STATE DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION
79 South Nimitz Highway • Honolulu, HI 96813

KALAELOA HARBOR 2040 MASTER PLAN

Notes from Planning Workshop #2
April 3, 2014

The meeting was opened by Jadine Urasaki, Department of Transportation (DOT), Deputy Director for Projects. Carter Luke, DOT Harbors Division (DOT-H), Engineering Program Manager introduced the project team. Jeff Overton of Group 70 presented the PowerPoint presentation on proposed harbor improvements. The presentation is posted on the following website: http://kalaeloaharbor2040.com. Meeting participants were given the opportunity after the presentation to provide input and ask questions. Below is a summary of the various topics and discussions.

HawaiiGAS Presentation
Due to the impact a proposed Liquefied Natural Gas (LNG) terminal could have at Kalaeloa Barbers Point Harbor (KBPH), HawaiiGAS was allowed the opportunity to provide a presentation at the workshop. Their presentation is posted on the above website. An LNG terminal would allow HawaiiGAS the ability to have backup LNG supply, serve the neighbor islands and potentially serve the marine industry.

LNG Import and Distribution
- Jones Act feeder ships bring LNG to the Floating Storage Regasification Unit (FSRU).
- LNG is re-gasified and travels as a gas through a pipeline to the Oahu distribution system.
- A 474-foot length overall (LOA), 8 million gallon (30,000 m^3) vessel loads LNG from the FSRU, or the West Coast, and brings it into KBPH.
- The LNG is transferred into a storage tank, where it is later transferred into ISO containers.
- ISOs are stored on land for distribution on Oahu via trucks or Neighbor Islands via barges.

Zones of Concern
- A 100-foot security zone surrounding the transfer connection prohibiting combustible activities is in effect during LNG transfer.
- A control zone of approximately 700-foot radius, centered at LNG ship transfer is needed in case of emergency. Other compatible activities (including ship transport) can continue. The United States Coast Guard (USCG) will have final determination of acceptable activities, but they have not been engaged in the conversation to date.
- Zones of concern are primarily a function of the LNG transfer pipe size and flow rate.
- Another control zone of approximately 500-foot radius will be in effect at the point of transfer from the 15 million gallon storage tank to the ISO containers. The zone of concern will vary depending on the transfer rate from the tank to the ISO containers.
- Pending further modeling and engineering, the size of the control zones is approximate. These zones may be reduced with further engineering.

Harbor / Adjacent Neighbor Compatibility
- LNG vessel activity will occur approximately every 10 days for a 48-hour period (approximately 6 days/month total time).
- Pier 3 (HawaiiGAS' preferred alternative) or Pier 9 are being considered as possible LNG terminal locations.
- HawaiiGAS will need to prepare an Environmental Impact Statement determining risks and potential impacts to neighboring Ko Olina and the H-1 freeway as well as current and proposed residential housing.
- LNG bunkering opportunities are being considered as part of the Statewide LNG fuel supply plan.

Master Plan Proposed Improvements

Piers 3 and 4

- Piers 3 and 4 will be the site of the dedicated Fuel Pier.
- Phasing of the Fuel Pier will allow the Finger Pier to remain for as long as possible.
- The T-pier at the corner of Piers 4 and 5A will remain for spill response vessels.
- Financing options for pipelines at the fuel pier are still being discussed, with the options of a consortium or private funding.

Pier 7

- The berthing schedule at Pier 7 is already tight.
- The 2040 Master Plan recommends extending Pier 7 towards Pier 8 by 325 feet.
- Hawaiian Cement received approval for a larger barge, which will come into service towards the end of 2015. This will have an impact on the berth, so expanding capability on Pier 7 is important.
- Although a firm timeline for construction has not been set, the 2040 Master Plan recommends that Pier 7 as a designated priority project to be built in the early stages within the next 10 years.
- In the interim, Hawaiian Cement may extend their pipeline, allowing the cement ships to fall back further and provide for more berthing space at Pier 6.

Pier 8

- The 2040 Master Plan recommends that Pier 8 be improved to serve as additional layberth.
- Improvements to the pier face will not extend far enough into the basin to affect the turning area within Piers 7, 8 and 9.
- Construction of layberth at Piers 8 and 9 will be phased in coordination with the Fuel Pier.
- The need for this layberth may be approaching quickly with the LNG and LPG demand in addition to activity at Piers 5 and 6.

Pier 9 and 10

- Marine support will be relocated to Piers 9 and 10 in the Alternative A, Dry Bulk Focus.
- In one of the two options in Alternative B, Energy Focus would place an LNG facility at Pier 9 next to a marine support facility at Pier 10. Healy Tibbitts currently has a yard at Pier 9 and does not do any hot work at this location, but the effects to Marisco operations need to be determined.
- Healy Tibbitts currently enjoys the convenience of loading supplies directly onto ships from their Pier 9 location. Moving their operations inland and transporting supplies by truck to ship is a possibility, but an inconvenience.

Infrastructure

- Kapolei Properties, a neighboring landowner, will develop the new Harbor Access Road depending on demand within the next 10 years. This road will meet with H-1 and replace the current Malakole Street entrance.
- A 250-foot wide drainage channel bordering the KBPH property is currently being excavated. This channel will drain 4,000 acres from upland developments.

Phasing

- The 2040 Master Plan will identify when construction activities are recommended to take place.
- Phasing will be tied to basin deepening, under United States Army Corps of Engineers (USACE) jurisdiction. If deepening and bringing in larger ships, the channel will need to be flared. A groin at the access has been ruled out.
- Although there are depth perception issues, 24-hour navigation would be helpful in harbor efficiency, requiring additional lighting and other navigational aids.
- The 2040 Master Plan will recommend that these improvements occur within the proposed 25-year time horizon.

Potential Harbor Users

Kaiuli Energy

- Kaiuli Energy is proposing Sea Water Air Conditioning (SWAC) as an alternative to traditional air conditioning. The system pulls in cold water from the ocean to a heat exchanger that cools freshwater used in the air conditioner.
- There is enough demand for SWAC at KBPH. Potential customers are nearby hotels and big box stores, as well as harbor users with central air conditioning.
- This would temporarily affect harbor operation due to the potential location of the pipeline through the harbor. Pipeline construction would involve trenching and then burying the pipe. Kaiuli doesn't want to affect the tugs in the area. Pipes would need to be timed with dredging or buried well below current harbor basin depths.
- Kaiuli would like to site their operations on approximately one acre in the Maritime Support-designated area of the harbor.

Zilkha

- Zilkha is proposing to bring in a solid fuel (wood pellets). There is no need to establish safety zones. Wood pellets have storage properties similar to coal.
- The fuel is flexible and could unload at Piers 5, 6, or 7 and then be transported to a storage facility. No further special consideration is needed.
- Ten acres of land storage would be the maximum, but could be reduced to five acres.
- Ultimately the end user would be one of the power plants, fulfilling EPA emission standards and proving less expensive than current fuels. Agreements with the utilities are ready – the timeframe for implementation is dependent upon decisions made. Short term service to the utility would transport the fuel by truck. Long term service might require a conveyance system.
- The product is coming from the U.S. and British Columbia. Millions of dead pine trees need to be removed which were killed by a beetle in Colorado up through Canada. This could supply fuel to all of Kahe power plant if necessary.

Hidden Villa Ranch

- An egg production farm will require bulk cornmeal to mix with supplements for chicken feed. Hidden Villa would like to import via KBPH but doesn't want to affect current operations. Fertilizer from this operation may be reused on Oahu.

Those Present:

Aloha Petroleum – J. Finch
Amergent Techs – W. Anonsen
DBEDT - M. Glick
DOT Harbors – S. Dale, R. Grune, A. Liu, C. Luke, B. Toba, A. Murakami, J. Urasaki, D. Vo, D. Watase, L. Williams
DOT Statewide Transportation Office - M. McLaurin, A. Setogawa
Facts Global Energy - S. Wee
GMP / KCR - J. Littenberg
Group 70 – B. Natale, J. Overton
Hawaii Gas – J. Boivin, R. DeGarmo, B. Treat, T. Young
Hawaii Pilots Association – S. Brown
Hawaiian Cement – J. Gomes
Healy Tibbitts Builders, Inc. – D. Masumoto
HECO – J. Arakaki, C. Barnes, T. Koyamatsu
James Campbell Co. - S. Kelly
Kaiuli Energy - D. Nakamoto
Marine Cargo Surveys of Hawaii – R. Lund
Oahu Gas Service – B. Kawano
P & R Water Taxi / P & M Marine - S. Morita
PENCO/AMC – D. Carter
Petrospect – D. Harrington
Sause Bros., Inc. – P. Pomaikai, D. Won
Tesoro Hawaii – L. Tanaka
Transmarine – S. Lambert
USACE - M. Yoshimoto
USCG – C. Petersen, B. Marhoffer, S. Whaley
Wespac Midstream – B. Thompson
Zilkha - T. Tolkinen