

APPENDICES

APPENDIX A

DESIGN CRITERIA

Roadway Evaluation Criteria		
Design Element	Criterion	Reference
Functional Classification	Minor Arterial Class II FC-16 Minor Arterial	OS&HP CR Traffic Vol. Rpt
Design Year	2028	Design Designation
Current Year ADT (2004)	Multiple Segments	Design Designation
Mid-Period ADT (2018)	Multiple Segments	Design Designation
Design Year ADT (2028)	Multiple Segments	Design Designation
Design Hourly Volume (DHV)	Multiple Segments	Design Designation
Directional Split	To be determined	Design Designation
Trucks (%T)	To be determined	Design Designation
Equivalent Axle Loading	To be determined	Design Designation
Road Structural Fill Design	2028	DCM 1.10
Pavement Design Year	2028	PCM p.1180-1
Design Vehicle	WB-50 City-Bus (right-turn)	DCM 6.4 B
Design Speed	45 MPH (level)	DCM p.1-54
Stopping Sight Distance Passing Sight Distance	380 FT N/A	DCM p. 1-54
Maximum Grade Minimum Grade	10% (6% Desirable) 0.5%	DCM 1.9 D.2 b DCM 1.9 D.2 a
Minimum Radius of Curve	510 FT	DCM 1.9 E.2
Min. Curb Return Grade	0.50%	DCM 1.9 D p.1-46
Pavement Cross Slope	2 %	DCM 1.9 D.3 p.1-46
Vertical Curves	Algebraic Difference > 1%	DCM 1.9 D.4
Minimum K-Value	Crest: 44 Sag: 64	DCM p. 1-47 DCM p. 1-48
Max. Superelevation	0.06 ft/ft	DCM 1.9 E.2

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 Lounsbury & Associates, Inc. Project Manager

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Roadway Evaluation Criteria		
Design Element	Criterion	Reference
Number of Lanes	3	Design Designation
Lane Width	11 FT (Through Lanes) 14 FT (CTWLTL)	DCM p. 1-20
Width of Outside Shoulders	N/A	
Clear Zone Width	1.5 FT beyond Face of Curb	DCM 1.9 E.5
Surfacing, Lanes & Shoulders	Asphalt Concrete	
Median Treatment	CTWLTL ; Raised Median at Key Intersections	
Vertical Clear Zone at Intersection	2.0 ft to 8 ft	DCM 1.9 E.3
Horizontal Sight Triangle	445 ft from Decision Point	DCM p. 1-53
Curb & Gutter	Barrier/Mountable	DCM 1.9 F.1
Intersection Return Radii	40-Ft	DCM 1.9 F.2
Min. Median Width	2-Ft Back of Curb to Back of Curb	DCM 6.4 F
Sidewalk Width	5.0-ft	DCM 1.5 G
Min. Left-Turn Lane Length	150-ft	DCM 6.4 C
Max Left-Turn Lane Length	400-ft	DCM 6.4 C
Taper Ratio	Speed:1	DCM 6.4 D
Auxiliary Lane Taper	8:1 to 15:1	PGDHS p 715
Illumination	To be determined	
Signals	Existing/ add'l to be determined	

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Pathway Evaluation Criteria		
Design Element	Criterion	Reference
Functional Classification	Multi-Use	Areawide Trails Plan
Min. Trail Design Speed	20 MPH	AASHTO p. 36
Min. Horizontal Curve	100-ft	AASHTO p. 38
Stopping Sight Distance	125-ft	Areawide Trails Plan
Max Design Grade	5%	DCM 4.2 E
Cross Slope	2.0%	DCM 4.2 F
Roadway Separation	7-ft	Areawide Trails Plan
Horizontal Clearance	2.0-ft	DCM 4.2 G
Vertical Clearance	10.0-ft	DCM 4.2 G
Pathway Paved Width	8.0 ft to 10 ft	DCM 4.2 I
Shoulder Width	1.0-ft Paved or 2.0 ft Paved (with vertical obstruction)	DCM 4.2 G

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Drainage Evaluation Criteria		
Design Element	Criterion	Reference
Rainfall Intensity Info.	Ted Stevens Int'l Airport	DCM 2.5 B.1
Runoff Analysis Method	Illudas	DCM 2.5 C
Min. Storm Drain Pipe Diameter	12 in	DCM 2.7 B.2
Min. Catch Basin Lead Dia.	10 in (MOA projects)	DCM 2.7 B.3
Min. Pipe Slope	0.30%	DCM 2.7 B.4
Min. Pipe Flow Velocity	2-ft/sec	DCM 2.7 B.9
Max. Pipe Flow Velocity	13 ft/sec	DCM 2.7 B.9
Min. Culvert Diameter	18 in (Driveway Culvert) 24 in (Cross Culvert)	DCM 2.7 C.1 PCM p 1120-8
Min. Depth of Cover Over Culvert	12-in	DCM 2.7 C.2
Max. Manhole Spacing	300-ft	DCM 2.7 D.2
Min. Drop Across Manhole	0.05-ft	DCM 2.7 D.4
Min. Subdrain Diameter	To be determined	DCM 2.7 E.3
Max Subdrain Cleanout Spacing	150-ft	DCM 2.7 F.2
Min. Subdrain Cleanout Diameter	12-in	DCM 2.7 F.3
Min. Depth of Cover Over Storm Drain	4-ft	DCM 2.7 J.1
Design Storm Street Drainage Facilities	10 year - recurrence	DCM 2.8
Max. Inlet Spacing	1,100-ft	DCM 2.8 D.1
Min. Grade for Valley Gutter	0.4%	DCM 2.8 E.2

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