

Alternatives Comparison Matrix

Screening Criteria	Alt 1B	Alt 4B	Alt 4C	Alt 4D	Alt 4E	Alt 8A	Alt 8B	Alt 9A	Alt 9B	VE
IMPROVE RAIL SERVICE RELIABILITY AND SAFETY										
Eliminates operational disruptions/ delays	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Connects to NS wye and provides grades acceptable for freight operations	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Number of bridge structures	2	2	2	1	1	2	1	2	2	2
IMPROVE OPERATIONAL FLEXIBILITY AND ACCOMMODATE REDUCED TRIP TIMES										
Reduces operational conflicts	Excellent	Excellent	Excellent	Fair	Fair	Excellent	Fair	Excellent	Excellent	Excellent
Eliminates or reduces speed restrictions for intercity trains	Eliminates	Eliminates	Eliminates	Eliminates	Eliminates	Reduces	Reduces	Eliminates	Eliminates	Eliminates
Provides flexibility for operational and maintenance work windows	Very Good	Very Good	Very Good	Good	Good	Very Good	Good	Good	Good	Good
OPTIMIZE EXISTING AND PLANNED INFRASTRUCTURE										
Eliminates two-track section in this portion of NEC*	Excellent 4 Tracks	Excellent 4 Tracks	Excellent 4 Tracks	Good 3 Tracks	Good 3 Tracks	Excellent 4 Tracks	Good 3 Tracks	Excellent 4 Tracks	Excellent 4 Tracks	Excellent 4 Tracks
Does not preclude future high-speed rail (NEC Future)*	140 mph Good	160 mph Excellent	135 mph Good	160 mph Excellent	135mph Good	120 mph Fair	120 mph Fair	160 mph Excellent	150 mph Very Good	140 mph Good
Impacts to Perry Substation	Major	Major	Major	Major	Major	Major	Major	Moderate	Moderate	Major
Allows shared corridor with bike/ped path**	Does not preclude	Does not preclude	Does not preclude	Does not preclude	Does not preclude	Does not preclude	Does not preclude	Does not preclude	Does not preclude	Does not preclude
MAINTAIN ADEQUATE NAVIGATION AND IMPROVE SAFETY ALONG THE SUSQUEHANNA RIVER										
Provides suitable vertical clearance	Yes – 60'	Yes – 60'	Yes – 60'	Yes – 60'	Yes – 60'	Yes – 60'	Yes – 60'	Yes – 60'	Yes – 60'	Yes – 60'
Maintains or widens horizontal clearance	Yes- 200'+	Yes- 200'+	Yes- 200'+	Yes- 200'+	Yes-200'+	Yes- 200'+	Yes- 200'+	Yes- 200'+	Yes- 200'+	Yes- 200'+
Requires temporary winter closure of movable span?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
PROPERTY IMPACTS										
Potential property impacts*	1 Commercial (Indirect) 1 Undeveloped (Partial)	1 Residential (Full) 1 Commercial (Full) 1 Commercial (Indirect) 1 Institutional (Partial) 2 Undeveloped (Full) 1 Undeveloped (Partial) 2 Park (Partial)	1 Residential (Full) 1 Commercial (Partial) 2 Undeveloped (Full) 1 Park (Partial)	1 Residential (Full) 1 Commercial (Full) 1 Commercial (Indirect) 1 Institutional (Partial) 2 Undeveloped (Full) 1 Undeveloped (Partial) 2 Park (Partial)	1 Residential (Full) 1 Commercial (Partial) 2 Undeveloped (Full) 1 Park (Partial)	1 Residential (Full) 1 Commercial (Partial) 2 Undeveloped (Full) 1 Park (Partial)	1 Commercial (Partial) 1 Commercial (Partial)	1 Residential (Partial) 1 Commercial (Full) 1 Undeveloped (Partial) 2 Park (Partial)	1 Residential (Partial) 1 Commercial (Partial) 1 Park (Partial)	1 Residential (Partial) 1 Commercial (Partial) 1 Park (Partial) 1 Undeveloped (Partial)
Retained for Further Evaluation?	YES	NO	NO	NO	NO	NO	NO	YES	YES	NO
Elimination Rationale	N/A	High property impacts	Better option available	High property impacts	Better option available	Undesirable Speed	Undesirable Speed	N/A	N/A	Better option available

* Primary differentiator in selecting alternatives retained for detailed study | ** Feasibility evaluation in progress

 most desirable more desirable least desirable

