

Hawaii Department of Transportation

**Kuhio Highway Emergency Repairs
Community Meeting**

Friday, July 27, 2018

Camp Naue, Haena, Kauai

Convoy Schedule

Monday thru Saturday (no night work)		Monday thru Saturday (night work)		Sundays & Holidays		Weekend Closures	
5:50 AM	Wainiha to Hanalei	5:50 AM	Wainiha to Hanalei	7:00 AM	Wainiha to Hanalei	Saturday	
6:20 AM	Hanalei to Wainiha	6:20 AM	Hanalei to Wainiha	7:30 AM	Hanalei to Wainiha	6:20 AM	Wainiha to Hanalei
6:50 AM	Wainiha to Hanalei	6:50 AM	Wainiha to Hanalei	8:00 AM	Wainiha to Hanalei	6:50 AM	Hanalei to Wainiha
7:20 AM	Hanalei to Wainiha	7:20 AM	Hanalei to Wainiha	8:30 AM	Hanalei to Wainiha		
7:50 AM	Wainiha to Hanalei	7:50 AM	Wainiha to Hanalei	9:00 AM	Wainiha to Hanalei	Sunday	
				9:30 AM	Hanalei to Wainiha	10:30 PM	Wainiha to Hanalei
				10:00 AM	Wainiha to Hanalei	11:00 PM	Hanalei to Wainiha
1:30 PM	Wainiha to Hanalei	1:30 PM	Wainiha to Hanalei	10:30 AM	Hanalei to Wainiha	<i>Three to six weekend closures are anticipated in order to complete the bridge work. For weekend closures, a shuttle/ferry system will be implemented, whereby a parking area will be established on the Wainiha/Haena side of the Waikoko Bridge, from where a shuttle will transport people to the bridge which is closed for construction. A small boat will then ferry passengers across the stream, where another shuttle will transport them to a parking lot on the Hanalei side of the Waioli Bridge to a parking area. For travel from Hanalei to Wainiha/Haena, the same process will happen in reverse. Two weeks advance notice will be provided for each weekend closure. Schedule for the shuttle/ferry system will be publicized after finalizing logistics and public input.</i>	
2:00 PM	Hanalei to Wainiha	2:00 PM	Hanalei to Wainiha	11:00 AM	Wainiha to Hanalei		
				11:30 AM	Hanalei to Wainiha		
5:30 PM	Hanalei to Wainiha	5:30 PM	Hanalei to Wainiha	12:00 PM	Wainiha to Hanalei		
6:00 PM	Wainiha to Hanalei	6:00 PM	Wainiha to Hanalei	12:30 PM	Hanalei to Wainiha		
6:30 PM	Hanalei to Wainiha	6:30 PM	Hanalei to Wainiha	1:00 PM	Wainiha to Hanalei		
7:00 PM	Wainiha to Hanalei	7:00 PM	Wainiha to Hanalei	1:30 PM	Hanalei to Wainiha		
7:30 PM	Hanalei to Wainiha			2:00 PM	Wainiha to Hanalei		
8:00 PM	Wainiha to Hanalei	10:30 PM	Wainiha to Hanalei	2:30 PM	Hanalei to Wainiha		
8:30 PM	Hanalei to Wainiha	11:00 PM	Hanalei to Wainiha	3:00 PM	Wainiha to Hanalei		
9:00 PM	Wainiha to Hanalei			3:30 PM	Hanalei to Wainiha		
9:30 PM	Hanalei to Wainiha			4:00 PM	Wainiha to Hanalei		
10:15 PM	Wainiha to Hanalei			4:30 PM	Hanalei to Wainiha		
11:00 PM	Hanalei to Wainiha			5:00 PM	Wainiha to Hanalei		
				5:30 PM	Hanalei to Wainiha		
				6:00 PM	Wainiha to Hanalei		
				6:30 PM	Hanalei to Wainiha		
				7:00 PM	Wainiha to Hanalei		
				7:30 PM	Wainiha to Hanalei		
				8:00 PM	Hanalei to Wainiha		
				8:30 PM	Wainiha to Hanalei		
				9:00 PM	Wainiha to Hanalei		
				9:30 PM	Hanalei to Wainiha		
				10:00 PM	Wainiha to Hanalei		
				10:30 PM	Wainiha to Hanalei		
				11:00 PM	Hanalei to Wainiha		

Note This varies from the schedule discussed in the community meeting as the community requested the morning convoys be reversed. The Monday thru Saturday (no night work) and Sundays & Holidays schedules will take effect Monday, August 6, 2018.

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FAQ

1. Why do the Waikoko, Waipa and Waioli Bridges need to be upgraded as part of the emergency repairs?

The Waikoko, Waipa and Waioli bridges do not have the capacity needed for current emergency repairs (i.e., removal of dirt material and placement of boulders needed for revetments at slope repair sites) or additional slope mitigation work planned for this area within the next two years. These bridges, especially the Waipa and Waikoko Bridges, show signs of significant deterioration and load bearing deficiencies that call for replacement. The upgraded bridges will be one lane bridges on the same alignment and retain much of the character of the existing bridges.

Renderings showing the designs for the upgraded bridges are online at <https://hidot.hawaii.gov/wp-content/uploads/2018/06/Kauai-Emergency-Repair-Boards3-FINAL.pdf> (Note that the proposal has been revised since the preparation of these renderings to rehabilitate the Waioli Bridge and replace the Waipa and Waikoko Bridges).

HDOT has agreed to rehabilitate the Waioli Bridge instead of replacing the concrete bridge originally built in 1912. This is possible because the Waioli Bridge is in much better condition than the Waipa and Waikoko Bridges. This work must be done during the day due to noise issues. Three to six weekend closures will be required in order to complete the final stages of the bridge work. Two weeks advance notice will be provided to the public before the weekend closures occur.

2. Why can't HDOT allow free access to Kuhio Highway between Waikoko and Wainiha when construction stops for the night?

The highway is not ready to accommodate free access traffic. There are locations where guardrails, signage and pavement markings require installation after completion of roadway repairs. Convoy operations through the various construction zones, especially those involving stabilization of slopes above and below the highway, require escort for the safety of those travelling the road. There are many areas where the speed limit has been reduced and the road has been weight restricted for safety and to ensure no further damage to the roadway. Running the convoys ensures that motorists traverse the road safely and do not cause additional damage. HDOT is continuing to explore options to increase service to the community while keeping available resources in mind.

3. Why can't HDOT add more convoy times?

HDOT is exploring options – see attached – to serve the Wainiha and Haena communities and continues to refine the schedule for limited local access. Changes to the convoy schedule will be posted on the HDOT website at <http://hidot.hawaii.gov> under 'Current Spotlights' and on our social media accounts at [facebook.com/HawaiiDepartmentofTransportation](https://www.facebook.com/HawaiiDepartmentofTransportation) and on Twitter under the handle @DOTHawaii.

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4. I don't see work on the road when I pass by. Why can't HDOT put more crews out there?

To expedite the repairs HDOT had several contractors clearing landslide debris and will be adding more crews once the bridge work and additional upper slope stabilization work begins. Crews are currently working 10 hours a day, six days a week. Much of the slope stabilization work such as rock scaling must be halted prior to allowing the convoy through.

5. Why isn't HDOT working at night in non-populated areas?

Crews are currently working 10 hours a day, six days a week. This was reduced from the 12 hours a day, seven days a week schedule the crews made up of seven teams of contractors worked to clear the emergency single lane access immediately after the flood event. HDOT will be adding crews once the bridge upgrade and additional upper slope stabilization work begins, and is anticipating night work on the revetments and micropile foundations for the Waipa and Waikoko Bridges. Rehabilitation of Waioli bridge will take place during the day due to the expected noise impacts this type of work would have on an area without much human-caused environmental noise. The majority of the work between Waikoko and Wainiha involves working on steep slopes; the possibility of working at night was discussed but then decided against for safety reasons.

6. How are construction crews minimizing debris due to the handling and cutting of the Geo-Foam blocks at the Waikoko and Wainiha sites, and do insects such as ants create an environmental or structural problem?

The Geofoam is being cut by hotwire and does not produce debris that is associated with cutting Styrofoam. Any debris which is created from handling of the Geofoam is cleaned up regularly with a shop vac. HDOT inspectors are on site to ensure that necessary cleanup work is done. Ants and insects do not create an environmental or structural issue with the wall.

7. Who do we call for emergency situations at night when the gates are locked?

The National Guard will remain to man the checkpoints through August 16, and can be contacted to open the gates in emergency situations. Other arrangements will be made and communicated to the community before the departure of the National Guard.

8. When can we expect the road to open without the convoys?

In order to safely open the road without convoys, the areas of roadway failure which require reconstruction of the roadway embankment must be completed, guardrails must be restored, as well as other safety improvements such as signing and striping. Stabilization of the upper slopes may be ongoing at the time of opening of the road. HDOT is targeting the end of October to re-open the highway.

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1. Scope of Work

a. Emergency Repairs

- i. Clearing of debris from highway to stockpile locations at Waikoko and Lumahai with support from:
 1. Waikoko Land Corp and the Beck family
 2. Kamehameha Schools and their lessee the Haradas
 3. Several contractors from Wainiha and Haena mobilized immediately to assist in clearing the highway
- ii. Repair of Kuhio Highway at Waikoko Site 1 and Wainiha Site 2
 1. Immediate repairs necessary to prevent potential loss of highway

b. Incidental Repairs – Highway

- i. Four additional road repair sites (Sites 3, 4, 5 & 6) identified between Waikoko and Wainiha requiring repair similar to Sites 1 and 2
- ii. Fourteen landslide sites identified mauka side of highway requiring slope stabilization
- iii. Drainage improvements required between Waikoko and Wainiha to address new conditions caused by storm erosion
- iv. Guardrails, signage, pavement
- v. Repairs between Wainiha and Ke'e Beach
 1. Damage to Manoa Stream Crossing
 2. Road washout at Kuhio Highway shoulder at Ha'ena Beach Park
 3. Damage to Limahuli Stream Crossing
 4. Road washout at end of Kuhio Highway at Ke'e Beach

c. Incidental Repairs – Bridges

- i. Heavy loads of equipment and materials necessary to complete road repairs (specifically large boulders to stabilize toe of revetments)
- ii. 100+ year old one lane bridges (Waioli, Waipa and Waikoko) are in poor condition and are unable to accommodate these loads
- iii. Plan to rehabilitate Waioli Bridge, and replace Waipa and Waikoko Bridges with one lane bridges on same alignment

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2. Governor's Emergency Proclamations

- a. Proclamation March 29, 2018 to address landslides at Milepost 6.3 (near Wainiha) on February 23rd and March 22nd
 - i. The Declaration suspended several laws mainly governing requirements for permits, and requirements for procurement
 - 1. Though requirements for permits are suspended, pertinent laws are still in effect and are being followed
- b. Second Proclamation following storm of April 14 & 15 was issued on April 15, 2018
- c. Proclamation was extended on June 17th (through August 16th)

3. Federal Highways Administration (FHWA) Emergency Relief (ER) Program

- a. Emergency Repairs are funded 100% by FHWA; Incidental Repairs are funded 80% by FHWA and require a 20% State match
- b. No federal laws suspended, but emergency situation allows for expedited processes
 - i. National Environmental Policy Act (NEPA)
 - ii. Section 7 of the Endangered Species Act
 - iii. Magnuson-Stevens Act (protection of Essential Fish Habitat)
 - iv. Section 4(f) of the Department of Transportation Act
 - v. Section 404 of the Clean Water Act
 - vi. Section 106 of the National Historic Preservation Act
 - 1. Includes consultation with the public and other potential consulting parties including Native Hawaiian Organizations
 - a. Consultation meetings were held May 3 at FHWA office in Honolulu, May 29 at Hale Halawai and Hanalei School, June 19 at Hanalei School, June 26 at Hanalei School, June 28 at Hale Halawai, and July 17 at a Hanalei residence
 - b. The next consultation meeting with consulting parties is being scheduled for next week
 - 2. A Memorandum of Agreement (MOA) will document measures to be taken to mitigate the adverse effects to the bridges
 - a. Signatory parties include: Hawaii Department of Transportation, Federal Highways Administration, Advisory Council on Historic Preservation, State Historic Preservation Division

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- b. Concurring parties include: Hanalei Roads Committee, Hui Ho'omalua I Ka 'Aina, Historic Hawaii Foundation, Konohiki Restoration Project

4. Section 106 Issues

- a. Wainiha Bridges project (managed for HDOT by FHWA Central Federal Lands Division (CFL))
 - i. Since the majority of the Wainiha Bridges project area overlaps with the Emergency Repairs, including the Waioli, Waipa and Waikoko Bridges, compliance with all of the above-mentioned laws were facilitated by the Wainiha Bridges project
 - ii. For 106, the Area of Potential Effect, Identification of Historic Properties and their evaluation of significance were based upon the Wainiha Bridges project
 - iii. Wainiha Bridges project proposed to install temporary Acrow Bridges mauka of Waioli Bridge, makai of Waipa Bridge and over top of Waikoko Bridge in order to facilitate movement of equipment and materials to Wainiha Bridges; existing one lane bridges would not be disturbed
- b. As part of current ER project, equipment and materials will have to be moved past the three one lane bridges to the work sites; solutions considered include:
 - i. Temporary Acrow Bridges
 1. Unknown geological conditions in wetlands areas affect feasibility of building temporary bridges and roadway approaches without significant environmental impacts
 2. Building a temporary Acrow Bridge over the existing Waikoko Bridge would not be feasible as the new deck would be approximately five to six feet higher than the existing bridge deck in order to clear the existing parapet walls. The raised deck would cause sight distances to be drastically reduced, creating concern for safety.
 3. Although Wainiha Bridges project proposed installing the temporary Acrow Bridges and rendered a finding of no significant impact (FONSI), this finding was based on a short-term (1-2 year) construction period for when the Wainiha Bridges would be constructed. The Wainiha Bridges project was not intended to address flooding, landslides, or the regions' vulnerability to these events. In the context of the current work, HDOT is addressing a single emergency event, but when looking at solutions, HDOT is taking into account the possibility of recurrence as well as other efforts and impacts that Wainiha Bridges could not reasonably foresee. If temporary Acrow Bridges were utilized for this effort, they could remain in place anywhere from 5-10 years to indefinitely.
 4. Temporary Acrow Bridges would not address the structural deficiencies at the three one lane bridges. Bridge inspection reports note structural deficiencies and ratings that dictate replacement.
 5. Community opposition to use of temporary bridges

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6. Estimated cost of the temporary Acrow bridges are close to the estimated cost to build new bridges.

ii. Barge

1. Barge goes in to dry dock September 7, and returns from dry dock no sooner than first week of November (very possibly later)
2. Barge has 120,000 pounds capacity
3. Per barge operator, not a “viable option” for regular deliveries into Lumahai Beach during the winter; may not be able to operate in to Lumahai at all from November to May

iii. Rehabilitate Waioli Bridge and Replace Waipa and Waikoko Bridges

1. Preliminary investigations indicate that Waioli Bridge can be rehabilitated in its current alignment and configuration
2. Waipa Bridge has experienced significant deterioration and damage and is beyond rehabilitation
3. Waikoko Bridge has already fallen and cannot be rehabilitated
4. No need for temporary Acrow bridges; overall associated impacts are minimized
5. In order to keep the existing bridge in service for as long as possible while the new bridge is constructed, the Waipa and Waikoko Bridges would be constructed immediately outside the existing bridges and therefore would be wider (18 feet between walls; current dimension is approximately 12 feet)
 - a. The 18 feet section would be comprised of a 14 feet wide travel lane, with 2 feet wide, 12 inch high non-mountable curbs on either side
 - b. Kuhio Highway Historic Roadway Corridor Plan calls for 16 feet between the walls of any new bridge replacing an existing one lane bridge
6. All three bridges would have a posted load of 15 tons, with a capacity for 20 tons

iv. No Action Alternative

1. Road repairs would not be completed rendering roadway embankments unstable
2. One lane bridges will continue to deteriorate and possibly fail making areas beyond Hanalei inaccessible

c. Current Section 106 MOA stipulations include:

- i. Historic American Engineering Record (HAER) Documentation
- ii. Update of the Kauai Belt Road National Register Nomination Form

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- iii. Development of a Programmatic Agreement for management and treatment of Kauai's Historic Bridges
- iv. Initiation of Hanalei Bridge maintenance project within 18 months to replace deteriorated steel and paint
- v. Installation of traffic signal system at Hanalei Bridge
- vi. Installation of traffic calming measures at approaches to one lane bridges
- vii. Installation of signage to enforce parking restrictions on Kuhio Highway between Milepost 8 and Milepost 10
- viii. Archaeological monitoring for ground disturbing activities