# HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

| | A | B | C |
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| 1 | **Reviewer:** | | **RTD / PB Combined Comments** |
| 2 | **Date:** | | **01/22/09** |
| 3 | **Document Name & Date:** | | **PMOC Jacobs Spot Report - December 2008** |
| 4 | | | |
| 5 | | | |
| 6 | **Comment No.** | **Section No.** | **Page No.** |
| 7 | 1 | Transmittal e-mail | |
| 8 | 2 | 1.1 | 1-1 |
| 9 | 3 | 1.2 | 1-1 |
| 10 | 4 | 1.2 | 1-1 |
| 11 | 5 | 1.3.1 | 1-3 |
| 12 | 6 | 1.3.1 | 1-3 |
| 13 | 7 | 1.3.1 | 1-3 |
| 14 | 8 | 1.3.1 | 1-3 |
| 15 | 9 | 1.3.1 (3) | 1-4 |
| 16 | 10 | 1.3.1 (2) | 1-4 |

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| 1 | | **Responder: Jacobs** | |
| 2 | | **Response Date: 02/03/09 (Updated 02/20/09)** | |
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| 6 | **Comment** | **Response** | **Action Code** |
| 7 | The transmittal e-mail states that a PDP is required in the PMP, but we have been unable to find any guidance for preparation of a PDP | PMOC is awaiting concurrence or request for modifications from TPM to release PDP outline. | |
| 8 | The City has not made a formal request to enter PE. | PMOC will clarify status of request (i.e. "…intends to request…"). | |
| 9 | At the time of this report, the mode for the project had been selected. It is Light Metro. | PMOC will change language to "Heavy Rail" per the SCC estimate and direction of FTA. | |
| 10 | There is no cut-and-cover. Per the SCC worksheets provided to Jacobs, the correct description of the project and its components was provided. This shows 18.91 miles of aerial structure and .34 miles of retained fill. (This has subsequently changed slightly.) | PMOC will modify language to reflect "retained fill". | |
| 11 | Table 1-1; In the City's view, a PMP which includes contract delivery methods and related procedures is not a normal part of a pre-PE PMP. | As noted in Table 1-1, this can be completed during PE. Nonetheless, most Grantees have made preliminary presumptions about packaging in order to price and schedule project to completion for (at least) the DEIS. The City has given basic indications about intent and that is all that is expected at this time. | |
| 12 | Table 1-1; In the City's view the inclusion of a PDP is not a normal part of a pre-PE PMP. | PMOC is awaiting concurrence from TPM to release PDP outline. | |
| 13 | Table 1-1; PMP Chapter 3.7 Document Control - Document Control Procedures (DCP001 Rev 0) has been developed and implemented on Sept. 1, 2008. Chapter 7 Configuration Management Plans has been developed but not distributed. A separate procedure has been developed to support Chapter 7 such as Change Control Procedures for Managing and Controlling Baseline Documents. | PMOC did not receive a copy of the Document Control Plan developed on "Sept. 1, 2008". PMOC needs a copy for verification. Likewise, the PMOC has not seen the companion documents to Chapter 7 of PMP. It should be noted that documents are not critical to the PMOC's TCC determination and can be addressed in the future. | |
| 14 | Status column indicates "requires revision in PE" - recommend this phase be dropped. It is a given that the PMP will be updated in PE. If needed, add as a footnote to the table. | Noting it in the table is common practice and a reminder to Grantee. | |
| 15 | 2nd paragraph on page - starting with "While these temporary solutions…" to end of paragraph should be dropped. It adds nothing to the context, except stating the obvious. | The PMOC firmly believes adequate and permanent TCC measures must be in place for the project to be successful. | |
| 16 | Note that the PMC contract may be extended beyond late 2009. Suggest adding a comment to this effect. | Terms for period of performance and contract extensions are not clear in contract documents provided to the PMOC, which included "Agreement for Professional Services" and "Amendment No. 1". If this information is included in other documents that are incorporated by reference (i.e., RFP No. 15016), the PMOC request this information be made available. | |



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| 17 | 11 | 1.3.1 | 1-5 |
| 18 | 12 | 1.3.1 | 1-5 |
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| 21 | 15 | 1.3.1 | 1-6 |
| 22 | 16 | 1.3.1 | 1-6 |
| 23 | 17 | 1.3.1 | 1-6 |

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| 17 | Conclusion Document (1) Review: Revise the last two lines of first paragraph: During the September 2008 Risk Assessments Workshop the PMOC and FTA agreed to forward an annotated PDP Table of Contents to the City to assist in development of their plan. FTA should provide guidance on the preparation of a PDP and a PEP. A search of the FTA web site failed to produce any guidance. | PMOC is awaiting concurrence or request for modifications from TPM to release PDP outline. | |
| 18 | The City has addressed the FTA's required PMP elements contained in 49 CFR 633 for this phase of the project. The PMOC recognizes certain policies and procedures will be incorporated into the PMP during the PE and Final Design phases. The PMOC did not prejudice these secondary requirements and concentrated on the primary requirements needed for FTA approval to enter PE. The PMP and the companion documents will need further revisions when more definitive information evolves during the PE phase in order to support the PMOC's future Entry to Final Design assessment.<br>It is the PMOC's opinion that the PMP will be updated in PE to include a PDP. The PMOC recommends the next PMP revision be completed and submitted no later than the first two months of the PE phase. The PMP and companion document revisions are not necessary as conditions precedent to enter PE. | PMOC is unclear on nature of this comment. The PMOC believes the PMP should at least be updated now to incorporate organizational changes extant, address contract packaging that the City has at least verbally identified, recent revisions to project scope and vehicle technology, and include a PDP write-up as well as introduce the PEP requirements for Final Design phase (which is created from PE activities). Given the recent alignment change decision by the City Council, there is certainly an even more pressing need to revise the PMP. | |
| 19 | (3) "Establish a position for a manager of project controls" this is repeated on page 3-14 item (4) - Chief of Project controls is established on figure 3-1, page 3-11 and listed in table 3-2, page 3-13 as being filled. This position was established and filled. | PMOC will correct as noted. | |
| 20 | It is unlikely that the City will be able to develop new staffing, recruiting and retention efforts completed not later than the first two months of PE Suggest deleting the reference to a duration. | A plan should be developed as soon as possible. A target for completion should be set. | |
| 21 | In subparagraph (1) it refers to the recent vehicle technology selection, but in comment 2 above the report says we have not selected technology | PMOC will change language to "Heavy Rail" per the SCC estimate and direction of FTA. | |
| 22 | Sub paragraph (2) There is no basis for requiring that the City fill certain positions with City staff. The City should be free to chose to fill these positions with consultants if it so chooses. | This is a PMOC recommendation based on experience with previous grantees and projects. The PMOC is not trying to set policy (that being an FTA decision) in this regard. The PMOC is, however, suggesting that certain staff functions should be independent of the designer and the CM functions, and beholding to the Grantee. In some instances this is accomplished by separate consultants, another government agency/department, or by Grantee staff hiring for at least the project duration. | |
| 23 | Subparagraph (5) FTA should not require that all PMSC positions be replaced by City Staff There is no precedent for such a statement. | See response to Comment #16. | |

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| 24 | 18 | 1.3.1 | 1-5 |
| 25 | 19 | 1.3.1 | 1-7 |
| 26 | 20 | 1.3.2 | 1-8 |
| 27 | 21 | 1.3.2 | 1-8 |
| 28 | 22 | 1.3.2 | 1-8 |
| 29 | 23 | 1.3.2 | 1-8 |
| 30 | 24 | 1.3.2 | 1-8 |
| 31 | 25 | 1.3.2 | 1-8 |
| 32 | 26 | 1.3.3 | 1-10 |
| 33 | 27 | 1.3.3 | 1-10 |
| 34 | 28 | 1.3.3 | 1-12 |
| 35 | 29 | 1.3.3 | 1-12 |

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| 24 | Conclusion (1) Document Review: Change fourth paragraph, second sentence: The PMOC recommends that the next PMP revisions be completed and submitted prior to the Record of Decision to be consistent with the recommendation on page 1-6. | The PMOC's stated belief is that the PMP should at least be updated now to incorporate organizational changes extant, address contract packaging that the City has at least verbally identified, and recent revisions to project scope and vehicle technology. Given the recent alignment change decision by the City Council, there is certainly an even more pressing need to revise the PMP. | |
| 25 | (4) The City intends to delete the "manager of project procedures" position. The functions will be performed by others. | PMOC will correct as noted. | |
| 26 | First paragraph - We use 4 passengers per square meter | The memo that was prepared for the City by Transport Consulting Limited dated January 20, 2009 regarding the transit capacity analysis introduces several new assumptions that were not made available to the PMOC initially. It is recommended that the City submit a service plan that incorporates all available information for PMOC review and use. | |
| 27 | The evaluation of fleet size requirements appears to include the assumption that the City plan is to operate only 2-car consists in 2030. This is incorrect. | See response to Comment #20. | |
| 28 | Summary of Findings / Conclusions (1) & (4): We use 3 minute headway | See response to Comment #20. | |
| 29 | Summary of Findings / Conclusions (2):The overall assumption of dwell time forecast by Jacobs is incorrect for a high platform level boarding system. Few stations on the system would have boardings and alightings in the peak period which would mandate such long dwell times. Portland experience is 20 to 30 seconds with a bridge plate deployment. Minnesota's dwell time is between 12 to 15 seconds . Proposed 27 to 41 seconds dwell time seems excessive. | See response to Comment #20. | |
| 30 | Summary of Findings / Conclusions (4): Another way to achieve the necessary capacity without increasing the fleet size is to short-turn some proportion of the trains. Increasing fleet size should be a last resort. | See response to Comment #20. | |
| 31 | Recommendations (1): The City does not intend to undertake more detailed travel demand forecasting unless specific shortcomings in the current forecasting are identified. | See response to Comment #20. | |
| 32 | Table 1-2, SCC 80.01, PB has not received NTP for Preliminary Engineering. | PMOC will correct as noted. | |
| 33 | Table 1-2 It is not correct to state that "all contracts listed above will be awarded based on a QBS methodology" since three of the listed contracts are part of DB procurements. | PMOC will add note regarding which contracts will be DB. | |
| 34 | First Bullet under General Multiple delivery methods proposed for Phase I and Phase II will allow for participation by local contracting entities which tend to mitigate cost associated with importing labor and equipment. | PMOC still considers that this approach may add risk to the project. PMOC recognizes that this risk can be mitigated with proper coordination of contracts and sufficient contract language. However, until there is progress with regard to these items, the risk remains. | |
| 35 | Under General, Second Bullet, add to end of paragraph: Contingencies are discussed later in this report. | PMOC will correct as noted. | |

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| 36 | 30 | 1.3.3 | 1-12 |
| 37 | 31 | 1.3.3 | 1-12 |
| 38 | 32 | 1.3.3 | 1-12 |
| 39 | 33 | 1.3.3 | 1-12 |
| 40 | 34 | 1.3.3 | 1-12 |
| 41 | 35 | 1.3 | 1-13 |
| 42 | 36 | 1.3 | 1-13 |
| 43 | 37 | 1.3.3 | 1-13 |
| 44 | 38 | 1.3.3 | 1-13 |
| 45 | 39 | 1.3.3 | 1-13 |
| 46 | 40 | 1.3.3 | 1-13 |

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| 36 | General, Third Bullet, The estimates provided included the expectation that there would be increased costs due to the need to import labor for the project. Local labor unions contend that there is sufficient labor capacity already in Hawaii. | PMOC is concerned that estimates may not be sufficient to offset the need to import labor, especially for specialty systems work and even the guideway construction. | |
| 37 | Under General, Fourth Bullet: Due to global economic downturn, the cost of major materials is trending down, including the island market. | Since this is a multi-year award and build-out, then conditions are subject to change and can vary greatly as they have in the past few months. If the project was awarding contracts within the next few months, recent cost trends would be applicable. However, the PMOC believes that a longer view must be taken such that estimators look back in a 3-5 year time frame when subsequently projecting forward. As with the surge in steel prices several years ago, it was not long before these dropped to a more stable long term level. | |
| 38 | Under General, Fifth Bullet: See comment No. 31. | See response to Comment #31. | |
| 39 | It is obviously incorrect for a December 2008 report to state that "The global construction market is driving an increase in material costs." | See response to Comment #31. | |
| 40 | The phrase "The PMOC is concerned…" is spread throughout the report. The City is aware of the issues mentioned (e.g. availability of labor, major materials, and construction equipment), has discussed them with the FTA and both PMOC's, as well as with the industry. We're at the conceptual design level of project development. A more acceptable comment would be, "The PMOC shares the City's concern...". | PMOC will modify language as noted. | |
| 41 | SCC 20-Change first bullet to read: Site access to station construction area is constrained. | PMOC will correct as noted. | |
| 42 | SCC20 Material and storage areas are appropriately identified at a future time. This is not usually done in a pre-PE study. | PMOC will clarify that this can be and usually is more definitively addressed during PE. | |
| 43 | SCC 10 3rd bullet from top of page There is no requirement that the typical viaduct superstructure must be uniform throughout the corridor. Thus the concern of this bullet is misplaced. | The PMOC understands there is no requirement that the viaduct be uniform. However, the PMOC suggests that utilizing a uniform section, where possible, may reduce costs, provide efficiencies in construction, and minimize long-term maintenance costs. | |
| 44 | SCC 10 4th bullet from top of page None of the activities cited as having insufficient recovery time are on the critical path schedule. Whether recovery can occur would depend on the duration of the delay and what potential acceleration in subsequent activities might be available. This is DB, not DBB. The word "unattainable" is inappropriate based on our experience. | It is noted that these activities are not on the "current" critical path. However, with further refinement of the schedule, it is expected that some if not all items may become critical.<br><br>This concern refers to the DBB contracts for SCC 10.<br><br>PMOC will reconsider use of term of "unattainable". | |
| 45 | SCC 30. The scope for the administration building and operations control center is something that would normally be developed during preliminary engineering. | It is typical in AA for Grantee to provide a conceptual design for such a critical facility and its functions. This also provides a "Basis for Design" documentation for the estimators and subsequent scopes of work for PE phase. PMOC will clarify that this can be addressed in more detail during PE. | |
| 46 | SCC 40. Finalization of utility agreements is something that would normally be accomplished during preliminary engineering. | PMOC will clarify that while the City does not have master utility mapping or agreements yet (and this is common), this can be addressed during PE. | |

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| 47 | 41 | 1.3.3 | 1-13 |
| 48 | 42 | 1.3.3 | 1-13 |
| 49 | 43 | 1.3.3 | 1-14 |
| 50 | 44 | 1.3.3 | 1-14 |
| 51 | 45 | 1.3.3 | 1-14 |
| 52 | 46 | 1.3.4 | 1-19 |

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| 47 | SCC 40. Detailed utility adjustment and relocation activities are normally added to the master schedule during preliminary engineering after a detailed scope of utility relocation has been defined. | PMOC will clarify that while the City does not have master utility mapping or agreements yet (and this is common), this can be addressed during PE. | |
| 48 | SCC 10 Second bullet from top of page The PMOC is concerned about separating the line segment work from the systems work. We disagree. We will develop management control similar to many other projects that have addressed this issue. There would also be significant risks if we were to wrap together scope for line, systems and vehicle into one contract. | PMOC will clarify the nature of the concern. The issue was identified to ensure that it is treated appropriately. PMOC experience is that any and all DB contracting be done with the utmost understanding by the Grantee of the certainty of the scope of work it is bidding such that the functional requirements of the products are known as well as the interfaces to avoid post-contracting change orders, confusion between contracts, schedule differentials that cause delay claims, etc. Oftentimes, the benefits of DB contracting get reduced considerably when design changes by the owner are surfaced after contract award, as well as interface scheduling becomes impacted. | |
| 49 | SCC 60 Third Bullet It is the intent of the project to minimize property takes and not acquire excess property, which will require the City to dispose of the property at a later date. Visual and aesthetic impacts will not render the property unusable or uneconomic. | The issue of "economic remainders" relates to the owner-controlled parcels after easements or partial takes are acquired. For example, has proper consideration been given regarding impacts to owners a result of a reduction in parcel size? Have visual impacts and access for deliveries been considered where partial land takings will bring property lines and/or curbs up to close to the entrances of buildings, particularly commercial establishments?<br><br>Real estate is often one of the key areas of concern that does not garner as much attention as necessary to protect the interests of the grantee or impacted parties. | |
| 50 | SCC 60 Second Bullet Given that there are 205 potential parcels being impacted including only 67 businesses,20 residences and 1 church being relocated over the 19 mile right-of way, and the schedule is such that allows for orderly acquisition, the various City departments involved will provide the adequate support necessary to ensure the timely delivery of the property. | Real estate is often one of the key areas of concern that does not garner as much attention as necessary to protect the interests of the grantee or impacted parties. Staffing with expertise in acquiring property and improvements under various strategies based on project requirements will require expertise and capacity for easements, partial takes, full takes, eminent domain, relocation and relocation assistance, etc. Care must be taken in assuring the City staff can meet the project schedule as well as handle their core departmental needs as well. | |
| 51 | Recommendations - It is our position that the right-of-way schedule has been sufficiently developed to permit entry into preliminary engineering. Further development is something which typically occurs during preliminary engineering. | PMOC will clarify that this can be and normally is much further addressed during PE. | |
| 52 | Subparagraph (5) It does not seem to be appropriate to use a higher 2009 escalation index in light of ENR's December 2008 CCI Index Forecast of 1.2% inflation in 2009 and a decline in the BCI of 0.5%. | At the point in time we wrote this report, the referenced ENR information was not available. However, Jacobs experience is that ENR forecasts have trended below actual escalation rates when reviewed historically. The purpose of using reasonable escalation factors is to ensure a reasonable budget is developed. The Risk Model takes into account fluctuations in markets (plus and minus) because it is based on comparative analyses of past project experience. | |

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| 53 | 47 | 1.3.4 | 1-21 |
| 54 | 48 | 1.3.4 | 1-21 |
| 55 | 49 | 1.3.4 | 1-22 |
| 56 | 50 | 1.3.5 | 1-24 |
| 57 | 51 | 1.3.5 | 1-24 |
| 58 | 52 | 1.3.5 | 1-27 |
| 59 | 53 | 1.3.5 | 1-27 |
| 60 | 54 | 1.3.6 | 1-36 |

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| 53 | Subparagraph (3) of Recommendations There will not be a need to recalculate parametric values for utility relocation. We will have an item-by-item estimate for each known relocation. | PMOC agrees that a bottoms-up approach is the most accurate estimating method. | |
| 54 | Subparagraph (1) of Conclusions states The "estimate is not mechanically correct". On page 1-18 it is stated that "found the mechanical accuracy of the estimate is excellent". | The statement on 1-18 was taken out of context. The rest of the paragraph notes that the transfer from summary level to the SCC format was correct *at that level.* It did not state the entire estimate was mechanically correct. It is a simply one step in checking the accuracy. | |
| 55 | Subparagraph (7) We do not understand why Jacobs expects "escalation to be high for the next several years as a result of the recent global financial crisis." Please explain. ENR is forecasting lower escalation. | PMOC recognizes the City's comment, but, as mentioned above, the PMOC finds it problematic to look only at the short term for a project that has some 10 years to completion projected, presuming it moves along the funding continuum as the City desires.<br><br>It is uncertain what will happen, and of equal concern is escalation as it affects all commodities, labor, property and in effect raises prices as your money has less buying power and interest rates rise. The net result of inflation is that project costs increase. Prices are falling currently in many location as there is a downturn in construction; however, this trend is not nationwide. Depending on the nature of the stimulus package (i.e. how quickly the money is dispersed and into what industries), then escalation can occur in select markets. The PMOC will revisit the annual escalation rate issue. | |
| 56 | Table 1-7: "Finish Date" for Final Design Request should be 05JAN10, rather than 05JAN09. | PMOC will correct as noted. | |
| 57 | Table 1-7 "Start Date" for FFGA Application is April 26, 2010 rather than April 24, 2009. | PMOC will correct as noted. | |
| 58 | Subparagraph (7) Schedule activities for the City's staffing plan is not a typical activity we see in project schedules. We plan to report on this separately rather than incorporate it into a project schedule. All City work activities will be covered either by City staff or PMSC staff and the PMOC should view these two organizations interchangeably. | PMOC will consider need to include staffing plan in schedule; however, PMOC disagrees that the two organizations are interchangeable. The City can benefit from and will ultimately be expected to have an Integrated Master Project Schedule (IMPS), where design, construction, procurement and other generally accepted activities are complemented by real estate, utilities, requisite inter-local agreements, FTA roadmap, etc. are among the scheduled items. As staffing is such a critical matter to ensure technical capability and capacity, at least a nominative activity element would aid in keeping all parties abreast of activities and closure. | |
| 59 | Subparagraph (8); the number of constraint dates has been reduced, and mandatory constraint dates have been eliminated. The reference sentence should be corrected. | Spot Report is based on September 20, 2008 schedule per FTA direction to be consistent with Booz-Allen review. | |
| 60 | The Spot Report recommends a total duration from Record of Decision (ROD) to the Revenue Operations Date (ROD) of 10 years. This is inconsistent with the durations for the Miami Metro rail a 20 mile system which took about 7 years from ROD to full system ROD. It is also inconsistent with the Dubai Metro which has similar elevated length and has a duration from construction start to operations of about 4 years. | PMOC analysis is results of schedule risk analysis using City schedule as input. | |

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| 61 | 55 | 1.3.6 | 1-37 |
| 62 | 56 | 1.3.6 | 1-37 |
| 63 | 57 | 1.3.6 | 1-39 |
| 64 | 58 | General | N/A |
| 65 | 59 | 2.2 | 2-2 |
| 66 | 60 | 2.2 | 2-2 |
| 67 | 61 | 2.3 | 2-3 |
| 68 | 62 | 2.3 | 2-3 |
| 69 | 63 | 2.3 | 2-5 |
| 70 | 64 | 2.3 | 2-5 |
| 71 | 65 | 2.4 | 2-6 |
| 72 | 66 | 3.2 | 3-2 |
| 73 | 67 | 3.2 | 3-3 |

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| 61 | (4) It is the City's intent to expand the detail for Vehicle and Systems procurement, installation, testing and commissioning in the future. | PMOC will clarify that this can be and normally is much further addressed during PE. | |
| 62 | Final bullet The activities listed on page 1-37 may take more than 60 days to accomplish at the start of preliminary engineering. | Agree - The City should concentrate of schedule revisions that directly impact the PE, Final Design, contract procurement, and long lead equipment procurement activities. Latter construction and start-up and testing related activities can be addressed subsequently during the PE phase. | |
| 63 | Extensive searching of the FTA web site has turned up no information on the requirement for a project development plan. Please advise where this requirement is located. | PMOC is awaiting concurrence or request for modifications from TPM to release PDP outline. | |
| 64 | Either revise Hawaiian place names for proper diacritical marks or omit all diacriticals. Incorrect use of diacritical marks in Hawaiian place names constitute spelling errors. | PMOC will correct as noted. | |
| 65 | The history of the HHCTCP starts with the initiation of AA in 2005; all previous efforts do not represent the current project and should be deleted. | PMOC will seek guidance from FTA regarding appropriate level of detail for background information. | |
| 66 | Revise last bullet on page 2-2: January 1, 2007 - A 0.5% surcharge on the Hawaii General Excise Tax went into effect. | PMOC will correct as noted. | |
| 67 | The specific modal technology was specified at the time this report was prepared. | PMOC will change language to "Heavy Rail" per the SCC estimate and direction of FTA. | |
| 68 | The description of the First Project is incorrect. There is no below-grade cut and cover section. We feel that the breakdown should just be between aerial structure and at-grade. | PMOC will modify language to reflect "retained fill". | |
| 69 | We have more than 8 side platform stations and always have had more than 8. We did not have mezzanines at all aerial stations at the time of this report. | PMOC will revise per information in "Updated Cost Estimating Methodology" dated August 26, 2008 (if still current):<br><br>There are (19) Aerial Stations, (13) side platform with mezzanines, (5) side platform without mezzanines and (1) center platform with mezzanine. | |
| 70 | The description of the vehicle recognizes that we would have middle cars, but the operations analysis only considers two car consists. This section also recognizes that the technology decision had been made and does not discuss BRT. | PMOC will change language to "Heavy Rail" per the SCC estimate and direction of FTA. | |
| 71 | "City's June 2008 request to enter PE" is not a correct statement; the City has not yet officially submitted a request | PMOC will clarify status of request (i.e. "…intends to request…"). | |
| 72 | Last Paragraph The project is not a "starter system for light rail technology." | PMOC will correct as noted. | |
| 73 | See comments #5 and #6 above which also pertain to Table 3-1. | See responses to Comments #5 and 6. | |

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|---|---|---|---|
| 74 | 68 | 3.2.1 | 3-5 |
| 75 | 69 | 3.2.2 | 3-6 |
| 76 | 70 | 3.2.3 to 3.2.6 | 3-6 to 3-8 |
| 77 | 71 | 3.2.6 | 3-8 |
| 78 | 72 | 3.2.6 | 3-8 |
| 79 | 73 | 3..3.2 | 3-9 |
| 80 | 74 | 3.3.2 | 3-9 |
| 81 | 75 | 3.3.2 | 3-9 |
| 82 | 76 | Table 3-2 | 3-13 |
| 83 | 77 | 3.3.3 | 3-13 |
| 84 | 78 | 3.3.3 | 3-13 |
| 85 | 80 | 3.3.3 | 3-14 |
| 86 | 81 | 3.4 | 3-15 |
| 87 | 82 | 3.4 | 3-15 |
| 88 | 83 | 3.5.1 | 3-16 |

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| 74 | With respect to the necessity for a Project Development Plan, we cannot find references to it in FTA documents nor is it one of the required documents cited in the 13 essential elements of a PMP in Title 49 CFR Part 633 Subpart C Section 633.25 which was outlined on page 304. It is not that we are resistant to preparing such a plan, but we have not been able to find out any information about it, including after making queries to other agencies currently carrying out similar projects. Please provide further information on the contents required for such a plan. | PMOC is awaiting concurrence or request for modifications from TPM to release PDP outline. | |
| 75 | Proposed number of properties to be impacted is 205. | PMOC will correct as noted. | |
| 76 | Change "minimal" to "minimum" with respect to the discussion of FTA's requirements for a PMP. (4 locations) | PMOC will correct as noted. | |
| 77 | The SSMP Rev 0 dated May 12, 2008 contained the City approval signatures | PMOC will correct as noted. | |
| 78 | "The FTA and City are currently in the process of identifying a SSOA." Identification/designation of an SSOA will be done by the Governor. | PMOC will correct as noted. | |
| 79 | Second Paragraph The RTD's responsibility for the project began with the DEIS. | PMOC will correct as noted. | |
| 80 | Delete or revise discussion on Transit Authority. Resolution No. 07-90, FD-1(n) failed to pass third reading and was filed. http://docsiis01:8080/docushare/dsweb/Get/Document-126115/RES07-090.htm | PMOC will correct as noted. | |
| 81 | In second paragraph: Revise "DTA" to "DTS" | PMOC will correct as noted. | |
| 82 | Update: Grants Manager position was filled on 12/16/08. | PMOC will correct as noted. | |
| 83 | Table 3-2 Change Project Principle to Project Principal, also the Chief Administrative Officer is a key project position. The position of Public Information specialist was filled at the time of this report. The position of Manager of Project Procedures has been eliminated and the work will be performed by others on the staff. The Chief of Environmental Planning is also a key project position. | PMOC will correct as noted, though documents reviewed and reported upon were calling out such a possibility before that recent City action. | |
| 84 | Delete reference to "rail operational transit agency" | PMOC will correct as noted. | |
| 85 | There is no compelling reason to require that all City positions be filled by the date of the Record of Decision. | As stated previously, this is a PMOC recommendation based on experience with previous grantees and projects. | |
| 86 | The Chief Project Officer was not interviewed. | The PMOC conducted a telephone interview with the CPO and prefaced the interview by stating a "full interview" (as conducted with other team members) was not necessary as the PMOC was familiar with the CPO's previous project experience thus satisfying the technical capacity portion of the interview. | |
| 87 | (1) Be consistent when referring to Toru. Use as "Toru" not "Kenneth"<br>(2) Remove (Interim) and (City employee temporarily filling position) after Phyllis Kurio<br>(3) Add Edwina Tabata (Interim) (Part-time City employee temporarily filling position) as Contracts Administrator | PMOC will correct as noted. | |
| 88 | See comments #5, #6 and #68 above pertaining the shortcomings of the Project Management Plan | See responses to Comments #5, 6, and 68. | |

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| 89 | 84 | 3.5.1 | 3-16 |
| 90 | 85 | 3.5.2 | 3-17 |
| 91 | 86 | 3.6 (1) | 3-18 |
| 92 | 87 | 3.6 (5) | 3-18 |
| 93 | 88 | 4.2.2 | 4-3 |
| 94 | 89 | 4.2.2 | 4-4 |
| 95 | 90 | 4.3.1 | 4-5 |
| 96 | 91 | 4.3.2 | 4-7 |
| 97 | 92 | 4.3.2 | 4-7 |

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| 89 | Please advise which requirements of 49 CFR 633 have not been fulfilled. | See responses to Comments #5, 6, and 68. | |
| 90 | It is unreasonable to expect a municipal agency to handle its staffing shortfall and "compete (sic) this task not later than the first two months of the PE Phase." Suggest the wording be revised to "complete this task during Preliminary Engineering." | The PMOC's stated belief is that the PMP should at least be updated now to incorporate organizational changes extant, address contract packaging that the City has at least verbally identified, recent revisions to project scope and vehicle technology, and include a PDP write-up as well as introduce the PEP requirements for Final Design phase (which is created from PE activities). Given the recent alignment change decision by the City Council, there is certainly an even more pressing need to revise the PMP. After this update, PMOC agrees that the PMP will be further updated and strengthened with information, policies, procedures and practices developed during the subsequent phases, as well as scope, schedule and cost changes that are likely to materialize from the EIS activities and more detailed engineering work. | |
| 91 | See comments #5, #6, #68 and #83 above pertaining to the shortcomings of the Project Management Plan. | See responses to Comments #5, 6, 68, and 83. | |
| 92 | In other places in this report it is recognized that the City may choose to retain PMC services rather than replace all PMC staff positions. | PMOC will review and revise as needed. | |
| 93 | It is not a correct assumption to conclude that the project will only use two car trains. The report only uses some of the information in the memo prepared by Jim Dunn and not other information in order to make our calculations look inconsistent. The memo obviously was not written for the purpose it was used and we should have been asked about the inconsistencies. For example, the Jim Dunn memo uses a car capacity of 172 passengers, but the Jacobs analysis uses a car capacity of 168 passengers. | See response to Comment #20. | |
| 94 | The traction power paragraph states that, "...the City has now determined the vehicle will be a mini metro type..." this statement is inconsistent with the statement in Section 1.2 page 1-1. See comment #3 above. | See response to Comment #20. | |
| 95 | The travel demand model did not forecast the afternoon peak period demand. AM peak period demand was forecast. | See response to Comment #20. | |
| 96 | We do not agree that our plan was ever to operate two car trains every 3.5 minutes with a maximum passenger load of 336 passengers per train. We believe the data provided has been misused. | See response to Comment #20. | |
| 97 | The PMOC references the TCRP Reports 100 and 13 to validate their comments and recommendation. In this section the PMOC comments upon the loading standard for the vehicle, specifically a "reasonable" load of 3.2 sqft/person (3.3.perons/square meter) versus an intolerable level of 2.15 sqft/person (5 persons/sqmeter). The City has NOT recommended loading conditions of 5 persons/sqmeter, and does not understand why the report refers to this loading condition as the only alternative. | See response to Comment #20. | |

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| 98 | 93 | 4.3.3 | 4-10 |
| 99 | 94 | 4.3.4 | 4-11 |
| 100 | 95 | 4.3.4 | 4-11 |
| 101 | 96 | 4.3.4 | 4-12 |
| 102 | 97 | 4.3.7 | 4-14 |
| 103 | 98 | 4.6 | 4-19 |
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| 105 | 100 | 4.7 | 4-19 |

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| 98 | PMOC used TCRP Report 13 for calculation of dwell times. While the report provided 3 methods to calculate dwells, the PMOC selected the linear regression model for its approach. This model combines the ridership data provided by the city and adds various other parameters to calculate a dwell period for a certain passenger load. The City acknowledges the 20 second dwell used in our model is aggressive, the PMOC model is very conservative, as indicated that a 27 second dwell is required to load 1 passenger. TCRP 100, Chapter 5, indicates that US transit systems do not manage dwell efficiently. For example, Vancouver fully automated system maintains a 30 second dwell, but still has nearly 15 seconds when no one is enter/exiting the vehicle. Asia and European systems are more efficient and have reduced dwell periods. There are options to reduce dwell periods and means to gain overall cycle times by managing dwells. These options will be explored in PE and final design. | See response to Comment #20. | |
| 99 | The report states, "To generate the most constrained dwell time estimates two double stream doors per car are assumed for this analysis." This seems to be purposely done to make our calculations appear inadequate. Another conclusion could have been simply to recommend at least three double stream doors per side, which is later mentioned as reducing overall run times by about 20 seconds. | See response to Comment #20. | |
| 100 | The headway used in our calculations is 3 minutes during peak hours. | See response to Comment #20. | |
| 101 | Looking at this table which has 27 second dwell times even when only two people are passing through the peak door, it is obvious that something other than passenger movement is governing the dwell times. Please explain the durations assumed for the other factors (door opening, door closing, etc.) | See response to Comment #20. | |
| 102 | Even if the City accepted the PMOC conclusions about dwell time and cycle time, there are many other ways to resolve the capacity issues than simply adding additional vehicles (and costs) to the project. This is a last resort alternative that should only be considered after other options are addressed. Slightly larger cars or more dense loading for a limited time are possibilities. A different consist makeup is another possibility. Having a middle of the line turnback is another possibility. A higher maximum speed is a fifth possibility. Why would the PMOC only evaluate and recommend the most expensive solution? | See response to Comment #20. | |
| 103 | This section appears to be a repeat of section 4.5 on pages 4-18 and 4-19. | PMOC will correct as noted. | |
| 104 | PMOC conclusions are based upon limited conservative approach that doesn't take into account operational strategies to handle short periods of peak of peak loads, and efficiencies in operational schedules and practices to reduce fleet size limit dwells and improve cycle times. The City will address the PMOC's concerns in PE. | See response to Comment #20. | |
| 105 | Conclusion (2) We disagree with the conclusion that dwell time needs to range between 27 and 41 seconds. | See response to Comment #20. | |

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| 106 | 101 | 4.7 | 4-19 |
| 107 | 102 | 4.7 | 4-20 |
| 108 | 103 | 4.8 | 4-20 |
| 109 | 104 | 4.8 | 4-20 |
| 110 | 105 | 5.2.2 | 5-6 |
| 111 | 106 | 5.2.2 | 5-7 |
| 112 | 107 | 5.2.2 | 5-7 |
| 113 | 108 | 5.2.2 | 5-7 |
| 114 | 109 | Table 5-3 | 5-10 |
| 115 | 110 | Table 5-3 | 5-10 |
| 116 | 111 | 5.3 | 5-12 |
| 117 | 112 | 5.3 | 5-12 |

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| 106 | Conclusion (3) We disagree with the conclusion that there is insufficient recovery time at terminal stations. | See response to Comment #20. | |
| 107 | Conclusion (4) To increase the fleet size as suggested for peak traffic in 2030 appears to be unrealistic. | See response to Comment #20. | |
| 108 | Recommendations (1) What more detailed demand forecasting for the corridor can be accomplished? Has Jacobs reviewed the demand forecasting already accomplished? | PMOC has not reviewed the demand forecasting data already accomplished. That function is performed by FTA (TPE). PMOC only brings up question as to whether the demand modeling incorporated specific, pragmatic and achievable performance characteristics of the proposed rail system/technology in modeling the rail system. As with all modeling, it is vital to provide capacity constraints for all modes that accurately reflect the service being provided, and can be afforded. | |
| 109 | Recommendations (2) The City and its consultants are familiar with TCRP 100 and more accurate calculations will be made and modeled as soon as we are in the position to obtain more definitive data from the manufacturer / vendors. | Memo received February 1, 2009. See response to Comment #20. | |
| 110 | SCC 20 We plan six station packages, not five. | PMOC will correct as noted. | |
| 111 | SCC 20 See comment 63 above. Section 2.3 of this report says there are eight side platform stations. | See response to Comment #63. | |
| 112 | The second paragraph starting with "Eighteen of the nineteen stations..." is not factually correct | PMOC will revise per information in "Updated Cost Estimating Methodology" dated August 26, 2008 (if still current):<br><br>There are (19) Aerial Stations, (13) side platform with mezzanines, (5) side platform without mezzanines and (1) center platform with mezzanine. | |
| 113 | Under SCC 30, the sentence "The site requires environmental cleanup prior to the City gaining access" is not necessarily correct. The sentence should be worded "The site will be environmentally clean when it is turned over to the City." | PMOC will correct as noted. | |
| 114 | (20) The schedules for the West O'ahu and Farrington Station Groups are not consistent with the opening for the first segment of the Project and what is shown on Figure 5-1. | Information was taken from "DRAFT HHCTCP Contract Packaging Plan" dated October 1, 2008<br>for Contract No. DBB-170 and DBB-270. It is recognized that this document was preliminary in nature. If an update is available, the PMOC will utilize the most current version. | |
| 115 | SCC 50 - Fare Equipment - At this time there is no equipment to be furnished by the Owner | Information was taken from "DRAFT HHCTCP Contract Packaging Plan" dated October 1, 2008<br>for Contract No. OF-940. | |
| 116 | A schedule of values has always been planned for the DB contracts. | PMOC will correct as noted. | |
| 117 | The PMOC suggests that the City complete final design to better develop cost and constructability. It is the City's position that a more prudent approach to the project is to expedite as much as possible the construction schedule. A delay of 1 to 2 years to complete final design will add 10s of millions of dollars to the project. The City has allowed in the estimate a "downtown factor" in their cost estimate and production schedule. | PMOC will review the language used and provide adjustments to better state its belief that design is best advanced to a level of certainty such that changes do not adversely affect costs due to changes being made after contract awards. This is a basic tenet regardless of delivery method. | |

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| 118 | PMOC expressed concern for the availability of construction equipment. In discussion with 5 major infrastructure contractors the availability of equipment was not a concern. All believe equipment was available. The PMOC expressed concern for future competition due to initial contractor having an advantage. Recent projects would indicate this is not the case. Additionally the cost of the gantry is insignificant to the over all cost ($2-4 million). | This is a market risk until bidding is complete. Perhaps the City can provide evidence for its declaration that "Recent projects would indicate this is not the case." | |
| 119 | Second Bullet - third paragraph - Local labor unions contend that there is sufficient labor capacity already in Hawaii. Also, Hawaii union agreements with California, Nevada and Utah allow contractors to import labor should there be a shortage. | This is a market risk until bidding is complete. Also, though there may be labor agreements as mentioned here by the City (PMOC was unaware of these), there remains excess costs for bringing such labor into Hawaii that will typically raise labor costs from that which local labor would generate. | |
| 120 | First full bullet As of the December date of this report global material prices are "plunging", not increasing according to ENR. | PMOC does not disagree with this statement, and if the project was awarding contracts within the next few months, that would be of benefit. Since this is a multi-year award and build-out, then conditions are subject to change and can vary greatly as they have in the past few months. Unfortunately, prices rarely fall as they have recently. See also response to Comments #46 & 49. | |
| 121 | Second bullet The PMOC expresses concern that a competitive advantage for the first segment contractor may result in a single bid for follow on contracts. This was not the case in Tren Urbano where each of several alignment contracts for segmental bridges were competed among several contractors. | This is a market risk until bidding is complete. | |
| 122 | Last Bullet We have not required that the typical viaduct superstructure sections be uniform. We intend to take advantage of any design efficiencies that subsequent designers can develop. | The PMOC understands there is no requirement that the viaduct be uniform. However, the PMOC suggests that utilizing a uniform section, where possible, may reduce costs, provide efficiencies in construction, and minimize long-term maintenance costs. | |
| 123 | SCC 10 First Bullet - A GBR was always planned to be prepared and issued with the contract documents. Fourth bullet - The coordination between the DB Guideway contractor and Systems contractor will be the responsibility of the GCM team. | At the time of the Risk Assessment workshop, the PMOC asked whether a GBR would be developed. The City responded that it was being considered. The DRAFT Design Criteria -Section 9 - Structural discusses a Geotechnical Planning Report, individual Geotechnical Data Reports, and individual Geotechnical Design Reports. However, no reference to a Geotechnical Baseline Report (GBR), which is a basis for equitable risk sharing, is included. The PMOC recognizes that a GBR typically is developed for projects that are comprised of underground construction (i.e., tunnels), but they can be utilized for projects similar to the HHCTCP.<br><br>Until a Construction Management Plan is developed In PE or FD depending on final contract delivery strategy, coordination is a requirements risk. | |

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| 130 | 125 | 5.3 | 5-16 |
| 131 | 126 | 5.3 | 5-16 |

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| 124 | First Bullet All bid periods have at least 45 days float. Most subsequent activities have significantly more float. Most real estate has very large amounts of float. The City believes these float periods constitute adequate contingency. | The PMOC has identified the contract procurement process as a critical/ near critical schedule element.<br>Schedule float is not considered a primary element of latent contingency. Latent contingency is primarily accounted for either by an increase in activity original durations (OD) or by assigning unique calendars for activity groups that accounts for extended periods of time. The practice of relying on Float (Total or Free) as a means to address latent contingency is not prescribed by the PMOC, especially since this method would rely on the assumption(s) that the project relationships and critical path are correct. | |
| 125 | SCC 20 The identification of material storage areas or station security measures are not typically identified prior to preliminary engineering. | PMOC will clarify that this is a concern that should be addressed during PE. | |
| 126 | SCC 20 Third bullet - The station security measures are being discussed as part of the SSORC. Fourth bullet regarding mezzanines above platforms - this was studied and not found to be practical for the movement of patrons at the stations. | PMOC will modify comment to reflect mezzanine configuration selected. | |
| 127 | SCC 30. The scope for the administration building and operations control center is something that would normally be developed during preliminary engineering. (same as comment #39 above) | It is typical in AA for Grantee to provide a conceptual design for such a critical facility and its functions. This also provides a "Basis for Design" documentation for the estimators and subsequent scopes of work for PE phase. PMOC will clarify that this can be addressed in more detail during PE. | |
| 128 | SCC 40. Finalization of utility agreements is something that would normally be accomplished during preliminary engineering. (same as comment #40 above) | PMOC will clarify that while the City does not have master utility mapping or agreements yet (and this is common), this can be addressed during PE. | |
| 129 | SCC 40. Detailed utility adjustment and relocation activities are normally added to the master schedule during preliminary engineering after a detailed scope of utility relocation has been defined. (same as comment #41 above) | PMOC will clarify that while the City does not have master utility mapping or agreements yet (and this is common), this can be addressed during PE. | |
| 130 | SCC 60. It is our position that the right-of-way schedule has been sufficiently developed to permit entry into preliminary engineering. Further development is something which typically occurs during preliminary engineering. (same as comment #43 above) | PMOC agrees Real Estate schedule can be developed during PE. | |
| 131 | SCC 60 Given that there are 205 potential parcels being impacted including only 67 businesses,20 residences and 1 church being relocated over the 19 mile right-of way, and the schedule is such that allows for orderly acquisition, the various City departments involved will provide the adequate support necessary to ensure the timely delivery of the property. | Real estate is often one of the key areas of concern that due not garner as much attention as necessary to protect the interests of the grantee or impacted parties. | |

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| 136 | 131 | 6.2.4 | 6-5 |

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| 132 | PMOC stated that the public utility estimate was based upon "conceptual" quantities. This is not correct. The estimate was based upon placement of the proposed column location onto existing utility drawings. Relocation strategies were developed for each column. 20 spans were selected in each of the 7 sections, and cost estimate were developed. These representative sections were used to complete the estimate. The estimator did adjust each section estimate based upon a final review. | The term conceptual is a verbatim statement from the title page of Kaiser's 1992 project estimate. The first page of this estimate states *" ESTIMATE CRITERIA FOR THE CONCEPTUAL COST ESTIMATE"*. Additional statements within the 16-page criteria document support this title. On page 6, the criteria states with regards to utilities: *" For developing a conceptual cost estimate, three categories of utility impacts resulting from construction of the guideway structure and passenger stations were analyzed"*..... and two pages were devoted to this discussion. Since we cannot ask the 1992 estimators of their intent, the PMOC relied on the classic definition of conceptual in our analysis. | |
| 133 | PMOC added escalation to 1992 estimate without justifying increase in the estimate. The 1992 estimate accounted for large pile caps and multiple driven piling in identifying utility relocations. It would be overly conservative to fully adopt the 1992 quantities. Using the $29.37 million estimate is not appropriate. | It is the PMOC's opinion that without current documents specifically providing for quantities and scopes of work for the utility relocations, a large risk exists and some omission of work scope is missing from the current cost estimate. We certainly agree this project is still not in PE and, as such, these sorts of costs will likely be refined design development occurs. | |
| 134 | As an update to our previous status, relative to the first paragraph and the escalation rates: A detailed study of construction cost escalation and the local construction market was completed in late December 2008. This study consisted of general economic research on a global, national, and local level, as well as numerous interviews with local labor unions, contractors, and material suppliers. PB used consultants and economists with experience in cost escalation forecasting throughout the US to conduct this study. Forecasts from this study will be incorporated into future iterations of cost estimates and financial feasibility reports. | Opinions often differ on subjects such as escalation, particularly for long-term projects. With the current volatility of the global financial market, PMOC believes forecasts for a project of this duration should be more conservative. Estimates should be adjusted during later phases of the project based on data from longer term trends following periods of economic stability. | |
| 135 | Second Paragraph. The references to ENR CCI over the past 5 and 15 years are incorrect. The rates were 4.4% and 3.2% respectively. | The PMOC will check in detail and is open to discuss the calculation methods, but the values used and the methodology has been checked prior to completion of the FINAL DRAFT of the Spot Report. | |
| 136 | Second paragraph - As an update to our previous status, the ENR CCI is related to the mainland US only, as no city in Hawaii is included in the average. For this reason, we derived a locally-specific forecast in its latest study that account for local factors in the Hawaii construction market. These factors include: Local labor market, Local contracting environment and Local supply and demand from materials. The ENR CCI is a general construction index and does not apply specifically to transit, fixed guideway, or elevated sections. It includes costs like lumber, which are likely not significant cost drivers on this project. For this reason, we derived a project specific forecast in its latest study that takes into account the specifics of the project including: Rail Construction, Elevated guideway construction and specialize equipment and labor. | The ENR CCI may not include Hawaii specifically, but since many of the materials and labor will come from the mainland, it is a good indicator of what may be expected. In addition, the costs in Hawaii trend higher than on the mainland, so the rates would in effect be less than what might be expected to occur in Hawaii. | |

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| 139 | 134 | 6.2.6 (2) | 6-8 |
| 140 | 135 | 6.2.6 (6) | 6-13 |
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| 142 | 137 | 6.3.2 | 6-19 |

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| 137 | Third paragraph - Given the recent financial and economic turmoil both within the US and globally, there is substantial uncertainty of future economic conditions. We are currently experiencing financial and economic conditions which are unprecedented in the recent past. We believe, therefore, that cost escalation may not follow historical trends. Anticipated macro cost escalation drivers for this project included the following: 1) Decreased demand in the near future due to lessened credit availability for construction projects, decreased gas tax revenues to fund transportation projects, and bursting of the housing bubble decreasing demand for residential construction; 2) Increased construction demand in 2010 and 2011 from infrastructure projects as part of the economic stimulus plan leading to some increases in construction cost; 3) Costs are anticipated to stabilize after 2011 and 4) In general labor is expected to remain relatively stable given that all union labor will be used. | The PMOC agrees that recent events are unprecedented and the future is uncertain. However, economic trends over a longer period are more accurate than extrapolating a short term volatility over a longer term. Union labor increases as the minimum wage increases and it is expected that this will occur in the short term. Additionally, the large influx of a stimulus cash may cause escalation that could impact the project for commodity costs and finance costs. | |
| 138 | Review of risks concerning the shortage of labor - The estimates provided included the expectation that there would be increased costs due to the need to import labor for the project. Local labor unions contend that there is sufficient labor capacity already in Hawaii. Also, Hawaii union agreements with California, Nevada and Utah allow contractors to import labor should there be a shortage. | This is a market risk until bidding is complete. Also, though there may be labor agreements as mentioned here by the City (PMOC was unaware of these), there remains excess costs for bringing such labor into Hawaii that will typically raise labor costs from that which local labor would generate. | |
| 139 | Some SCC codes are in error in table and in description. For example SCC 20.01 is for at-grade stations (not aerial). | PMOC will correct as noted. | |
| 140 | Table 6-8: Error in line 60.01 and total values are reversed. | PMOC will correct as noted. | |
| 141 | SCC 20 adjustment: (1) The SCC for Underground Station is 20.03, not 20.01. (2) Table 6-15 shows the adjustment in SCC 20.01, at-grade station instead of Underground station per §6-3-1. | From the source documentation, the PMOC was uncertain whether this is planned as an at-grade or partially depressed station. Therefore, the costs were applied to SCC 20.01. However, the PMOC agrees that the cost should be applied to SCC 20.03 if it is a depressed or underground station. | |
| 142 | Line 10 on Table 6-13: The $194.57 million figure listed is inconsistent with the escalation adjustment of $245 million listed in Table 6-14 and $198 million adjustment in Table 6-15. | Table 6-13 contains a value of $194.57M, which was deducted from the City's original Estimate as a method to obtain an un-escalated base for calculation of the Excise Tax. Additionally, the PMOC escalation adjustment as noted was considered prior to applying the excise tax (from the base estimate value) and does not include contingency.<br><br>Table 6-14 used a method to calculate the adjustment by increasing the City's SCC escalation to 4.85% until 2015 and 2.80% for the remaining outlying years. The two calculated values were then compared to obtain a percentage factor to be used in the Risk Assessment analysis as an adjustment. The value 0f $244.90M includes contingency in the adjustment to the escalation values as there was not a good method to separate out the contingency value as noted in the write-up under Section 6.3.4. The purpose of the exercise was to obtain a factor to be used in the calculation of an escalation adjustment. | |

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| 147 | 141 | 6.3.4 | 6-22 |
| 148 | 142 | 6.4 | 6-23 |
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| 143 | Line 10 on Table 6-13: The $194.57 million figure listed is inconsistent with the escalation adjustment of $245 million listed in Table 6-14 and $198 million adjustment in Table 6-15. | **[CONTINUATION OF RESPONSE FOR COMMENT #137]**<br><br>Table 6-15 contains an excise tax adjustment, and the resultant escalation is larger as it includes a higher value for excise tax than the deduction value taken in Table 6-13. The value does not include contingency as noted in the table titles but used the factors from Table 6-14. | |
| 144 | Factual error: The 4.167% and 4.710% rates are incorrect. Hawaii's General Excise Tax (GET) rate is 4.0%, except for the additional 0.5% rate for transactions subject to the County Surcharge for Oahu. Businesses visibly pass on the GET to their customers, although they are not required by law to do so. | The 4.167% and 4.710% rates came from the City's own documentation and estimates. It is assumed these are likely *blended rates* and no clear calculation was provided to document what rates were used for individual line items. The PMOC did online research and noted the GET for Hawaii is consistent with the 4.0% and 4.50% rate . However, the 1992 estimate in numerous locations shows the rate is 4.167% and this was referenced in the write-up. The 4.710% rate is shown on the City's Current Project Estimate as the "HI STATE EXCISE TAX at a rate of 4.710%". If the rates are incorrect they should be revised in the City's estimate and in the PMOC analysis as well. | |
| 145 | The PMOC's GET adjustment should be reconsidered: (1) There is an erroneous assumption that all Project costs will be subject to the GET. For example, neither soft costs associated with City employees nor costs attributable to the sale of land in fee simple (HRS Sec. 237-3) will be subject to the GET. (2) There is an erroneous assumption that taxable costs will have a visibly pass-through rate of 4.710%. Both the PMC and GEC contracts have a visibly pass through rate of 4.5%, which will also apply to the other contracts. | The PMOC noted in the original 1992 estimate that the GET was applied to the entire project costs as a bottom line adjustment (Page 1 of the detail estimate), so there was precedence for making the assumption. Additionally, our online research of the Hawaii GET did not indicate that this assumption was wrong. Since, the City had not provided a clear calculation or methodology of how the tax was calculated in the estimate, then it is appropriate to make an adjustment for the GET unless the City can provide a calculation showing how they arrived at the GET values. | |
| 146 | First paragraph - 2.8% only refers to the long-term inflation rate assumption. The DEIS capital cost was inflated at 4.85% in 2009, 3.55% in 2010, 2.9% in 2011 and 2.8% for the remaining years. As mentioned earlier, these assumptions are now superseded. | PMOC will clarify City's use of escalation in developing cost estimate. | |
| 147 | The PMOC adjustment calculated for SCC 80, Professional Services, does not follow the methodology described in §6.3.1 on page 6-19. Estimated overcharge = $4,389,212. | See response to Comment #137. | |
| 148 | Conclusions: (1) Inaccuracies cited in section 6.2.6 with regard to quantities are marginal (train control fractions). Inaccuracies cited with regards cost are limited to Hawaii Excise Tax calculation and historical utility costs which are discussed in item 4 and 5 below. In essence the estimate is mechanically correct, sufficiently detailed for this level of design, and represents the value of the work. | The PMOC is required by the language of the Program Guidance to note whether the estimate is correct and to provide adjustments to the estimate if necessary. | |
| 149 | Conclusions: (2) Where design information was available, cost detail was broken down to discrete items (i.e., CY of concrete girders, LB of reinforcing steel, LF of drilled pier, etc) for SCC 10-30 which represents over 60% of the total construction cost (SCC 10-50) may be closer to a Class 3 than Class 4 classification. | Classification is subjective and the PMOC's opinion is as stated in the Spot Report. | |

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| 150 | 144 | 6.4 | 6-23 |
| 151 | 145 | 6.4 | 6-23 |
| 152 | 146 | 6.5 | 6-23 |
| 153 | 147 | 6.5 | 6-24 |
| 154 | 148 | 6.5 | 6-24 |
| 155 | 149 | 7.2.1 | 7-12 |
| 156 | 150 | 7.2.1 | 7-23 |
| 157 | 151 | 7.2.1 | 7-24 |
| 158 | 152 | 7.3.8 | 7-37 |
| 159 | 153 | 7.3.8 | 7-37 |
| 160 | 154 | 7.3.8 | 7-37 |
| 161 | 155 | 7.3.8 | 7-38 |
| 162 | 156 | 7.3.8 | 7-39 |
| 163 | 157 | 7.3.8 | 7-39 |
| 164 | 158 | 8.2.6 | 8-11 |

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| 150 | Conclusions: (3) City disagrees with use of term "significant" in this context. | PMOC will delete term "significant". | |
| 151 | Conclusions: (4) Excise tax was calculated on SCC 10-50 construction costs, SCC 70 vehicle costs currently include excise tax, SCC 80 soft costs and SCC 90 contingency are all based on construction costs which already include excise tax. SCC 60 ROW - Tax will not be levied on fee simple property we purchase. | SCC 80 cost and *Utilized* Contingency will be subject to excise tax regardless of their CER relationship with other values.<br><br>PMOC will review application of excise tax on SCC 60. | |
| 152 | Recommendations: (2) 1992 Estimate was done prior to FTA SCC format requirements and had a series of exclusions including ROW. | PMOC will revise the recommendation to note the City should follow the current excise tax requirements for calculation of the value. | |
| 153 | Recommendations: (3) & (6) The City plans to prepare bottoms up estimate rather than recalculate the parametric values. | PMOC agrees with approach as this method should provide a more accurate estimate. | |
| 154 | Recommendations: (7) City disagrees - It does not seem necessary to reconsider the values used for escalation in light of ENR's December 2008 CCI Index Forecast of 1.2% inflation in 2009 and a decline in the BCI of 0.5%. | As stated elsewhere, these values need to be revisited by the City, FTA, and PMOC as economic conditions have changed dramatically and will continue to change. | |
| 155 | Schedule Review: (4) The number of partial and full takes is 205 per Admin Draft EIS. | PMOC will correct as noted. | |
| 156 | Item (17) - No catenary pole foundations, this is a third rail system. | This is a generic citation from the Program Guidance that addresses PMOC assessments of schedule. The PMOC recognizes that the proposed system consists of third rail. | |
| 157 | Item (17) - category number (7) in the last line of the first full paragraph seems to be the wrong reference. | PMOC will correct as noted. | |
| 158 | No wetlands per DEIS and no tunneling on project required | These items are listed as examples of project elements that typically contain risk. The paragraph that follows in the Spot Report addresses those specific areas of concern for this project. | |
| 159 | Vehicle Procurement - The City has developed as adequate plan to proceed with the vehicle procurement package. Although not as a stand alone procurement but integrated as a turnkey project together with all other systems elements. RFPs 1 & 2 for all the systems work have been identified and the dates can be met based on the present schedule. | No response is needed for the report. Vehicle procurement is listed as a Critical Area of Concern pursuant to the FTA Program Guidance 34. | |
| 160 | Systems Integration - TO adequately address all systems integration/start-up and testing requirements further design details are required to develop a more meaningful schedule. During further design development the City will address these issues. | PMOC will clarify that this is a concern that should be addressed during PE. | |
| 161 | Vehicle Procurement has been addressed. See comment No. 153 above | No response is needed for the report. Vehicle procurement is listed as a Critical Area of Concern pursuant to the FTA Program Guidance 34. The PMOC is demonstrating concern that the project schedule lacks activity detail related to vehicle procurement, a critical path element. | |
| 162 | December 15, 2012, not 20012. | PMOC will correct as noted | |
| 163 | Systems Integration - The City has addressed the PMO concerns and agrees that the systems work is critical to the overall project. The City is of the opinion that through a turnkey systems approach, integration issues can be significantly minimized. | No response is needed for the report. | |
| 164 | Number of properties impacted is 205 | PMOC will correct as noted. | |

# HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

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| 165 | 159 | 8.2.6 | 8-11 |
| 166 | 160 | 8.2.6 | 8-11 |
| 167 | 161 | 8.2.6 | 8-11 |
| 168 | 162 | 8.2.7 | 8-11 |
| 169 | 163 | 8.2.7 | 8-12 |
| 170 | 164 | 8.2.7 | 8-12 |
| 171 | 165 | 8.2.8 | 8-12 |
| 172 | 166 | 8.2.8 | 8-12 |
| 173 | 167 | 8.2.9 | 8-14 |
| 174 | 168 | 8.2.9 | 8-14 |
| 175 | 169 | 8.2.9 | 8-14 |

# HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

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| 165 | Dillingham is primarily sliver takes except at touch down points for station. Most properties will lose 10-20 feet to roadway widening which will result in some loss of parking and landscaping. Dillingham's visual/aesthetic impact is rated low to moderate. | The issue of "economic remainders" relates to the owner controlled parcels after easements or partial takes are acquired. For example, has proper consideration been given regarding impacts to owners a result of a reduction in parcel size? Have visual impacts and access for deliveries been considered where partial land takings will bring property lines and/or curbs up to close to the entrances of buildings, particularly commercial establishments?<br><br>Real estate is often one of the key areas of concern that does not garner as much attention as necessary to protect the interests of the grantee or impacted parties. | |
| 166 | MOU with HDOT is pending, but there have been discussions and preliminary understanding on how to address property concerns. | PMOC will clarify that the MOU should be developed during PE. | |
| 167 | Permanent & temporary easements will be determined in PE. | PMOC will clarify that easements should be determined during PE. | |
| 168 | The City has completed sufficient research and continues to do so to determine that the "Light Metro" car is the correct application for the HHCTCP. The proposed vehicles are presently used in other cities as transit vehicles for "mainline" service and not just on "people Mover" systems. | Until procurement process advances, this SCC contains requirements risks. | |
| 169 | Requirement Risk (SCC 70.02) The City disagrees with the PMO's finding regarding the vehicle size and is confident that 60-65 vehicles as proposed is adequate to run full revenue service. | See response to Comment #20. | |
| 170 | Market Risk (SCC70.02) The City has conducted sufficient research to conclude that sufficient vendors are available to obtain competitive bids. With a turnkey approach the City further believes that cost savings can be obtained. Future competition does not appear to be compromised since the proposed vehicle type is not unique but used in other cities. | Until procurement process advances, this SCC contains market risks. | |
| 171 | It is unclear why "GEC contract for PE does not clearly define NTP #3" is a risk. NTP #3 was issued on 7/28/2008 and is limited to Phase 1 work related to the solicitation of the design-build, vehicle and systems procurement activities. | Contract documents provided to PMOC do not provide clear scope associated with NTP #3. The Agreement states NTP #3 will be for "the remainder of the Work not already included in NTP #1 or NTP #2" (which encompass the preparation of the DEIS and initiation PE, respectively). | |
| 172 | "GEC contract is $85 million but SCC estimate includes $75 million for PE" is misleading. The entire $85 million GEC contract amount is not attributable to PE. The SCC estimate relates to PE costs AFTER the Project is advanced into PE. | PMOC will correct as noted. | |
| 173 | Delete risk related to a transit authority. | PMOC will correct as noted. | |
| 174 | "The Chief Procurement Officer of the City/County government has been identified as having the authority for contract approval authority" should not be considered a risk. | PMOC had little information to review as regards the role of this position, possible layers of approval authority (especially down to filed level during construction), process of moving contract awards through project staff & management to this position title, etc., and therefore concludes at this time that there is uncertainty and therefore some risks. All this can be addressed in revised PMP and subsequent procurement procedures. | |
| 175 | In Design Risks City disagrees with words "unattainable" & "serious." | PMOC will revise language. | |

# HONOLULU HIGH-CAPACITY TRANSIT CORRIDOR PROJECT

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| 176 | 170 | 10 | 10-1 |
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| 178 | **Action Codes:** | | |
| 179 | A | Initiator agrees and will comply / take action | |
| 180 | B | Initiator disagrees for reasons noted: discussion may be required | |
| 181 | C | Answer provided: no action needed | |
| 182 | | | |

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| 176 | 10-1 to 10-16 shows the technical output from a "Monte Carlo" simulation of the schedule. City questions the applicability of the Monte Carlo simulation approach at this stage of the project. | This is a requirement of the PMOC's Work Order and FTA Program Guidance 40. The PMOC recognizes that such analysis at this phase of a project can be premature. The PMOC will add language to this effect. | |
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| 179 | | A | Accept |
| 180 | | N | Not Accept |
| 181 | | D | Discussion |
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| 177 | |
| 178 | **Response Code** |
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| 180 | able |
| 181 | Required |
| 182 | |