Specific Comments on Draft Environmental Impact Statement - Frank Genadio

Page	Paragraph Title (abbreviated)	Statement on Which Comment is Based
	Comment and Rationale	

7 Purpose of the Draft EIS — Notice of Intent published in federal register

The actual statement in the Notice of Intent is pertinent to my criticism of the city's actions to date. It states that "The draft EIS would consider five distinct transit technologies: Light rail transit, rapid rail transit, rubber-tired guided vehicles, a magnetic levitation system, and a monorail system." The EIS does not come close to anything resembling a consideration of technologies other than steel wheels on steel rails (SWSR), presumably fitting into the first category above (since it is not planned as being "rapid").

8 Purpose of the Draft EIS — …core 19-mile alignment…
…along Salt Lake Boulevard…first

City Council action has changed the alignment; change "19-mile" to "20-mile" and change "along Salt Lake Boulevard" to "along a route by Honolulu International Airport"

S-4 Alternatives Considered — "The panel's report resulted in the City establishing steel wheel operating on steel rail as the technology… This eliminated the other technologies from further consideration."

This statement should be removed because several meetings of the City Council followed the technology panel meetings, which were—to say the least—incomplete because of the requirements of the "Sunshine Law." The council never did pass a bill concerning technology and the panel's recommended SWSR system never received more than four (of nine) positive votes in any committee or full council meeting. It took a while to realize that the panel was, in fact, an SWSR "set-up" with four of five members having either no or very little knowledge of non-SWSR systems. The fifth member, Professor Panos D. Prevedouros (with whom I seldom agree but did in this case), criticized its proceedings extensively in the Honolulu Star-Bulletin's April 17, 2008 edition, in a column titled "Transit panel selection was case study in manipulation." The EIS seems to "downplay" the impact the panel's selection had on subsequent events; for example, it does not provide the names of panel members. The names of the other four panelists must be added so that FTA and U.S. Department of Transportation officials can determine for themselves whether or not this group was objective—or was, in fact, made up of men with little knowledge of non-SWSR systems. Recommend the addition of their names: Chair Ron Tober, Ken Knight, Henry Kolesar, Steve Barsony, and Panos Prevedouros.

S-7 Noise and Vibration — A solid parapet wall…to reduce noise levels.

Change "…noise levels." to "…noise levels if a steel-wheel-on-steel-rail system is selected." Parapet walls and wheel skirts would not be required for the HSST urban magnetic levitation (mag-lev) system because of its much lower noise level. (I do not have noise data on the conventional monorail but it is also likely that such mitigation measures would not be needed.) It also should be noted that the City has never indicated what the (added) costs might be for mitigation measures.

AR00129751

Specific Comments on Draft Environmental Impact Statement - Frank Genadio

Page	Paragraph Title (abbreviated)	Statement on Which Comment is Based
	Comment and Rationale	
2-3	2.1.1 Screening of a Broad Range…	Emerging rail concepts were eliminated because they have never been proven in real-world use and would not meet the rapid implementation schedule for the project.

This statement should be reworded for clarity to "Emerging rail concepts, other than fixed guideway, were eliminated…" Emerging rail concepts are not defined.

2-7	Table 2-2 Alternatives…Rejected	Last three rows under technologies.

These three rows need to be removed because of the extremely weak rationale for rejection given in the table. There probably are proprietary aspects of every system being considered for Honolulu's transit project. Suppliers of these three rail technologies, if allowed to compete, would undoubtedly work with City officials to ease any proprietary concerns. The added statement for Magnetic Levitation, "unproven in U.S.," is ridiculous. The first use of a steam locomotive was in the United Kingdom in 1804, and the first commercial use in the United States was in 1829. If anything unproven in the U.S. cannot be considered, we would still be moving people and cargo in covered wagons. It should be noted that the Mitsubishi-Itochu HSST urban mag-lev is now approaching four years of extremely high reliability revenue service in Nagoya, Japan.

2-8	2.1.3 Alternatives Consideration…	Statement in discussion of panel selection that ends with "…none of the proprietary technologies offered substantial proven performance, cost, and reliability benefits compared to steel wheel operating on steel rail."

This is just another attempt in the document to justify SWSR systems, and is patently false concerning the HSST mag-lev. Compared to any steel wheels system's performance, the HSST is faster (at 62.5 miles per hour compared to 55), much quieter (in the range of an average television level in a home, or at least twice as quiet as noise-mitigated SWSR), and smoother riding because it is levitated above its guideway beam. As of late last year the HSST had carried more than 30 million passengers with a reliability rating of more than 99.9 percent; can any SWSR system match that? As for cost, the HSST supplier estimates that, at current costs, the 20-mile minimum operable segment (MOS) guideway could be built for $570 million less than SWSR. For operations and maintenance (O&M) costs, despite about ten percent electricity (needed to levitate the train), the HSST O&M costs would be considerably less per year than SWSR (see details for page 6-7 comment). These benefits are indeed substantial, and indicate that the panel's goal was to justify the City's choice, not perform a real evaluation of each of the suppliers that met the criteria in the Request for Information (RFI). The irrelevancy of the panel makes the remainder of the EIS incomplete because all of its analyses are based solely on SWSR systems. The last two paragraphs of this section (2.1.3) should be removed as the first step in the necessary re-write of this EIS.

AR00129752

Specific Comments on Draft Environmental Impact Statement - Frank Genadio

Page	Paragraph Title (abbreviated)	Statement on Which Comment is Based

Comment and Rationale

2-9 2.2 Alternatives Evaluated in…EIS Last paragraph on "A connection to…"

Based on City Council action, reword this sentence to "A connection to a station along Salt Lake Boulevard could be built as a phasing option……and Ala Moana Center along the route servicing the Honolulu International Airport." A global search of the document is recommended to change to the new primary option of servicing the airport.

2-9 2.2 Build Alternatives Sentence that states "The system would use steel wheel on steel rail technology."

Based on discussions above, change sentence to read "The system would use a form of fixed-rail technology." A "global" change throughout the document from "steel wheel on steel rail" to "fixed-rail" is recommended.

2-9 2.2.2 Build Alternatives Sentence that states "All parts of the guideway would be elevated, except near Leeward Community College, where it would be in exclusive right-of-way."

This presumes that it has already been determined that the maintenance and storage facility will be at LCC. Earlier in the document, it is indicated that the facility may instead be sited along Farrington Highway. A change from "Leeward Community College" to "the system's maintenance and storage facility" is suggested. A better solution might be a short extension (eventually part of the West Kapolei line) from the westernmost terminus of the MOS into Kalaeloa that could accommodate a facility sited on the flat land that is being acquired by the state. This could be cheaper to build and sooner to be in operation than a facility near LCC.

2-19 End of second paragraph on left Change "assumed in to be place" to "assumed to be in place"

Self-explanatory.

2-19 Transit Technology Replace first sentence with more general wording.

Recommend that first sentence read "The selected transit system will be a form of fixed-rail powered by electricity (Figures 2-9A through 2-9C depict the type of guideway required for each rail technology)."

2-20 Figure 2-9 Example Vehicle on Elevated Guideway

This figure's title should be changed to "Example Steel Wheel on Steel Rail or Rubber Tire on Concrete Vehicle on Elevated Guideway" and the graphic listed as Figure 2-9A. Figures 2-9B and 2-9C should be added and show the guideways for Conventional Monorail and Elevated Magnetic Levitation systems. If the EIS is left as is, and this graphic becomes part of the specifications in any bid or Request for Proposals—leaving suppliers required to build an elevated guideway of 28-32 feet wide—the monorail and mag-lev cost advantages are negated. These two systems are capable of operating on much narrower (and, therefore, less costly and obtrusive) guideways.

AR00129753

Page	Paragraph Title (abbreviated)	Statement on Which Comment is Based
	Comment and Rationale	

2-38 Vehicle Maint. and Storage Facility — Discussion of LCC site.

It needs to be pointed out that a considerable amount of leveling is required to flatten the ground for a site adjacent to Leeward Community College. It should be noted that this will add to overall system costs.

3-27 Figure 3-9 — A.M. Peak-Period Transit Travel Times

The figure reflects times based on local operations (i.e., stops at every station). There must be thought given to some form of express service, and this must be done before the start of construction for the first segment of the MOS. Station bypasses by express trains, which would increase costs, are the best type of express service; however, consideration should at least be given to skip-station operations during rush hours. Every effort should be made to halve rush hour transit times in 2030 between West O'ahu and destinations in Downtown and Waikiki, to ensure that commuters will see substantial gains from transit use (including time from home to departure station and arrival station to destination) over operation of their privately owned vehicles.

3-39 Table 3-21 — Column Placement Effects on Streets and Highways

The figure title should be changed to "Column Placement Effects on Streets and Highways for the Steel Wheel on Steel Rail Bridge" and additional tables should be made for other rail forms. The summary is likely to be different, particularly for monorail and mag-lev guideways.

3-42 Table 3-23 — Potential Effects on Parking due to Fixed Guideway Column Placement

The figure title should be changed to "Potential Effects on Parking due to Fixed Guideway Column Placement for the Steel Wheel on Steel Rail Bridge" and additional tables should be made for other rail forms. The summary is likely to be different, particularly for monorail and mag-lev guideways.

3-50 Construction Phasing — Wording on phasing of construction

Reword to indicate airport routing first, based on City Council route change.

4-5 Table 4-1 — Acquisitions, Displacements, and Relocations

Identify this table as applying to SWSR systems, and add tables reflecting what the acquisitions and displacements numbers would be for other forms of rail.

4-5 Table 4-1 — Community Services and Facilities

Identify this table as applying to SWSR systems, and add tables reflecting what the partial acquisitions and displacements numbers would be for other forms of rail.

4-8 Table 4-1 — Noise and Vibration

Identify this table as applying only to SWSR and rubber tire on concrete systems, and make a statement that noise mitigation measures are not necessary for monorail and mag-lev systems.

AR00129754

Specific Comments on Draft Environmental Impact Statement - Frank Genadio

Page	Paragraph Title (abbreviated)	Statement on Which Comment is Based
	Comment and Rationale	

4-9 Table 4-1 Street Trees

Identify the numbers in this table as applying only to SWSR and rubber tire on concrete systems, and provide new calculations (which are likely to be fewer) for monorail and mag-lev systems.

4-33 Cemeteries Typo in second sentence.

Change "…Stadium-Cand.." to "…Stadium and…"

4-36 Airport Alternative Change "Airforce" to "Air Force"

Proper usage.

4-39 4.5.2 Affected Environment – Neighborhoods

In second paragraph, second sentence, change "White" to "Caucasian" as better usage.

4-42 Table 4-8 Year 2000 Demographic Characteristics…

Suggest heading changes from "White" to "Caucasian" and "Black" to "African-American" as better usage in table and accompanying text on page.

4-45 Ala Moana-Kaka'ako Change "…(TOD) is…" to "…(TOD) are…"

Self-explanatory.

4-47 Regulatory Context Change "…statues,…" to "…statutes,…"

Self-explanatory.

4-47 Defining Environmental Justice Areas Change "…Black,…" to "…African-American,…"

See above on usage; note how it fits better with other terms.

4-51 Table 4-9 Demographic Characteristics of O'ahuMPO…

Suggest heading changes from "White" to "Caucasian" and "Black" to "African-American" as better usage.

4-65	Figure 4-17	Viewpoint 1; and
4-66	Figure 4-18	Viewpoint 2; and
4-72	Figure 4-24	Viewpoint 8; and
4-75	Figure 4-27	Viewpoint 11; and
4-76	Figure 4-28	Viewpoint 12; and
4-80	Figure 4-32	Viewpoint 16; and
4-84	Figure 4-36	Viewpoint 20

These conceptual graphics do not appear to be in scale with the graphic in Figure 2-9, which indicates that the SWSR bridge will be 28-32 feet wide. These figures seem to indicate a guideway only slightly wider than the (5-foot wide) vehicles below. Note the relatively narrow shadow of the guideway in Figure 4-27. Viewpoint 20 seems a little closer to what is expected to be the guideway's

AR00129755

Page Paragraph Title (abbreviated) Statement on Which Comment is Based
Comment and Rationale

width, but still appears too narrow based on its shadow against the length of the vehicle below. These conceptual graphics need to be redone to more accurately reflect the width of the guideway; the addition of overhead views is suggested. Similar renderings will be needed for monorail and mag-lev guideways.

4-91 Salt Lake Alternative First full paragraph on right
Change "…views along the steam…" to "…views along the stream…"

4-95 4.8.2 Last two sentences of last paragraph.
Should "…Improvement Plan…" be "…Improvement Program…?"

4-97 Figure 4-37 Typical Sound Levels
The term "rail" in two places should be changed to "steel wheels on steel rails" and 50-foot readings should be added for the other three rail systems: rubber tires on concrete, monorail, and magnetic levitation. Discussion of the noise levels of these technologies should be added throughout the Section 4.9.1 discussion.

4-100 Table 4-15 Number of Residential Buildings, Parks, and Schools with Noise Impacts; and
4-101 Table 4-16 Noise Impacts
The term "Created by Steel Wheel on Steel Rail Systems" should be added to the title of both tables, as well as Figures 4-39, 4-40, 4-41, and 4-42 on subsequent pages. Further study should be initiated to create tables and figures for the other three rail technologies.

4-108 Electric and Magnetic Fields Effect of HSST mag-lev needs to be evaluated
Since magnetism is used to levitate the train, effects of the HSST mag-lev should be included in this specific area. The HSST supplier has testified to the Honolulu City Council that the system has no effect on passengers with pacemakers, so minimal impact is anticipated.

4-137 Table 4-29 Summary of Street Tree Effects/Transplanting…
The number of trees requiring removal or transplanting might be considerably less for the much narrower guideways needed for monorail and mag-lev systems; added tables are needed.

4-149 Table 4-32 Airport Alternative grouping; and
4-150 Table 4-32 Airport & Salt Lake Alternative grouping
Change "CINCPACFLT" and "CINCPAC" to "COMPACFLT" and "PACFLT" respectively in both places. The Commander of the U.S. Pacific Fleet is no longer referred to as a Commander in Chief.

4-166 4.18.2 Station Area Development
The first sentence needs to be updated relative to TOD ordinance in 2008.

AR00129756

Specific Comments on Draft Environmental Impact Statement - Frank Genadio

Page	Paragraph Title (abbreviated)	Statement on Which Comment is Based
	Comment and Rationale	

4-166 4.18.2 'Ewa Plain, East Kapolei, UH West O'ahu, and Ho'opili

The Hunt Development Group may have pulled out of its agreement with UH; paragraph needs update.

4-171 Table 4-36 First entry: Ka Makana Ali'i

May need an update; is DeBartolo still involved in this development?

5-3 5.2 Description of the Project

Change "…steel-wheel-steel-rail…" in the last sentence of the first paragraph to "…fixed-rail…" to ensure that a subsequent competition remains open to suppliers of all forms of rail that met the City's criteria in the RFI.

5-3 5.3 Next to last line on right side of page.

Change "…affects…" to "…effects…"

5-8 Table 5-2 Airport Alternative grouping; and
5-9 Table 5-2 Airport & Salt Lake Alternative grouping

Change "CINCPACFLT" and "CINCPAC" to "COMPACFLT" and "PACFLT" respectively in both places. The Commander of the U.S. Pacific Fleet is no longer referred to as a Commander in Chief.

5-24 Measures to Minimize Harm Guideway design as narrow as possible.

This statement must be challenged because earlier in the document it is specifically shown as 28-32 feet across. The City is well aware that narrower guideways can be used for both the monorail and mag-lev systems. Since width is a concern, the City must allow suppliers of all forms of fixed-rail to compete. This comment also applies to paragraphs of the same name on pages 5-25, 5-26, and 5-28.

6-3 Table 6-1 Capital Cost Estimates for the Build Alternatives…

This table, in fact, this whole chapter and tables reflect costs associated only with SWSR systems. Similar tables, along with discussion, must be developed for the other forms of fixed-rail transit.

6-4 General Excise and Use Surcharge Discussion of 0.5 percent surcharge

A sentence needs to be added at the end of this paragraph: "The amount collected through the GET surcharge currently is reduced by ten percent, which goes into the general fund handled by the State Legislature." No relief is anticipated; in fact, the legislature may consider moving all surcharge collections into the general fund for a period of time.

AR00129757

Specific Comments on Draft Environmental Impact Statement - Frank Genadio

Page	Paragraph Title (abbreviated)	Statement on Which Comment is Based
	Comment and Rationale	

6-7 Fare Revenues — Fare box recovery ratio

Operating and maintenance (O&M) costs for the HSST mag-lev are estimated to be considerably less than any SWSR system. Based on the City Council resolution for revenues to be maintained between 27 and 33 percent of annual O&M costs, the average fare for passengers will be less with the HSST. Conversely, increasing the percentage from the fare revenues—based on use of the HSST—to equal what would have been required with an SWSR system would reduce the transit subsidy. It should be noted that City O&M estimates seem to have increased considerably from earlier figures. The City's "Honolulu Rail Transit" brochure distributed throughout the (voting) community in 2008 indicated O&M at "about $60 million per year in today's dollars." Table 6-3 shows the following: for Salt Lake routing - $63 million in 2007, $123 million in YOE; for Airport routing - $68 million in 2007, $133 million in YOE; and for a combined Airport and Salt Lake alignment - $96 million in 2007, $187 million in YOE. HSST O&M is estimated between 20 and 30 percent less per year than SWSR; using 25 percent as an average, its advantage is as follows: for Salt Lake routing - $47.25 million in 2007, $92.25 million in YOE; for Airport routing - $51 million in 2007, $99.75 million in YOE; and for a combined Airport and Salt Lake alignment - $72 million in 2007, $140.25 million in YOE. Using YOE dollars for the now-selected Airport routing, 30-year savings with the HSST would be $997.5 million. If a dual Airport and Salt Lake alignment materializes, use of the HSST would save $1.4025 billion. O&M costs savings alone would enable guideway extension into Central O'ahu, a major ridership area.

6-11 System Operation — Project costs based on train operators

Perhaps all project costs should be recalculated based on fully automated train operations. No modern train system should be considered that requires train operators; there are enough necessary expenses, so the unnecessary expenses should be eliminated up front. Train operators in a grade-separated urban rail transit system are redundant in the 21st Century.

7-11 Important Trade-offs — Last paragraph

Needs to be rewritten, based on City Council action on the alignment.

541 Appendix C — Construction Process

This appendix needs to be rewritten to include construction processes for the non-SWSR fixed-rail systems.

596 Comment Sheet — From Hawaii Department of Transportation (DOT)

I strongly support DOT Comment Number 2 that elimination due to proprietary technology is not sufficient reason to eliminate alternatives to SWSR systems.

1045 D.R. Horton Schuler — Comments on scoping meetings.

The comment that "…Maglev systems are not only extravagantly expensive and untested in real-world public transit operational settings." is incorrect. Perhaps Mike Jones was referring to the high-speed mag-lev. The HSST urban mag-lev, compared to SWSR systems, is not only less expensive to build but also less expensive to operate and maintain. It also has been thoroughly tested in revenue service in Nagoya, Japan for almost four years. Renderings of the proposed Ho'opili development in

AR00129758

Page	Paragraph Title (abbreviated)	Statement on Which Comment is Based
	Comment and Rationale	

West O'ahu show a train station inside a public (retail?) building. This is possible with the quiet mag-lev, but I would not recommend it for any SWSR system. Mr. Jones should reconsider his earlier comment.

1160 Frank Genadio — Start of my comments during scoping meetings.

I see nothing in these comments, covering the next three pages, that is contradictory to my current position on each subject. I see that at least a couple of state legislators recently brought up the issue of possibly taking a look at nuclear power. It is about time, and all forms of alternative energy should be "on the table" for powering the transit system.

1494 Fixed Guideway Alternatives — "Comments on reducing the range of technologies under consideration are encouraged."

Seeing this statement again, after reading through the comments in the scoping meetings, makes one believe that the City really had little interest in public input. Despite the supposed restriction on not expressing preferences, I noticed that a number of people mentioned technology and advocated monorail and mag-lev—but there was not much mention of SWSR systems. Several people stressed limiting system noise. I even noticed (early) preference for monorail or mag-lev from a couple of people who seem to have changed their minds later, probably to keep their jobs (i.e., after the City administration decided that SWSR is the system of choice). If public comments are really to be considered in making transit decisions, why is it not even possible for the non-SWSR systems to compete?

1502 Project Alternatives Analysis Report — "No information was received that would eliminate one or more of the transit technologies currently under consideration."

The statement above, in a report dated May 30, 2007, followed City policy throughout the years of 2005-2007. Within the first two months of 2008, this policy disappeared as the City pressed for selection of a SWSR system, even including the "charade" of the (so-called) expert panel of four steel wheels advocates.

1571 Transit Advisory Task Force — "…structure for the fixed guideway would be only 26 feet wide,…"

Two points to note from the guideway width given as 26 feet in this paper: 1) The EIS graphic mentioned above indicates an SWSR guideway of at least 28 feet; and 2) The guideway for the HSST mag-lev would be only 21 feet wide—including open space between the beams. (NOTE: I have no information for conventional monorail; presumably, its guideway also would be narrower than the steel wheels bridge.)

1571 Transit Advisory Task Force — Costs for the guideway

Apparently, the task force received data from the city to determine costs for extensions of the system. These costs are obviously based on SWSR systems—and are considerably higher than what would be needed for the HSST mag-lev guideway. Since the date of this report is December 11, 2006, why did this task force only show costs for SWSR, or why did DTS provide only such data?

Specific Comments on Draft Environmental Impact Statement - Frank Genadio

Page	Paragraph Title (abbreviated)	Statement on Which Comment is Based
	Comment and Rationale	

1715 Transit Scoping Meeting Comments My personal comments

Pages 1715 (A210)-1718 (A213) are comments I made on the scoping meetings. At that time, I was fully supportive of the City's transit project and fully expected to see a fair and open competition among all forms of fixed-rail. Other than my disappointment at the City's (apparent) refusal to open the competition—with closing it obviously making my advocacy for the mag-lev irrelevant—I see nothing that I would wish to change in my comments. With added park-and-ride lot surface, the amount of solar power generated can be even greater than stated in these older comments.

App. E City Correspondence Letters to those who commented.

The City's standard response in letters to those who commented on technology during the scoping process states the following: "Vehicle and system technologies will not be selected prior to the draft Environmental Impact Statement. Comments about issues related to vehicle and system technologies will be considered when specifications are developed." Each of these letters was signed by Melvin N. Kaku, Director (at that time) of the Department of Transportation Services. In effect, the City has contradicted its own statements made in 2006 by eliminating non-SWSR system technologies long before publication of the draft EIS. If this does not violate the letter of FTA guidelines, it certainly violates the spirit. Basically, the City deferred any discussion relative to technology through 2007 as being too early for analysis. It then quickly convened an uncalled for (so-called) expert panel, which selected SWSR as the technology in a week that included only two public meetings, and then treated SWSR as the only technology to be considered—even though it never received more than four positive (of nine possible) votes in any meeting of the Honolulu City Council. The whole process has been tainted by maneuvering and insincerity by the City administration—and must be re-accomplished.

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