



Alaska Department of Transportation & Public Facilities Tustumena Replacement

House Transportation Committee

February 4, 2014



VESSEL SPECIFICATIONS

M/V TUSTUMENA REPLACEMENT

- Vessel Type – Roll On – Roll Off (RO-RO) Passenger/Vehicle Ferry
- USCG Classification:
 - Subchapter H
- Classed by American Bureau of Shipping (ABS) as:
 - ⚡A1
 - ⚡ – Constructed under survey by ABS
 - A1 – Compliance with the Hull requirements of the ABS Rules for unrestricted ocean service
 - AMS
 - Machinery, boilers and systems not constructed and installed under ABS survey but meet ABS requirements
 - Vehicle Passenger Ferry
 - Vessel transports vehicles and more than twelve (12) passengers



VESSEL SPECIFICATIONS M/V TUSTUMENA REPLACEMENT CONT.

- Service:
 - Domestic Voyage
- Service Route Type:
 - Oceans, no further than 50 nautical miles from shore
- Southeast Alaska Stability Policy:
 - Exposed Routes

Specifications	Existing	Replacement
▪ Length Overall	296'-0"	325'-0"
▪ Beam (Main Deck)	59'-0"	68'-0"
▪ Depth (molded)	21'-9"	23'-0"
▪ Draft (Full Load)	14'-4-1/2"	15'-0"



VESSEL SPECIFICATIONS

M/V TUSTUMENA REPLACEMENT

Specifications (Cont.)	Existing	Replacement
▪ Passenger Capacity	174	250 (Berths for 108)
▪ Staterooms (4 Berth)	8	10
▪ Staterooms (2 Berth)	17	15
▪ Roomettes (2 Berth)	-	17
▪ Staterooms (ADA – 2 Berth)	1	2
▪ Crew Capacity	38	42 (Estimate)
▪ Vehicle Capacity (Lane Feet)	720'	1,135'
▪ Vehicle Quantity	36	52
▪ Van Quantity	12 (20')	12 (40')
▪ Vehicle Loading Ability		Stern and Side (Port & Starboard)
▪ Cruise Speed	13.8 knots	15 knots
▪ Operation – Oceans, not on international voyage; Exposed Waters		
▪ Manning Level – Minimum Manning Regulatory Requirement – Manned Engine Room		
▪ ADA Compliant – Americans with Disabilities Act (ADA) with Passenger Elevator		



DELIVERABLES TO FINAL DESIGN

- Reconnaissance Report - develop and refine the operating requirements (operating characteristics) for the vessel. The Reconnaissance Report will include a rough cost estimate and recommendation to proceed with a particular vessel under a specific procurement method.
- Environmental Analysis - prepare the required Federal Highway Administration (FHWA) environmental document based on the project scope as defined in the draft Reconnaissance Report.
- Design Study Report (DSR) - develop and refine various alternatives to accomplish the project. Each proposed solution will be analyzed to determine how well it satisfies the project purpose. The DSR will conclude with a recommendation to proceed with a particular vessel design under the preferred procurement method.



DELIVERABLES FOR FINAL DESIGN

- Plans, Specifications & Estimates (PS&E) – Major Components
 - Regulatory Research
 - General Arrangement and Profiles
 - Lines Plan
 - Intact and Damage Stability
 - Scantling Calculations
 - Structural Plans/Elevations
 - Structural Sections
 - Superstructure
 - Speed and Power Calculations
 - Major Equipment List
 - Mechanical System
 - Vibration Analysis
 - Electrical Load Analysis
 - Weight Estimate
 - Cost Estimate



PROJECT MILESTONES

Tustumena Replacement Project 70062	AMHS Ketchikan Alaska
Awarded Consultant Professional Services Agreement (PSA) The Glosten and Associates Team, Seattle WA	November 2013
AMHS Terminal Sight Visits (Project Team and Southeast Region Terminal Design Section)	December 2013
Reconnaissance Report	February 2014
Public Participation (Homer, Kodiak, Dutch Harbor, etc.)	March-April 2014
Environmental Document	May 2014
Design Study Report	June 2014

