



Evaluation Matrix

Criteria	Weighting Factor	No Build Alternatives				Build Alternatives						Value Engineering Alternative	
		Alt 1 - No Build		Alt 2 - TSM&O		Rehabilitation			Replacement			VE Alternative	Score
		Alt 1 - No Build	Score	Alt 2 - TSM&O	Score	Alt 3 - Rehabilitation without Beam Strengthening	Score	Alt 4 - Rehabilitation with Beam Strengthening and Alt M1 - Bascule Bridge Rehabilitation	Score	Alt 7 - Arched Beams with T1 - Venetian Railing and Alt M4 - Double Leaf Bascule Bridge	Score		
Meets Purpose and Need		No		No			Yes		Yes				
Meets Current Safety Standards													
Service Life		0-3 years		0-8 years			25 years		75 years				
Typical Sectional Functionality		Substandard sidewalks and bicycle lanes		Substandard sidewalks and bicycle lanes			Substandard sidewalks and bicycle lanes		Meets current criteria				
Structural Capacity		H-15		H-15			HL-93		HL-93				
Hurricane Resistance		Not Satisfied		Not Satisfied			Satisfied		Satisfied				
Vessel Collision Resistance		Not Satisfied		Not Satisfied			Satisfied		Satisfied				
Bridge Clearances		Remain		Remain			Remain		Improved (Raised 1')				
Maintenance of Traffic During Construction		N/A		N/A			82 months		Phased Construction				
Utility Services													
Economic Impact													
Constructability													
Pedestrian and Bicycle Facilities		Remain as is		Remain as is			Pedestrian - Improved Bicycle - Remain as is		Improved				
Environmental Impacts													
NATURAL	Benthic Resources	No impact		No impact			Impact to corals from scour protection, substructure & beam strengthening		Impact to corals from scour protection, substructure replacement, spoil island shoreline				
	Essential Fish Habitat	No impact		No impact			Minimal impacts from construction means and methods		Minimal impacts from construction means and methods/minimal impact to shoreline of spoil islands				
	Threatened & Endangered Species	No impact		No impact			Minimal impacts from construction means and methods		Minimal impacts from construction means and methods				
	Water Quality	Scuppers discharge to OFW		Scuppers discharge to OFW			Scuppers discharge to OFW		Temporary impacts during construction/overall benefit				
PHYSICAL	Noise Impacts	No impact		No impact			Minimal impacts from construction means and methods		Temporary impacts during construction				
	Air Quality	No impact		No impact			Minimal impacts from construction means and methods		Temporary impacts during construction				
	Contamination Impacts	Not Applicable		Not Applicable			Not Applicable		Not Applicable				
Cultural and Historic	Historic - Section 106/4(f)	No Adverse Effect		No Adverse Effect			No Adverse Effect - some impact to resource		Adverse Effect - Resource replaced, NHRP may be applicable for the causeway				
SOCIAL and ECONOMIC	Aesthetic/Visual Impacts	Utilities remain		Utilities remain			Utilities remain		Wider section, bridge aesthetics replicated, utilities hidden, arch and railings remain				
	Recreational Areas	Not Applicable		Not Applicable			Not Applicable		Not Applicable				
	Community Cohesion	No impact		No impact			Temporary impact to access during construction		Temporary impact to access during construction				
Engineering Costs													
Construction Costs													
Maintenance Costs													
Life Cycle Costs													
Total Points													

Score	Description
0	No Benefit or Not Applicable
1	Most impactful or least benefit
2	Very impactful or little benefit
3	Moderate impact or moderate benefit
4	Little impact or very beneficial
5	Least impactful or most benefit

Quantitative ranking system to be developed for these criteria once all information is available