

**Greggor Ilagan**  
Council Member  
District 4 – Puna Makai



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## **HAWAI'I COUNTY COUNCIL**

25 Aupuni Street, Hilo, Hawai'i 96720

# DRAFT

### MEMORANDUM

DATE: May 11, 2016

TO: Dru Mamo Kanuha, Chair  
and Members of the County Council

FROM: Gregggor Ilagan, Council Member

SUBJECT: Report of the Ad Hoc Committee on Puna Connectivity

Attached is the report of the Ad Hoc Committee on Puna Connectivity.

Communication No. 363, regarding a request for a discussion relating to the creation of this committee, was postponed on September 1, 2015, to the call of the chair of the Public Works and Parks and Recreation Committee.

I respectfully request that Communication No. 363 and this report be placed on the next available Committee agenda.

## I. EXECUTIVE SUMMARY

The Ad Hoc Committee on Puna Connectivity recommends the creation of an alternate route connecting the subdivisions from Volcano to Highway 130. This route will be accomplished by the acquisition of land or easements and the construction of connections. This will improve movement between subdivisions and will provide alternate routes in the event of a road closure or other emergency. Memoranda of Understandings will need to be executed between the subdivisions to ensure that these connections remain open. These routes will only connect the subdivisions through staggered connectivity locations. It does not propose creating a single public roadway through the private subdivisions. The Committee also recommends adding two additional connections between the subdivisions and Highway 11. These additional connections to the highway are on County roads that will need to be improved.



Fig. 1. Overview of connectivity locations. (Note: Acquisition of property for CL #3 has since been determined to be unfeasible; this report considers other alternatives).

## II. BACKGROUND AND REVIEW OF PAST ACTIVITIES

The purpose of this committee was established in Chapter 4 of the Puna Community Development Plan (CDP), which states:

“Most roads in Puna’s nonconforming subdivisions are privately owned, often in poor physical condition and not designed for through traffic. There are many missing connections between the road networks of adjacent subdivisions. The present circulation network, combined with the district’s sprawl development pattern, results in a number of problems:

- There is a lack of alternative routes for emergency access, especially when highways are blocked by a traffic crash or downed utility pole, or when there is a natural disaster such as a hurricane, tsunami, lava flow or earthquake that requires evacuation;
- Highways become more congested during peak periods due to the lack of alternative roadways
- Highway intersections with substandard private streets are dangerous due to inadequate lighting or intersection controls, combined with high traffic speed along the highway;
- It is difficult for the County’s Mass Transit Agency (MTA) to operate an efficient Hele-On Bus service that offers a viable travel option for a large number of Puna residents, especially those in more remote areas;
- There are few facilities for walking or bicycling, even in more built-up areas; and
- It can be threatening to cross Highways 130 and 11 on foot. This is particularly true for youth, the elderly and the disabled.

The Puna Community Development Plan seeks to promote more efficient and environmentally responsible travel by limiting demand for commuting and other trips, promoting mass transit and alternative travel modes; and providing alternate routes to reduce trip lengths and travel time.”

The Puna CDP establishes the goal of “adequate emergency and evacuation routes and connectivity throughout Puna’s roadway network (4.3.1.a) and recommends the creation of “connectivity alignments between the following subdivisions: Hawaiian Acres and Fern Acres, Fern Acres and Kopua Farm Lots, Eden Roc and Fern Forest, Orchidland and Hawaiian Acres, Nānāwale and Hawaiian Shores, Hawaiian Beaches and HPP, Kea‘au Agricultural Lots and a site adjacent to Kea‘au Elementary School, ‘Ōhi‘a Estates and Royal Hawaiian Estates. These inter-subdivision roads should be staggered, low-impact, and multi-modal.” (Puna CDP, 4.3.3.a.5). The Puna CDP identified areas where such alignments could be made but did not go into detail.

The Puna CDP Action Committee was established to carry out the recommendations of the plan; and the committee further delegated some of its work to the Connectivity and Emergency Response Subcommittee (CERS). Under the guidance of CERS Chair Marlene Hapai, and in close cooperation with Hawai‘i County Civil Defense, the Committee planned and executed the first Puna Regional Emergency Preparedness (PREP) Fair on August 31, 2013. One of the purposes of this fair was to solicit input from the community to help identify alternative

connectivity points between subdivisions. More than 1,500 people participated in the event at Kea'au High School. The diligent work of the Subcommittee at the PREP Fair and at its meetings since then allowed for the gathering of public input and data to assist in resiliency efforts for the Puna District. The Subcommittee divided Puna into four broad regions – Volcano, Puna Uka, Puna Waena, and Puna Kai – and made a total of 48 options for road connectivity. This report was adopted by the Puna Community Development Plan on May 13, 2014.

The connections, as well as the top three priorities for each region, were revealed to the public at the second PREP Fair, which was planned for August 30, 2014. The timing of this fair coincided with a disaster declaration as a result of the impact of Tropical Storm Iselle, and the district was days away from a second disaster declaration due to the approach of a lava flow from the June 27th outbreak.

As a result, the second PREP Fair was well-attended by the public, and the Subcommittee received additional input to help it fine-tune suggestions and identify connections that were unfeasible or unwanted by residents.

The County Council's Committee on Public Works and Parks and Recreation discussed, and approved on August 18, 2015, a request by Council Member Greggor Ilagan regarding the creation of the Ad Hoc Committee on Puna Connectivity. The members of this committee were identified as Council members Dennis "Fresh" Onishi, Greggor Ilagan, Danny Paleka, and Maile David, Puna CDP Action Committee Chair Patti Pinto, and Connectivity and Emergency Response Subcommittee Chair Marlene Hapai.

The Ad Hoc Committee met on August 26, 2015, January 27, 2016, and May 11, 2016. In addition, the Committee made a field trip to selected sites along the Puna mauka subdivision corridor on October 30, 2015.

### **III. DISCUSSION AND RECOMMENDATIONS**

In reviewing the potential options for road connectivity in Puna, the Ad Hoc Committee decided to focus on connectivity among the subdivisions between Highways 11 and 130. Creation of these routes would improve circulation, ease burdens on the highway system, and achieve the goals of the Puna CDP. The Ad Hoc Committee further noted that the lava emergency of 2014-2015 resulted in the creation of an unpaved emergency access route connecting Nanawale Estates to Hawaiian Shores, and Hawaiian Beaches to Hawaiian Paradise Park. This achieved the highest priority of the Puna Kai and Puna Mauka regions, and the access road will be available for use in future emergency situations.

In order to create connections between the Upper Puna subdivisions, creating an alternate route from Volcano to Highway 130 that parallels Highway 11, we must acquire lots or easements at the borders of the subdivisions and/or develop road lots that belong to the subdivisions and establish Memorandums of Understanding (MOU) between the appropriate Community Associations. The MOUs are necessary to ensure that the road connections remain open and viable, regardless of the potential changing desires of the membership on Community Association boards.

South Lauko Road

The Committee recommends the improvement of South Lauko Road and connection to Puhala Street in Fern Acres. Currently, S. Lauko Road branches off from Highway 11 and is a narrow, one-lane road that is gated and severely eroded where it crosses a stream bed.



Figure 2. Connection between Highway 11 and Fern Acres.

### South Oshiro Road

The Committee recommends the improvement of South Oshiro Road and connection to Kahikopele Street in Eden Roc Estates. Kahikopele Street, which connects to South Kopua Road, is the only connection into and out of Eden Roc. Adding a second connection will allow movement for residents of Kopua Farm Lots and Eden Roc should that single road be obstructed.

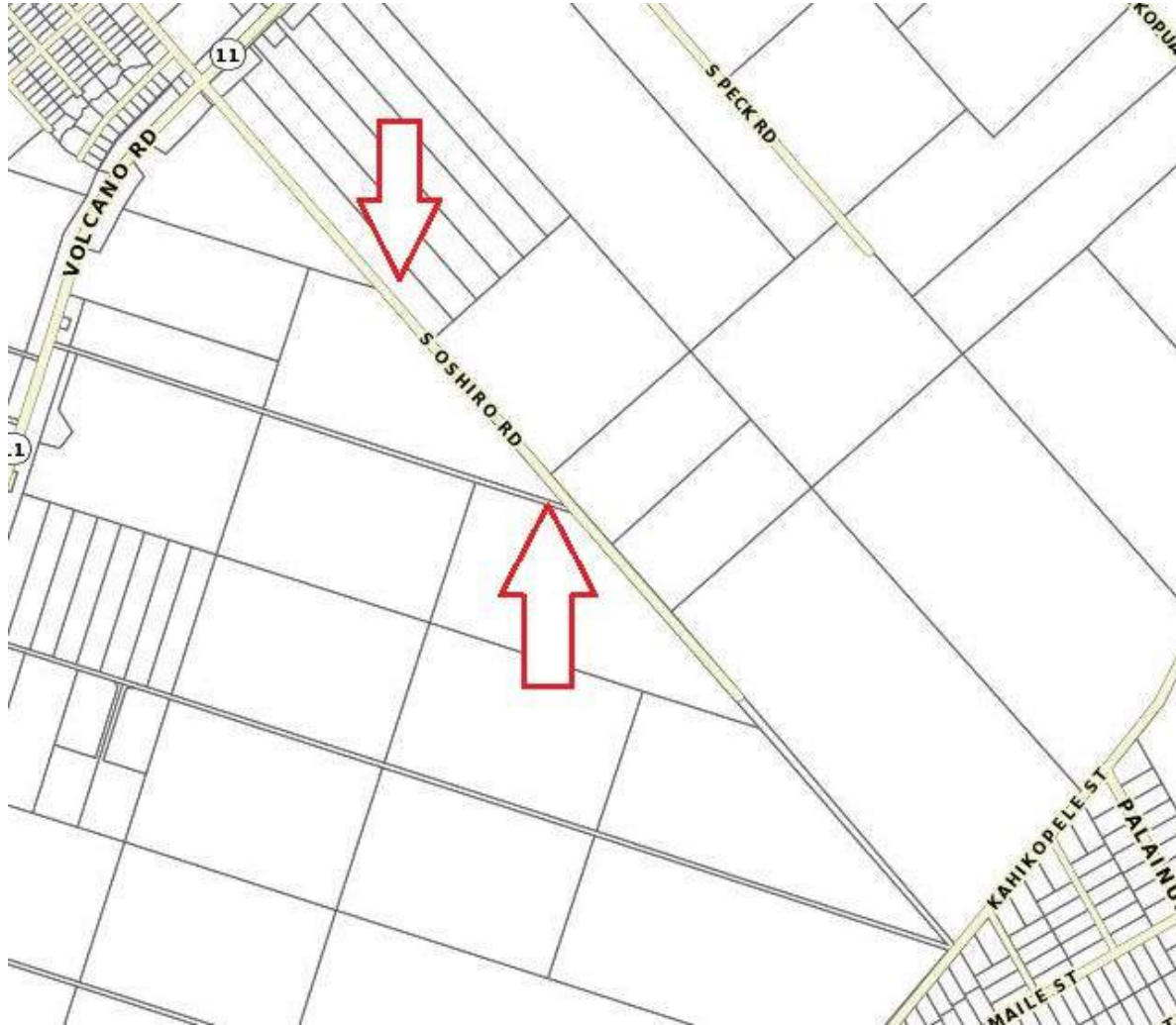


Figure 3. Connection between Highway 11 and Eden Roc.

### Property Acquisitions

#### CL #14B

This CL is an alternate to CL 14. It requires the purchase of Fern Acres lot TMK #110380660000, assessed value of \$20,000. Comps for this two acre lot in the area run \$22,000 - \$35,000.



Figure 4. Connection between Kopua Farm Lots and Fern Acres

CL #4

This CL creates a connection between Fern Acres road lot Orchid Street and Hawaiian Acres lot TMK #160180800000, assessed value of this 1.86 acres parcel is \$24,700. Comps in Hawaiian Acres range from \$18,000 to \$35,000.



Figure 5. Connection between Fern Acres and Hawaiian Acres

CL #5

This CL creates a connection between Hawaiian Acres and Orchidland at Orchidland's Pohaku Drive. It requires the purchase of Hawaiian Acres lot TMK #160580800000, assessed value of \$16,000. Comps on three acre lots in Hawaiian Acres range from \$20,000 to \$40,000.



Figure 6. Connection between Hawaiian Acres and Orchidland

Alternates to CL#5

Because of the seasonal flooding affecting CL#5, an alternate has been explored. At the most obvious connection at Orchidland Drive, the necessary properties all have structures.

Two unbuilt up lots midway between cross streets could be purchased to create a connection between Hawaiian Acre's Pulelehua and Orchidland's Laniuma Dr. The first of these is TMK #160600840000, a three acre lot in Hawaiian Acres, assessed value \$16,000, comps ranging from \$20,000 to \$40,000. The second is TMK #160120420000, assessed value of \$26,000, Orchidland 3 acre comps ranging from \$30,000 to \$50,000.

## Easements and/or Property Acquisitions

### CL #2

This CL connects Eden Roc with Kopua Farm Lots at Eden Roc's Punahale Ave. It would require the purchase of the 20 acre parcel in Kopua, assessed value of \$63,000. Comps in Kopua range from \$90,000 to \$130,000. If it is possible, we could seek an easement to cross the property to connect up with Apele Road in Kopua Farmlots. The cost of this effort is unknown.



Figure 7. Connection between Eden Roc and Kopua Farm Lots

CL #14

This is the preferred alternate to CL #3, which was considered unadvisable due to a refusal from the Kopua Farm Lot property owner. The advantage to CL #14 is that it is closer to Highway 11, thus making it easier to access and more importantly, it will create an additional exit route from Fern Acres.

This CL requires an easement on the property lines of two large parcels. It would connect Kopua Road, a paved County Road with Puhala in Fern Acres. The cost of this project is unknown.



Figure 8. Connection between Kopua Farm Lots and Fern Acres

CL #14B

This CL is another alternate to CL #3 which proposed a connection between Kopua Farm Lots and Fern Acres at Kopua's Uahi Road. It will require an easement on the property lines of Kopua 20 acre parcels TMK # 111000440000 and TMK #111000450000. The cost of this proposal is unknown. (See Figure 4).

**Memorandums of Understanding between Community Associations and Improvements to Existing Road Lots**

CL #1

This CL will require improvement and maintenance of connections between Fern Forest and Eden Roc Estates utilizing the existing road lots belonging to their Community Associations. An MOU would be required between these two Associations as well as improvements to the road beds.



Figure 9. Connection between Fern Forest and Eden Roc

CL #2

This CL will require improvement and maintenance of connections between Eden Roc and Kopua Farm Lots on the road lot belonging to Eden Roc, then connecting to an easement to cross the Kopua Farm Lot parcel. We would need an MOU between Eden Roc and Kopua Farm Lots. The cost of the road improvements both in Eden Roc and on the easement across the 20 acre parcel in Kopua is unknown.



Figure 10. Connection between Eden Roc and Kopua Farm Lots

CL #14

This CL requires an MOU between the County of Hawai‘i and Fern Acres to open and improve the road lot of Puhala so it could connect up with the easement along the property lines of the two parcels fronting on Kopua Road. The cost of this improvement is unknown.

CL #14B

The cost of creating a road bed along the easement of the two Kopua properties and across the Fern Acres lot is unknown. This connection to Pikake Street in Fern Acres would require an MOU between Kopua Farm Lots Community Association and Fern Acres Community Association.

CL #4

This CL requires the improvement of Fern Acres Road Lot of Orchid Street, cost unknown and the creation of a road bed over the connecting Hawaiian Acres lot, cost unknown. An MOU between Fern Acres Community Association and Hawaiian Acres Community and Road Associations is required.



Figure 11. Connection between Fern Acres and Hawaiian Acres

CL #5

This CL requires the creation of a road across the Hawaiian Acres lot to connect up to Orchidland's Pohaku Dr. The Pohaku Drive road lot would require improvement. The costs of these projects is unknown. An MOU between Hawaiian Acres and Orchidland Estates would be required. (See Figure 8).

Alternate to CL #5

This project would require the creation of a road across these two lots from Hawaiian Acres to Orchidland Estates, cost unknown and an MOU between the two Community Associations.

#### IV. ACKNOWLEDGEMENTS

Patti Pinto, Chair of the Puna Community Development Plan Action Committee, and members  
Marlene Hapai, Chair of the Connectivity and Emergency Response Subcommittee, and  
members

Council Members Greggor Ilagan, Danny Paleka, Maile David, and Dennis “Fresh” Onishi, and  
their respective staff

Warren Lee, Neil Azevedo, Ben Ishii - Hawai‘i County Department of Public Works

Hans Santiago - Hawai‘i County Planning Department:

Bill Hanson - Hawai‘i County Civil Defense Agency:

Robert Taira - State of Hawai‘i Department of Transportation

Members of the various homeowner associations



Figure 12. The Ad Hoc Committee encounters traffic on South Lauko Road.

# APPENDIX

- A. Criteria for Points of Connectivity
- B. Communication No. 363.1 – Connectivity and Emergency Response Subcommittee  
Annual Report – June 9, 2015
- C. Communication No. 363 – Requesting formation of an ad hoc committee – July 6, 2015
- D. Report on the Upper Puna Driving Field Study – October 30, 2015

## CRITERIA FOR POINTS OF CONNECTIVITY

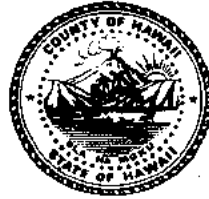
### County of Hawaii, Ben Ishii

1. Prefer to **connect to a County Road** at least on one end
2. Prefer that the road be **open to traffic 24/7** and not just for emergencies
3. We need to construct a road that meets **AASHTO** (American Association of State Highway and Transportation Officials) **guidelines**.
4. Prefer to do a project where there is **no community opposition**
5. Prefer to do a road that will **improve traffic circulation**
6. Prefer to do a road where there are **no major drainage issues**

### Puna Community Development Plan Connectivity Priorities

1. **Health, Safety, and Emergency Issues:** Emphasize emergency routes and other issues related to health and safety, including evacuation for all residents, with appropriate provisions made for those with disabilities (in accordance with the Americans with Disabilities Act).
2. **Education, Technical, and Social Issues:** Emphasize connectivity related to local educational and applied technological issues, as well as to social interactions that enhance personal safety, consider the appropriateness of creating linear parks connecting subdivisions and inter-subdivision gathering places (in accordance with the Americans with Disabilities Act).
3. **Transportation, Non-Vehicular:** Consider pedestrian, cycling, equestrian, and other non-vehicular transport.
4. **Transportation, Mass Transit:** Address essential mass transit services
5. **Land Use, Environment:** Protect cultural, natural, and other environmental values, including preserving open spaces for a variety of purposes identified in the PCDP.
6. **Land Use, Low or No Impact Design:** Use no impact or minimum impact design and construction.
7. **Safe Routes to Schools:** Include safe routes to schools in all considerations related to connectivity
8. **Community Alliances:** Provide examples of how communities (e.g. Volcano) are creating alliances related to connectivity.

From the office of -  
Council Member  
District 4 - Puna Makai



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**GREGGOR ILAGAN**  
25 Aupuni Street, Hilo, Hawai'i 96720

COUNTY CLERK  
COUNTY OF HAWAII  
2015 AUG 10 PM 1:58

MEMORANDUM

DATE: August 7, 2015  
TO: Dru Kanuha, Chair  
and Members of the Hawai'i County Council  
FROM: *GI* Greggor Ilagan, Council Member  
SUBJECT: Re: Communication No. 363; Report and recommendations on roadway connectivity locations in Puna.

Attached for information and discussion purposes is a report from the Connectivity and Emergency Response Subcommittee of the Puna Community Development Plan Action Committee.

Please distribute copies of this report for the discussion on Communication No. 363 at the Public Works and Parks and Recreation Committee meeting scheduled for August 18, 2015.

GI:ps  
Att.

Comm. No. 363.1  
Ref. To: P/PWPRC  
Ref. Date: AUG 18 2015

William P. Kenoi  
Mayor



Duane Kanuha  
Director

Bobby Command  
Deputy Director

**County of Hawai'i  
PLANNING DEPARTMENT**

**PUNA COMMUNITY DEVELOPMENT PLAN ACTION COMMITTEE**

Aupuni Center • 101 Pauahi Street, Suite 3 • Hilo, Hawai'i 96720  
Phone (808) 961-8288 • Fax (808) 961-8742

June 9, 2015

Duane Kanuha  
Planning Director  
Planning Department  
101 Pauahi Street, Suite 3  
Hilo, HI 96720

**SUBJECT: Report and Recommendations on Roadway Connectivity Locations in Puna**

Aloha Director Kanuha,

The Action Committee of the Puna Community Development Plan, respectfully requests that the enclosed report from the Connectivity and Emergency Response Subcommittee (CERS) of the Puna CDP Action Committee be forwarded to the Department of Public Works Director, Warren Lee for consideration and appropriate follow-up. We further request that this report be copied to the appropriate members of the Hawai'i County Council for their information.

Mahalo for your time, understanding and support of the Puna community.

Respectfully,

A handwritten signature in black ink, appearing to read "Patti Pinto".

Patti Pinto, Chair  
Puna Community Development Plan Action Committee

Encl: CERS Annual Report

**Connectivity and Emergency Response Subcommittee**  
**A subcommittee of the Puna Community Development Plan**  
**ANNUAL REPORT – MAY 2015**

The Connectivity and Emergency Response Subcommittee began working in January of 2013 to gather data on possible road connectivity locations that would improve public safety, allow for emergency access and increase community connections throughout the Puna Districts. We worked over the next two years to collect community input. To this end, working with the Hawaii County Civil Defense Agency we created the first and second Puna Regional Emergency Preparedness Fairs (PREP Fairs). At these Fairs we gathered community input from thousands of Puna Residents establishing where connectivity points were needed, viability, community support/opposition, alternatives, etc. This data was assembled into a report that was submitted to the PCDP and adopted on May 13, 2014. Since this report, Tropical Storm Iselle and the June 27, 2014 lava flow have also created multiple emergency response and evacuation, as well as everyday challenges to movement throughout the Puna District.

Considering input since the last report and acts of nature, our **number one priority** for implementation is to create an alternate route in Upper Puna from Volcano to Highway 130. With population increasing at the highest rates in the State along the Upper Puna Highway 11 corridor, we see it as crucial that we address the reality that there is no way to travel parallel to Highway 11 without running into existing obstructions in that there are no connections between the subdivisions. The decision to connect these subdivisions is documented in the Puna Community Development Plan, 2008, with the intention of the County of Hawaii receiving community input to determine specifically where and how to connect them. With the Volcanoes National Park being the second most visited site in the State with approximately 3.4 million visitors last year, this additional traffic load challenges both residents and visitors that need to use Highway 11. An alternate, parallel, inter-subdivision corridor will relieve the daily use of this 2-lane highway that services so many.

The Upper Puna connectivity priorities are grouped as one as we see it as essential that an entire through route be completed as well as two additional roads to connect our parallel route with Highway 11.

**Puna Uka Priorities**

- Kaleponi to Punahale (Fern Forest – Eden Roc)
- Punahale to Apele (Eden Roc – Kopua Farm Lots)
- Waimako O Pele to Orchid (Kopua Farm Lots – Fern Acres)
- Orchid to Uhiniana (Fern Acres – Hawaiian Acres)
- Pulelehua to Pohaku (Hawaiian Acres – Orchidland)
- Alula to 40<sup>th</sup> (Hawaiian Acres – Orchidland)
- Complete South Lauko Road into Fern Acres
- Complete South Oshiro Road into Eden Roc Estates
- (Recommendation County improve intersection of 40<sup>th</sup> and Orchidland)

These Connectivity Locations are recommendations. If one is found not to be viable, another alternative connection will be suggested.

### **Puna Waena Priorities**

The lava activity has provided the impetus for the State and County to open connecting roads between Nanawale, Hawaiian Beaches and Shores and Hawaiian Paradise Park. Additionally, the Chain of Craters road has been readied for emergency use. The Subcommittee recommends that the Railroad emergency road be open on a 24/7 basis. We recognize that this puts a strain on the Hawaiian Paradise Park roadways and recommend that the County negotiate with HPPOA to come to an agreement on financial assistance for road maintenance or to assume ownership of a roadway that is used by the general public as an alternate to Highway 130. We also recommend that a study be initiated to open a connection between Hawaiian Paradise Park and the Kea'au Bypass junction area.

- Permanently open Railroad between Hawaiian Beaches/Shores and Hawaiian Paradise Park
- Initiate a viability study to create a road between HPP (Railroad) and Milo Road

### **Puna Kai Priorities**

In tandem with our recommendation that Railroad between Hawaiian Beaches/Shores and Hawaiian Paradise Park we recommend that the new emergency access route connecting Nanawale Estates to Hawaiian Beaches/Shores be open on a 24/7 basis. We recognize that few people who are not residents of these subdivisions will choose to use this route as an alternate for Highway 130, that it would be used primarily by local residents to travel between the subdivisions and also to provide emergency ingress/egress.

We also recommend that an alternate route into and out of Nanawale Estates be created to Highway 130 on the Forest Road right of way.

When the lava covered Apa'a Road at the Cemetery in Pahoia it blocked the main access for residents of Kaohe Homesteads. We understand that the County intends to re-open this road and recommend that this project be implemented as soon as possible as the Kaohe residents are left with only one ingress/egress route and that one is circuitous.

- Permanently open Railroad between Hawaiian Beaches/Shores and Nanawale Estates
- Connect Nanawale Estates to Highway 130 on Forest Road
- Re-open Apa'a Road where it is covered with lava

### **Summary**

The Puna Community Development Plan Subcommittee on Connectivity and Emergency Response (CERS) remains dedicated to continuing our work to implement these points of connectivity that are so urgently needed in Puna. Both the public and emergency service providers need to have better access, safer routes to schools, social and community connectivity and alternate routes in and out of subdivisions. These projects must not be deferred. We need to create partnerships with the County and the Puna communities to bring these connections into reality.

**COMMUNITY RESPONSES TO CONNECTIVITY LOCATION PROPOSALS**  
**Critical, viable, level of service oriented input regarding criteria**  
**May 2013 to April 2015**

**#3, #19, #41 Kaleponi to Punahale**

This essential Connectivity Location has long been an issue between the subdivisions of Eden Roc and Fern Forest. The two subdivisions share a Volunteer Fire Department and fire truck and the only access between the two subdivisions has been blocked by a concrete barrier. Completion of this one small Connectivity Location will create an emergency route that could be of assistance to all residents from Volcano to Eden Roc. Communications between the two subdivisions have been initiated. A site visit has been requested of Public Works.

**#7 South Lauko Road to Puhala in Fern Acres**

Fern Acres subdivision has only one access road. This well populated subdivision would not be able to evacuate in the event of an emergency. Creation of this one Connectivity Location will provide a second ingress/egress road for Fern Acres and will also create a safer route to and from Mountain View School. The Fern Acres Community Association has already begun work with their County Representative and the Department of Public Works to complete the surveys and feasibility studies needed to begin construction on this project.

**#24, #29 Railroad Connection between Hawaiian Beaches/Shores and Hawaiian Paradise Park, and its alternate, Old Government Beach Road.**

The Subcommittee received a letter in May 2014 from Gail Armand expressing concern about the consequences to lower Puna should Highway 130 be blocked by a lava flow. She wondered what planning was underway to deal with the potential hazard and proposed several solutions. Members of the Action Committee and community members have investigated the possibility of constructing the Connection Locations of Railroad and Old Government Beach Road. Both present significant obstacles that include community opposition, crossing Hawaiian homelands, construction in the inundation zone (Old Government Beach Zone) to mention a few. These Connectivity Locations must remain as options in the event that Madame Pele makes them necessary.

**#26 Pulelehua to Pohaku**

Sherri Carden provided comment on this Connectivity Location stating that the roads are in a flood zone and that they would be subject to serious flooding in heavy rains. Should this CL be constructed, it would require significant infrastructure to deal with the potential for flooding. Ms. Carden expressed support for the Connectivity Location. Is an alternate possible?

**#46 & #47 Kaohe Homesteads: North Road to Cemetary Road & Alaneo Road to Hwy 130**

When the lava flowed over Apa'a Road it left Kaohe Homesteads with only their back way in and out. This route was also circuitous. The County has reported that re-opening Apa'a Road is a high priority. Needs monitoring.

**#28 Orchidland Blvd. to Koloa Maoli (9 Road)**

It has been reported that the lot required to make this Connectivity Location possible has a house on it and therefore it is not a viable Connectivity Location. Is there an alternative Connectivity Location.

**#31 Kamoamoa to One Ele**

A petition has been received from residents in Sea View Estates stating that this Connectivity Location would not be welcomed by Sea View Estates Residents as it would bring much unwanted traffic into their subdivision. Considering the community opposition to this Connectivity Location, its status will likely be downgraded and removed from current consideration.

**#36 Wright Road to Stainback.**

The Subcommittee on Connectivity and Emergency Response received a letter (dated May 22, 2014) from William Aila of DLNR to the PCDP outlining the undesirable impacts on forest preserves should a road be constructed. A response letter was sent out in June acknowledging the expressed concerns and stating that the subcommittee agrees that this proposed connection presents many environmental concerns. It was explained that the Subcommittee's mandate is to present ALL suggested connections and to investigate and respond to comments from the community.

CL#	Map #	Subdivision/Community	Connectivity Issue	TOTALS	Connect					Health Safety & Emergency	Education Technical Social Issues	Non-vehicular transportation	Mass Transit	Land Use Environment	No/Low Impact Design	Safe Routes to Schools	Community Alliances	Short Term Actions to long term projects	NOTES AND GUIDE TO CRITERIA WEIGHTING 0 = unknown or not applicable 1= does not address slightly addresses 3= addresses 4= strongly addresses 5 = very strongly addresses		
					Number of People Served	to County Road	Open 24/7	Meet AASHTO guidelines	Little or No Community opposition											Improve traffic circulation	No major drainage issues
<b>PUNA UKA</b>																					
1	1	Ohia, Mauna Loa, Hawaii Orchid Island & Royal Hawaiian Estates	Road across Shipman Land to connect the two blocks of subdivisions, between Alaohia and Lehuapele, or a location to be determined by Shipman	48	4	1	5	0	3	5	4	4	3	3	1	2	3	2	4	4	
2	1	Orchid Island Estates	Open Lehuani to Glenwood	36	3	3	3	0	3	3	0	4	2	3	1	2	3	2	3	1	1/8 mile connector, allows egress for N. Glenwood Rd and Orchid Isle Estates
3, 19, 41	3/4	Fern Forest/Eden Roc	Kaleponi Road connect with Punahale between Ananaualani & Ohia	48	3	1	3	0	2	5	5	5	3	3	3	2	3	3	3	4	
4	3	Fern Forest/Eden Roc	Omeka Road connect with Painui St. between Alanaualani and Ohia	43	3	1	3	0	2	4	5	4	3	3	2	2	2	3	3	3	
6	4	Hawaiian Acres	Complete Enos Road to Old Volcano Trail, Ao & Kea Rds in Hawaiian Acres	57	4	3	3	0	3	5	3	5	5	3	3	5	4	4	3	4	gives many residents additional access to highway
7	4	Fern Acres	Complete South Lauko Road from Highway 11 in Mountain View to Puhala in Fern Acres	61	5	3	3	0	5	5	1	5	5	4	5	3	2	5	5	5	access to school, park, gym, alternate school bus route, second road out of FA
8	4	Fern Acres	Complete S. Pszyk Road from Highway 11 in Mountain View to Puhala in Fern Acres	52	4	3	5	0	3	3	1	4	4	4	4	3	2	4	4	4	only to be considered as an alternative to S. Lauko
9	4	Fern Acres/Kopua Farmlots	Connect between Fern Acres and Kopua Farm Lots on Anthurium	36	3	1	3	0	2	2	3	3	2	4	1	3	2	1	3	3	a lower priority to connections on Orchid or Gardenia
10	4	Hawaiian Acres/Keau Ag Lots	Connect 40th to Ipuaiwa Hia Rd. in Keau Ag Lots	34	3	1	3	0	2	2	4	3	2	2	2	2	2	2	2	2	lower priority
12	4	Pacific Paradise/Glenwood	Connect N. Oshiro Road to Peck Road-at top border of subdiv. To connect to Peck Rd.	41	3	3	3	0	2	3	3	4	3	3	2	3	2	3	2	2	
13	4	Fern Acres/Hawaiian Acres	Connect on Anthurium between Fern Acres and Hawaiian Acres	42	3	1	3	0	3	3	3	4	3	3	1	3	3	2	3	4	
14	4	Fern Acres/Kopua Farmlots	Connect Puhala from Fern Acres to Kopua Farm Lots	53	4	1	3	0	3	5	4	5	3	3	3	3	3	4	5	4	
15	4	Fern Acres/Hawaiian Acres	Connectivity between Fern Acres and Hawaiian Acres on Orchid	48	4	1	3	0	2	4	4	4	3	3	4	3	3	3	3	4	
16	4	Fern Acres/Hawaiian Acres	Connectivity between Fern Acres and Hawaiian Acres on Rose	44	3	1	3	0	2	3	4	3	3	3	3	3	3	3	3	4	
17	4	Fern Acres/Kopua Farmlots	Connectivity between Kopua Farmlots and Fern Acres on Orchid	45	2	1	3	0	2	4	4	4	3	4	3	3	3	3	2	4	
18	4	Fern Acres/Kopua Farmlots	Connectivity between Kopua Farmlots and Fern Acres on Gardenia	43	2	1	3	0	2	3	4	3	3	3	3	3	3	3	3	4	
20	4	Eden Roc Estates	Open up Akala to Kopua Farmlots	33	3	1	3	0	2	2	3	3	2	2	1	2	3	2	2	2	Redundant
21	4	Eden Roc Estates	South Oshiro Road, complete connection to Kahikopele (Old Volcano Trail) Eden Roc	46	2	3	3	0	3	4	2	4	3	3	3	3	3	3	3	4	
22	1	Aloha Estates	Connectivity between Punahale and Kopua Farmlots	43	2	1	3	0	3	3	4	4	3	3	1	3	3	3	3	4	
34	1	Golf Course	Connect between Keauhou Bird Ctr. Rd. to Mahiai	37	3	1	2	0	4	1	4	5	1	4	1	3	2	1	3	2	Concerns: crosses ranch land, national park, may need cattle grates
35	1	Golf Course	Connect between Pi'i Mauna and Tree Molds	38	3	3	2	0	4	3	4	5	1	3	1	3	2	1	2	1	
36	1	Volcano Village	Continue Wright Rd. (State 148) to Stainback	46	4	5	4	5	1	3	4	5	1	4	1	1	1	1	5	5	Concerns: route crosses national park & ranch land, threatens native forest preserves. Stainback needs safety improvements,
37	1	Volcano Village	Connect lo Place to Maile Rd	34	1	1	5	5	4	2	4	2	1	1	1	1	3	1	1	1	
38	1	Volcano Village	Connect Haunani to Ainahou (apparent easement toward mauka end)	34	1	1	5	5	4	2	4	2	1	1	1	1	3	1	1	1	
42	3	Fern Forest/Eden Roc	Connect Leila Rd. to Ahi Ave.	43	4	1	5	0	2	4	4	4	3	3	1	1	3	3	3	2	Concerns: liability on private roads, shared maintenance of private roads
43	3	Fern Forest	Open Kahikopele between Eden Roc and Fern Forest *	3	3																*consider as trail, not road, old Volcano Trail
43	3	Fern Forest/Eden Roc	Connect from Alanaualani Rd to Kahikopele	41	3	1	5	0	2	4	4	4	3	3	1	1	3	2	2	2	Concerns: liability on private roads, shared maintenance of private roads
44	1	Ohia Estates	Connect Old Volcano Rd. to Hwy. 11	38	2	5	5	5	5	1	4	1	1	1	1	3	1	1	1	1	Convenience connection, not necessity
45	1	Royal Hawaiian Estates	Connect Old Volcano Rd. with Ali'i Anela and Ali'i Koa to Hwy 11	39	3	5	5	5	5	1	4	1	1	1	1	3	1	1	1	1	Convenience connection, not necessity
<b>2010 Census Population Numbers</b>																					
		Ainaloa	2,965																		
		Eden Roc	942																		
		Fern Acres	1,504																		
		Fern Forest	931																		
		Hawaiian Acres	2,700																		
		Hawaiian Beaches/Shores	4,280																		
		Hawaiian Paradise Park	11,404																		
		Kea'au	2,253																		
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		Orchidland	2,815																		
		Pahoa	945																		
		Volcano Village+Golf Course	2,575																		

CL#	Map #	Subdivision/Community	Connectivity Issue	TOTALS	PUNA KAI							Health Safety & Emergency	Education Technical Social Issues	Non-vehicular transportation	Mass Transit	Land Use Environment	No/Low Impact Design	Safe Routes to Schools	Community Alliances	Short Term Actions to long term projects	NOTES AND GUIDE TO CRITERIA WEIGHTING 0 = unknown or not applicable 1= does not address slightly addresses 3= addresses 4 = strongly addresses 5 = very strongly addresses
					Number of People Served	Connect to County Road	Open 24/7	Meet AASHTO guidelines	Little or No Community opposition	Improve traffic circulation	No major drainage issues										
<b>PUNA KAI</b>																					
29	6	Hawaiian Shores/Beaches	Connection between HPP and Hawaiian Beaches/Shores side (Railroad)	54	5	1	5	4	3	5	5	5	2	4	2	3	3	1	2	4	
30	8	Puna Palisades Estates	Second exit from Kipuka St. to Highway 137 in Puna Palisades	42	3	3	3	4	2	5	5	4	1	2	1	2	3	1	1	2	
31	8	Seaview Estates	Kamoamoa Road to Highway 130 on the HELCO Power Line	47	3	3	2	4	1	4	5	4	3	2	1	2	3	3	3	4	Petition against CL received from some residents
32	6	Nanawale	One additional access road to Hwy 132, Forest Rd.	51	4	5	5	5	4	5	4	4	2	2	1	2	3	3	1	1	
46	7	Kaohe Homestead	Connect from North Rd. to Cemetary Rd.	51	3	5	5	4	4	5	3	5	1	4	1	4	3	1	2	County agreed to re-open Apa'a, need to monitor	
47	7	Kaohe Homestead	Connect from Alaneo Rd. to Hwy 130	43	3	5	5	4	4	3	3	4	1	3	1	3	1	1	1		
48	7	Hawaiian Shores/Beaches-HPP	Improve Government Beach Rd. between HS/B & HPP	48	5	5	5	0	3	3	1	4	3	5	1	3	3	1	3	3	
	8	Kehena																			
	6	Vacation Land																			
	6	Kapoho Beach Lots																			
<b>2010 Census Population Numbers</b>																					
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CL#	Map #	Subdivision/Community	Connectivity Issue	TOTALS	Number of People Served	Connect to County Road	Open 24/7	Meet AASHTO guidelines	Little or No Community opposition	Improve traffic circulation	No major drainage issues	Health Safety & Emergency	Education Technical Social Issues	Non-vehicular transportation	Mass Transit	Land Use Environment	No/Low Impact Design	Safe Routes to Schools	Community Alliances	Short Term Actions to long term projects	NOTES AND GUIDE TO CRITERIA WEIGHTING 0 = unknown or not applicable 1= does not address 2= slightly addresses 3= addresses 4 = strongly addresses 5 = very strongly addresses
<b>PUNA WAENA</b>																					
6	4	Hawaiian Acres	Complete Enos Road to Old Volcano Trail, Ao & Kea Rds in Hawaiian Acres	57	4	3	3	0	3	5	3	5	5	3	3	5	4	4	3	4	gives many residents additional access to highway
10	4	Hawaiian Acres/Keaau Ag Lots	Connect 40th to Ipuaiwa Hia Rd. in Keaau Ag Lots	34	3	1	3	0	2	2	4	3	2	2	2	2	2	2	2	2	lower priority
13	4	Fern Acres/Hawaiian Acres	Connect on Anthurium between Fern Acres and Hawaiian Acres	42	3	1	3	0	3	3	3	4	3	3	1	3	3	2	3	4	
15	4	Fern Acres/Hawaiian Acres	Connectivity between Fern Acres and Hawaiian Acres on Orchid	48	4	1	3	0	2	4	4	4	3	3	4	3	3	3	3	4	
16	4	Fern Acres/Hawaiian Acres	Connectivity between Fern Acres and Hawaiian Acres on Rose	44	3	1	3	0	2	3	4	3	3	3	3	3	3	3	3	4	
23	5	Ainaloa	Connect from Ainaloa Blvd. to 40th Ave.	41	4	1	3	0	2	3	3	3	3	3	2	2	2	2	4	4	would require right of way across privately held parcel, #1 priority for Orchardland, 2nd route to hwy for Orchardland, Ainaloa, Hawaiian Acres
24	5	Hawaiian Paradise Park	Connection between HPP and Hawaiian Beaches/Shores side (Railroad)	50	5	3	3	0	1	5	3	5	3	4	2	3	3	2	4	4	Significant community opposition, also, boulders at HPP border
25	5	Hawaiian Paradise Park	Connectivity on Hilo side and midway through HPP (Railroad Ave.)	45	5	1	3	0	1	5	3	5	2	4	4	3	2	2	2	3	Significant community opposition, also, boulders at HPP border
26	5	Hawaiian Paradise Park	Orchidland from Hawaiian Acres, Connect Pohaku Drive to Pulelehua Road (11 Road)	40	4	1	5	0	2	4	1	4	2	2	2	3	2	2	3	3	Significant flooding issues, would provide access to two highways
27	5	Orchidland Estates	Connecting Pulelehua Road on 40th Ave from Alula (D RD) to Kioele Rd. (E)	39	3	1	3	0	2	4	3	3	2	2	2	3	3	2	3	3	Redundant to #1 & #7
28	5	Orchidland/Hawaiian Acres	Koloa Maoli connect with Orchardland	41	3	1	3	0	2	4	3	5	2	2	2	3	2	2	4	3	Concern: shared maintenance from wider public use
39	5	Orchidland Estates	37th in Orchardland could use improvement to improve emergency access	39	3	1	3	0	2	4	3	3	2	2	2	3	3	2	3	3	
48	7	Hawaiian Shores/Beaches-HPP	Improve Government Beach Rd. between HS/B & HPP	48	5	5	5	0	3	3	1	4	3	5	1	3	3	1	3	3	
<b>2010 Census Population Numbers</b>																					
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CL#	Map #	Subdivision/Community	Connectivity Issue
<b><u>PUNA UKA</u></b>			
34	1	Golf Course	Connect between Keauhou Bird Ctr. Rd. to Mahiai
35	1	Golf Course	Connect between Pi'i Mauna and Tree Molds
36	1	Volcano Village	Continue Wright Rd. (State 148) to Stainback
37	1	Volcano Village	Connect lo Place to Maile Rd
38	1	Volcano Village	Connect Haunani to Ainahou (apparent easement toward mauka end)
42	3	Fern Forest/Eden Roc	Connect Leila Rd. to Ahi Ave.
43	3	Fern Forest	Open Kahikopele between Eden Roc and Fern Forest *
43	3	Fern Forest/Eden Roc	Connect from Alanaulani Rd to Kahikopele
44	1	Ohia Estates	Connect Old Volcano Rd. to Hwy. 11
45	1	Royal Hawaiian Estates	Connect Old Volcano Rd. with Ali'i Anela and Ali'i Koa to Hwy 11
<b><u>PUNA WAENA</u></b>			
39	5	Orchidland Estates	37th in Orchidland could use improvement to improve emergency access
48	7	HPP/Hawaiian Shores/Beaches	Improve Government Beach Rd. between HS/B & HPP
<b><u>PUNA KAI</u></b>			
46	7	Kaohe Homestead	Connect from North Rd. to Cemetary Rd.
47	7	Kaohe Homestead	Connect from Alaneo Rd. to Hwy 130
48	7	Hawaiian Shores/Beaches-HPP	Improve Government Beach Rd. between HS/B & HPP

**Greggor Ilagan**  
Council Member  
District 4 – Puna Makai



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Fax: (808) 965-2707  
Email: [gilagan@hawaiicounty.gov](mailto:gilagan@hawaiicounty.gov)

**HAWAI'I COUNTY COUNCIL**

25 Aupuni Street, Hilo, Hawai'i 96720

MEMORANDUM

DATE: July 6, 2015  
TO: Dru Mamo Kanuha, Council Chair  
And Members of the Hawai'i County Council  
FROM: *for* Greggor Ilagan, Council Member  
SUBJECT: Discussion regarding the creation of an ad hoc committee relating to road connectivity in Puna.

COUNTY CLERK  
COUNTY OF HAWAII  
2015 JUL -7 AM 10:43

I am requesting at least 30 minutes for a discussion regarding the creation of an ad hoc committee to discuss road connectivity in Puna.

This committee will discuss data collected from the Connectivity and Emergency Response (CER) Subcommittee from the Puna Regional Emergency Preparedness Fairs, and also data collected from meetings with Puna community groups. The ad hoc committee on Puna connectivity will study the prioritized connectivity locations for viability and work to implement the connections.

This committee should consist of the Council Members from Districts 3, 4, 5, and 6, plus the chair of the Puna Community Development Plan (CDP) Action Committee and the chair of the CER Subcommittee.

The committee is anticipated to meet regularly with stakeholders, including but not limited to the Department of Public Works, the Department of Finance, the various subdivision associations, and members of the public.

Please refer this item to the appropriate Committee agenda on August 18, 2015.

GI:ps

Comm. No. 363  
Ref. To: PWPRC  
Ref. Date JUL 07 2015

## Report on the Upper Puna Connectivity Driving Field Study

October 30, 2015

8:00 – 10:40 am

Present:

Ad-hoc Committee on Puna Connectivity Members present: Greggor Ilagan, Danny Paleka, Marlene Hapai, Patti Pinto

Warren Lee, Department of Public Works; Ben Ishii, Department of Public Works; Hans Santiago, Planning Department; Robert Taira, State Department of Transportation; Peter Sur, County District 4 staff; Nadia Malloe, County District 5 staff.

The purpose of the driving tour was to familiarize Ad-hoc Committee members and County personnel with the real terrain involved in the proposed prioritized Upper Puna connectivity locations (CLs). Two exploratory field trips were done before today's drive and it was determined that to visit all of the proposed CLs would be too time consuming, some of the roads are not in good condition, and some of the CLs are difficult to see from the ground. An abbreviated tour was designed so that we could get a grasp of the distances and conditions involved.

Using two County Vans, we traveled up Highway 11 to South Kopua Road where we drove down to Kahikopele, turned right and drove along the top of Kopua Farmlots and Eden Roc Estates and turned left and proceeded down Ohia Avenue to Punahale. From this intersection we could see the Eden Roc side of CL that would connect Kaleponi Drive in Fern Forest to Punahale in Eden Roc. We could see that the section had been cleared at one time, but was returning to forest. We left Eden Roc, passing on our way the second CL that would create a connection between Eden Roc and Kopua Farmlots between Punahale and Apele. We paused briefly at the intersection of Kahikopele and Kopua Road to point out the possible CL between Kahikopele and Puhala in Fern Acres.

Our second "loop" was a trip down South Lauko Road as far as it was possible to drive towards Fern Acres. We stopped the vans at the point where the road crosses the first stream bed. We observed a great deal of erosion damage to the road bed and discussed possible solutions to the stream crossing.

Our third and final "loop" for this trip was to travel down South Kulani to Puhala in Fern Acres. We paused on Puhala to look across the survey clearing towards South Lauko Road. We took a brief pause at the corner of Puhala and Pikake to point out the possible CL that would connect Fern Acres and Kopua Road, then proceeded down Pikake to the intersection with Orchid. Fern Acres Community Association has ownership of the road lots at the end of Orchid, the CL would then require a right of way across private property in Kopua Farmlots of about 1000 feet. We spoke with Robert, a Fern Acres resident at the corner of Orchid and Pikake. He said he would favor greater connectivity between Fern Acres and the neighboring subdivisions because it would provide more options in the event of an emergency. Traveling down the length of Orchid brought us to our final CL of today, the intersection of Orchid and Plumeria in Fern Acres. Again, Fern Acres Community Association owns the road lot, the purchase of a privately owned lot in Hawaiian Acres would be necessary to complete the CL which would connect with 1 Road in Hawaiian Acres.

The CLs between Hawaiian Acres and its neighbors on both sides were not visited today due to difficult road conditions and time constraints, but they will be included in our ongoing work towards greater

connectivity in Puna. There are photos of the CLs and satellite map images that will be included in our summary report on Upper Puna Connectivity.

**CONNECTIVITY MAP 10-30-15**  
**(Connectivity Locations under consideration circled)**

