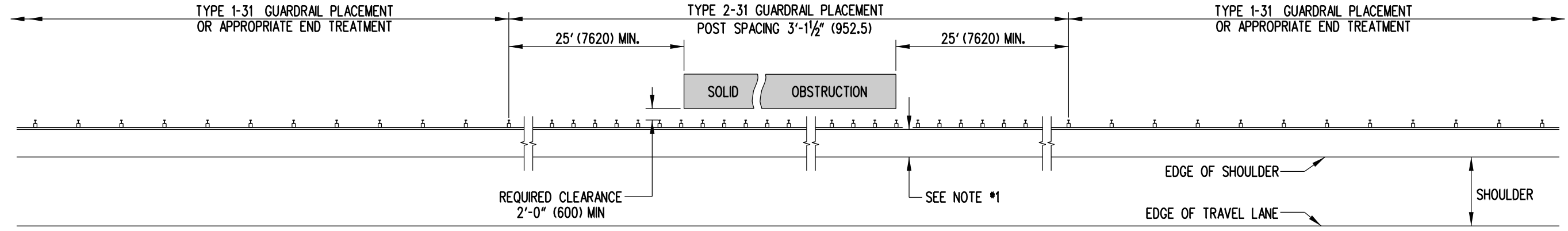
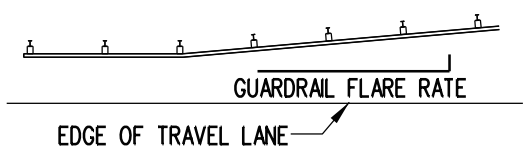


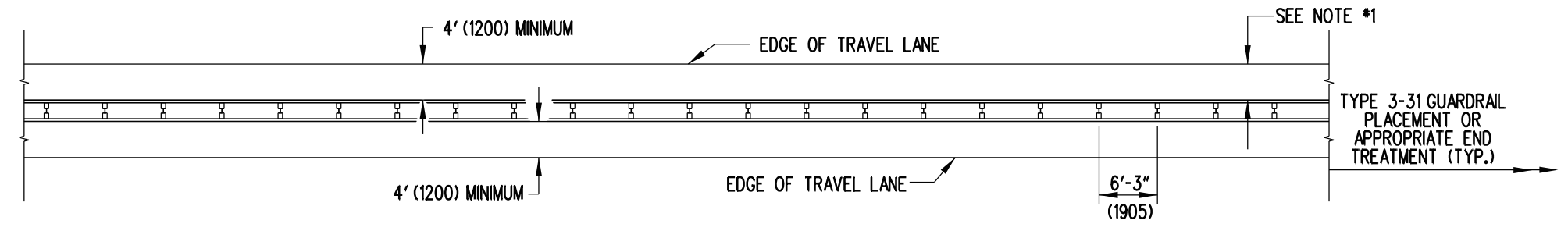
**TYPE 1-31 GUARDRAIL**  
TYPICAL GUARDRAIL TREATMENT  
WHEN THE REQUIRED 3'-0" (900) CLEARANCE TO OBSTRUCTION IS AVAILABLE



**TYPE 2-31 GUARDRAIL**  
TYPICAL GUARDRAIL TREATMENT  
WHEN 2'-0" (600) TO 3'-0" (900) OF CLEARANCE TO OBSTRUCTION IS AVAILABLE

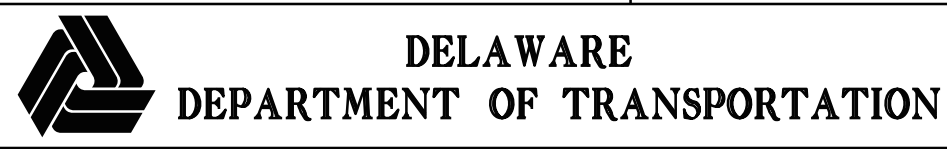


FLARE RATES	
DESIGN SPEED	FLARE RATE
70 MPH (110 km/h)	15:1
60 MPH (100 km/h)	14:1
55 MPH (90 km/h)	12:1
50 MPH (80 km/h)	11:1
45 MPH (70 km/h)	10:1
40 MPH (60 km/h)	9:1
30 MPH (50 km/h)	7:1



**TYPE 3-31 GUARDRAIL**  
TYPICAL MEDIAN GUARDRAIL TREATMENT

- NOTES :
- 1). THE DISTANCE FROM THE EDGE OF THE TRAVEL LANE OR SHOULDER TO THE FACE OF GUARDRAIL SHOULD BE MAXIMIZED. THIS AREA SHALL BE GRADED 10:1 OR FLATTER.
  - 2). PLACE GUARDRAIL DELINEATORS AT THE INTERVALS SPECIFIED IN THE DELAWARE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.



**TYPES 1-31, 2-31, AND 3-31 GUARDRAIL APPLICATIONS**

STANDARD NO. **B-1 (2010)** SHT. **1** OF **3**

**APPROVED** SIGNATURE ON FILE \_\_\_\_\_ 12/28/2010  
CHIEF ENGINEER DATE

**RECOMMENDED** SIGNATURE ON FILE \_\_\_\_\_ 12/27/2010  
DESIGN ENGINEER DATE