

ALTERNATIVE ANALYSIS MATRIX



Local Concept Development Study for Bridge C0609 Picket Place Bridge over South Branch of Raritan River Branchburg and Hillsborough Townships, Somerset County, New Jersey

Criteria →	Satisfies Purpose & Need	Impacts to Picket Place Traffic during Construction					Total Construction	Permits Required			Right-of-Way Impacts			Estimated Construction Cost
Alternatives ↓		Traffic Control	Veh.	Open To: Bikes	Peds.	Maintains Emergency Services Support	Duration	FWW/FHA/SESC	SWM	Mitigation	Easements	Acquisitions	Estimated Cost	w/o ROW
Alternative 1 - No-Build ¹	NO	N/A					N/A	N/A			N/A			N/A
Alternative 2 - Rehabilitate Superstructure and Substructure using Detour	YES	Detour	NO	NO	NO	NO	15-18 MO.	√	✓		Temporary	NO	\$50,000	\$7.4M
Alternative 3 - Replace Superstructure, Rehabilitate Substructure using Staged Construction	YES	1 Lane Alternating (Stages 1 and 2)	YES	YES	NO	YES	20-27 MO.	✓	✓		Temporary	NO	\$50,000	\$8.6M
Alternative 4 - Replace Superstructure, Rehabilitate Substructure using Detour	YES	Detour	NO	NO	NO	NO	15-18 MO.	✓	✓		Temporary	NO	\$50,000	\$7.5M
Alternative 5 - Bridge Replacement, Staged Construction Maintaining 1 Lane	YES	1 Lane Alternating (Stages 1 and 2)	YES	YES	NO	YES	18-24 MO.	*	✓		Temporary	NO	\$50,000	\$9.7M
Alternative 6 - Bridge Replacement, Staged Construction Maintaining 2 Lanes ²	YES	1 Lane Alt. (Stage 1) 2 Lanes (Stage 2)	YES	YES	NO	YES	20-27 MO.	✓	✓	✓	Temporary and Permanent	YES	\$75,000	\$13.7M
Alternative 7 - Bridge Replacement, Off-Line Construction	YES	2 Lanes	YES	YES	YES	YES	18-24 MO.	√	✓	✓	Permanent and Permanent	YES	\$100,000	\$13.1M
Alternative 8- Bridge Replacement, Detour	YES	Detour	NO	NO	NO	NO	12-15 MO.	✓	✓		Temporary	NO	\$50,000	\$8.5M

NOTES:

- 1. County continues to incur regular maintenance costs. Bridge deterioration continues.
- ${\bf 2.} \ {\bf Alternating} \ {\bf traffic} \ {\bf is} \ {\bf only} \ {\bf required} \ {\bf in} \ {\bf the} \ {\bf first} \ {\bf construction} \ {\bf stage}.$

Recommended Preliminary Preferred Alternative (PPA)

PERMITS LEGEND:

FWW : NJDEP Freshwater Wetlands.

FHA: NJDEP Flood Hazard Area.

SESC : Somerset-Union Soil Conservation District certification.

SWM : NJDEP Stormwater Management compliance

 ${\bf Mitigation: Mitigation\ required\ for\ Wetlands\ and/or\ Riparian\ Zone\ impacts.}$

NOTE:
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