Hanapepe Bridge Rehabilitation Community Meeting

County of Kaua‘i
Department of Public Works, Engineering Division
Federal-Aid Project No. BR-0545(1)
Wednesday, December 2, 2020
CONSOR Engineers, LLC
Welcome!

Michael Moule, Chief of Engineering, DPW County of Kauaʻi

Ikaika Kincaid, Meeting Facilitator
CONSOR Engineers, LLC
Go To Webinar – House Keeping

• Audience members will be muted until the end of the presentation.
• Questions can be asked in the “questions” chat box during the presentation for online users.
• Phone callers are asked to note questions, comments, and concerns and wait until the end when audience members are unmuted.
• Phone callers will need to use the following numbers:
  – Dial In Number is 415-655-0052
  – Access code is 662-249-615
  – Pin 80377
Presentation Agenda

• Introduction
• Purpose of this Meeting
• Objective of this Project
• Brief History of Hanapepe Bridge
• Project Site and Location
  – Laydown and Staging Area
  – River Access Area
• Proposed Repair Project Scope of Work
  – Repairs
  – New Structural Improvements
  – Elevated Walkway
• Best Management Practices
• Project funding source and Construction Costs
• Project Schedule
• Questions and Comments
Introduction

• County Department of Public Works Project (DPW)

• Federally-funded project using Federal Highway Administration (FHWA) funds.

• Design and Permitting Consultants: CONSOR Engineers, LLC (CONSOR) and Subconsultant WSP USA, are working with the County of Kaua‘i to provide design services for the rehabilitation of the Bridge.
Purpose of this Meeting

• Inform the community about the work proposed by this project.
• Clarify the history of prior work at Hanapepe Bridge.
• Solicit comments and answer questions.
National Historic Preservation Act (NHPA) Section 106 Consultation Process

• Federally funded projects must conduct NHPA Section 106 Consultation with those knowledgeable about historic properties in the area to identify and assess potential effects.

• If historic properties are present, FHWA and DPW will determine how historic properties may be affected by the project.

• If there may be an “adverse effect” on a historic property, FHWA and DPW will work with Consulting Parties to avoid/minimize/mitigate the adverse effect.

Anyone with information on potential historic properties in the area, or formally requesting 106 Consulting Party status, is requested to contact DPW by December 18, 2020.
Brief History

• Bridge Originally Built in 1911.
• Pedestrian Walkway was added in 1927.
  – Additional support brackets and the bottom horizontal railing were added later.
• Rehab attempt in 2010s.
• DOW’s waterline installation and proposed raised sidewalk.
• US Army Corps of Engineers (USACE) Hanapepe River Flood Control Project (levee).
Objective of the Project

• Repair Hanapepe Bridge
  – Spalls, delamination, general deterioration

• Repair Elevated Walkway
  – Closed due to extreme deterioration making it unsafe

• Restore Load Capacity (~20-tons)
  – Currently at 10-ton load limit
Project Site

Island of Kauai

Site Location
Site Details
Hanapepe Bridge
Proposed Scope of Work

• Repair of defects; spall and crack repair with color matching.
  – Inside of the parapets will be painted to match current color.
• Install drainpipes to keep water away from the structure.
• New Structural Improvements.
  – Remove existing AC roadway and fill material.
  – Replace with reinforced concrete with an AC overlay.
• Restore the original function of the elevated walkway.
  – Installation of precast deck planks.
  – Install new railings that meet current safety standards and resemble the original design.
• Restore ADA compliant sidewalk on the roadway surface on the Makai side.
• Temporary construction laydown areas will not require grading or earthwork. Work at bridge approaches will not exceed 6 inches from existing pavement surface
Proposed Scope of Work
Proposed Scope of Work

11'-7" EXISTING LANE
18'-0"

6'-5" EXISTING ADA WALKWAY

COVER EXISTING WATERLINE W/ A/C MIN 2" ABOVE FLANGE (SEE NOTE 3)

STATE MIX IV A/C OVERLAY SLOPE MIN 2%

2" MIN

2" CLR

2% SLOPE

8" NEW CONCRETE DECK FINISH TO BE SMOOTH

1 1/2" CLR

EXISTING CONCRETE DECK

CLEAN SURFACE, REMOVE ALL DIRT, DEBRIS, OILS, AND POTENTIAL BONDING INHIBITOR

NEW 6° CORE HOLE WITH DRAIN (SEE FOR DETAILS)

2" BELOW BOT OF GIRDER
Bridge Defects
Conceptual – North Elevation
Conceptual – North Fascia
Conceptual – South Elevation
Conceptual – South Side, East Bank
Conceptual – Pier Wall 1
Conceptual – Pier Wall 2
Conceptual – East Approach
Conceptual – West Approach
Conceptual – North Parapet
Conceptual – Elevated Walkway
Conceptual – Walkway West Stairs
Conceptual – Walkway West Side
Conceptual – Elevated Walkway Brackets
Elevated Walkway Pedestrian Railings

• International Building Code (IBC) Section 1013
  – “Guards shall be located along... stairs, platforms and landings which are located more than 30 inches (762 mm) above the floor or grade below.”
  – “Guards shall form a protective barrier not less than 42 inches (1067 mm) high...”
  – “Required guards... shall have intermediate rails or ornamental closures which do not allow passage of a sphere 4 inches (102 mm) or more in diameter below 27 inches, above 27 inches it is an 8 inch sphere”.

Walkway Railing

Existing

Original Design

Draft Design

[Diagram showing the existing, original, and draft designs of the walkway railing with measurements and labels.]
Best Management Practices

• Scaffolding or falsework will be installed to catch construction debris from entering the river.
• Checklist and precautions to prevent impact to protected species and water quality.
• The US Army Corps of Engineers (USACE) levee will not be modified during this project
  – Coordination will be maintained with USACE in the event of a flood condition arises
  – Levee protection will not be compromised and will remain functional at all times
Construction Traffic Control Plan
Project Funding

• State Transportation Improvement Plan (STIP)
  – 80% Federal Highway Administration
  – 20% County Funds

• $1.2 million Estimated Construction Cost
Estimated Project Schedule

- **2021** – Complete Planning, Permitting and Design
- **2022**– Construction Start
  - Dependent on completion of State Hanapepe Bridge – Tentative August 2021
- **2023** – Construction Completion
Questions and Comments

• Contact or comments:
  – DPW Project Manager Donald Fujimoto
    • dfujimoto@Kauai.gov
    • (808) 241-4882

• Section 106 comments requested by – December 18, 2020