

Alternatives Matrix

Ocean County Route 539 at Joint Base McGuire-Dix-Lakehurst - Concept Development

	Alternative 1	Recommended Alternative Alternative 2	Alternative 3	Alternative 4
Description of Alternative	No-Build	CR 539 over JBMDL Roadway	JBMDL Roadway over CR 539	CR 539 Signalized Intersection with ECS Driveway
Major Risks (Threats or Opportunities)	None	- Temporary construction access is required from JBMDL (local base approval) - Utility relocations may require permanent ROW impacts beyond the CR 539 ROW	ROW acquisition may require Federal approval from Washington, D.C. which may delay the project beyond the funding deadline requirements.	- Temporary construction access is required from JBMDL (local base approval) - May not be supported by the Townships due to perceived traffic delay on CR 539 - Does not meet P&N - Does not improve travel durations or reduce delay during JBMDL operations.
Access Impacts and Waivers	None	None	None	- requires modification to the existing ECS driveway and the creation of a new driveway/roadway directly across from the existing ECS driveway.
Complete Streets Policy Compliance	Compliant	Compliant	Compliant	Compliant
Constructability	None	- Requires construction of a temporary diversion roadway - Traffic maintained at all times - 1 Stage Construction	- Largely off-line construction. - Traffic maintained at all times except during short stoppages for steel erection or similar overhead work. - 1 Stage Construction	- Largely off-line construction. - Traffic maintained at all times. - 1 Stage Construction
Design Exceptions	- Substandard shoulder width (2'-4') - Substandard profile grade (<0.3%)	None	- Substandard profile grade (<0.3%)	- Substandard shoulder width (2'-4') - Substandard profile grade (<0.3%)
Anticipated Environmental Document	None	- Categorical Exclusion Document		
Community Impacts (Environmental Justice)	None	- No Environmental Justice Impacts. - Minor traffic impacts during construction		
Design Criteria	None	- Rural Major Collector		
Roadway Profile Impacts	None	3% Max. Profile Grade on CR 539 profile	- Match existing CR 539 profile. - 3% Max. Profile Grade on JBMDL Roadway	Match existing profile.
Safety Improvement	None	- Shoulder width - Profile Grade - Grade Separate Crossing Traffic	- Shoulder width - Grade Separate Crossing Traffic	- Signalize Crossing Traffic
Structures	None	Proposed 40' wide single span bridge with a 56'-6" span length	Proposed 30' wide single span bridge with a 66'-2" span length	None
Typical Sections	None	CR 539 NB - 12' lane, 8' shoulder CR 539 SB -12' lane, 8' shoulder JBMDL Roadway no improvements	* CR 539 NB - 12' lane, 8' shoulder * CR 539 SB -12' lane, 8' shoulder JBMDL Roadway two 15' lanes * Bridge span length accommodated future widening	Four (4) 12' min. lanes at the intersection. One through lane in each direction, one right turn only and one left turn only aux. lane in each direction.
Additional Traffic Analysis (if needed)	None	Not anticipated	Not anticipated	Additional traffic signal analysis anticipated.
Estimated Construction Cost	None	\$13.8M	\$15.2M	\$1.4M +/-
Limit of Disturbance	None	10 Acres +/- Total (7.3 Acres +/- Perm. & 2.7 Acres +/- Temp. Diversionary Road)	6.2 Acres +/-	1.3 Acres +/-

Alternatives Matrix

Ocean County Route 539 at Joint Base McGuire-Dix-Lakehurst - Concept Development

		Recommended Alternative			
		Alternative 1	Alternative 2	Alternative 3	Alternative 4
Environmental Constraints and Mitigation Costs	None	- NJ Pinelands Commission Pinelands Comprehensive Management Plan Compliance - Freshwater Wetlands Permit pending PE wetland delineation			
		- Utilizes majority of the existing ROW extent; - Impacts the second largest area of natural/potentially sensitive areas. However, when factoring for potential future development, it likely would impact the least of the three alternatives considered. - Much of the impacts to potentially sensitive resources are considered temporary (i.e., during construction)	- Required ROW expansion along the narrow dirt roadway; - Would likely result in the largest impact to natural areas/potentially sensitive Resources	- Requires the least amount of impact to natural areas/potentially sensitive resources; - Proposed improvement likely requires future development by the base to be considered fully functional; - Future development likely requires construction of a new/non-existing base roadway. When factoring for potential future development, this alternative likely would result in the largest level of impact to natural/sensitive areas	
Estimated ROW (# of acquisitions, total acres)	None	4.7 Acres +/- Temporary Construction Easement	6.0 Acres +/- Proposed ROW Acquisition	0.6 Acres+/- Temporary Construction Easement	
Design Standards (NJDOT Standard Specifications, AASHTO)	None	- NJDOT Standard Specifications 2019 - NJDOT Roadway Design Manual			
Signal Warrants for Proposed Signals	None	None	None	Requires Signal Warrant Analysis	
Traffic Management Alternatives	None	- Requires construction of a temporary diversion roadway - Traffic maintained at all times - 1 Stage Construction	- Largely off-line construction. - Traffic maintained at all times except during short stoppages for steel erection or similar overhead work. - 1 Stage Construction	- Largely off-line construction. - Traffic maintained at all times. - 1 Stage Construction	
Utilities Relocation and Associated Costs	None	The following utilities will require relocation throughout the project limits along CR 539 at no expense to Ocean County: <u>Aerial Utilities</u> - Verizon - Comcast - JCP&L <u>Underground Utilities</u> - NJ Natural Gas - This alternative has utility easements present along both sides of the ROW (i.e., east and west) and will likely require the largest level of utility relocation/protection.	The following utilities will require protection. If relocation is required at the structure, that will be identified and coordinated with the utility during PE. <u>Aerial Utilities</u> - Verizon - Comcast - JCP&L <u>Underground Utilities</u> - NJ Natural Gas - This alternative crosses utility easement and requires a moderate level of utility relocation/protection	The following utilities will require protection. If relocation is required at the signalized intersection, that will be identified and coordinated with the utility during PE. <u>Aerial Utilities</u> - Verizon - Comcast - JCP&L <u>Underground Utilities</u> - NJ Natural Gas - Requires the least amount of utility relocation/protection	