



APPENDIX A

Preliminary Design Criteria

Preliminary Project Design Criteria

Project Name: Seward Highway Dowling Interchange, Mainline

<input checked="" type="checkbox"/> New Construction/Reconstruction	<input type="checkbox"/> 3R	<input type="checkbox"/> PM	<input type="checkbox"/>
Project Funding:	National Highway System		
Functional Classification:	Interstate, Urban Principal Arterial Freeway		
Terrain:	Rolling		
Level-of-Service	C" desirable, "D" minimum		
Design Year:	2040		
Present ADT: (Year 2018)	N/A		
Design Year ADT: (Year 2040)	N/A		
DHV (XX%): (Year 2040)	N/A		
Trucks (%):	N/A		
Design Vehicle:	WB-109D		
Design Speed:	70 mph		
Minimum Stopping Sight Distance:	730 Feet		
Minimum Passing Sight Distance:	N/A		
Maximum Allowable Grade:	4%		
Minimum Allowable Grade:	0.5%		
Minimum Allowable Radius:	2050 Feet		
Minimum K-Value for Vertical Curves:	Sag	Crest	
	181	2197 Design, 247 min	
Number of Roadways:	6-lane two-way divided		
Width of Traveled Way:	12 Feet		
Width of Shoulders:	Outside	Inside	
	10 Feet	10 Feet	
Surface Treatment:	T/W:	Shoulders	
	Asphalt Concrete	Asphalt Concrete	
Side Slope Ratios:	Foreslopes:	Backslopes	
	6:1 to 4:1 at hinge point	2:1 max, 3:1 or flatter preferred	
Degree of Access Control:	Full		
Median Treatment:	46 feet min depressed or barrier		
Illumination:	Continuous, low level & high masts		
Curb Usage and Type:	N/A		
Bicycle and Pedestrian Provisions:	Provided on frontage roads and cross streets, including grade separations at cross streets. Prohibited on mainline.		
Vertical Clearance:	17 feet, mainline over		

Proposed By:	Date:
Recommended By:	Date:
Accepted By:	Date:

Preliminary Project Design Criteria

Project Name: Seward Highway Dowling Interchange, Diagonal Ramps

<input checked="" type="checkbox"/> New Construction/Reconstruction	<input type="checkbox"/> 3R	<input type="checkbox"/> PM	<input type="checkbox"/>
Project Funding:	National Highway System		
Functional Classification:	Interstate, Urban Principal Arterial Freeway		
Ramp Type:	Parallel Entrance, Taper Exit		
Terrain:	Rolling		
Level-of-Service	C" desirable, "D" minimum		
Design Year:	2040		
Present ADT: (Year 2018)	N/A		
Design Year ADT: (Year 2040)	N/A		
DHV (XX%): (Year 2040)	N/A		
Trucks (%):	N/A		
Design Vehicle:	WB-67		
Design Speed:	60 mph		
Minimum Stopping Sight Distance:	425 Feet		
Maximum Allowable Grade:	5%		
Minimum Allowable Grade:	0.5% or 0.3% with curb and gutter		
Minimum Allowable Radius:	835 Feet		
Minimum K-Value for Vertical Curves:	Sag	Crest	
	96	84	
Number of Roadways:	1-lane one-way, 2-lane one-way		
Width of Traveled Way:	12 Feet		
Width of Shoulders:	Outside	Inside	
	8 Feet	4 Feet	
Surface Treatment:	T/W:	Shoulders	
	Asphalt Concrete	Asphalt Concrete	
Side Slope Ratios:	Foreslopes:	Backslopes	
	6:1 to 4:1 at hinge point	2:1 max, 3:1 or flatter preferred	
Degree of Access Control:	Full		
Illumination:	Continuous		
Curb Usage and Type:	N/A		
Bicycle and Pedestrian Provisions:	None, provided on frontage roads		

Proposed By:	Date:
Recommended By:	Date:
Accepted By:	Date:

Preliminary Project Design Criteria

Project Name: Seward Highway Dowling Interchange, State Owned Frontage Roads

<input checked="" type="checkbox"/> New Construction/Reconstruction	<input type="checkbox"/> 3R	<input type="checkbox"/> PM	<input type="checkbox"/>
Project Funding:	National Highway System		
Functional Classification:	Urban Arterial		
Terrain:	Rolling		
Level-of-Service	C" desirable, "D" minimum		
Design Year:	2040		
Present ADT: (Year 2018)	N/A		
Design Year ADT: (Year 2040)	N/A		
DHV (XX%): (Year 2040)	N/A		
Trucks (%):	N/A		
Design Vehicle:	WB-67		
Design Speed:	45 mph		
Minimum Stopping Sight Distance:	360 Feet		
Minimum Passing Sight Distance:	N/A		
Maximum Allowable Grade:	7%		
Minimum Allowable Grade:	0.5% or 0.3% with curb and gutter		
Minimum Allowable Radius:	660 Feet		
Minimum K-Value for Vertical Curves:	Sag	Crest	
	79	943 design, 61 min	
Number of Roadways:	2-lane one-way, 1-lane one-way		
Width of Traveled Way:	12 Feet		
Width of Shoulders/Shy:	2 feet min; 4 feet where provided for bicycles [see bicycle provisions below]		
Surface Treatment:	T/W:	Shoulders	
	Asphalt Concrete	Asphalt Concrete	
Side Slope Ratios:	Foreslopes:	Backslopes	
	4:1, 2:1 behind curb	2:1	
Degree of Access Control:	PCM Driveway Manual [no driveways within 100 feet of all gores]		
Median Treatment:	Raised		
Illumination:	Underpass and intersection		
Curb Usage and Type:	Mountable outside, Expressway median		
Bicycle Provisions:	4 foot shoulder or 10 foot pathway		
Pedestrian Provisions:	6 foot sidewalk or 10 foot pathway		
Vertical Clearance:	16.5 feet, cross street under		

Proposed By: _____	Date: _____
Recommended By: _____	Date: _____
Accepted By: _____	Date: _____

Preliminary Project Design Criteria

Project Name: Seward Highway Dowling Interchange, State Owned Cross Streets

<input checked="" type="checkbox"/> New Construction/Reconstruction	<input type="checkbox"/> 3R	<input type="checkbox"/> PM	<input type="checkbox"/>
Project Funding:	National Highway System		
Functional Classification:	Urban Arterial		
Terrain:	Rolling		
Level-of-Service	C" desirable, "D" minimum		
Design Year:	2040		
Present ADT: (Year 2018)	N/A		
Design Year ADT: (Year 2040)	N/A		
DHV (XX%): (Year 2040)	N/A		
Trucks (%):	N/A		
Design Vehicle:	WB-67		
Design Speed:	45 mph		
Minimum Stopping Sight Distance:	360 Feet		
Minimum Passing Sight Distance:	1625 feet		
Maximum Allowable Grade:	7%		
Minimum Allowable Grade:	0.5% or 0.3% with curb and gutter		
Minimum Allowable Radius:	660 Feet		
Minimum K-Value for Vertical Curves:	Sag	Crest	
	79	943 design, 61 min	
Number of Roadways:	2-lane one-way		
Width of Traveled Way:	12 Feet, 11 feet min		
Width of Shoulders/Shy:	2 Feet		
Surface Treatment:	T/W:	Shoulders	
	Asphalt Concrete	Asphalt Concrete	
Side Slope Ratios:	Foreslopes:	Backslopes	
	4:1, 2:1 behind curb	2:1	
Degree of Access Control:	PCM Driveway Manual		
Median Treatment:	Raised		
Illumination:	Underpass and intersection		
Curb Usage and Type:	Mountable outside, Expressway median		
Bicycle Provisions:	4 foot shoulder or 10 foot pathway		
Pedestrian Provisions:	6 foot sidewalk		
Vertical Clearance:	16.5 feet, cross street under		

Proposed By: _____ Date: _____

Recommended By: _____ Date: _____

Accepted By: _____ Date: _____