



# TIER 1 ANALYSIS—ALTERNATIVE SCREENING CRITERIA

## GENERAL NOTES:

The Tier 1 analyzes various project alternatives at various locations. In this Tier 1 analysis, mainline alternatives were compared to similar projects as is the same with interchange projects. Each comparative category is given comparative analysis level. Those levels are defined below. Within those categories may exist several factors taken into consideration. If any one of those factors has a level higher than the others, the highest level will govern that category.

## MAINLINE INTERSTATE ALTERNATIVES

### TRAFFIC OPERATIONS

High: Expected to improve operations at major bottleneck points and throughout the entire project area.  
 Moderate: Expected to improve operations through a portion of the project area.  
 Low: Expected to improve operations in spot locations only.

### SAFETY IMPROVEMENT

Major: Expected to result in significant improvement  
 Moderate: Expected to result in moderate improvement  
 None: Expected to result in no improvement

### RIGHT-OF-WAY

Right of way analysis takes into account several factors including impact to actual acreage, impacts to residential structures, impacts to businesses, and impacts to public buildings which includes churches, libraries, etc.

Impact levels are as follows:

Acreage (acres)	Residences, Businesses, Public Buildings (per occurrence)
Low: 0-10	Low: 0-5 Residential, 0-2 Businesses, 0-2 Public Building
Moderate: 10-25	Moderate: 6-25 Residential, 3-10 Businesses, 3-6 Public Building
High: 25+	High: 26+ Residential, 11+ Businesses, 7+ Public Building

### ENVIROMENTAL/SOCIAL IMPACTS

This analysis takes into account several factors including impact to wetlands, environmental justice communities, 4f properties (i.e. parks), historic properties and visual aesthetics.

Impact levels are as follows:

Wetlands (acres)	EJ Impacts (per)	4f (acres)	Historic Structures (per)	Visual
Low: 0-3	Low: 0-3	Low: 0-3	Low: 0-1	Low: Little to no change
Moderate: 3-10	Moderate: 3-10	Moderate: 3-10	Moderate: 1-3	Moderate: Some change
High: 10+	High: 10+	High: 10+	High: 3+	High: Major change

### COSTS

Low: Under \$250M  
 Moderate: \$250M - \$500M  
 High: \$500M +

## INTERCHANGE ALTERNATIVES

General Notes: Interchange alternatives were developed to a very conceptual nature to be able to qualify the level of various categories. These interchange alternatives will be developed further during Stage 1 if necessary.

### TRAFFIC OPERATIONS

High: Expected to accommodate the heavy demand movement with free flow and/or partially constrained operations.  
 Moderate: Expected to provide adequate operations for some but not all movements.  
 Low: Expected to provide poor operational conditions.

### SAFETY IMPROVEMENT

Major: Expected to result in significant improvement  
 Moderate: Expected to result in moderate improvement  
 None: Expected to result in no improvement

### RIGHT-OF-WAY

Right of way analysis takes into account several factors including impact to actual acreage, impacts to residential structures, impacts to businesses, and impacts to public buildings which includes churches, libraries, etc.

Impact levels are as follows:

Acreage (acres)	Residences, Businesses, Public Buildings (per occurrence)
Low: 0-5	Low: 0-5 Residential, 0-2 Businesses, 0-2 Public Building
Moderate: 5-10	Moderate: 6-10 Residential, 3-6 Businesses, 3-6 Public Building
High: 10+	High: 10+ Residential, 6+ Businesses, 6+ Public Building

### ENVIROMENTAL/SOCIAL IMPACTS

This analysis takes into account several factors including impact to wetlands, environmental justice communities, 4f properties (i.e. parks), historic properties and visual aesthetics.

Impact levels are as follows:

Wetlands (acres)	EJ Impacts (per)	4f (acres)	Historic Structures (per)	Visual
Low: 0-3	Low: 0-3	Low: 0-2	Low: 0-1	Low: Little to no change
Moderate: 3-10	Moderate: 3-6	Moderate: 2-5	Moderate: 1-3	Moderate: Some change
High: 10+	High: 6+	High: 5+	High: 3+	High: Major change

### COSTS

Low: Under \$30M  
 Moderate: \$30M - \$60M  
 High: \$60M +