ride lots, which limited service flexibility. The concept of premium service, which included over-the-road coaches and other enhancements, was initiated with the contraflow lane. This initial authorized vehicle (AVL) concept with a focus on downtown Houston evolved into an HOV systems approach.
16. Bus services were expanded as other HOV lanes were implemented. The design of the HOV lanes included direct ramps from major park-and-ride lots and transit centers. Service was expanded to non-downtown destinations, such as Uptown and Greenway Plaza. Direct service to these areas was provided from some park-and-ride lots, while contraflow service from downtown or other transit centers was used in other cases.
17. The continued development of the HOV lane system provided more flexibility in service. Direct non-CBD service continued to be expanded. Commuter route connections at transit centers were also implemented. In addition, a few contraflow way ramps were developed. Limited off-peak service was provided on some routes.
18. The Houston experience highlights some lessons to be shared with other areas. First, the 2+ occupancy level caused the HOV lanes to become congested, degrading the travel time savings and trip-time reliability for buses and bus routes. Second, the system changed from trained and tested users to any traveler meeting the occupancy requirement. Over time, there has been some erosion of transit incentives and vanpooling has diminished. Recently, there has been a focus on carpooling users. The QuickRide program, which allows two-person carpools to use the I-10 West and the US 290 HOV lanes during the 3+ period for a fee, has been in operation for approximately five years.
19. The current transit system in Houston represents a maturing service network. Transit centers provide connections between services, neighborhood circulation services, and commuter routes using the HOV lanes. There is also a connection between MetroRail, the new LRT line.
20. Currently, some 104 miles of HOV lanes are in operation in six freeway corridors in Houston. The system also includes 10 park-and-ride lots and 17 transit centers. In December 2004, some 37,400 daily vehicle trips were made on the HOV lanes, accounting for approximately 116,000 person trips. A total of 32,415 parking spaces were available at the park-and-ride lots with approximately 17,126 parked vehicles on a daily basis.

### ***Bus Rapid Transit Studies in the State of Maryland***

21. Robert Boot discussed BRT studies and projects in Maryland. He described the main characteristics of BRT, summarized current BRT studies and projects in Maryland, and identified potential issues with implementing BRT.
22. There are a number of factors influencing the consideration of BRT in communities throughout the world. BRT has lower upfront costs than other fixed guideway modes and can be implemented relatively quickly. BRT provides the opportunity to take advantage of underutilized rights-of-way. BRT provides operating flexibility and a way to increase transit ridership in select corridors. Local busways can also use portions of the dedicated BRT transitway.
23. BRT is being considered in Maryland to help respond to increases in travel demand, limited resources, and transportation needs. The new governor and his administration examined future transportation needs and options. The study, *Bus Rapid Transit: Flexibility by Design, Offering Mobility Options for Maryland*, completed by the Maryland Department of Transportation (MDOT) notes that BRT combines the service and quality of rail with the flexibility of buses.
24. The 2004 Maryland Transportation Plan focuses on the goals of efficiency, mobility, safety and security, productivity, and quality. The plan includes numerous strategies for addressing mobility needs. Consideration is given to BRT as a viable alternative to provide realistic solutions to customer needs in corridors throughout the state. It includes active consideration of BRT on managed highway lanes to lower vehicle-related emissions and to improve regional air quality while providing viable new transportation alternatives to Maryland's commuters.
25. BRT projects in Maryland include the Red Line in Baltimore, the Green Line in Baltimore, the I-270/US 15 Corridor Cities Transitway, and the Bi-County Transitway. Planning for the Red Line in Baltimore started in 2000. The project originated from the comprehensive planning effort in nearly 40 years. In March 2003, the Baltimore Region Transit Plan was completed and adopted. The plan serves as a guide for the expansion of the Baltimore transit system.
26. A number of issues had to be addressed with the Red Line project. There was community sensitivity related to potential impacts on property values and environmental concerns. Available right-of-way was limited in many parts of the corridor. There were also concerns about operating BRT in downtown Baltimore without taking an existing traffic lane.
27. The Green Line in Baltimore also originated from the 2003 Baltimore Region Transit Plan. Potential issues with the Green Line included the preservation of green space along the roadway, as an existing grass median is the proposed location for the BRT. Determining potential station locations and existing density and ridership are other potential issues.
28. The Corridor Cities Transitway (CCT) is proposed in the I-270/US 15 corridor. The corridor stretches from the Shady Grove Metro Station in the south to Briggs Ford Road in the north. The corridor includes both Montgomery and Frederick Counties. The CCT alignment was identified in county master plans in the 1970s. In 1994, a Major Investment Study was initiated. Public meetings and workshops were held in 1995 through 1997 as part of this process. The MIS recommended alternatives for a detailed planning study. Informational public workshops were held in 2001 and formal public meetings were conducted in 2001 and 2002. The Draft Environmental Impact Statement (DEIS) was completed in 2002. Location/design public hearings were held. Public information meetings on express toll lanes (ETLs) were held in 2002. ETL minimization options refinements were completed.
29. The Bi-County Transitway project was first identified in the Montgomery County Feasibility Studies in the 1980s and the County's purchase of the Georgetown Branch railroad right-of-way. A transitway/trail was included in the County's Master Plans. In 1996 the MTA completed the Georgetown Branch Transitway/Trail MIS/DEIS and the 2002 Capital Beltway/Purple Line Study was conducted. Possible issues with the Bi-County Transitway include potential community and environmental impacts. The jurisdiction in the area has different preferences. Connections with existing Metrorail may also be a concern.
30. There are some general issues that may need to be addressed with all the BRT projects. The first issue is the public perception of buses, which still seems to be lower than other transit modes. A second potential issue is balancing a transit system with possible impacts, including community impacts related to limited right-of-way. Third, there may be a

perception that BRT is not conducive to transit oriented development. There may also be short-term and long-term implementation concerns.

### ***Virtual Exclusive Busways (VEBs)***

31. Robert Poole described the virtual exclusive busway concept. He reviewed the early development of HOV lanes, which included a major focus on buses. He discussed how managed lanes and pricing can provide a virtual exclusive busway. He recognized the assistance of Ted Balaker of the Reason Foundation with the study and the presentation.
32. Value pricing makes it feasible to realize the promise of exclusive busways by providing high-speed, high-frequency service that is sustainable on a long-term basis. In the real world of limited funding, however, there is a need to reserve special-purpose lanes are used.
33. Some HOV lanes began as busways. FHWA/UMTA policy in the 1970s supported busways. There are only a few busways today, however. These facilities include the Lincoln Tunnel XBL, the Pittsburgh busways, the Miami busway, the Seattle bus tunnel, and surface-street busways in Las Vegas and Orlando.
34. Concerns about low use with bus-only lanes led to allowing HOVs. The Shirley Highway busway demonstration project started as buses, vanpools, and 4+ HOVs in 1973. The occupancy requirement was lowered to 3+ in 1989. The Los Angeles El Monte Busway on the San Bernardino Freeway in Los Angeles was opened to 3+ carpools in 1976. The I-10 Westbound lane in Houston began with a carpool definition of 4+. This requirement was lowered to 3+ and then to 2+. Nationally, the percentage of commuters who carpool has declined since 1980. The lane miles of HOV facilities have increased during the same time period.
35. A significant percentage of carpools are formed with family members. This trend was identified in *Commuting in America II*. Recent surveys in San Francisco, southern California, southeast Wisconsin, and Minneapolis-St. Paul, indicate that family-based carpools account for between 33 percent and 67 percent of total carpools.
36. It appears that vanpooling has been hurt by carpool preference. The time-savings realized by HOVs is reduced when HOV lanes are filled with 2+ carpools. Also a larger time savings is needed to offset the time cost of assembling a vanpool. Vanpooling is a highly cost-effective mode. The cost recovery ratio of vanpools sponsored by public transportation agencies throughout the country range from a low of 30 percent to a high of 117 percent. The overall average of nine vanpooling programs was 80 percent. Vanpools are also energy-efficient. Vanpools have the lowest British Thermal Unit (BTU) per passenger mile of transit modes and personal automobiles.
37. BRT in HOV lanes is not sustainable. At the 2+ vehicle-occupancy level HOV lanes become congested and travel time savings and trip time reliability to transit is lost. There may not be enough demand at a 3+ vehicle-occupancy level. An HOV lane may suffer from the empty-lane syndrome. There is no way to fine tune occupancy as you cannot have a variable vehicle-occupancy requirement.
38. Value pricing offers precise control. The I-15 HOT lane uses quasi-real-time variable pricing. The 91 Express Lanes use a fine-tuned rate schedule, with periodic adjustments. The Express Lanes carry 49 percent of peak traffic with 33 percent of the lane capacity. Both facilities offer reliable high speeds during rush hours.
39. The virtual exclusive busway (VEB) concept would use value-priced lanes or networks. Pre-defined capacity would be reserved for buses and super-HOVs. The remaining capacity would be sold through value pricing.
40. An example of VEB capacity highlights how the concept would work. First, the capacity of a lane is approximately 1,800 vehicles per lane per hour. Second, space would be allocated for 60 buses per hour, which is the equivalent of 120 vehicles an hour. The remaining available capacity in the lane is 1,580 vehicles an hour. A percentage of this capacity could be allocated to vanpools and super-HOVs. The remaining capacity would be allocated to paying customers.
41. The managed lanes project on I-10 West in Houston provides a VEB prototype. The project represents a partnership between Houston METRO, TxDOT, and HCTRA. The four new managed lanes in the center of the expanded freeway will

- pricing. HCTRA is helping the fund the lanes and will operate them. METRO is guaranteed 65 buses and hour and percent of capacity for buses and HOVs. A LOS C will be maintained using pricing and occupancy controls.
42. The I-10 West managed lanes highlight the benefits to transit of this approach. Although METRO will not receive revenues, it will be able to operate 65 buses an hour, which is above current service levels. FTA approval was granted on maintaining a LOS C. A 3+ occupancy requirement will be used for carpools to travel for free. All of these elements covered in a MOU. A VEB can facilitate region-wide express bus/BRT service. A regional network would require construction of new lanes and flyovers. These major capital costs would be paid out of toll revenues.
  43. A VEB network provides a cost-effective approach. The cost of a 500-lane-mile VEB network has been estimated at one billion-to-\$3 billion in the Reason Foundation studies. In comparison, FTA data indicates the cost of a 250 route-mile rail system is \$31 billion and the cost of a 250 route-mile heavy rail system is \$38 billion. In addition, the VEB guarantee would not depend on FTA funding.
  44. Managed lanes are being considered in a number of metropolitan areas through the country. Some changes in policy needed for VEB networks. First, there must be clear FTA policy approving HOV to HOT conversions. Second, managed lanes need to be defined as "guideways" in Section 5302 of Title 49. Third, VEB or VEB networks need to be considered an alternative in new starts evaluations. Finally, VEBs should be made eligible for New Starts funding for buses, state park-and-ride facilities.
  45. Exclusive busways are key to competitive express bus/BRT. Exclusive busways are too costly and are wasteful of space. VEB is feasible with value pricing and with agency cooperation. VEB can provide a win-win situation for transit agencies, motorists, and state departments of transportation.

## Section 5 Why buses are better

Please address each paragraph specifically, and explain why you agree or disagree.

1. There's a missing factor in the formula pushing a 5-billion dollar rail system into our suburbs, and this traffic solution is doomed to fail without it. The simple truth is that a rail transit system requires a dense residential pattern to make it work, which we do not have on Oahu. This crucial relationship between transportation and land use has not yet been properly addressed.
2. The often-cited description of Honolulu conjured up by rail proponents as a dense, linear city ideal for rail is a myth. The biggest transit problem is that Oahu's settlement pattern of single-family homes in suburban subdivisions is too dispersed for rail to be effective. If we build the rail line and don't change the way we build new housing this system will be a colossal disaster. How many people right now live within walking distance of any likely stations? Not nearly enough to support rail rapid transit.
3. When you look around the world at successful rail transit systems you see they are in cities with medium and high density housing where people can walk to the station and then walk to their work place at the other end. A global trend in urban planning is creation of the urban village, both in the city center and in the fringes with construction of new towns. Increased housing density could enhance quality of life by developing a village atmosphere and supporting our need for close-knit communities where people interact, unlike today's isolated neighborhoods. Shops, restaurants, entertainment, jobs, schools, mass transit, and other enjoyable urban amenities would be easily accessed in a more dense community properly planned.
4. There is a causal relationship between our problems of unaffordable housing and congested traffic, because we have spent years building the wrong kind of homes in the wrong places, covering our landscape with big, expensive houses, generating suburban sprawl that has produced tremendous traffic problems. These unattended problems will only grow worse if we are distracted with an ineffective, fixed rail pipedream. Jumping into a rail commitment at this point is just not going to work.

5. Consider how someone living in a single-family suburban home would have to get to work on rail: walk to a bus stop, wait for the bus, ride to the rail, walk to the platform, wait, board, ride, walk from the rail to another bus stop, wait, board another bus, walk to work; then do the same thing in reverse going home. Who is going to put up with this? Most who are supposed to support rail probably would not ride it -- but hope in vain that others will, to make more room on the roads for the rest of us.
6. There are better transportation alternatives which could provide faster relief and perhaps eventually evolve into a rail system. One obvious strategy is to vastly expand our bus system. We need more buses, exclusive lanes, frequent additional routes, express lines, better connections and lower fares. Our present bus system is often claimed to be the nation's best, which is another myth that stands in the way of true solutions. It can be drastically improved.
7. Extensive road construction will be needed, including some elevated busways, bus stations,
8. underpasses at busy intersections, more use of contraflow and other management improvements. In the future, if bus utilization grows heavy enough, this system of elevated structures and exclusive bus lanes could be converted to rail. Rail would ultimately have more capacity; but it would be a mistake to attempt a transition directly to rail at this point as we are not yet ready.
9. Why not just build the rail now along with the higher density housing to go with it? That would be nice if we could count on the brilliance of our politicians and private land developers to do the right thing, but with their sorry record of land use, we must not be gullible. This new kind of housing approach needs to be demonstrated with real results and in the meantime it can be supported with an expanded bus system which can evolve into rail transit.
10. Unfortunately, our misguided state legislature passed a flawed bill last session that prohibits expenditures of new transit revenues on road improvements. How can the city now tell us with a straight face that all transportation alternatives are being given fair consideration? This state legislation could be changed, but given past performance, the outlook is bleak.
11. Our former mayor was probably on the right track with his BRT plans using modern buses driving on exclusive lanes circulating in existing streets. A well-planned bus service could pick you up near home, bring you to a bus station where a transfer would put you on a bus that is going close to the final destination, riding on exclusive lanes that will be free from traffic. Commuters could also drive to transit stations at regional shopping malls, park for the day and catch an express bus direct to their destination. The whole island can benefit from this approach rather than one narrow leeward corridor. Another promising technology is creation of high-occupancy toll lanes, but the city studies are also ignoring this option.
12. At the same time we can be preparing ourselves for a future rail system by building new housing in well-planned, medium-density high-density apartments -- which can be affordable and very beautiful when done right. Clustered villages can be created with a mix of townhouses and highrise apartments that could support neighborhood shopping, entertainment and other urban amenities. These clusters could be developed in the urban core as well as carefully-selected regions of the island. It can happen, but it requires a serious community dialogue and basic transformation in the way we build housing, requiring a prohibition on more single-family houses and active government involvement in consolidating small private parcels for larger planned communities through aggressive use of eminent domain.
13. Let's not be railroaded into paying for a premature, expensive rail system that will take forever to build at great income and won't work. At this time and for the foreseeable future rail is a luxury that we are not ready for and cannot afford. In years of disruptive construction for a massive elevated train that hardly anyone in our lifetimes is going to use, leaving the city stuck in gridlock and our children permanently unable to find affordable housing. We can do better.

### **Section 6 Rail Will Fail: HOT Lanes are Better.**

Please address each paragraph specifically, and explain why you agree or disagree.

1. **ENVIRONMENT:** An elevated train running through the heart of our city would be an environmental blight on I. Elevated tracks would be ugly, running through downtown and eventually Waikiki, defacing our beautiful city and damaging our tourist industry. The elevated guideway will destroy views for tourists and residents, along the way. Managed Lanes would also be elevated through part of the Leeward corridor to avoid the bottlenecks, but would cross to ground level in Iwilei before reaching downtown, and would not cross the heart of town as an elevated monster.
2. **The city's own projection is for traffic to be far worse, with rail, than it is today, so since rail will not solve the problem, why should we pay for it, and what should we do instead?** Yes, rail transit would have a dedicated roadway above the congested traffic, but so would the express bus system on a fixed guideway, or "HOT Lanes," (High occupancy and toll lanes) which can operate far more efficiently at lower cost than rail, with a mix of express buses, carpools and toll-paying cars, providing faster service from many origins directly to many destinations. Reversible Lanes would be far superior to rail for Oahu for all the following reasons.
3. **EXPRESS:** Buses can utilize a guideway better than rail because buses can pick people up in our dispersed communities and drive directly onto the guideway, quickly reaching the destination non-stop and without transfer. Buses do not need stations on the guideway, for they would use regional bus stations that people could easily get to. Train stations would not have such versatile access and will not be close to our dispersed, existing residences.
4. **SPEED:** Trains stop at every station along the line, like riding an elevator up a 30-story building and stopping at every floor. The city's official speed estimate for Honolulu rail service is an average of 23 mph, which is far less than that of an express bus can expect on an exclusive elevated lane. Because of higher speed and fewer transfers, bus will attract more riders than rail and more effectively reduce traffic congestion. With this higher bus ridership, the cost per rider of rail would be lower than rail, which will undoubtedly fail to attract any large number of users.
5. **TRANSFERS:** Rail riders would have to transfer many times on the daily round-trip, as in this likely journey: a) walk from home to a bus stop, wait for the bus, b) ride the bus, c) walk from the bus to rail, wait for the train, d) ride the train, e) walk from rail to bus, wait for the bus, f) ride the bus, g) walk to reach destination. Then returning, everything is in reverse: h) walk to bus stop, wait for bus, i) ride bus to rail, j) walk from bus to train, wait for train, k) ride train, l) walk from train to bus, then wait for the bus, m) ride bus, n) travel from bus stop to home. **(14 travel segments, including 4 transfers)** Studies have shown that people hate to transfer.
6. **CONGESTION:** Rail service will do nothing to reduce traffic congestion: the city study shows that current overflow on H-1 peak hours is 6%, and by 2030 over capacity will be at 31% with the rail in place. Buses and vanpools on the flowing HOT lanes could reduce traffic by 20-25 percent. **The city's own studies show rail would only remove a small number of trips from the roads.**
7. **UTILIZATION:** Extra space on the fixed guideway can be used by other vehicles, particularly vanpools and carpools. If there is available space, some additional vehicles can pay tolls (collected electronically, without cars having to stop) and tolls can pay for much or all of the transit system. The amount of traffic would be regulated to allow maximum capacity without congestion, enabling full utilization of the guideway space unlike rail, whose expensive tracks would be underutilized most of the time. We will get the most bang for our buck.
8. **CAPACITY:** Surprisingly, an exclusive bus lane can easily carry more passengers than a rail line. Five-hundred buses an hour, carrying 25,000 seated passengers, enter the New York City main bus station daily on one dedicated bus lane. The maximum capacity estimated for Honolulu's proposed rail is 10,000 people per hour. A good bus lane has a maximum capacity of 1,000 buses an hour, carrying 50,000 seated passengers! High-capacity busways on dedicated lanes exist in Newark, Los Angeles, San Diego, Washington, D.C., Curitiba, Bogota, Brisbane, Ottawa, Port-of-Spain and elsewhere. This technology gains increasing traction.

9. **UNIONS:** Unionized rail workers can hold the city hostage as shown by recent metro strikes in Paris, London and New York. Bus unions don't have as much leverage because people can ride private buses, use carpools, pay tolls and use the HOT lanes. Rail service is provided by a monopoly, while a busway could carry buses of different companies providing competitive service. Rail construction is by non-bid single-source contract, vulnerable to political manipulation, unlike road-building which is open to many bidders.
10. **BREAKDOWNS:** Busways can be built more quickly than rail and can readily be repaired in an emergency. Rail structures cannot rapidly be replaced or repaired if damaged. Buses and other vehicles can drive around a disabled train, but trains come to a halt if there is a disabled train on the track. Busways-HOT can accommodate emergency vehicles and provide an evacuation/alternate route in the event of another September 5th "Black Tuesday" freeway closure.
11. **COST:** The price of constructing the rail system is astronomical, probably reaching \$6 billion by the time all the runs are paid for, compared with less than \$1 billion for elevated HOT Lanes, despite the city's absurd claim of nearly \$1 billion for "managed lanes." A similar system in Tampa was built for \$300 million. Rail would end up costing each rider of four about \$24,000, even though only a few percent of the population would ever use it. We estimate construction per rider at \$120,000 with daily operational subsidy of \$15. The Federal Government Accountability Office has compared operating costs, and the majority of cities have lower operating costs for their Bus Rapid Transit systems than for their rail systems. HOT Lanes also save money by making better use of our existing streets as feeder lanes for high-capacity transit plus we benefit from free labor and equipment supplied by drivers of HOV vehicles and toll-paying autos. Buses are more easily replaced as technology improves. There are hybrid and natural gas buses whereas rail hogs electricity and large energy transmission losses and will require construction of a new electrical power plant.
12. **QUALITY:** Some people assume buses provide inferior service, but buses of any quality can readily be bought: luxury buses can be offered for those who prefer to pay more, less-expensive ones for those who prefer to save money. The primary quality consideration for commuters is the time it takes to make the journey -- buses are quicker and easier than rail as you are more likely to get a seat rather than stand.
13. **TOLLS:** Critics claim that toll roads set up a system geared to those who can afford the tolls, and ignore those who cannot. Federal surveys show that in the places with HOT lanes the public approves of them across all income groups. The lower incomes approve of them because a) it reduces traffic congestion on nearby freeways at no cost to those not using HOT lanes, and b) it provides reliability to make those important appointments, which we all have regardless of income. If you are running late, paying \$4 to jump on the HOT lanes and get there on time can easily be worth it. Without HOT lanes, travelers will pay a toll anyway for a ticket if they ride a rail, or in wasted time if they drive stuck in congested freeways. Affordable express bus service will be enhanced.
14. **CARS:** Some charge that HOT lanes encourage rather than discourage car use, but HOT lanes are not freeways and toll charges do not encourage auto travel. Adding a lane will not increase the number of cars on the road, for that is controlled by the number of jobs at destinations -- just like adding a maternity hospital does not increase the number of babies, it just makes it easier for them to arrive. HOT Lanes are primarily mass transit for express buses and carpools which will lure drivers away from single-occupant cars.
15. **DENSITY:** Rail transit relies on high-density residential patterns to support it, with most riders living in high-rise apartments along the route, while the HOT lane can be easily reached by people living in more dispersed communities like we have on Oahu. Rail planners envision social engineering on a grand scale to force new housing into dense "Transit Oriented Development" patterns near stations (Transit Oriented Development). Such rail stations are magnets for crime. We do not have high density along the proposed route, nor do we have the population size. The smallest American city with heavy rail, Cleveland, has twice our population. Increased residential densities can make sense for the environment, but they are better supported by a well-planned bus system that will allow more flexible distribution of settlements. In this way

communities can grow in a natural way with different densities in various locations, increasing the opportunities for affordable housing and mixed-use neighborhoods with shops and jobs nearby, rather than congested housing along a narrow rail line. Rail lines are fixed and cannot respond to changes in employment and land use, whereas bus service is rerouted and shifted over time to correspond with Oahu's changing transportation needs.

16. **BIASED STUDIES:** The city's Alternatives Analysis failed to provide any examination of the HOT Lane alternative, vaguely considering "managed lanes" with a superficial and biased approach: The projected costs were grossly exaggerated, provided no access ramps along the route, included 6,200 unnecessary parking stalls, offered dubious forecasts, had excessive \$6 toll, removed the existing HOV zipper lane, resulting in a net of only one new lane, and added the burden of stations on the busway – but no stations are required.
17. **POLITICS:** Unfortunately the city administration is completely close-minded about this critical issue and is determined to push rail at all costs. The city administration's biased EIS process is giving no consideration to the HOT Lane option. The city has pretended to listen to the public with superficial community meetings, biased transit symposiums and rigged advisory panels, but all these phony efforts have been a farce that were selling rail and manipulating public opinion rather than honestly listening to alternative viewpoints.

#### Section 7 transit debate

Please address each paragraph specifically, and explain why you agree or disagree.

1. There is no room on the ground to relieve the Leeward situation -- if you don't accept elevated you are out of the door. Buses can utilize this guideway better than rail because: buses can pick people up in our dispersed communities and drop them directly onto the guideway without transfer. An expanded bus system would utilize regional bus stations, mostly in shopping/parking areas, that people could get to by a) driving, b) walking, c) shuttle bus, d) bicycle or moped. Transit stations will not have such versatile access modes, nor will they be as close to our dispersed, existing residences.
2. Modern, express 3-piece articulated buses can carry 150 people. Again, as below, it comes down to ridership -- the bus reaches out to more places so will attract more riders, rail will fail due to lack of customers, so that rail driver who is pulling 300 people is stuck on empty, especially in off-peak hours. Bicycles can be easily accommodated on board.
3. Oahu needs considerable provision of new services, based on regional bus stations people can reach as detailed above. From those stations there will be express buses which drive in from the suburb mixed with reasonable traffic, then onto the guideway at the H1-H2 merge in Waipahu, flying over the congestion non-stop! Please look at the proposed travel times projected for rail-they are worse than driving through the congestion. Don't project current bus conditions into our future which will be a much different system.
4. The express bus can reach town without stopping every mile at a station, 10 miles in 10 minutes, much faster than rail.
5. These new buses will be a different mode altogether because they will have true express lanes, so don't compare it to the present situation. Bus = 10 minutes; rail = 60 minutes, Check the city's alternative analysis charts.
6. The biggest rail handicap is transfers. A) leave home, b) travel to rail by bus - no-one lives in walking distance of rail stations, which will have no parking c) walk from bus to rail station d) ride rail e) depart rail station and probably have to walk again to reach destination. Then in the afternoon, f) g) h) i) j) do the same things again to get home.-
7. The big problems are the walk, the climb, the walk, the wait, the walk, etc.

8. Cost difference is a major factor. \$6 billion for rail versus \$2 billion for bus guideway construction. Look to Tampa built a 6-mile 3-lane, elevated viaduct for 300 million last year. This is not rocket science. It is just possible that to pay for the whole thing.
9. Many other communities are building HOT lanes for bus, vanpools and toll-paying cars, but comparisons with other is very misleading and therefore, dangerous. While we can learn many general principles from studying other places, equation with cities such as Vancouver, which is often pointed to by our Council and Administration as a model for us, is inappropriate because we are unique and must deal with our special situation in our own way. For example, population of greater Vancouver metropolitan area is 2.1 million people and skyrocketing along at 6.5% annual growth, compared to 1 million in Honolulu, growing at only .7% annually. Furthermore, Vancouver is a leader in "smart growth" with mass development of high density housing downtown to the point where nearly as many commuters leave downtown in the morning as arrive.
10. Operational costs that theoretically tip in favor of rail assume that rail succeeds in attracting customers, which I see no doubt - whereas express buses can, and those bus service levels can be easily adjusted to meet demands, unlike rail where the empty trains must keep on rolling, throwing good money after bad.
11. The old BRT was a ridiculous plan, taking away existing lanes for buses from a city that already is last in the nation in lanes per-capita. BRT was preposterous. Don't compare our current proposals to Harris, or to anywhere else, The arguments ring hollow and suggest you have no real case if you have to go after straw men.
12. Of course, you realize our electricity comes from fossil fuels, petroleum no less. The rail will be an energy hog, requiring power 20 hours every day. Bus and HOV vehicles are evolving as we speak, soon running on alternative fuels. Bus cost per capita of rail versus car is surprisingly close, and with new technology, free-flowing autos will soon pass rail in efficiency and again, a well-planned bus system of the type we are suggesting will run energy circles around the empty train. The bus or vehicle is not in use, zero energy and emissions. Rail, all the time, empty, stopped, or going, is burning fossil fuels and polluting.
13. In addition, there are many other arguments for a HOT lane guideway. It can be utilized by vanpools and carpools and also be used by cars paying tolls to help fund it, perhaps only in the early years while HOV occupancy builds. After a few years, if HOV service demands, cars could be excluded, but in the meantime tolls have helped pay for the system. HOV vehicles can be properly dispersed at the town end with adequate off-ramps and some new parking facilities (connecting to work places by shuttle service).
14. Sensible urban planning can devise a settlement pattern of new housing built in medium densities, new towns, that encourage use of bus transit. Rail, on the hand, would seem to require high-density, high-rise, air-conditioned, expensive, un-Hawaiian housing, the so-called TOD, transit oriented development, which has not been working out well in several mainland communities, including Portland.
15. Getting people to use rail requires major social engineering, changing people's behavior and housing preferences, which is nearly impossible. This new generation of rail riders would either have to live walking distance from a station, in expensive, high-density clusters, or get to the train via transfer, and transfer again at destination. The psychological time spent during transfer is much higher than that of time spent sitting in a vehicle. Less social engineering is needed to get people onto an effective bus or vanpool system, because it can pick them up closer to existing homes and get them to their destinations with fewer transfers. New housing of transit-friendly medium density will be more acceptable to people than air-conditioned, expensive, crowded skyscraper condos.

**Section 8 City Myths on Rail Transit These are responses to public statements made by city officials:**

To verify statements go to [www.honolulutraffic.com/verify.pdf](http://www.honolulutraffic.com/verify.pdf) or call us at (808) 285-7799

Please address each paragraph specifically, and explain why you agree or disagree.

1. This memo presents a rebuttal to various incorrect statements made by Honolulu government officials about the advantages of rail. Our basic complaint is that the city keeps claiming rail would better serve our community than alternatives, such as HOT Lanes (High Occupancy and Toll Lanes), using incorrect information that misleads the public.
2. **Main myths** “Rail, if you compare it to a busway or a bus system, is head and shoulders above something like that in terms of 1. speed, 2. capacity, 3. reliability, 4. safety, 5&6.capital cost, even, operating and maintenance costs, 7. pollution, there’s no comparison, there’s no comparison. 8. Honolulu needs to move, I would say, 200 to 300 thousand people a day and only one kind of system would do it and that’s a high-speed, high-capacity, rail system and that is what I am so in favor of it.”
3. Speed? The city’s alternatives analysis shows that for the 19 miles from Kapolei to Downtown it’s going to take 65 minutes by train. That’s 20 miles per hour. He’s saying 19 miles in 65 minutes. The alternatives analysis, that’s the assessment of what it will take with the rail line. Trains stop at every station, which is like elevators in thirty-story buildings stopping at every floor. This makes the trains quite slow. For example, from Kapolei to Downtown, a distance of 19 miles, the journey by train is forecast by the City’s Alternatives Analysis ([http://www.honolulutransit.com/more\\_info/library/files/Alternatives\\_Analysis\\_Chapter3\\_to\\_End.pdf](http://www.honolulutransit.com/more_info/library/files/Alternatives_Analysis_Chapter3_to_End.pdf)) (page 3-11) to take 49 minutes if you drive to the station or 65 minutes if you walk/bus to the station ([http://www.honolulutransit.com/more\\_info/library/files/Alternatives\\_Analysis\\_Chapter3\\_to\\_End.pdf](http://www.honolulutransit.com/more_info/library/files/Alternatives_Analysis_Chapter3_to_End.pdf)) This agrees with federal government data showing urban transit trains averaging only 23.5 mph. There is no “whoosh” with trains. On the other hand, on uncongested High-Occupancy Toll (HOT) lanes will average 60 mph and then 15-20 mph in normal traffic. It does not take much of the journey to be done on the HOT lanes to get an average speed far higher than a train.
4. The capacity of the projected rail line is 6,000 riders per hour in the peak direction with an ability to expand that to 12,000 per hour maximum. We can compare that to New Jersey’s I-495 single bus lane carrying 32,600 passengers per hour. In the face of that, it is ridiculous to discuss a two-lane HOT lanes facility, giving priority to buses, not having the capacity of a rail line. The Parson Corp. HOV Facilities Manual says of rail and busways that, "Both modes can serve the personal carrying capacity needs of about any corridor in North America." During the non-peak hours there’ll be too much capacity if it’s a rail. You’ll have a 300-person vehicle rumbling through mostly empty every 6-10 minutes, whereas a commuter express bus can be coming through using far less energy and even more frequently or less frequently, as needed. ([www.honolulutraffic.com/passperhour.htm](http://www.honolulutraffic.com/passperhour.htm))
5. Myth 3: Reliability? The biggest problem with rail transit is strikes (and suicides). Strikes are a major headache for rail transit users in the mainland because every so often they go on strike. They’ll be out days on end. It takes them a long time longer to get ridership back up to where it was after a strike. If you were to put in a rail system, whatever union is controlling the train is going to have an immense amount of power over the city. When a rail car breaks down the whole system will cease functioning, perhaps for days, causing major inconvenience.
6. Myth 4: Safety? Gangs, graffiti and crime around train stations. It’s a magnet for this kind of stuff. Safe? All transit systems have to have transit police. Vancouver, San Francisco, Washington, etc...rail systems have transit police. We don’t have transit police on our bus system. Are police accounted for in the alternatives analysis as part of the budget? No, it’s not mentioned. We’ve brought that up. It’s an issue. It’s expensive. When they put in the blue (rail) line in LA the bill turned out to be millions of dollars a year to put in a sufficient transit police in place to hold the crime down.
7. Myth 5: Costs? Saying that the capital cost is less than the HOT lanes option (High Occupancy Toll) is also misleading. It’s really laughable to say that a simple, elevated highway built by the lowest bidder is going to cost more per mile than rail.

non-bid, elevated rail line with trains, computers, transformer stations. Each station is 270 feet long, 50 feet wide, elevators, escalators, stairs and generators to pull the train to the closest station so that the people don't get stranded at stations in a power outage. There can be no comparison. How can they be so off on the cost? Well, they have consultants who boast about being cMythnt-focused. In other words, they'll do whatever the cMythnt wants them to do. And the cMythnt wants them to show that HOT lanes are not competitive with rail.

8. Myth 6: The city has exaggerated the cost for HOT lanes to \$2.6 BILLION. A comparable facility, the Tampa Expressway cost \$400 million. When you've got a facility built for 400 million you cannot justify one for 9 times the amount in Honolulu. The 400 million dollar one in Tampa – how long is it? About 12 miles but it's 3 lanes wide. The one that we propose is 2 lanes wide. The cost per mile of rail in Honolulu is estimated by the City to be the same as the Washington, D.C. Dulles extension. But the cost of a reversible expressway for HOT lanes is estimated by the City to be over five (5) times the actual built cost of an already built system in Tampa, Florida!
  9. Myth 7: Pollution? When cars are traveling at uncongested speeds, the pollution emissions are far less than on congested freeways. Speed up the auto traffic and we will get far less pollution.  
[http://www.itre.ncsu.edu/ITREmain/research/documents/Emissions\\_Reduction-TrafficMngt.pdf](http://www.itre.ncsu.edu/ITREmain/research/documents/Emissions_Reduction-TrafficMngt.pdf)
  10. Efficient express buses that circulate in communities then drive onto HOT Lanes would attract more riders than rail, reducing automobile usage and congestion.
  11. Myth 8: 250,000 riders? Currently, 7% of Oahu trips are by public transit. This would need to triple, to 20% of trips, to support 250,000 riders, which has never happened anywhere in the U.S. or Canada. Nationally transit ridership share has been going down, way down, not up. At present only about 75,000 people per day use transit.<sup>2</sup> It would mean increasing transit ridership by 300 percent when the population is only forecast to increase by 28 percent for 2005 to 2030. This means increasing transit's market share by 260 percent. Bearing in mind that no metro area in the country has increased the percentage of commuters using transit over any 20 years of Census taking Where is he getting his numbers?  
([ftp://ftp.abag.ca.gov/pub/mtc/census2000/JTW\\_Trends/PDF/FullReport.pdf](ftp://ftp.abag.ca.gov/pub/mtc/census2000/JTW_Trends/PDF/FullReport.pdf)) (p. 4-9).
  12. Myth 9: Energy? "Rail is better in terms of the energy consumption." Well-managed HOT Lanes can have a smaller "carbon footprint" generating less carbon dioxide, than rail. Bus riders will use a high-occupancy lane going non-stop at 20 mph. Cars on HOT lanes will go faster and take less time on the road. Cars on existing highways will benefit from reduced congestion. Everybody goes faster. Two HOT Lanes carry as many vehicles as four lanes of regular, congested traffic. If HOT lanes do not get congested, so the traffic is free-flowing and more efficient. Energy use at 20mph is 25 percent greater than at 55-60 mph. See <http://www.fueleconomy.gov/feg/driveHabits.shtml> for U.S. Dept. of Energy data. Construction of a rail line and huge stations would take an immense amount of energy.
  13. Myth 10: Electricity? All of Honolulu's electricity is generated by burning petroleum, by far the highest level in the country, and yet the city's cost estimates for rail do not even include the expense of building a new power plant, let alone plans for one that runs on some new, un-named technology. Battery-powered cars in the future will be charged overnight when electricity costs are at a minimum, but rail would draw massive power during existing peak periods. The rail system will require huge amounts of electricity 20 hours every day, even if it is running empty. Each station will require an emergency generator.
  14. Myth 11: Vancouver Skytrain is running a profit: "Last year it made 2.72 million dollars."
- A profit? Vancouver's Skytrain is integrated financially with their buses, ferries, and other elements of public transportation. Fare revenues for Skytrain cannot be calculated since one ticket allows transfers between trains and buses. Their financial statements does not break out separate fare revenues for Skytrain. Total subsidies for Translink were \$236.7 million in 2006. Any claim that Skytrain making a profit is absurd.

15. Myth 12:        in Vancouver “last year car usage decreased by 5 billion kilometers (because of Skytrain).”The number of automobiles is actually increasing by 20,000 per year. This automobile growth is creating gridlock on Greater Vancouver road network, which has had no significant improvements since the 1980s. In Vancouver, rising congestion reduces quality of life and increases costs. Population has grown by 750,000 people in the Vancouver region over the past 20 years and is anticipated to grow to over three million by 2031. With a rapidly growing population twice our size, concentrated in planned urban densities, Vancouver makes a very poor comparison. Greater Vancouver residents consistently rate public transportation as the number one issue in the region.
16. Myth 13:        No bus system can recover all its costs. Where do we start? Buenos Aires’ 15,000 buses are privately owned and profitable. Atlantic City’s 190 13-passenger buses are privately owned and profitable. [Source. http://www.specialtyretail.net/issues/january99/acretail.htm](http://www.specialtyretail.net/issues/january99/acretail.htm) Not only are Hong Kong’s buses profitable and so are the rest of China. [Source. http://www1.cei.gov.cn/ce/doc/cen3/200501201828.htm](http://www1.cei.gov.cn/ce/doc/cen3/200501201828.htm) Throughout Asia and South America profitable bus systems abound. It is only through political choice that our bus system is subsidized by \$140 million. In 1971 our bus system was profitable, but then the City took it over and began operating all kinds of unprofitable routes such as a trip completely around the island for \$2. [http://www.honolulutraffic.com/Pickrell\\_xv.pdf](http://www.honolulutraffic.com/Pickrell_xv.pdf)
17. Myth 14 “Let’s take Pittsburgh. They did both, an elevated busway and a light rail system. They projected 50,000 passengers a day for the busway. Their actual ridership today after seven years is 9,500 — one fifth of what they projected. The Federal Transit Administration’s website shows that Pittsburgh’s busways carry 52,000 riders per day — more than twice as much as carried by light rail. Source: [http://www.fta.dot.gov/printer\\_friendly/research\\_4289.html](http://www.fta.dot.gov/printer_friendly/research_4289.html)
18. “For the light rail system they (Pittsburgh) projected 30,000 passengers. Last year it was up to 27,000 riders, up 9 percent from the year before. So people are actually moving from buses to rail.”
19. Pittsburgh light rail makes its forecast? The official ridership forecast was 90,500 riders per average weekday versus actual ridership achieved of 30,600 — 66 percent less than forecast. Last year the riders were not up to 27,000 but down to 23,200, a significant decline from the 30,600 achieved in 1989. (Source: <http://www.apta.com/research/stats/ridership/riderep/documents/06q4lr.pdf>) National Transit Data Program. If we look at the disaggregated ridership data for Pittsburgh from 1996, the earliest available from APTA, to 2004, the last of the data, we find that bus ridership declined slightly less than rail ridership during this period. More importantly, the 2000 Census shows that in 1980, before Pittsburgh built its new rail lines and busways, 106,200 Pittsburgh workers commuted using public transportation. That declined to 65,500 by the 2000 Census. This data is contained in the U.S. Department of Transportation report, Urban Rail Transit Projects: Forecast versus Actual Ridership and Cost (DOT-T-91-04), which shows the forecast (Source: National Transit Data Program at <http://www.apta.com/research/stats/ridership/riderep/documents/06q4lr.pdf> As for busways: Source: [http://www.fta.dot.gov/printer\\_friendly/research\\_4289.html](http://www.fta.dot.gov/printer_friendly/research_4289.html) Moving from buses to rail? Source: <http://www.apta.com/research/stats/ridership/> Source: Journey to Work Trends in the U.S. & its Major Metropolitan Areas. (FHWA-EP-03-058) page 4-9.
20. Myth 16:        “the public transit use is actually a 30% increase since 1995”
- 21. But the broad picture, according to U.S. Census data, shows that from 1990 to 2000 there was a decline in public transit use for commuting.**
22. Myth 17: “We think the new (rail) riders is gonna be in the neighborhood of 30-40,000 riders.”
23. This claim is based on ridership forecast by the consulting firm, Parsons Brinkerhoff, whose previous forecast for ridership were wildly inaccurate, grossly overestimating increases in bus riders when in reality we have seen ridership decrease.

24. Myth 18: There is a balance of spending for various transportation projects in the coming decades: “we’re going to be spending about 3 ½ billion dollars in the next 25 years on highway improvements as well.”
25. But what kind of balance is this, spending nearly 200% more (\$6 Billion) for a rail project that might carry at best a fraction of our riders?
26. Myth 19: “We’re projecting in some areas commute times to increase to three hours one-way.”
27. This is another scare tactic. The city’s own Alternative Analysis shows that the worst commute in the year 2030 if it is done, the no-build option, from Waianae to UH Manoa, would be 105 minutes, 40% less than Okino’s preposterous statement.
28. Myth 20: “In 1990 we did a...study which shows that even with a busway you’d have 60% of the people transferring....It doesn’t reduce transfers, it doesn’t reduce transfers.”
29. This is another red herring. The 1990 busway survey was done as part of the EIS for the 1992 rail proposal, so again the mayor talked to his cMythnt-focused planning company and told them to make rail look good and buses look bad. The study came up with a grossly-over engineered busway designed with elevated stations on it and no ramps coming down to ground, so of course riders would have to transfer in such a poorly-designed system. But there is no need for bus transfers on an elevated busway. Instead, these bus stations belong in the community at ground level, perhaps at existing shopping centers and other busy gathering spots. One of the great advantages of an express bus system is that it will take riders from origin to destination with few if any transfers.
30. Myth 21: Busways studied. Unfortunately the city has never included adequate busway ramps in its biased analysis, yet has the nerve to criticize an engineer who has done such studies. Ramps are an important issue that illustrate the advantage of HOT lanes over the railroad. Ramps along a guideway allow buses to drive on or off and directly deliver passengers where they are going without a transfer.

#### BEYOND THE MYTHS: PROBLEMS WITH PROCESS and PRELIMINARY ENGINEERING:

31. The city administration is following dangerous, backwards planning techniques by proceeding with Preliminary Engineering before the technology has been chosen and before the Environmental Impact Study has been done. Early in the process the Locally Preferred Alternative was determined by the City Council to be a “Fixed Guideway” without specifying what technology will travel on the guideway. It could be express bus, as some Councilmembers are advocating, or rail, or something else.
32. The city’s planning procedure is essentially backwards, conducting preliminary engineering before the EIS is done. How much do we spend millions on preliminary engineering before the environmental impact statement is approved? We are spending a lot of public money without really knowing what the system is and if the system fits. The normal next step after the alternative analysis, which has been partly concluded, is the EIS. Once you have an EIS that is approved and signed by the Governor, the Mayor and the Federal government, then you go into preliminary engineering. If for some reason you reject the EIS, the preliminary engineering could be useless. Thrown out the window.
33. All of the above present serious concerns for Oahu taxpayers, who deserve true information, because we are the only city that would pay for it -- the largest public project in the history of Hawaii by far, costing the typical family of four about \$100,000 to build and many more dollars to operate and maintain. Unfortunately the proposed rail would do little if anything to solve our traffic problems, but there are much better options. Contrary to what the Mayor publicly declares, rail is not a silver bullet deal.”

34. Our position is that we should instead build a new elevated structure for HOT lanes from the Leeward side that would be used by a mix of express buses and carpools that ride free, along with some toll-paying automobiles. The city has consistently failed to study HOT Lanes as an alternative, despite their many advantages, which include lower cost and much more efficiency than rail.

#### Section 9 Rail Transit Daily Journey Segments

Please address each statement specifically, and explain why you agree or disagree.

1. **TRAIN TRANSFERS and WAITING:** Transit studies have shown that people hate to transfer and wait. Rail riders would have to transfer many times and stand around waiting on their daily round-trip, which would typically need 20 total daily segments:
  2. go to a bus stop
  3. wait for the bus
  4. ride a bus to the rail
  5. walk to the platform
  6. wait for train
  7. ride the rail making many stops
  8. walk from the rail to another bus stop
  9. wait
  10. ride a bus
  11. walk to work;
    - a. same problems coming home.
12. Even if we grant that some commuters can walk to work from the end station, they still require 14 daily segments.
13. Those workers using a spur line to the airport will still have 20 segments in this typical scenario: add to the 14 segments above the 6 extra r/t segments for an airport worker on the newly-proposed spur: 1) walk to connecting train 2) wait for train (up to 15 minutes wait) 3) ride train, same in reverse.
14. On the other hand, express bus riders do not need many segments: Travel to a regional bus station, wait, ride non-stop to destination, walk to work. 4 components, same coming home.
15. Regarding tourist use of rail: what tourist would ever haul their baggage so far -- to a train, walk a few blocks in a shopping mall to transfer to some trolley, then walk several blocks in Waikiki to their hotel? This mayor is spinning a fantasy right out of Alice in Wonderland.

Section 10 Please address each paragraph specifically, and explain why you agree or disagree.

Busway systems have the following advantages:

1. Buses do not need stations on the busway, as they can collect and deposit passengers close the origins and destinations of their trips, without passengers having to change modes.
2. Space between buses can be used by other vehicles, particularly taxis and car-pools. If these vehicles pay tolls (which can be collected electronically, without cars having to stop) the tolls can pay for much or all of the transit system.
3. Rail service is provided by a monopoly, generally unionized. A busway can carry buses of different companies providing competitive service. That unionized rail staff can cause problems is evident from the current rail strike in Paris.
4. Bus systems have superior carrying capacity. Five-hundred buses an hour, carrying 25,000 seated passengers, enter the New York City main bus station daily on one dedicated bus lane. And a good traffic lane can accommodate over 1,000 buses an hour, carrying 50,000 seated passengers! Rail services cannot accommodate such high traffic volumes without forcing passengers to stand.
5. Rail services generally stop at each station along the line. Buses utilizing a busway can travel non-stop from passenger origin to destination. This gives bus service a superiority in door-to-door speed.
6. Busways are robust and can quickly be repaired in an emergency. Rail structures cannot quickly be replaced or repaired if damaged.
7. The main disadvantage of all-bus systems is their low cost, so people assume they give inferior service. But buses of any quality can readily be bought: Luxury buses for those who prefer to pay for luxury, less-expensive ones for those who prefer to save money. High-capacity busways on dedicated lanes operate in Curitiba, Bogota, Brisbane, Ottawa, and Port-of-Spain.

#### Section 11 Comparisons

Please address each paragraph specifically, and explain why you agree or disagree.

#### **HOT Lanes**

#### **Rail**

#### DESCRIPTION

- |   |   |
|---|---|
| <ol style="list-style-type: none"> <li>1. 10 mile, elevated 3-lane, reversible, high occupancy highway from the H1-H2 merge to the Iwilei edge of downtown, for express bus, carpool</li> </ol> | <ol style="list-style-type: none"> <li>2. 28-mile elevated train running from Kapolei eventually to UH Manoa, with 25 stations, some of them 80 feet above ground.</li> </ol> |
|---|---|

and some toll-paying cars.

## COST

3. Less than \$1 billion. Some of this will be paid by the federal government, some by tolls, with less than half by taxpayers.
4. More than \$6 billion. This amounts to \$24,000 for each family of four on Oahu. There is no guarantee of federal funds.

## TRAFFIC CONGESTION

5. HOT Lanes will reduce congestion on H1 by up to 35%. Many drivers will use the new lanes and more commuters will be attracted by high-speed express buses.
6. City official studies show that future traffic congestion with rail will be far worse than it is today, increasing from the current 15% overload to 80% in 2030.

## ENERGY SAVINGS

7. HOT Lanes will be more efficient, reducing traffic congestion and energy consumption, encouraging ridership in energy-saving carpools and express buses. New cars will get much better mileage, while the train will never improve.
8. Rail transit uses more energy per passenger mile than the average automobile according to the U.S. Dept. of Energy. For most of the 20 hours a day they run, trains are nearly empty. With rail, autos will be stuck in gridlock, wasting gas.

## ENVIRONMENT

9. HOT Lanes would only extend for 10 miles along existing highways, such as Kamehameha Highway in Aiea and Nimitz Highway, not through residential neighborhoods.
10. An elevated train would be an ugly, noisy intrusion running for 34 miles through our neighborhoods (imagine elevated tracks down Kuhio Ave, ruining Waikiki).

## RIDERSHIP & CAPACITY

11. An expanded express bus system would attract many more riders. Total passenger capacity would be at least twice as high as rail.
12. With rail transit ridership will only increase by 2%. This is a ridiculously small increase, costing us about \$600,000 for each new rider.

## CONVENIENCE

13. Express bus riders: 1) Travel to a regional bus station, 2) wait, 3) ride non-stop to destination (avg speed 50 mph), 4) walk to work. Same coming home. Commuters in cars and carpools would have total convenience and personal control over their daily travels.
14. Rail riders would need up to 20 daily journey segments: 1) go from home to bus stop 2) wait for bus 3) ride bus to rail 4) walk to platform 5) wait for train 6) ride rail making many stops 7) walk from rail to bus stop 8) wait 9) ride bus 10) walk to work; 11-20) same coming home.

## LAND DEVELOPMENT

15. HOT Lanes support expanded bus mass transit that will encourage good land use planning with low-rise, medium density communities that would be efficient and very livable. At the same time these lanes provide support for existing housing on most of Oahu, not just a narrow concentrated corridor where few people currently live.
16. Rail will supposedly create high density development around stations, protecting the rest of the island. Such utopian schemes have not been happening with mainland rail systems, and even if they did occur, do we want to force our future population to live in high-rise, air-conditioned buildings crowded along a Leeward corridor?

## TAX INCREASE

17. No further tax hikes. \$1 billion for HOT Lanes will be paid by a combination of federal funds, tolls, and some local taxes, much less than public funds for rail.
18. The recent ½ percent excise tax increase will not be nearly enough to pay these huge bills, so property taxes will likely increase by 40% and more.

Section 12 The city's Alternative Analysis of Managed Lanes was faulty in several serious ways:

Please address each statement specifically, and explain why you agree or disagree.

-The city estimated Managed Lanes would cost \$2.6 Billion despite the fact that a similar system was built in Tampa Bay for \$320 million in 2005.

-They removed the existing zipper lane, resulting in a net gain of just one new lane rather than the 2 or 3 lanes we are proposing.

-They included bus stations on the lanes, which are totally unnecessary and would add considerable expense.

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-They failed to include access ramps along the route so vehicles can enter and exit. Instead they just dropped all the vehicles to street level downtown at a traffic light with no management plan.

### Section 13 cost in other places

Please address each statement specifically, and explain why you agree or disagree.

How can you justify such high costs compared to other places?

Light rail costs in comparison to population size in various metro areas:

	Cost	population	Per capita cost
Dallas	\$1,067,000,000	5,222,000	\$204
Denver	\$358,000,000	2,582,000	\$139
Portland	\$1,643,000,000	2,265,000	\$725
Sacramento	\$307,000,000	1,797,000	\$171
Salt Lake	\$376,000,000	1,334,000	\$282
St. Louis	\$464,000,000	2,604,000	\$178
Pittsburgh	\$1,051,000,000	2,571,000	\$409
Honolulu	\$6,400,000,000	940,000	\$6,809

We would be the smallest metro area with a rail line and the most expensive. Portland spent the money, has bad congestion, running rail on what had been roads and existing rail beds, and still only 30% of their transit riders use rail the rest are in buses. Share of transit ridership in Portland remained flat from 1980 to 2000.

### Section 14 Best Traffic Fix

Please address each paragraph specifically, and explain why you agree or disagree.

1. Traffic congestion for Leeward drivers is so horrible that people are desperate for anything that sounds like a solution. Rail has been pushed so hard and so often by the city that it seems like it should work, but unfortunately, rail would do next to nothing to solve the problem while wasting our precious resources. Here are some highlights of the major alternative to rail, which has received very little coverage in the media.
2. The best solution both to solve the traffic problem and encourage extensive use of mass transit is to construct a ten-mile elevated guideway for express buses, carpools, and perhaps some toll-paying cars. This guideway would leapfrog over the current choke-point between the Leeward bottleneck created at the H1-H2 merge and downtown, and it would come down to street level in Iwilei, not run through the heart of our city as an elevated blight like rail. It would provide a simple, elegant solution, cost under \$1 billion and likely produce a 35% reduction in traffic while transporting many more people than a rail line.
3. Managed lanes, also called HOT Lanes, will not dump more cars into downtown as rail-supporters falsely claim, because the main focus is bus and carpool, thereby reducing auto traffic, with several ramps along the route that distribute vehicles to destinations other than downtown. With this bypass, existing streets can handle the added express buses.
4. This approach would be better and conserve more energy than a train for several reasons:
5. Rail is an energy hog, with energy consumption per passenger about the same as the average new car, based on studies by the federal government. (for more details see our web site: [www.stoprailnow.com](http://www.stoprailnow.com))

To verify statements go to [www.honolulutraffic.com/verify.pdf](http://www.honolulutraffic.com/verify.pdf) or call us at (808) 285-7799

6. Cars and buses are becoming increasingly energy efficient, soon to run on batteries that will be inexpensively recharged overnight when electrical demand is low, while rail is an old technology already at its maximum energy efficiency level and will place heavy demand on electricity during peak periods.
7. HOT lanes will produce tremendous improvements in the bus system at a fraction of the cost of rail, result in a much greater use of mass transit, take cars off the road and benefit everyone.
8. An expanded bus system makes better use of the existing 500 bus stops and adds true express service for ALL COMMUNITIES, while encouraging environmentally-friendly, medium-density development.
9. These lanes do not need to run elevated for 30 miles through the heart of downtown, Waikiki and residential neighborhoods, so they will not create urban blight like rail would.
10. Any commuter on this island could easily travel a short distance to an express bus stop and board a modern vehicle (not today's bus) that features comfortable seats, wi-fi, coffee service, and most importantly, rapid, non-stop delivery to destinations. This efficiency and flexibility cannot be achieved with a rigid, linear rail line going to Kapolei. Leeward commuters will benefit most of all from this express bus system, reaching town in 30 minutes instead of the 60-minute rail journey requiring multiple transfers.
11. An enhanced bus system would benefit everybody except lobbyists for the construction industry and land-development. How often have we heard about the tremendous financial gains that will result from concentrated development around train stations, along with the massive up-zoning for high-density apartments that most of us don't want to live in?
12. The people of Oahu share common ground with our organization: we want to reduce congestion, encourage mass transit, make other traffic improvements and encourage wise land use development with adequate housing for our future needs. Rail contributes nothing to our common needs, hopes and dreams.
13. Rail would be too expensive, not effective, ugly, and prevent us from developing real solutions. Rail would increase the number of commuters using transit by only 1.3% while morning congestion on H-1 will grow 53% in the next 20 years, according to the city's own studies reported by Sean Hao (Adv. 7/15). With a likely \$6 billion price tag, that pencils out to an expense of nearly \$750,000 for EACH new transit rider, costing every Oahu family of four about \$24,000.
14. In addition, rail would directly serve only the tiny fraction of Oahu's population that is within walking distance from its few proposed Leeward stations -- neighborhoods which currently are sparsely populated. Why does rail have public support at all? Well, the city has been spending millions of dollars for propaganda to mislead the public, leaving us largely uninformed about the pitfalls of rail or the advantages of non-rail alternatives.
15. We are all too familiar with the dilemma: thousands of commuters heading into the sun each morning on the H-1 which is full. And then again, in the afternoon heading back into the sun on H-1 which is full. It is frustrating, it wastes gas and time every day. West Oahu and Central Oahu cannot be served by one freeway which is already full at rush hour. If this freeway is blocked, there are no alternatives. What about our ambulances, civil defense vehicles, and all the commercial vehicles that are also stuck?
16. New elevated lanes address these problems. It is a pity that rail does not.

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