

Roadway and Overhead Structure Types	Pier Location	Pier to ETL Offset	Pier Protection Type	Collision Wall Required
TLTW w/Single Overhead Structure	Both Sides	$\leq 16$ ft	Guardrail w/ GP Trans.	Frame Bent Only
		$> 16$ ft	Shoulder Guardrail	No
TLTW /Twin Overhead Structures	Both Sides	$\leq 16$ ft	Guardrail w/ GP Trans.	Frame Bent & Pier Gap
		$> 16$ ft	Shoulder Guardrail	No
MLD w/Single or Tandem Overhead Structures	Right Side	$\leq 16$ ft	Guardrail w/ GP Trans.	Frame Bent Only
		$> 16$ ft	Shoulder Guardrail	No
MLD w/Twin Overhead Structures	Right Side	$\leq 16$ ft	Guardrail w/ GP Trans.	Frame Bent & Pier Gap
		$> 16$ ft	Shoulder Guardrail	No
MLD w/Single Overhead Structures	Median	25 ft	MP Attenuator	Frame Bent Only
		$< 25$ ft	R2 Attenuator	Frame Bent Only
MLD w/Twin Overhead Structures	Median	$\geq 25$ ft	MP Attenuator	Frame Bent & Pier Gap
		$< 25$ ft	R2 Attenuator	Frame Bent & Pier Gap
MLD w/Tandem Overhead Structure	Median Side	$\leq 16$ ft	Guardrail w/ GP Trans.	Frame Bent Only
		$> 16$ ft	Shoulder Guardrail	No

Note: TLTW = Two-Lane, Two-Way Roadway; MLD = Multi-Lane Divided; ETL = Edge of Travel Lane; Pier = Pier or Frame Bent; MP = Median Pier Attenuator; R2 = Redirective on 2 Sides Attenuator; GP = Guardrail to Bridge Pier Transitions; Shoulder guardrail should only be used when all clearance requirements are met; otherwise, guardrail with GP Transition should be used.

## PIER PROTECTION GUARDRAIL REQUIREMENTS

Figure 49-3M