APPENDIX A

PROJECT DESIGN CRITERIA

APPENDIX A Project Design Criteria

Roadway Evaluation Criteria		
Design Element	Criterion	Reference
Classification	Class I Collector	OSHP
Existing Traffic Volumes	N/A	
Projected Traffic Volumes Minnesota to C Street C Street To King Street	 Year 2023- 7,910 Year 2023- 8,820	 Estimated Estimated
Pavement Width	42 feet	DCM 1.3 B
Design Speed	45 mph	DCM 1.6 B
Street Grade	Min 0.4% (Curb & Gutter) Max 10.0% Max Desirable 6.0% Match crowns of secondary streets to edge of pavement of primary streets.	DCM 1.6 D
Min. Curb Return Grade	0.50%	DCM 1.6 D
Cross Slopes	2.0%	DCM 1.6 D
Stopping Sight Distance (45 mph)	400 feet	DCM 1.6 D
Cut and Fill Slopes	2:1 Maximum	DCM 1.6 D
Vertical Curve	I.A.W. Figures 1-21 & 1-22	DCM 1.6 D
Min. Horizontal Curve Radius	600 feet	DCM 1.6 E
Intersection Visibility Triangle	50 feet x 60 feet along traveled way	DCM 1.6 E
Curb and Gutter	Type 1 – Stand up	DCM 1.6 F
Curb Cut Distance from Intersection	50 feet	DCM 1.6 F
Curb Return Radii	30 feet 40 feet for arterial crossing	DCM 1.6 F
Storm Water Velocity	Min – 2 FPS	DCM 2.7 B
Min. Water Velocity	0.3%	DCM 2.7 B
Max. Storm Drain Manhole Spacing	200 feet	DCM 2.7 D
Min. Storm Drain Cover	4 feet	DCM 2.7 J
Min. Illumination	1.2 foot-candles (average)	DCM 5.040 B
Illumination Uniformity Ratio	3:1 maximum	DCM 5.040 C

Pathway Evaluation Criteria		
Design Element	Criterion	Reference
Classification	Shared-Use Pathway	DCM 4.1 B
Min. Trail Design Speed	20 MPH	DCM 4.2 B.1
Min. Horizontal Curve	100-ft	DCM 4.2 B.2
Min. Stopping Sight Distance	125-ft	DCM 4.2 C
Max. Design Grade	5%	DCM 4.2 E
Cross Slope	2%	DCM 4.2 F
Horizontal Clearance	2-ft	DCM 4.2 G
Vertical Clearance	10-ft	DCM 4.2 G
Min. Road Separation	7-ft	DCM 4.2 H
Min. Trail Width	8-ft	DCM 4.2 I
Min. Shoulder Width	2-ft	DCM 4.2 I

Standards

Design criteria for the project is included in the following references. They are listed in the order of precedence.

DCM — Design Criteria Manual, Municipality of Anchorage, Department of Public Works, 1988.

MASS — Municipality of Anchorage Standard Specification, Municipality of Anchorage, Department of Public Works, 1994

AMC — Anchorage Municipal Code, Title 21, Land Use Planning Municipality of Anchorage, current revisions.

DOT&PF — Standard Specifications for Highway Construction, State of Alaska, Department of Transportation and Public Facilities.

DOT&PF — Highway Pre-construction Manual, State of Alaska, Department of Transportation and Public Facilities, Latest Edition

PMM — Project Management Manual, Municipality of Anchorage, 1987.

AASHTO — A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials, 1990.

AASHTO Highway Drainage Guidelines, American Association of State Highway and Transportation Officials, 1987.

AASHTO Roadside Design Guide, American Association of State Highway and Transportation Officials, 1989.

AASHTO Model Drainage Manual, American Association of State Highway and Transportation Officials, 1991.

ASSHTO Guide for the Development of Bicycle Facilities, American Association of State Highway and Transportation Officials, 1999.

DOT&PF Alaska Traffic Manual, State of Alaska, Department of Transportation and Public Facilities, 1982 as revised.

DOT&PF Alaska Sign Design Specifications, State of Alaska, Department of Transportation and Public Facilities, Current Edition

TRB Highway Capacity Manual, 2000

ITE rip Generation Manual, 6th Edition, 1997