Kihei High School
DOE-Community Meeting
Project update & HDOT Roundabout presentation

Tuesday, January 12, 2021
5:00PM – 7:00PM
Welcome

Agenda

I. Panelist / Team Introductions
II. New Kihei High School project update
III. Traffic Design
   A. Traffic Studies / Pedestrian Route Study
   B. DOT presentation by Highways Division
      Deputy Director Ed Sniffen
IV. Conclusion of Presentation
V. Questions & Answers
VI. Wrap Up
Introductions

Hawaii Department of Education (DOE)
• Randy Tanaka, Assistant Superintendent, Office of Facilities & Operations
• Brenda Lowrey, Facility Planner, Project Point of Contact

Hawaii Department of Transportation (HDOT)
• Ed Sniffen, Deputy Director, Highways Division

Elected Officials
DOE Representatives and Project Team
New Kihei High School Project Update

Past completion dates

• 2008 – Site Selection Study completed.
• 2012 – Land purchased by Department of Land & Natural Resources
• 2012 – Final Environmental Impact Statement approved
• 2011-2014 – Various land entitlements (County Community Plan Amendment & State Land Use District Boundary Amendment) & design efforts
• 2015-2016 – Preconstruction Phase for Irrigation Wells
• 2016-2020 – Phase 1 Permitting & construction for On & Off site Infrastructure
• 2018-2020 – Phase 2 Bidding & permitting for Building & Sitework
Project Update

Phase 2 construction started on 10/12/2020
## Project Update

**Land Use Commission (LUC) Phasing aligned with DOE Project Phasing**

### Kihei High School Project Coordination Table

<table>
<thead>
<tr>
<th>Enrollment</th>
<th>LUC Phase I</th>
<th>LUC Phase II</th>
<th>DOE Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>Preconstruction</td>
<td>Phase 1</td>
<td>Not numbered</td>
</tr>
<tr>
<td>DOH</td>
<td>Phase 2</td>
<td>Phase 3</td>
<td>Traffic Improvements</td>
</tr>
<tr>
<td>Title</td>
<td>Irrigation Wells</td>
<td>Phase 1 -</td>
<td>Completed</td>
</tr>
<tr>
<td>DOE</td>
<td>Infrastructure</td>
<td>10/12/2020</td>
<td>Construction near completion</td>
</tr>
<tr>
<td>Status</td>
<td>Bid June 2018 NTP</td>
<td>Bid June 2020, under protest</td>
<td>Bid, not funded</td>
</tr>
<tr>
<td>Description</td>
<td>Initial Buildings: administration, two classroom houses, cafeteria/library, PE locker rooms and playfield and court and related improvements</td>
<td>Additional Buildings: electives classrooms</td>
<td>Gymnasium, outdoor courts, track/field, student activities center (per available funding, work may require additional phases of construction by DOH)</td>
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</tbody>
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Work for LUC Phase II projects will be incremental as growing enrollment requires additional facilities which totaled will include two additional classroom houses, athletic locker rooms, ball fields, practice field, and related improvements.
New Kihei High School Project Update
Land Use Commission (LUC) dates related to a pedestrian crossing

• 7/29/2013 – LUC’s Findings of Fact, Conclusions of Law and Decision and Order
  Conditions include 1(b) requiring a pedestrian route study and mitigation or improvements
  required or recommended by the study and analysis to the satisfaction of DOT.

  Warrants - The traffic study analysis, with DOT concurrence, was that a GSPC was not warranted by
  federal highway standards for the estimated traffic conditions at the opening of the school. This has
  been the DOE’s understanding until the declaratory ruling by the LUC in April 2019.

• 2/22/2019 – Maui County Department of Planning files a Petition for Declaratory Order
  LUC filed its “Order Granting Petitioner Department of Planning, County of Maui’s Petition for
  Declaratory Order” confirming the requirement for construction of a pedestrian overpass or
  underpass before the opening of the first phase of the new high school. And the DOE is required
  to get approval from DOT of its Pedestrian and Traffic plans.

• 8/20/2020 – DOE files Motion to Amend “to allow, pursuant to the recommendation of the State
  of Hawaii Department of Transportation (HDOT), for the construction of a roundabout and
  ground level crosswalks, instead of a grade separated pedestrian crossing (GSPC).”
Current status of the new Kihei High School

• The goal for the DOE is to open the new school for the 2022-23 school year, and to provide a main pedestrian route across the highway to the campus that is both safe and ADA compliant.

• To accomplish this, and in accordance with the LUC’s requirement to obtain DOT’s approval, the DOE is partnering with the DOT for their expertise in safe, effective, efficient vehicular and pedestrian movement.
Kihei Roundabout

Piilani Highway Intersection Improvements
Vicinity of Kulanihakoi Street
Project Number HWY-02-17
Project Background and HDOT’s History with Roundabouts

- Pre-2006: HDOT considered roundabouts not appropriate for State roadways.
- February 2007: First roundabout (single-lane, 4-legged) constructed at Kapaa Bypass Road and Olohena Road in Kapaa, Kauai.
- December 2008: HDOT adopted policy and guidelines accepting roundabouts as an alternative intersection configuration.
- December 2016: Completed single-lane 3-legged roundabout at Keaau-Pahoa Road and Old Government Road in Keaau, Hawaii Island.
- On-going Construction Projects:
  - Single-lane 3-legged roundabout at Keaau-Pahoa Road and Ainaloa Boulevard in Keaau, Hawaii Island.
  - Single-lane 3-legged roundabout at Kuhio Highway and Mailihuna Road in Kapaa, Kauai.
- Projects Currently Under Design:
  - Two single-lane 3-legged roundabouts at Keaau-Pahoa Road / Makuu Drive and Keaau-Pahoa Road / Orchidland Drive in Keaau, Hawaii Island.
  - Two-lane 4-legged roundabout at Piilani Highway and Kulanihakoi Street / Kihei High School in Piilani, Maui.
Texas Transportation Institute study found that virtually no one will use a pedestrian overpass if it takes 25% longer to cross compared to crossing at grade.

Using an overpass at this location will take 1.8 times longer with stairs and 5.8 times longer with ramps compared to an at-grade crossing.

Using an underpass at Kulanihakoi Gulch or Waipuilani Gulch will take over 15 times longer compared to an at-grade crossing.

Pedestrians prefer to limit walking distance and will often take usual shortcuts to save even a few steps and seconds of time.
Existing Bridges Adjacent to Kihei High School

- FEMA map analysis makai of the Kulanihakoi Gulch bridge shows the 100-year floodplain is wider than the bridge. A proposed pedestrian underpass will be built in the 100-year floodplain area or footprint.

- Kulanihakoi Gulch as built (1978) provides a 7’ clearance between the stream bed and underside of the bridge. This vertical clearance is not sufficient for bicycle and pedestrian clearance of 8’-10’ and to provide capacity for a 100-year storm.

- No FEMA map analysis for Waipuilani Gulch. However, it is likely similar to Kulanihakoi Gulch since the gulches are in close proximity that serve the same watershed.
Safety Considerations

- According to the American Association of State Highway Transportation Officials Highway Safety Manual roundabouts reduce the types of crashes where people are seriously hurt or killed by 78-82% when compared to conventional stop-controlled and signalized intersections.

- Federal Highway Administration and Insurance Institute for Highway Safety studies show that properly designed roundabouts result in a 37% reduction in overall collisions, a 40% reduction in pedestrian collisions, and a 90% reduction in fatalities over more traditional signalized and stop-controlled intersections.

- In addition to lowering vehicle speeds, roundabouts make intersections safer for pedestrians of all ages by minimizing conflicts, eliminating crashes caused by drivers disregarding traffic signals and stop signs, and minimizing pedestrian exposure to traffic by enabling people to cross narrow travel lanes that are separated by a median refuge at each approach.
Proposed Roundabout
Roundabout Traffic Flow - Northbound
Roundabout Traffic Flow - Southbound
Roundabout Traffic Flow - Eastbound
Roundabout Traffic Flow - Westbound
Bicycle User Accommodations at the Proposed Roundabout
Pedestrian User Accommodations at the Proposed Roundabout

Pedestrian Safety Enhancements:
- Reduced speed in school zone
- Rapid Flashing Beacon System activated by pedestrians
- Speed Tables for pedestrian crosswalks in free right-turn lanes
- Median Refuge Area
Safety Issues:

- Out-of-direction travel discourages use of GSPC
- Students observed crossing at-grade without benefit of signs, markings, defined path
- Motorists unaware that pedestrians may be present

At-grade crossing distance: 215 feet

GSPC crossing distance: 675 feet
Construction of the New Roundabout

- There will be temporary construction impacts regarding lane restrictions and shifting, noise, dust, and access changes.
- Construction is anticipated to take 12 months and be completed by June 2022.
- The roundabout will result in a much smoother and safer operation patterns.
- The project would create a new bicycle route / continuation of an existing bicycle route at the roundabout.
- The roundabout will create a safe pedestrian crossing for students attending the new Kihei High School.
- There will be systems put in place that will be intended to do the following:
  - Slow traffic
  - Alert drivers to pedestrians in the area
Conclusion

• To accomplish the DOE’s goals of opening the new Kihei High School for the community in School Year 2022-23, and of providing a safe pedestrian crossing to the school,

• The DOE is seeking your input before we return to the Land Use Commission to request their approval to allow the opening of the school with a roundabout and ground level cross walks in place.
Questions?

2 ways to submit questions or comments:

· Type your question or comment using the Q&A window

or

· Click on the tiny ‘Hand’ icon in the lower right corner of the Participant window

  Gaylyn will then call on you & unmute you.

Please keep your questions and comments to under 2 minutes.
If needed, we will ring a bell once to give you a 30 second warning,
& after 2 minutes we will ring it twice & mute your mic, so that others also
have a chance to participate.
Thank You