Glosten


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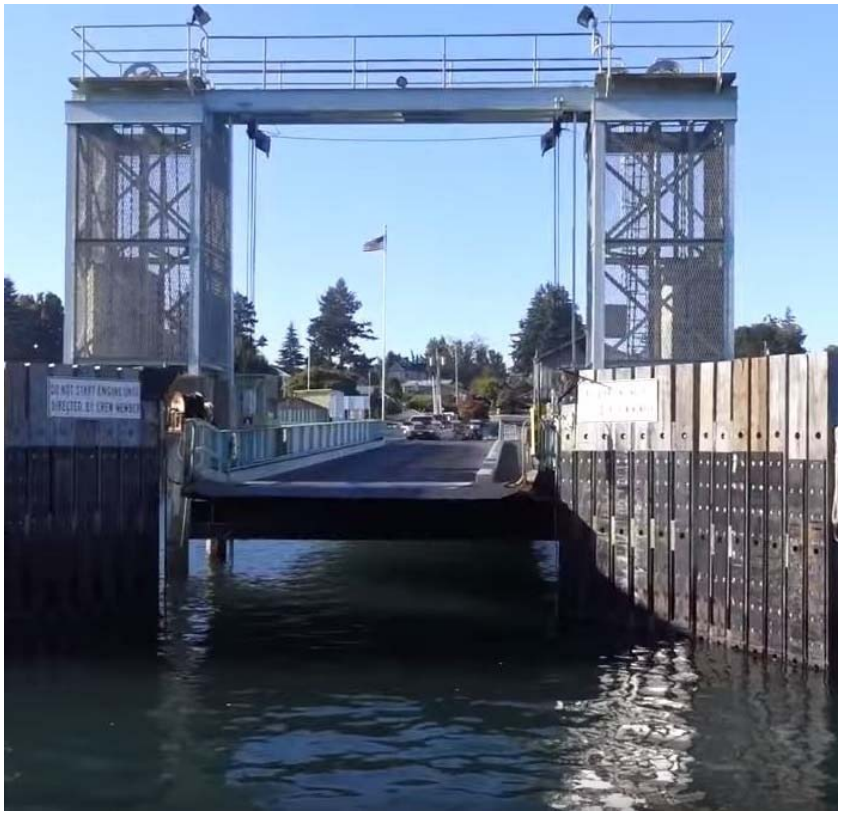
VESSEL CAPACITY STUDY

- 40 year design life used for replacement.
- Passenger ridership increased 85% from 1980 to 2016.
- Passenger ridership forecasted to increase 77%.
- Vehicle ridership increased 125% from 1980 to 2016.
- Vehicle ridership forecasted to increase 74%.
- 2002 was busiest vehicle year. We expect to be back to that level of service by 2020.

TRANSPORTATION SYSTEM ASSESSMENT

- Look at whole Transportation System
- Single vessel, double-ended, steel monohull, aluminum deckhouse
- At least 32 vehicles at 2 round trips / hr
- Change aprons to permit concurrent vehicle and passenger loading
- Strengthen fendering system on dolphins
- New ticketing system to remove loading bottleneck



PROPULSION SYSTEM STUDY

Five propulsion options

- Geared Diesel (baseline)
- Diesel Electric
- Series Hybrid
- All-Electric
- Plug-in Hybrid

Operational profile is key

Shore power infrastructure

- Charging Anacortes only
- Major driver in capital cost

CONCEPT DESIGN

32 Vehicles, 150 Passengers

178' length x 53' beam

Off center deckhouse

Four lanes of vehicles

USCG Subchapter T vessel

Steel hull

Aluminum house and bulwarks

Z-drive thrusters at 750 kW each

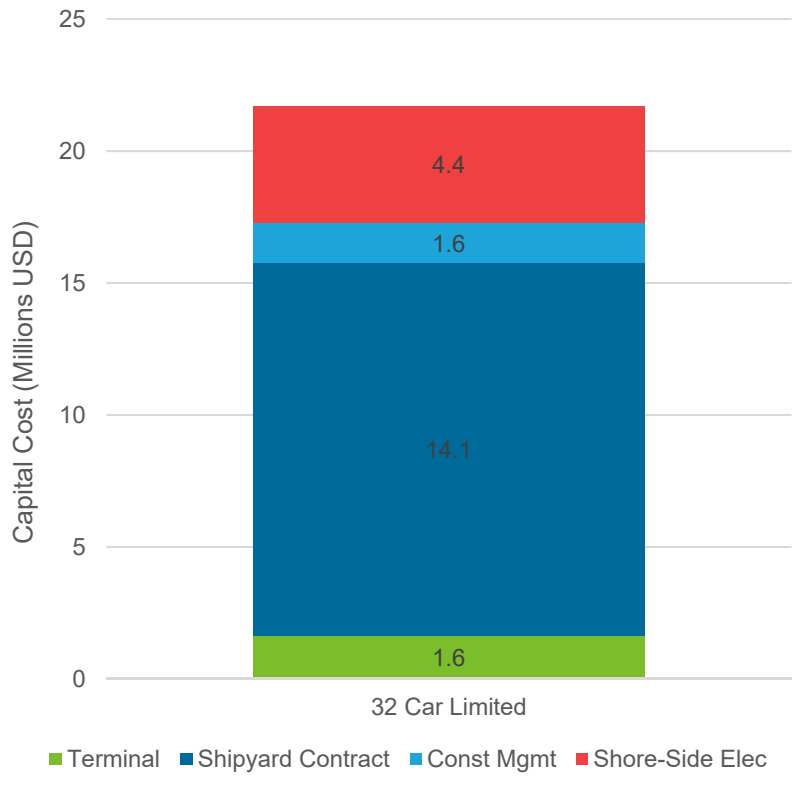
COST ESTIMATES

Capital Cost

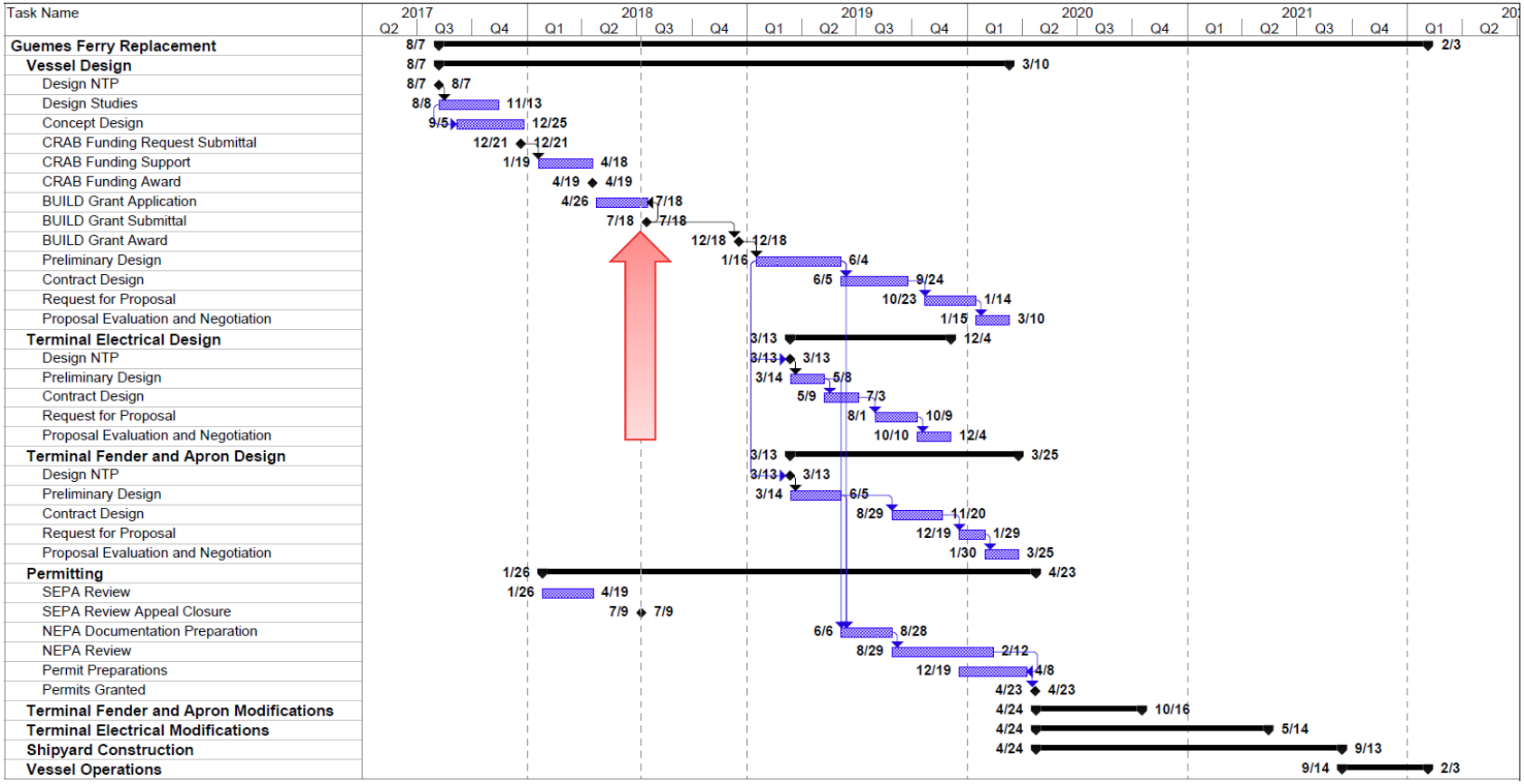
- Reduced shore components
- 20% contingency included
- Design, permitting, and taxes
- Const. management and inspection

Operational Cost, vs. Existing Ferry

- 41% reduced energy cost
- 53% reduced maint. and repair cost
- Crew size and costs maintained
- 34% reduced CO_2
- 95% reduced local DPM



LONG-TERM SCHEDULE

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