⇩ Project Type															Bridges[11]				Intersections			Barriers		
Design Elements ⇨	Horiz. Align.	Vert. Align.	Lane Width	Shldr Width	Lane Tran- sition	Median Width	Cross Slope Lane	Cross Slope Shldr	Fill/ Ditch Slopes	Access[3]	Clear Zone [18]	Sign, Del., Illumin.	Basic Safety	Bike & Ped.	Lane Width	Shldr Width	Vertical Clear.	Structural Capacity	Turn Radii	Angle	I/S Sight Dist.	Term. & Trans. Section [12]	Std Run	Bridge Rail[19]
Preservation																								
Roadway																								
(5-1) HMA/PCCP												B	B	M			F				B	F	B	F
(5-2) BST																								
(5-3) BST Routes/Basic Safety												B	B								B	F	B	F
(5-4) Replace HMA with PCCP at I/S			EU/M	EU/M		DE/M	EU/M					B	B	M			F					F	B	F
Structures																								
(5-5) Bridge Replacement	M	F	M	M	F		M	M	M		F	F		F	F[(2)]	F[(2)]	F	F	M	M	F	F	F	F
(5-6) Bridge Repl. (Multilane)	F[(2)]	F[(2)]	F[(2)]	F[(2)]	F	F[(2)]	F[(2)]	F[(2)]	F[(2)]		F	F		F	F[(2)]	F[(2)]	F	F	F[(2)]	F[(2)]	F	F	F	F
(5-7) Bridge Deck Rehab												B	B	M								F[(6)]	F[(22)]	F
Improvements[16]																								
Mobility																								
(5-8) Urban (Multilane)	F[(2)]	F[(2)]	F[(2)]	F[(2)]	F	F[(2)]	F[(2)]	F[(2)]	F[(2)]	F	F	F		F	F[(2)]	F[(2)]	F	F	EU/F	EU/F	F	F	F	F
(5-9) Urban	M	M	M	M	F		M	M	M	F	F	F		F	M	M	F	F	EU/M	EU/M	F	F	F	F
(5-10) Rural	M	M	M	M	F	M	M	M	M	F	F	F		F	M	M	F	F	EU/M	EU/M	F	F	F	F
(5-11) HOV	M	M	M	M	F	M	M	M	M	F	F	F		F	M	M	F	F	EU/M	EU/M	F	F	F	F
(5-12) Bike/Ped. Connectivity	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)		F	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)
Safety																								
(5-13) Non-Interstate Freeway	F[(2)]	F[(2)]	F[(2)]	F[(2)]	F[(2)]	F[(2)]	F[(2)]	F[(2)]	F[(2)]	F	F	F		F	F[(2)]	F[(2)]	F		F[(2)]	F[(2)]	F	F	F	F
(5-14) Intersection[(1)]			M[(4)]	M[(4)]	F				M[(4)]	F	F	F		M					M[(4)]	M[(4)]	F	F	F	F
(5-15) Corridor[(1)]	M[(4)]	M[(4)]	M[(4)]	M[(4)]	F	M[(4)]	M[(4)]	M[(4)]	M[(4)]	F	F	F		M	M[(4)]	M[(4)]	F		M[(4)]	M[(4)]	F	F	F	F
(5-16) Median Barrier				DE/F																		F[(20)]	F[(20)]	
(5-17) Guardrail Upgrades				DE/F																		F	F[(23)]	
(5-18) Bridge Rail Upgrades																						F	F[(22)]	F
(5-19) Risk: Roadside									M[(4)]	EU/F	F	F										F	F	F
(5-20) Risk: Sight Distance	F/M[(21)]	F/M[(21)]	F/M[(21)]	F/M[(21)]					F/M[(21)]	F[(21)]	F[(21)]	F		F	F[(21)]	F[(21)]	F[(21)]		F/M[(21)]	F/M[(21)]	F[(21)]	F	F	F
(5-21) Risk: Roadway Width			F/M[(21)]	F/M[(21)]	F	F/M[(21)]	F/M[(21)]	F/M[(21)]	F/M[(21)]	F	F	F		F	F[(21)]	F[(21)]	F[(21)]		F/M[(21)]	F/M[(21)]	F[(21)]	F	F	F
(5-22) Risk: Realignment	F/M	F/M	F/M	F/M	F	F/M	F[(2)]	F[(2)]	F/M	F	F	F		F	F[(21)]	F[(21)]	F[(21)]		F/M[(21)]	F/M[(21)]	F[(21)]	F	F	F
Economic Development																								
(5-23) Freight & Goods (Frost Free)[(8)]	EU/M	EU/M	EU/M	EU/M	EU/F	EU/M	M	M	EU/M		F	B	B	EU/F[(26)]	DE/M	DE/M	F		EU/M	EU/M	EU/F	F	B	F
(5-24) Rest Areas (New)	F	F	F	F	F	F	F	F	F	F	F	F		F	F	F			F	F	F	F	F	F
(5-25) Bridge Restrictions	M	F	M	M	F	M	M	M	M		F	F		EU/F[(26)]	M	M	F	F	M	M	F	F	F	F
(5-26) Bike Routes (Shldrs)			EU/M	(7)	EU/F			EU/M	EU/M			B	B	F	EU/M	EU/M					B	F	B	EU/F

Design Matrix 5:
Main Line Non-NHS Routes
Figure 325-7

- ☐ Not Applicable
- **F** Full design level. See Chapter 440.
- **M** Modified design level. See Chapter 430.
- **B** Basic design level. See Chapter 410.
- **F/M** Full for freeways/Modified for nonfreeway
- **DE** Design Exception
- **EU** Evaluate Upgrade

(1) Collision Reduction, or Collision Prevention (At Grade Removal, Signalization & Channelization). Specific deficiencies that created the project must be upgraded to design level as stated in the matrix.

(2) Modified design level may apply based on a corridor or project analysis. See 325.03(5).

(3) If designated as L/A acquired in the Access Control Tracking System, limited access requirements apply. If not, managed access applies. See 325.03(5).

(4) Full design level may apply based on a corridor or project analysis. See 325.03(5).

(5) For bike/pedestrian design see Chapters 1020 and 1025.

(6) Applies only to bridge end terminals and transition sections.

(7) 4 ft minimum shoulders.

(8) If all weather structure can be achieved with spot digouts and overlay, modified design level applies to NHS highways and basic design level applies to non-NHS highways.

(11) See Chapter 1120.

(12) Impact attenuators are considered as terminals.

(16) For design elements not in the matrix headings, apply full design level as found in the applicable chapters and see 325.03(2).

(18) On managed access highways within the limits of incorporated cities and towns, City and County Design Standards apply to areas outside the curb or outside the paved shoulder where no curb exists.

(19) The funding sources for bridge rail are a function of the length of the bridge. Consult programming personnel.

(20) Applies to median elements only.

(21) Analyses required. See 325.03(5) for details.

(22) Upgrade barrier, if necessary, within 200 ft of the end of the bridge.

(23) See description of Guardrail Upgrades Project Type, 325.03(1) regarding length of need.

(26) Sidewalk ramps must be addressed for ADA compliance. See Chapter 1025.

Design Matrix 5:
Main Line Non-NHS Routes
Figure 325-7 (continued)