XI. LETTER RECEIVED DURING THE DRAFT ENVIRONMENTAL ASSESSMENT REVIEW PERIOD AND RESPONSES TO SUBSTANTIVE COMMENTS

XI. LETTERS RECEIVED DURING THE DRAFT ENVIRONMENTAL ASSESSMENT REVIEW PERIOD AND RESPONSES TO SUBSTANTIVE COMMENTS

A Draft Environmental Assessment for the subject project was filed and published in the Office of the Environmental Quality Control's The Environmental Notice on March 23, 2008.

Comments on the Draft EA were received during the 30-day public comment period. Comments, as well as responses to substantive comments, are included in this chapter.

JUN 2 3 2008

DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DISTRICT, HONOLULU
FORT SHAFTER, HAWAII 96858-5440

REPLY TO
ATTENTION OF:

June 19, 2008

Regulatory Branch

File Number POH-2006-304

Rowena Dagdag
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Dagdag:

This letter responds to your March 17, 2008 request for comments regarding the Draft Environment Assessment (EA) to the proposed Kula Ridge Residential Workforce Housing Subdivision. The project site is located within TMK (2)2-3-001:174, at Latitude 20.763° N. and Longitude 156.323° W., in Kula, Island of Maui, Hawaii. It has been assigned number POH-2006-304, which should be referred to in all correspondence with us.

Based on our review of the information you provided and available to this office, we have determined the subject property area does not contain waters of the United States (U.S.) under Corps jurisdiction (see enclosure titled, Jurisdictional Determination). Therefore, a Department of the Army (DA) permit is not required. Please contact us if you decide to alter the method, scope, or location of your proposed activity.

However, we cannot determine whether a Department of the Army (DA) authorization is required for the proposed installation of the waterline in Keahuiwi Gulch, at this time. Our review of the information you furnished and available to us indicates that Keahuiwi Gulch may be waters of the United States (U.S.) under our regulatory jurisdiction. We will require additional information regarding water flow in Keahuiwi Gulch in order to make a final determination.

Section 404 of the Clean Water Act requires that a DA permit be obtained for the discharge of dredged and/or fill material into waters of the U.S., including jurisdictional wetlands (33 U.S.C. 1344). The Corps defines wetlands as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Section 10 of the Rivers and Harbors Act of 1899 requires that a DA permit be obtained for structures or work in or affecting navigable waters of the U.S. (33 U.S.C. 403). Section 10 waters are those waters subject to the ebb and flow of the tide extending shoreward to the mean high water mark.

This approved jurisdictional determination is valid for a period of five (5) years from the date of this letter, unless new information supporting a revision is provided to us before the expiration date.

Also, enclosed is a Notification of Administrative Appeal Options and Process and Request for Appeal form regarding this approved jurisdictional determination (see section labeled "Approved Jurisdictional Determination").

Nothing in this letter excuses you from compliance with other Federal, State, or local statutes, ordinances, or regulations.

You may contact Mr. Benjamin Soiseth of my staff via email at Benjamin.N.Soiseth@usace.army.mil , or by mail to Regulatory Branch (CEPOH-EC-R/B.Soiseth); U.S. Army Engineer District, Honolulu; Building 230; Fort Shafter, Hawaii 96858 or by phone at (808) 438-9258, if you have questions. For additional information about our Regulatory Program, visit our web site at http://www.poh.usace.army.mil/EC-R/EC-R.htm.

Sincerely,

George P. Young, P.E.
Chief, Regulatory Branch

Enclosures

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 19-Jun-2008

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: Honolulu District, POH-2006-00304-JD1

C. PROJECT LOCATION AND BACKGROUND INFORMATION:

State :	HI - Hawaii
County/parish/borough:	Maui
City:	Kula
Lat:	20.763
Long:	-156.323
Universal Transverse Mercator:	[ ]
Name of nearest waterbody:	Keahuaiwi Gulch
Name of nearest Traditional Navigable Water (TNW):	
Name of watershed or Hydrologic Unit Code (HUC):	

☑ Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.

☐ Check if other sites (e.g., offsite mitigation sites, disposal sites, etc¿) are associated with the action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION:

☑ Office Determination Date: 18-Jun-2008

☐ Field Determination Date (s): ☐

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION

There [ ] "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

☐ Waters subject to the ebb and flow of the tide.

☐ Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

Explain:

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There [ ] "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.
a. Indicate presence of waters of U.S. in review area:[1]

Water Name	Water Type(s) Present
Kula Ridge Residential Workforce Housing, Uplands	Uplands

b. Identify (estimate) size of waters of the U.S. in the review area:

Area: (m^2)
Linear: (m)

c. Limits (boundaries) of jurisdiction:

based on: [ ]
OHWM Elevation: (if known)

2. Non-regulated waters/wetlands:[3]

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: The proposed subdivision consists entirely of uplands.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

1.TNW
Not Applicable.

2. Wetland Adjacent to TNW
Not Applicable.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: [ ]
Drainage area: [ ]
Average annual rainfall: inches
Average annual snowfall: inches

(ii) Physical Characteristics
(a) Relationship with TNW:

☐ Tributary flows directly into TNW.
☐ Tributary flows through [ ] tributaries before entering TNW.
:Number of tributaries

Project waters are [ ] river miles from TNW.
Project waters are [ ] river miles from RPW.
Project Waters are [ ] aerial (straight) miles from TNW.
Project waters are [ ] aerial(straight) miles from RPW.

☐
Project waters cross or serve as state boundaries.
Explain:
Identify flow route to TNW:[5]

Tributary Stream Order, if known:
Not Applicable.

(b) General Tributary Characteristics:
Tributary is:
Not Applicable.

Tributary properties with respect to top of bank (estimate):
Not Applicable.

Primary tributary substrate composition:
Not Applicable.

Tributary (conditions, stability, presence, geometry, gradient):
Not Applicable.

(c) Flow:
Not Applicable.

Surface Flow is:
Not Applicable.

Subsurface Flow:
Not Applicable.

Tributary has:
Not Applicable.

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction:

High Tide Line indicated by:
Not Applicable.

Mean High Water Mark indicated by:
Not Applicable.

(iii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality;general watershed characteristics, etc.).
Not Applicable.

(iv) Biological Characteristics. Channel supports:
Not Applicable.

2. Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW

(i) Physical Characteristics:
(a) General Wetland Characteristics:
Properties:
Not Applicable.

(b) General Flow Relationship with Non-TNW:
Flow is:
Not Applicable.

Surface flow is:
Not Applicable.

Subsurface flow:
Not Applicable.

(c) Wetland Adjacency Determination with Non-TNW:
Not Applicable.

(d) Proximity (Relationship) to TNW:
Not Applicable.

(ii) Chemical Characteristics:
Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).
Not Applicable.

(iii) Biological Characteristics. Wetland supports:
Not Applicable.

3. Characteristics of all wetlands adjacent to the tributary (if any):
All wetlands being considered in the cumulative analysis:
Not Applicable.

Summarize overall biological, chemical and physical functions being performed:
Not Applicable.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Significant Nexus: Not Applicable

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/ WETLANDS ARE:

1. TNWs and Adjacent Wetlands:
Not Applicable.

2. RPWs that flow directly or indirectly into TNWs:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

3. Non-RPWs that flow directly or indirectly into TNWs:[8]
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.
Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs:
Not Applicable.

Provide acreage estimates for jurisdictional wetlands in the review area:
Not Applicable.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs:
Not Applicable.

Provide estimates for jurisdictional wetlands in the review area:
Not Applicable.

7. Impoundments of jurisdictional waters:[9]
Not Applicable.

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS:[10]
Not Applicable.

Identify water body and summarize rationale supporting determination:
Not Applicable.

Provide estimates for jurisdictional waters in the review area:
Not Applicable.

F. NON-JURISDICTIONAL WATERS. INCLUDING WETLANDS

☑
If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements:

☐
Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce:

☐
Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based soley on the "Migratory Bird Rule" (MBR):

☐
Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (Explain):

☐
Other (Explain):

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (ie., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment:
Not Applicable.

Provide acreage estimates for non-jurisdictional waters in the review area, that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction.
Not Applicable.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD
(listed items shall be included in case file and, where checked and requested, appropriately reference below):

Data Reviewed	Source Label	Source Description
--Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant	Draft Environmental Assessment	Dated March 2008
--U.S. Geological Survey map(s).	Topo Map	automated USACE eGIS
--USDA Natural Resources Conservation Service Soil Survey.	Island of Maui	-
--National wetlands inventory map(s).	Wetlands Online Mapper	wetlandsfws.er.usgs.gov
--Photographs	-	-
----Other	Satellite Imagery 2002-2004	automated USACE eGIS
----Other	Satellite Imagery 2004-2006	automated eGIS

B. ADDITIONAL COMMENTS TO SUPPORT JD:
Not Applicable.

---

[1]-Boxes checked below shall be supported by completing the appropriate sections in Section III below.
[2]-For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).
[3]-Supporting documentation is presented in Section III.F.
[4]-Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.
[5]-Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.
[6]-A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.
[7]-Ibid.
[8]-See Footnote #3.
[9] -To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
[10]-Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Munekiyo & Hiraga, Inc., Ms. Rowena Dagdag	File Number: POH 2006 304	Date: 19 June 2008

Attached is:		See Section below
	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
	PERMIT DENIAL	C
XX	APPROVED JURISDICTIONAL DETERMINATION	D
	PRELIMINARY JURISDICTIONAL DETERMINATION	E

THIS REQUEST FOR APPEAL FORM MUST BE RECEIVED BY: 18 August 2008

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at: http://usace.army.mil/inet/functions/cw/cecwo/reg or Corps regulations at 33 CFR Part 331.

A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the District Engineer. Your objections must be received by the District Engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the District Engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or, (c) not modify the permit, having determined that the permit should be issued as previously written. After evaluating your objections, the District Engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.

B: PROFFERED PERMIT: You may accept or appeal the permit

- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the District Engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer. This form must be received by the Division Engineer within 60 days of the date of this notice.

C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer. This form must be received by the Division Engineer within 60 days of the date of this notice.

D: APPROVED JURISDICTIONAL DETERMINATION (JD): You may accept or appeal the approved JD or provide new information.

- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the Division Engineer. This form must be received by the Division Engineer within 60 days of the date of this notice.

E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the Preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also, you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

In order for a Request For Appeal to be accepted by the Corps, the Corps must determine that it is complete, that it meets the criteria for appeal under 33 CFR Part 331.5, and that it has been received by the Division Office within 60 days of the date of the Notice of Appeal Process. It is not necessary to submit a Request For Appeal form to the Division office if you do not object to the decision.

POINT OF CONTACT FOR QUESTIONS OR INFORMATION:

If you have questions regarding this decision and/or the appeal process you may contact:	If you only have questions regarding the appeal process you may also contact:
Benjamin Soiseth, Regulatory Specialist Honolulu District Corps of Engineers Regulatory Branch CEPOH-EC-R Building 230 Fort Shafter, HI 96858-5440 (808) 438-2039	Commander USAED, Pacific Ocean Division ATTN: CEPOD-PDC/Linda Hihara-Endo, P.E. Building 525 Fort Shafter, HI 96858-5440 **To submit this form, mail to the address above**

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15-day notice of any site investigation, and will have the opportunity to participate in all site investigations.

	Date:	Telephone number:
Signature of appellant or agent.		

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRATA
MITSURU "MICH" HIRANO
KAROLYNN FUKUDA

MARK ALEXANDER ROY
KYLE GINOZA

July 24, 2008

George Young, P.E., Chief
Regulatory Branch
Department of the Army
U. S. Army Engineer District, Honolulu
Fort Shafter, Hawai`i 96858-5440

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at6 TMK (2)2-3-001:174

Dear Mr. Young:

Thank you for your letter dated June 19, 2008, regarding the Draft EA for the Kula Ridge Residential Workforce Housing Subdivision project located in Kula, Maui, Hawai`i. On behalf of the applicant, Kula Ridge, LLC, we offer the following in response to your letter.

The applicant acknowledges your office's determination that the subject property does not contain waters of the United States (U.S.) under the Corps jurisdiction and that a Department of the Army (DA) will not be required.

The applicant also understands that a determination for a DA authorization cannot be made at this time for the proposed installation of a waterline in Keahuaiwi Gulch. Efforts to coordinate detailed engineering studies for the proposed waterline are underway, and additional information regarding the proposed installation will be provided to your office. The applicant ensures that continued coordination with your office will be undertaken to secure the required regulatory permits for work within or affecting navigable waters of the U.S.

We appreciate the input that we received from your office. Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:lfm
cc: Clayton Nishikawa, Kula Ridge, LLC
Vanessa Medeiros, Department of Housing and Human Concerns
Stacy Otomo, Otomo Engineering, Inc.
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USDA

United States
Department of
Agriculture

Natural
Resources
Conservation
Service
210 Imi Kala
Suite 209
Wailuku, HI 96793

MAR 3 1 2008

Our People...Our Islands...In Harmony

TO: Ms. Rowena Dagdag
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Ms. Vanessa Medeiros
Department of Housing and Human Concerns
County of Maui
200 S. High St., Suite 400
Wailuku, HI 96793

DATE: March 28, 2008

FROM: James J. Ino
County Resource Planner/Acting District Conservationist

SUBJECT: Draft Environmental Assessment for Proposed Kula Ridge Residential Workforce Housing Subdivision, Kula, HI
TMK: (2) 2-3-001:174

Due to the current domestic and agricultural water limitations for Upcountry Maui, the proposed project will have an impact on current water demands.

The topography and various soil series on the proposed project site will create drainage and erosion issues.

Thank you for the opportunity to comment.

MUNEKIYO & HIRAGA, INC.

Michael T. Munekiyo
Gwen Ohashi Hiraga
Mitsuru "Mich" Hirano
Karlynn Fukuda

Mark Alexander Roy

July 24, 2008

Ranae Ganske Cerizo, Soil Conservationist
Natural Resources Conservation Service
U. S. Department of Agriculture
210 Imi Kala Street, Suite 209
Wailuku, Hawai`i 96793

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Ms. Cerizo:

Thank you for your letter dated March 28, 2008, commenting on the subject project. On behalf of the applicant, Kula Ridge, LLC, we wish to provide the following information in response to your comments in the order presented in the memorandum.

1. The applicant recognizes the current domestic and agricultural water limitations for the Makawao-Pukalani-Kula region. With this in mind, Kula Ridge, LLC will be developing a ground water well at an elevation of approximately 2,900 feet on an adjacent parcel identified by TMK (2) 2-3-001:023. Drilling and testing of the new well will be undertaken in compliance with the State Commission on Water Resource Management's requirements for well drilling and pump installation, including the preparation and submittal of required well completion reports. The new well will not impact agricultural water interests, which are currently served by surface water sources.

2. Appropriate drainage and erosion control measures will be identified during the engineering design phase of work. In this regard, Best Management Practices (BMPs) will be implemented, to provide the requisite assurances that adverse impacts to downstream and adjacent properties will not occur.

305 High Street, Suite 104 Wailuku, Hawaii 96793 ph: (808)244-2015 fax: (808)244-8729 planning@mhplanning.com www.mhplanning.com

We appreciate the input received from your office. Should you have any further questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:mge
cc: Clayton Nishikawa, Kula Ridge LLC
Vanessa Medeiros, Department of Housing and Human Concerns
Stacy Otomo, Otomo Engineering, Inc.
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APR 2 2 2008

LINDA LINGLE
GOVERNOR
THEODORE E. LIU
DIRECTOR
MARK K. ANDERSON
DEPUTY DIRECTOR
ABBEY SETH MAYER
DIRECTOR
OFFICE OF PLANNING

DEPARTMENT OF BUSINESS, ECONOMIC DEVELOPMENT & TOURISM

OFFICE OF PLANNING

235 South Beretania Street, 6th Floor, Honolulu, Hawaii 96813
Mailing Address: P.O. Box 2359, Honolulu, Hawaii 96804

Telephone: (808) 587 2846
Fax: (808) 587 2824

Ref. No. P-12094

April 21, 2008

Ms. Vanessa Medeiros
Department of Housing and Human Concerns
County of Maui
200 South High Street, Suite 400
Wailuku, Hawaii 96793-2155

Dear Ms. Medeiros:

Subject: Proposed Kula Ridge Residential Workforce Housing Subdivision
Draft Environmental Assessment (EA)
TMK: (2) 2-3-001:174 (48.12 acres)
Kula, Maui, Hawaii

Thank you for the opportunity to submit comments on the draft EA for the above referenced proposal to reclassify approximately 31.87 acres of land from the State Agricultural District to the State Urban District and 16.25 acres of land from the State Agricultural District to State Rural District in Kula, Maui, Hawaii. The subject project proposes the development of approximately one hundred-sixteen (116) improved residential lots with approximately 70 lots set aside for workforce housing or affordable house-lot packages. The subject property is 48.12 acres with 9.25 acres for affordable housing units, 27.37 acres for market-priced residential lots, and the remaining 11.5 acres for road networks, park, and open space.

We offer the following comments and general observations related to topic areas of interest to the State:

1. **Transportation.** The final EA should include a map showing the project with respect to roadway improvements so the reader can understand the relationship of this project to the larger regional transportation network. This section should include information on alternative modes of transportation that could serve the project and project residents, including the public bus system, bike paths incorporated in regional transportation plans, and any identified trail networks.

2. **Drainage.** The final EA should include a discussion of the phases of construction in order to reduce the impact of erosion and drainage concerns. The final EA

should also include a discussion of low impact development techniques that can be incorporated into the building and site design to improve stormwater management. The Hawaii Coastal Zone Management Program's publication, *Low Impact Development: A Practitioner's Guide* (2006), provides examples of design techniques that offer alternatives to conventional drainage plans.

3. **Other comments.**

a. Page 34, Flora and Fauna: The final EA should provide mitigation measures in response to the U.S. Fish and Wildlife Service comment letter of August 2006, stating that two federally endangered species, nene (*Branta sandvicensis*) and Hawaiian hoary bat (*Lasiurus cinereus semotus*), occur near the proposed project site.

b. Page 37, Archaeological Resources: The final EA should include a discussion of the archaeological monitoring plan requiring review and acceptance by the State Department of Land and Natural Resources, Historic Preservation Division.

c. Page 51, Solid Waste Disposal: The final EA should include a discussion of the project's mitigation measures to reduce, reuse, or recycle solid waste transported to the County landfill facilities.

d. Page 57, Water: The final EA should further discuss non-potable water sources for the project, and plans to promote water conservation, including, if applicable, the use of recycled or irrigation water for landscaping and other non-domestic uses. The final EA should also include a discussion on utilization of low-flow plumbing fixtures and devices in an effort to conserve water and reduce the generation of wastewater.

e. Page 60, Wastewater: Since the potential to pollute and contaminate ground waters is increased with the proposed one hundred-sixteen (116) individual wastewater systems, the final EA should include a discussion of maintenance and mitigation measures.

f. Page 62, *Electrical, Telephone, and Cable Television Services*: The final EA should incorporate the statements made in the Maui Electric Company (MECO) comment letter of August 2006, which identify the requirement of an electrical line extension and the potential of other upgrades necessary to accommodate the project. This section should also include MECO's

request to explore demand side management measures to reduce energy demand generated by the project, and should identify some of the measures for energy conservation and efficiency opportunities for this project.

g. The final EA should incorporate a determination from the U.S. Department of the Army (DA) on the requirement of a DA permit. As stated in the DA comment letter of August 2006, a conclusive determination of a DA permit requirement was not made. Additional information was requested to issue a jurisdiction determination by the DA.

Finally, the Office recommends using the final EA process as a means to incorporate and use sustainable design and development practices in the proposed project. The State Office of Environmental Quality Control's, *Guidelines for Sustainable Building Design in Hawai`i*, and the US Green Building Council's Leadership in Energy and Environmental Design (LEED) programs for new construction and its pilot program for neighborhood development, offer guidelines and checklists for this purpose. The adoption of sustainable building and development practices has long-term environmental, social, and economic benefits to Hawaii's residents and communities.

Thank you again for the opportunity to review the draft EA and offer comments. The Office of Planning looks forward to receiving the Petitioner's final EA. If you have any questions, please call Debra Mendes in the Land Use Division at 587-2840.

Sincerely,

Abbey Seth Mayer
Director

c: ✓Ms. Rowena Dagdag, Munekiyo & Hiraga, Inc.
Mr. Rodney Maile, State Land Use Commission
Ms. Katherine Kealoha, OEQC

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MEYSONE "MEI-EI" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY
NYLL GINEZA

July 24, 2008

Abbey Seth Mayer
Planning Program Administrator
State of Hawai`i
Department of Business, Economic Development & Tourism
P. O. Box 2359
Honolulu, Hawai`i 96804

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Mr. Seth Mayer:

We are writing to you on behalf of the applicant, Kula RidgeLLC, to thank you for your letter dated April 21, 2008, regarding the Draft EA for the Kula Ridge Residential Workforce Housing Subdivision project located in Kula, Maui, Hawai`i.

We offer the following comments, in response to your remarks:

1. Section II.D.1. Roadways of the Final EA will be revised as follows to address other modes of transportation which may be appropriate in the context of the proposed action.

   The applicant will ensure that all proposed roadway development and improvements are in accordance with the Hawai`i Revised Statutes, Maui County Code, and other applicable rules and regulations. (Figure 1 of the TIAR provides a regional roadway context for the proposed project.) This includes the Hawai`i Standard Specifications for Road and Bridge Construction dated 2005, the Standard Details for Public Works Construction, 1984, as amended, and the Manual on Uniform Traffic Control Devices for Streets and Highways, 2003.

   The TIAR recommends mitigation measures and improvements to be implemented for the project. These are outlined above and on page 22 of the TIAR. Agreement on the mitigation measures and improvements to be implemented by the applicant will be determined with the DOT Highways Division. This would occur as part of the applicant's engineering design process and the preparation of specific onsite and offsite roadway and

intersection improvement plans. DOT approval will be required prior to finalizing plans and undertaking these roadway and intersection improvements.

The Department of Public Works and the DOT Highways Division will be given the opportunity to review and approve roadway construction plans to ensure that applicable regulations are satisfied.

The project presents an opportunity to promote non-automobile travel for recreational and household pursuits. Accommodations to support public bus transportation services may be provided in the area to facilitate an alternative travel mode. This effort will be coordinated with the County Department of Transportation.

A network of bicycle paths and walking trails within the neighborhood is anticipated to promote recreational activity and in line with the proposed concepts envisioned in the Upcountry Greenway Master Plan.

In this regard, as the project site is located within the Upcountry Greenway Master Plan Region, opportunities for a walking trail or path may be within an existing right-of-way or may be placed adjacent to the existing roadway on private lands. This type of section has the flexibility to accommodate pedestrians, bicyclists, and horseback riders. The applicant intends to incorporate recommendations from the Upcountry Greenway Master Plan and will work with the County's Department of Public Works to identify opportunities and constraints in implementing a recreational loop trail along the perimeter of the project area.

2. Greater detail of the phases of construction will be developed as the project progresses through engineering design. The following will be added to Section II.D.4 Drainage System of the Final EA

The applicant will ensure that runoff from driveways will be directed to nearby landscaped areas and detention basins to minimize drainage-related impacts resulting from project implementation. Also, native plants which require less water will be sought for the landscaped areas within the project.

Further, appropriate mitigation measures will be developed in consultation with the applicable governmental agencies during the design process. During Construction, the contractor will implement applicable Best Management Practices (BMPs) for erosion and sedimentation control.

- **Construction of detention basins to capture sedimentation to minimize the quantity of sediment leaving the site**
- **Staging of construction**
- **Protecting of natural vegetation**
- **Stockpiling topsoil, and covering or stabilizing of the soil stockpiles**
- **Using wind erosion control**
- **Intercepting runoff above disturbed slopes**
- **Constructing of benches, terraces, or ditches at regular intervals to intercept runoff on long or man-made slopes**
- **Providing linings or other method to prevent erosion of storm channels**
- **Using seeding and fertilizing or other soil erosion control**
- **Providing vehicle wheel wash-down facilities**
- **Using stabilized construction entrances**
- **Using vegetated filter strips**

The foregoing BMP's will be implemented at appropriate stages of construction to ensure optimal management of stormwater.

3. Regarding the other comments, see below.

   a. The following information will be included in Section II.A.6. Flora and Fauna of the Final EA.

      The Fauna Survey Report indicated that a special effort was made to look for the native Hawaiian hoary bat. Evening surveys of the property were conducted to observe any presence of the species. No evidence of activity by the bat was observed.

      In addition, no endangered nene or Hawaiian goose were seen on the property or in the vicinity of the property. The project area provides a habitat not suitable for these birds. They prefer lush green grass such as is found in irrigated lawns and golf courses.

   b. The Final EA will include a discussion of the archaeological monitoring plan requiring review and acceptance by the State Historic Preservation Division. Specifically, the following language will be included in Section II.A.7. Archaeological and Historical Resources of the Final EA.

      The applicant's archaeology consultant has prepared an archaeological monitoring plan an has submitted the plan to the State Historic Preservation Division (SHPD) for review and approval. Should any archaeological remains or cultural materials be encountered during

construction and excavation activities, work in the vicinity of the find will be stopped and the SHPD will be contacted to establish appropriate mitigation measures in accordance with Chapter 6E, Hawaii Revised Statutes.

c. The following information will be included in Section II.C.4 Solid Waste Disposal of the Final EA

A solid waste management plan will be developed for the disposal or recycle of materials resulting from the site and construction activities, as appropriate. The plan will incorporate strategies for effective construction waste management to reduce, reuse, and recycle solid waste materials. Such strategies involve the use of efficient design to promote waste reduction, salvaging of material to be used by other businesses or local organizations, and separating recyclable and non-recyclable materials for proper recycling and disposal. All materials deemed unfit for reuse/recycling will be dispose at an approved construction waste disposal site.

d. The following information will be included in Section III.D.2 Water of the Final EA.

The applicant will also utilize the private water source proposed to be developed for non-potable and potable water needs. Water conservation plans will be pursued further during the design phase of the project.

Plumbing fixtures will be installed in accordance with Maui County Code Section 16.20a.680, which requires the utilization of low-flow fixtures and devices in an effort to conserve water. The applicant will advise owners to maintain fixtures and devices to minimize leakage.

The Commission on Water Resources Management (CWRM) requested that the project be included in the County's Water Use and Development Plan. The applicant has been coordinating with the DWS to address water use and development parameters.

e. The following information will be included in Section II.D.3Wastewater of the Final EA.

Each (IWS) unit will be required to have an operation and maintenance (O&M) program to ensure optimal performance. This O&M program will

be written into each deed and will require that an annual report of its quality be sent to the Department of Health. The IWS in the Kula Ridge Subdivision will be maintained by Best Industries USA, Inc. The maintenance program will involve scheduled service inspections and a basic maintenance visit completed at least once a year for each IWS. A maintenance inspection notice will be provided for every homeowner. This notice will list recommendations and comments for maintaining the IWS.

f. Comments provided by Maui Electric Company will be included in Section II.D.5. Electrical, Telephone, and Cable Television Services of the Final EA as follows.

It is noted that Maui Electric Company will require an electrical line extension, access, and electrical easements in order to provide service to the project.

In addition, energy conservation measures will be considered as part of the project design phase of development and further coordination with Maui Electric Company will occur at that time. As a result, the applicant will consider implementation of the following demand side management measures, where applicable, to conserve natural resources and to promote energy efficiency.

- **Site buildings to take advantage of natural features and maximize their beneficial effects by providing for solar access, daylighting, and natural cooling.**
- **Design south, east, and west shading devices to minimize solar heat gain.**
- **Consolidate utility and infrastructure in common corridors to minimize site degradation and cost, improve efficiency, and reduce impermeable surfaces.**

g. Comments provided by the United States Department of the Army will be included in Section IV. K. Department of the Army Permit and Other Regulatory Approvals of the Final EA as follows.

As noted in the U.S. Department of Army's letter of June 19, 2008, a DA permit is not required for the subject property within TMK (2) 2-3-001:174. The DA determined that the subject property area does not contain waters of the United States under Corps jurisdiction. The DA further noted that additional information regarding water flow in the

Keahuaiwi Gulch (TMK (2) 2-3-001:023) is needed in order to make a determination of the need for a DA permit. The applicant will coordinate with the DA on the issuance of such determination when final plans for the installation of the waterline crossing the gulch is made available.

4. The applicant intends to utilize OEQC's Guidelines for Sustainable Building Design in Hawai`i and the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) programs for new construction and neighborhood development to incorporate and implement sustainable design and development practices. The following will be added in Section V. Summary of Unavoidable Impacts and Commitment of Resources of the Final EA.

To minimize potential adverse impacts to natural resources in building design, the Office of Environmental Quality Control's publication entitled "Guidelines for Sustainable Building Design in Hawai`i" has been reviewed. As a result, the following measures to conserve natural resources and to promote energy efficiency will be undertaken, where appropriate, in the planning, design, construction, and operation of the project.

- **Site buildings to take advantage of natural features and maximize their beneficial effects by providing for solar access, daylighting, and natural cooling.**
- **Design south, east, and west shading devices to minimize solar heat gain.**
- **Locate buildings to encourage bicycle and pedestrian access and pedestrian oriented uses.**
- **Consolidate utility and infrastructure in common corridors to minimize site degradation and cost, improve efficiency, and reduce impermeable surfaces.**
- **Design space for recycling and waste diversion opportunities during occupancy.**

We appreciate the input we received from your office. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:mge
cc: Clayton Nishikawa, Kula Ridge LLC
Stacy Otomo, Otomo Engineering, Inc.
Harold Nagato, Best Industries USA, Inc.
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APR 2 2 2008

LINDA LINGLE
GOVERNOR

PATRICIA HAMAMOTO
SUPERINTENDENT

STATE OF HAWAI'I

DEPARTMENT OF EDUCATION

P.O. BOX 2360

HONOLULU, HAWAI'I 96804

OFFICE OF THE SUPERINTENDENT

April 21, 2008

Ms. Vanessa Medeiros
County of Maui
Department of Housing and Human Concerns
200 South High Street, Suite 400
Wailuku, Hawaii 96793-2155

Dear Ms. Medeiros:

Subject: Draft Environmental Assessment (DEA) for Proposed Kula Ridge Residential Workforce Housing Subdivision, Kula, Maui, TMK: (2) 2-3-001:174

The Department of Education (DOE) has reviewed the DEA for the proposed Kula Ridge Residential Workforce Housing Subdivision. We have the following comments:

Please update your figures to reflect the following 2007 update of capacity and projected enrollments at DOE schools. Our capacity and future projection numbers have changed since the data last provided to you.

	ACTUAL ENROLLMENT	CAPACITY	PROJECTED ENROLLMENT				
	2007-2008	2006 -2007	2008-09	2009-10	2010-11	2011-12	2012-13
Kula Elementary	455	588	421	414	408	405	401
Kalama Intermediate	894	1118	881	877	873	871	868
Kekaulike High	1354	1288	1262	1197	1158	1143	1117

The 2007 Legislature passed a bill establishing school impact fees. The bill became Act 245 and is in the process of being implemented. We currently do not know whether this area will be in an impact district or the amount of the fee per residential unit. If the project falls within an impact district, the DOE will meet with the developers of the project to discuss an agreement to mitigate the impacts of enrollment growth generated by this project.

Thank you for the opportunity to review this document. If you have any questions, please call George Casen of our Facilities Development Branch at (808) 377-8308.

Very truly yours,

Patricia Hamamoto
Superintendent

PH:jmb

c: Randolph Moore, Assistant Superintendent, OSFSS
Duane Kashiwai, Public Works Administrator, FDB
Bruce Anderson, CAS, Baldwin/King Kekaulike/Maui High Complex Areas
√Rowena Dagdag, Munekiyo & Hiraga, Inc.

MUNEKIYO & HIRAGA, INC.

Michael T. Munekiyo
Gwen Ohashi Hiraga
Mitsuru "Mich" Hirano
Karlynn Fukuda

Mark Alexander Roy
Kyle Ginoza

July 24, 2008

Patricia Hamamoto, Superintendent
Department of Education
P. O. Box 2360
Honolulu, Hawaii 96804

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Ms. Hamamoto:

Thank you for your letter dated March 28, 2008, commenting on the subject project. On behalf of the applicant, Kula Ridge, LLC, we wish to provide the following information in response to your comments.

1. Thank you for providing the updated future projections for enrollments at Department of Education schools in the project's region. We will include the revised data in the applicable table and discussion in the Final EA.

2. The applicant acknowledges that the 2007 Legislature passed a bill establishing school impact fees. The applicant will work with the Department of Education in formulating an appropriate fair-share agreement for the subject project.

We appreciate the input received from your office. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:yp
cc: Clayton Nishikawa, Kula Ridge LLC
Vanessa Medeiros, Department of Housing and Human Concerns
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environment
planning

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhplanning.com · www.mhplanning.com

APR 0 8 2008

LINDA LINGLE
GOVERNOR OF HAWAII

CHIYOME L. FUKINO, M. D.
DIRECTOR OF HEALTH

LORRIN W. PANG, M. D., M. P. H
DISTRICT HEALTH OFFICER

STATE OF HAWAII
DEPARTMENT OF HEALTH
MAUI DISTRICT HEALTH OFFICE
54 HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2102

April 7, 2008

Ms. Vanessa Medeiros
County of Maui
Department of Housing and Human Concerns
200 South High Street, Suite 400
Wailuku, Hawai`i 96793-2155

Dear Ms. Medeiros:

Subject: **Draft Environmental Assessment and Preliminary Section 201H-38, Hawaii Revised Statutes, Application for Proposed Kula Ridge Residential Workforce Housing Subdivision, TMK: (2) 2-3-001:174**

Thank you for the opportunity to comment on the Draft Environmental Assessment and Preliminary Section 201H for the proposed Kula Ridge Residential Workforce Housing Subdivision. Comments from this office were submitted during the early consultation process. We have no further comments.

Should you have any questions, please call me at 808 984-8230.

Sincerely,

Herbert S. Matsubayashi
District Environmental Health Program Chief

c: Rowena Dagdag

MUNEKIYO HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KAREN S. FUKUDA

MARK ALEXANDER ROY
KYLE GINOZA

July 24, 2008

Herbert Matsubayashi
District Environmental Health
Program Chief
State of Hawai`i
Department of Health
54 High Street
Wailuku, Hawai`i 96793

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Mr. Matsubayashi:

We are writing to you on behalf of the applicant, Kula Ridge LLC, to thank you for your letter dated April 7, 2008, regarding the Draft EA for the Kula Ridge Residential Project located in Kula, Maui, Hawai`i.

We appreciate the input we received from your office.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:lh
cc: Clayton Nishikawa, Kula Ridge LLC
Vanessa Medeiros, Department of Housing and Human Concerns
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APR 2 2 2008

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

April 18, 2008

County of Maui
Department of Housing & Human Concerns
200 South High Street Suite 400
Wailuku, Hawaii 96793-2155

Attention: Ms. Vanessa Medeiros

Gentlemen:

Subject: Draft Environmental Assessment for proposed Kula Ridge Residential Workforce Housing Subdivision, Kula, Maui, Tax Map Key: (2) 2-3-1:174

Thank you for the opportunity to review and comment on the subject matter. The Department of Land and Natural Resources' (DLNR) Land Division distributed or made available a copy of your report pertaining to the subject matter to DLNR Divisions for their review and comment.

Other than the comments from Engineering Division, Commission on Water Resource Management, Division of Forestry & Wildlife, the Department of Land and Natural Resources has no other comments to offer on the subject matter. Should you have any questions, please feel free to call our office at 587-0433. Thank you.

Sincerely,

Morris M. Atta
Administrator

Cc: Munekiyo & Hiraga, Inc.

LINDA LINGLE
GOVERNOR OF HAWAII

'08 MAR 24 P1:02 ENGINEERING

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 20, 2008

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
_Div. of ~~Boating & Ocean~~ Recreation
x Engineering Division
x Div. of ~~Forestry~~ & Wildlife
__Div. of State Parks
x Commission on Water Resource Management
__Office of Conservation & Coastal Lands
__Land Division – District

FROM: Morris M. Atta
SUBJECT: Draft Environmental Assessment for Proposed Kula Ridge Residential Workforce Housing Subdivision
LOCATION: Kula, Maui, TMK: (2) 2-3-1:174
APPLICANT: Munekiyo & Hiraga, Inc. on behalf Kula Ridge, LLC

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by April 15, 2008.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
(✓) Comments are attached.

Signed:
Date: 4/1/08

DEPARTMENT OF LAND AND NATURAL RESOURCES
ENGINEERING DIVISION

LD/Morris Atta
Ref.: DEA for Proposed Kula Ridge Residential Workforce Housing Subdivision
Maui.002

COMMENTS

(X) **We confirm that the project site, according to the Flood Insurance Rate Map (FIRM), is located in Zone C. The National Flood Insurance Program does not have any regulations for developments within Zone C.**

( ) Please take note that the project site, according to the Flood Insurance Rate Map (FIRM), is also located in Zone ____.

( ) Please note that the correct Flood Zone Designation for the project site according to the Flood Insurance Rate Map (FIRM) is ___.

( ) Please note that the project must comply with the rules and regulations of the National Flood Insurance Program (NFIP) presented in Title 44 of the Code of Federal Regulations (44CFR), whenever development within a Special Flood Hazard Area is undertaken. If there are any questions, please contact the State NFIP Coordinator, Ms. Carol Tyau-Beam, of the Department of Land and Natural Resources, Engineering Division at (808) 587-0267.

Please be advised that 44CFR indicates the minimum standards set forth by the NFIP. Your Community's local flood ordinance may prove to be more restrictive and thus take precedence over the minimum NFIP standards. If there are questions regarding the local flood ordinances, please contact the applicable County NFIP Coordinators below:

( ) Mr. Robert Sumimoto at (808) 523-4254 or Mr. Mario Siu Li at (808) 523-4247 of the City and County of Honolulu, Department of Planning and Permitting.

( ) Mr. Kelly Gomes at (808) 961-8327 (Hilo) or Mr. Kiran Emler at (808) 327-3530 (Kona) of the County of Hawaii, Department of Public Works.

( ) Mr. Francis Cerizo at (808) 270-7771 of the County of Maui, Department of Planning.

( ) Mr. Mario Antonio at (808) 241-6620 of the County of Kauai, Department of Public Works.

( ) The applicant should include project water demands and infrastructure required to meet water demands. Please note that the implementation of any State-sponsored projects requiring water service from the Honolulu Board of Water Supply system must first obtain water allocation credits from the Engineering Division before it can receive a building permit and/or water meter.

( ) The applicant should provide the water demands and calculations to the Engineering Division so it can be included in the State Water Projects Plan Update.

( ) Additional Comments: _____

_____

( ) Other: _____

Should you have any questions, please call Mr. Dennis Imada of the Planning Branch at 587-0257.

Signed: _____
ERIC T. HIRANO, CHIEF ENGINEER

Date: 4/1/08

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 20, 2008

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
_Div. of Boating & Ocean Recreation
~~x Engineering Division~~
x Div. of Forestry & Wildlife
~~Div. of State Parks~~
x Commission on Water Resource Management
__Office of Conservation & Coastal Lands
__Land Division – District

FROM: Morris M. Atta
SUBJECT: Draft Environmental Assessment for Proposed Kula Ridge Residential Workforce Housing Subdivision
LOCATION: Kula, Maui, TMK: (2) 2-3-1:174
APPLICANT: Munekiyo & Hiraga, Inc. on behalf Kula Ridge, LLC

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by April 15, 2008.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

(X) We have no objections.
( ) We have no comments.
( ) Comments are attached.

Signed: _____
Date: PAUL J. CONRY, ADMINISTRATOR
for DIVISION OF FORESTRY AND WILDLIFE

MAR 27 2008

LINDA LINGLE
GOVERNOR OF HAWAII

LAURA H. THIELEN
CHAIRPERSON
BOARD OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
LAND DIVISION

POST OFFICE BOX 621
HONOLULU, HAWAII 96809

March 20, 2008

MEMORANDUM

TO: **DLNR Agencies:**
x Div. of Aquatic Resources
_Div. of Boating & Ocean Recreation
_x Engineering Division
x Div. of Forestry & Wildlife
~~Div. of State Parks~~
x Commission on Water Resource Management
~~Office of Conservation~~ & Coastal Lands
Land Division – District

FROM: Morris M. Atta
SUBJECT: Draft Environmental Assessment for Proposed Kula Ridge Residential Workforce Housing Subdivision
LOCATION: Kula, Maui, TMK: (2) 2-3-1:174
APPLICANT: Munekiyo & Hiraga, Inc. on behalf Kula Ridge, LLC

RECEIVED
08 MAR 24 A 8:52

Transmitted for your review and comment on the above referenced document. We would appreciate your comments on this document. Please submit any comments by April 15, 2008.

If no response is received by this date, we will assume your agency has no comments. If you have any questions about this request, please contact my office at 587-0433. Thank you.

Attachments

( ) We have no objections.
( ) We have no comments.
( ) Comments are attached.

Signed: _____
Date: _____

STATE OF HAWAII
DEPARTMENT OF LAND AND NATURAL RESOURCES
COMMISSION ON WATER RESOURCE MANAGEMENT
P.O. BOX 621
HONOLULU, HAWAII 96809

April 8, 2008

REF: Kula Ridge Workforce Housing.dr

RECEIVED
2008 APR 10 A 11:11
LAND DIVISION

TO: Morris Atta, Acting Administrator
Land Division

FROM: Ken C. Kawahara, P.E., Deputy Director
Commission on Water Resource Management

SUBJECT: Kula Ridge Workforce Housing

FILE NO.: TMK: (2) 2-3-1:174

Thank you for the opportunity to review the subject document. The Commission on Water Resource Management (CWRM) is the agency responsible for administering the State Water Code (Code). Under the Code, all waters of the State are held in trust for the benefit of the citizens of the State, therefore, all water use is subject to legally protected water rights. CWRM strongly promotes the efficient use of Hawaii's water resources through conservation measures and appropriate resource management. For more information, please refer to the State Water Code, Chapter 174C, Hawaii Revised Statutes, and Hawaii Administrative Rules, Chapters 13-167 to 13-171. These documents are available via the Internet at *http://www.hawaii.gov/dlnr/cwrm*.

Our comments related to water resources are checked off below.

☒ 1. We recommend coordination with the county to incorporate this project into the county's Water Use and Development Plan. Please contact the respective Planning Department and/or Department of Water Supply for further information.

☐ 2. We recommend coordination with the Engineering Division of the State Department of Land and Natural Resources to incorporate this project into the State Water Projects Plan.

☐ 3. There may be the potential for ground or surface water degradation/contamination and recommend that approvals for this project be conditioned upon a review by the State Department of Health and the developer's acceptance of any resulting requirements related to water quality.

Permits required by CWRM: Additional information and forms are available at *www.hawaii.gov/dlnr/cwrm/forms.htm*.

☐ 4. The proposed water supply source for the project is located in a designated ground-water management area, and a Water Use Permit is required prior to use of ground water.

☐ 5. A Well Construction Permit(s) is (are) required before the commencement of any well construction work.

☐ 6. A Pump Installation Permit(s) is (are) required before ground water is developed as a source of supply for the project.

☐ 7. There is (are) well(s) located on or adjacent to this project. If wells are not planned to be used and will be affected by any new construction, they must be properly abandoned and sealed. A permit for well abandonment must be obtained.

☐ 8. Ground-water withdrawals from this project may affect streamflows, which may require an instream flow standard amendment.

☐ 9. A Stream Channel Alteration Permit(s) is (are) required before any alteration can be made to the bed and/or banks of a stream channel.

☐ 10. A Stream Diversion Works Permit(s) is (are) required before any stream diversion works is constructed or altered.

☐ 11. A Petition to Amend the Interim Instream Flow Standard is required for any new or expanded diversion(s) of surface water.

☐ 12. The planned source of water for this project has not been identified in this report. Therefore, we cannot determine what permits or petitions are required from our office, or whether there are potential impacts to water resources.

☐ 13. We recommend that the report identify feasible alternative non-potable water resources, including reclaimed wastewater.

☒ OTHER:

The projected demand of 83,200 gpd appears to meet County standards for water supply of 137 lots. As the document notes, the area is currently served by limited supplies drawn from surface sources and treated to potable standards. Use of surface sources is subject to a petition to amend instream flow standards, part of the East Maui complex of stream diversions from State lands. Also noted is the proposed Kula Ridge Well (Well No. 4519-01), which has been tentatively approved and ready to be issued permits upon selection of a licensed contractor in good standing. It is one of the highest elevation wells proposed in the State (3000 ft, msl), the highest elevation on Maui, and thus relatively expensive for regular pumping.

If there are any questions, please contact Charley Ice at 587-0251.

Cl:ss

MUNEKIYO HIRAGA, INC.

July 24, 2008

Laura Theilen
Department of Land and Natural Resources
Land Division
P.O. Box 621
Honolulu, Hawai`i 96809

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Ms. Thielen:

We are writing to you on behalf of the applicant, Kula Ridge LLC, to thank you for your letter dated April 18, 2008, regarding the Draft EA for the Kula Ridge Residential Workforce Housing Subdivision project located in Kula, Maui, Hawai`i.

In response to comments relating to water resources, we would like to note that the applicant has been in consultation with the Department of Water Supply concerning the development of a reliable water source. The applicant will continue to pursue the development of an off-site water source to service the proposed subdivision. Continued coordination with the Department of Water Supply will be carried out to ensure that water source is adequately and appropriately addressed for the project.

As described in the Draft Environmental Assessment (EA), the applicant will be developing a ground water well at an elevation of approximately 2,900 feet on an adjacent parcel identified by TMK (2) 2-3-001:023. Drilling and testing of the new well will be undertaken in compliance with the State Commission on Water Resource Management's requirements for well drilling and pump installation, including the preparation and submittal of required well completion reports.

environment planning

305 High Street, Suite 104 · Wailuku, Hawaii 96793 · ph: (808)244-2015 · fax: (808)244-8729 · planning@mhplanning.com · www.mhplanning.com

We appreciate the input that we received from your office. Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:mge
cc: Clayton Nishikawa, Kula Ridge LLC
Vanessa Medeiros, Department of Housing and Human Concerns
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MAY 0 8 2008

PHONE (808) 594-1888

FAX (808) 594-1865

STATE OF HAWAI'I
OFFICE OF HAWAIIAN AFFAIRS
711 KAPI'OLANI BOULEVARD, SUITE 500
HONOLULU, HAWAI'I 96813

HRD08/2580B

May 2, 2008

Vanessa Medeiros
County of Maui
200 South High Street, Suite 400
Wailuku, HI 96793-2155

RE: Request for comments on the Draft Environmental Assessment for the Kula Ridge Residential Workforce Housing Subdivision, Kula, Maui, TMK: (2) 2-3-001: 174.

Aloha e Vanessa Medeiros,

The Office of Hawaiian Affairs (OHA) is in receipt of the above-mentioned request for comments dated March 17, 2008. Kula Ridge LLC is proposing to develop a 116-lot subdivision on 48.12 acres on the southwestern flank of Haleakalā. Seventy units will be set aside as workforce or affordable housing. OHA has reviewed the project and offers the following comments.

The applicant plans on requesting the reclassification of 31.87 acres of the project site from the Agricultural District to the Urban District. The remaining 16.25 acres of the project is proposed to be reclassified from the Agricultural District to the Rural District. As a general rule, OHA disapproves of any land reclassification that would result in the reduction of urban development protections afforded to a property. OHA would only approve of such land reclassifications in special cases in which the increased development is merited. We believe that agricultural lands and their status as such should be preserved, as their purpose fulfills a crucial need of the Native Hawaiian community and the state as a whole, as well as being constitutionally protected. (Hawai'i State Constitution, Article XI, section 3.)

We have questions about the affordable and workforce housing elements of this project. According to the EA, it appears that the adjacent and separate Kula Ridge Mauka Subdivision has no workforce housing, thereby not satisfying Maui County's Residential Workforce Housing Policy requirements. Instead, an agreement has been struck between the Kula Mauka subdivision and this Kula Ridge subdivision, which allows the Kula Mauka subdivision's

workforce housing to be located in the Kula Ridge subdivision. We question whether this is appropriate and if this arrangement actually fulfills the County's workforce housing requirements.

We will rely on the applicant's assurances that should iwi kūpuna or Native Hawaiian cultural or traditional deposits be found during the construction of the project, work will cease, and the appropriate agencies will be contacted pursuant to applicable law. Moreover, we request the applicant to develop and submit an archaeological monitoring plan to the State Historic Preservation Division, as requested by the agency in its February 27, 2007, letter to the applicant. We also request to review this monitoring plan when it is available. In addition, we ask that the scope of the Cultural Impact Assessment be broadened to include the examination of the project's impact on Native Hawaiian, constitutionally-protected traditional and customary rights and practices that occur within or near the project site. To this end, we recommend the applicant interview Native Hawaiians with cultural knowledge about the Kula area. We suggest the applicant contact Thelma Shimaoka from OHA's Maui office for a list of such culturally knowledgeable Native Hawaiians. She can be reached at 808-873-3364.

In addition, OHA recommends that the applicant use native vegetation, particularly the 11 native species found on the project site, in its landscaping plan for the subdivision. Landscaping with native plants furthers the traditional Hawaiian concept of mālama 'āina and creates a more Hawaiian sense of place.

Thank you for the opportunity to comment. If you have further questions, please contact Sterling Wong (808) 594-0248 or e-mail him at sterlingw@oha.org.

'O wau iho nō me ka 'oia'i'o,

Clyde W. Nāmu'o
Administrator

C: Rowena Dagdag
Munekiyo & Hiraga Inc.
305 High Street, Suite 104
Wailuku, HI 96793

OHA Maui CRC Office

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KAREN S. FURUDA

MARK ALEXANDER ROY
KYLE GINOZA

July 24, 2008

Clyde Namu`o, Administrator
State of Hawaii
Office of Hawaiian Affairs
711 Kapi`olani Boulevard, Suite 500
Honolulu, Hawai`i 96813

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Mr. Namu`o:

We are writing to you on behalf of the applicant, Kula Ridge LLC, to thank you for your letter dated May 2, 2008, regarding the Draft EA for the Kula Ridge Residential Workforce Housing Subdivision project located in Kula, Maui, Hawai`i.

We offer the following comments in response to your remarks:

1. We note your office's concern regarding the preservation of agricultural lands. The project area, as reflected by the Agricultural Lands of Importance in the State of Hawaii (ALISH) map, is comprised of lands that have been defined as "Other" agricultural lands. Portions of the project site are contiguous to lands within the agricultural district, however, there are a number of factors which limit the feasibility of the project site for active agricultural use. Approximately 16 acres or 33 percent of the project area are suitable for growing high-elevation crops. These lands comprise of a portion of the project site planned to be available for agricultural uses that include farming and grazing operations. The remainder of the site contains soils with low productivity ratings.

   When evaluated based on the housing shortage that exists on Maui, coupled with the scarcity of entitled, undeveloped residential lands in Upcountry Maui, the conversion of the project's agricultural lands into residential development presents a beneficial opportunity. The expansion of the urban district boundary in Upcountry Maui will allow for residential use and supply additional housing units at a site deemed less optimal for long-term agricultural use.

2. We acknowledge your office's comments regarding the Maui Residential Workforce Housing Policy (MRWHP), Maui County Code Section 2.96. The MRWHP sets

forth requirements for the provision of housing units for a defined set of income brackets, including individuals and families earning between 80 percent and 160 percent of median household income. As required under the MRWHP, a minimum of 50 percent of the project's units must be provided for households within this income range.

In total, the project involves the development of approximately 116 improved lots with approximately 70 lots set aside for workforce housing. The Kula Ridge Residential Workforce Housing Project will provide 59 (51%) workforce housing units for the project's proposed 116 lots, meeting the affordablilty criteria for Section 201H-38 projects.

With regard to requirements to the MRWHP, MCC Section 2.96b.1 States that

> *"The requirement may be satisfied by one of a combination of the following, which shall be determined by the director and stated in the residential workforce housing agreement:*
>
> *1. Offer for sale, single-family dwelling units, two-family dwelling units, or muti-family dwelling units as residential workforce housing within the community plan area."*

The Kula Ridge Mauka Subdivision's eleven (11) workforce housing units will meet the county's RWHP requirements for that project's proposed 21 agricultural lots because they will be provided within the same community plan area.

3. Kula Ridge, LLC confirms that should iwi kupuna or Native Hawaiian cultural or traditional deposits be found during construction, work will cease, and the appropriate agencies will be contacted pursuant to applicable law. In this regard, an archaeological monitoring plan will be prepared and implemented in coordination with the State Historic Preservation Division and the Office of Hawaiian Affairs. As such, the following language will be included in Section II.A.7., "Archaeological and Historical Resources" of the Final EA. **The applicant's archaeology consultant has prepared an archaeological monitoring plan and has submitted the plan to the State Historic Preservation Division (SHPD) for review and approval. Should any archaeological remains or cultural materials be encountered during construction and excavation activities, work in the vicinity of the find will be stopped and the SHPD will be contacted to establish appropriate mitigation measures in accordance with Chapter 6E, Hawai`i Revised Statutes.** The Office of Hawaiian Affairs (OHA) shall be contacted in the event that

archaeological remains or cultural material are discovered during ground altering activities.

4. We note your office's request that the scope of the Cultural Impact Assessment be broadened to include the examination of the practices that occur within or near the project site. As recommended, Thelma Shimaoka from OHA's Maui office and Native Hawaiian Practioner Ed Lindsey were contacted for a list of culturally knowledgeable persons of Native Hawaiian ancestry. Although additional individuals having specific knowledge of the project site, were not identified, we believe that the knowledge and experiences of those individuals previously interviewed, combined with the information provided by the project archaeologist, establish a sound basis for drawing conclusions regarding cultural impacts in and around the project area.

5. We acknowledge your recommendation to incorporate native plant into the landscaping design of the completed project. Efforts to preserve the species found on the project site will be undertaken to sustain traditional Hawaiian landscaping and to create a Hawaiian sense of place.

We appreciate the input we received from your office. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:mge
cc: Clayton Nishikawa, Kula Ridge LLC
Vanessa Medeiros, Department of Housing and Human Concerns
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APR 2 5 2008

LINDA LINGLE
GOVERNOR

BRENNON T. MORIOKA
DIRECTOR

Deputy Directors
MICHAEL D. FORMBY
FRANCIS PAUL KEENO
BRIAN H. SEKIGUCHI

IN REPLY REFER TO:

STP 8.2850

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
869 PUNCHBOWL STREET
HONOLULU, HAWAII 96813-5097

April 22, 2008

Ms. Vanessa Medeiros
Department of Housing and Human Concerns
County of Maui
200 South High Street, Suite 400
Wailuku, Hawaii 96793-2155

Dear Ms. Medeiros:

Subject: Kula Ridge, LLC
Kula Ridge Residential Workforce Housing Subdivision
Draft Environmental Assessment (DEA)
TMK: 2-3-001: 174

Thank you for your transmittal requesting The Department of Transportation's (DOT) review of the subject project. DOT's comments are as follows:

1. The project will impact State highways by its contribution of traffic to roads that connect to the highways. The determination of this impact, as discussed in the traffic impact analysis report (TIAR), Appendix G of the DEA, requires clarifications to and revision of the TIAR.

2. The items below represent the evaluation of the TIAR by the DOT Highways Division:

   a. Table 2 on Page 11 of the traffic assessment report show, "Dwelling Units = 210". A clarification is needed explaining if there will be 210 units in the project area and how trip generation rates were applied for the various types of housing units (workforce/affordable, market, agricultural, rural) contained in subject project.

   b. Table 2 on Page 12 of the traffic assessment report shows zero projected trips generated for a park. An explanation is needed to address why zero trips is assumed to be generated by the proposed three-acre park.

   c. The assumed distribution of project-generated traffic presented in the TIAR that traffic from an affordable/workforce housing project would flow onto Copp Road and travel to/from another residential area is questionable. As an affordable housing project, this development could be viewed as an aid in fulfilling the

existing housing need for employees in the area. The distribution of project traffic, therefore, will not mirror existing traffic patterns but could reflect higher directional flows to and from major employment centers in the area. This matter should be further evaluated and addressed in the TIAR.

d. The TIAR should include identification of the geometrics for the recommended westbound right-turn lane on Lower Kula Road at Kula Highway.

e. The Lower Kula Road/Copp Road intersection is identified as an all-way stop in the calculations contained in the TIAR. This intersection should be noted in the text of the report.

f. Based on our review, we anticipate that a dedicated southbound left-turn lane on Kula Highway at Lower Kula Road will be needed to mitigate project generated traffic.

g. We are concerned with the cumulative impact of project generated traffic from the Ridge Project and the Mauka Subdivision will have on Kula Highway. Connection to Kula Highway from the two developments should be addressed in the TIAR.

h. The discussion on trip generation, distribution, and assignment of project-generated traffic should follow future year without project conditions rather than precede it. This change in the TIAR would make the presentation follow the standard, traditional report format.

i. Discussion and resolution of the concerns over the TIAR with the DOT Highways Division can be arranged by contacting Mr. Ken Tatsuguchi of the Highways Planning Branch in Honolulu at 587-1830.

The DOT defers further comments until the Highways Division reviews the revised/updated TIAR.

Very truly yours,

BRENNON T. MORIOKA, PH.D., P.E.
Director of Transportation

c: Rowena Dagdag, Munekiyo & Hiraga, Inc.

MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KAREYNE FUKUDA

MARK ALEXANDER ROY
KYLE GINOZA

July 24, 2008

Brennon Morioka, Ph.D., P.E., Director
State of Hawai`i
Department of Transportation
869 Punchbowl Street
Honolulu, Hawai`i 96813-5087

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at6 TMK (2)2-3-001:174

Dear Mr. Morioka:

Thank you for your letter dated April 22, 2007 to Vanessa Mederios, commenting on the subject project. On behalf of the applicant, Kula Ridge, LLC, we wish to provide for your information and review, responses to the Department's comments prepared by the project traffic engineer, enclosed hereto as Exhibit "A".

1. The project's traffic engineer has provided a supplemental report that assesses an alternate trip distribution scenario for the Kula Ridge project.

2. The comment items in Part 2 of your letter have been addressed by the project's traffic engineer. Please refer to Exhibit "A".

We appreciate the input that we received from your office. Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:lfm
Enclosure
cc: Clayton Nishikawa, Kula Ridge, LLC (w/ enclosure)
Vanessa Medeiros, Department of Housing and Human Concerns (w/ enclosure)
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7551-02
June 16, 2008

Mr. Clayton Nishikawa
Kula Ridge, LLC
1849 Wili Pa Loop
Wailuku, HI 96793

Subject: Kula Ridge

Dear Mr. Nishikawa:

As requested, the following are the responses to the comments provided by DOT Highways Division related to the Traffic Impact Report prepared for the subject project:

1. Comment: *Table 2 on Page 11 of the traffic assessment report show, "Dwelling Units=210". A clarification is needed explaining if there will be 210 units in the project area and how trip generation rates were applied for the various types of housing units (workforce/affordable, market, agricultural, rural) contained in subject project.*

   Response: The number "210" is a typo. There are a total of 116 dwelling units, 42 residential lots, 70 affordable housing lots, and 4 agricultural lots. 210 refers to the trip generation land use code (single-family detached housing) utilized for the project. As stated on page 3 of the report, each residential and agricultural lot is expected to house a residential dwelling.

2. Comment: *Table 2 on Page 12 of the traffic assessment report shows zero projected trips generated for a park. An explanation is needed to address why zero trips is assumed to be generated by the three-acre park.*

   Response: The trip generation rate utilized for the TIAR is Land Use 412 or County Park. Based upon the proposed park size (3-acres), zero site-generated trips are expected during the AM and PM peak periods. It should be noted that due to the small size of the park, the park will most likely function as a neighborhood park that services the residences that surround it. As such, vehicular trips to and from the park are expected to be minimal.

   Comment: *The assumed distribution of project-generated traffic presented in the TIAR that traffic from an affordable/workforce housing project would flow onto Copp Road and travel to/from another residential area is*

EXHIBIT "A"

questionable. As an affordable housing project, this development could be viewed as an aid in fulfilling the existing housing need for employees in the area. The distribution of project traffic, therefore, will not mirror existing traffic patters but could reflect higher directional flows to and from major employment centers in the area. This matter should be further evaluated and addressed in the TIAR.

Response: Although there are many philosophies regarding the distribution of trips, the methodology utilized for the TIAR was selected to represent a worst-case scenario. Turning movements at an intersection require additional time to execute their movement in comparison to through movements. As such, the site-generated trips were assigned to turning movements at the subject intersections along Kula Highway to assess the worst-case scenario. However, to address these and other comments by DOT, a supplemental letter was prepared for the project (see attached).

3. Comment: *The TIAR should include identification of the geometrics for the recommended westbound right-turn lane on Lower Kula Road at Kula Highway.*

   Response: The TIAR provides recommendations for lane use based upon traffic operations. The actual dimensions of the recommended lanes will be determined during the design phase of the project when topographical information is available. The design geometrics will be submitted to DOT for review and approval.

4. Comment: *The Lower Kula Road/Copp Road intersection is identified as an all-way stop in the calculations in the TIAR. This intersection should be noted in the text of the report.*

   Response: Although the text does not specifically identify the intersection of Lower Kula Road and Copp Road as an all-way stop, it does indicate that this is an unsignalized intersection. In addition, all analyses performed for that intersection were based on all-way stop control.

5. Comment: *Based on our review, we anticipate that a dedicated southbound left-turn lane on Kula Highway at Lower Kula Road will be needed to mitigate project generated traffic.*

   Response: As previously stated, a supplemental letter was prepared to address this and other comments by DOT.

6. Comment: *We are concerned with the cumulative impact of project generated traffic from the Ridge Project and the Mauka Subdivision will have on Kula Highway. Connection to Kula Highway from the two developments should be addressed in the TIAR.*

   Response: The Kula Ridge TIAR was prepared and finalized prior to that for the Kula Ridge Mauka TIAR and, as such, the plans for Kula Ridge Mauka were not included in this report. However, the Kula Ridge Mauka TIAR, which is currently being revised due to changes in the project plan, will include both projects in its analyses.

7. Comment: *The discussion on trip generation, distribution, and assignment of project-generated traffic should follow future year without project conditions rather than precede it. This change in the TIAR would make the presentation follow the standard, traditional report format.*

   Response: In preparing the TIAR, the project details and overall characteristics including trip generation, distribution, and assignment are included up front to provide a comprehensive discussion of the project without a fixed frame of reference. The following sections discussing without and with project conditions then provide the appropriate frame of reference for the project. In addition, the placement of the without and with project scenarios in adjacent sections of the report allows for a direct comparison of the two scenarios.

Should you have any questions or require additional information, please contact me at 946-2277.

Sincerely,

Cathy Leong

Cathy Leong, P.E.

WILSON OKAMOTO CORPORATION
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7551-02
June 16, 2008

Mr. Clayton Nishikawa
Kula Ridge, LLC
1849 Wili Pa Loop
Wailuku, HI 96793

Subject: Kula Ridge

Dear Mr. Nishikawa:

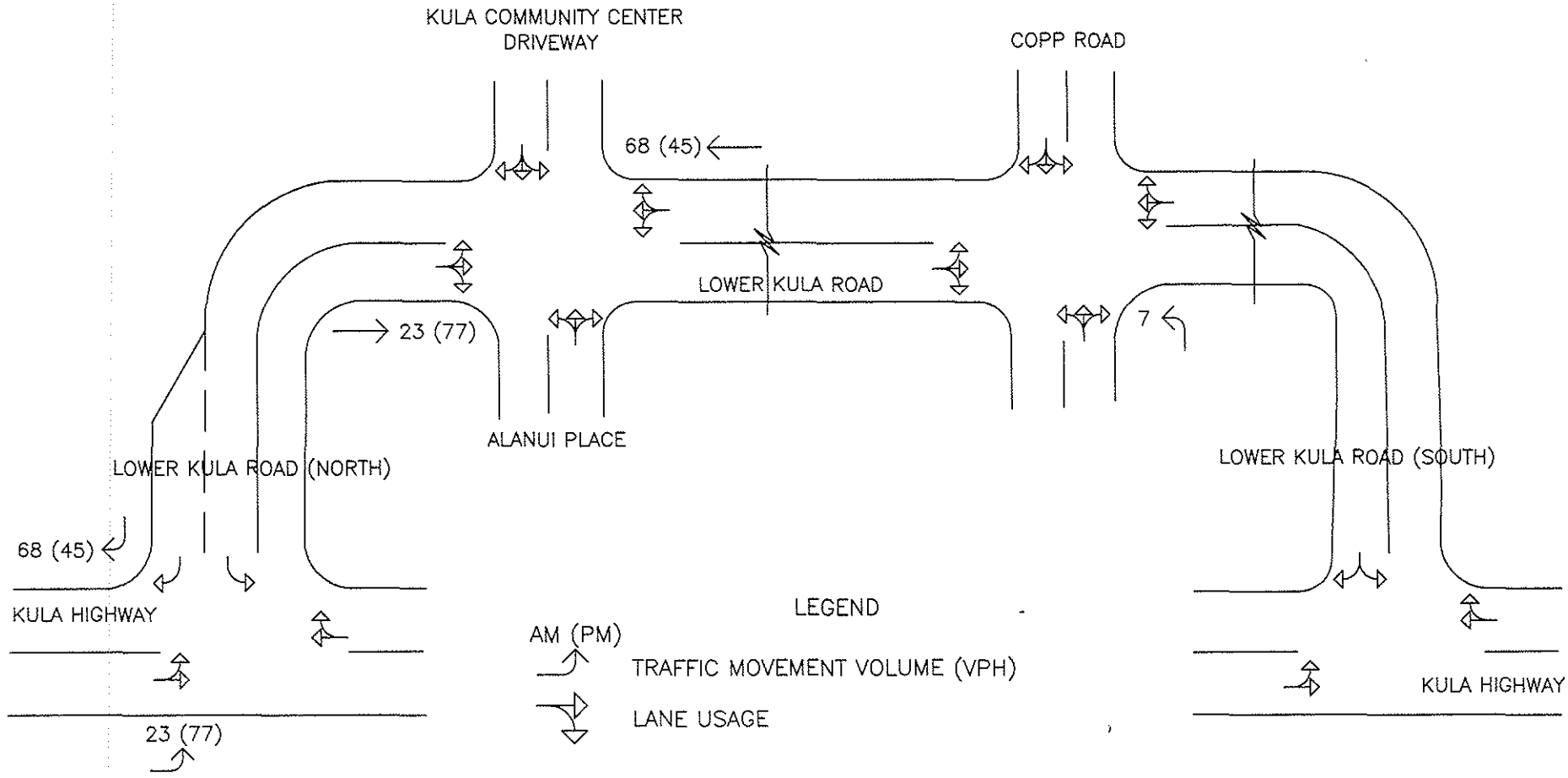
As requested, we assessed an alternate trip distribution scenario for the Kula Ridge project to address comments provided by DOT. The following is a summary of our findings.

Trip Distribution

In comments provided on April 22, 2008, DOT indicated that they did not agree with the trip distribution detailed in the Traffic Impact Report prepared for the Kula Ridge project dated July 2006. To address these comments, an alternate scenario was assessed in which all site-generated trips were assumed to travel from origins and to destinations to the north of the project site. It should be noted, however, that this trip distribution methodology assumes that all site-generated trips are work related and do not have any linked or pass-by destinations. As such, all entering vehicles were assumed to turn left from Kula Highway onto Lower Kula Road via the northern intersection of that roadway with the highway, and then utilized Lower Kula Road to access the project site. Similarly, all exiting vehicles were assumed to turn right onto Lower Kula Road and then right onto Kula Highway. Figure 1 shows the distribution of site-generated vehicles during the AM and PM peak periods for this alternate scenario.

Year 2009 With Project Conditions

The projected Year 2009 AM and PM peak period traffic volumes and operating conditions under the alternate scenario are shown in Figures 2 and 3, and summarized in Table 1. The projected Year 2009 operating conditions based upon the trip distribution included in the original TIAR are provided for comparison purposes. LOS calculations are included in the appendix.



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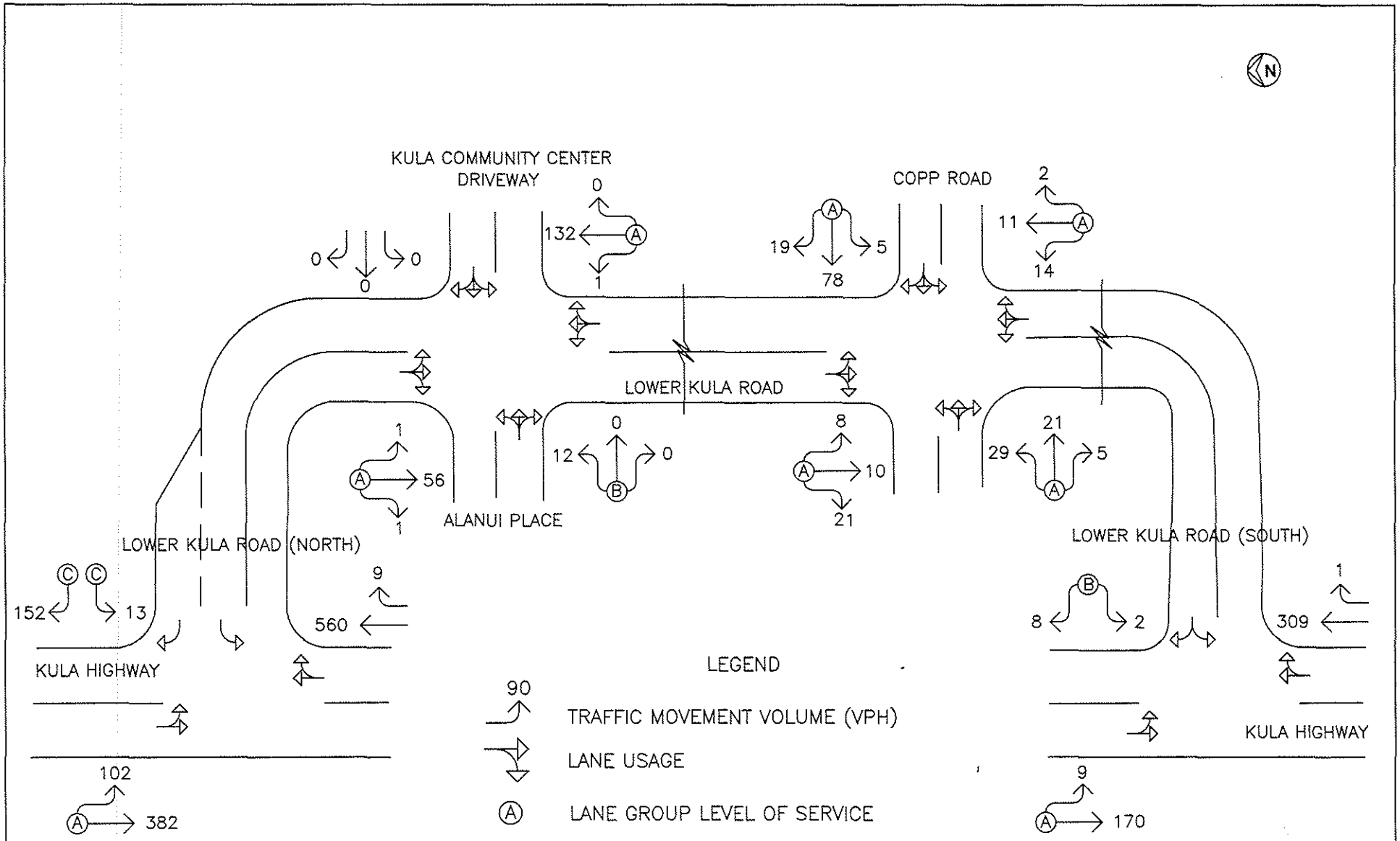
KULA RIDGE

DISTRIBUTION OF SITE-GENERATED TRAFFIC ALTERNATE SCENARIO

FIGURE 1



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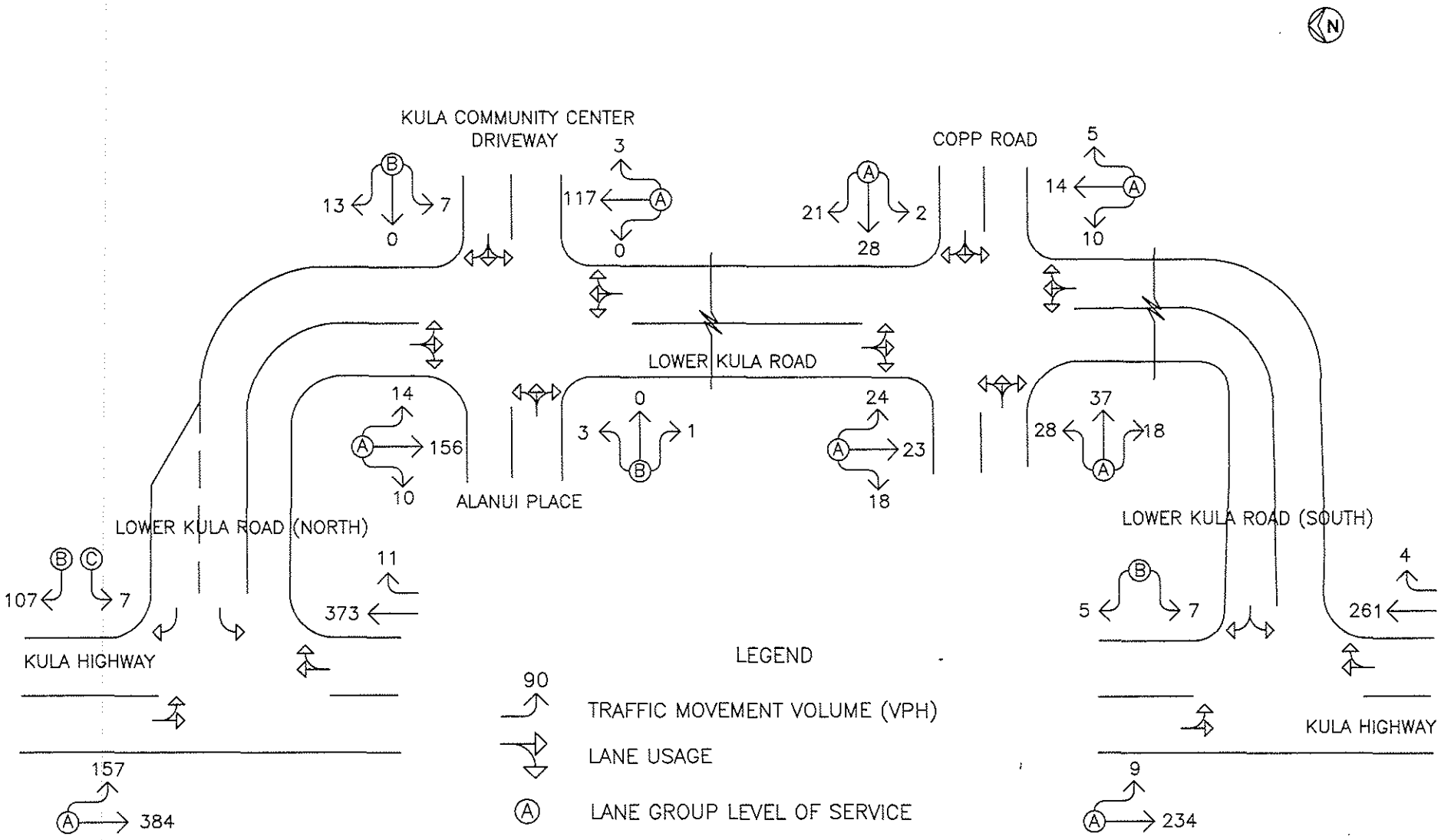
KULA RIDGE

YEAR 2009 AM PEAK HOUR OF TRAFFIC WITH PROJECT ALTERNATE SCENARIO

FIGURE 2



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KULA RIDGE

YEAR 2009 PM PEAK HOUR OF TRAFFIC WITH PROJECT ALTERNATE SCENARIO

FIGURE 3

Table 1: Year 2008 (TIAR and Alternate Scenario) Traffic Operating Conditions

Intersection	Critical Approach/ Movement		AM		PM	
			TIAR	Alt Scenario	TIAR	Alt Scenario
Lower Kula Road/ Alanui Place/ Kula Community Center Driveway*	Eastbound		A	B	A	B
	Westbound		-	-	B	B
	Northbound		A	A	A	A
	Southbound		A	A	A	A
Lower Kula Road/ Kula Highway (North)	Westbound	LT	C	C	C	C
		RT	C	C	B	B
	Southbound		A	A	A	A
Lower Kula Road/ Copp Road	Eastbound		A	A	A	A
	Westbound		A	A	A	A
	Northbound		A	A	A	A
	Southbound		A	A	A	A
Lower Kula Road/ Kula Highway (South)	Westbound		B	B	B	B
	Southbound		A	A	A	A

*Note: The LOS shown from the TIAR has been modified to correct a typo in the original report. The LOS shown in Table 1 is based on the capacity analysis worksheets included in Appendix E of the TIAR.

Under the alternate scenario, the levels of service at the study intersections are expected to be similar to those included in the original TIAR. The critical movements at the intersections of Lower Kula Road with Kula Highway (north) are expected to operate at LOS "C" or better during both peak periods while those at the intersection with Kula Highway (south) are expected to operate at LOS "B" or better during both peak periods. Similarly, all approaches of the intersection with Copp Road are expected to operate at LOS "A." At the intersection of Lower Kula Road with Alanui Place and the Kula Community Center Driveway, the eastbound approach of the intersection is expected to operate at a slightly lower LOS "B" during both peak periods while the other approaches of the intersection are expected to operate at levels-of-service similar to those included in the TIAR.

Based upon the operational analyses performed for the alternate scenario, a southbound left-turn lane along Kula Highway at the northern intersection with

Lower Kula Road as suggested by the DOT is not required. However, the provision of an exclusive turning lane on this approach would minimize the impact of turning vehicles on through traffic along the highway.

Should you have any questions or require additional information, please contact Mr. Pete Pascua or myself at 946-2277.

Sincerely,

Cathy Leong, P.E.

APPENDIX
CAPACITY ANALYSES CALCULATIONS
ALTERNATE SCENARIO

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: cl
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: AM Peak Period
Intersection: Alanui Dr/Lower Kula Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2009 With Project
Project ID: Alternate Scenario
East/West Street: Alanui Dr
North/South Street: Lower Kula Rd
Intersection Orientation: NS Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	132	0	1	56	1
Peak-Hour Factor, PHF	0.74	0.74	0.74	0.50	0.50	0.50
Hourly Flow Rate, HFR	1	178	0	2	112	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	12	0	0
Peak Hour Factor, PHF	1.00	1.00	1.00	0.60	0.60	0.60
Hourly Flow Rate, HFR	0	0	0	19	0	0
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	1	2		0			19	
C(m) (vph)	1475	1398					654	
v/c	0.00	0.00					0.03	
95% queue length	0.00	0.00					0.09	
Control Delay	7.4	7.6					10.7	
LOS	A	A					B	
Approach Delay							10.7	
Approach LOS							B	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: PM Peak Period
Intersection: Alanui Dr/Lower Kula Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2009 With Project
Project ID: Alternate Scenario
East/West Street: Alanui Dr
North/South Street: Lower Kula Rd
Intersection Orientation: NS Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	117	3	14	156	10
Peak-Hour Factor, PHF	0.69	0.69	0.69	0.84	0.84	0.84
Hourly Flow Rate, HFR	0	169	4	16	185	11
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	7	0	13	3	0	1
Peak Hour Factor, PHF	0.71	0.71	0.71	0.33	0.33	0.33
Hourly Flow Rate, HFR	9	0	18	9	0	3
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	16		27			12	
C(m) (vph)	1377	1404		734			596	
v/c	0.00	0.01		0.04			0.02	
95% queue length	0.00	0.03		0.11			0.06	
Control Delay	7.6	7.6		10.1			11.2	
LOS	A	A		B			B	
Approach Delay				10.1			11.2	
Approach LOS				B			B	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: AM Peak Period
Intersection: Kula Hwy/Lower Kula Rd (North)
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2009 With Project
Project ID: Alternate Scenario
East/West Street: Lower Kula Rd (North)
North/South Street: Kula Hwy
Intersection Orientation: NS Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		560	9	102	382	
Peak-Hour Factor, PHF		0.90	0.90	0.77	0.77	
Hourly Flow Rate, HFR		622	10	132	496	
Percent Heavy Vehicles		--	--	2	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	13		152			
Peak Hour Factor, PHF	0.84		0.84			
Hourly Flow Rate, HFR	15		180			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes	1		1			
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT	L		R			
v (vph)		132	15		180			
C(m) (vph)		951	200		484			
v/c		0.14	0.08		0.37			
95% queue length		0.48	0.24		1.76			
Control Delay		9.4	24.5		16.8			
LOS		A	C		C			
Approach Delay				17.4				
Approach LOS				C				

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TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: PM Peak Period
Intersection: Kula Hwy/Lower Kula Rd (North)
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2009 With Project
Project ID: Alternate Scenario
East/West Street: Lower Kula Rd (North)
North/South Street: Kula Hwy
Intersection Orientation: NS Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		373	11	157	384	
Peak-Hour Factor, PHF		0.86	0.86	0.90	0.90	
Hourly Flow Rate, HFR		433	12	174	426	
Percent Heavy Vehicles		--	--	2	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	7		107			
Peak Hour Factor, PHF	0.82		0.82			
Hourly Flow Rate, HFR	8		130			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes	1		1			
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT	L		R			
v (vph)		174	8		130			
C(m) (vph)		1115	237		618			
v/c		0.16	0.03		0.21			
95% queue length		0.55	0.10		0.80			
Control Delay		8.8	20.7		12.4			
LOS		A	C		B			
Approach Delay			12.9					
Approach LOS			B					

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Phone: (808) 946-2277 Fax: (808) 946-2253
E-Mail:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: AM Peak Period
Intersection: Copp Rd/Lower Kula Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year:
Project ID: Alternate Scenario
East/West Street: Copp Rd
North/South Street: Lower Kula Rd

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	29	21	5	5	78	19	14	11	2	8	10	21
% Thrus Left Lane												

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.69		0.80		0.61		0.79	
Flow Rate	79		126		43		48	
% Heavy Veh	2		2		2		2	
No. Lanes	1		1		1		1	
Opposing-Lanes	1		1		1		1	
Conflicting-lanes	1		1		1		1	
Geometry group	1		1		1		1	

Duration, T 1.00 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	79		126		43		48	
Left-Turn	42		6		22		10	
Right-Turn	7		23		3		26	
Prop. Left-Turns	0.5		0.0		0.5		0.2	
Prop. Right-Turns	0.1		0.2		0.1		0.5	

Prop. Heavy Vehicle	0.0	0.0	0.0	0.0
Geometry Group	1	1	1	1
Adjustments Exhibit 17-33:				
hLT-adj	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.1	-0.1	0.1	-0.2

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	79		126		43		48	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.07		0.11		0.04		0.04	
hd, final value	4.32		4.13		4.50		4.15	
x, final value	0.09		0.14		0.05		0.06	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.3		2.1		2.5		2.2	

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	79		126		43		48	
Service Time	2.3		2.1		2.5		2.2	
Utilization, x	0.09		0.14		0.05		0.06	
Dep. headway, hd	4.32		4.13		4.50		4.15	
Capacity	329		376		293		298	
Delay	7.78		7.82		7.76		7.40	
LOS	A		A		A		A	
Approach:								
Delay	7.78		7.82		7.76		7.40	
LOS	A		A		A		A	
Intersection Delay	7.73		Intersection LOS		A			

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ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: PM Peak Period
Intersection: Copp Rd/Lower Kula Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2009 With Project
Project ID: Alternate Scenario
East/West Street: Copp Rd
North/South Street: Lower Kula Rd

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	28	37	18	2	28	21	10	14	5	24	23	18
% Thrus Left Lane												

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.94		0.85		0.91		0.75	
Flow Rate	87		58		30		86	
% Heavy Veh	2		2		2		2	
No. Lanes	1		1		1		1	
Opposing-Lanes	1		1		1		1	
Conflicting-lanes	1		1		1		1	
Geometry group	1		1		1		1	

Duration, T 1.00 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	87		58		30		86	
Left-Turn	29		2		10		32	
Right-Turn	19		24		5		24	
Prop. Left-Turns	0.3		0.0		0.3		0.4	
Prop. Right-Turns	0.2		0.4		0.2		0.3	

Prop. Heavy Vehicle	0.0	0.0	0.0	0.0
Geometry Group	1	1	1	1
Adjustments Exhibit 17-33:				
hLT-adj	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	-0.0	-0.2	0.0	-0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	87		58		30		86	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08		0.05		0.03		0.08	
hd, final value	4.19		4.04		4.31		4.19	
x, final value	0.10		0.07		0.04		0.10	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.2		2.0		2.3		2.2	

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	87		58		30		86	
Service Time	2.2		2.0		2.3		2.2	
Utilization, x	0.10		0.07		0.04		0.10	
Dep. headway, hd	4.19		4.04		4.31		4.19	
Capacity	337		308		280		336	
Delay	7.66		7.32		7.47		7.66	
LOS	A		A		A		A	
Approach:								
Delay	7.66		7.32		7.47		7.66	
LOS	A		A		A		A	
Intersection Delay 7.56			Intersection LOS A					

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TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: AM Peak Period
Intersection: Kula Hwy/Lower Kula Rd (South)
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2009 With Project
Project ID: Alternate Scenario
East/West Street: Lower Kula Rd (South)
North/South Street: Kula Hwy
Intersection Orientation: NS Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		309	1	9	170	
Peak-Hour Factor, PHF		0.83	0.83	0.66	0.66	
Hourly Flow Rate, HFR		372	1	13	257	
Percent Heavy Vehicles		--	--	2	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	2		8			
Peak Hour Factor, PHF	0.75		0.75			
Hourly Flow Rate, HFR	2		10			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No	/		/
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		13		12				
C(m) (vph)		1185		614				
v/c		0.01		0.02				
95% queue length		0.03		0.06				
Control Delay		8.1		11.0				
LOS		A		B				
Approach Delay				11.0				
Approach LOS				B				

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TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: PM Peak Period
Intersection: Kula Hwy/Lower Kula Rd (South)
Jurisdiction:
Units: U. S. Customary
Analysis Year:
Project ID: Alternate Scenario
East/West Street: Lower Kula Rd (South)
North/South Street: Kula Hwy
Intersection Orientation: NS Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		261	4	9	234	
Peak-Hour Factor, PHF		0.92	0.92	0.93	0.93	
Hourly Flow Rate, HFR		283	4	9	251	
Percent Heavy Vehicles		--	--	2	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	7		5			
Peak Hour Factor, PHF	0.61		0.61			
Hourly Flow Rate, HFR	11		8			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			/
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		9		19				
C(m) (vph)		1275		575				
v/c		0.01		0.03				
95% queue length		0.02		0.10				
Control Delay		7.8		11.5				
LOS		A		B				
Approach Delay				11.5				
Approach LOS				B				

LINDA LINGLE
Governor of Hawai'i

KATHERINE PUANA KEALOHA
Interim Director

STATE OF HAWAI'I
OFFICE OF ENVIRONMENTAL QUALITY CONTROL
Department of Health
235 South Beretania Street
Leiopapa A Kamehameha, Suite 702
Honolulu, Hawai'i 96813

Telephone (808) 586-4185
Facsimile (808) 586-4186
Electronic Mail: oeqc@doh.hawaii.gov

April 18, 2008

Ms. Vanessa A. Medeiros, Director
Department of Housing and Human Concerns
County of Maui
200 South High Street
Wailuku, Hawai'i 96793

Subject: Draft Environmental Assessment (DEA) for Kula Ridge Residential Workforce Housing Subdivision, TMK: (2) 2-3-01:174, Kula, Maui, Hawai'i

Dear Ms. Medeiros:

Thank you for the opportunity to review and comment on the subject DEA for Kula Ridge. The Office of Environmental Quality Control offers the following comments:

1. The passage on the top of page 31 states that "construction will be limited to a period when the gulch is dry." Although this is the preferred condition, how can one be certain that the gulch will be dry and that it will not rain at any time during construction? A 14.8% slope is somewhat steep, making drainage and erosion management more difficult. There is no information on the regular monitoring of environmental impact to the gulch, and how monitoring information will be used to assess impacts. What is the gulch baseline? What is the scope of impacts under pre-project conditions versus post-project conditions?

2. Water quality is a major concern. There is not enough detail in the drainage report (Appendix H) to assess hydrologic and water quality effects on the gulch. Land cover and human activity will change, thus pollutant loading will change. It may be that runoff to the gulch actually decreases most of the time, depending upon how the new drainage system operates. The design and statements address a single stand-alone event; however things change when single events occur in rapid succession. Meeting County drainage standards for retention does not guarantee that water quality impacts will be avoided. Please address these concerns.

3. The drainage report (Appendix H) needs to provide sufficient detail about the location and identity of the receiving waters to determine if impaired waters might be affected. The drainage report notes that the "runoff eventually discharges into the ocean" but it does not identify the entry point and possible impacts on impaired waters of the State.

4. There is also no discussion on the sustainable yield and current extractions for the aquifer system in which the new wells are proposed. The project will also create 116 individual waste systems (IWS); some of these are at elevations higher than the proposed new well at 2900' elevation. Although the Department of Health has granted a variance for IWS, we still wish to ask if there is a natural barrier between the leach fields and the aquifer. What are the Water Commission comments on this issue?

Should you have any questions, please call Herman Tuiolosega at 586-4185.

Sincerely,

KATHERINE PUANA KEALOHA
Interim Director

c: Ms. Rowena Dagdag

MUNEKIYO & HIRAGA, INC.

MUNEKIYO & HIRAGA, INC.
[illegible]
[illegible]
[illegible]

July 24, 2008

Katherine Kealoha, Director
Office of Environmental Quality Control
Department of Health
235 South Beretania Street
Leiopapa A Kamehameha, Suite 702
Honolulu, Hawai`i 96813

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Ms. Kealoha:

We are writing to you on behalf of the applicant, Kula Ridge LLC, to thank you for your letter dated April 21, 2008, regarding the Draft EA for the Kula Ridge Residential Workforce Housing Subdivision project located in Kula, Maui, Hawaii.

We offer the following comments in response to your remarks:

1. Construction during the generally dry months of the year is viewed as beneficial from a operations standpoint. However, we understand that construction scheduling will not guarantee that storm events will not occur. The means to address impact mitigation to Keahuaiwi Gulch is through the implementation of Best Management Practices (BMPs) which are designed to prevent stormwater runoff from construction areas from entering into waterways. Such BMPs are implemented in accordance with the National Pollutant Discharge Elimination System (NPDES) which will be secured by the applicant's contractor. A preliminary grading and BMP plan has been prepared by the project's civil engineer and is attached hereto as **Exhibit "A"**.

   The NPDES permit will contain BMP measures which will require approvals from the County and Department of Health.

   In general, the project will have silt fences, dust fences, and stabilized construction entrance(s). No more than 15 acres will be graded and left unstabilized at any given time. The contractor will be required to stabilize all graded areas, as soon as practicable. The permanent detention basins will be constructed and stabilized prior to the commencement of any other grading on the property. Temporary cutoff ditches will be constructed to ensure that runoff from the property will be diverted

into the detention basins. The cutoff ditches will be grassed and have a minimum slope to regulate the velocity of the runoff and allow silt and debris to settle. The detention basins will serve as the primary BMP for erosion and runoff. Runoff will be allowed to overtop the detention basins when its capacity is exceeded and sheet flow into Keahuaiwi Gulch. Priior to overflowing into the gulch, the runoff will be filtered through a gravel berm wrapped in a fine filter fabric.

Post-development drainage conditions are described in the preliminary drainage report. To summarize, drainage calculations show that the post-development runoff volume is 164.59 cubic feet per second or cfs. This compares to a pre-development runoff volume of 55.66 cfs. The runoff calculations have taken into account the slopes of the project site, as well as the pre- and post-development land cover characteristics.

According to the civil engineer, the proposed drainage improvements for the project will accommodate the entire incremental increase in drainage flows via the construction of new onsite retention systems. Moreover, the design of these onsite systems is estimate to provide drainage retention capacities in excess of that required by the County of Maui by approximately 10 percent.

The foregoing measures are expected to mitigate the drainage impacts of the project on adjacent and downstream properties, including the Keahuaiwi Gulch.

2. The drainage system proposed for the project considers the 50-year, 1-hour event, as required by County rules. This means that the probability of occurrence for a storm of this size is once every 50 years or a 2 percent probability in any year. In promulgating drainage design standards, the County of Maui seeks to recognize the importance of engineering probabilities and factors of safety, while applying best engineering judgement to ensure design feasibility. The Kula Ridge Mauka project's drainage system has been conceptualized and preliminarily engineered in this context.

3. The drainage report will be updated to reflect the outlet location for the Keahuaiwi Gulch.

4. Preliminary reports indicate that the groundwater well is anticipated to yield approximately 1,000,000 gallons of water per day. The completion of the well development will, in large part, determine the sustainable yield for the new system.

The individual wastewater systems (IWS), which consist of an aerobic treatment unit (ATU) for each of the 116 lots will be designed to comply with HAR, Chapter 11-62.

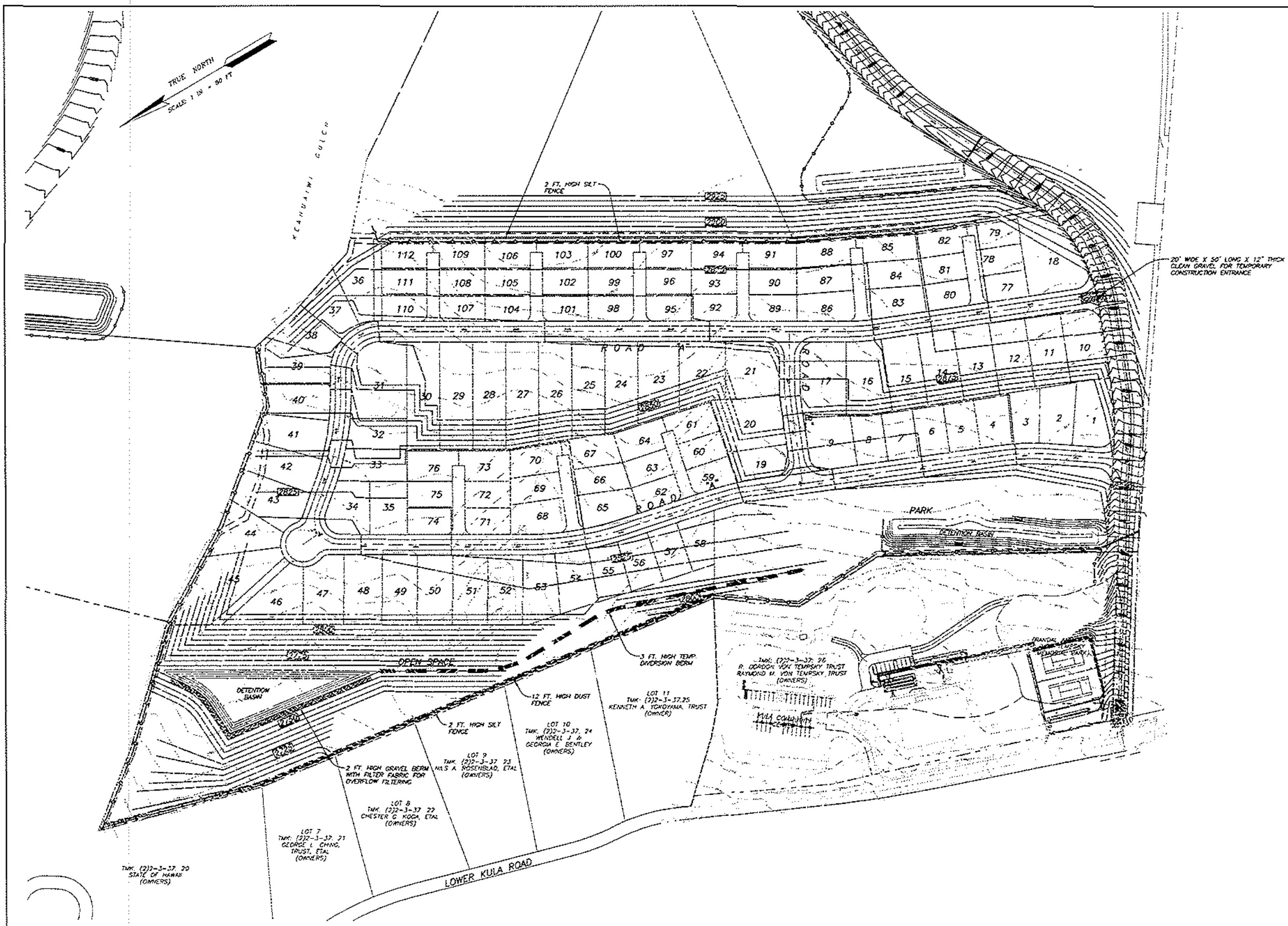
As stated in the Draft EA, each IWS will be required to have a continuous comprehensive operation and maintenance (O&M) program to ensure optimal performance. The groundwater well site is located approximately, 200 feet north of the project site. In this regard, the project's hydrogeologist confirms that there will be no adverse mixing of aerobically-treated, chlorine disinfected effluent, which meets the requirements of NSF standard No. 40, Class 1 effluent, and source water from the new well. A copy of the response prepared by the project's hydrogeologist is provided as **Exhibit "B"**. The Commission on Water Resources Management (CWRM) has not commented on the proposed IWS.

We appreciate the input that we received from your office. Should you have any quesitons, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:yp
Enclosures
cc: Clayton Nishikawa, Kula Ridge LLC (w/enclosures)
Vanessa Medeiros, Department of Housing and Human Concerns (w/enclosures)
Stacy Otomo, Otomo Engineering, Inc. (w/enclosures)
Harold Nagato, Best Industries USA, Inc. (w/enclosures)
F:\DATA\Nishikawa\KulaAH 1107\OEQC.deares.wpd



PRELIMINARY GRADING & BMP PLAN
SCALE: 1 IN. = 80 FT.

EXHIBIT "A"

OTOMO ENGINEERING, INC.
CONSULTING CIVIL ENGINEERS

KULA RIDGE AFFORDABLE HOUSING

T.M.K.: (2) 2-3-01: 23

KULA, MAKAWAO, MAUI, HAWAII

PRELIMINARY GRADING & BMP PLAN

REVISION	DATE	NOTE

DESIGNED BY: S.A.O.
DRAWN BY: L.C.O.
PROJECT NO. 2007-14
DRAWING NAME: GRAD-00
DATE: 7-3-08
SHEET NO.
OF SHEETS

Mink & Yuen, Inc.

1670 Kalakaua Avenue • Suite 605 • Honolulu, Hawaii 96826 • Telephone: (808) 943-1822 • Fax: (808) 943-1821

July 7, 2008

Mr. Clayton Nishikawa
Kula Ridge Mauka LLC
1849 Wili Pa Loop
Wailuku, HI 96793

Re: Response to Comment No. 4 in the April 18, 2008 Letter From the Office of Environmental Quality Control

Dear Mr. Nishikawa:

The proposed well site at 2,900± feet above sea level (ft., msl) for the Kula Ridge and Kula Ridge Mauka subdivision is underlain by very dense lava and impermeable lava flows and weathered pyroclastic deposits known as the Kula Volcanics. These eruptive products are associated with Haleakala's post-caldera volcanic activity. A detailed and careful geologic log of the U. S. Geological Survey's observation well at Waiohuli (4421-01), which is about 3 miles south of proposed well site, showed the Kula Volcanics capping to be 925 ft. thick. It is expected that similar geologic conditions will be found when the subdivision's well is drilled.

Below this dense veneer are thin-bedded basaltic lavas flows associated with the shield-building stage of Haleakala's development. These lavas are known collectively as the Honomanu Basalt. The saturated portion of the Honomanu Basalt lavas will form the permeable aquifer from which the proposed well will develop groundwater. The groundwater aquifer should be basal. Basal aquifers form the most extensive aquifers in the Hawaiian Islands.

Groundwater data collected from recently drilled wells at the 1,800± ft., msl and 2,100± ft., msl elevation, show that the static water level rises about 0.75 ft./mile. The Kula Ridge well site is about one mile up gradient from the Pulehu Farms well, which had a basal water level of 5.64 ft., msl and a ground elevation of 2,125 ft., msl. Therefore if basal conditions remain, the water level should be almost 6.5 ft., msl. Water quality in terms of chloride concentration should also be excellent, as the Pulehu Farms' well had a chloride concentration of 40 mg/L.

The Department of Health's June 29, 2007 variance allows for individual aerobic and chlorine disinfection of wastewater within 1,000 ft. of a drinking water source. In addition to the nature of the Kula Volcanics, the proposed well site is located above and hydrologically up gradient from most of the

EXHIBIT "B"

270

subdivision. Therefore, the likelihood of wastewater from the individual systems to percolate through hundreds of feet of impermeable lavas and weathered pyroclastic beds is improbable. Furthermore, the expected depth to the top of the basal aquifer's water table within the Honomanu Basalt is almost 2,900 ft. below the ground surface.

The new well is situated in the southern end of the Makawao Aquifer System. The sustainable yield of the Makawao Aquifer System is 7 million gallons per day (mgd). Reported water use to the Commission on Water Resource Management show that since 2004 the 12-month moving average is about 0.3 mgd, which is 4 percent of the sustainable yield. At the present time pumpage in this aquifer system is concentrated near the towns of Makawao and Pukalani.

If you have any questions, please call me at 943-1822.

Sincerely,

Glenn Bauer, CPG-10855
Sr. Geologist-Hydrologist

DEPARTMENT OF
HOUSING AND HUMAN CONCERNS
COUNTY OF MAUI

CHARMAINE TAVARES
Mayor

VANESSA A. MEDEIROS
Director

LORI TSUHAKO
Deputy Director

200 SOUTH HIGH STREET • WAILUKU, HAWAII 96793 • PHONE (808) 270-7805 • FAX (808) 270-7165 • EMAIL director.hhc@mauicounty.gov

April 22, 2008

Ms. Rowena Dagdag
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Dagdag:

SUBJECT: KULA RIDGE RESIDENTIAL WORKFORCE HOUSING SUBDIVISION DRAFT ENVIRONMENTAL ASSESSMENT PRELIMINARY SECTION 201H-38, HRS, APPLICATION

Thank you for the opportunity to review and comment on the Draft Environmental Assessment and Preliminary Section 201H-38, HRS, application for the Kula Ridge Residential Workforce Housing Subdivision.

Based on our review, we would like to inform you that we have no comment to offer.

Please call Mr. Wayde Oshiro of our Housing Division 270-7355 if you have any questions.

Sincerely,

Vanessa A. Medeiros

VANESSA A. MEDEIROS
Director of Housing and Human Concerns

xc: Housing Division

MUNEKIYO & HIRAGA, INC.

July 24, 2008

Vanessa Medeiros, Director
County of Maui
Department of Housing and Human Concerns
One Main Plaza
2200 Main Street, Suite 546
Wailuku, Hawai`i 96793

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Ms. Medeiros:

We are writing to you on behalf of the applicant, Kula Ridge LLC, to thank you for your letter dated April 22, 2008, regarding the Draft EA for the Kula Ridge Residential Workforce Housing Subdivision project located in Kula, Maui, Hawaii.

We appreciate the input we received from your office, and will continue to work with your department during the processing of the Final Environmental Assessment and the Section 201H-38, HRS application.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:mge
cc: Clayton Nishikawa, Kula Ridge LLC
F:\DATA\Nishikawa\KulaAH 1107\DHHC.deares.wpd

CHARMAINE TAVARES
Mayor

JEFFREY S. HUNT
Director

COLLEEN M. SUYAMA
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

April 22, 2008

Ms. Vanessa Medeiros, Director
Department of Housing and Human Concerns
200 South High Street, Suite 400
Wailuku, Hawaii 96793

Dear Ms. Medeiros;

SUBJECT: **Draft Environmental Assessment Prepared for the Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK 2-3-001:174, Kula, Maui, Hawaii (EAC 2008/0014)**

The Department of Planning (Department) has received a Draft Environmental Assessment (DEA) prepared in support of the Kula Ridge Residential Workforce Housing Subdivision. The cover letter transmitting the DEA states that "the applicant will submit a 201H-38 application with the Maui County Council" and then also states that "it would be appreciated if you would provide your written comments regarding the 201H-38, HRS application, if any, concurrently with any Draft EA comments you may have." The Department has not received a copy of the actual 201H-38, HRS application. However, in response to the referenced request the Department is separately providing comments on what we anticipate from our review of the DEA will be the principal features of the actual 201H-38, HRS application. Please refer to that separate letter during your review of the comments submitted on the DEA below.

1. The project proposes a 3 acre park site, but with no apparent improvements proposed. It can be expected that the demographics of the project will include substantial numbers of children. Without some park site improvements, there will remain unmitigated impacts upon recreational services. Please discuss how the project will mitigate such recreational services impacts through park improvements and/or support for programmatic recreational services.

2. Please provide mapping of all of the identified archaeological sites overlain on top of the Conceptual Site Plan Figure 4 of the DEA (or similar). The mapping of archeological sites within the Archeological Inventory Survey Report is very difficult to register with and relate to the proposed improvements and general lot locations for the proposed project.

3. To assist the DEA's use as a critical information document to assist the decisions of policy makers, please provide within the DEA text a summary of key features of, and proposed mitigations for impacts to, each of the identified archeological sites within the boundaries of the proposed Kula Ridge Residential Workforce Housing Subdivision.

4. In its discussion of "Community Character" the DEA states on page 47 that "the subdivision property is in proximity to other residential areas of similar character with structures, streets, and services of both rural and urban type. The proposed project will include single-family homes and agricultural lots that are reflective of the region's rural character." On page 5 the DEA states that "The workforce house lot sizes are proposed to be a minimum of approximately 4,600 square feet (s.f.) with a zero-lot line concept proposed for the homes."

   A visual review of the project's "Conceptual Site Plan" finds most of the "Work Force Housing" lots to be of a similar size, with the great majority being on the lower end of the reported lot size spectrum of "4,600 s.f. to 8,500 s.f.". Also, the "Market" lot sizes appear to cluster at the lower end of their reported lot size spectrum of "6,000 s.f. to 21,000 s.f.". Although there appear to be a few existing residential lots in the general vicinity of the project which may range as low as the minimum 6,000 square feet for a single home lot under the area's Interim zoning designation, the smaller minimum lots sizes and the comparatively large volume of smaller lots in the proposed project, in part, lead the project to represent a substantial departure from the general character of development in the area. Beyond the departure in lot sizes and their volume, the layout also represents a significant departure in its proposed usage of narrow lot driveways as opposed to the apparently wider internal project access roadway as the end point means of common area access to the approximately two-thirds of the Work Force Housing lots. The zero-lot line concept for the Work Force Housing lots is a further feature of the project's overall departure from the general character of development in the area.

5. Please provide an estimate of the proportion of future project residents which are expected to work in the near vicinity of the project so that they might walk or bicycle to work, the proportion anticipated to work in the larger area of Kula, the proportion anticipated to work in the area of Pukalani and Makawao, and the proportion anticipated to work outside the Makawao-Pukalani-Kula region.

6. Please identify why the 2009-2010 projected enrollment for the three upcountry schools listed is as much as 32% below the 2007-2008 enrollment.

7. To help mitigate possible safety impacts upon pedestrians within and exiting the subdivision, please provide sidewalks along the primary roadway providing internal access and project access to Lower Kula Road.

8. The possible impact of the proposed well upon the sustainable yield of the underground water source for the project should be analyzed and addressed. Should there be such a water impact, the secondary impact upon the proper allocation of water resources to preserve agriculture as the region's principal economic activity should also then be addressed.

9. To further reduce potential impacts from stormwater runoff please provide a discussion on the alternative of designing the drainage system to retain more than the net increase of stormwater on the property.

10. The DEA addresses an adjoining "21-lot Mauka Subdivision" under a chapter on "Cumulative and Secondary Impacts" of the subject Kula Ridge Residential Workforce Housing Subdivision. The Department understands that a separate EA is being prepared for that subdivision. Therefore, comments relative to that project will be reserved for that separate, subsequent EA. However, for the purposes of the Kula Ridge Residential Workforce Housing Subdivision project and DEA, none of the comments made elsewhere in this letter need to be modified as a result of the information on the 21-lot Mauka Subdivision found in the current DEA's Cumulative and Secondary Impacts chapter.

11. All projects shown on the Department's Makawao-Pukalina-Kula Development Projects Kula Region map are planned and/or proposed and should be included within the analysis in the chapter on "Cumulative and Secondary Impacts". This map may be found at: http://www.co.maui.hi.us/departments/Planning/pdf/0707MPK_South.pdf Then please revisit the Significance Criteria Assessment in Chapter VIII, Section 8. as to cumulative impacts upon the environment.

12. The DEA includes a series of "Comments" with analysis of how the proposed project and site relates to standards for the State Urban Land Use District. Some of the information within the comments is of a factual nature, but much is more qualitative. Please review and reconfirm and/or correct the factual comments and related mapping found in Figure 23. For example, a review of the State Land Use Commission's district mapping on their website will lead to a correction of the mapping on Figure 23. Then please review for accuracy comments about the stated proximity of other actual land uses and various plan land use designations, and then also the extent to which these should be characterized as "urban".

    The Department prefers to advance positions regarding the proposed State Land Use District Boundary Amendment which are consistent with determinations made by the Maui County Council relative to the project. Therefore, the Department hopes to be able to reserve further comments upon the District Boundary Amendment and the more qualitative aspects of the DEAs "Comments" on the project's relationship to standards for the State Urban Land Use District to such time after the County Council has made their key determinations regarding the overall proposed project. However, if a District Boundary Amendment petition is filed and requires comment before action by the County Council, the Department will at that time provide its independent comments upon such a petition and the basic subject matter of the DEA's section IV. A. & B.

13. For reasons similar to those in the comment immediately above, the Department prefers to reserve comment upon the consistency of the proposed project with the Hawaii State Plan and state functional plans cited in the DEA until after local determinations have first been made regarding the project by the Maui County Council.

14. For comments upon the proposed project's relationship to the Maui County General and Community Plans please see the accompanying letter commenting upon the intent of the project to pursue a Section 201H-38 application and various exemptions from the provisions of these plans and otherwise applicable local regulations.

15. The Department's letter commenting upon the intent of the project to pursue a Section 201H-38 application concludes that "the scale and density of the project does not appear consistent with the rural character of the region" and "The project appears in varying degrees to be in conflict with... goals, objectives and policies listed within the Makawao-Pukalani-Kula Community Plan". In this light, project Alternative C. "Develop Parcel in Accordance with Makawao-Pukalani-Kula Community Plan" should become the preferred alternative.

16. The goal of the project to achieve affordable housing is one which the Department supports. However, such workforce housing can be better and more effectively provided in much closer proximity to work centers wherein the residents will be employed. The Kula area in which the project is proposed appears relatively isolated and located at a significant distance from the major work centers on Maui. It is thus expected to lead to relatively long commutes for the workforce residing in it. Such longer commutes generally lead to more vehicle miles traveled, traffic congestion, air and greenhouse gas emissions, stress upon families, diminished time for involvement in community affairs, and possibly other effects. In this light, for the reasons in the comment immediately above, and from comments in Department's letter on the anticipated 201H application, the project can be characterized as something like "the right project in the wrong place." In lieu of, or in addition to, the choice of Alternative C. as the preferred alternative, another alternative to develop a similar project much closer to the major work centers on Maui would be preferable to the proposed project.

17. Some of the comments and requests contained in the Department's preconsultation comment letter dated August 9, 2006, do not appear to have been addressed. As relisted below, please still respond to those which are not already otherwise incorporated into the Department's other DEA comments above:

    a. "2. Explain details on how the affordable housing will be provided:
        b. How the selection of owners will occur;
        c. How the affordability will be maintained over time;
        d. Whether the market units will subsidize the affordable units completely...; and
        f. If there will be a release rate for the market units based on the construction of the affordable units."

    b. Please verify "whether the project will entail the construction of affordable homes or merely the sale of lots."

    c. "4. Provide a grading and drainage plan, including potential Best Management Practices to address erosion from wind and rain, especially in regard to the adjacent Keahuaiwi Gulch."

    d. "10. It is suggested that the County Department of Parks & Recreation be consulted regarding the 3 acre park."

Thank you for the opportunity to comment. Should you need additional clarification on these comments or the DEA process, contact Mr. Jeffrey Dack, AICP, Staff Planner, of my office at jeffrey.dack@mauicounty.gov or at 270-6275.

Sincerely,

JEFFREY S. HUNT, AICP
Planning Director

xc: Clayton I. Yoshida, AICP, Planning Program Administrator
Jeffrey P. Dack, AICP, Staff Planner
State Land Use Commission
Rowena Dagdag, Munekiyo & Hiraga, Inc.
General File

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MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KAREN K. FUKUDA

MARK ALEXANDER ROY
[illegible]

July 24, 2008

Jeffrey S. Hunt, AICP, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawai`i 96793

SUBJECT: Draft Environmental Assessment for Proposed Kula Ridge Residential Housing Workforce Housing Subdivision(EAC 2008/0014)

Dear Mr. Hunt:

The Department of Housing and Human Concerns has forwarded to us, your letter of April 22, 2008, providing comments on the Draft Environmental Assessment for the proposed Kula Ridge Residential Housing Workforce Housing Subdivision. On behalf of Kula Ridge, LLC, we are providing responses for your consideration. For reference purposes, the response provided below are numbered to correspond to the numbered comments in your letter.

1. The 3.0-acre park site will meet the minimum requirements for improvements set forth by Chapter 18.16.320 of the Maui County Code, which provides that:

> *The subdivider shall improve the site with lot grading, grass planting, automatic irrigation, parking areas, adequate drainage, and comfort stations; provided, that the council may waive any of these requirements if the director of parks and recreation determines that such improvements are available nearby, impractical, or unnecessary.*

As part of the Section 201H process, Kula Ridge, LLC may seek a waiver of certain requirements set forth by Chapter 18.16.320, due to the park parcel's adjacency to the Kula Community Center.

2. The project archaeologist has prepared a map showing the location of the archaeological sites overlain on the conceptual site plan. A copy of this map will be included in the Final EA in Section 11.A.7 Archaeological Resources.

3. It should be noted that each of the eighteen archaeological sites have been evaluated for significance according to the criteria established for the Hawai`i State Register of Historic Places, and has been assessed as significant under Criterion "D": *"site has yielded or has the potential to yield information important in prehistory or history"*. As such, the eighteen sites have been documented and recorded as part of the inventory survey. No further mitigation has been recommended for these sites. The State Historic Preservation Division in their letter dated February 27, 2007 concurred that all of the sites are significant under Criterion "D" for information content. In addition, the SHPD further recommended that an archaeological monitoring plan is warranted. The project archaeologist will prepare an archaeological monitoring plan for submittal to SHPD.

4. As a workforce housing project, the site plan represents a higher density layout than surrounding single-family lots in the area. Site plan characteristics alone, however, do not define the character of the project in relation to surrounding uses. Site plan configurations are mitigated through architectural and landscape architectural designs via use of higher quality exterior materials and design elements. In turn, the design aspect of the project is intended to advance a higher quality residential living environment while still meeting family needs for workforce housing.

5. The employment characteristics (in terms of place of employment) of future residents have not been determined. However, it is anticipated that many of the project's residents will be those already living in the Makawao-Pukalani-Kula region, and those who formerly resided in the region, but for reasons of affordability and availability, have moved to other regions of the island.

6. The information provided in Table 3 of the Draft EA is data from the State Department of Education (DOE). Projected enrollment for the three (3) upcountry public schools servicing the project area have been updated and was provided in a letter dated April 12, 2008. The update will be provided in the Final EA.

7. Sidewalks will be provided within the subdivision. The project's main access road will also be widened to provide shoulder lanes to accommodate pedestrian, bike, and equetrian access. These shoulder lanes are compatible with the existing rural characteristic of the Waiakea area. The roadway sections are provided as **Exhibit "A"** and **Exhibit "B"**.

8. A key issue for the Island of Maui and the Makawao-Pukalani-Kula region in particular, is water source availability. This limitation is a recognized constraint to the development of affordable housing in Upcountry Maui. As described in the Draft Environmental Assessment, to address this issue, Kula Ridge, LLC will be

developing a new well at an elevation of approximately 2,900 feet on TMK (2) 2-3-001:023. Drilling and testing will be undertaken in compliance with the State Commission on Water Resource Managment's requirements for well drilling and pump installation, including the preparation and submission of required well completion reports. The new well will not impact agricultural water interests, which are currently served by surface water sources.

9. The drainage retention system, as reported in the Preliminary Drainage Report, will be sized to accommodate the 50-year, 1-hour storm generated from the proposed project. The reported retention capacity is the minimum required under the Rules for the Design of Storm Drainage Facilities in the County of Maui. During the design phase of the project, Kula Ridge, LLC will seek to retain up to 10 percent more than the minimum required by the drainage rules. The detention basin will be oversized to retain more than the net increase of stormwater on the property.

10. As noted, Kula Ridge Mauka, LLC will prepare a separate EA for the Kula Ridge Mauka 21-lot project. The Draft EA will be provided to the Planning Department for review and comment.

11. In light of the ongoing General Plan Update process, it appears premature to assume that all projects advanced at this point in time will be reflected in either the Urban Growth Boundary or Rural Growth Boundary. As a point of reference, we note that the Land Use Policy Map contained in the Planning Department's Draft Maui Island Plan, Volume II, shows no new growth areas in the Makawao-Pukalani-Kula Community Plan Region. Given the ongoing work of the General Plan Advisory Committee and outcome uncertainties of the General Plan Update process, Chapter VIII, Section 8 will be revised to reflect the discussion presented in the Cumulative and Secondary Impacts chapter of the EA document.

12. The comment responding to the criteria relating to district contiguity will be corrected in the Final EA. In particular, the comment will be amended to read as follows:

> *The 31.87-acre parcel proposed to be reclassified is in proximity to existing Urban district lands to the west. Although no contiguous, the intervening Kula Community Center and tennis courts establish a land use spatial configuration which provides a continuity of urban use patterns between the project site and lands falling within the State Urban district.*

We confirm that the County Council will act on the Section 201H application prior to any action being taken by the State Land Use Commission on the petition for land use reclassfication.

13. See response to item no. 12, above.

14. The Departments' comments on the General Plan, as presented in the Department's April 22, 2008 comments on the Section 201H-38 application are noted. A copy of the Departments Section 201H-38 comment letter and our accompanying response are attached hereto as **Attachment "A"**.

15. The Department's comments regarding consistency with the rural character of the area and consistency with the goals, objectives and policies of the Makawao-Pukalani-Kula Community Plan, as presented in the Department's April 22, 2008 comment letter on the Section 201H application, were reviewed. Responses to these comments are included in our accompanying response letter. See response nos. 2, 3, 4 and 5 in **Attachment "A"**. Given the project's objective to meet the critical need for affordable housing for island residents, the plan as proposed is judged to be preferred.

16. Opportunities for affordable housing development are considered limited based on a number of factors, including land availability, infrastructure costs, and land use entitlements. In the marketplace environment, development of affordable housing requires capital investment where opportunity exists for such development. Risk capital will not be made available if there is difficulty in securing alternative sites which require higher standards and criteria for acquisition and development. The resulting challenge for providing affordable housing then becomes significantly more complex. It is in this context that the proposed alternative is being advanced.

17. The following responds to the Department's comments listed.

    a. The affordable housing program will be detailed in an affordable housing agreement executed by Kula Ridge, LLC and approved by the County.

        i. The purchaser selection process has yet to be defined, but will be clarified as part of the affordable housing agreement.
        ii. As currently envisioned, affordability will be maintained through buy back and equity sharing provisions developed with the County of Maui.
        iii. Market units will serve to subsidize all affordable units.
        iv. The market units will be released concurrently with affordable units.

b. All affordable units will be developed as house-lot packages.

c. A preliminary grading plan and Best Management Practices measures will be included as addenda to the Preliminary Drainage Report.

d. Kula Ridge, LLC has been engaged in ongoing discussions with the Department of Parks and Recreation regarding the satisfaction of parks and playground assessment requirements.

We hope the responses provided herein are useful in clarifying the objectives of the project. We appreciate your input and look forward to your continuing input during the Section 201H-38 process.

Very truly yours,

Rowena Dagdag, Planner

RD:mge
Enclosures
cc: Clayton Nishikawa, Kula Ridge LLC (w/enclosures)
Vanessa Medeiros, Department of Housing and Human Concerns (w/enclosures)
Blaine Kobayashi, Carlsmith Ball (w/enclosures)
Stacy Otomo, Otomo Engineering, Inc. (w/enclosures)
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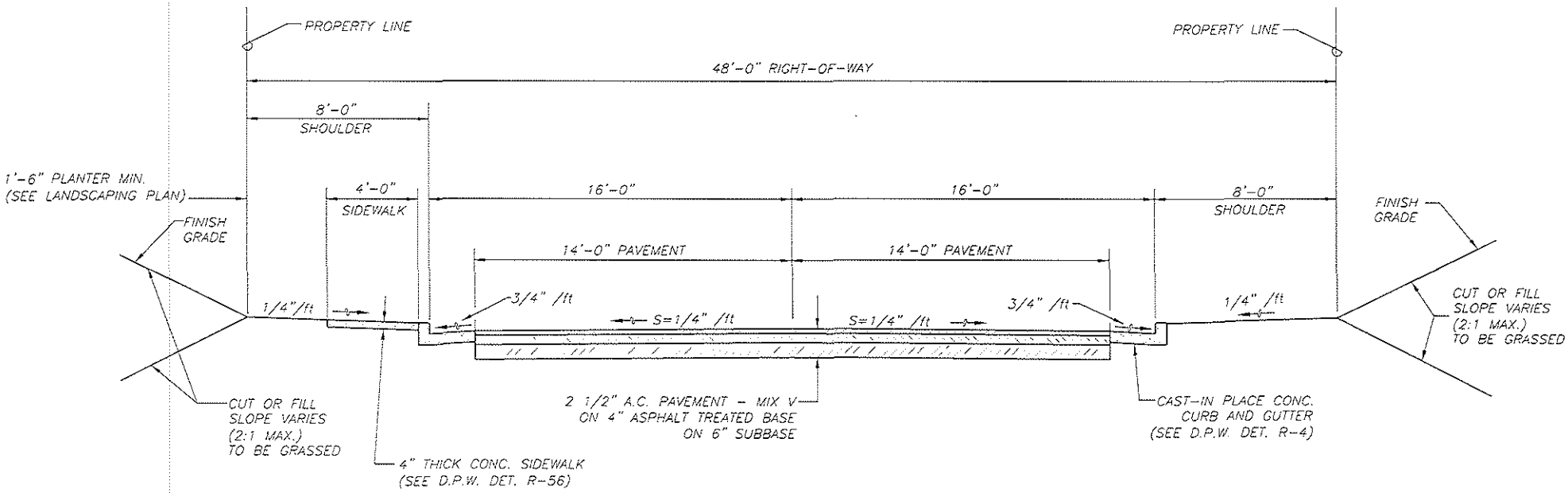
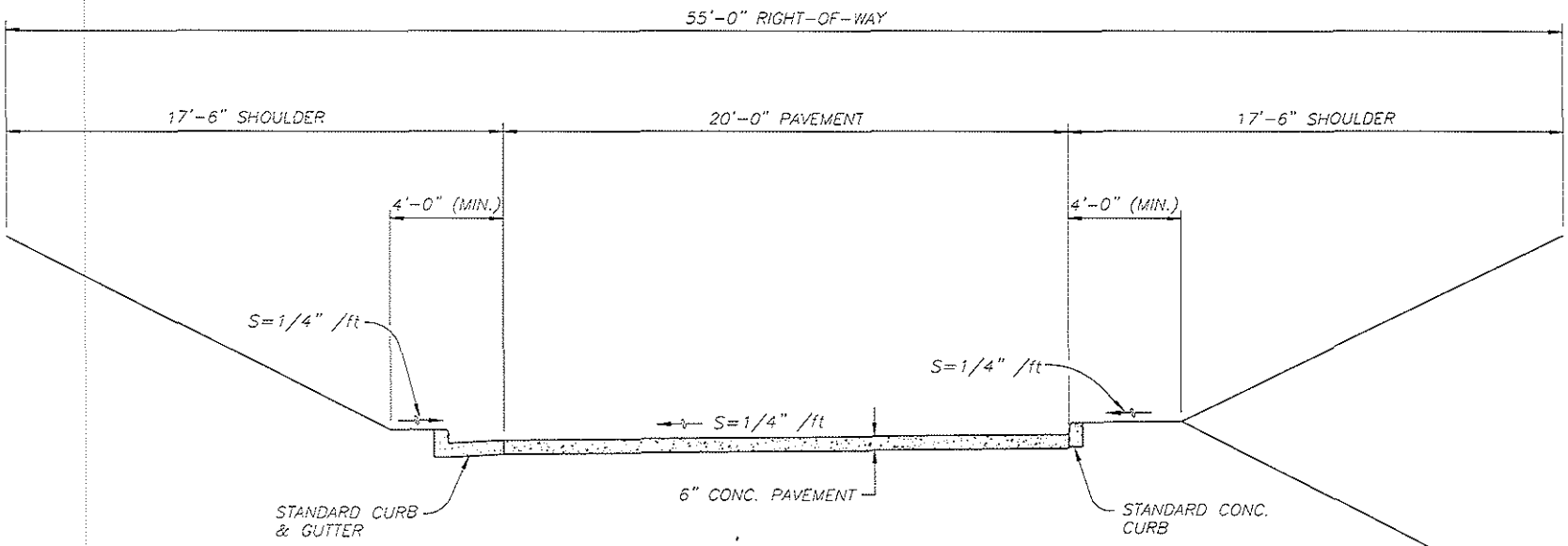


TYPICAL SECTION - 48 FT. RIGHT-OF-WAY

SCALE: 1/4 INCH = 1 FEET

EXHIBIT "A"



TYPICAL SECTION A – 55 FT. RIGHT-OF-WAY

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SCALE: 1/4 INCH = 1 FOOT

EXHIBIT "B"

CHARMAINE TAVARES
Mayor

JEFFREY S. HUNT
Director

COLLEEN M. SUYAMA
Deputy Director

COUNTY OF MAUI
DEPARTMENT OF PLANNING

April 22, 2008

Ms. Vanessa Medeiros, Director
Department of Housing and Human Concerns
200 South High Street, Suite 400
Wailuku, Hawaii 96793

Dear Ms. Medeiros:

SUBJECT: **201H-38, HRS Application for Kula Ridge Residential Workforce Housing Subdivision at TMK: (2) 2-3-001:174, Kula, Island of Maui, Hawaii (EAC 2008/0014)**

The Department of Planning (Department) has received a Draft Environmental Assessment (DEA) prepared in support of the Kula Ridge Residential Workforce Housing Subdivision. The cover letter transmitting the DEA states that "the applicant will submit a 201H-38 application with the Maui County Council" and then also states that "It would be appreciated if you would provide your written comments regarding the 201H-38, HRS application, if any, concurrently with any Draft EA comments you may have." The Department appreciates the efficiencies potentially involved with this approach and the comments below are submitted in response that request. However, we also request to be forwarded a copy of the actual 201H-38, HRS application and the opportunity to review that document to see if any additional or modified comments from this Department are warranted.

1. The project appears to propose very little affordable housing in addition to that which is now required of all comparable projects under the County's Residential Workforce Housing Policy. With the recent adoption of the Workforce Housing Policy, this appears to now possibly be an overly low and broad threshold for the availability of the various exemptions which may be requested under Section 201H-38. Was the project DEA's reported determination by the Department of Housing and Human Concerns (DHHC) that the project qualified under Section 201H-38 made prior to the adoption of the County's Residential Workforce Housing Policy? If so, is such a determination still applicable and effective? If so, would it still qualify now given the adoption of the Residential Workforce Housing Policy? If so, it

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ATTACHMENT "A"

appears that applications for projects to quality under Section 201H-38 may become much more frequent and the Department may wish to initiate discussions with the DHHC about the impacts and other implications of an increased volume of Section 201H-38 applications and how these might be addressed for the future.

2. The area proposed for development is identified on the Makawao-Pukalani-Kula Community Plan map as primarily Rural, with a small portion Residential. The project appears to be at least somewhat in conflict with the following objective and policy listed within the 1990 update of the Maui County General Plan. Prior to granting an exemption from processing any amendments or permits normally required relative to the Community Plan and Zoning or Subdivision requirements, measures to eliminate conflict of the project with these objectives and policies should be applied to the project.

   "B. LAND USE Objective 1. To preserve for present and future generations existing geographic, cultural and traditional community lifestyles by limiting and managing growth through environmentally sensitive and effective use of land in accordance with the individual character of the various communities and regions of the County.

   Policies d. Formulate a directed land use growth strategy which will encourage the redevelopment and infill of existing communities allowing for mixed land uses, where appropriate."

3. As stated above, the area proposed for development is identified on the Makawao-Pukalani-Kula Community Plan map as primarily Rural, with a small portion Residential. The project has the potential to exacerbate the following "Major Problems... of the Region" from Part II, Section B.1. of the Community Plan which "provides the underlying basis for the planning goals, objective and polices" of the Community Plan. Prior to granting an exemption from the Community Plan and Zoning the impact of the project on these major problems and potential mitigations to these impacts should be addressed:

   "a. WATER. A primary concern is the limited development of water resources and distribution system to meet the needs of the region. The proper allocation of water

resources is considered essential to, in order of priority: (1) preserve agriculture as the region's principal economic activity, promote diversified agricultural activities, and effectively encourage the development of Department of Hawaiian Home Lands (DHHL) parcels; and (2) ensure the long-term viability of the region's residential and economic base.

b. LOSS OF RURAL CHARACTER. One of the primary attributes which make the Makawao-Pukalani-Kula region unique to the island is the rural and serene environment which defines Upcountry Maui's character. The loss of this rural ambiance is of significant concern to the region's residents. Consequently the preservation of this rural setting and open space, through comprehensive planning, public participation, and orderly plan implementation is viewed as an important goal for the region."

With regards to water, the possible impact of the proposed well upon the sustainable yield of the underground water source for the project should be analyzed and addressed. Should there be such a water impact, the secondary impact upon "The proper allocation of water resources... to... preserve agriculture as the region's principal economic activity" should also then be addressed.

With regards to "loss of rural character", the scale and density of the project does not appear consistent with the rural character of the region and would seem to exacerbate this second identified underlying problem within the region.

The urbanization of this area would impact what the community valued during the Community Plan review. The long term impacts on these community values need to be addressed. Although the developer will be requesting to be relived from the Community Plan Amendment and Change in Zoning processes the urbanization of the property cannot be reviewed in a vacuum. Although housing is an issue in the County of Maui it should not necessarily override other needs and values of the community.

4. The project appears in varying degrees to be in conflict with the following goals, objectives and policies listed within the Makawao-Pukalani-Kula Community Plan. Prior to granting an exemption from processing any amendments or permits normally required relative to the Community Plan and Zoning or Subdivision requirements, measures to eliminate conflict of the project with these goals, objectives and policies should be applied to the project.

   a. "Economic Activity Objectives and Policies:

      1. Provide for the preservation and enhancement of agricultural lands and operations, emphasizing the importance of promoting diversified agriculture to the region's economic base and lifestyle.

      2. Support programs and plans to develop adequate water systems for agricultural use.

      3. Protect existing agricultural operations from urban encroachment.

      5. Recognize the rural, open space character of the Upcountry region as an economic asset of the island."

   b. Economic Activity Implementing Actions:

      2. As a condition of subdivision approval for non-agricultural lots, require that lot owners execute agreements which preclude legal action being brought against nearby farmers on issues relating to agricultural operations/nuisances."

   c. Land Use Goal: The maintenance and enhancement of Upcountry's unique and diverse rural land use character with sensitivity to existing land use patterns, natural resource values, and economic and social needs of the region's residents."

   d. Land Use Objectives and Policies:

      4. Encourage land use patterns which will: Discourage 'urban sprawl'.

18. Where appropriate, support the reclassification of State Land Use districts to ensure consistency between State Land Use designations and land use designations defined by the Makawao-Pukalani-Kula Community Plan land use map.

26. Support land use spatial patterns which enhance the functional viability of pedestrian-oriented town and village centers.

30. Utilize the Rural classification to provide a transition and buffer between the Urban and Rural districts."

e. "Urban Design Objectives and Policies:

1. Encourage urban design concepts which promote and produce pedestrian orientation, town centers, mixed land uses and energy conservation principles to enhance the identity and livability of new and existing communities."

5. Although not yet adopted, the Department has forwarded recommendations to the Maui County Council regarding the 2030 General Plan Update Countywide Policy Plan, following extensive consideration by the public and the County's three General Plan Advisory Committees and Planning Commissions. The Department recommends that prior to granting an exemption from processing any amendments or permits normally required relative to the Community Plan and Zoning or Subdivision requirements, measures to eliminate conflicts of the project with the following goal, objective and policy of this draft plan should be applied to the project.

"G. Promote Sustainable Land Use Planning and Development
Objective 1. Implement a directed land use growth strategy which will improve the management of our County's land, water and natural resources for the benefit of currant and future Maui County Residents.

Polices a. Define and enforce urban and rural growth limits in the island and community plans."

6. The Department has recently released a Draft Maui Island Plan dated March, 2008. Although the Maui General Plan Advisory Committee has not yet begun to review and comment upon the Draft Island Plan, the Department can use the document where appropriate as another tool for analyzing any significant land use proposals. In this light, the Department notes that the proposed Kula Ridge Residential Workforce Housing Subdivision falls outside of the draft Urban Growth Boundary (UGB) for applicable Makawao-Pukalani-Kula area. Text of the Directed Growth Strategy section of the Draft Island Plan, Urban Growth Areas subsection, includes the following relevant discussion of the usage of the UGB approach within the draft plan.

   "The UGB denotes the areas within which urban-density development requiring a full range of services, such as new multi-user sewer and water, is supported. The UGB is one of Maui's long-range planning tools and will be used to evaluate proposals involving community plan amendments, change in zoning, development proposals or utility extensions. The urban growth boundaries are used to protect farms and natural areas from urban sprawl and to promote the efficient use of land, public facilities and services inside the boundary. The UGBs take into account future growth projections through 2030, the availability of infrastructure and services, and an approximate density of land development to determine the placement of the boundary. Land outside of the UGB is intended to remain rural in character with a strong agricultural and natural resource presence."

   The proposed project would provide for residential development at urban densities. Thus, it would not be consistent with the above Urban Growth Areas subsection nor the following policy c. within the Urban Growth Area Goal & Policies subsection of the Directed Growth Strategy.

   "c. Community plans shall provide for urban density land use designations only within UGBs."

7. On January 10, 2008, the Department promulgated a policy memorandum in order "to establish a Department of Planning (Department) policy regarding the support of proposed development projects during the General Plan update process." The most relevant features of this policy follow:

"1. The Department believes that due to the pending General Plan update, we should respect the existing community plan boundaries until there is further progress in the General Plan update process. We ask developers to participate in the process rather than submit independent requests.

3. It could be counter to public policy for a development to be approved now in an area where the updated plan may not provide for that type of development.

4. Based on the above, the Department will not support any proposed development that involves a community plan amendment at this time.

5. The following exceptions may be considered:

   a. The project offers a substantial public benefit and if it is a private project, the public benefits are far above what would be required based on existing ordinances, policies or other regulations.

6. This policy will continue on an island specific basis until the County Council has adopted that respective island's plan update (i.e. Maui Island Plan, Molokai Community Plan or Lanai Community Plan)."

Although the anticipated 201H-38 application would not change any community plan land use boundaries and instead would request a waiver from the limitations of the community plan, the proposed development is not consistent with current community plan designations for the site. Given that the proposed development lies outside the applicable Urban Growth Boundary within the recently released Draft Maui Island Plan but would involve residential development at urban densities and a request for the State Land Use District for part of the site to be changed from Agriculture to Urban, there appears to be a very strong chance that the "updated plan may not provide for that type of development."

Under the terms of the policy memorandum, the Department of Planning would not support the proposed development. Even though it involves affordable housing which can provide a substantial public benefit, it would also not seem to meet the listed criteria for an

exception from the general position because the affordable housing "public benefits are" not "far above what would be required based on existing ordinances, policies or other regulations", and instead only barely meet those current requirements.

8. The inclusion of the four large lots in the affordable housing project should be analyzed. To include lands that do not meet the intent of the law to provide affordable housing into the 201H-38 process may be inappropriate. The market priced units (49%) and the subsidies requested by the developer through the exemptions requested should be sufficient to off-set the costs to provide the affordable housing.

   Exemptions from the zoning provisions for the affordable housing units should follow the R-0 Zero Lot Line Residential District standards. The R-0 Zero Lot Line Residential District was established by the County of Maui to encourage the development of affordable housing and would, if the project is approved, be an appropriate zoning category for this project which proposes zero line lots.

9. For the market units, the zoning provisions of the R-1 Residential District should apply if the project is approved. The Department concurs that no accessory or second dwelling units should be permitted on these lots.

10. Should the four large lots be included in the 201H-38 process then the County Agricultural District standards of Chapter 19.30A should apply since representations in the DEA are that these lots would remain in available for agriculture use.

11. At the densities proposed, curbs, gutters, and sidewalks should not be deleted from the roadway improvements within the subdivision. Within a residential subdivision sidewalks are important for people within the community to walk and curbs and gutters are necessary for the transport of runoff. However, alternatives to provide pedestrian access and drainage may be appropriate for the affordable units to reduce costs. The deletion of such improvements might also mean that they would be deferred to a later date and County resources might eventually be called upon to complete such improvements for both the affordable and market units.

12. There is not an objection to the exemption of the affordable units from assessment and other fees. However, the market units should be

required to pay such assessments and fees since the sale of the market units normally would include such costs. The sales prices for the market units should offset the cost of the assessment and fees especially since no restrictions are being placed on the market units as to sales.

Thank you for the opportunity to comment on this project. If additional clarification is required, please contact me at any time or contact Mr. Jeffrey Dack, AICP, Staff Planner, of my office at jeffrey.dack@mauicounty.gov or at 270-6275

Sincerely,

JEFFREY S. HUNT, AICP
Planning Director

xc: Mayor Charmaine Tavares, County of Maui
Clayton I. Yoshida, AICP, Planning Program Administrator
John F. Summers, Planning Program Administrator
Jeffrey Dack, AICP, Staff Planner
Milton Arakawa, Director, Department of Public Works
Brian Moto, Corporation Counsel
Jane Lovell, Deputy Corporation Counsel
Office of State Planning
State Land Use Commission
Rowena Dagdag, Munekiyo & Hiraga, Inc.
Project File
General File

JSH:JPD:bg
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MUNEKIYO & HIRAGA, INC.

MICHAEL T. MUNEKIYO
GWEN OHASHI HIRAGA
MITSURU "MICH" HIRANO
KARLYNN FUKUDA

MARK ALEXANDER ROY
[illegible]

July 24, 2008

Jeffrey S. Hunt, AICP, Director
County of Maui
Department of Planning
250 South High Street
Wailuku, Hawai`i 96793

SUBJECT: Section 201H-38 Application for Proposed Kula Ridge Residential Housing Workforce Housing Subdivision (EAC 2008/0014)

Dear Mr. Hunt:

The Department of Housing and Human Concerns has forwarded to us, your letter of April 22, 2008, providing comments on the Section 201H-38 Application for the proposed Kula Ridge Residential Housing Workforce Housing Subdivision. On behalf of Kula Ridge, LLC, we are providing responses for your consideration. For reference purposes, the response provided below are numbered to correspond to the numbered comments in your letter.

1. As described in the Draft Environmental Assessment for the project, 59 of the 116 lots (51%) will be offered as workforce housing. The Department of Housing and Human Concern's determination that the project qualifies as a Section 201H-38 project was made with the County's Residential Workforce Housing Policy in mind. The number of workforce housing units being provided by the project is, therefore, considered appropriate in the context of the policy. As you are aware, the Maui County Council is the decision-making authority for the subject application. In this regard, Council will consider various factors relating to the provision of affordable housing on the island, including the affordable housing program being offered by Kula Ridge, LLC.

   With respect to the subject application leading to an increased volume of Section 201H requests, we understand that each project is evaluated by the Department of Housing and Human Concerns on a case-by-case basis to determine eligibility. We further understand that a key criteria for eligibility decision-making is the extent to which a proposal will help to meet the growing demand for affordable housing within the context of potential community impacts and concerns. The protocols established by the Department of Housing and Human Concerns, therefore, takes

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into account analysis of impacts associated with a proposed affordable housing project.

2. The General Plan's Land Use Objective and Policy "d" are a part of a holistic document which identifies appropriate strategies for addressing a multiplicity of needs for Maui residents. In the context of providing affordable housing for local residents, the objectives and policies of the General Plan must, therefore, be viewed collectively and judgement rendered so as to establish policy priorities to meet this specific need. While the proposed action is not an "infill" project as described in Policy "d", the availability of land and development objectives of the project warrants fair review towards meeting an important County need. It is noteworthy that the proposed Kula Ridge Residential Workforce Housing Subdivision addresses the General Plan's objectives and policies for "Housing and Urban Design."

3. A key issue for the Island of Maui and the Makawao-Pukalani-Kula region in particular, is water source availability. This limitation is a recognized constraint to the development of affordable housing in Upcountry Maui. As described in the Draft Environmental Assessment, to address this issue, Kula Ridge, LLC will be developing a new well at an elevation of approximately 2,900 feet on TMK (2) 2-3-001:023. Drilling and testing will be undertaken in compliance with the State Commission on Water Resource Management's requirements for well drilling and pump installation, including the preparation and submittal of required well completion reports. The new well will not impact agricultural water interests, which are currently served by surface water sources.

   With respect to issues concerning loss of rural character, the proposed project is located in proximity to urban uses including the Kula Community Center, Morihara Store, Café 808, Kula Gym, Kula Elementary School, Kula Fire Station and single-family residences. As noted, an approximately 15 acre portion of the site is designated for Single-Family use by the Makawao-Pukalani-Kula Community Plan. When average densities are applied to this Single-Family area, then combined with average densities for the Rural-designate areas, approximately 120 lots can be developed on the project site. With these considerations in mind, the location of the project is deemed appropriate, particularly in terms of its immediately surrounding land use context.

4. As with the General Plan, the Makawao-Pukalani-Kula Community Plan is considered a holistic planning document. As stated in the Makawao-Pukalani-Kula Community Plan:

> *Mutually supporting goals, objectives, policies and implementing actions contained in the Hawaii State Plan, State Functional Plans, Maui County General Plan and the Makawao-Pukalani-Kula Community Plan provide for optimum planning effectiveness and benefits for the residents of the Makawao-Pukalani-Kula Community Plan region.*

Identification of objectives and policies which may not necessarily be advanced by the project without recognizing those policies and objectives which do, appears to disregard the fundamental value of the community plan which seeks to provide for "optimum planning effectiveness and benefits for the residents of the Makawao-Pukalani-Kula Community Plan region." The applicant believes that as a process, planning to meet a critical community need, should be analyzed in the context of overall community benefits. Similar to the General Plan objectives and policies, objectives and policies of the Community Plan must, therefore, be viewed collectively and judgement rendered so as to establish policy priorities which are based on expressed community needs.

5. See response to Item No. 4, above.

6. We note that Kula Ridge, LLC has been engaged in the General Plan Advisory Committee's process of reviewing the update to the Maui County General Plan. A presentation to the GPAC on the proposed Kula Ridge Residential Workforce Housing Subdivision was made at the GPAC's October 4, 2007 meeting. In this connection, Kula Ridge, LLC holds high regard for the process and will continue to be an active participant through the GPAC's deliberation of the Maui Island Plan. While the Maui Island Plan is a key component of the General Plan Update, we understand that it is, at this point, a work-in-progress which is designed to be highly process-oriented. The use of the Maui Island Plan as an evaluative planning tool at this time, therefore, appears to be premature.

7. Kula Ridge, LLC is in receipt of the Planning Department's January 10, 2008 policy memorandum and respects the position of the Department. As noted, Kula Ridge, LLC is actively engaged in the GPAC process and will continue to be engaged in the process. While the Department's current position is that the proposed action does not meet the criteria for an exception, Kula Ridge, LLC seeks to continue the Section 201H process to engage full discussion and assessment as to the needs and benefits of the project to the community. We understand that the protocols established for Section 201H review will allow for broad-based discussion by stakeholders, such that an informed decision can be made.

8. The use of the four (4) large lots are a part of the project proposal which was reviewed by the Department of Housing and Human Concerns. These lots are appropriately designated market lots and are not intended to compromise the intent of Section 201H-38.

   We note that Section 201H-38 allows the County Council to grant exemptions from County zoning requirements. Exemptions for each Section 201H application are developed to address the unique development circumstances of that project. The intent of the exemption provision is to ensure that affordable housing can be delivered in a manner which does not adversely affect public health, safety and welfare. As such, development performance standards developed for each Section 201H project need not necessarily conform with a specific section of Title 19, as long as, in the judgement of the County Council, said standards do not contravene public health, safety and welfare.

9. See response to Item No. 8, above.

10. In the specific instance of the four (4) large lots, the use of performance standards set forth in Chapter 19.30A, would be appropriate.

11. Sidewalks will be provided within the subdivision to service both affordable and market units. The project's main access road will also be widened to provide shoulder lanes to accommodate pedestrian, bike and equestrian access. These shoulder lanes are compatible with the existing rural characteristic of the Waiakoa area. The roadway sections are provided as **Exhibit "A"** and **Exhibit "B"**. As such a request for the exemptions to sidewalk improvements and improvements to curbs and gutters will be withdrawn.

    We note that the roadways within the project will be privately held and maintained. As such, County funds will not be used for future maintenance work.

12. Kula Ridge, LLC intends to apply the exemptions from assessments and fees to the affordable units only. Market units will be subject to said assessments and fees.

We hope the responses provided herein are useful in clarifying the objectives of the project. We appreciate your input and look forward to discussing the project with the Department as it proceeds through the Section 201H-38 process.

Very truly yours,

Rowena Dagdag, Planner

RD:yp
Enclosures
cc: Clayton Nishikawa, Kula Ridge LLC (w/enclosures)
Vanessa Medeiros, Department of Housing and Human Concerns (w/enclosures)
Blaine Kobayashi, Carlsmith Ball (w/enclosures)
Stacy Otomo, Otomo Engineering, Inc. (w/enclosures)
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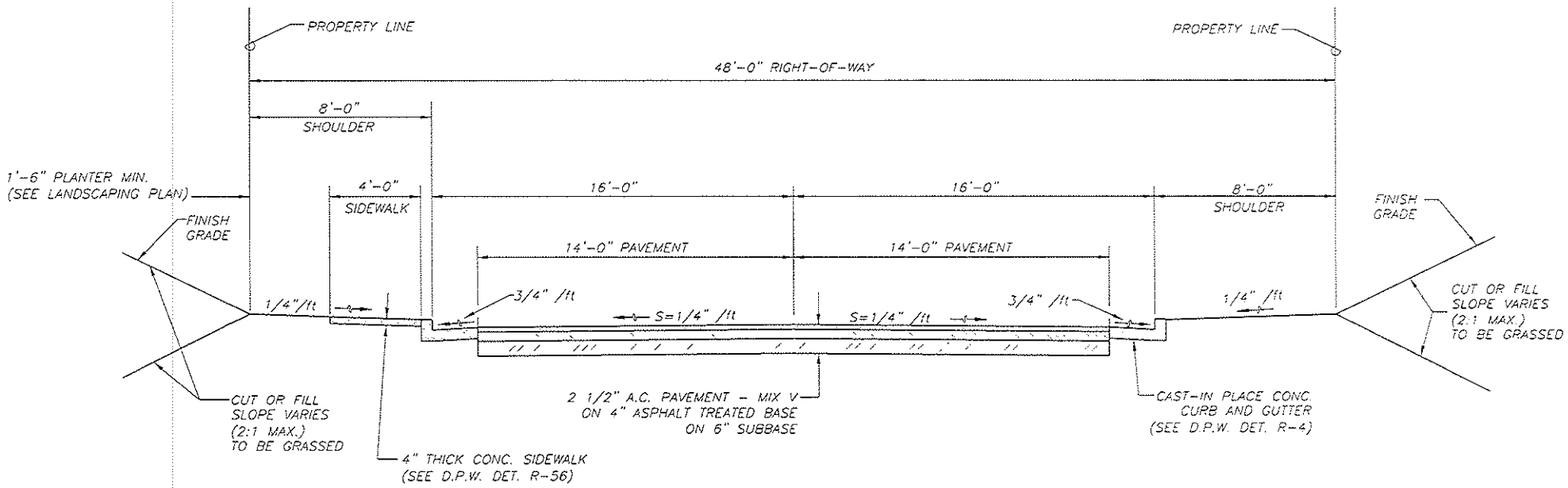
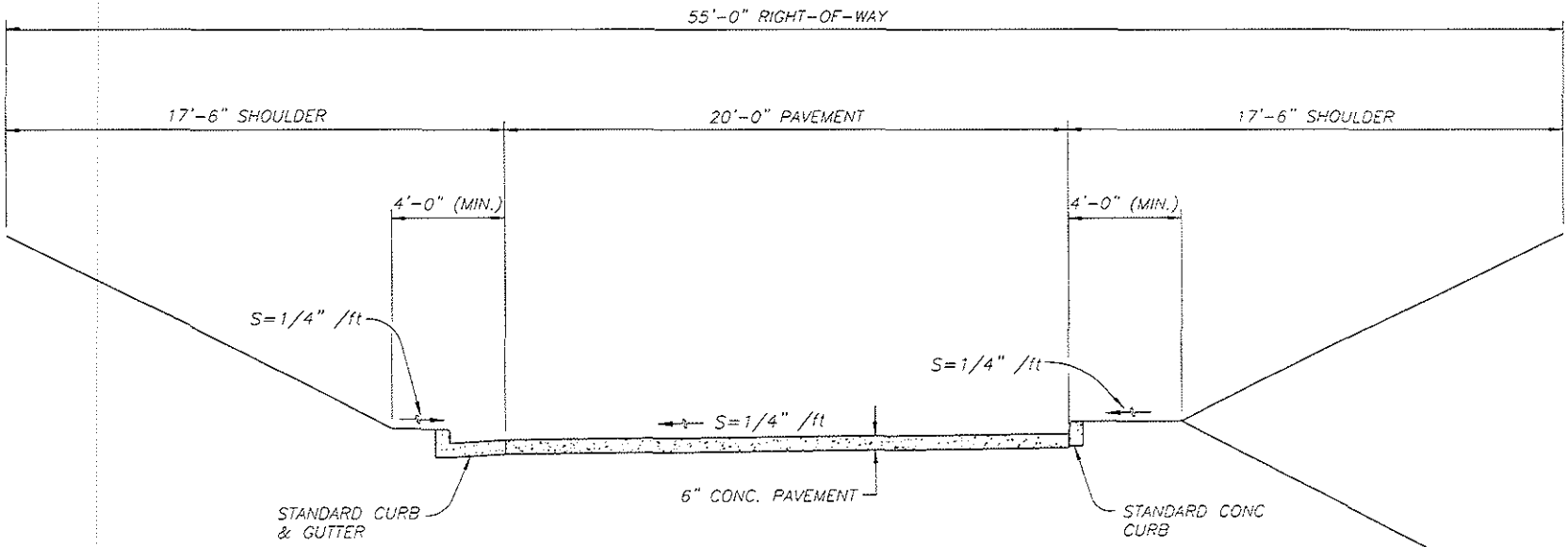


TYPICAL SECTION - 48 FT. RIGHT-OF-WAY

SCALE: 1/4 INCH = 1 FEET

EXHIBIT "A"



TYPICAL SECTION A – 55 FT. RIGHT-OF-WAY

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SCALE: 1/4 INCH = 1 FOOT

EXHIBIT "B"

APR 1 4 2008

CHARMAINE TAVARES
Mayor

TAMARA HORCAJO
Director

ZACHARY Z. HELM
Deputy Director

(808) 270-7230
Fax (808) 270-7934

DEPARTMENT OF PARKS & RECREATION

700 Hali'a Nakoa Street, Unit 2 , Wailuku, Hawaii 96793

April 9, 2008

Vanessa Medeiros, Director
Department of Housing and Human Concerns
200 South High Street, Suite 400
Wailuku, Hawaii 96793

SUBJECT: Draft Environmental Assessment and Preliminary Section 201H-38, Hawaii Revised Statutes (HRS) Application for Proposed Kula Ridge Residential Workforce Housing Subdivision, Kula, Maui, Hawai'i TMK (2)2-3-001:174

Dear Ms. Medeiros:

The Department of Parks and Recreation is currently working with the developer to build a portion of the new access road adjacent to the Kula Community Center Tennis Complex. The work will be done in conjunction with the Kula Tennis Complex expansion project. Improvements to the access road will allow for staging and construction activity to occur for the tennis court expansion. The developer has been extremely cooperative with Parks efforts to improve the tennis facility. We will continue to work with the developer to ensure that there are no impacts to the Tennis Complex and Community Center.

Thank you for the opportunity to review and comment on this matter. Please feel free to contact me or Mr. Patrick Matsui, Chief of Parks Planning and Development, at 270-7387 should you have any other questions.

Sincerely,

TAMARA HORCAJO
Director

xc: Rowena Dagdag, Munekiyo & Hiraga, Inc.
Patrick Matsui, Chief of Parks Planning & Development

MUNEKIYO & HIRAGA, INC.

July 24, 2008

Tamara Horcajo, Director
County of Maui
Department of Parks and Recreation
700 Hali`a Nakoa Street, Unit 2
Wailuku, Hawai`i 96793

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Ms. Horcajo:

We are writing to you on behalf of the applicant, Kula Ridge LLC, to thank you for your letter dated April 9, 2008, regarding the Draft EA for the Kula Ridge Residential Workforce Housing Subdivision project located in Kula, Maui, Hawaii.

We acknowledge the coordination that had been undertaken with the applicant in building a portion of a new access road to serve the expansion of the Kula Community Center Tennis Complex. The applicant will continue to work with the department to ensure that there are no impacts to the Tennis Complex and Community Center.

We appreciate the input we received from your office. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:yp
cc: Vanessa Medeiros, Department of Housing and Human Concerns
Clayton Nishikawa, Kula Ridge LLC
F:\DATA\Nishikawa\KulaAH 1107\DPR.deares.wpd

environment planning

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APR 0 8 2008

POLICE DEPARTMENT
COUNTY OF MAUI

CHARMAINE TAVARES
MAYOR

OUR REFERENCE
YOUR REFERENCE ti

55 MAHALANI STREET
WAILUKU, HAWAII 96793
(808) 244-6400
FAX (808) 244-6411

THOMAS M. PHILLIPS
CHIEF OF POLICE

GARY A. YABUTA
DEPUTY CHIEF OF POLICE

March 28, 2008

Ms. Rowena Dagdag
Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, HI 96793

Dear Ms. Dagdag:

SUBJECT: Kula Ridge Residential Workforce Housing Subdivision, Kula, Maui
TMK (2) 2-3-001:174

This is in response to your letter of March 17, 2008, requesting comments on the above subject.

We have reviewed the Draft Environmental Assessment and Preliminary 201H-38, Hawaii Revised Statutes Application for the above mentioned subject. Please refer to a copy of our comments and/ or recommendations.

Thank you for giving us the opportunity to comment on this project.

Very truly yours,

Assistant Chief Wayne T. Ribao
for: Thomas M. Phillips
Chief of Police

c: Jeffrey Hunt, Maui County Planning Department
Vanessa Medeiros, Department of Housing and Human Concerns

COPY

TO : THOMAS PHILLIPS, CHIEF OF POLICE, COUNTY OF MAUI

VIA : CHANNELS

FROM : STEPHEN ORIKASA, ADMINISTRATIVE SERGEANT, WAILUKU PATROL DIVISION

CONCUR:
AC [signature]
03/28/08

SUBJECT : RESPONSE TO REQUEST FOR COMMENTS REGARDING THE PROPOSED KULA RIDGE WORKFORCE HOUSING SUBDIVISION

This communication is submitted as a response to a request for comments by Munekiyo & Hiraga, Inc., Planner, Rowena Dagdag, regarding the below subject;

SUBJECT : Draft Environmental Assessment and Preliminary 201H-38, Hawaii Revised Statutes (HRS) Application for Proposed Kula Ridge Residential Workforce Housing Subdivision, Kula, Maui, Hawaii

TMK : (2) 2-3-001:174

RESPONSE:

In review of the documents submitted, under Section I project Overview, Figure 4 Conceptual Site Plan; I was unable to determine if this project includes pedestrian walkways within the development. If not already planned, it is suggested that pedestrian walkways be constructed along the proposed access road off of Lower Kula Road to the Kula Community Center area. Residential properties will likely increase the usage of the community center, in-turn increasing pedestrian traffic due to the close proximity to the proposed development.

There are 116 proposed lots with 112 being residential type lots, which will definitely create an increase in pedestrian and motor vehicle traffic in the area. Four of the lots have rural designations which, if used for agricultural purposes, will increase the number of large vehicles and equipment providing service in the area. This combined with the increases in regular motor vehicle traffic creates a safety factor for all those accessing the area.

In line with early consultation comments submitted by Sergeant Scott Migita on 07/26/06, the implementation of adequate traffic control devices for traffic increases, parking, lighting and security measures need to take place to maintain the safety and security of the community.

Additionally, during the construction phases of this development, extreme efforts should be made to minimize dust & debris so not to inhibit those whose health and well being may be affected. Adequate traffic control devices and personnel should be utilized to minimize the impact of heavy equipment and vehicles traveling in and out of the area.

CONCLUSION:

No objection to the proposed development at this time. Health and safety considerations need to take place during all phases of this project, including post completion maintenance.

Respectfully submitted for your review and approval.

Stephen T. Orikasa E#716
Administrative Sergeant/Wailuku Patrol Division
02/04/08 @ 1130 Hours

03/28/08 @ 1330

MUNEKIYO & HIRAGA, INC.

July 24, 2008

Thomas Phillips, Chief
County of Maui
Police Department
55 Mahalani Street
Wailuku, Hawai`i 96793

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Chief Phillips:

We are writing to you on behalf of the applicant, Kula Ridge LLC, to thank you for your letter dated March 28, 2008, regarding the Draft EA for the Kula Ridge Residential Workforce Housing Subdivision project located in Kula, Maui, Hawaii.

We offer the following comments in response to your remarks:

1. The applicant envisions the project as an opportunity to promote non-automobile travel for recreational purposes in the neighborhood region. Roadway design for the project includes pedestrian and bike friendly paths constructed within the subdivision and along the proposed access road off of Lower Kula Road. A network of bicycle paths and walking trails is anticipated to promote recreational travel to and from the Kula Community Center area and be in line with concepts envisioned for the project area, identified in the Upcountry Greenway Master Plan.

2. To address traffic concerns, roadway improvements and mitigation measures recommended in the Traffic Impact Assessment Report (TIAR) will be undertaken in consultation with applicable State and County agencies.

3. As mentioned in our October 29, 2007 response to early consultation comments provided by the department, safety issues will be considered and issues of adequate security and lighting will be addressed during the project's design phase.

4. The applicant ensures that adequate traffic control devices and personnel will be utilized during construction to minimize the impacts of large equipment traveling in and out of the area. The applicant also confirms that all construction employee parking will be accommodated on the project site and construction employees will not be allowed to park on Lower Kula Road or at the Kula Community Center.

To minimize impacts from dust and debris generated during the construction phase of the development, the applicant will implement Best Management Practices, such as the installation of dust control fencing, paving and grassing of exposed areas, and permanently landscaping, as soon as grading is completed.

We appreciate the input received from your office. Should you have any further questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:mge
cc: Clayton Nishikawa, Kula Ridge LLC
Vanessa Medeiros, Department of Housing and Human Concerns
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APR 2 1 2008

CHARMAINE TAVARES
Mayor

MILTON M. ARAKAWA, A.I.C.P.
Director

MICHAEL M. MIYAMOTO
Deputy Director

Telephone: (808) 270-7845
Fax: (808) 270-7955

RALPH NAGAMINE, L.S., P.E.
Development Services Administration

CARY YAMASHITA, P.E.
Engineering Division

BRIAN HASHIRO, P.E.
Highways Division

COUNTY OF MAUI
DEPARTMENT OF PUBLIC WORKS
200 SOUTH HIGH STREET, ROOM NO. 434
WAILUKU, MAUI, HAWAII 96793

April 15, 2008

Ms. Rowena Dagdag
MUNEKIYO & HIRAGA, INC.
305 High Street, Suite 104
Wailuku, Maui, Hawaii 96793

Dear Ms. Dagdag:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT AND PRELIMINARY SECTION 201H-38, HAWAII REVISED STATUTES (HRS) APPLICATION FOR PROPOSED KULA RIDGE RESIDENTIAL WORKFORCE HOUSING SUBDIVISION; TMK: (2) 2-3-001:174

We reviewed the subject application and have the following comments:

1. The architect and owner are advised that the project is subject to possible tsunami and flood inundation. As such, said project must conform to Ordinance No. 1145, pertaining to flood hazard districts.

2. A 30 foot radius shall be provided at the intersection of proposed subdivision road/driveway and the adjoining subdivision roads and State roads.

3. A verification shall be provided by a Registered Civil Engineer that the grading and runoff water generated by the project will not have an adverse effect on the adjacent and downstream properties.

4. A detailed and final drainage report and a Best Management Practices (BMP) Plan shall be submitted with the grading plans for review and approval prior to issuance of grading permits. The drainage report shall include hydrologic and hydraulic calculations and the schemes for disposal of runoff waters. It must comply with the provisions of the "Rules and Design of Storm Drainage

Facilities in the County of Maui" and must provide verification that the grading and runoff water generated by the project will not have an adverse effect on adjacent and downstream properties. The BMP plan shall show the location and details of structural and non-structural measures to control erosion and sedimentation to the maximum extent practicable.

5. During construction of this project, all construction employee parking shall be accommodated on the project site and not within the County road right of way.

6. All existing features such as structures, driveways, drainage ways, edge of pavement, etc. shall be shown on the project plat plan.

7. Sight distance setbacks and easements will not be allowed for all roadways public or private. Road right of way must accommodate sight distance allowances.

8. The applicant shall obtain street name approvals from the Commission on Naming Streets, Parks and Facilities and show street names on the map.

9. The 100-year flood inundation limits shall be shown on the project site plans. Lot geometrics cannot be approved until such data is submitted and reviewed.

10. The existing streets providing access to the subdivision shall have a 20 foot minimum pavement width and, therefore, must be improved.

11. A detailed final Traffic Impact Assessment Report for the entire subdivision/development shall be submitted for our review and approval. The report shall also address regional traffic impacts and include assessments from the local community police officer.

12. For all infrastructure that may be dedicated to the County, preliminary construction plan submittal shall include a completed technical assistance review performed by the Disability and Communication Access Board (DCAB) for compliance with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) for all facilities. All technical and structural infeasible assessments shall be the responsibility of the developer and an agreement

waiving the County of Maui of any future liability, including redesign and reconstruction for said facility, shall be recorded with the State Bureau of Conveyances.

13. The applicant shall be responsible for all required improvements as required by Hawaii Revised Statutes, Maui County Code and rules and regulations.

14. Construction plans shall be designed in conformance with Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and Standard Details for Public Works Construction, 1984, as amended.

15. Worksite traffic-control plans/devices shall conform to Manual on Uniform Traffic Control Devices for Streets and Highways, 2003.

16. Recommend working with the Department of Fire and Public Safety concerning a second access to the subdivision.

Please call Michael Miyamoto at 270-7845 if you have any questions regarding this letter.

Sincerely,

MILTON M. ARAKAWA, A.I.C.P.
Director of Public Works

MMA:MMM:ls
xc: Development Services Administration
Engineering Division
Highways Division
Department of Planning
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MUNEKIYO & HIRAGA, INC.

July 24, 2008

Milton Arakawa, Director
County of Maui
Department of Public Works
200 South High Street
Wailuku, Hawai`i 96793

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Mr. Arakawa:

Thank you for your letter dated April 15, 2008, providing comments on the Draft EA for the subject project.

On behalf of the applicant, Kula Ridge LLC, we offer the following responses to your comments in the same order as they appear in your letter.

1. The applicant understands your comment that the project is subject to possible flood inundation and will comply with applicable requirements relating to flood permits.

2. A 30-foot radius will be provided at the intersections of the proposed access point and the adjoining County (Lower Kula Road) roadways.

3. The Preliminary Drainage Report (PDR), prepared by Otomo Engineering, Inc. in September 2006, verifies that the grading and runoff water generated by the project will not have an adverse effect on the adjacent and downstream properties. The PDR will be included in the Final EA.

4. Grading plans will be submitted along with a Final Drainage Report (FDR) and a Best Management Practices (BMP) Plan for review and approval prior to the issuance of grading permits. All necessary hydrologic and hydraulic calculations, as well as schemes for the disposal of runoff waters will be included in the FDR, which will be prepared to be in compliance with the provisions of the *"Rules and Design of Storm Drainage Facilities in the County of Maui"*. As with the PDR, the FDR will also provide verification that grading and runoff water generated by the project will not have an adverse effect on adjacent and downstream properties. The

BMP Plan will show the location and details of structural measures to control erosion and sedimentation to the maximum extent practicable.

5. The applicant confirms that all construction employee parking will be accommodated on the project site and will not be allowed on Lower Kula Road or at the Kula Community Center.

6. All existing features will be shown on the project plat map.

7. A site plan and a sight distance report to determine required and available sight distances at the proposed intersections of the subject project will be provided to the Department during the construction plans review process.

8. The applicant has undertaken coordination efforts with the commission on naming streets, parks, and facilities to obtain street name approvals. The final subdivision map will show the approved names.

9. The applicant confirms that the final site plan will indicate the 100-year flood inundation limits of the project area.

10. The existing pavement along Lower Kula Road fronting the project is between 18 to 20 feet wide. The project's civil engineer confirms that the existing pavement will be widened to a width of 20 feet from the subdivision entry roadway to the northern intersection with the Kula Highway.

11. The final Traffic Impact Assessment Report will be included in the Final EA and submitted for your review and approval. Roadway improvements and mitigation measures recommended in the TIAR will be undertaken with applicable county and state agencies.

12. Preliminary construction plan submittal will include a technical assistance review performed by the Disability and Communication Access Board (DCAB) for compliance with the Americans with Disabilities Act Accessibility Guidelines (ADAAG) for all infrastructure elements that may be dedicated to the County. The applicant acknowledges that all technical and structural infeasibility assessments are the responsibility of the developer and that an agreement waiving the County of Maui of any future liability, including redesign and reconstruction of said facility, will be recorded with the State Bureau of Conveyances.

13., 14., and 15. The applicant and its civil engineer will coordinate with applicable agencies to ensure compliance with Hawai`i Revised Statutes, Maui County Code, and other applicable rules and regulations. This includes the Hawai`i Standard Specifications for Road and Bridge Construction dated 2005, the Standard Details for Public Works Construction, 1984, as amended, and the Manual on Uniform Traffic Control Devices for Streets and Highways, 2003.

We appreciate the input we received from you.

Thank you again for your comments. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:mge
cc: Clayton Nishikawa, Kula Ridge LLC
Vanessa Medeiros, Department of Housing and Human Concerns
Stacy Otomo, Otomo Engineering, Inc.
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APR 1 8 2008

CHARMAINE TAVARES
Mayor

CHERYL K. OKUMA, Esq.
Director

GREGG KRESGE
Deputy Director

TRACY TAKAMINE, P.E.
Solid Waste Division

DAVID TAYLOR, P.E.
Wastewater Reclamation
Division

COUNTY OF MAUI
DEPARTMENT OF
ENVIRONMENTAL MANAGEMENT
2200 MAIN STREET, SUITE 175
WAILUKU, MAUI, HAWAII 96793

April 14, 2008

Ms. Rowena Dagdag
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

SUBJECT: KULA RIDGE RESIDENTIAL WORKFORCE HOUSING SUBDIVISION DRAFT ENVIRONMENTAL ASSESSMENT & PRELIMINARY 201H REVIEW TMK (2) 2-3-001:174, KULA

Dear Ms. Dagdag,

We reviewed the subject project and have the following comments:

1. Solid Waste Division comments

   a. Section 4.b addresses construction waste management.

2. Wastewater Reclamation Division comments:

   a. None. No County sewer in the area.

If you have any questions regarding this memorandum, please contact Gregg Kresge at 270-8230.

Sincerely,

Cheryl K. Okuma

Cheryl Okuma, Director

xc: Vanessa Medeiros, DHHC

MUNEKIYO & HIRAGA, INC.

July 24, 2008

Cheryl Okuma
Department of Environmental Management
County of Maui
2200 Main Street, Suite 175
Wailuku, Hawai`i 96793

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Ms. Okuma:

We are writing to you on behalf of the applicant, Kula Ridge LLC, to thank you for your letter dated April 14, 2008, regarding the Draft EA for the Kula Ridge Residential Workforce Housing Subdivision project located in Kula, Maui, Hawai`i. We appreciate the input received from your office.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:lh
cc: Clayton Nishikawa, Kula Ridge LLC
Vanessa Medeiros, Department of Housing and Human Concerns
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APR 1 4 2008

CHARMAINE TAVARES
Mayor

JEFFREY K. ENG
Director

ERIC H. YAMASHIGE, P.E., L.S.
Deputy Director

DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
200 SOUTH HIGH STREET
WAILUKU, MAUI, HAWAII 96793-2155
www.mauiwater.org

April 10, 2008

Ms. Vanessa Medeiros
County of Maui
Department of Housing and Human Concerns
200 South High Street, Suite 400
Wailuku, Hawaii 96793-2155

RE: Project Name: Proposed Kula Ridge Workforce Housing Subdivision
Applicant: Kula Ridge, LLC
Subject I.D.: Draft Environmental Assessment
TMK: 2-3-001:174

Dear Ms. Medeiros:

Thank you for the opportunity to comment on this application.

Source Availability and Consumption
The project site is in an area served by the Upper Kula system. Water for the system comes from the streams of the Koolau and East Maui streams.

The project site's water source will be a well situated at the 2900 feet elevation on their adjoining property. The intent of the applicant is to dedicate this well to the County of Maui. The Department of Water Supply (DWS) does have concerns about the operational costs of a well at this elevation. It also acknowledges the need for a backup source and improving water quality in the Upper Kula system. However, the applicant should be aware that DWS may not agree to accept dedication of service at this elevation.

System Infrastructure
There is a 8-inch waterline and a fire hydrant in vicinity of the project site on Lower Kula Road. Storage is provided by the 2.1 million gallon Omaopio tank. Because this storage may be inadequate to service this project site, a new 500,000 gallon storage tank will be constructed by the applicant at the mauka end of their site. Required pressure break tanks will also be added to control water pressure.

Pollution
The project site overlies the Makawao aquifer. In order to protect the ground water resources, DWS encourages the applicant to adopt Best Management Practices (BMPs) for construction to minimize runoff and infiltration. Please refer to the BMP "Source Water Protection Practices Bulletin - Managing Storm Water Runoff to Prevent Contamination of Drinking Water".

Conservation
DWS recommends that the applicant consider the following conservation measures:

Eliminate Single-Pass Cooling:
Single-pass cooling systems should be eliminated per Maui County Code Subsection 14.21.20. Although prohibited by code, single-pass cooling is still manufactured into some models of air conditioners, freezers and commercial refrigerators.

Utilize Low-Flow Fixtures and Devices:
Maui County Code Subsection 16.20A.680 requires the use of low-flow fixtures and devices in faucets, showerheads, urinals, water closets and hose bibs. Water conserving washing machines, ice-makers and other devices are available.

Maintain Fixtures to Prevent Leaks:
A simple, regular program for repair and maintenance can prevent the loss of hundreds or even thousands of gallons of water per day.

Use Climate-Adapted Plants:
The project site is located in the "Maui County Planting Plan - Plant Zone 2 -Cool Dry Upper Elevations". Native plants adapted to the area conserve water and protect the watershed from degradation due to invasive alien species. Please refer to the enclosed brochure "Saving Water in the Yard - What and how to Plant in Your Area".

Prevent over-Watering by Automated Systems:
Provide rain-sensors on all automated irrigation controllers. Check and reset controllers at least once a month to reflect the monthly changes in evaporation rates at the site. As an alternative, provide more automated, soil-moisture sensors on controllers.

Should you have any questions, please contact our Water Resources & Planning Division at 244-8550.

Sincerely,

Jeffrey K. Eng, Director
ayi
Enclosure: Source Water Protection Practices Bulletin - Managing Storm Water Runoff to Prevent Contamination of Drinking Water
Maui County Planting Plan - Plant Zone 2 - Cool Dry Upper Elevations
c: Engineering Division
Rowena Dagdag, Planner, Munekiyo & Hiraga, Inc.
Kula Ridge, LLC

United States Environmental Protection Agency | Office of Water (4606) | EPA 816-F-01-020 July 2001

Source Water Protection Practices Bulletin

Managing Storm Water Runoff to Prevent Contamination of Drinking Water

Storm water runoff is rain or snow melt that flows off the land, from streets, roof tops, and lawns. The runoff carries sediment and contaminants with it to a surface water body or infiltrates through the soil to ground water. This fact sheet focuses on the management of runoff in urban environments; other fact sheets address management measures for other specific sources, such as pesticides, animal feeding operations, and vehicle washing.

SOURCES OF STORM WATER RUNOFF

Urban and suburban areas are predominated by impervious cover including pavements on roads, sidewalks, and parking lots; rooftops of buildings and other structures; and impaired pervious surfaces (compacted soils) such as dirt parking lots, walking paths, baseball fields and suburban lawns.

During storms, rainwater flows across these impervious surfaces, mobilizing contaminants, and transporting them to water bodies. All of the activities that take place in urban and suburban areas contribute to the pollutant load of storm water runoff. Oil, gasoline, and automotive fluids drip from vehicles onto roads and parking lots. Storm water runoff from shopping malls and retail centers also contains hydrocarbons from automobiles. Landscaping by homeowners, around businesses, and on public grounds contributes sediments, pesticides, fertilizers, and nutrients to runoff. Construction of roads and buildings is another large contributor of sediment loads to waterways. In addition, any uncovered materials such as improperly stored hazardous substances (e.g., household cleaners, pool chemicals, or lawn care products), pet and wildlife wastes, and litter can be carried in runoff to streams or ground water. Illicit discharges to storm drains (e.g., used motor oil), can also contaminate water supplies.

Parking lot runoff

Storm water is also directly injected to the subsurface through Class V storm water drainage wells. These wells are used throughout the country to divert storm water runoff from roads, roofs, and paved surfaces. Direct injection is of particular concern in commercial and light industrial settings (e.g., in and around material loading areas, vehicle service areas, or parking lots).

WHY IS IT IMPORTANT TO MANAGE STORM WATER RUNOFF NEAR THE SOURCES OF YOUR DRINKING WATER?

Impervious areas prohibit the natural infiltration of rainfall through the soil, which could filter some contaminants before they reach ground water. Also, impervious surfaces allow the surface runoff to move rapidly. Development reduces the amount of land available for vegetation, which can mitigate the effects of rapid runoff and filter contaminants. When the percentage of impervious cover reaches 10 to 20 percent of a watershed area, degraded water quality becomes apparent.

There are three primary concerns associated with uncontrolled runoff: (1) increased peak discharge and velocity during storm events resulting in flooding and erosion; (2) localized reduction in recharge; and (3) pollutant transport.

Erosion

When runoff is confined to narrow spaces, such as streets, the velocity at which water flows increases greatly with depth. This contributes to erosion in areas without vegetation cover, increased flooding in low lying areas, and sedimentation in surface water bodies. Sediment deposited in streams can increase turbidity, provide transport media for pathogenic bacteria and viruses, and decrease reservoir capacity. Sediments also smother aquatic species, leading to habitat loss and decreased biodiversity of aquatic species. The fast-running runoff is not afforded an opportunity to infiltrate into the subsurface, and ground waters are not recharged by rain events.

EPA considers nonpoint source pollution, including storm water runoff, to be one of the most important sources of contamination of the nation's waters. According to a nationwide study, 77 of 127 priority pollutants tested were detected in urban runoff. Some of the principal contaminants found in storm water runoff include heavy metals, toxic chemicals, organic compounds, pesticides and herbicides, pathogens, nutrients, sediments, and salts and other de-icing compounds. Some of these substances are carcinogenic; others lead to reproductive, developmental, or other health problems that are associated with long-term exposure. Pathogens can cause illness, even from short-term exposure, that can be fatal to some people.

Urban runoff is commonly collected in storm sewers and discharged to waterways untreated, so that any contaminants carried by the storm water are discharged to surface water bodies that are used as the sources of drinking water. In addition, about 20 percent of the population in the U.S. is served by combined sewer systems (for both sanitary waste and storm water) that, during heavy storm events, allow contaminants from sanitary sewage to discharge directly to waterways untreated.

AVAILABLE PREVENTION MEASURES TO ADDRESS STORM WATER RUNOFF

A variety of management practices, including pollution prevention and treatment devices, are available to abate storm water pollution. The most effective storm water pollution prevention plans combine these measures and reflect local soil, precipitation, and land use conditions. Some of the more widely-used management measures are described below.

Please keep in mind that individual prevention measures may or may not be adequate to prevent contamination of source waters. Most likely, individual measures should be combined in an overall prevention approach that considers the nature of the potential source of contamination, the purpose, cost, operational, and maintenance requirements of the measures, the vulnerability of the source waters, the public's acceptance of the measures, and the community's desired degree of risk reduction.

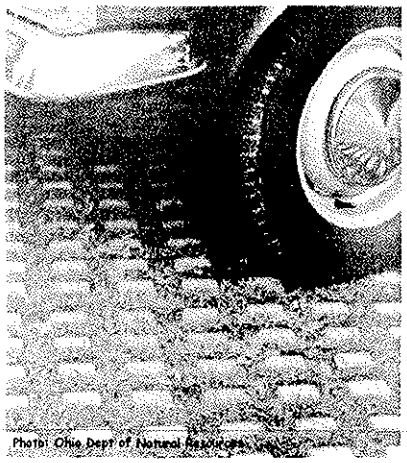
Pollution source control and prevention measures include public education to homeowners and business owners on good housekeeping, proper use and storage of household toxic materials, and responsible lawn care and landscaping; storm drain stenciling; hazardous materials collection; and eliminating illicit discharges. The incorporation of best management practices (BMPs) in building and site-development codes, if feasible, should be encouraged. On roadways, proper maintenance of rights-of-way, control of chemical and nutrient applications, street cleaning or sweeping, storm drain cleaning, use of alternative or reduced de-icing products, and equipment washing can reduce the pollutant content of runoff.

Without appropriate ***erosion and sedimentation control (ESC) measures***, construction activities can contribute large amounts of sediment to storm water runoff. Erosion can be controlled by planting temporary fast-growing vegetation, such as grasses and wild flowers. Covering top soil with geotextiles or impervious covers will also protect it from rainfall. Good housekeeping measures for construction sites include construction entrance pads and vehicle washing to keep sediment and soil on-site. Construction should be staged to reduce soil exposure, or timed to coincide with periods of low rainfall and low erosion potential, such as in the fall, rather than during spring rains. Other measures include sediment traps and basins; sediment fences; wind erosion controls; and sediment, chemical, and nutrient control.

If available, ordinances and regulations on construction activities can require plan reviews to ensure that erosion during construction is minimized or require ESC measures during construction. Inspections of ESC measures and repair of controls where needed will maintain the working order of these controls and maximize their benefit.

Local governments can use a variety of ***land use controls*** to protect source water from potential contamination. For example, subdivision controls help to ensure that expected development will not compromise drinking water quality or ground water recharge. Requiring proper storm water management in new developments and redevelopments will ensure that runoff does not become excessive as areas of paved surfaces increase. ***Low impact development*** incorporates maintaining pre-development hydrology, considering infiltration technology, and re-routing water to recharge the aquifer.

Minimizing directly connected impervious areas (DCIAs) is important to reducing the flow and volume of runoff. Planners should direct runoff from roofs, sidewalks, and other surfaces over grassed areas to promote infiltration and filtration of pollutants prior to surface water deposition. Porous design of parking lots also provides places for storm water to infiltrate to soils. ***Concrete grid pavement*** is typically placed on a sand or gravel base with void areas filled with pervious materials such as sand, gravel, or grass. Storm water percolates through the voids into the subsoil. Planting landscaped areas lower than the street level encourages drainage.



Concrete grid pavement

Structural designs are used to control runoff or temporarily store storm water on site. A number of structural devices have been developed to encourage filtration, infiltration, or settling of suspended particles. Some of the more commonly-used practices are described below.

Grassed swales are shallow, vegetated ditches that reduce the speed and volume of runoff. Soils remove contaminants by infiltration and filtration. Vegetation, or turf, prevents soil erosion, filters out sediment, and provides some nutrient uptake. Maintenance of grassed swales involves regular mowing, re-seeding, and weed control, along with inspections to check for erosion and ensure the integrity of the vegetative cover. To function properly, the inflow to the swale must be sheet flow from a filter strip or an impervious surface (i.e., not from the end of a pipe). Swales have demonstrated solids removals exceeding 80 percent. Apart from grassed swales, ***grassed waterways*** (wide, shallow channels lined with sod) are often used as outlets for runoff from terraces.

Buffer strips are combinations of trees, shrubs, and grasses planted parallel to a stream. Buffer strips should consist of three zones—about four or five rows of trees closest to the stream, one or two rows of shrubs, and a 20 to 24 foot wide grass zone on the outer edge. They decrease the velocity of runoff, thus moderating flooding and preventing stream bank erosion. The vegetation and soils also strain and filter sediments and chemicals. Buffer strips should be maintained by controlling weeds and mowing grasses once or twice annually. In the long term, each zone should be harvested and replanted. About 10 to 20 percent removal of solids has been demonstrated in buffer zones. These buffer strips, however, do not necessarily increase infiltration.


Filter strip

Filter strips are areas of close-growing vegetation on gently sloped land surfaces bordering a surface water body. They work by holding soils in place, allowing some infiltration, and filtering solid particles out of the runoff from small storms. Plants with dense root systems are preferred; the ideal species and mixes of vegetation are specific to the region. The width and length of the filter strip depends on the size and grade of the slope it drains. Maintenance activities include inspections, mowing, and removal of sediment build-up. Filter strips can remove nitrogen and phosphorus, but are less effective in filtering pesticides. They are most effective when water flow is even and shallow and if grass can regrow between rains.


Storm water pond

Storm water ponds (wet ponds) consist of a permanent pond, where solids settle during and between storms, and a zone of emergent wetland vegetation where dissolved contaminants are removed through biochemical processes. Wet ponds are usually developed as water features in a community, increasing the value of adjacent property. Other than landscape maintenance, only annual inspection of the outlets and shoreline is required. Vegetation should be harvested every 3 to 5 years, and sediment removed every 7 to 10 years. Wet ponds can achieve 40 to 60 percent phosphorus removal and 30 to 40 percent total nitrogen removal.

Constructed wetlands are similar to wet ponds, with more emergent aquatic vegetation and a smaller open water area. Storm water wetlands are different from natural wetlands in that they are designed to treat storm water runoff, and typically have less biodiversity than natural wetlands. A wetland should have a settling pond, or forebay, if significant upstream soil erosion

is anticipated. Coarse particles remain trapped in the forebay, and maintenance is performed on this smaller pool. Wetlands remove the same pollutants as wet ponds through settling of solids and biochemical processes, with about the same efficiency. Maintenance requirements for wetlands are similar to those of wet ponds.

Infiltration practices (basins and trenches) are long, narrow stone-filled excavated trenches, 3 to 12 feet deep. Runoff is stored in the basin or in voids between the stones in a trench and slowly infiltrates into the soil matrix below, where filtering removes pollutants. Infiltration devices alone do not remove contaminants, and should be combined with a pretreatment practice such as a swale or sediment basin to prevent premature clogging. Maintenance consists of inspections annually and after major rain storms and debris removal, especially in inlets and overflow channels. Infiltration devices and associated practices can achieve up to 70 to 98 percent contaminant removal.

Infiltration basin

Swirl-type concentrators are underground vaults designed to create a circular motion to encourage sedimentation and oil and grease removal. The currents rapidly separate out settleable grit and floatable matter, which are concentrated for treatment, while the cleaner, treated flow discharges to receiving waters. Swirl concentrators have demonstrated total suspended solids and BOD removal efficiencies exceeding 60 percent.

BMPs for Class V storm water drainage wells address siting, design, and operation of these wells. Siting BMPs for storm water drainage wells include minimum setbacks from surface waters, drinking water wells, or the water table. Storm water drainage wells may also be prohibited from areas of critical concern, such as source water protection areas, or from areas where the engineering properties of the soil are not ideal for their performance. Available design BMPs for storm water drainage wells include sediment removal devices (such as oil/grit separators or filter strips), oil and grease separators, and pretreatment devices such as infiltration trenches or wetlands (described above). Maintenance of these BMPs is crucial to their proper operation. Management measures related to operation include spill response, monitoring, and maintenance procedures. Source separation, or keeping runoff from industrial areas away from storm water drainage wells, involves using containment devices such as berms or curbs (see the fact sheets on vehicle washing and small quantity chemical use for more information on these devices).

EPA's National Pollutant Discharge Elimination System (NPDES) Permitting Program regulates storm water runoff from municipal separate storm sewer systems (MS4s) and industrial activity (including construction). The current rules establish permit requirements for more than 5,000 MS4s nationwide. NPDES storm water permits issued to MS4s require these MS4s to develop the necessary legal authority to reduce the discharge of pollutants in storm water to the maximum extent practicable and to develop and implement a storm water management program that includes:

- Structural and source control measures to reduce pollutants from runoff from commercial and residential areas, including maintenance, monitoring, and planning activities;
- Detection and removal of illicit discharges and improper disposal into the storm sewer;
- Monitoring and control of storm water discharges from certain industrial activities; and
- Construction site storm water control.

In addition, the storm water rule for certain small MS4s requires post-construction storm water management controls. These local controls are in addition to existing federal regulations that require NPDES permits of all construction activities disturbing greater than one acre.

Recently, EPA developed a menu of BMPs that provides more than 100 fact sheets on measures that small MS4s could use to control urban storm water runoff. The menu is available from EPA's Web site at www.epa.gov/npdes.

FOR ADDITIONAL INFORMATION

These sources contain information on storm water management measures. All of the documents listed are available for free on the Internet. State departments of transportation or agriculture, whose contact information can be found on the Internet or in the phone book, are also good sources of information.

To pass local ordinances or regulations to affect storm water controls, contact city or county public works departments, zoning offices, permitting offices, or transportation departments, who typically have the authority to pass local ordinances. Contact local government authorities in your area to see if there are ordinances in place to manage storm water. Numerous examples of local source water protection-related ordinances for various potential contaminant sources can be found at http://www.epa.gov/r5water/ordcom/, http://www.epa.gov/owow/nps/ordinance/, and http://www.epa.gov/owow/nps/ordinance/links.htm.

The following resources provide information on selection and design of specific management measures:

The Center for Watershed Protection's Stormwater Manager's Resource Center (www.stormwatercenter.net) provides technical assistance storm water management issues.

Northern Arizona University offers a course on wet weather flow management, materials are available at http://jan.ucc.nau.edu/~dmh3/egr499/.

Texas Nonpoint SourceBOOK (www.txnpsbook.org) contains four manuals on storm water Best Management Practices, including "Urban Nonpoint Source Management," and an interactive BMP selector.

U.S. EPA, Office of Ground Water and Drinking Water. (September 1999). *The Class V Underground Injection Control Study. Volume 3: Storm Water Drainage Wells.* EPA/816-R-99-014c. Retrieved May 2, 2001, from the World Wide Web: http://www.epa.gov/safewater/uic/classv/stw-fact.pdf

U.S. EPA, Office of Science and Technology. (August 1999). *Preliminary Data Summary of Urban Stormwater Best Management Practices.* EPA-821-R-99-012. Retrieved February 7, 2001, from the World Wide Web: http://www.epa.gov/OST.

U.S. EPA, Office of Wastewater Management. (September 1992). *Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans and BMPs.* Retrieved February 6, 2001, from the World Wide Web: http://www.epa.gov/owm/sw/indguide/index.htm

U.S. EPA, Office of Wetlands, Oceans, and Watersheds. (January 1993). *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters.* EPA-840-B-93-001c. Retrieved February 15, 2001, from the World Wide Web: http://www.epa.gov/OWOW

Washington State Department of Transportation. (February 1995). *Highway Runoff Manual.* M 31-16. Retrieved February 15, 2001, from the World Wide Web: http://www.wsdot.wa.gov/fasc/engineeringpublications/manuals/highway.pdf

Wyoming Department of Environmental Quality. (February 1999). *Urban Best Management Practices for Nonpoint Source Pollution.* Draft. Retrieved February 21, 2001, from the World Wide Web: http://deq.state.wy.us/wqd/urbbmpdoc.htm

University extension services are excellent sources for information on water quality issues, including storm water management. The Oregon Department of Agriculture offers comprehensive list of links to many of these on its Web site (http://www.oda.state.or.us/Natural_Resources/wq_ces.htm).

Following are examples of extension services that offer fact sheets on a variety of storm water management measures, including best management practices:

Iowa State University Extension (http://www.extension.iastate.edu/Pages/pubs/).

North Carolina Cooperative Extension Service (http://www.ces.ncsu.edu/resources/).

Oklahoma State University. Division of Agricultural Sciences and Natural Resources (http://agweb.okstate.edu/pearl/wqs).

Purdue University Cooperative Extension Service (http://www.agcom.purdue.edu/AgCom/Pubs/menu.htm).

Zone-specific Native and Polynesian plants for Maui County

Zone 2

TYPE: **F** Fern **G** Grass **Gr** Ground Cover **Sh** Shrub **P** Palm **S** Sedge **Tr** Tree **V** Vine

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
F	Psilotum nudum	moa, moa kula	1'	1'	sea to 3,000'	Dry to Wet
F	Sadleria cyatheoides	'ama'u, ama'uma'u				
G	Eragrostis monticola	kalamalo	1'	2'	sea to 3,000'	Dry to Medium
Gr	Ipomoea tuboides	Hawaiian moon flower, 'uala	1'	10'	sea to 3,000'	Dry to Medium
Gr	Peperomia leptostachya	'ala'ala-wai-nui	1'	1'	sea to 3,000'	Dry to Medium
Gr	Plumbago zeylanica	'ilie'e	1'			
Gr - Sh	Hibiscus calyphyllus	ma'o hau hele, Rock's hibiscus	3'	2'	sea to 3,000'	Dry to Medium
Gr - Sh	Lipochaeta rockii	nehe	2'	2'	sea to 3,000'	Dry to Medium
Sh	Argemone glauca var. decipiens	pua kala	3'	2'	sea to 3,000'	Dry to Medium
Sh	Artemisia mauiensis var. *diffusa*	Maui wormwood, 'ahinahina	2'	3'	1,000' to higher	Dry to Medium
Sh	Chenopodium oahuense	'aheahea, 'aweoweo	6'		sea to higher	Dry to Medium
Sh	Dianella sandwicensis	'uki	2'	2'	1,000' to higher	Dry to Medium
Sh	Lipochaeta lavarum	nehe	3'	3'	sea to 3,000'	Dry to Medium
Sh	Osteomeles anthyllidifolia	'ulei, eluehe	4'	6'	sea to 3,000'	Dry to Medium
Sh	Senna gaudichaudii	kolomana	5'	5'	sea to 3,000'	Dry to Medium
Sh	Styphelia tameiameiae	pukiawe	6'	6'	1,000' to higher	Dry to Medium
Sh	Vitex rotundifolia	pohinahina	3'	4'	sea to 1,000'	Dry to Medium
Sh - Tr	Myoporum sandwicense	naio, false sandalwood	10'	10'	sea to higher	Dry to Medium
Sh - Tr	Nototrichium sandwicense	kulu'i	8'	8'	sea to 3,000'	Dry to Medium
Sh-Tr	Dodonaea viscosa	'a'ali'i	6'	8'	sea to higher	Dry to Medium
Tr	Acacia koa	koa	50' - 100'	40' - 80'	1,500' to 4,000'	Dry to Medium
Tr	Charpentiera obovata		15'			
Tr	Erythrina sandwicensis	wiliwili	20'	20'	sea to 1,000'	Dry
Tr	Metrosideros polymorpha var. macrophylla	ohi'a lehua	25'	25'	sea to 1,000'	Dry to Wet

Zone-specific Native and Polynesian plants for Maui County

Zone 2

Type	Scientific Name	Common Name	Height	Spread	Elevation	Water req.
Tr	Nestegis sandwicensis	olopua	15'	15'	1,000' to 3,000'	Dry to Medium
Tr	Pleomele auwahiensis	halapepe	20'			
Tr	Rauvolfia sandwicensis	hao	20'	15'	sea to 3,000'	Dry to Medium
Tr	Santalum ellipticum	coastal sandalwood, 'ili-ahi	8'	8'	sea to 3,000'	Dry to Medium
Tr	Sophora chrysophylla	mamane	15'	15'	1,000' to 3,000'	Medium
V	Alyxia oliviformis	maile	Vine		sea to 6,000'	Medium to Wet

Selection

As a general rule, it is best to select the largest and healthiest specimens. However, be sure to note that they are not pot-bound. Smaller, younger plants may result in a low rate of plant survival.[1] When selecting native species, consider the site they are to be planted in, and the space that you have to plant. For example: Mountain species such as koa and maile will not grow well in hot coastal areas exposed to strong ocean breezes. Lowland and coastal species such as wiliwili and Kou require abundant sunshine and porus soil. They will not grow well with frequent cloud cover, high rainfall and heavy soil.

Consider too, the size that the species will grow to be. It is not wise to plant trees that will grow too large.[2] Overplanting tends to be a big problem in the landscape due to the underestimation of a species' height, width or spread.

A large, dense canopied tree such as the kukui is a good shade tree for a lawn. However, it's canopy size and density of shade will limit what can be planted in the surrounding area. Shade cast by a koa and ohia lehua is relatively light and will not inhibit growth beneath it.

Keep seasons in mind when you are selecting your plants. Not all plants look good year round, some plants such as ilima will look scraggly after they have flowered and formed seeds. Avoid planting large areas with only one native plant. Mixing plants which naturally grow together will ensure the garden will look good all year round.[3] Looking at natural habitats helps to show how plants grow naturally in the landscape.

When planting an area with a mixed-ecosystem, keep in mind the size and ecological requirements of each plant. Start with the hardiest and most easily grown species, but allow space for fragile ones in subsequent plantings.

Acquiring natives

Plants in their wild habitat must be protected and maintained. It is best and easiest to get your plants from nurseries (see list), or friend's gardens. Obtain proper permits from landowners and make sure you follow a few common sense rules:

- collect sparingly from each plant or area.
- some plants are on the state or Federal Endangered Species list. Make sure you get permits (see app. A,B)

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[1] K. Nagata, P.6

[2] K. Nagata, P.9

[3] Nagata, P.9

Soil

Once you have selected your site and the plants you wish to establish there, you must look at the soil conditions on the site. Proper soil is necessary for the successful growth of most native plants, which preform poorly in hard pan, clay or adobe soils. If natives are to be planted in these types of soil, it would be wise to dig planting holes several times the size of the rootball and backfill with 50-75% compost.[4] A large planting hole ensures the development of a strong root system. The plant will have a headstart before the roots penetrate the surrounding poor soil.[5]

It is recommended that native plants not be planted in ground that is more dense than potting soil. If there is no alternative, dig a hole in a mound of soil mixed with volcanic cinder which encourages maximum root development. Fill the hole with water, if the water tends to puddle or drain too slowly, dig a deeper hole until the water does not puddle longer than 1 or 2 minutes.[6] Well-drained soil is one of the most important things when planting natives as you will see in the next section.

Irrigation

Most natives do very poorly in waterlogged conditions. Do not water if the soil is damp. Water when the soil is dry and the plants are wilting. Once established, a good soaking twice a week should suffice. Deep soaking encourages the development of stronger, and deeper root systems. This is better than frequent and shallow watering which encourage weaker, more shallow root systems.

The following is a watering schedule from Kenneth Nagata's Booklet, *How To Plant A Native Hawaiian Garden*:

WATER REQUIREMENT	WATERING FREQUENCY
Heavy	3x / week
Moderate	2x / week
Light	1x / week

Red clay soils hold more water for a longer period of time than sandy soils do. If your area is very sunny or near a beach, things will dry out faster. Even in the area of one garden, there are parts that will need more or less water. Soils can vary and amount of shade and wind differ. After plants are established (a month or two for most plants, up to a year for some trees), you can back off watering.

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[4] Nagata, p. 6

[5] Nagata, p. 8

[6] Nagata, p. 8

Automatic sprinkler systems are expensive to install and must be checked and adjusted regularly. Above-ground systems allow you to monitor how much water is being put out, but you lose a lot due to malfunctioning of sprinkler heads and wind. The most efficient way to save water and make sure your plants get enough water, is to hand-water. This way you are getting our precious water to the right places in the right amounts.[7]

Fertilizer

An all-purpose fertilizer 10-10-10 is adequate for most species. They should be applied at planting time, 3 months later, and 6 months thereafter. Use half the dosage recommended for ornamentals and pay special attention to native ferns which are sensitive to strong fertilizers. Use of organic composts and aged animal manures is suggested instead of chemical fertilizers. In addition, use of cinders for providing trace minerals is strongly recommended.[8]

Natives are plants which were here hundreds of years before the polynesians inhabited the Hawaiian Islands. They were brought here by birds, or survived the harsh ocean conditions to float here. They are well-adapted to Hawaii's varying soil and environmental conditions. This is why they make prime specimens for a xeriscape garden. However, natives will not thrive on their own, especially under harsh conditions. On the other hand, like any other plant, if you over-water and over-fertilize them, they will die. Follow the instructions given to you by the nursery you buy the plant from, or from this booklet. Better yet, buy a book (suggested readings can be found in the bibliography in the back of this pamphlet), read it, and learn more about native plants. I guarantee that you will be pleased with the results.

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[7] Bornhorst, p. 19-20

[8] Nagata, p. 6

Propagation

There are many ways to propagate and plant-out native Hawaiian species. One of the most thourough and helpful book is Heidi Bornhorst's book, *Growing Native Hawaiian Plants.* The easiest, and best way to obtain natives for the novice gardener is to get them from a reputable nursery (see appendix c). That way all you will have to do is know how to transplant (if necessary) and plant-out when you are ready. These are the two methods I have listed here.

Transplanting

1. Use pots that are one size bigger than the potted plant is in
2. Get your potting medium ready

Good potting medium is a ½, ½ mixture of peat moss and perlite. If the plant is from a dry or coastal area, add chunks of cinder or extra perlite. If it is a wet forest species, add more peat moss or compost. Be aware that peat moss is very acidic and certain plants react severely to acidity.

If the plant is to eventually be planted into the ground, make a mix of equal parts peat moss, perlite, and soil from the area in which the plant is to be planted. Slow-release fertilizer can be mixed into the potting medium.

3. Once pots, potting medium, fertilizer and water are ready, you can begin re-potting. Keep the plant stem at the same depth it was in the original pot. Avoid putting the plant in too large a pot, as the plant may not be able to soak up all the water in the soil and the roots may drown and rot.

Mix potting medium and add slow-release fertilizer at this time. Pre-wet the medium to keep dust down and lessen shock to the plant. Put medium in bottom of pot. Measure for the correct depth in the new pot. Make sure there is from ½ to 2 inches from the top of the pot so the plant can get adequate water. Try to stand the plant upright and center the stem in the middle of the pot.

Water the plant thoroughly after transplanting. A vitamin B-1 transplanting solution can help to lessen the transplant shock. Keep the plant in the same type of environment as it was before, sun or shade. If roots were broken, trimm off some of the leaves to compensate for the loss.[9]

Planting out

1. Plant most native Hawaiian plants in a sunny location in soil that is well-drained.
2. Make the planting hole twice as wide as the root ball or present pot, and just as deep.

If the soil is clay-like, and drains slowly, mix in some coarse red or bland cinder, coarse perlite or

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[9] Bornhorst, p.20-21

coarse compost. Place some slow-release fertilizer at the bottom of the hole.

3. Carefully remove the plant from the container and place it in the hole.

The top of the soil should be at the same level as the top of the hole, if it is too high or too low, adjust the soil level so that the plant is at the right depth.

4. Water thoroughly after you transplant.

Mulch

Most natives cannot compete with weeds, and therefore must be weeded around constantly in order to thrive. Mulch is a practical alternative, which discourages and prevents weeds from growing.

Hawaii's hot, humid climate leads to the breaking down of organic mulches. Thick organic mulches such as wood chips and leaves, may also be hiding places for pests.

Stone mulches are attractive, permanent and can help to improve soil quality. Red or black cinder, blue rock chips, smooth river rocks and coral chips are some natural choices.[10] Macadamia nut hulls are also easy to find and can make a nice mulch.[11]

Never pile up mulch right next to the stem or trunk of a plant, keep it a few inches away.

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[10] Bornhorst, p. 24

[11] Nagata, p. 7

ZONES

The Maui County Planting Plan has compiled a system of 5 zones of plant growth for Maui County. The descriptions of zones and maps for these zones are as follows:

Zone 1:

Wet areas on the windward side of the island. More than 40 inches of rain per year. Higher than 3,000 feet.

Zone 2:

Cool, dry areas in higher elevations (above 1,000 feet). 20 to 40 inches of rain per year.

Zone 3:

Low, drier areas, warm to hot. Less than 20 inches of rain per year. Sea level to 1,000 feet.

Zone 4:

Lower elevations which are wetter due to proximity of mountains. 1,000 to 3,000 feet.

Zone 5:

Salt spray zones in coastal areas on the windward side.

These zones are to be used as a general guide to planting for Maui County. In addition to looking at the maps, read the descriptions of the zones and decide which zone best fits your area. Plants can be listed in more than one zone and can be planted in a variety of conditions. For best results, take notes on the rainfall, wind, sun and salt conditions of your site. Use the zones as a general guide for selection and read about the plants to decide which best fits your needs as far as care and or function.

PLACES TO SEE NATIVES ON:

The following places propagate native Hawaiian plants from seeds and/or cuttings. Their purpose is to protect and preserve these native plants. Please contact them before going to view the sites, they can provide valuable information and referral to other sources.

Maui:

1. Hoolawa Farms, P.O. Box 731, Haiku, Hawaii, 96708	572-4835
2. The Hawaiian Collection, 1127 Manu St., Kula, Hawaii, 96790	878-1701
3. Kula Botanical Gardens, RR 4, Box 228, Kula, Hawaii, 96790	878-1715
4. Maui Botanical Gardens, Kanaloa Avenue across from stadium	243-7337
5. Kula Forest Reserve, access road at the end of Waipouli Rd. Call the Maui District Forester	984-8100
6. Wailea Point, Private Condominium residence, 4000 Wailea Alanui, public access points at Four Seasons Resort or Polo Beach	875-9557
7. Kahanu Gardens, National Tropical Botanical Garden, Alau Pl, Hana, Hawaii, 96713	248-8912
9. Kahului Library Courtyard, 20 School Street, Kahului, Hawaii	873-3097

PLACES TO BUY NATIVES ON:

Maui:

1. **Hoolawa Farms** — 575-5099
   P O Box 731
   Haiku HI 96708
   The largest and best collection of natives in the state. They will deliver, but it's worth the drive to go and see!
   Will propagate upon request

2. **Kula True Value Nursery** — 878-2551
   Many natives in stock
   Get most of their plants from Hoolawa Farms
   They take special requests

3. **Kihei Garden and Landscape** — 244-3804

4. **Kihana Nursery, Kihei** — 879-1165

5. **The Hawaiian Collection** — 878-1701
   Specialize in Sandalwood propagation
   Will propagate special requests

MUNEKIYO & HIRAGA, INC.

July 24, 2008

Jeffrey Eng, Director
County of Maui
Department of Water Supply
200 South High Street
Wailuku, Hawai`i 96793

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Mr. Eng:

We are writing to you on behalf of the applicant, Kula Ridge LLC, to thank you for your letter dated April 10, 2008, regarding the Draft EA for the Kula Ridge Residential Workforce Housing Subdivision project located in Kula, Maui, Hawaii.

We offer the following comments in response to your remarks:

1. Your comment regarding operational costs of a well at the 2,900 feet elevation, as well as the need for backup source and improved water quality in the Upper Kula system is understood by the applicant. The applicant will continue to pursue the development of this water source to service the proposed subdivision, and is planning to develop the well and related improvements in accordance to County standards. Continued coordination with your department will be carried to ensure that water source is adequately and appropriately addressed for the project.

2. The development of an offsite water source will involve construction of a new 500,000 gallon tank, a distribution line, and pressure break tanks to control water service pressure, servicing the proposed project. As mentioned previously, these improvements will be developed according to County standards.

3. The applicant intends to utilize Best Management Practices (BMPs) to minimize infiltration and runoff from construction and vehicle operations during project construction and operation.

4. The applicant acknowledges your comments regarding water conservation measures and will review your recommendations for possible incorporation into project design and construction plans.

We appreciate the input we received from your office. Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:mge
cc: Clayton Nishikawa, Kula Ridge LLC
Vanessa Medeiros, Department of Housing and Human Concerns
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APR 2 3 2008

COUNTY COUNCIL
COUNTY OF MAUI
200 S. HIGH STREET
WAILUKU, MAUI, HAWAII 96793
www.mauicounty.gov/council

April 21, 2008

Vanessa Medeiros, Director
Department of Housing and Human Concerns
County of Maui
200 S. High Street
Wailuku, HI 96793

SUBJECT: Draft Environmental Assessment for Proposed Kula Ridge Residential Workforce Housing Subdivision Kula, Maui, Hawai'i TMK (2)2-3-001:174

Dear Ms. Medeiros:

Thank you for the opportunity to provide comments on the Draft Environmental Assessment for the proposed Kula Ridge Residential Workforce Housing Subdivision.

After review of the draft assessment, My only comment at the present time is that the developer will coordinate with the Maui County Department of Water Supply on water requirements for the project and the projected water source being planned.

Sincerely,

JOSEPH PONTANILLA,
COUNCIL MEMBER

Cc: Rowena Dagdag, Munekiyo & Hiraga, Inc.

MUNEKIYO & HIRAGA, INC.

July 24, 2008

Honorable Joseph Pontanilla
County of Maui
Maui County Council
200 South High Street
Wailuku, Hawai`i 96793

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision, TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Councilmember Pontanilla:

We are writing to you on behalf of the applicant, Kula Ridge LLC, to thank you for your letter dated April 21, 2008, regarding the Draft EA for the Kula Ridge Residential Workforce Housing Subdivision project located in Kula, Maui, Hawaii.

The applicant has been in consultation with the Department of Water Supply concerning the development of adequate water source and availablilty. The applicant will continute to pursue the development of an off-site water source to service the proposed subdivision. Continued coordination with the Department of Water Supply will be carried out to ensure that water source is adequately and appropriately addressed for the project.

We appreciate the input received from your office. Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:mge
cc: Clayton Nishikawa, Kula Ridge LLC
Vanessa Medeiros, Department of Housing and Human Concerns
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Maui Electric Company, Ltd. • 210 West Kamehameha Avenue • PO Box 398 • Kahului, Maui, HI 96733-6898 • (808) 871-846

APR 1 1 2008

April 10, 2008

Ms. Rowena M. Dagdag, Planner
Munekiyo & Hiraga, Inc.
305 High Street, Suite 104
Wailuku, Hawaii 96793

Dear Ms. Dagdag,

Subject: Draft Environmental Assessment for Proposed Kula Ridge Residential Workforce Housing Subdivision
Lower Kula Road
Kula, Maui, Hawaii
Tax Map Key: (2) 2-3-001:174

Thank you for allowing us to comment on Draft Environmental Assessment for the subject project.

We have no additional comments to our earlier response letter of August 8, 2006 at this time. However, we would like to update you of our new contact personnel for our Demand Side Management (DSM) group as Ray Cibulskis at 872-3226 and myself as Customer Operations Manager replacing Neal Shinyama.

Should you have any questions or concerns, please call Ray Okazaki at 871-2340.

Sincerely,

Gregorysenn Kauhi

Gregorysenn Kauhi
Customer Operations Manager

GK/ro:lh

Cc: Ray Cibulskis – MECO DSM
Vanessa Medeiros – COM-Department of Housing and Human Concerns

MUNEKIYO HIRAGA, INC.

July 24, 2008

Gregorysenn Kauhi
Customer Operations Manager
Maui Electric Company
210 West Kamehameha Avenue
P.O. Box 398
Kahului, Hawai`i 96732

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Mr. Kauhi:

We are writing to you on behalf of the applicant, Kula Ridge LLC, to thank you for your letter dated April 10, 2008, regarding the Draft EA for the Kula Ridge Residential Project located in Kula, Maui, Hawai`i.

We appreciate the input we received from your office.

Should you have any questions, please do not hesitate to contact me at (808) 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:lh
cc: Clayton Nishikawa, Kula Ridge LLC
Vanessa Medeiros, Department of Housing and Human Concerns
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Rowena Dagdag

From: Debra [emerald@hawaii.rr.com]
Sent: Monday, April 14, 2008 9:21 PM
To: Rowena Dagdag
Subject: TRAFFIC KULA

Dear Ms. Dagdag,

I am extremely concerned with the traffic on Lower Kula Road, specifically in Waiakoa Town. Each day I watch, with trepidation, children giggling and crossing the road. The cars WHIP by, I truly fear a fatality!

The town continues to become filled with more and younger pedestrians. Whether it's the kids from Waldorf School, the ballet students at the old Kula gym, Martial Art students at the community center, Tennis players or the various athletes at the Kula gym. Commuting on foot to school, to Morihara Store or Cafe 808; kids are not as careful as we might hope. Cars kill! and most drive on Lower Kula Road far over the speed limit.

I propose a speed-bumped sidewalk (or two) across from the community center/tennis courts and also at Morihara store. Also, before the proposed sub-division adjacent to the tennis courts is approved I suggest budgeting for more pedestrian safety. It is reasonable build an under/overpass to cross the main highway if there is a significant increase in students walking to elementary school. Will the developer consider it his cost and responsibility? or is it a taxpayer cost? Or should we wait and see if anyone gets killed first? The cars traveling on the main highway travel 60+ miles/hour.

What's the point in building a community without proper precautions for our children? Speed-bumps combined with cross-walks in Waiakoa town is a start.

Thank-you for your consideration.

Respectfully, Debra Preseault

P.S. Please let me know if you can suggest anyone else that I might pursue my immediate concerns with. Thank-you.

MUNEKIYO HIRAGA, INC.

July 24, 2008

Debra Preseault
4230 Lower Kula Road
Kula, Hawai`i 96790

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at TMK (2) 2-3-001:174, Kula, Hawai`i

Dear Ms. Preseault:

Thank you for your e-mail correspondence dated April 14, 2008, providing comments on the subject project. Kula Ridge, LLC understands your concerns regarding the proposed 116-lot subdivision, and has been meeting with landowners and Kula residents living near the proposed subdivision to identify ways to mitigate or minimize the project's impact on the community.

With regard to your concerns regarding traffic safety issues, we note the following.

A detailed traffic impact analysis report (TIAR) has been included as part of the documentation supplied to the State and County agencies for project review. The TIAR evaluates both present and future traffic conditions and recommends various traffic mitigation measures to accommodate the increase in area traffic. The TIAR provides the following recommendations for the proposed project:

1. Maintain sufficient sight distance to motorists to safely enter and exit all project roadways.

2. Provide adequate onsite loading and off-loading service areas and prohibit offsite loading operations.

3. Provide adequate turn-around area for service delivery, and refuse collection vehicles to maneuver on the project site to avoid vehicle-reversing maneuvers onto public roadways.

4. Provide sufficient turning radii at all project roadways to avoid or minimize vehicle encroachments to oncoming traffic lanes.

5. Provide exclusive left-turn and right-turn lanes on the westbound approach of Lower Kula Road at the northern intersection with Kula Highway to minimize the impact of left-turning vehicles on the higher volume of right-turning vehicles on that approach.

In addition to the recommendations advanced in the TIAR, the applicant will also provide a pedestrian-way along the project's access road to the project's entry at Lower Kula Highway.

While speed bumps or speed tables exist as potential mitigation measures for reducing the speed of vehicles traveling on Lower Kula Road, the provision of such mechanisms have not been identified as improvements directly related to the construction of the proposed subdivision. In particular, in accordance with Chapter 12.48 of the Maui County Code relating to Speed Humps, the Director of Public Works may grant a request for speed humps, where there is a consent of at least 80 percent of the property owners, whose respective properties abut the County roadway within a distance determined by the Director.

The provision of an under/overpass exists, as a potential alternative for the safe crossing of Kula Highway to the Kula Elementary School. Such an alternative, however, should be considered a community-wide initiative. The applicant's is willing to be a part of this effort. Unfortunately, given the affordable nature of the project, Kula Ridge, LLC is not able to fund a project of this scale and scope.

The applicant understands that continued dialogue with community members and leaders is needed to ensure that the project can be implemented with sound community support.

Should you have any questions, please do not hesitate to contact me at 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:mge
cc: Clayton Nishikawa, Kula Ridge LLC
Stacy Otomo, Otomo Engineering, Inc.
Harold Nagato, Best Industries USA, Inc.
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From: Michael Mancini [mailto:michael@waldorfmaui.com]
Sent: Thursday, April 17, 2008 10:06 AM
To: Flammerfamily@aol.com
Cc: Rowena Dagdag
Subject: RE: Need for Kula Ridge Subdivision comments

Aloha Rowena,
I am the Chair of School at Haleakala Waldorf School. Please allow me to provide a brief overview of HWS. The Haleakala Waldorf School (HWS) has served the Maui community by providing a Waldorf pre-school through 8th grade education for over 35 years. The HWS is a community of students, teachers, families, alumni and friends who are dedicated to fostering lifelong learning and creativity. Haleakala Waldorf School achieves this goal through the Waldorf philosophy of human development which supports teaching the academic disciplines through the arts, and embraces diversity in an atmosphere of trust and reverence for the individual, the community and the earth. The school is set on the historic Kealahou Public School campus. An additional 2.34 acres and two classroom buildings were added to the campus in the early '90s, and a third ½ acre lot with one building was purchased in 2004. Today the school has 245 students, 45 part and full time employees, and over 300 active volunteers. By improving governance, enrollment and marketing over the past six years, and by building a preschool in 2003, enrollment is at an all time high, now at 245 students. The school is reaching its enrollment capacity as many classes currently have waiting lists. HWS offers the only Waldorf education available on the island of Maui. Most students come from Upcountry Maui, from Ulupalakua to Huelo and everywhere in between, though we have some students from Kihei and Central Maui. The school does not have a bus program so we have a high level of traffic during the beginning and end of the school day as well as during our many festivals and school gatherings. Our families represent great financial, social, religious and economic diversity. The school has expanded its facilities by renovating faculty housing into new classrooms as well as by purchasing an adjacent property to house the administration. The school programs utilize the nearby Kula Community tennis courts, Kula gym, and local outdoor education both during and after the school day. We have experienced increasing enrollment, and the highest level of parent and donor giving ever. Parent involvement in committees, volunteer work and fund-raising programs is also at an all-time high. With a triple accreditation received from the various agencies, HWS enjoys a well established and respected place in the Maui community. These achievements are also a measure of our impact on the needs of our constituency. Enrollment, support for expansion, volunteering and donor giving are the indicators necessary to foster further growth and expansion. HWS has been working with the State Department of Transportation to seek egress from the school onto Kula HWY (see attached letter). The contents of the letter are applicable to the school's need for a traffic study as relates to traffic flow for school access and safety.

If you have further questions feel free to contact me either by email or at 878-2511 ext. 11.
Thank you for taking the needs and concerns of HWS into account during your planning process.

Mahalo,
Michael Mancini

Michael Mancini
Chair of School
Haleakala Waldorf School
4160 Lower Kula Road
Kula, HI 96790
Phone: 808-878-2511 ext. 11
Fax: 808-878-3341
Email: michael@waldorfmaui.com

July 13, 2007

MEMORANDUM

TO: Fred Cajigal, State Department of Transportation

FROM: Michael Mancini on behalf of Haleakala Waldorf School

SUBJECT: Access Request for Haleakala Waldorf School to Kula Highway

I would like to take a moment to introduce myself. I am currently serving as the head of school at Haleakala Waldorf School. As you may know, Haleakala Waldorf School (HWS) has been working to gain access to Kula Highway during peak hours of school service. I would like to meet with you in the near future to discuss the issues and possibilities regarding gaining egress to Kula highway from 7:45-8:45 a.m. and 2:15-3:15 p.m. during the school year. Haleakala Waldorf School is willing to incur the various costs for this project and will install a gate to close access during all other hours.

Proposal:

- Provide an exit from our campus to Kula Highway during heavy traffic hours. The school would staff the exit with a traffic monitor during hours of use. H.W.S. is requesting a right turning lane only in hope to limit hazards. HWS would route traffic one way, from Lower Kula Road into the main entrance of the school, through campus, eventually exiting on to Kula Highway via the turning lane.

Rationale for HWS to Have Access:

- Public/quasi public domain
    - The school has been identified as a public/quasi public use area. Other public and private domains within a quarter mile of the school have been granted similar access:
        - The new Kula Post Office is directly across HWS along Kula Highway, on land that used to be part of Kealahou School property; the Kula Post Office has direct access to Kula Highway. The turning lane would be designed in connection with this current use.
        - Additional accesses have been provided for:
            - County Park
            - Kula Fire Station
            - Kula Elementary School
            - Numerous private residences

        - Most specifically, the Kula Botanical gardens, a private business, has a turning lane for both exiting and accessing the property from Kula HWY.
- Children's Safety
    - We currently enroll 250 students each year, a 100% increase over the last five years. The school's enrollment has continued to increase and will continue to grow in the future.
    - Based on a recent traffic study, we have in excess of 85 parent vehicles entering campus daily, and exiting by the same driveway over a one lane bridge, to drop off and pick up children. This number of vehicles in a very confined space, having to turn around, creates serious safety exposure for energetic, running, young children, in spite of three monitors of this traffic.
    - Routing traffic one way through campus immediately reduces traffic in half.
- School Bus Turnaround
    - 20 passenger buses have greater difficulty turning around in the space on campus available to accomplish it
    - Being able to go straight through campus to exit the school onto Kula HWY will assist the bus safety and the safety of the children.
- Fire Safety
    - The Kula Fire Chief at one time found us in violation for not having a second access and egress.
    - We were recently required to install a fire hydrant in the proximity of our proposed access to Kula Highway. Having a driveway adjacent to this hydrant will facilitate the Fire Department's job were we to have a fire on campus
- Protection of Landmark Buildings
    - The campus is a beautifully restored example of Maui School buildings from 75 years ago. The school has won awards for its preservation efforts of these buildings. Protection from destruction by fire is our responsibility
- The Greater Good of the Community will be Served
    - Our community includes those parents transporting their children to this school. They deserve a safe access and egress.
    - The majority of these same parents must enter Kula Highway from Lower Kula Road after exiting our campus. Making this change doesn't change the number of vehicles entering the highway.
    - Many changes have occurred from the original construction of this new highway. Among the changes is the number of students being served by Haleakala Waldorf School.

The benefits to Haleakala Waldorf School are immediate and serious in nature. This proposal would reduce traffic on campus by one half. Since the traffic is moving in one direction only it can be better controlled. The Fire Department will be able to access campus from a second direction which they have requested. There will be no cost to the State of Hawaii or County of Maui.

Previous Approval

According to our schools' records, the County of Maui and Department of Transportation approved access to Kula Highway in 1994. The school prepared engineered drawings (see attachment) for the construction based on this approval but postponed the work due to high costs during a low enrollment time period in the school's history.

I would appreciate meeting with you in the near future to discuss some of the issues at hand. Topics for the meeting would include the possibility of extending the Kula School "school zone" to reach as far as the entrance to lower Kula road; have 20 mph signs installed; define the current area near the Kula post office as a school zone? I will call you next week to set up a meeting to discuss the issues outlined above.

Kindly,

Michael Mancini
Chair of School

MUNEKIYO HIRAGA, INC.

July 24, 2008

Michael Mancini, Chair of School
Haleakala Waldorf School
4160 Lower Kula Road
Kula, Hawai`i 96790

SUBJECT: Proposed Kula Ridge Residential Workforce Housing Subdivision at6
TMK (2)2-3-001:174

Dear Mr. Mancini:

Thank you for your e-mail dated April 17, 2008, regarding your school's need for a traffic study and the correspondence that you provided to Mr. Ferdinand Cajigal of the State Department of Transportation regarding access request for Haleakala Waldorf School to Kula Highway. On behalf of the applicant, Kula Ridge, LLC, we offer the following in response to your letter.

The developer values the need to provide safe routes for students to access schools. While this appears to be a broader community issue, Kula Ridge, LLC is willing to continue coordination efforts with community members and leaders to forge collaborative thinking and identification of community-based solutions.

We would like to note that a traffic study was prepared to assess the impact of the project on the surrounding roadways. The report takes into consideration, the volume of traffic along Lower Kula Road and Kula Highway during peak commuter periods. These periods are between 7:00 a.m. and 8:00 a.m. in the morning and 3:30 p.m. to 4:30 p.m. in the afternoon. The study also identified several recommendations with respect to traffic along Lower Kula Road, Kula Highway, and the surrounding roadways that would mitigate the traffic impacts resulting from the proposed project.

Thank you again for your e-mail. Should you have any questions or would like to schedule a meeting with Mr. Nishikawa, please do not hesitate to contact me at 244-2015.

Very truly yours,

Rowena Dagdag, Planner

RD:lfm
cc: Clayton Nishikawa, Kula Ridge, LLC
Vanessa Medeiros, Department of Housing and Human Concerns
F:\DATA\Nishikawa\KulaAH 1107\Waldorf.deares.wpd

Kula Community Association

P.O. Box 417 - Kula, HI 96790
http://kulamaui.com

The vision of the Kula Community Association is to preserve open space, support agriculture, maintain a rural residential atmosphere, and to work together as a community. The specific purpose of this association is to improve the quality of life for the residents of Kula, to promote civic welfare, and generally to benefit the community of Kula.

April 22, 2008

TO: Ms. Vanessa Medeiros, Director, Maui County Department of Housing & Human Concerns
Rowena Dagdag, Planner, Munikeyo & Hiraga Inc.

FROM: Kula Community Association Board of Directors

SUBJECT: Kula Ridge Draft Environmental Assessment
(Located above the Kula Community Center in Waiakoa)

The Kula Community Association (KCA) Board of Directors has reviewed the Draft EA for the Affordable housing project being proposed in Waiakoa on 48 acres immediately above the Kula Community Center and the adjacent tennis courts.

This proposed "affordable housing" project would be located on 48+ acres just above the Kula Community Center. It will consist of 116 lots with four large four-acre "market-priced" agriculture lots on the upper portion; 46 "market-priced" residential lots; and 70 smaller (4,600-6,000 sq. ft.) "affordable housing priced" lots. The land is now designated in the Upcountry Community Plan as "Single Family residential" and as "rural". The State Land Use Classification is "Agriculture." A request for a State Land Use District Boundary Amendment is being requested to reclassify the project areas to urban and rural.

Although the Upcountry Community Plan makes no special provision for this kind of project and the draft Maui Island Plan does not provide for any urban development in Kula, the Kula Community Association Board appreciates the project's potential affordable housing value. We recognize the need for affordable housing and desire to have a richly diverse community. We are concerned, however, about the density and do not wish for the project to set precedence that would alter the rural character of the area.

The Draft EA indicates that the applicant is applying for a "201 H fast-track" approval, claiming an "exemption" (Appendix B) from most County requirements because this project would qualify as an affordable housing project. We further understand that the Council must vote "yes" or "no" within 45 days, with no conditions attached. It is essential that the EA provide policymakers an accurate assessment of project impacts. The KCA Board is writing in the hope that the concerns which we raise below will be satisfactorily considered before the project reaches the Council and that the true infrastructure costs are known and taken into consideration.

Specifically we are requesting an update to the traffic impact report to include the traffic patterns of the two local schools and for costs and options to be provided for needed sidewalks. We also recommend that the 4 large lots stay in their original state land use classification of agriculture to allow the ability to apply for discounted agricultural water rates.

In the following section, we list the salient features discussed in the Draft EA, and our comments and major concerns related to them.

TRAFFIC AND SCHOOL CONCERNS

1. Need for sidewalks. Since this project is within one mile of Kula Elementary School, the primary-school aged children will not be able to utilize services of the school bus and will have to walk to school along a heavily trafficked Lower Kula Road. Students from Haleakala Waldorf School now must use the same roadway. There is heavy traffic and NO sidewalk. The Draft EA traffic report did NOT investigate this matter.

BOARD CONCERN: A required component of this project should be the construction of a sidewalk and walkway connecting the project to Kula Elementary School and to Haleakala Waldorf School. The sidewalk to Kula School would need to continue down next to the Kula Gym (where an unsafe steep dirt path now exists through waddle) and deliver children safely to a crossing guard for the crossing over busy Kula Highway. Otherwise children will cut through the vacant areas and walk along or cross the busy highway wherever they can. The sidewalk to Haleakala Waldorf School requires a 75-100 foot connection to the existing sidewalk. Included with this letter is a photo of the area just above Haleakala Waldorf School where the sidewalk extension is needed. If the County does not require the applicant to build the sidewalk along Lower Kula Road, then the County will need to construct it prior to the occupancy of the homes. **The EA should provide the County with more information on the options and costs.**

2. Impact on Lower Kula Road. The project's traffic will enter upon the narrow and winding Old Lower Kula Road. This rural road is already crowded early in the morning because of commuters and because of the location of Haleakala Waldorf School. The intersection of the road onto Kula Highway already is often backed up. The road has existing drainage problems that need attention.

KCA BOARD CONCERN: The traffic impact assessment provided in the EA does not show Haleakala Waldorf School on the area map or take into account the school's traffic patterns. The report did show, however, that the traffic impact from vehicles using Lower Kula Road necessitates the installation of turn lanes on the highway. All of these same cars travel past the school entrance and along the route children use to walk. **A revised TIAR, including the School, needs to be completed.**

The Haleakala Waldorf School, just down from the project on Lower Kula Road towards Kula Highway. Currently has 245 students and 45 employees. There is no bus service. Most of the traffic comes from Kula Highway and all traffic uses Lower Kula Road. Traffic for the assessment was studied from 6:00 am until 8:00am and from 3:00pm to 6:00pm, missing both the morning and afternoon school drop off (8:15-8:45) and pick-up times (2:30-2:45).

The report also needs to include an account of pedestrian traffic and road conditions. Many

children from the school use the Kula Community Center tennis courts and Kula Gym for activities. There is a great need for a sidewalk connecting the school to the existing sidewalk in the direction of the gym. Any increase in traffic along Lower Kula Road could severely affect the safety of children using this substandard road.

3. School enrollment. Because this is a large housing project, it can be expected that there will be many children who will be attending local schools.

KCA BOARD CONCERN: Because of this project's addition of many children to the community at a time that over 400 new homes are being built in the Hawaiian Home Lands and more will soon follow, it is necessary to determine the impact on Kula Elementary School, Kalama Intermediate School and King Kekaulike High School. **The EA needs to provide more information on school enrollment impacts, such as a projected number of students.**

WATER AND ELECTRIC CONCERNS

4. A lack of water availability and the acquisition of meters continue to be major concerns for the upcountry community

KCA BOARD CONCERN: The applicant is asking for a land use classification change on the upper portion containing four larger lots. It is the developer's hopes that this land will stay in agriculture. To receive discounted county water rates or access to the dual ag water line being installed upcountry the land needs to be classified as agriculture. If the project's water is provided through a private system with much higher water rates than farming will be much more difficult.

KCA BOARD CONCERN: Upcountry residents have been waiting for many, many years for a water meter. A water meter waiting-list has been established for the past 15 years, and that list now has gone over the 1,000 mark. There are some on the list who will be building "affordable homes" on their own lots in the upcountry district. If this project will be using either the Water Department's water sources or transmission lines, it should not be allowed to jump ahead of other affordable housing homes/projects on the list.

KCA BOARD CONCERN: This "201 H project" might unfairly step ahead of other proposals, including those which have a higher priority in the current Upcountry Community Plan.

Specifically, both "Hawaiian HomeLands" and "agriculture" have a higher priority in the plan to obtain water. Since the HHL own affordable homes project is now in a major expansion phase, it must be given the higher priority.

5. Private water system. With regard to water the applicant stated he will be drilling a 2,900' well, installing a deep-well pump, constructing a large water tank located an additional 700' up-hill at 3,600' elevation, and laying water lines.

KCA BOARD CONCERN: The quantity and long-term dependability of the available water supply is unknown. Will the project tie into the County System? What will happen when the pumps need repair/replacement?

6. Lack of electricity for area and high cost of pumping water. There are significant electricity issues. Maui Electric stated in the appendix that the area is unable at this time to support more electrical delivery, even for the homes. The water pumps will place an additional load.

Furthermore, there will be a very significant electricity expense in pumping the water up 3,600'. We estimate the cost to pump the water up to the 3,600' level to be approximately $5.40/1,000 gallons. ($1.50/ 1,000 gallons/1,000 feet lift) X (3.6 thousand feet).

KCA BOARD CONCERN: If it is a private water system, will the low-income residents of the "affordable homes" be required to pay the $5.40 / 1,000 gallon cost of the water? Will the agricultural lots in both Kula Ridge and Kula Mauka get lower "Ag" rates, subsidized by the "affordables"?

KCA BOARD CONCERN: To reduce the electricity costs for the affordables, will all the "affordable homes" have pre-installed solar water heaters? It would seem wise to require this.

7. Park uses of water. There is a 3 acre park planned. Landscaping and maintenance of the part portion of the project needs to be addressed to preserve water.

KCA BOARD CONCERN: Water from the project should be recycled back into the landscaping within the project's park area or the nearby County Park area.

AFFORDABLE HOUSING PROVISION CONCERNS

8. Buy-back provision. The state 201 H process only requires a 10 year "buy-back" provision for the "affordable housing. At the end of the 10 year period the homes become market-based homes losing their affordability.

KCA BOARD CONCERN: The "buy-back provisions" for the affordable houses should be required for longer than the proposed 10 years. In perpetuity would be best and could be managed through a county program.

KCA BOARD CONCERN: Owners should be required to live in their "affordable" units. If they are considering moving out and renting to others (except immediate family members), then they should be required to sell the property to a new "affordable" resident-owner.

KCA BOARD CONCERN: The County should be responsible for enforcing the buy-back provisions for this and other affordable housing projects.

LIGHTING AND IMPACTS ON EXISTING COMMUNITY CENTER AND PARK CONCERNS

9. Outdoor lighting. There is a potential for negative impact of outdoor lights on the Haleakala Observatories and neighboring properties.

KCA BOARD CONCERN: There should be minimal outdoor lighting. Street lights should be restricted to road intersections. We are pleased to note that the Draft EA states that all outdoor lighting in the project will be shielded to prevent light pollution into the night sky.

10. Traffic and noise mitigation. The project access road is adjacent to the park and tennis courts.

KCA BOARD CONCERN: The access road should be screened off from the park with landscaping, a fence, or a wall, or any combination. Traffic and noise should be mitigated so as not interfere with users of the Center and gateball and tennis court users.

KCA BOARD CONCERN: Parking for the project park should be provided by the developer.

PROJECT ROAD AND CONSTRUCTION CONCERNS

11. Need for secondary access. This project is like a giant cul-de-sac with 116 homes having only one exit.

KCA BOARD CONCERN: For safety reasons it would be desirable to have a second access (exit) road available for residents, not just emergency vehicles.

12. Access Road. The roadway up from the old Lower Kula Road will serve the upper portions of the adjacent park and 116 homes.

KCA BOARD CONCERN: The road should not negatively impact the adjoining Kula Community Center Park and should provide access to the upper portion of the Park. If the road will also be used to access the Kula Ridge Mauka project, the impacts should be included in the EA.

KCA BOARD CONCERN: To handle emergency vehicles and traffic there should be an adequately wide, paved road with walkways on the shoulder.

13. Construction practices on steep slope. On Page 28 off the Draft EA , it states that the grade of the project's land is a very steep 14.8%. Such a steep grade could cause severe problems particularly during the construction period. Since the land below the project is a Community Center with other park facilities, it is in the interest of the County to make sure that erosion and drainage are taken care of in a very careful way. So-called Best Management Practices may not even be adequate to handle such a steep slope considering the amount of grading that will need to be done for the large development.

KCA BOARD CONCERN: The Draft EA several times mentions that the drainage system will be able to handle a 50 year 1 hour peak rainfall. This may not be the appropriate design criteria, since, oftentimes and usually, Kona storms deliver far greater volumes of water during extended periods of time.

In closing, the KCA Board sincerely appreciates your consideration of our comments and concerns.

Sincerely,

Gina Flammer

Gina Flammer, President

cc. Mayor Charmaine Tavares
Maui County Council Land Use Chair Michael Molina
Maui County Council Member (Upcountry) Gladys Baisa
Maui County Planning Director Jeff Hunt
Maui County Water Director Jeff Eng

Kula Community Association

P.O. Box 417 - Kula, HI 96790
http://kulamaui.com

The vision of the Kula Community Association is to preserve open space, support agriculture, maintain a rural residential atmosphere, and to work together as a community. The specific purpose of this association is to improve the quality of life for the residents of Kula, to promote civic welfare, and generally to benefit the community of Kula.

March 29, 2006

TO: Clayton Nishikawa, Project Developer
FROM: Kula Community Association Board

SUBJECT: 116 Unit Project above Kula Community Center (in Waiakoa area)

The Kula Community Association (KCA) Board of Directors has reviewed the Affordable housing project being proposed by Mr. Clayton Nishikawa in Waiakoa on 48 acres immediately above the Kula Community Center and the adjacent tennis courts.

On a number of occasions the KCA Board and its Planning Committee met with Mr. Nishikawa and members of his firm. In addition, the project was presented to the community at the February, 2006 KCA General Meeting. We have also heard from a few community members.

The applicant has indicated that he will be applying for a "201g fast-track" approval, claiming waiver from most County requirements because this project would qualify as an affordable housing project. We further understand that the Council must vote "yes" or "no" within 45 days, with no conditions attached. Therefore, the KCA Board is writing in the hope that the concerns which we raise below will be satisfactorily considered before the project reaches the Council.

Although the Upcountry Community Plan makes no special provision for this kind of project, the Kula Community Association Board recognizes the value such a project would have in our community. We acknowledge the need for affordable housing. We desire to have a richly diverse community. This project would provide for some of this balance in the development of Kula as a whole. Many of the projects we have seen being developed in Kula have been 100% "high end" homes. The KCA, while welcoming those new neighbors to our community, values a balanced, economically diverse community.

We also are expecting a large infusion of new homes in the Hawaiian Home Lands subdivisions of Waiohuli and Keokea. We again welcome these neighbors and the richness they will bring to our community.

The KCA Board is most appreciative of the efforts by Mr. Nishikawa to make a positive and time consuming effort to provide affordable housing. He has undertaken this project at great expense and with considerable risk; and for this we are most grateful. We are also thankful for his presentations and for his helping us to understand the project.

In the following lines, we have listed the salient features of the project, and our comments and major concerns related to them. We have two major concerns: water and the intersection/traffic as well as other issues we wish to raise.

This proposed 51% "affordable housing" project would be located on 48+ acres just above the Kula Community Center. It will consist of 116 lots with four large four-acre "market-priced" agriculture lots on the upper portion; 53 "market-priced" residential lots; and 59 smaller (5,600-6,000 sq. ft.) "affordable housing priced" lots. The land is now designated in the Upcountry Community Plan as "Single Family residential" and as "rural". The zoning is "Agriculture."

1. Because this is a large housing project, it can be expected that there will be many children who will be attending local schools.

1.a KCA BOARD CONCERN: Because of this project's addition of many children to the community at a time that over 400 new homes are being built in the Hawaiian Home Lands, it is absolutely necessary to determine the impact on Kula Elementary School, Kalama Intermediate School and King Kekaulike High School.

2. Since this project is within one mile of the school, the primary-school aged children will not be able to utilize services of the school bus and will have to walk to school along a heavily trafficked Lower Kula Road.

2.a KCA BOARD CONCERN: A required component of this project should be the construction of a walkway connecting the project to Kula Elementary School.

3 With regard to water the developer stated he is not certain of the source of the water for the project.

3.a KCA BOARD CONCERN: Because the source of water is not yet determined, we are unclear as to what specific concerns need to be articulated. We reserve the right to comment when this becomes known

4. Water availability and the acquisition of meters continue to be major concerns for the upcountry community

4.a KCA BOARD CONCERN: This "201g project" might unfairly step ahead of other proposals, including those which have a higher priority in the current Upcountry Community Plan. Specifically, both "Hawaiian Home Lands" and "agriculture" have a higher priority to obtain water. Since the HHL is now in an expansion phase, it must be given its very high priority.

4.b KCA BOARD CONCERN: Residents have been waiting for many, many years for a water meter. A water meter waiting-list has been established for the past 13 years, and that list now has gone over the 1,000 mark. There are some on the list who will be building "affordable homes" on their own lots in the upcountry district. This project should only be allowed to jump ahead of other affordable housing homes/projects on the list, if it truly is determined to serve a specific Upcountry need as identified by impartial analyses and community testimony.

5. The developer has suggested 10 year "buy-back" provisions for the "affordable housing

5.a KCA BOARD CONCERN: The "buy-back provisions" for the affordable houses should be for longer than the proposed 10 years. In perpetuity would be best.

5.b KCA BOARD CONCERN: Owners should be required to live in their units. If they are considering moving out and renting to others (except immediate family members), then they should be required to sell the property to a new resident-owner

5.c KCA BOARD CONCERN: The County should be responsible for enforcing the buy-back provisions for this and other affordable housing projects.

6. There is a potential negative impact of lights on the Haleakala Observatories and neighboring properties.

6.a KCA BOARD CONCERN: There should be minimal outdoor lighting. Street lights should be restricted to road intersections, and all outdoor lighting in the project should be shielded to prevent light pollution to the night sky and light trespass to neighboring properties.

7. This project has a high density in a generally rural area

7.a KCA BOARD CONCERN: There should be strict requirements that no "ohana" units can be built This provision would be consistent with a number of other subdivisions being built in the region (Kulamanu, and the Dowling project across from Kekaulike High School). Limiting the project to a fixed number (116) would make much more certain the expected level of water usage.

8. The developer is proposing a sub-division configuration that would place four very large (4 acre each) lots at the top of the property, necessitating a crowding of 112 units in the lower part of the property This differs from the Upcountry Community Plan which calls for a combination of "Single-Family" and "Rural", not "gentleman farmer" lots.

8.a KCA BOARD CONCERN: The large lots established on the upper part of the sub-division, there should be designated with agriculture zoning. Further subdivision in these lots should not be allowed

9. The project's traffic will enter upon the narrow and winding Old Lower Kula Road.

9.a KCA BOARD CONCERN: This rural road is already crowded early in the morning because of commuters and because of the location of Haleakala Waldorf School The intersection of the road onto Kula Highway already is often backed up The road has existing drainage problems that need attention. A detailed traffic and road analysis must be completed and necessary remediation of potential traffic problems must be completed prior to the construction of the project.

10. This project is like a giant cul-de-sac with 116 homes having only one exit.

10.a KCA BOARD CONCERN: For safety reasons it would be desirable to have a second access road.

11. The roadway up from the old Lower Kula Road will serve the upper portions of the adjacent park and 116 homes

11.a KCA BOARD CONCERN: The road should not negatively impact the adjoining Kula Community Center Park and should provide access to the upper portion of the Park.

11.b KCA BOARD CONCERN There should be an adequately wide paved road, with walkways on the shoulder, to handle emergency vehicle and traffic.

12 There is a shortage of senior housing in the Kula community.

12.a KCA BOARD CONCERN The KCA Board asks for senior housing in this project, some of it affordable, and some of it market-priced but specifically designed for the needs of seniors.

13. There will be park land within the project.

13.a KCA BOARD CONCERN: Water from the project should be recycled back into the landscaping within the project's park area or the nearby County Park area

13.b KCA BOARD CONCERN: Maintenance of the lowest portion of the project (approximately 3 acres), adjoining the existing Park needs to be addressed

13.c KCA BOARD CONCERN: Parking for the park should be provided by the developer.

14. Although the KCA Board has discussed this project, the immediate neighbors have not yet been able to give their input

14.a KCA BOARD CONCERN: The developer should make a genuine effort to solicit feedback from adjoining neighbors who may be directly impacted by this project. This meeting should happen prior to going to the County Council.

In closing, the KCA Board sincerely appreciates the extensive effort by Mr Clayton Nishikawa to bring this proposal to our Board at an early stage. We feel that we have been able to give meaningful input

Sincerely, Karolyn Mossman, President KCA

cc. Mayor Alan Arakawa
Maui County Council
Planning Director Michael Foley and the Maui Planning Commission

MUNEKIYO & HIRAGA, INC.

July 24, 2008

Gina Flammer, President
Kula Community Association
P. O. Box 417
Kula, Hawai`i 96790

SUBJECT: Draft Environmental Assessment for Proposed Kula Ridge Residential Housing Workforce Housing Subdivision(EAC 2008/0014)

Dear Ms. Flammer:

Thank you for your letters dated April 22, 2008 and March 29, 2006, commenting on the proposed affordable housing project in Kula. We note that the comments referenced in your March 29, 2006 letter are also raised in the April 22, 2008 correspondence. Therefore, the responses provided below are presented to address comments in the order listed in the April 22, 2008 letter.

RESPONSES TO GENERAL COMMENTS

The association's comments regarding consistency with the rural character of the area and consistency with the goals, objectives, and polices of the Makawao-Pukalani-Kula Community Plan, as presented in your letter, have been reviewed and considered by Kula Ridge, LLC. We note that the proposed project is located in proximity to urban uses including the Kula Community Center, Morihara Store, Café 808, Kula Gym, Kula Elementary School, Kula Fire Station and single-family residences. As noted, an approximately 15 acre portion of the site is designated for "Single-Family" use by the Makawao-Pukalani-Kula Community Plan. When average densities are applied to this "Single-Family" area, then combined with average densities for the Rural-designate areas, approximately 120 lots can be developed on the project site. With these considerations in mind, the location of the project is deemed appropriate, particularly in terms of its immediately surrounding land use context.

As stated in the Draft Environmental Assessment (EA), the proposed project was developed with specific spatial configurations based on topographic and boundary patterns established by the surrounding properties. Given the project's objective to meet the need for affordable housing for island residents, the plan as proposed offers a preferred alternative to provide housing in a location in close proximity to similar land uses.

The proposed land use designation for the 4-large lots seeks to gain consistency with the existing Makawao-Pukalani-Kula Community plan.

RESOPNSES TO SPECIFIC COMMENTS

1. Traffic and School Concerns

a. Need for Sidewalks

The Traffic Impact Analysis Report (TIAR) assesses the impact of the project on the surrounding roadways during the peak commuter periods along the highway and provides recommendations of improvements that would mitigate the traffic impacts resulting from the proposed project.

The applicant is willing to take part in identifying alternatives for safe access for residents and school children, including working with County agencies and neighboring landowners. In this regard, formulation and implementation of specific design options will require collaboration among various stakeholders, to address issues relating to funding land acquisition and design parameters.

The applicant will be improving a portion of Lower Kula Road to its northern intersection with Kula Highway and will continue to work with the Department of Public Works to identify improvements for the proposed project.

The applicant will also continue coordination efforts with the Department of Parks and Recreation to develop a pedestrian and bike friendly path that can provide non-vehicular access from the subdivision to Kula Community Center.

b. Impact on Lower Kula Road

The applicant understands your concerns regarding the potential stacking of vehicles along Lower Kula Road at its northern intersection with Kula Highway. To minimize traffic impacts arising from the roadway alignment, proposed are exclusive left-turn and right-turn lanes at the intersection with Kula Highiway to minimize the impact of left-turning vehicles and vehicle stacking at that intersection.

An additional traffic analysis was prepared using an alternate trip distribution scenario in which all site-generated trips were assumed to travel from origins

and to destinations to the north of the project site. See **Attachment A**. This trip distribution methodology assumes that all site-generated trips are work related and do not have any linked or pass-by destinations.

Based on this scenario, Levels of Service (LOS) at the study intersections are expected to be similar to those included in the original TIAR. The critical movements at the intersections of Lower Kula Road with Kula Highway (north) are expected to remain the same at LOS "C" or better during both peak periods while those at the intersection with Kula Highway (south) are expected to operate at LOS "B" or better during both peak periods. Similarly, all approaches of the intersection with Copp Road are expected to operate at LOS "A". At the intersection of Lower Kula Road with Alanui Place and the Kula Community Center Driveway, the eastbound approach of the intersection is expected to operate at a slightly lower LOS "B" during both peak periods while the other approaches of the intersection are expected to operate at levels-of-service similar to those included in the original TIAR.

Both the TIAR and additional traffic analysis takes into account actual traffic counts which includes school traffic.

Kula Ridge, LLC understands the need to ensure safe pedestrian access to and from the Haleakala Waldorf School. In this regard, the need to extend the sidewalk to the school is viewed as a community-wide concern. Notwitstanding, Kula Ridge, LLC is willing to continue coordination efforts with community members and leaders to identify appropriate solutions. Such solutions, for example, may include coordination with the County's Department of Public Works to formulate a fair-share cost allocation formula which can be used to fund the desired sidewalk improvements.

c. School Enrollment

The Department of Education provided information on projected school enrollment up until School Year (S.Y.) 2012-2013 in their letter dated April 21, 2008. This letter is provided as **Attachment B**. Their projections indicated a decrease in the projected enrollment for schools servicing the proposed subdivision.

With respect to impact on Kula Elementary School, Kalama Intermedicate School and King Kekaulike High School, the applicant acknowledges that the 2007 Legislature passed Act 245, establishing school impact fees. This act is in the process of being implemented. In the Department of Education's

letter commenting on the Draft EA, they noted that they "currently do not know whether this area will be in an impact district or the amount of the fee per residential unit." The applicant will continue to work with the DOE in formulating an appropriate fair-share agreement for the subject project to mitigate impacts upon school facilities.

2. *Water and Electrical Concerns*

a. *Water for Farming*

The intent of the four (4) large lots within the subdivision is to provide opportunity for its owners to farm. The specific nature of each owner's agricultural endeavor, including water demand requirements, are not known at this time. While water rates for the private water system will likely be higher than County agricultural rates, the relationship of water costs to overall agricultural feasibility on the four (4) lots are not determinable. It is the expectation of Kula Ridge, LLC that each lot owner will seek to use his/her lands to its highest agricultural potential.

b. *A Lack of Water Availability and Water Use Priority*

The applicant acknowledges that a water meter wait-list exists, and includes projects with a certain degree of priority. Kula Ridge, LLC continues to pursue the development of an offsite well at the 2,900 feet elevation and does not intend to utilize County water to service the project area. As such, the project area will be serviced with this private water system. Water rates will be shared equally among residents in the proposed subdivision.

c. *Private Water System*

Preliminary reports indicate that the ground water well is anticipated to yield up to 1,000,000 gallons of water per day. The completion of the well development will, in large part, determine the sustainable yield for the new system. As stated in the Draft EA, the applicant intends to develop the well and related infrastructure according to County standards. Drilling and testing of the new well will be undertaken in compliance with the State Commission on Water Resource Management's requirements for well drilling and pump installation, including the preparation and submittal of required well completion reports. Repair and maintenance of the well will be undertaken on a regular basis.

Continued coordination with the Department of Water Supply (DWS) will be carried out to ensure that water source is adequately and appropriately addressed for the project. Also stated in the Draft EA is the opportunity to create a partnership with the Department of Water Supply in the development of a new water system. Should this alternative be considered, an agreement between the DWS and the applicant will be developed to establish terms and joint development efforts, which includes the long-term maintenance of the related infrastructure.

d. ***Lack of Electricity for Area and High Cost of Pumping Water***

As stated previously, the project area will be serviced with this private water system. Water rates will be shared equally among residents in the proposed subdivision.

The Final EA will also incorporate statements provided by Maui Electric Company, in their comment letter of August 2006. The following will be included in Section II.D.5. Electrical, Telephone, and Cable Television Services of the Final EA as follows.

It is noted that Maui Electric Company will require an electrical line extension, access, and electrical easements in order to provide service to the project.

In addition, energy conservation measures will be considered as part of the project design phase of development and further coordination with Maui Electric Company will occur at that time. As a result, the applicant will consider implementation of the following demand side management measures, where applicable, to conserve natural resources and to promote energy efficiency.

- **Site buildings to take advantage of natural features and maximize their beneficial effects by providing for solar access, daylighting, and natural cooling.**
- **Design south, east, and west shading devices to minimize solar heat gain.**
- **Consolidate utility and infrastructure in common corridors to minimize site degradation and cost, improve efficiency, and reduce impermeable surfaces.**

It should also be noted that Act 204 relating to the implementation of solar or other energy efficient hot water systems was recently signed into law. The applicant confirms that the project will conform with the requirements set forth by this new mandate.

e. Park Uses of Water

Water conservation plans will be developed in connection with project design.

3. Affordable Housing Provision Concerns

a. Buy-Back Provisions

While Kula Ridge LLC has suggested a ten (10) year buy-back provision for the affordable houses, restrictions on the resale of affordable units will be developed in coordination with the Department of Housing and Human Concerns. Parameters for specific terms and conditions for affordable sales price distribution and marketing requirements will be detailed in an affordable housing agreement executed by Kula Ridge, LLC and approved by the County.

4. Lighting and Impacts on Existing Community Center and Park Concerns

a. Outdoor Lighting

We note your comments regarding outdoor lighting and would like to add that the preliminary lighting plan for the project will be designed to ensure that lighting will be shielded and directed away from the night sky.

b. Traffic and Noise Mitigation

Development of the project will entail typical construction activities including excavation, grading, and the use of construction equipment (e.g. bulldozers, front-end loaders, and diesel-powered trucks) during daylight hours. Existing residences and community facilities directly below the project site may be impacted by construction noise due to their close proximity to the project site. Noise from such construction activities would be short term and must comply with the State Deparment of Health (DOH) noise regulations. Should nose during the construction phase of the project exceed the maximum allowable levels, a noise permit may be required.

The applicant has undertaken coordination efforts with the Department of Parks and Recreation in building a portion of the new access road to serve the expansion of the Kula Community Center Tennis Complex. It is anticipated that a landscaped buffer will be planned between the tennis courts and the new access road. This should serve to mitigate potential visual noise perceptions associated with the planned road and the project.

5. *Project Road and Construction Concerns*

a. *Need for Secondary Access*

As stated in the Draft EA, consideration was made to provide a second access point to service the project area off of Lower Kula Road. Topographic conditions, however, do not provide for a viable access point to the north of Kula Community Center. An access point was identified further mauka of the project along its southern border. This access point however, will be made available for emergency vehicles and residents during times of emergency.

b. *Access Road*

As previously mentioned, the applicant will continue to work with the Department of Parks and Recreation to ensure that there are no impacts to the Tennis Complex and Community Center. See **Attachment C.**

In addition, the new access road will be designed to County standards, to provide safe and efficient passage of emergency vehicles.

c. *Construction Practices on Steep Slope*

Slope conditions of the property influences project design, similar to characteristics encountered in surrounding developed areas. The project architect and civil engineer have carefully considered the topographic conditions of the site to develop a workable grading schematic and building layout plan. Construction of the project will be conducted in phases to reduce erosion and drainage impacts to properties below the project. The drainage plan has been developed through consideration of County standards which include a degree of "Factor of Safety".

All grading will be done in accordance with the Maui County grading ordinance. In addition, a geotechnical report will be done and the grading recommendations contained therein will be incorporated into the project.

We understand that continued dialogue with the Kula Community Association and Maui residents is needed to ensure that this important project can be implemented with sound community support. We look forward to meeting with the Kula Community Association again in the near future.

In the meantime, if there are any questions pertaiing to the responses provided, please feel free to contact me.

Very truly yours,

Rowena Dagdag, Planner

RD:yp
Enclosures
cc: Clayton Nishikawa, Kula Ridge LLC (w/enclosures)
Vanessa Medeiros, Department of Housing and Human Concerns (w/enclosures)
Stacy Otomo, Otomo Engineering, Inc. (w/enclosures)
F:\DATA\Nishikawa\KulaAH 1107\KCA.deares.wpd

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www.wilsonokamoto.com

7551-02
June 16, 2008

Mr. Clayton Nishikawa
Kula Ridge, LLC
1849 Wili Pa Loop
Wailuku, HI 96793

Subject: Kula Ridge

Dear Mr. Nishikawa:

As requested, the following are the responses to the comments provided by DOT Highways Division related to the Traffic Impact Report prepared for the subject project:

1. Comment: *Table 2 on Page 11 of the traffic assessment report show, "Dwelling Units=210". A clarification is needed explaining if there will be 210 units in the project area and how trip generation rates were applied for the various types of housing units (workforce/affordable, market, agricultural, rural) contained in subject project.*

   Response: The number "210" is a typo. There are a total of 116 dwelling units, 42 residential lots, 70 affordable housing lots, and 4 agricultural lots. 210 refers to the trip generation land use code (single-family detached housing) utilized for the project. As stated on page 3 of the report, each residential and agricultural lot is expected to house a residential dwelling.

2. Comment: *Table 2 on Page 12 of the traffic assessment report shows zero projected trips generated for a park. An explanation is needed to address why zero trips is assumed to be generated by the three-acre park.*

   Response: The trip generation rate utilized for the TIAR is Land Use 412 or County Park. Based upon the proposed park size (3-acres), zero site-generated trips are expected during the AM and PM peak periods. It should be noted that due to the small size of the park, the park will most likely function as a neighborhood park that services the residences that surround it. As such, vehicular trips to and from the park are expected to be minimal.

   Comment: *The assumed distribution of project-generated traffic presented in the TIAR that traffic from an affordable/workforce housing project would flow onto Copp Road and travel to/from another residential area is*

Attachment A

questionable. As an affordable housing project, this development could be viewed as an aid in fulfilling the existing housing need for employees in the area. The distribution of project traffic, therefore, will not mirror existing traffic patters but could reflect higher directional flows to and from major employment centers in the area. This matter should be further evaluated and addressed in the TIAR.

Response: Although there are many philosophies regarding the distribution of trips, the methodology utilized for the TIAR was selected to represent a worst-case scenario. Turning movements at an intersection require additional time to execute their movement in comparison to through movements. As such, the site-generated trips were assigned to turning movements at the subject intersections along Kula Highway to assess the worst-case scenario. However, to address these and other comments by DOT, a supplemental letter was prepared for the project (see attached).

3. Comment: *The TIAR should include identification of the geometrics for the recommended westbound right-turn lane on Lower Kula Road at Kula Highway.*

   Response: The TIAR provides recommendations for lane use based upon traffic operations. The actual dimensions of the recommended lanes will be determined during the design phase of the project when topographical information is available. The design geometrics will be submitted to DOT for review and approval.

4. Comment: *The Lower Kula Road/Copp Road intersection is identified as an all-way stop in the calculations in the TIAR. This intersection should be noted in the text of the report.*

   Response: Although the text does not specifically identify the intersection of Lower Kula Road and Copp Road as an all-way stop, it does indicate that this is an unsignalized intersection. In addition, all analyses performed for that intersection were based on all-way stop control.

5. Comment: *Based on our review, we anticipate that a dedicated southbound left-turn lane on Kula Highway at Lower Kula Road will be needed to mitigate project generated traffic.*

   Response: As previously stated, a supplemental letter was prepared to address this and other comments by DOT.

6. Comment: *We are concerned with the cumulative impact of project generated traffic from the Ridge Project and the Mauka Subdivision will have on Kula Highway. Connection to Kula Highway from the two developments should be addressed in the TIAR.*

   Response: The Kula Ridge TIAR was prepared and finalized prior to that for the Kula Ridge Mauka TIAR and, as such, the plans for Kula Ridge Mauka were not included in this report. However, the Kula Ridge Mauka TIAR, which is currently being revised due to changes in the project plan, will include both projects in its analyses.

7. Comment: *The discussion on trip generation, distribution, and assignment of project-generated traffic should follow future year without project conditions rather than precede it. This change in the TIAR would make the presentation follow the standard, traditional report format.*

   Response: In preparing the TIAR, the project details and overall characteristics including trip generation, distribution, and assignment are included up front to provide a comprehensive discussion of the project without a fixed frame of reference. The following sections discussing without and with project conditions then provide the appropriate frame of reference for the project. In addition, the placement of the without and with project scenarios in adjacent sections of the report allows for a direct comparison of the two scenarios.

Should you have any questions or require additional information, please contact me at 946-2277.

Sincerely,

Cathy Leong

Cathy Leong, P.E.

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7551-02
June 16, 2008

Mr. Clayton Nishikawa
Kula Ridge, LLC
1849 Wili Pa Loop
Wailuku, HI 96793

Subject: Kula Ridge

Dear Mr. Nishikawa:

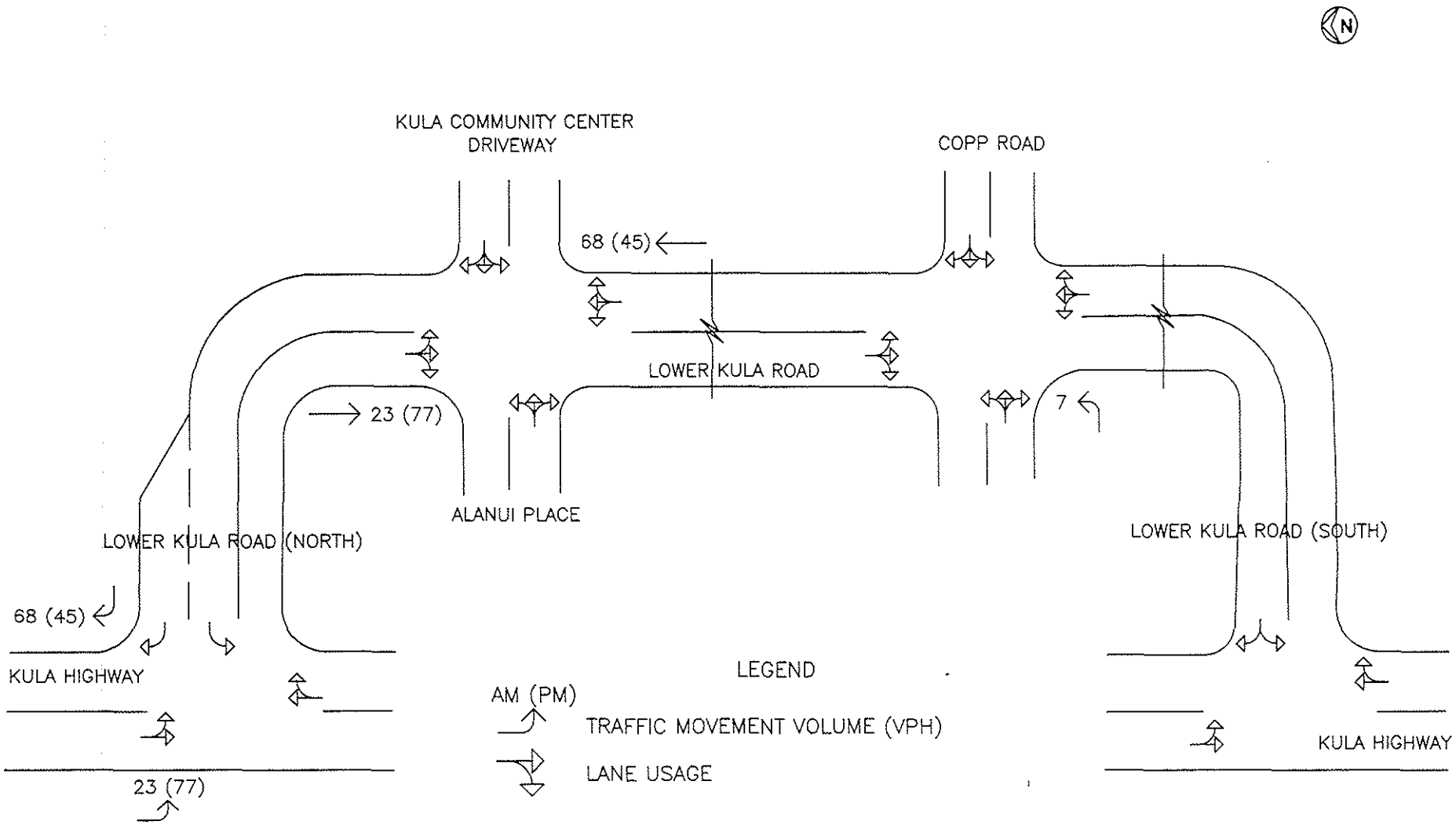
As requested, we assessed an alternate trip distribution scenario for the Kula Ridge project to address comments provided by DOT. The following is a summary of our findings.

Trip Distribution

In comments provided on April 22, 2008, DOT indicated that they did not agree with the trip distribution detailed in the Traffic Impact Report prepared for the Kula Ridge project dated July 2006. To address these comments, an alternate scenario was assessed in which all site-generated trips were assumed to travel from origins and to destinations to the north of the project site. It should be noted, however, that this trip distribution methodology assumes that all site-generated trips are work related and do not have any linked or pass-by destinations. As such, all entering vehicles were assumed to turn left from Kula Highway onto Lower Kula Road via the northern intersection of that roadway with the highway, and then utilized Lower Kula Road to access the project site. Similarly, all exiting vehicles were assumed to turn right onto Lower Kula Road and then right onto Kula Highway. Figure 1 shows the distribution of site-generated vehicles during the AM and PM peak periods for this alternate scenario.

Year 2009 With Project Conditions

The projected Year 2009 AM and PM peak period traffic volumes and operating conditions under the alternate scenario are shown in Figures 2 and 3, and summarized in Table 1. The projected Year 2009 operating conditions based upon the trip distribution included in the original TIAR are provided for comparison purposes. LOS calculations are included in the appendix.



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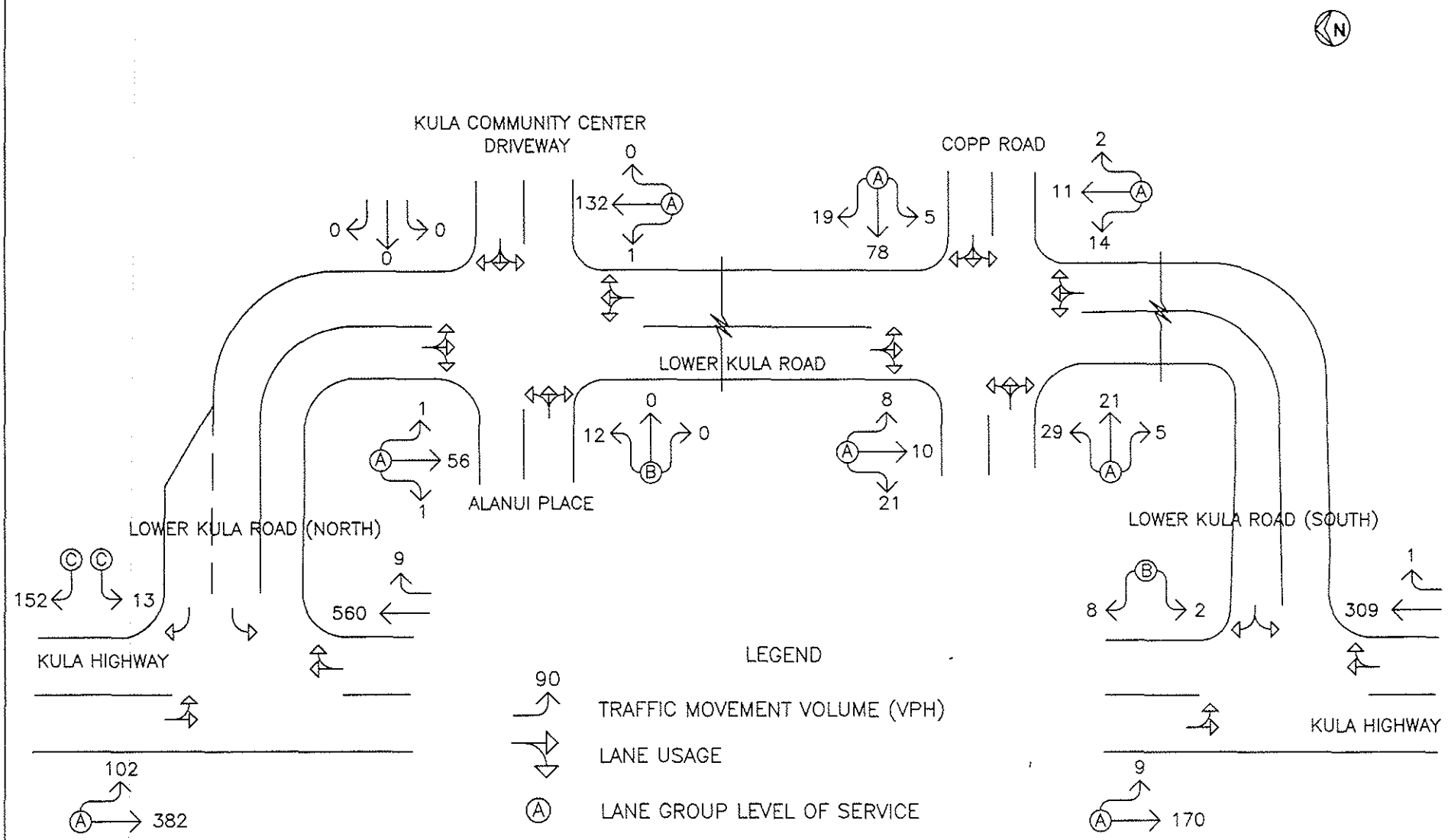
KULA RIDGE

DISTRIBUTION OF SITE-GENERATED TRAFFIC ALTERNATE SCENARIO

FIGURE 1



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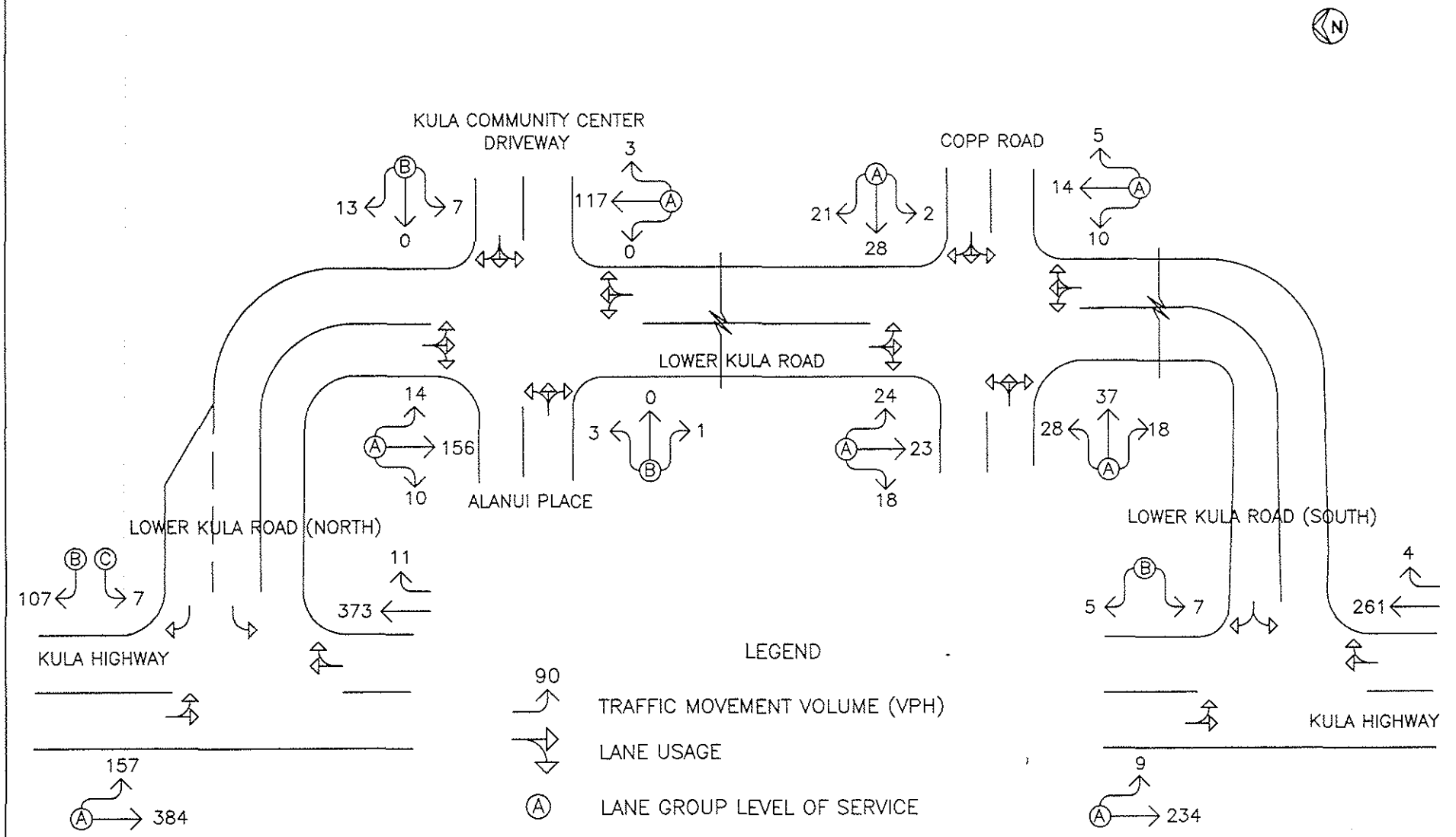
KULA RIDGE

YEAR 2009 AM PEAK HOUR OF TRAFFIC WITH PROJECT ALTERNATE SCENARIO

FIGURE 2



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KULA RIDGE

YEAR 2009 PM PEAK HOUR OF TRAFFIC WITH PROJECT ALTERNATE SCENARIO

FIGURE 3

Table 1: Year 2008 (TIAR and Alternate Scenario) Traffic Operating Conditions

Intersection	Critical Approach/ Movement		AM		PM	
			TIAR	Alt Scenario	TIAR	Alt Scenario
Lower Kula Road/ Alanui Place/ Kula Community Center Driveway*	Eastbound		A	B	A	B
	Westbound		-	-	B	B
	Northbound		A	A	A	A
	Southbound		A	A	A	A
Lower Kula Road/ Kula Highway (North)	Westbound	LT	C	C	C	C
		RT	C	C	B	B
	Southbound		A	A	A	A
Lower Kula Road/ Copp Road	Eastbound		A	A	A	A
	Westbound		A	A	A	A
	Northbound		A	A	A	A
	Southbound		A	A	A	A
Lower Kula Road/ Kula Highway (South)	Westbound		B	B	B	B
	Southbound		A	A	A	A

*Note: The LOS shown from the TIAR has been modified to correct a typo in the original report. The LOS shown in Table 1 is based on the capacity analysis worksheets included in Appendix E of the TIAR.

Under the alternate scenario, the levels of service at the study intersections are expected to be similar to those included in the original TIAR. The critical movements at the intersections of Lower Kula Road with Kula Highway (north) are expected to operate at LOS "C" or better during both peak periods while those at the intersection with Kula Highway (south) are expected to operate at LOS "B" or better during both peak periods. Similarly, all approaches of the intersection with Copp Road are expected to operate at LOS "A." At the intersection of Lower Kula Road with Alanui Place and the Kula Community Center Driveway, the eastbound approach of the intersection is expected to operate at a slightly lower LOS "B" during both peak periods while the other approaches of the intersection are expected to operate at levels-of-service similar to those included in the TIAR.

Based upon the operational analyses performed for the alternate scenario, a southbound left-turn lane along Kula Highway at the northern intersection with

Lower Kula Road as suggested by the DOT is not required. However, the provision of an exclusive turning lane on this approach would minimize the impact of turning vehicles on through traffic along the highway.

Should you have any questions or require additional information, please contact Mr. Pete Pascua or myself at 946-2277.

Sincerely,

Cathy Leong, P.E.

APPENDIX
CAPACITY ANALYSES CALCULATIONS
ALTERNATE SCENARIO

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: cl
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: AM Peak Period
Intersection: Alanui Dr/Lower Kula Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2009 With Project
Project ID: Alternate Scenario
East/West Street: Alanui Dr
North/South Street: Lower Kula Rd
Intersection Orientation: NS Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	1	132	0	1	56	1
Peak-Hour Factor, PHF	0.74	0.74	0.74	0.50	0.50	0.50
Hourly Flow Rate, HFR	1	178	0	2	112	2
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type/Storage	Undivided /					
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	0	0	0	12	0	0
Peak Hour Factor, PHF	1.00	1.00	1.00	0.60	0.60	0.60
Hourly Flow Rate, HFR	0	0	0	19	0	0
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	1	2		0			19	
C(m) (vph)	1475	1398					654	
v/c	0.00	0.00					0.03	
95% queue length	0.00	0.00					0.09	
Control Delay	7.4	7.6					10.7	
LOS	A	A					B	
Approach Delay							10.7	
Approach LOS							B	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: PM Peak Period
Intersection: Alanui Dr/Lower Kula Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2009 With Project
Project ID: Alternate Scenario
East/West Street: Alanui Dr
North/South Street: Lower Kula Rd
Intersection Orientation: NS Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	0	117	3	14	156	10
Peak-Hour Factor, PHF	0.69	0.69	0.69	0.84	0.84	0.84
Hourly Flow Rate, HFR	0	169	4	16	185	11
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	7	0	13	3	0	1
Peak Hour Factor, PHF	0.71	0.71	0.71	0.33	0.33	0.33
Hourly Flow Rate, HFR	9	0	18	9	0	3
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage		No	/		No	/
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config	LTR	LTR		LTR			LTR	
v (vph)	0	16		27			12	
C(m) (vph)	1377	1404		734			596	
v/c	0.00	0.01		0.04			0.02	
95% queue length	0.00	0.03		0.11			0.06	
Control Delay	7.6	7.6		10.1			11.2	
LOS	A	A		B			B	
Approach Delay				10.1			11.2	
Approach LOS				B			B	

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: AM Peak Period
Intersection: Kula Hwy/Lower Kula Rd (North)
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2009 With Project
Project ID: Alternate Scenario
East/West Street: Lower Kula Rd (North)
North/South Street: Kula Hwy
Intersection Orientation: NS Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		560	9	102	382	
Peak-Hour Factor, PHF		0.90	0.90	0.77	0.77	
Hourly Flow Rate, HFR		622	10	132	496	
Percent Heavy Vehicles		--	--	2	--	--
Median Type/Storage	Undivided		/			
RT Channelized?						
Lanes		1 0		0 1		
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	13		152			
Peak Hour Factor, PHF	0.84		0.84			
Hourly Flow Rate, HFR	15		180			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes	1		1			
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT	L		R			
v (vph)		132	15		180			
C(m) (vph)		951	200		484			
v/c		0.14	0.08		0.37			
95% queue length		0.48	0.24		1.76			
Control Delay		9.4	24.5		16.8			
LOS		A	C		C			
Approach Delay				17.4				
Approach LOS				C				

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: PM Peak Period
Intersection: Kula Hwy/Lower Kula Rd (North)
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2009 With Project
Project ID: Alternate Scenario
East/West Street: Lower Kula Rd (North)
North/South Street: Kula Hwy
Intersection Orientation: NS Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		373	11	157	384	
Peak-Hour Factor, PHF		0.86	0.86	0.90	0.90	
Hourly Flow Rate, HFR		433	12	174	426	
Percent Heavy Vehicles		--	--	2	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		1 0		0 1		
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	7		107			
Peak Hour Factor, PHF	0.82		0.82			
Hourly Flow Rate, HFR	8		130			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			/			/
Lanes	1		1			
Configuration	L		R			

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT	L		R			
v (vph)		174	8		130			
C(m) (vph)		1115	237		618			
v/c		0.16	0.03		0.21			
95% queue length		0.55	0.10		0.80			
Control Delay		8.8	20.7		12.4			
LOS		A	C		B			
Approach Delay				12.9				
Approach LOS				B				

HCS+: Unsignalized Intersections Release 5.21

Wilson Okamoto Corporation
1907 S. Beretania St., Suite 400
Honolulu, HI 96826

Phone: (808) 946-2277 Fax: (808) 946-2253
E-Mail:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: AM Peak Period
Intersection: Copp Rd/Lower Kula Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year:
Project ID: Alternate Scenario
East/West Street: Copp Rd
North/South Street: Lower Kula Rd

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	29	21	5	5	78	19	14	11	2	8	10	21
% Thrus Left Lane												

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.69		0.80		0.61		0.79	
Flow Rate	79		126		43		48	
% Heavy Veh	2		2		2		2	
No. Lanes	1		1		1		1	
Opposing-Lanes	1		1		1		1	
Conflicting-lanes	1		1		1		1	
Geometry group	1		1		1		1	

Duration, T 1.00 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	79		126		43		48	
Left-Turn	42		6		22		10	
Right-Turn	7		23		3		26	
Prop. Left-Turns	0.5		0.0		0.5		0.2	
Prop. Right-Turns	0.1		0.2		0.1		0.5	

Prop. Heavy Vehicle	0.0	0.0	0.0	0.0
Geometry Group	1	1	1	1
Adjustments Exhibit 17-33:				
hLT-adj	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	0.1	-0.1	0.1	-0.2

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	79		126		43		48	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.07		0.11		0.04		0.04	
hd, final value	4.32		4.13		4.50		4.15	
x, final value	0.09		0.14		0.05		0.06	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.3		2.1		2.5		2.2	

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	79		126		43		48	
Service Time	2.3		2.1		2.5		2.2	
Utilization, x	0.09		0.14		0.05		0.06	
Dep. headway, hd	4.32		4.13		4.50		4.15	
Capacity	329		376		293		298	
Delay	7.78		7.82		7.76		7.40	
LOS	A		A		A		A	
Approach:								
Delay	7.78		7.82		7.76		7.40	
LOS	A		A		A		A	
Intersection Delay	7.73		Intersection LOS		A			

HCS+: Unsignalized Intersections Release 5.21

Wilson Okamoto Corporation
1907 S. Beretania St., Suite 400
Honolulu, HI 96826

Phone: (808) 946-2277 Fax: (808) 946-2253
E-Mail:

ALL-WAY STOP CONTROL(AWSC) ANALYSIS

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: PM Peak Period
Intersection: Copp Rd/Lower Kula Rd
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2009 With Project
Project ID: Alternate Scenario
East/West Street: Copp Rd
North/South Street: Lower Kula Rd

Worksheet 2 - Volume Adjustments and Site Characteristics

	Eastbound			Westbound			Northbound			Southbound		
	L	T	R	L	T	R	L	T	R	L	T	R
Volume	28	37	18	2	28	21	10	14	5	24	23	18
% Thrus Left Lane												

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.94		0.85		0.91		0.75	
Flow Rate	87		58		30		86	
% Heavy Veh	2		2		2		2	
No. Lanes	1		1		1		1	
Opposing-Lanes	1		1		1		1	
Conflicting-lanes	1		1		1		1	
Geometry group	1		1		1		1	

Duration, T 1.00 hrs.

Worksheet 3 - Saturation Headway Adjustment Worksheet

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rates:								
Total in Lane	87		58		30		86	
Left-Turn	29		2		10		32	
Right-Turn	19		24		5		24	
Prop. Left-Turns	0.3		0.0		0.3		0.4	
Prop. Right-Turns	0.2		0.4		0.2		0.3	

Prop. Heavy Vehicle	0.0	0.0	0.0	0.0
Geometry Group	1	1	1	1
Adjustments Exhibit 17-33:				
hLT-adj	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7
hadj, computed	-0.0	-0.2	0.0	-0.1

Worksheet 4 - Departure Headway and Service Time

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow rate	87		58		30		86	
hd, initial value	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
x, initial	0.08		0.05		0.03		0.08	
hd, final value	4.19		4.04		4.31		4.19	
x, final value	0.10		0.07		0.04		0.10	
Move-up time, m	2.0		2.0		2.0		2.0	
Service Time	2.2		2.0		2.3		2.2	

Worksheet 5 - Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Flow Rate	87		58		30		86	
Service Time	2.2		2.0		2.3		2.2	
Utilization, x	0.10		0.07		0.04		0.10	
Dep. headway, hd	4.19		4.04		4.31		4.19	
Capacity	337		308		280		336	
Delay	7.66		7.32		7.47		7.66	
LOS	A		A		A		A	
Approach:								
Delay	7.66		7.32		7.47		7.66	
LOS	A		A		A		A	
Intersection Delay	7.56		Intersection LOS		A			

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: AM Peak Period
Intersection: Kula Hwy/Lower Kula Rd (South)
Jurisdiction:
Units: U. S. Customary
Analysis Year: 2009 With Project
Project ID: Alternate Scenario
East/West Street: Lower Kula Rd (South)
North/South Street: Kula Hwy
Intersection Orientation: NS Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		309	1	9	170	
Peak-Hour Factor, PHF		0.83	0.83	0.66	0.66	
Hourly Flow Rate, HFR		372	1	13	257	
Percent Heavy Vehicles		--	--	2	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	2		8			
Peak Hour Factor, PHF	0.75		0.75			
Hourly Flow Rate, HFR	2		10			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			/
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		13		12				
C(m) (vph)		1185		614				
v/c		0.01		0.02				
95% queue length		0.03		0.06				
Control Delay		8.1		11.0				
LOS		A		B				
Approach Delay				11.0				
Approach LOS				B				

HCS+: Unsignalized Intersections Release 5.21

TWO-WAY STOP CONTROL SUMMARY

Analyst: CL
Agency/Co.: Wilson Okamoto Corporation
Date Performed: 6/9/2008
Analysis Time Period: PM Peak Period
Intersection: Kula Hwy/Lower Kula Rd (South)
Jurisdiction:
Units: U. S. Customary
Analysis Year:
Project ID: Alternate Scenario
East/West Street: Lower Kula Rd (South)
North/South Street: Kula Hwy
Intersection Orientation: NS Study period (hrs): 1.00

Vehicle Volumes and Adjustments

Major Street: Approach	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume		261	4	9	234	
Peak-Hour Factor, PHF		0.92	0.92	0.93	0.93	
Hourly Flow Rate, HFR		283	4	9	251	
Percent Heavy Vehicles		--	--	2	--	--
Median Type/Storage	Undivided			/		
RT Channelized?						
Lanes		1	0	0	1	
Configuration		TR		LT		
Upstream Signal?		No			No	

Minor Street: Approach	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	7		5			
Peak Hour Factor, PHF	0.61		0.61			
Hourly Flow Rate, HFR	11		8			
Percent Heavy Vehicles	2		2			
Percent Grade (%)		0			0	
Flared Approach: Exists?/Storage			No /			/
Lanes	0		0			
Configuration		LR				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Config		LT		LR				
v (vph)		9		19				
C(m) (vph)		1275		575				
v/c		0.01		0.03				
95% queue length		0.02		0.10				
Control Delay		7.8		11.5				
LOS		A		B				
Approach Delay				11.5				
Approach LOS				B				

APR 2 2 2008

LINDA LINGLE
GOVERNOR

PATRICIA HAMAMOTO
SUPERINTENDENT

STATE OF HAWAI'I

DEPARTMENT OF EDUCATION

P.O. BOX 2360

HONOLULU, HAWAI'I 96804

OFFICE OF THE SUPERINTENDENT

April 21, 2008

Ms. Vanessa Medeiros
County of Maui
Department of Housing and Human Concerns
200 South High Street, Suite 400
Wailuku, Hawaii 96793-2155

Dear Ms. Medeiros:

Subject: Draft Environmental Assessment (DEA) for Proposed Kula Ridge Residential Workforce Housing Subdivision, Kula, Maui, TMK: (2) 2-3-001:174

The Department of Education (DOE) has reviewed the DEA for the proposed Kula Ridge Residential Workforce Housing Subdivision. We have the following comments:

Please update your figures to reflect the following 2007 update of capacity and projected enrollments at DOE schools. Our capacity and future projection numbers have changed since the data last provided to you.

	ACTUAL ENROLLMENT	CAPACITY	PROJECTED ENROLLMENT				
	2007-2008	2006 -2007	2008-09	2009-10	2010-11	2011-12	2012-13
Kula Elementary	455	588	421	414	408	405	401
Kalama Intermediate	894	1118	881	877	873	871	868
Kekaulike High	1354	1288	1262	1197	1158	1143	1117

The 2007 Legislature passed a bill establishing school impact fees. The bill became Act 245 and is in the process of being implemented. We currently do not know whether this area will be in an impact district or the amount of the fee per residential unit. If the project falls within an impact district, the DOE will meet with the developers of the project to discuss an agreement to mitigate the impacts of enrollment growth generated by this project.

Thank you for the opportunity to review this document. If you have any questions, please call George Casen of our Facilities Development Branch at (808) 377-8308.

Very truly yours,

Patricia Hamamoto
Superintendent

PH:jmb

c: Randolph Moore, Assistant Superintendent, OSFSS
Duane Kashiwai, Public Works Administrator, FDB
Bruce Anderson, CAS, Baldwin/King Kekaulike/Maui High Complex Areas
√ Rowena Dagdag, Munekiyo & Hiraga, Inc.

Attachment B

APR 1 4 2008

CHARMAINE TAVARES
Mayor

TAMARA HORCAJO
Director

ZACHARY Z. HELM
Deputy Director

(808) 270-7230
Fax (808) 270-7934

DEPARTMENT OF PARKS & RECREATION

700 Hali'a Nakoa Street, Unit 2 , Wailuku, Hawaii 96793

April 9, 2008

Vanessa Medeiros, Director
Department of Housing and Human Concerns
200 South High Street, Suite 400
Wailuku, Hawaii 96793

SUBJECT: Draft Environmental Assessment and Preliminary Section 201H-38, Hawaii Revised Statutes (HRS) Application for Proposed Kula Ridge Residential Workforce Housing Subdivision, Kula, Maui, Hawai'i TMK (2)2-3-001:174

Dear Ms. Medeiros:

The Department of Parks and Recreation is currently working with the developer to build a portion of the new access road adjacent to the Kula Community Center Tennis Complex. The work will be done in conjunction with the Kula Tennis Complex expansion project. Improvements to the access road will allow for staging and construction activity to occur for the tennis court expansion. The developer has been extremely cooperative with Parks efforts to improve the tennis facility. We will continue to work with the developer to ensure that there are no impacts to the Tennis Complex and Community Center.

Thank you for the opportunity to review and comment on this matter. Please feel free to contact me or Mr. Patrick Matsui, Chief of Parks Planning and Development, at 270-7387 should you have any other questions.

Sincerely,

TAMARA HORCAJO
Director

xc: Rowena Dagdag, Munekiyo & Hiraga, Inc.
Patrick Matsui, Chief of Parks Planning & Development

Attachment C

XII. REFERENCES

XII. REFERENCES

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County of Maui, Makawao-Pukalani-Kula Community Plan, July 23, 1996.

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APPENDICES

APPENDIX A.

Preliminary Construction Specifications for Affordable Units

Form RD 1924-2
(Rev. 7-99)

UNITED STATES DEPARTMENT OF AGRICULTURE
U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT-FEDERAL HOUSING ADMINISTRATION
U.S. DEPARTMENT OF VETERANS AFFAIRS

FORM APPROVED
OMB NO. 0575-0042

☑ **Proposed Construction**

☐ **Under Construction**

DESCRIPTION OF MATERIALS

No. _____ (To be inserted by Agency)

Property address Lower Kula Road *City* Kula *State* HI

Mortgagor or Sponsor _____ (Name) _____ (Address)

Contractor or Builder Architectural Design & Construction, Inc. (Name) 1849 Wili Pa Loop Wailuku, HI 96793 (Address)

INSTRUCTIONS

1. For additional information on how this form is to be submitted, number of copies, etc., see the instructions applicable to the FHA Application for Mortgage Insurance, VA Request for Determination of Reasonable Value or other, as the case may be.

2. Describe all materials and equipment to be used, whether or not shown on the drawings, by marking an X in each appropriate check-box and entering the information called for in each space. If space is inadequate enter "See misc," and describe under item 27 or on an attached sheet- THE USE OF PAINT CONTAINING MORE THAN THE PERCENT OF LEAD BY WEIGHT PERMITTED BYLAW IS PROHIBITED.

3. Work not specifically described or shown will not be considered unless required, then the minimum acceptable will be assumed. Work exceeding minimum requirements cannot be considered unless specifically described.

4. Include no alternates, "or equal" phrases, or contradictory items. (Consideration of a request for acceptance of substitute materials or equipment is not thereby precluded.)

5. Include signatures required at the end of this form.

6. The construction shall be completed in compliance with the related drawings and specifications, as amended during processing. The specifications include this Description of Materials and the applicable building code.

1. EXCAVATION:
Bearing soil, type _____

2. FOUNDATIONS:
Footings: concrete mix Type I or II ASTM C-150 ; strength psi 3000 Reinforcing #4, see structural details
Foundation wall: material Concrete, Type I or II ASTM C-150 Reinforcing #4, see structural details
Interior foundation wall: material Concrete, Type I or II Party foundation wall _____
Columns: material and sizes 6x6 Douglas Fir, No. 1 Piers: material and reinforcing 12x12 CMU, Fully Grouted
Girders: material and sizes 4x12 Douglas Fir, No. 1 Sills: material NA
Basement entrance areaway NA Window areaways NA
Waterproofing NA Footing drains NA
Termite protection Termimesh Stainless Steel Mesh
Basementless space: ground cover NA ; insulation NA ; foundation vents NA
Special foundations NA
Additional information _____

3. CHIMNEYS:
Material _____ Prefabricated *(make and size)* _____
Flue lining: material _____ Heater flue size _____ Fireplace flue size _____
Vents *(material and size)*: gas or oil heater _____ ; water heater _____
Additional information: _____

4. FIREPLACES:
Type: ☐ solid fuel; ☐ gas-burning; ☐ circulator *(make and size)* _____ Ash dump and clean-out _____
Fireplace: Facing _____ ; lining _____ ; hearth _____ ; mantel _____
Additional information: _____

5. EXTERIOR WALLS:
Wood frame: wood grade, and species 2x Douglas Fir, No. 1 ☐ Corner bracing. Building paper or felt Kraft or Bituminous
sheathing Structural II ; thickness 1/2" ; width 48" ☑ solid; ☐ space _____ o.c.; ☐ diagonal; _____
Siding Fiber cement Lap ; grade II ; type A ; size 12' ; exposure 6" ; fastening HDG nails
Shingles Fiber cement ; grade II ; type A ; size 4' ; exposure 7" ; fastening HDG nails
Stucco Glass Mat Gyp. ; thickness 5/8" ; Lath Synthetic plaster finish , weight _____ lb.
Masonry veneer _____ Sills _____ Lintels _____ Base flashing _____
Masonry: ☐ solid ☐ faced ☐ stuccoed; total wall thickness 0 ; facing thickness _____ ; facing material _____
Backup material _____ ; thickness _____ ; bonding _____
Door sills _____ Window sills _____ Lintels _____ Base flashing _____
Interior surfaces: dampproofing, _____ coats of _____ ; furring _____
Additional information: _____
Exterior painting: material Acrylic latex ; number of coats 2
Gable wall construction: ☑ same as main walls; ☐ other construction _____

6. FLOOR FRAMING:
Joists; wood, grade, and species Doug.fir No 2 ; other _____ ; bridging Solid ; anchors HDG Simpson
Concrete slab: ☐ basement floor; ☐ first floor; ☑ ground supported; ☐ self-supporting; mix Type I or II ; thickness 4 ,
reinforcing 6x6 10/10 WWM ; insulation _____ ; membrane 10 Mil vapor barrier
Fill under slab; material TBD ; thickness _____ ; Additional information: _____

7. SUBFLOORING: *(Describe underflooring for special floors under item 21.)*
Material: grade and species Structural I plywd with P.I. Index of 48/24 , size 3/4" , type T&G
Laid: ☑ first floor; ☐ second floor ☐ attic _____ sq. ft; ☐ diagonal; ☑ right angles. Additional information: Glued & Nailed

8. FINISH FLOORING: *(Wood only. Describe other finish flooring under item 21.)*

LOCATION	ROOMS	GRADE	SPECIES	THICKNESS	WIDTH	BLDG.PAPER	FINISH
First floor							
Second floor							
Attic floor	sq. ft.						

Additional information _____

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0575-0042. The time required to complete this information collection is estimated to average 15 minutes per response, including the time for reviewing instructions, searching, gathering data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

9. PARTITION FRAMING:
Studs: wood, grade, and species Douglas Fir No. 1 size and spacing 2x4 @ 16" oc Other 2x4 @ 24" oc where occur

Additional information:

10. CEILING FRAMING:
Joists: wood, grade, and species Douglas Fir No. 1 Other Bridging 2x4

Additional information: Wood truss bottom chord for ceiling framing

11. ROOF FRAMING:
Rafters: wood, grade, and species Roof trusses (see detail): grade and species Douglas Fir No. 1

Additional information:

12. ROOFING:
Sheathing: wood, grade, and species 5/8" Structural I P.I. Index 40/20 ☑ solid ☐ spaced ___ o.c.

Roofing Asphalt Shingle ; grade ___ ; size 12" x 36" ; type ASTM D 3018, Type I

Underlay Single layer of shingle underlayment ; weight or thickness 30 lb ; size 3' wide ; fastening HDG staples

Built-up roofing ___ ; number of plies ___ ; surface material ___

Flashing: material copper ; gage or weight 16 oz. ☐ gravel stops; ☐ snow guards

Additional information: drip edge

13. GUTTERS AND DOWNSPOUTS:
Gutters: material ___ ; gage or weight ___ ; size ___ ; shape ___

Downspouts: material ___ ; gage or weight ___ ; size ___ ; shape ___ ; number ___

Downspouts connected to: ☐ Storm sewer; ☐ sanitary sewer; ☐ dry-well, ☐ Splash blocks: material and size ___

Additional information:

14. LATH AND PLASTER:
Lath ☐ walls, ☐ ceilings: material ___ ; weight or thickness ___ Plaster: coats ___ ; finish ___

Dry-wall ☑ walls, ☐ ceilings: material Gyp. bd. ; thickness 1/2" ; finish Light orange peel

Joint treatment Taped and sanded

15. DECORATING: (Paint, wallpaper, etc.)

ROOMS	WALL FINISH MATERIAL AND APPLICATION	CEILING FINISH MATERIAL AND APPLICATION
Kitchen	Interior Latex Flat Enamel	Interior Latex Flat Enamel
Bath	Interior Latex Flat Enamel	Interior Latex Flat Enamel
Other Liv, Bedr	Interior Latex Flat	Interior Latex Flat

Additional information:

16. INTERIOR DOORS AND TRIM:
Doors: type Hollow Core ; material Hardboard ; thickness 1 3/8"

Door trim: type 1x3 S2S ; material Poplar Base: type S2S ; material Poplar ; size 1/2"x5 1/2"

Finish: doors Alkyd Semi-Gloss ; trim Alkyd Semi-Gloss

Other trim *(item, Type and location)* ___

Additional information:

17. WINDOWS:
Windows: type Horiz. Slider ; make Alpine or Milgard ; material Vinyl ; sash thickness 2.75"

Glass: grade Class A ☐ sash weights; ☐ balances, type ___ ; head flashing 25 Mil. Tape

Trim: type Exterior 1x4 ; material Douglas Fir Paint Latex Semi-Gloss ; number coats 2

Weatherstripping; type Fin Seal ; material Rubber Storm sash, number ___

Screens: ☐ full; ☑ half-, type Metal Frame ; number ___ ; screen cloth material Fiberglass

Basement windows: type ___ ; material ___ ; screens, number ___ ; Storm sash, number ___

Special windows ___

Additional information:

18. ENTRANCES AND EXTERIOR DETAIL:
Main entrance door: material Douglas Fir ; width 3'-0" ; thickness 1 3/4" Frame: material Douglas Fir ; thickness 3/4"

Other entrance doors: material Douglas Fir , width 3'-0" ,thickness 1 3/4" Frame: material Douglas Fir ; thickness 3/4"

Head flashing ___ Weatherstripping: type ___ ; saddles ___

Screen doors: thickness ___ ; number ___ ; screen cloth material ___ Storm doors: thickness ___ ; number ___

Combination storm and screen doors: thickness ___ number ___ ; screen cloth material ___

Shutters: ☐ hinged; ☐ fixed. Railings Wood balusters, 2x2 ; Attic louvers ___

Exterior millwork: grade and species Douglas Fir, Select Merchant Paint Latex Semi-Gloss ; number coats 2

Additional information:

19. CABINETS AND INTERIOR DETAIL:
Kitchen cabinets, wall units: material Plywood ; lineal feet of shelves TBD ; shelf width ___

Base units: material Plywood ; counter top Laminate ; edging Laminate

Back and end splash Laminate Finish of cabinets Factory stain finish ; number coats 2

Medicine cabinets: make NA ; model ___

Other cabinets and built-in furniture ___

Additional information:

20. STAIRS:

STAIR	TREADS		RISERS		STRINGS		HANDRAIL		BALUSTERS	
	Material	Thickness	Material	Thickness	Material	Thickness	Material	Thickness	Material	Thickness
Basement										
Main	Doug. Fir	2x12	-	-	Doug. Fir	4x12	Doug. Fir	1 1/2" d	Doug. Fir	2x2
Attic										

Disappearing: make and model number ___

Additional information:

21. SPECIAL FLOORS AND WAINSCOT: (Describe carpet as listed in Certified Products Directory.)

	Location	Material, Color, Border, Sizes, Gage, Etc.	Threshold Material	Wall Base Material	Underfloor Material
Floors	Kitchen	Resilient Flooring		Poplar	Plywd.
	Bath	Resilient Flooring		Poplar	Plywd.
		Carpet		Poplar	Plywd.

	Location	Material, Color, Border, Sizes, Gage, Etc.	Height	Height Over Tub	Height in Showers (From Floor)
Wainscot	Bath				

Bathroom accessories: ☐ Recessed; material _____; number _____; ☑ Attached; material Chrome; number _____

Additional information: _____

22. PLUMBING

Fixture	Number	Location	Make	Mfr's Fixture Identification No.	Size	Color
Sink	1	Kitchen	Kohler Cadence	K-3145-4	33x22	Stainless
Lavatory	2	Baths	Sterling	65020140	19" round	White
Water closet	2	Baths	Sterling Windham	402215	29"x16"x29"	White
Bathtub	2	Baths	Sterling Advantage	61030110	60"x30"x72"	White
Shower over tub	2	Baths	Delta Classic Shower	T13420		Chrome
Stall shower						
Laundry trays						

A ☑ Curtain rod A ☐ Door ☐ Shower pan: material _____

Water supply: ☐ public; ☐ community system; ☐ individual (private) system.*

Sewage disposal ☐ public; ☐ community system; ☐ individual (private) system.*

** Show and describe individual system in complete detail in separate drawings and specifications according to requirements.*

House drain (inside); ☐ cast iron; ☐ tile; ☑ other ABS Plastic House sewer (outside): ☐ cast iron; ☐ tile; ☑ other ABS Plastic

Water piping: ☐ galvanized steel; ☑ copper tubing; ☐ other _____ Still cocks, number _____

Domestic water heater: type Solar; make and model Rheem Solaraide; heating capacity 80 gal

_____ gph. 100° rise. Storage tank: material _____; capacity _____ gallons.

Gas service: ☐ utility company; ☐ liq. pet. gas; ☐ other _____ Gas piping: ☐ cooking; ☐ house heating.

Footing drains connected to ☐ storm sewer; ☐ sanitary sewer; ☐ dry well. Sump pump; make and model _____

_____; capacity _____; discharges into _____

23. HEATING

☐ Hot water. ☐ Steam. ☐ Vapor. ☐ One-pipe system. ☐ Two-pipe system.

☐ Radiators. ☐ Convectors. ☐ Baseboard radiation. Make and model _____

Radiant panel: ☐ floor; ☐ wall; ☐ ceiling. Panel coil: material _____

☐ Circulator. ☐ Return pump. Make and model _____; capacity _____ gpm.

Boiler: make and model _____ Output _____ Btuh.; net rating _____ Btuh.

Additional information: _____

Warm air: ☐ Gravity. ☐ Forced. Type of system _____

Duct material: supply _____ return _____ Insulation _____; thickness _____ ☐ Outside air intake.

Furnance: make and model _____ Input _____ Btuh.;output _____ Btuh.

Additional information: _____

☐ Space heater; ☐ floor furnace; ☐ wall heater. Input _____ Btuh.; output _____ Btuh.; number units _____

Make, model _____ Additional information: _____

Controls: make and types _____

Additional information: _____

Fuel: ☐ Coal; ☐ oil; ☐ gas; ☐ liq. pet. gas; ☐ electric; ☐ other _____; storage capacity _____

Additional information: _____

Firing equipment furnished separately: ☐ Gas burner, conversion type. ☐ Stoker: hopper feed ☐; bin feed ☐

Oil burner: ☐ pressure atomizing; ☐ vaporizing _____

Make and model _____ Control _____

Additional information: _____

Electric heating system: type _____ Input _____ watts;@ _____ volts; output _____ Btuh.

Additional information: _____

Ventilating equipment: attic fan, make and model _____, capacity _____ cfm.

Kitchen exhaust fan, make and model GE Standard Range Hood JV338HBB

Other heating, ventilating, or cooling equipment _____

24. ELECTRIC WIRING:

Service: ☐ overhead; ☑ underground. Panel: ☐ fuse box; ☑ circuit-breaker; make 200 AMP's _____ No. circuits _____

Wiring: ☑ conduit; ☐ armored cable; ☐ nonmetallic cable; ☐ knob and tube; ☐ other _____

Special outlets: ☑ range; ☐ water heater; ☐ other _____

☐ Doorbell. ☑ Chimes. Push-button locations. _____ Additional information: _____

25. LIGHTING FIXTURES:

Total number of fixtures 9 Total allowance for fixtures, typical installations, $ 500.00

Nontypical installation _____

Additional information: _____

26. **INSULATION:**

Location	Thickness	Material, Type, and Method of Installation	Vapor Barrier
Roof			
Ceiling	6 1/4"	R-19 Fiberglass Batt Insulation	
Wall			Tyvek
Floor			

27. **MISCELLANEOUS:** *(Describe any main dwelling materials, equipment, or construction items not shown elsewhere; or use to provide additional information where the space provided was inadequate. Always reference by item number to correspond to numbering used on this form.)*

HARDWARE: *(make, material, and finish.)* Schlage Avanti 625 Bright Chrome Door Hardware

SPECIAL EQUIPMENT: *(State material or make, model and quantity. Include only equipment and appliances which are acceptable by local law, custom and applicable FHA standards. Do not include items which, by established custom, are supplied by occupant and removed when he vacates premises or chattels prohibited by law from becoming realty.)*

PORCHES:

Entry Porch with wood deck or concrete slab

TERRACES:

GARAGES:

5/8" Type "X" Gyp. Bd. @ walls and ceiling

20 min. rated door with closer from garage to dwelling

WALKS AND DRIVEWAYS:

Driveway: width 16' ; base material Subgrade ; thickness ____ ; surfacing material Concrete ; thickness 4"

Front walk: width ____ ; material ____ thickness ____ ; Service walk: width ____ ; material ____ ; thickness ____

Steps: material ____ ; treads ____, risers ____ ; Cheek walls ____

OTHER ONSITE IMPROVEMENTS:

(Specify all exterior onsite improvements not described elsewhere, including items such as unusual grading, drainage structures, retaining walls, fence, railings, and accessory structures.)

LANDSCAPING, PLANTING, AND FINISH GRADING:

Topsoil ____ " thick: ☐ front yard: ☐ side yards; ☐ rear yard to ____ feet behind main building.

Lawns *(seeded, sodded, sprigged)*: ☐ front yard ____ , ☐ side yards ____ , ☐ rear yard ____

Planting: ☐ as specified and shown on drawings; ☐ as follows:

____ Shade trees, deciduous. ____" caliper.
____ Low flowering trees, deciduous. ____, to ____'
____ High-growing shrubs, deciduous. ____, to ____'
____ Medium-growing shrubs, deciduous, ____, to ____'
____ Low-growing shrubs, deciduous. ____, to ____'
____ Evergreen trees ____, to ____', B & B.
____ Evergreen shrubs ____ to ____', B & B.
____ Vines, 2-years

IDENTIFICATION. This exhibit shall be identified by the signature of the builder, or sponsor, and/or the proposed mortgagor if the latter is known at the time of application.

Date ____ Signature ____

Signature ____

Preliminary Outline Specifications for Kula Ridge Affordable Housing

Kula Ridge will have four Architectural styles within the neighborhood project. The four styles are commonly found within Hawaii's unique cultural and historic heritage:

Plantation Style

The "Plantation" architectural style takes its historical architectural context from old Plantation villages found throughout Hawaii. Front porches were a common design element. Materials proposed to be used with the plantation style will be corrugated metal roofing and board and batten wood siding. T1-11 siding will also be incorporated in some plans.

Bungalow Style

The Bungalow style is another architectural style that is commonly found in many parts of Hawaii. It can also be commonly found in Kula. Gable roofs with front porches were a common element associated with the Bungalow style. Exterior materials proposed with the Bungalow style will be Asphalt shingle roofing and a composite exterior lap siding for durability.

Craftsmen Style

The Craftsmen style is also commonly found architectural style in the Hawaiian Islands as well as in Kula. Gable roofs with detailed porches were common with this style as well as cedar shingle siding. Asphalt shingle roofing is proposed with this style of architecture as well as a composite exterior siding that will have the appearance of real cedar shingle exterior siding.

Contemporary Hawaiian

One of the more popular styles of architecture in Hawaii today can be described as "Contemporary Hawaiian" architecture. Incorporating the front porch or covered lanai, the Contemporary Hawaiian style integrates a double pitched roof as its distinctive characteristic. Exterior plaster for its exterior wall material will be used and concrete tiled roofs will be used on some of the plans to facilitate blending with market priced homes on adjacent lots.

Foundation All of the homes foundations will be either post and pier construction or poured in place concrete slab foundation on grade.

Framing Wall and roof construction will be wood framed construction. A wood framed, panelized system is proposed to be integrated to facilitate faster wall erection. Integration of pre-fabricated wood trusses will facilitate faster roof construction.

Roofing Roofing material will vary according to Architectural character. Roofing materials proposed are corrugated metal roofing, asphalt shingle roofing and concrete tile roofing.

Doors and Windows Exterior windows will be low maintenance, vinyl windows. Door to be solid wood doors at entry door and hollow core at interior doors.

Interior walls Gypsum board over wood framing, taped, sanded, textured and painted.

Flooring Carpet with pad in Bedrooms and sheet vinyl in baths and Kitchen. Upgrades may include wood laminate flooring.

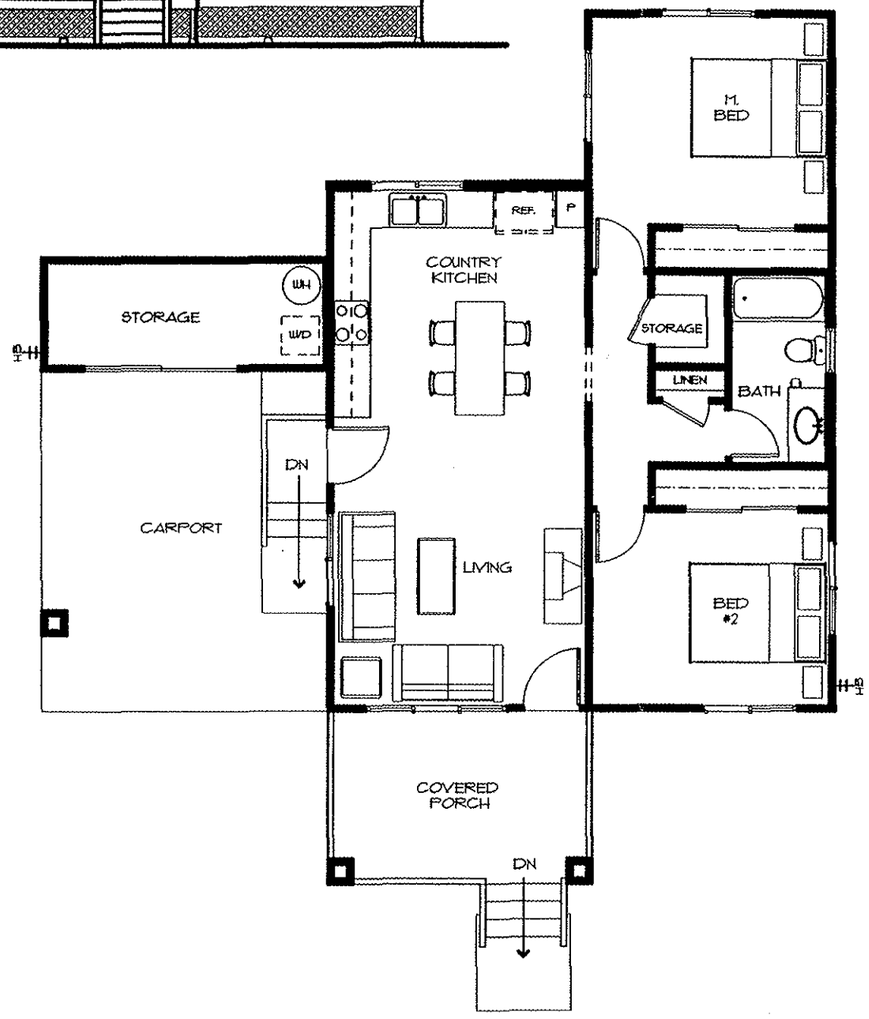
Countertops Plastic laminate. Upgrades may include granite countertops.

Appliances To be selected.

Plumbing fixtures To be selected.

Cabinets To be selected.

Kula Ridge
Plan A

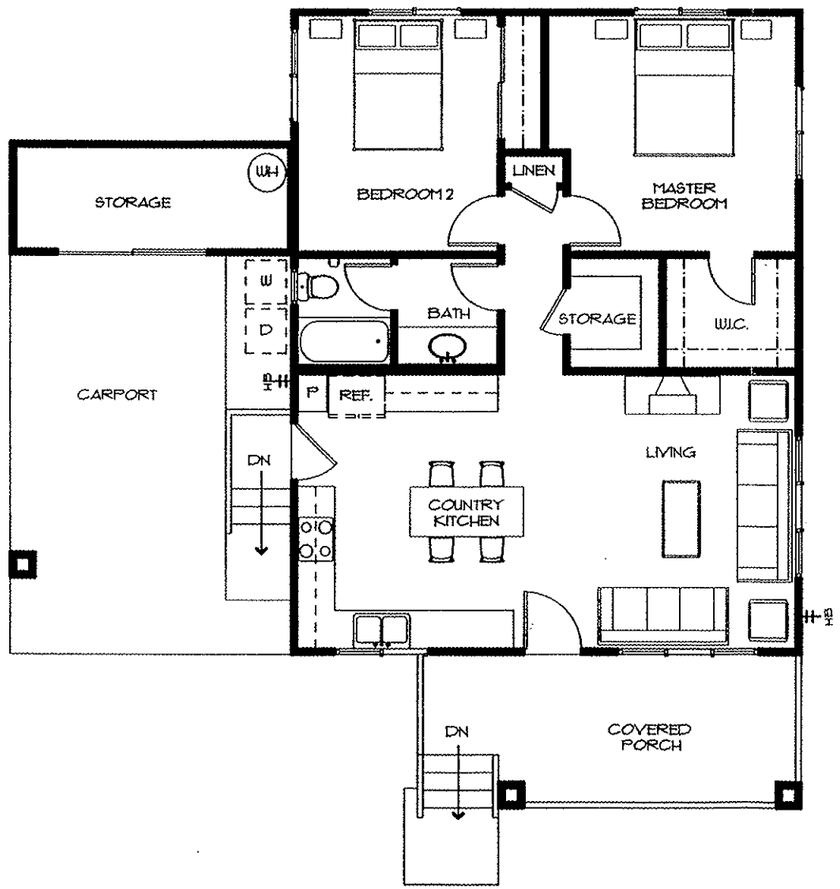


Living Area: 875 sf
Covered Lanai: 126 sf
Carport: 360 sf

Architectural Design & Construction, Inc.

1849 Wili Pa Loop · Wailuku, Maui, Hawaii 96793
Telephone: (808) 986-8300 · Fax: (808) 986-8301 · Email: adc@adcmaui.com

Kula Ridge Affordable Homes
Plan B Post & Pier



Living Area: 918 sf
Covered Lanai: 162 sf
Carport: 343 sf

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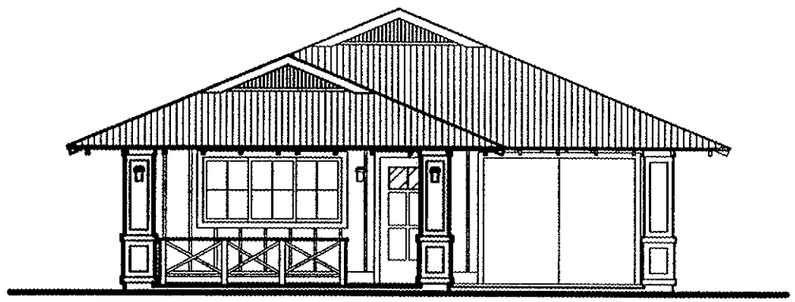
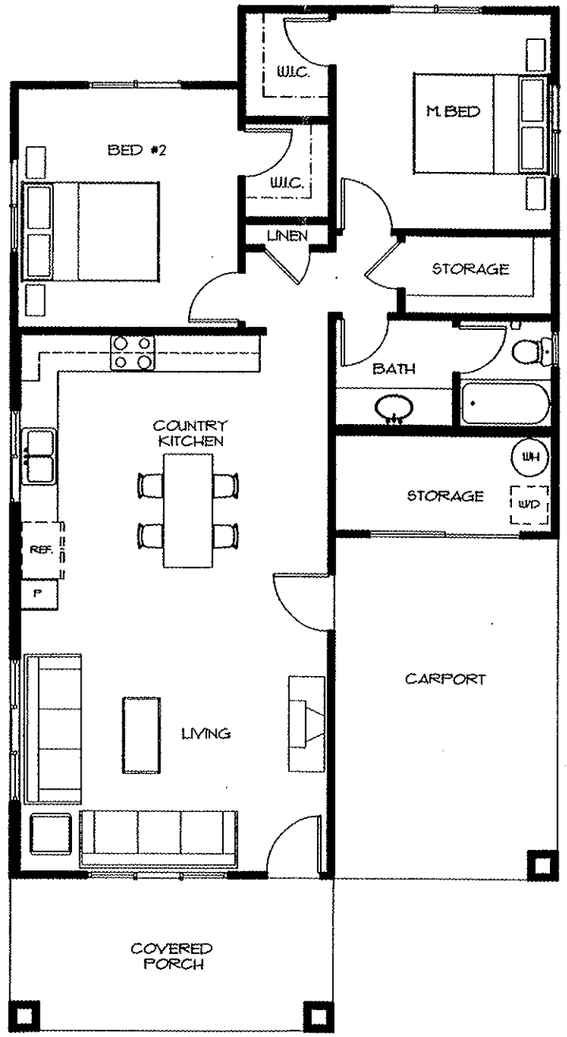
Kula Ridge Affordable Homes-
Plan C





Living Area: 1,010 sf
Covered Lanai: 137 sf
Carport: 277 sf

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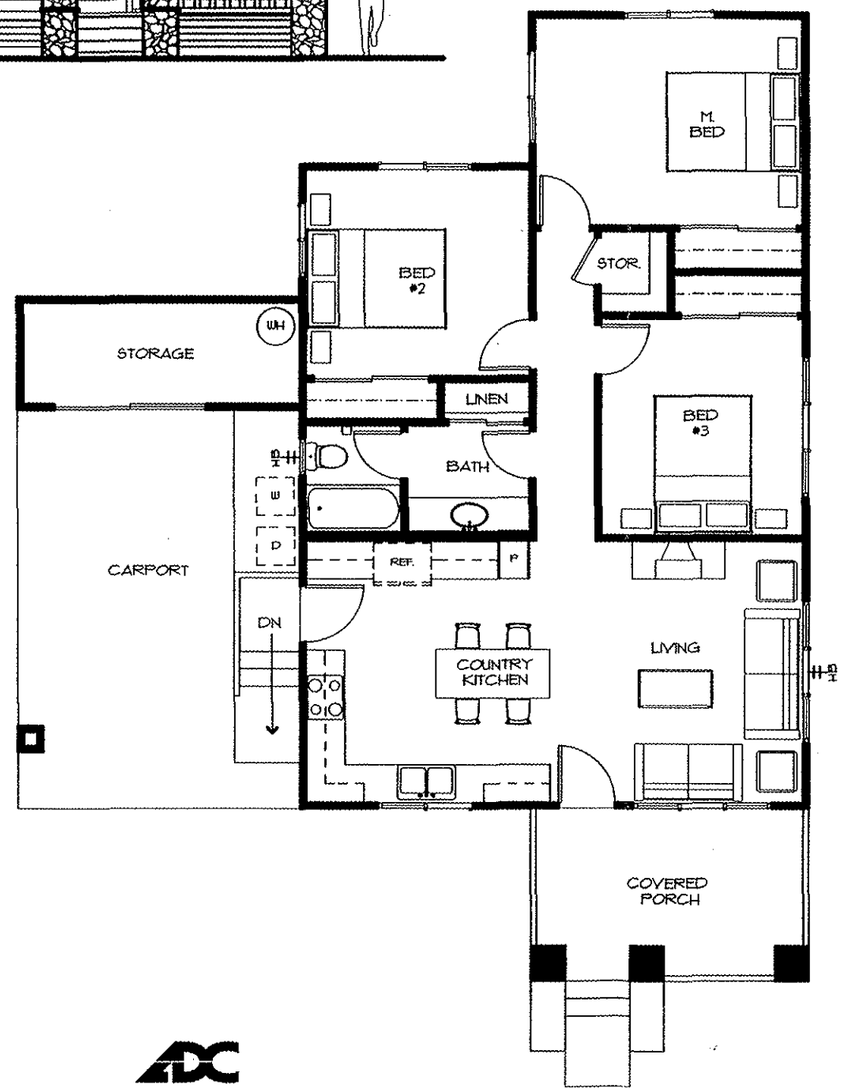
Kula Ridge Affordable Homes-
Plan D



Living Area: 1,038sf
Covered Lanai: 135 sf
Carport: 360 sf

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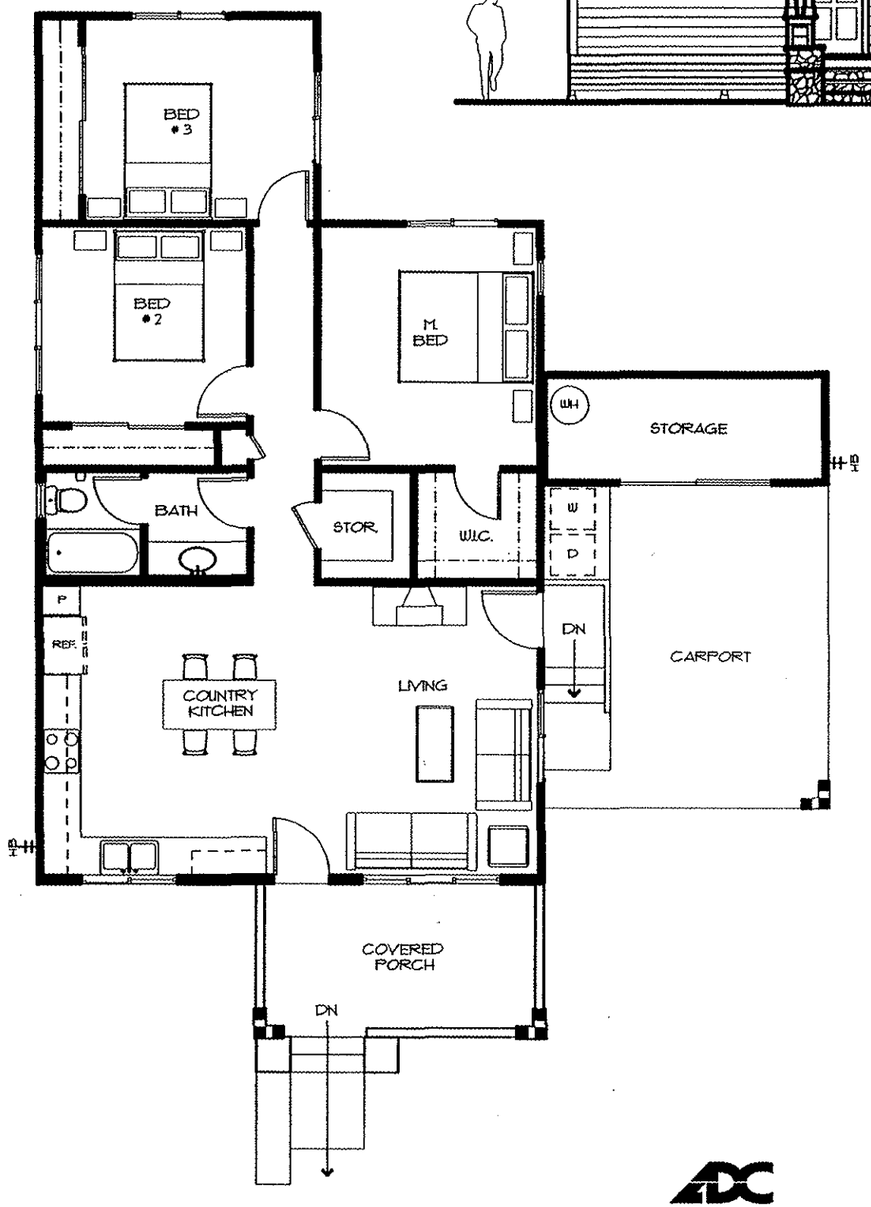
Kula Ridge
Plan E



Living Area: 1,110 sf
Covered Lanai: 124 sf
Carport: 345 sf

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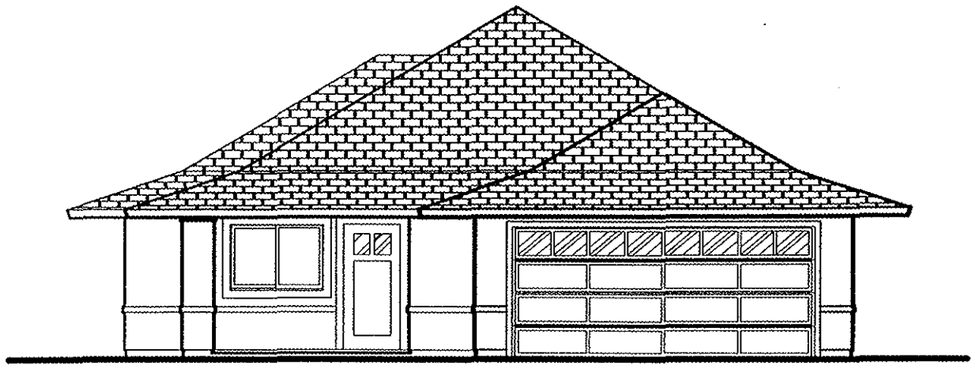
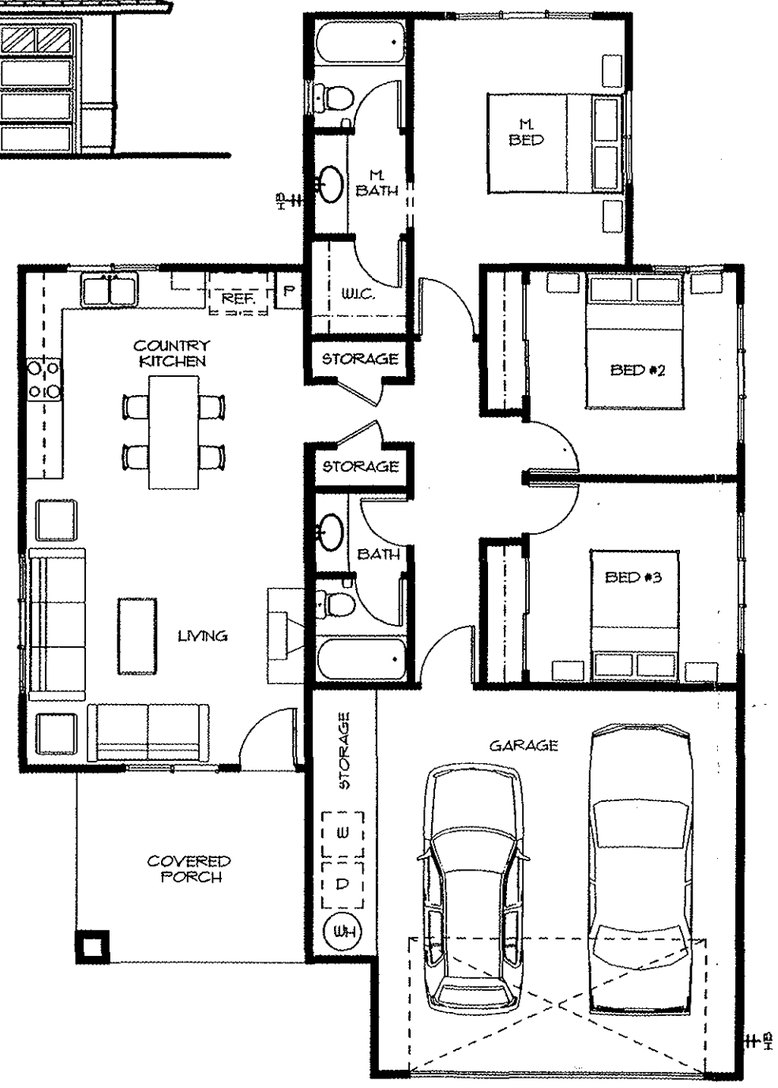
Kula Ridge Affordable Homes-
Plan F



Living Area: 1157 sf
Covered Lanai: 120 sf
Garage: 457 sf



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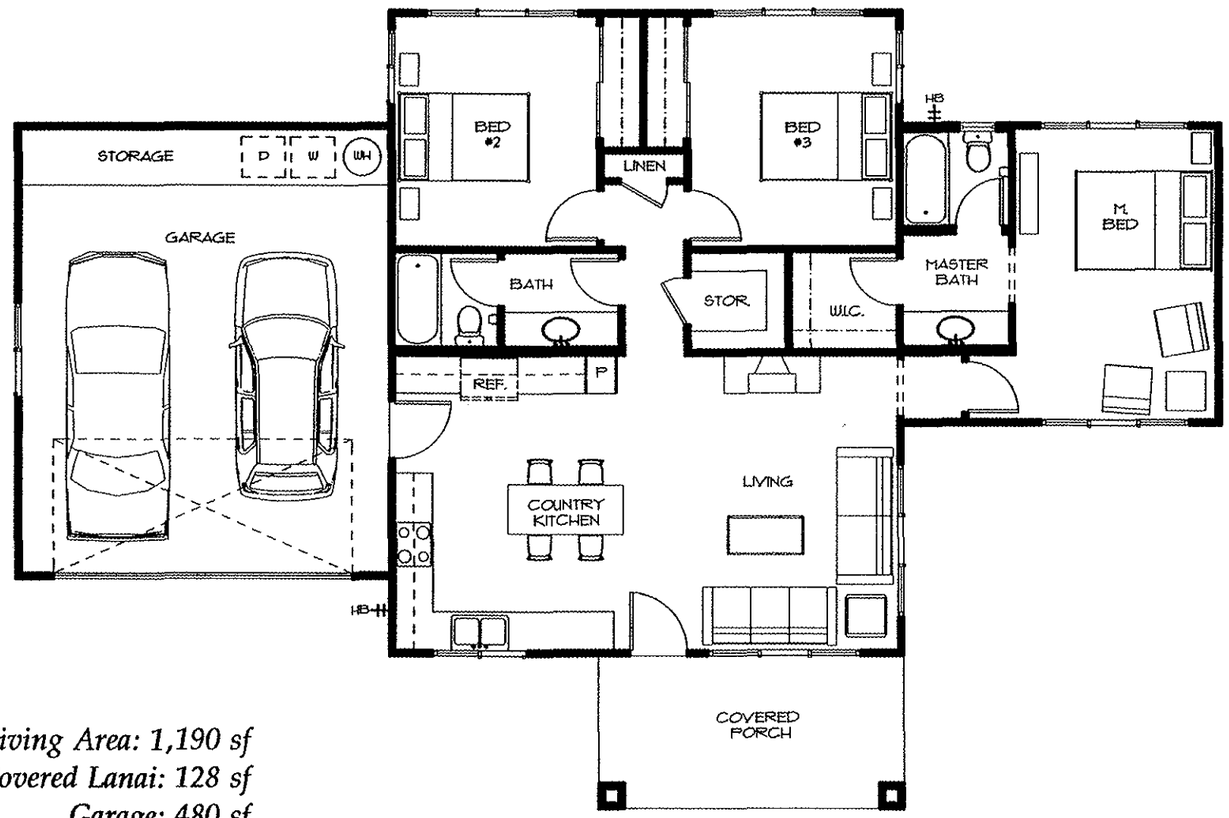
Kula Ridge Affordable Homes-
Plan G



Living Area: 1,190 sf
Covered Lanai: 128 sf
Garage: 480 sf

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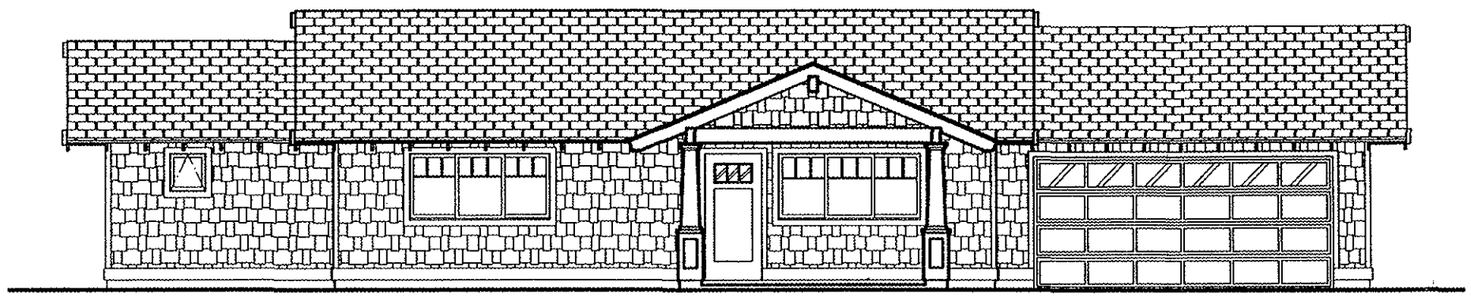
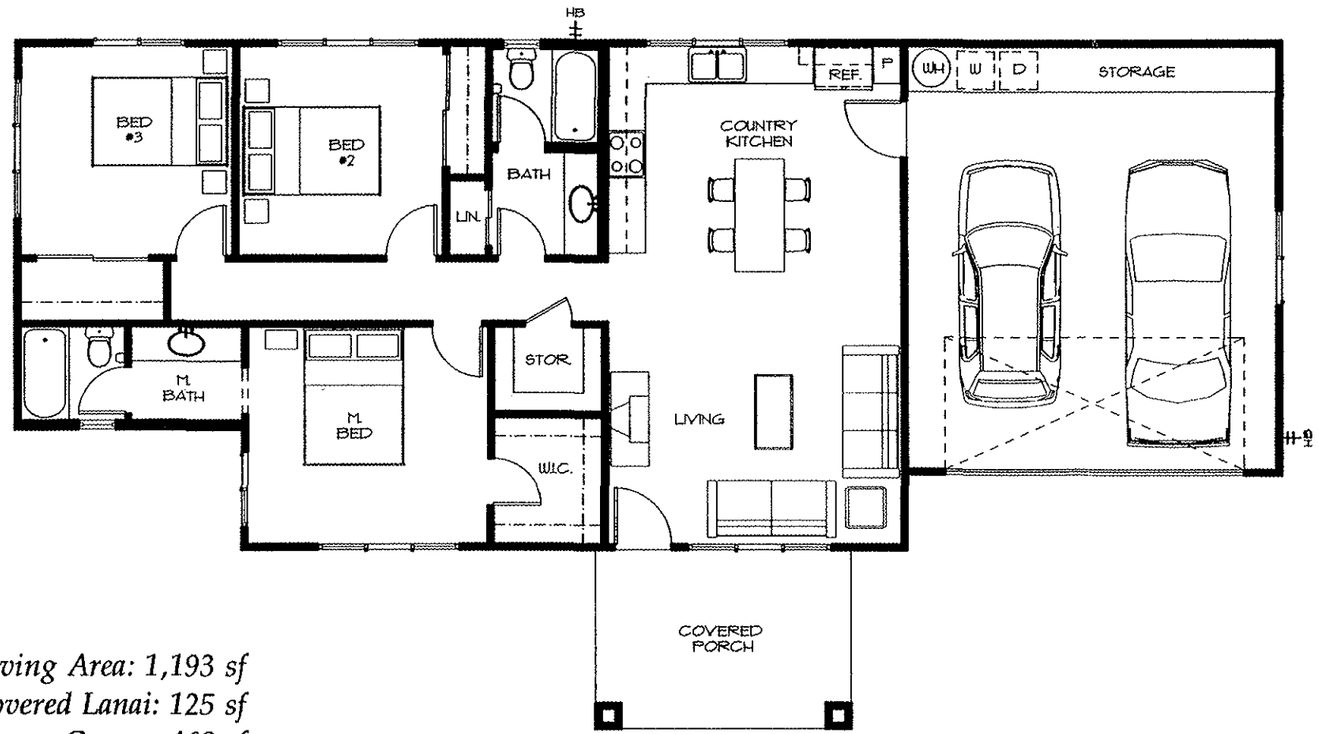
Kula Ridge Affordable Homes-
Plan H





Living Area: 1,193 sf
Covered Lanai: 125 sf
Garage: 460 sf

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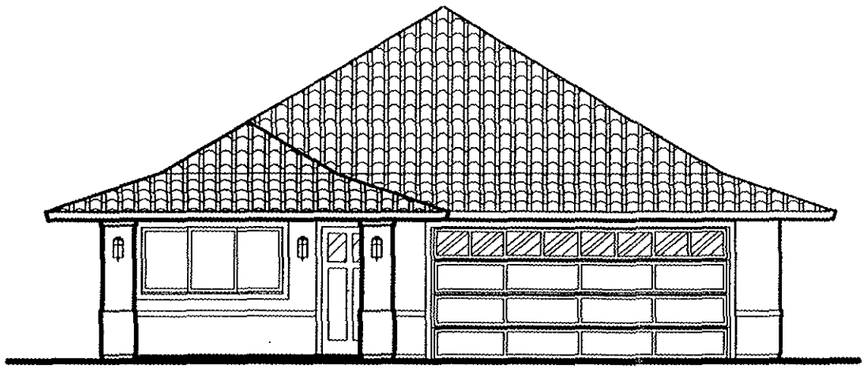
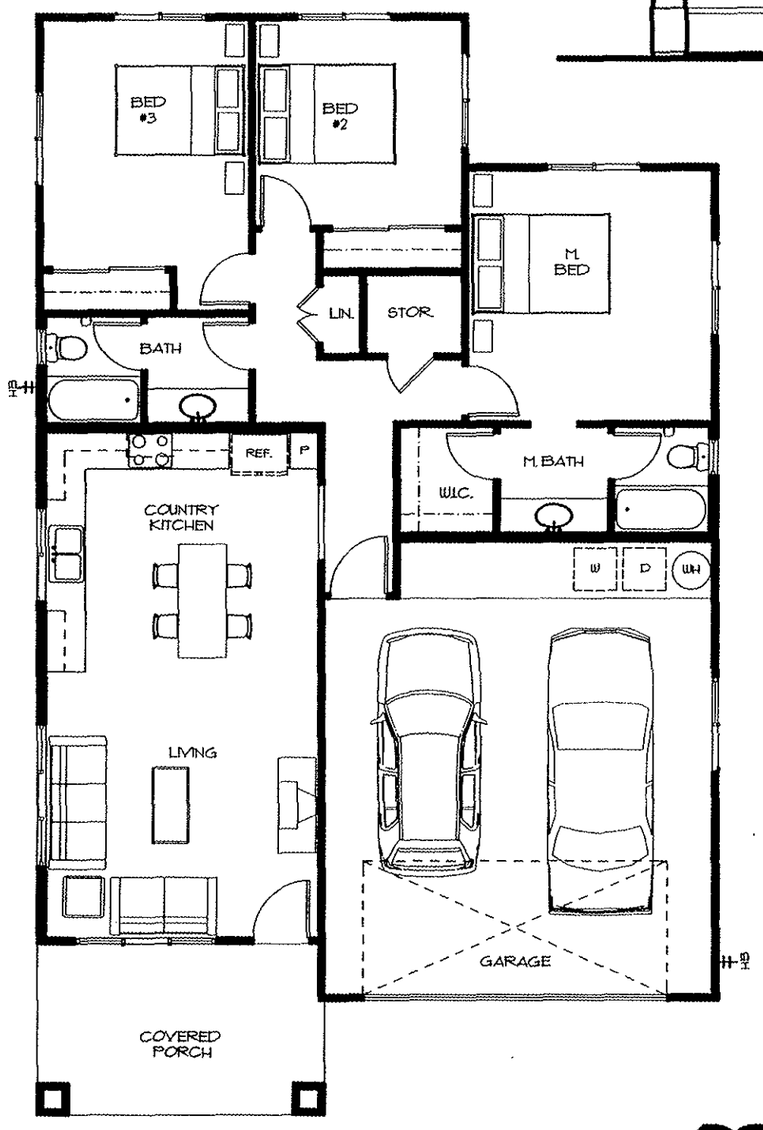
Kula Ridge Affordable Homes
Plan J





Living Area: 1,227 sf
Covered Lanai: 137 sf
Garage: 490 sf

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