Kalanianaole Highway Resurfacing
H-1 Freeway to
West Hind Drive
Public Information Meeting and Noise Variance Consultation

Kalani High School
March 15, 2018
Public Information Meeting Purpose

- Provide information to the community about the planned project improvements.

- Invite comments for the Community Noise Variance Application (CNV). Comments will be used by the State Department of Health, Indoor and Radiological Health Branch (DOH-IRHB) to evaluate the noise variance request.

- Understand community concerns and answer questions so we can make the project better.
Public Information Meeting Agenda

- Need for the Project
- Construction Scope of Work
- Community Noise Variance Application
- Questions and Answers
- Meeting ends at 9:00 p.m.
The existing Kalanianaole Highway from H-1 Freeway to West Hind Drive requires reconstruction of weakened pavement areas, resurfacing and restriping, replacing old signs with new signs, traffic signal modifications, loop detectors and installation of milepost markers.
Kalanianaole Highway Resurfacing, H-1 Freeway to West Hind Drive

Project Location

Target June 2018

Scope of Work: Cold planing, resurfacing, reconstructing weakened pavement areas, replacing loop detectors, adjusting utility manhole frames and covers, installing traffic signal backplates with retroreflective borders on all overhead traffic signals, installing milepost reference markers, pavement markings, striping, and signing.

Schedule: Target June 2018

Cost: Approximately $6 Million

Potential Staging Area
Kalani High School

Traffic Signalization, Reconstruction of Median Curb, and Restriping for Bike Lane
Extension Improvements
Anahoa Intersection
(To Be Done By Others)

Potential Staging Area
RWS Station

Crosswalk and Bus Stop Improvements
Anahoa Street to Wallupe Circle
(To Be Done By Others)

Signalization of Waa Street Intersection
(To Be Done By Others)
Kalanianaole Highway Resurfacing, H-1 Freeway to West Hind Drive

Project Location (Staging Area)

Staging Area
(Approximately 10,710 sq. ft.)

Area is currently used as parking. There are a few trees but equipment and vehicles would be able to park around them. No apparent school facilities would be disrupted from use of this area. Need to obtain permission from Kalani High School.
Kalanianaole Highway Resurfacing, H-1 Freeway to West Hind Drive

Project Location (Staging Area)

There are two trees in the area but equipment and vehicles would be able to park around them. No apparent BWS facilities would be disrupted from use of this area. Need to obtain permission from BWS.
• Cold planing
• Repaving
• Reconstructing weakened pavements areas
• Replacing loop detectors
• Upgrading traffic counting stations
• Adjusting utility manhole frames and covers
• Installing traffic signal light backplates with retroreflective borders on all overhead traffic signals.
• Installing milepost reference markers, pavement markings, striping, and signing
Kalanianaole Highway Resurfacing, H-1 Freeway to West Hind Drive

Improvements at Ainakoa Intersection

- Reconstruction of Medial Curb to accommodate new layout
- New Traffic Signal Pull Box
- New Traffic Signal Pole with Mast Arm
- Continuation of bike lane
Kalanianaole Highway Resurfacing, H-1 Freeway to West Hind Drive

Improvements at Waa Street to Wailupe Circle

Traffic Signalization, Crosswalk and Bus Stop Improvements
Kalanianaole Highway Resurfacing, H-1 Freeway to West Hind Drive

Lane Closures

- 2 lanes closed in one direction
- Contra-flow will be provided resulting in 2 lanes opened in each direction
Kalanianaole Highway Resurfacing, H-1 Freeway to West Hind Drive

What to Expect?

Proposed Schedule

Target Start Date: June 1, 2018
Target Completion: November 30, 2018

Proposed Time of Construction Activities:

- Sunday: 8:00 p.m. to Monday 4:00 a.m.
- Monday: 8:00 p.m. to Tuesday 4:00 a.m.
- Tuesday: 8:00 p.m. to Wednesday 4:00 a.m.
- Wednesday: 8:00 p.m. to Thursday 4:00 a.m.
- Thursday: 8:00 p.m. to Friday 4:00 a.m.
What to Expect?

Construction Scope of Work

For each phase of construction work:
- Installation of traffic controls.
- Mobilization of equipment and tools to the project site.

| Phase 1 | • Reconstruction of Pavement.  
|         | • Installation of Temporary Striping. |
| Phase 2 | • Cold Planing work.  
|         | • Paving work and Installation of Temporary Striping. |
| Phase 3 | • Adjustment of Manhole Frames and Covers |
| Phase 4 | • Installation of Permanent Striping. |
| Phase 5 | • Installation of Loop Detectors/Piezos/Traffic Counting Stations. |
Kalanianaole Highway Resurfacing, H-1 Freeway to West Hind Drive

Community Noise Variance Application

Why Nightwork?

HDOT is requesting the Noise Variance as construction during the daytime would have severe impacts associated with traffic delays that would be detrimental to the community.
Noise Regulations

HAR Title 11, Chapter 46 sets the rules and restrictions on sound levels for construction projects. It states:

“No permit shall allow any construction activities which emit noise:
- Monday through Friday before 7 a.m. and after 6 p.m. of the same day
- Saturday before 9 a.m. and after 6 p.m.
- Sundays and on Holidays”

A Community Noise Variance must be obtained for any construction activities to occur outside the permissible hours (e.g., after 6 p.m. weekdays).
Proposed Noise Variance

- Variance application requests work be allowed every night, except Friday and Saturday nights, from 8:00 p.m. to 4:00 a.m.
- Requesting up to six (6) months to allow for unforeseen events/conditions.
- Equipment producing noise levels of 85 decibels or higher will only be used when necessary.
## Typical Sound Levels

<table>
<thead>
<tr>
<th>Relative Sound Level</th>
<th>$\frac{1}{2}$ as loud</th>
<th>Baseline</th>
<th>Twice as loud</th>
<th>Four times as loud</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Typical Sound Environment</strong></td>
<td>Indoor Office</td>
<td>Urban Residential</td>
<td>Urban Commercial</td>
<td></td>
</tr>
<tr>
<td>L&lt;sub&gt;max&lt;/sub&gt; of Common Noise Sources</td>
<td>Washing Machine (3 ft)</td>
<td>Auto (50 mph at 50 ft)</td>
<td>Vacuum Cleaner (3 ft)</td>
<td>Garbage Disposal (3 ft)</td>
</tr>
<tr>
<td>Sound Level dBA</td>
<td>60</td>
<td>65</td>
<td>70</td>
<td>75</td>
</tr>
<tr>
<td>L&lt;sub&gt;max&lt;/sub&gt; at 50 ft of Transit Noise Source</td>
<td>Rail Transit with a Barrier (50 mph)</td>
<td>Rail Transit (50 mph)</td>
<td>City Bus (50 mph)</td>
<td></td>
</tr>
</tbody>
</table>

*Source: EPA 1971, EPA 1974, FTA 2006*
# Kalanianaole Highway Resurfacing, H-1 Freeway to West Hind Drive

## Equipment List

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Decibels at 50 ft.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power Broom</td>
<td>67</td>
</tr>
<tr>
<td>Spreader (Paving Machine)</td>
<td>82</td>
</tr>
<tr>
<td>Front Loader</td>
<td>79</td>
</tr>
<tr>
<td>Concrete Saw</td>
<td>78</td>
</tr>
<tr>
<td>Vacuum*</td>
<td>85</td>
</tr>
<tr>
<td>Static Rollers</td>
<td>75</td>
</tr>
<tr>
<td>Vibratory Rollers</td>
<td>83</td>
</tr>
<tr>
<td>60 to 80 lbs. Pneumatic Pavement Breaker (Jackhammer)*</td>
<td>88</td>
</tr>
<tr>
<td>Compressor (Air)</td>
<td>81</td>
</tr>
<tr>
<td>Generator</td>
<td>76</td>
</tr>
<tr>
<td>Grader*</td>
<td>85</td>
</tr>
<tr>
<td>Pick up Truck</td>
<td>75</td>
</tr>
<tr>
<td>Labor Truck</td>
<td>75</td>
</tr>
<tr>
<td>Flatbed Truck</td>
<td>75</td>
</tr>
<tr>
<td>Hauling Truck</td>
<td>78</td>
</tr>
<tr>
<td>Backhoe*</td>
<td>85</td>
</tr>
<tr>
<td>Water Truck</td>
<td>75</td>
</tr>
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<td>Striping Machine</td>
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</tr>
<tr>
<td>Cold Planing Machine</td>
<td>83</td>
</tr>
<tr>
<td>Pump</td>
<td>76</td>
</tr>
<tr>
<td>Bobcat Skid Loader*</td>
<td>85</td>
</tr>
<tr>
<td>Electric Mudgun*</td>
<td>85</td>
</tr>
<tr>
<td>Komatsu Mini Excavator*</td>
<td>85</td>
</tr>
<tr>
<td>Backhoe with Hammer*</td>
<td>90</td>
</tr>
<tr>
<td>Paver*</td>
<td>93.1</td>
</tr>
<tr>
<td>Shuttlebuggy*</td>
<td>94.2</td>
</tr>
<tr>
<td>Rubber Tire Roller (Sakai)*</td>
<td>91.6</td>
</tr>
<tr>
<td>Steel Drum Roller (Dynapac)*</td>
<td>89.7</td>
</tr>
<tr>
<td>Steel Drum Roller (Hypac)*</td>
<td>99</td>
</tr>
<tr>
<td>Steel Drum Roller w/vibration (Bomag)*</td>
<td>95.6</td>
</tr>
<tr>
<td>Kickout broom (Kubota)</td>
<td>84</td>
</tr>
<tr>
<td>Backhoe (Case)*</td>
<td>94.1</td>
</tr>
<tr>
<td>Steel Drum Roller (Sakai)*</td>
<td>103</td>
</tr>
</tbody>
</table>

*Equipment with Noise Level Readings of 85 Decibels or more*
### Kalanianaole Highway Resurfacing, H-1 Freeway to West Hind Drive

#### Activity List and Equipment

<table>
<thead>
<tr>
<th>Activity</th>
<th>Day/Time</th>
<th>Description of Work</th>
<th>Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NIGHT WORK</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>8:00 p.m.</td>
<td>Traffic Control, Mobilize Equipment and Tools to Site</td>
<td>All Equipment</td>
</tr>
<tr>
<td><strong>PHASE 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 2 | 8:00 p.m. – 4:00 a.m | Reconstruction and Temporary Striping | Concrete Saw (78 db)  
Vacuum (85 db)  
Generator (76 db)  
Spreader (Paving Machine) (82 db)  
Static Rollers (75 db)  
Vibratory Rollers (83 db)  
Striping Machine (temp 3) (78 db)  
Cold Planing Machine (83 db)  
Paver (93.1 db)*  
Shuttlebuggy (94.2 db)*  
Rubber Tire Roller (Sakai) (91.6 db)*  
Steel Drum Roller (Dynapac) (89.7 db)*  
Steel Drum Roller (Hypac) (99 db)  
**Steel Drum Roller with Vibration (Bomag) (95.6 db)*  
Steel Drum Roller (Sakai) (103 db)  |

* Equipment with Noise Level Readings of 85 Decibels or more
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<tbody>
<tr>
<td>PHASE 2</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 3        | 8:00 p.m. – 12 midnight | Cold Planing                | Concrete Saw (78 db)  
Vacuum (85 db)  
Generator (76 db)  
Power Broom (67 db)  
Front Loader (79 db)  
Compressor (Air) (81 db)  
Grader (85 db)*  
Pick Up Truck (75 db)  
Labor Truck (75 db)  
Flatbed Truck (75 db) | Backhoe (85 db)*  
Water Truck (75 db)  
Cold Planing Machine (83 db)  
Bobcat Skid Loader (85 db)*  
Backhoe with Hammer (90 db)*  
Kickbroom (Kubota) (84 db)  
Backhoe (Case) (94.1 db)* |
| 4        | 12 midnight – 4:00 a.m | Paving and Temporary Striping | Spreader (Paving Machine) (82 db)  
Static Rollers (75 db)  
Vibratory Rollers (83 db)  
Striping Machine (temp 3) (78 db)  
Paver (93.1 db)*  
Shuttlebuggy (94.2 db)*  
Rubber Tire Roller (Sakai) (91.6 db)*  
Steel Drum Roller (Dynapac) (89.7 db)*  
Steel Drum Roller (Hypac) (99 db)*  
Steel Drum Roller with Vibration (Bomag) (95.6 db)*  
Steel Drum Roller (Sakai) (103 db) |
## Activity List and Equipment

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<tr>
<td><strong>PHASE 3</strong></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
| 5        | 8:00 p.m. – 12 midnight | Adjust Manhole Frames and Covers                  | 60-80 lb Pneumatic Pavement Breaker (Jackhammer) (88 db)*  
|          |                   |                                                  | Compressor (Air) (81 db)                        |
|          |                   |                                                  | Generator (76 db)                               |
|          |                   |                                                  | Pick Up Truck (75 db)                           |
|          |                   |                                                  | Flatbed Truck (75 db)                           |
|          |                   |                                                  | Backhoe (Case) (94.1 db)*                       |
| **PHASE 4** |
| 6        | 8:00 p.m. – 4:00 a.m  | Install Permanent Striping                       | Compressor (Air) (81 db)                        |
|          |                   |                                                  | Generator (76 db)                               |
|          |                   |                                                  | Pick Up Truck (75 db)                           |
|          |                   |                                                  | Flatbed Truck (75 db)                           |
|          |                   |                                                  | Striping Machine (temp 3) (78 db)               |
| **PHASE 5** |
| 7        | 8:00 p.m. – 4:00 a.m  | Installation of Loop Detectors/Piezos/Traffic Counting Stations | Concrete Saw (78 db)                            |
|          |                   |                                                  | Compressor (Air) (81 db)                        |
|          |                   |                                                  | Generator (76 db)                               |
|          |                   |                                                  | Pick Up Truck (75 db)                           |
|          |                   |                                                  | Flatbed Truck (75 db)                           |
|          |                   |                                                  | **Electric Mudgun (85 db)***                    |

* Equipment with Noise Level Readings of 85 Decibels or more
Construction Noise Reduction

• Maintain all equipment in good working order
• Use of adequate sound mufflers and intake silencers for construction equipment
• Locate compressors and generators as far from residences as possible
• Contact information for the designated Contractor Representative to address complaints and will be available 24/7:

  Grace Pacific LLC

Project Manager, Leo Nuneza  
Phone No.: 808-479-8995  
E-mail: lnuneza@gracepacific.com

Project Manager, Troy Okada  
Phone No.: 808-479-0241  
E-mail: tokada@gracepacific.com
Community Noise Variance Application

- Application was submitted to Department of Health for night work to occur, except Friday and Saturday nights, from 8:00 p.m. to 4:00 a.m.
The 30-day Public Comment Period for the Proposed Community Noise Variance is until April 15, 2018.

- There are Comment Sheets at the Reception Table. Please provide comments to:
  Indoor Radiological and Health Branch
  99-945 Halawa Valley Street
  Aiea, Hawaii  96701
  Phone: 586-4700
Questions and Answers

• Please be respectful to those speaking

• Please keep focused on the noise variance issues for the proposed project
Kalanianaole Highway Resurfacing, H-1 Freeway to West Hind Drive

More Information

HDOT
dotpao@hawaii.gov
hidot.hawaii.gov
HDOT Facebook & Twitter
587-2160

HDOT Oahu Lane Closures
http://hidot.hawaii.gov/highways/roadwork/oahu/
Comments on Noise Variance

State Department of Transportation
Highways Division, Oahu District
727 Kakoi Street
Honolulu, Hawaii 96819

Phone: 808-831-6802
Fax: 808-831-6808
E-mail: marvin.luckfield@Hawaii.gov
Mahalo!