DOCKET NO. A07-775
CASTLE & COOKE HOMES HAWAII, INC.

TO CONSIDER ACCEPTANCE OF FINAL ENVIRONMENTAL IMPACT STATEMENT

STAFF REPORT

Action Meeting
June 5, 2009

Orlando Davidson, Executive Officer

Submitted: May 27, **2009**

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1. BACKGROUND

On July 3, 2007, Castle & Cooke Homes Hawaii, Inc. ("Petitioner"), filed a Petition For Land Use District Boundary Amendment ("Petition") to reclassify approximately 191.214 acres of land, identified as Tax Map Keys: 9-4-06: por. 29 and por. 31 and 9-6-04: 21, from the Agricultural District to the Urban District for residential, commercial, park and open space, and church and community center uses at Waipio and Waiawa, Oahu, Hawaii.

On May 16, 2008, Petitioner filed an Amended Petition to reclassify approximately 766.327 acres of land, identified as Tax Map Keys: 9-4-06: por. 1, por. 2, por. 5, por. 29, por. 31, 38, and por. 39; 9-5-03: por. 1 and por. 4; and 9-6-04: 21, from the Agricultural District to the Urban District for residential, commercial, light industrial, school, church, day care center, park, health care, recreational, and park and ride facility uses ("Project") at Waipio and Waiawa, Oahu, Hawaii.[1]

Pursuant to section 343-5(a)(1), Hawaii Revised Statutes ("HRS"), and section 11-200-6(b)(1)(A), Hawaii Administrative Rules ("HAR"), the Amended Petition included an Environmental Impact Statement Preparation Notice ("EISPN").

On June 5, 2008, and by a written Order dated July 14, 2008, the Land Use Commission ("LUC") agreed to be the accepting authority pursuant to chapter 343, HRS, and determined that the proposed action may have a significant effect on the environment to warrant the preparation of an Environmental Impact Statement ("EIS").

The Office of Environmental Quality Control ("OEQC") published notice of the availability of the EISPN in its June 23, 2008, issue of *The Environmental Notice*. The 30-day public comment period for the EISPN ended on July 23, 2008.

The OEQC published notice of the availability of the Draft EIS ("DEIS") in its December 23, 2008, issue of *The Environmental Notice*. The 45-day public comment period for the DEIS ended on February 6, 2009.

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[1] The Amended Petition reflected the addition of Koa Ridge Makai, consisting of approximately 575.113 acres of land.

On May 7, 2009, Petitioner filed the Final EIS ("FEIS").[2]

[2] Among the changes identified in the FEIS are the increase in acreage of Koa Ridge Makai (from 575.113 to 576.435), which affects the total acreage of the Petition Area (from 766.327 to 767.649), and the addition of TMK: 9-4-06: por. 3 to Koa Ridge Makai.

2. STATUTORY AND PROCEDURAL REQUIREMENTS AND STANDARDS

Pursuant to section 343-5(c), HRS, within 30 days of receipt of the FEIS, the LUC is required to notify Petitioner and the OEQC of the acceptance or non-acceptance of the FEIS. The FEIS shall be deemed to be accepted if the LUC fails to act within 30 days following the receipt of the FEIS. This 30-day period may be extended at the request of the applicant for a period not to exceed 15 days. The 30-day period will end on June 8, 2009.

The LUC, as the accepting agency pursuant to section 11-200-23, HAR, must evaluate the FEIS to determine whether it fulfills the definition of an EIS and adequately discloses and describes all identifiable environmental impacts and satisfactorily responds to agency comments.

Acceptance of the FEIS is a condition precedent to determination that the Petition is a "proper filing" under the Commission's rules.[3]

Pursuant to section 11-200-23(b), HAR, an FEIS shall be deemed to be acceptable only if all of the following criteria are satisfied:

1) The procedures for assessment, consultation process, review, and the preparation and submission of the FEIS, have been completed satisfactorily as specified in chapter 11-200, HAR;

2) The content requirements described in chapter 11-200, HAR, have been satisfied; and

3) Comments submitted during the review process have received responses satisfactory to the LUC and have been incorporated in the FEIS.

In the event the LUC does not accept the FEIS, Petitioner has 60 days following the non-acceptance within which it may appeal the decision to the Environmental Council ("EC"). The EC, in turn, has 30 days following receipt of the appeal in which to render a decision on the matter.

In the event the LUC accepts the FEIS and an aggrieved party[4] wishes to

[3] Acceptance of the FEIS is only one criterion in determining whether the Petition is deemed a "proper filing" and accepted for processing. Once the Petition is deemed a "proper filing," the Commission must act within 365 days.

challenge the acceptance, the aggrieved party has 60 days from the date of publication of the notice of acceptance in *The Environmental Notice* to file suit in circuit court.

Pursuant to section 11-200-18, HAR, an FEIS is required to contain the following items:

(1) The DEIS revised to incorporate substantive comments received during the consultation and review process.
(2) Reproductions of all letters received containing substantive questions, comments, or recommendations and, as applicable, summaries of any scoping meetings held;
(3) A list of persons, organizations, and public agencies commenting on the DEIS;
(4) The response of the applicant or proposing agency to each substantive question, comment, or recommendation received in the review and consultation process;
(5) The text of the FEIS, which shall be written in a format which allows the reader to easily distinguish changes made to the text of the DEIS.

[4] For the purpose of bringing judicial action under section 343-7(c), HRS, the EC, affected agencies, or persons who provided written comment during the consultation or review periods of the environmental review process may be adjudged aggrieved parties, provided that the contestable issues shall be limited to issues identified and discussed in the written comment.

3. SUMMARY OF SIGNIFICANT ISSUES

The following federal, state, and city and county agencies and organizations/ individuals provided responses on the DEIS:[5]

Federal
Department of the Interior, U. S. Geological Survey

State of Hawaii
LUC
Department of Agriculture ("DOA")
Agribusiness Development Corporation ("ADC")
Department of Accounting and General Services
Department of Defense
Department of Health ("DOH"), Environmental Planning Office
Department of Land and Natural Resources -
Commission on Water Resource Management ("CWRM"), Division of Aquatic Resources, Division of Forestry and Wildlife
Department of Transportation ("DOT")
Office of Hawaiian Affairs ("OHA")
University of Hawaii at Manoa Environmental Center ("UHMEC")

City and County of Honolulu
Board of Water Supply
Department of Design and Construction
Department of Facility Maintenance
Department of Parks and Recreation
Department of Planning and Permitting
Department of Transportation Services ("DTS")
Department of Emergency Management
Department of Community Services
Honolulu Fire Department

Organizations/Individuals
Sierra Club, Oahu Group ("Sierra Club")
Mililani/Waipio/Melemanu Neighborhood Board No. 25
Michael Dau, Kipapa Acres C.P.R. Water System
Waiawa Ridge Development, LLC

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[5] By letter dated April 29, 2009, the Office of Planning ("OP") provided comments on the DEIS; however, because of the untimeliness of the comments, Petitioner did not include OP's comments in the FEIS. OP identified legitimate concerns in their letter, some of which were raised by other reviewers and responded to by Petitioner. Other comments centered on areas of State concern for which OP requested clarification or additional detail and not necessarily information to address technical deficiencies within the document. Staff believes that OP has the opportunity during the contested case proceeding in this docket to pursue these areas of State concern in greater depth.

Table 1 highlights the significant issues raised by the DEIS reviewers and Petitioner's responses.

Table 1

Significant Issue	Reviewers' Concerns	Petitioner's Responses
Transportation Facilities		
Highway Facilities	DOT: The DOT commented that the Traffic Impact Analysis Report ("TIAR") must be revised and resubmitted to the DOT, Highway Division, for review and acceptance. Among the concerns raised by the DOT about the TIAR were (1) the TIAR incorrectly assumed that the DOT will fund the construction of highway improvements that are the developers' responsibility; (2) the TIAR failed to address the traffic impacts of a new roadway access to Kamehameha Highway north of Ka Uka Boulevard upon the surrounding roadway system; (3) the TIAR failed to document and justify assumptions used to project future traffic without the Project; (4) the TIAR failed to adequately document and justify the assumed 30% reduction of external trips generated by the Project in 2016 and 2025; (5) the TIAR failed to adequately document and justify assumptions on the directional distribution of Project-generated traffic; (6) the TIAR must include an evaluation of 2016 and 2025 traffic conditions assuming only those highway improvements for which implementation has been committed; (7) the TIAR must clearly identify the committed developments that are assumed to be in place with each major milestone of the Project and the agency and/or developer that will be responsible for implementing the improvements; (8) the TIAR must include analyses of Project-generated	Petitioner notes that the TIAR has been revised and resubmitted to the DOT on March 11, 2009. The document, which was revised to address the concerns of the DOT, will be appended to the FEIS. ***Staff notes that by letter dated May 19, 2009, the DOT, Highways Division Planning Branch, provided the following comments to Petitioner's response above:** **1) The proposed new signalized Koa Ridge intersection with Kamehameha Highway is unacceptably close to the signalized Kamehameha Highway intersection with Ka Uka Boulevard. A supplemental traffic analysis is requested to evaluate required traffic mitigation without this intersection.** **2) The Project's traffic consultants have not justified the TIAR assumption that internal trip capture and TDM will result in a 30% reduction of external Project-generated vehicle trips. A supplemental traffic analysis assuming only a 15% reduction of internal trips is requested.** **3) The Highways Division Planning Branch reserves the right to provide further comments after reviewing the revised TIAR.**

Table 1 (cont'd)

Significant Issue	Reviewers' Concerns	Petitioner's Responses
Highway Facilities (cont'd)	impacts on the H-2 Freeway, including ramps, weave analyses, and segments between interchanges, and an evaluation of the impacts on freeway merge-diverge operations; and (9) the TIAR should follow national accepted standards of practice rather than the Peak Hour Volume Traffic Signal Warrant. <u>Neighborhood Board</u>: The Neighborhood Board submitted a resolution adopted on January 28, 2009, regarding traffic impacts of the previously proposed Project and the current Project. The resolution, among other things, alleged that the TIAR (1) did not fully examine the Project's potential connected actions, secondary impacts, significant effects and cumulative impacts relative to Central Oahu's regional transportation infrastructure; and (2) failed to address or disclose secondary impacts, significant effects, and cumulative impacts on commuter travel times to and from downtown Honolulu and Kapolei. The Neighborhood Board also recommended that the EIS not be accepted until a credible, understandable, and accurate TIAR was prepared for the region which quantified and disclosed all primary, secondary, and cumulative impacts from 20,000 additional housing units in Central Oahu by 2030. Finally, the Neighborhood Board requested that the rationale for assuming a 30% reduction as opposed to a 56% reduction in site-generated vehicle trips be re-examined given that it has not been determined what added road investments were needed for	Petitioner points out that the TIAR disclosed the Project's potential effects and addressed secondary and cumulative impacts, including the traffic impacts of the Waiawa Ridge development and the average annual growth rate as described in the Oahu Regional Transportation Plan ("ORTP"). Petitioner notes that the use of the ORTP for traffic forecasting reflects the official projections of traffic growth in the region. Petitioner further notes that the discussion on the Project's impacts relative to transportation facilities included projected commuter travel times between the H-2 Mililani Interchange and the Kahumanu Street Overpass of H-1. Petitioner adds that the commute time analysis was limited to this segment of freeway because it could be accomplished with the most accuracy. With respect to commute times to downtown Honolulu and Kapolei, Petitioner responded that such an analysis would introduce external effects that are not associated with Central Oahu traffic demands and that could greatly influence travel time characteristics resulting in unreliable traffic simulations and potentially inaccurate traffic

Table 1 (cont'd)

Significant Issue	Reviewers' Concerns	Petitioner's Responses
Highway Facilities (cont'd)	higher vehicle trip movements, and that most of the alternative transport mode proposals noted in the TIAR have been determined.	modeling and analysis. With respect to the questionability of the TIAR, Petitioner comments that it was properly conducted in accordance with professional standards and uses an appropriate regional transportation model in its analyses and resulting conclusions of effect. With respect to the rationale for assuming a 30% reduction in site-generated vehicle trips, Petitioner points out that the 30% reduction represents a more conservative assumption; an overestimate could result in insufficient roadway improvements. According to Petitioner, there is a general lack of Hawaii experience in mixed use and transit oriented developments to fully justify the higher trip reduction rates experienced in other Mainland states.
Public Transit/ Alternative Modes of Transportation	DTS: The DTS requested that specific commitments to transit or alternative modes of transportation be incorporated into a unilateral agreement. The DTS also requested that its Public Transit Division ("PTD") be involved in the design guidelines and roadway and street layout plans prior to planning any bus service within the Project. The DTS further recommended that the needs of pedestrians, bicyclists, motorists, and transit riders be incorporated into the design and construction of roadway developments to enable safe and barrier-free access for all users.	Petitioner notes that multi-modal transportation components of the Project include (1) a walkable and bicycle-friendly community; (2) reduced dependence on the automobile by providing desired destinations within walking distances; (3) a balance between residents and jobs to reduce the need to commute by private automobile; (4) carefully planned bus routes to attract travel away from the private automobile; (5) major emphasis on alternative forms of transportation to reduce reliance on the private automobile; (6) elevating the place of pedestrians and bicyclists; (7) establishing an onsite

Table 1 (cont'd)

Significant Issue	Reviewers' Concerns	Petitioner's Responses
Public Transit/ Alternative Modes of Transportation (cont'd)	The DTS provided additional comments requesting, among other things, that (1) the PTD be consulted on the proposed location of the onsite bus transit station; (2) the PTD and the Rapid Transit Division ("RTD") be consulted on any linkages to the proposed park-and-ride facility; and (3) the PTD and RTD be consulted on strategies to increase transit usage.	transportation center with convenient bus connections to the future rail system; and (8) a network of "green streets" with wider rights-of-way to accommodate pedestrians and bicyclists. Petitioner additionally points out that alternative transportation components are emphasized less as the Project traffic impact mitigation measures because they have already been identified, incorporated, and accounted for in reducing overall vehicle traffic prior to distributing and assigning vehicle trip movements to specific roadways and intersections. Petitioner asserts that it has met with the PTD and RTD and will continue to consult with the divisions in the future as the Project progresses.
Agricultural Resources		
Relocation of Agricultural Production	DOA: The DOA noted that the timely relocation of the agricultural production in the Petition Area to a site north of Wahiawa should consider the time and resources needed to prepare the land and develop necessary irrigation infrastructure. The DOA also commented that it would be beneficial for Aloun Farms to be able to withdraw from their production lands in the Koa Ridge Makai development area to allow harvesting of maturing crops. Sierra Club: The Sierra Club pointed out that information on when the required upgrades and improvements	Petitioner responds that the relocation of Aloun Farms is being coordinated among the affected parties so that Aloun Farms can make an orderly transition that avoids or minimizes any adverse impacts on its production. Petitioner points out, however, that Aloun Farms will be responsible for land preparation and any storage facilities. Petitioner adds that the replacement lands have an irrigation source and consist of soils that are classified as overall (master) productivity rating class B, the same as the Koa Ridge Makai site. Although

Table 1 (cont'd)

Significant Issue	Reviewers' Concerns	Petitioner's Responses
Relocation of Agricultural Production (cont'd)	were scheduled to be made should be provided. The Sierra Club also requested that the amount, quality, and availability of the replacement lands as a proposed mitigation measure be discussed. UHMEC: The UHMEC pointed out that the sunlight levels and water supply available to the lands available for farming (i.e., the replacement lands) relative to the Petition Area should be addressed.	Aloun Farms may need to adjust the type of crops that are cultivated on the replacement lands as a result of climate and soils, Petitioner contends that the site has a high potential for crop productivity. Petitioner responds that because most of the available farmland in Hawaii is former sugarcane and pineapple land, and the plantations generally cultivated the highest quality farmland in Hawaii, most of the available lands have good soils, most were irrigated, and most have good solar radiation. At an annual average of 450 calories per square centimeter of sunshine, the Petition Area falls in the middle of the 400 to 500 calorie range for most farm areas in Hawaii.
Waiahole Ditch Water	ADC: The ADC questioned whether the Project will continue to use irrigation water for landscape or other purposes. The ADC noted that it was not possible for it to cover revenue losses ($160,000 per year) from the cessation of farming on the Petition Area due to the strict allocation of the ditch water by the CWRM.	Petitioner notes that it is interested in using non-drinking water for landscaping irrigation, but that a water use permit must first be obtained from the CWRM. Petitioner will explore this option further and will coordinate any permitting efforts with the ADC. Petitioner points out that it has been approached by other agricultural operations seeking a portion of its ditch water allocation, and is willing to assist in transferring water allocation.
Water Quality		
Groundwater Contamination	Mr. Dau: Mr. Dau noted that Koa Ridge Makai overlies Kipapa Acres Water Systems Zone C of the Hawaii Source Water Assessment Program. Kipapa Acres is among three entities that own drinking water sources that have areas delineated by the DOH as	Petitioner acknowledges Mr. Dau's statements on the location of Koa Ridge Makai relative to Zone C of the Kipapa Acres Water System and the presence of TCP in the system at concentrations exceeding the

Table 1 (cont'd)

Significant Issue	Reviewers' Concerns	Petitioner's Responses
Groundwater Contamination (cont'd)	providing source waters for public water systems. He pointed out that 1,2,3 –Trichloropropane ("TCP") residues in the soil as a result of its use as a soil fumigant have leached into the groundwater. He further noted that this chemical has been shown to cause cancer in laboratory animals when they were exposed at high levels over their lifetimes. He requested that no development be permitted over the Zone C Well Head protection area to let the rainwater leach the pesticide out of the groundwater and not pose a risk to human health.	U.S. Environmental Protection Agency's maximum contaminant levels. Petitioner believes that the TCP concentrations will not be measurable changed due to development of Zone C. Petitioner notes that the occurrence of TCP in Mr. Dau's well reflects its general occurrence in a large part of the Waipahu-Waiawa Aquifer as a result of the leaching of soil fumigants used more than two decades ago on many pineapple fields situated hydraulically up-gradient from the well, not just Zone C. Petitioner also points out that to the extent development of the portion of the Petition Area that overlies Zone C is not expected to cause significant change in the existing rate of groundwater recharge (Zone C, with an average rainfall of less than 40 inches per year, contributes little to no net infiltration of rainfall), it is also not expected to result in any measurable change in the concentration of TCP in the groundwater tapped by Mr. Dau's well.
Stormwater Runoff	Mr. Dau: Mr. Dau expressed concern that the Project will increase stormwater runoff into Kipapa Stream as well as increase the water temperature of runoff entering the stream, potentially damaging aquatic life in the stream. OHA: OHA commented that surface runoff should be stored or reused for onsite needs as part of a design concept to reduce or eliminate any	Petitioner points out that with the proposed offsite drainage detention basins, the rate of stormwater discharge into Kipapa Stream downstream of the Koa Ridge Makai development area would actually decrease from the existing rate. The rate would further decrease if the alternate offsite drainage detention basin located on U.S. Army property is

Table 1 (cont'd)

Significant Issue	Reviewers' Concerns	Petitioner's Responses
Stormwater Runoff (cont'd)	demands on the municipal storm drainage system. OHA also recommended the use of a stormwater management system that would filter pollutants out and slow the amount of sediments entering the waters. OHA suggested that Petitioner utilize thick vegetation or buffer strips that would grow alongside the waterway to accomplish this. To this end, OHA argued for the use of drought tolerant native or indigenous species as groundcover in the landscaping of the Petition Area.	constructed in lieu of one of the Project's proposed detention basins. With respect to the increased temperature of the runoff, Petitioner notes that because streams in Hawaii tend to be close to air temperature all the time and there would be sufficient rainfall to bring the initial heated runoff closer to the ambient stream water temperature in the event that runoff does reach the stream, the possibility of increased temperatures in runoff is unlikely. Petitioner further points out that the Project's proposed water quality mitigation measures, i.e., detention basins and water quality treatment facilities, are likely to prevent increases in stream water temperatures during small storms. According to Petitioner, water quality treatment facilities will be constructed at the Petition Area to satisfy City water quality standards for storm drainage. Petitioner is also investigating how vegetated bioswales or bio-retention basins can be incorporated into the Project to achieve additional groundwater recharge and filtering of pollutants. Native or indigenous species will be considered for use in the bioswales, if appropriate. Petitioner also explains that plants used in the bioswales must be both drought and flood tolerant given potential flooding during storm events.
Unlined Stream Banks	Mr. Dau: Mr. Dau suggested that Petitioner be required to line the	Petitioner notes that the suggestion to line the stream

Table 1 (cont'd)

Significant Issue	Reviewers' Concerns	Petitioner's Responses
Unlined Stream Banks (cont'd)	Kipapa Stream bank to stop soil erosion and land sliding into the stream.	banks is not practical nor would it be beneficial to aquatic biota as it would remove natural habitat, increase water temperatures, and may impede migration of native stream biota. Petitioner points out that the Project's outlet works that carry stormwater runoff to Kipapa Stream will be sited and/or designed with measures to avoid or minimize erosion of the stream banks.
Archaeological/Cultural Resources		
Archaeological Inventory Survey	Sierra Club: The Sierra Club raised concern about the impact on certain archaeological and historic resources.	Petitioner notes that the SHPD reviewed and accepted the Project's archaeological inventory surveys ("AIS"), with the exception of the trunk sewerline AIS, which was revised per SHPD recommendations and is pending acceptance.
Pesticide Residues		
Soil Testing	LUC: Staff raised concerns that there was neither an assessment of the impact of potential contaminants associated with the historic usage of the Petition Area for commercial pineapple and possibly sugarcane cultivation upon residents of the Project nor a discussion of the measures that may be employed to mitigate their impacts. Sierra Club: The Sierra Club questioned the nature of precautions that would be taken to prevent leakage of petroleum residue into the soil from the deactivated Hickam AFB fuel pipeline. The Sierra Club also requested that soil remediation measures be identified. UHMEC: The UHMEC commented that the current concentrations of	Petitioner responded that additional testing will be conducted prior to construction to determine whether there are residual contaminants within the soils of the Petition Area. If identified, Petitioner asserts that these soils will be handled, transported, stored, disposed of, and/or remediated in place to levels commensurate with the proposed new land use in accordance with applicable federal, state, and city regulations to protect human health and the environment. Coordination with the DOH will be undertaken to identify specific mitigation actions, which would depend on the location, extent, and type of contaminant or regulated material found.

Table 1 (cont'd)

Significant Issue	Reviewers' Concerns	Petitioner's Responses
Soil Testing (cont'd)	remaining chemicals in the soil should be assessed. If any harmful chemicals were still present in the soil, the UHMEC recommended that they should be included in the air quality monitoring at the boundaries of the Project and in the breathing zone of the construction workers.	As such, Petitioner maintains that there is unlikely to be an adverse effect on residents, employees, or other members of the public from residual soil contaminants. Petitioner adds that the U.S. Government will be responsible for any remediation and/or disposal of soils that may have been affected by releases of hazardous or regulated materials from the deactivated Hickam AFB fuel pipeline.
Energy Efficiency and Renewable Energy		
Leadership in Energy and Environmental Design ("LEED")	OHA: OHA recommended that the Project utilize photovoltaic and small wind harvesting electrical generation for peripheral uses such as parking lot lighting and incorporate solar energy into the building plans. During construction, OHA urged the use of recyclable materials, including steel studs and structural members and wood products from certified sustainable sources. OHA also suggested that landscaping include large trees to provide shade and cooling to buildings and parking lots. Finally, OHA inquired as to whether the Project will be compatible with section 196-6.5, HRS, which requires a solar water heater system for new single-family residential construction on or after January 1, 2010. Sierra Club: The Sierra Club echoed OHA's concerns about incorporating green building designs and energy efficient technologies into the Project.	Petitioner is assessing the extent to which LEED for Neighborhood Development strategies are incorporated into the preliminary site planning. According to Petitioner, the Project is designed to be compact, walkable-bikeable, and transit-friendly communities, with a mix of land uses that will provide jobs close to homes and include houses that are designed for a range of incomes and lifestyles. Petitioner also notes that site planning will seek to incorporate extensive landscaping with canopy trees and the use of bio-swales and bio-retention where possible. Further, water conservation will be emphasized and non-drinking water will be used if a source can be made available. With respect to the residential buildings themselves, Petitioner points out that it has long used steel framing in its residential developments and construction waste is kept to a minimum. Petitioner also intends to provide or offer homebuyers solar energy

Table 1 (cont'd)

Significant Issue	Reviewers' Concerns	Petitioner's Responses
Leadership in Energy and Environmental Design ("LEED") (cont'd)		features such as solar water heating, energy star appliances, and photovoltaic systems. Finally, Petitioner notes the following: (1) building design will consider the availability of natural day lighting to interior spaces; (2) low-emittance windows and operable windows are standard in Petitioner's homes; (3) insulation is provided for all units with air conditioning; and (4) clothes lines will be allowed in single-family developments.
Greenhouse Gas Emissions	Sierra Club: The Sierra Club requested that the cumulative impacts of the increased greenhouse gas emissions from the Project, including those resulting from its construction, be addressed, quantified, and mitigated.	Petitioner points out that the effects of a particular development on climate change cannot be specifically attributed on the Project. While scientific evidence has shown that there is a relationship between greenhouse gas emissions and climate change, Petitioner asserts that current scientific knowledge and available modeling techniques are not able to meaningfully and consistently evaluate the impacts of such emissions on climate change. Petitioner further notes that it is not technically possible to attribute a certain increase in temperature to a certain amount of greenhouse gas emissions. With respect to quantifying the greenhouse gas emissions attributable to the Project, Petitioner's position is that the impacts do not warrant quantifying the emissions as the Project is not expected to substantially impact the amount of emissions being generated at the islandwide level, and may, in fact, contribute to carbon reduction.

Table 1 (cont'd)

Significant Issue	Reviewers' Concerns	Petitioner's Responses
Greenhouse Gas Emissions (cont'd)		In any event, Petitioner is considering incorporating design features and principles in the areas of building design and operations, site selection and design, and transportation that will minimize any greenhouse gas emissions that may be generated by Project-related activities.
Sustainable Development		
Smart Growth	Sierra Club: The Sierra Club questioned Petitioner's characterization of the Project as a smart growth development since the Sierra Club believed that many of the key features of a sustainable development were absent from its plan.	Petitioner responds that the Project will be characterized by the following smart growth principles: (1) create a range of housing opportunities and choices; (2) create walkable neighborhoods; (3) encourage community and stakeholder collaboration; (4) foster distinctive, attractive communities with a strong sense of place; (5) make development decisions predictable, fair, and cost effective; (6) mix land uses (7) preserve open space, farmland, natural beauty, and critical environmental areas; (8) provide a variety of transportation choices; (9) strengthen and direct development towards existing communities; and (10) take advantage of compact building design.
Housing		
Affordable Housing	LUC: Staff requested that additional information be provided as to what Petitioner's compliance with the City and County of Honolulu requirements for the provision of affordable housing will specifically entail insofar as the number, type, and estimated sale prices of affordable units in the Project.	According to Petitioner, at least 30% of the units (1,500 homes) will be developed as affordable. Most of these units will be in multi-family developments to meet affordability requirements. Based on the latest HUD Affordable Sales Guidelines, the maximum sales price for the 120% area median income household

Table 1 (cont'd)

Significant Issue	Reviewers' Concerns	Petitioner's Responses
Affordable Housing (cont'd)	DCS: The DCS recommended that no less than 20% of the total number of dwelling units in the Project be affordable to households with incomes not exceeding 120% of the median income for Honolulu, and an additional 10% of the total number of dwelling units be affordable to households with incomes of the median income. The DCS preferred that the unit mix include an affordable rental housing component that could be developed by a nonprofit developer or nonprofit/for profit partnership that uses existing affordable housing programs. DCS also requested that consideration be given to set aside a few house lots for the development of group homes for persons with special needs.	category for a family of four at a 6% interest rate is $311,700, although sales prices are typically set at least 10% below the maximum allowable price to allow for a large enough pool of buyers to qualify. Petitioner points out that for the 80% and below area median income category, it is likely that multi-family rental units would be provided by a nonprofit partner. Petitioner adds that to the extent that the Project is in the planning stages, there may be an opportunity to identify a few house lots throughout the Project for the development of group homes for persons with special needs.
Waiawa Ridge		
Infrastructure Coordination	UHMEC: The UHMEC noted that the drinking water systems and access roads appeared to be dependent on the construction of the Waiawa Ridge development that is located in the immediate vicinity of Koa Ridge Makai and adjacent to the Waiawa portion of the Project. WRD: WRD pointed out that coordination among the developments will be required during the planning, design, and construction of the infrastructure. In particular, WRD noted that many of the improvements identified in the EIS for the Waipio Interchange have been planned by WRD and approved in concept by the DOT to serve Waiawa Ridge without inclusion of the Project. In addition, WRD commented that certain improvements at the southeastern quadrant of the Waipio Interchange	Petitioner responds that the Project is also dependent on the completion of Waiawa Ridge's trunk sewer line and electrical system. Petitioner notes that these issues will be resolved through coordination between Petitioner and WRD prior to development of the Project. In response to WRD's comments, Petitioner points out that the improvements identified in the EIS for the Waipio Interchange were incorporated in the TIAR as "Without Project" improvements. Petitioner also notes that it is in the process of formulating a cost-sharing agreement with WRD to fund and construct Waipio Interchange improvements to mitigate the combined impacts of

Table 1 (cont'd)

Significant Issue	Reviewers' Concerns	Petitioner's Responses
Infrastructure Coordination (cont'd)	would be built on land owned by WRD and potentially impact improvements already planned by WRD.	the developments.

4. ANALYSIS

The DEIS represents the initial statement filed for public review. The FEIS, by contrast, may be distinguished from the DEIS in that it consists of the DEIS revised to incorporate, among other things, the public's comments and the responses to those comments. Table 2 below outlines the content requirements for a DEIS pursuant to section 11-200-17, HAR, and a determination by staff as to whether these requirements have been met in Petitioner's FEIS.

Table 2

DEIS Content Requirements (§11-200-17, HAR)	Meets Requirement[6]
Table of contents.	√
A summary sheet that includes a brief description of the action, significant beneficial and adverse impacts, proposed mitigation measures, alternatives considered, unresolved issues, compatibility with land use plans and policies, and listing of permits or approvals.	√
A discussion on the purpose of and need for the project.	√
A project description including a map, statement of objectives, general description of the action, use of public funds or lands, phasing and timing of action, summary technical data and diagrams, and historic perspective.	√
A discussion of alternatives, including a rigorous exploration and objective evaluation of the environmental impacts; comparative evaluation of the environmental benefits and costs of the proposed action and each alternative; and an explanation why an alternative was rejected.	√
A discussion on the environmental setting, including a local and regional perspective; environmental resources that are rare or unique; reference to related projects, public and private, existent or planned in the region; and population and growth characteristics, population and growth assumptions used to justify the action.	√
A discussion on the relationship of the proposed action to land use plans, policies, and controls, including an assessment of Petitioner's reasons to proceed with the proposed action in the case of conflict or inconsistency and a list and status of necessary approvals.	√
A discussion on the probable impact, including impacts to the natural or human environment on the project; direct and indirect effects; cumulative environmental impacts of the proposed action and other related projects; population and growth impacts of the action; and impacts to cultural practices and resources, past and current.	√

[6] A "√" indicates that a particular requirement has been met, either in the DEIS or subsequently in the FEIS.

Table 2 (cont'd)

DEIS Content Requirements (§11-200-17, HAR)	Meets Requirements
A discussion on the relationship between local short-term uses of humanity's environment and the maintenance of long-term productivity.	√
A description of irreversible and irretrievable commitment of resources.	√
A description of all probable adverse environmental effects which cannot be avoided.	√
A discussion on mitigation measures proposed to avoid, minimize, and reduce impacts, including measures to reduce impacts to insignificant levels and the basis for considering these levels acceptable.	√
A summary of unresolved issues, including a discussion of how such issues will be resolved or overriding reasons given for proceeding.	√
A list identifying all consulted parties.	√
Identification of all persons, firms, or agencies preparing the document.	√
A reproduction of all substantive comments and responses made during the consultation process.	√
Signature of Petitioner indicating that the document was prepared under the signatory's direction. (§11-200-20, HAR)	√

In addition to the above, the FEIS is required to satisfy the requirements specific to the FEIS itself pursuant to section 11-200-18, HAR. They are listed below in Table 3.

Table 3

FEIS Content Requirements (§11-200-18, HAR)	Meets Requirement
Revisions to the DEIS to incorporate substantive comments received during the consultation and review process.	√
Reproduction of all letters received containing substantive comments and, as applicable, summaries of any scoping meetings.	√
A list of persons, organizations, and public agencies commenting on the DEIS.	√
The responses of Petitioner to each substantive comment.	√
The response to comments shall include: point-by-point discussion of the validity, significance, and relevance of comments; discussion as to how each comment was evaluated and considered in planning the proposed action; verbatim changes that have been made to the DEIS; and reasons why specific comments were not accepted, and factors overriding importance warranting an override.	√
Formatting of the FEIS to easily distinguish changes made to the DEIS.	√
Signature of Petitioner indicating that the document was prepared under the signatory's direction. (§11-200-20, HAR)	√

5. SUMMARY CONCLUSIONS

Based on review of the FEIS, and as noted in Tables 2 and 3, staff believes that Petitioner has generally complied with the content requirements of an FEIS. Staff therefore recommends that the FEIS be accepted pursuant to chapter 343, HRS, and chapter 11-200, HAR.