

**APPENDIX D. DETAILED ERROR NUMBER DESCRIPTION AND
ASSIGNED POTENTIAL SEVERITY**

Table 27. Detailed error number description and assigned potential severity.
1 mi/h = 1.61 km/h

Braking	Potential Severity Value
# 01 Braking for pedestrian or bicyclist Safe longitudinal deceleration maintained	≈ 25 mi/h = catastrophic - 4 ≈ 35 mi/h = catastrophic - 4 ≈ 45 mi/h = catastrophic - 4
# 02 Braking for pedestrian or bicyclist Exceed safe longitudinal deceleration	≈ 25 mi/h = catastrophic - 4 ≈ 35 mi/h = catastrophic - 4 ≈ 45 mi/h = catastrophic - 4
# 03 Inattention to traffic control device indicating stop - Traffic Light Late or heavy brake to a stop Safe longitudinal deceleration maintained	≈ 25 mi/h = critical - 3 ≈ 35 mi/h = critical - 3 ≈ 45 mi/h = catastrophic - 4
# 04 Inattention to traffic control device indicating stop Traffic Light Late or heavy brake to a stop Exceed safe longitudinal deceleration	≈ 25 mi/h = critical - 3 = 35 mi/h = critical - 3 = 45 mi/h = catastrophic - 4
# 05 Inattention to traffic control device Indicating stop - 2-way stop Late or heavy brake to a stop Safe longitudinal deceleration maintained	≈ 25 mi/h = critical - 3 = 35 mi/h = critical - 3 = 45 mi/h = catastrophic - 4
# 06 Inattention to traffic control device indicating stop 2-way stop Late or heavy brake to a stop Exceed safe longitudinal deceleration	≈ 25 mi/h = critical - 3 ≈ 35 mi/h = critical - 3 = 45 mi/h = catastrophic - 4
# 07 Inattention to traffic control device indicating stop - 4-way stop Late or heavy brake to a stop Safe longitudinal deceleration maintained	≈ 25 mi/h = marginal - 2 ≈ 35 mi/h = marginal - 2 ≈ 45 mi/h = critical - 3
# 08 Inattention to traffic control device indicating stop 4-way stop Late or heavy brake to a stop Exceed safe longitudinal deceleration	≈ 25 mi/h = marginal - 2 ≈ 35 mi/h = marginal - 2 ≈ 45 mi/h = critical - 3
# 09 Inattention to traffic control device indicating stop - Late or heavy brake for yellow light Safe longitudinal deceleration maintained	≈ 25 mi/h = minor - 1 ≈ 35 mi/h = minor - 1 ≈ 45 mi/h = marginal - 2
# 10 Inattention to traffic control device indicating stop Late or heavy brake for yellow light Exceed safe longitudinal deceleration	≈ 25 mi/h = minor - 1 = 35 mi/h = minor - 1 = 45 mi/h = marginal - 2

Table 27. Detailed error number description and assigned potential severity (continued).
1 mi/h = 1.61 km/h

Braking	Potential Severity Value
#11 Inattention of need to yield for traffic - Late or heavy brake to a stop Safe longitudinal deceleration maintained	=25mi/h=marginal-2 =35mi/h=critical-3 =45mi/h=critical-3
# 12 Inattention of need to yield for traffic - Late or heavy brake to a stop Exceed safe longitudinal deceleration	=25mi/h=marginal-2 =35mi/h=critical-3 =45mi/h=critical-3
# 13 Inattention of need to yield for traffic - Late or heavy brake to a slower speed Safe longitudinal deceleration maintained	=25mi/h=marginal-2 =35mi/h=critical-3 =45mi/h=critical-3
# 14 Inattention of need to yield for traffic - Late or heavy brake to a slower speed Exceed safe longitudinal deceleration	=25mi/h=marginal-2 =35mi/h=critical-3 =45mi/h=critical-3
# 15 Inattention to stopped or slow traffic - Late or heavy brake to a stop Safe longitudinal deceleration maintained Initial safe following distance	=25mi/h=critical-3 =35mi/h=critical-3 = 45 mi/h = catastrophic - 4 = 55 mi/h = catastrophic - 4
# 16 Inattention to stopped or slow traffic - Late or heavy brake to a stop Safe longitudinal deceleration maintained Initial close following distance	=25mi/h=critical-3 =35mi/h=critical-3 = 45 mi/h = catastrophic - 4 = 55 mi/h = catastrophic - 4
# 17 Inattention to stopped or slow traffic - Late or heavy brake to a stop Safe longitudinal deceleration maintained Initial dangerously close following distance	=25mi/h=critical-3 =35mi/h=critical-3 = 45 mi/h = catastrophic - 4 = 55 mi/h = catastrophic - 4
# 18 Inattention to stopped or slow traffic - Late or heavy brake to a stop Exceed safe longitudinal deceleration Initial safe following distance	=25mi/h=critical-3 = 35 mi/h = critical - 3 = 45 mi/h = catastrophic - 4 = 55 mi/h = catastrophic - 4
# 19 Inattention to stopped or slow traffic - Late or heavy brake to a stop Exceed safe longitudinal deceleration Initial close following distance	=25mi/h=critical-3 = 35 mi/h = critical - 3 = 45 mi/h = catastrophic - 4 = 55 mi/h = catastrophic - 4
#20 Inattention to stopped or slow traffic - Late or heavy brake to a stop Exceed safe longitudinal deceleration Initial dangerously close following distance	= 25 mi/h = critical - 3 =35mi/h=critical-3 = 45 mi/h = catastrophic - 4 = 55 mi/h = catastrophic - 4

Table 27. Detailed error number description and potential severity (continued).
 1 mi/h = 1.61 Km/h100

Braking	Potential Severity Value
# 21 Inattention to stopped or slow traffic - Late or heavy brake to a slower speed Safe longitudinal deceleration maintained Initial safe following distance	≈ 25 mi/h = marginal - 2 ≈ 35 mi/h = marginal - 2 ≈ 45 mi/h = critical - 3 ≈ 55 mi/h = critical - 3
# 22 Inattention to stopped or slow traffic - Late or heavy brake to a slower speed Safe longitudinal deceleration maintained Initial close following distance	≈ 25 mi/h = marginal - 2 =35mi/h=marginal-2 =45mi/h=critical-3 =55mi/h=critical-3
# 23 Inattention to stopped or slow traffic - Late or heavy brake to a slower speed Safe longitudinal deceleration maintained Initial dangerously close following distance	≈ 25 mi/h = marginal - 2 ≈ 35 mi/h = marginal - 2 ≈ 45 mi/h = critical - 3 ≈ 55 mi/h = critical - 3
# 24 Inattention to stopped or slow traffic - Late or heavy brake to a slower speed Exceed safe longitudinal deceleration Initial safe following distance	≈ 25 mi/h = marginal - 2 ≈ 35 mi/h = marginal - 2 ≈ 45 mi/h = critical - 3 =55mi/h=critical-3
# 25 Inattention to stopped or slow traffic - Late or heavy brake to a slower speed Exceed safe longitudinal deceleration Initial close following distance	≈ 25 mi/h = marginal - 2 ≈ 35 mi/h = marginal - 2 ≈ 45 mi/h = critical - 3 ≈ 55 mi/h = critical - 3
# 26 Inattention to stopped or slow traffic - Late or heavy brake to a slower speed Exceed safe longitudinal deceleration Initial dangerously close following distance	≈ 25 mi/h = marginal - 2 =35mi/h=marginal-2 =45mi/h=critical-3 = 55 mi/h = critical - 3
# 27 Heavy braking only Just longitudinal deceleration exceeded Initial safe following distance	≈ 25 mi/h = marginal - 2 ≈ 35 mi/h = marginal - 2 ≈ 45 mi/h = critical - 3 ≈ 55 mi/h = critical - 3
# 31 No braking - but unsafe headway Initial close following distance	≈ 25 mi/h = marginal - 2 ≈ 35 mi/h = marginal - 2 ≈ 45 mi/h = critical - 3 ≈ 55 mi/h = critical - 3
# 32 No braking - but unsafe headway Initial dangerously close following distance	≈ 25 mi/h = marginal - 2 ≈ 35 mi/h = marginal - 2 ≈ 45 mi/h = critical - 3 ≈ 55 mi/h = critical - 3

Table 27. Detailed error number description and assigned potential severity (continued).
 1 mi/h= 1.61 km/h

<u>Glance Time Over 2.5 s</u>	<u>Potential Severity Value</u>
# 33 Occurs in corner Hazard Present	=25mi/h=critical-3 =35mi/h=critical-3 = 45 mi/h = catastrophic - 4 = 55 mi/h = catastrophic - 4
# 34 Occurs in corner No hazard present	Considered Non-Safety-related Event
# 35 Occurs in or before intersection Hazard present	< 20 mi/h = marginal - 2 =25mi/h=critical-3 =35mi/h=critical-3 = 45 mi/h = catastrophic - 4
#36 Occurs in or before intersection No hazard present	Considered Non-Safety-related Event
#37 Occurs in straight roadway Hazard present	=25mi/h=critical-3 =35mi/h=critical-3 = 45 mi/h = catastrophic - 4 = 55 mi/h = catastrophic - 4
#38 Occurs in straight roadway No hazard present	Considered Non-Safety-related Event

<u>Merging or Lane Change Errors</u>	<u>Potential Severity Value</u>
#48 Enter of exit freeway ramp from main street Inappropriate gap acceptance	=25mi/h=marginal-2 =35mi/h=marginal-2
#49 Enter of exit freeway ramp from main street Difficulty finding gap	=25mi/h=marginal-2 =35mi/h=marginal-2
#50 Enter of exit freeway ramp from main street Incorrect or illegal lane change	=25mi/h=marginal-2 =35mi/h=marginal-2
#51 Enter or exit freeway Inappropriate gap acceptance	= 25 mi/h = catastrophic - 4 =35mi/h=critical-3 =45mi/h=critical-3 =55mi/h=critical-3
# 52 Enter or exit freeway Difficulty finding gap	=25mi/h=critical-3 =35mi/h=marginal-2 =45mi/h=marginal-2 =55mi/h=marginal-2
# 53 Enter or exit freeway Incorrect or illegal lane change proceeds exit	= 25 mi/h = catastrophic - 4 =35mi/h=critical-3 =45mi/h=critical-3 =55mi/h=critical-3

Table 27. Detailed error number description and assigned potential severity (continued).
1 mi/h = 1.61 km/h

# 54 Enter or exit freeway Slow merge	= 25 mi/h = catastrophic - 4 =35mi/h=critical-3 =45mi/h=critical-3 =55mi/h=critical-3
#55 Enter or exit freeway Late Merge	= 25 mi/h = catastrophic - 4 =35mi/h=critical-3 =45mi/h=critical-3 =55mi/h=critical-3
#56 Freeway lane change Inappropriate gap acceptance	= 25 mi/h = catastrophic - 4 =35mi/h=critical-3 =45mi/h=critical-3 =55mi/h=critical-3
#57 Freeway lane change Difficulty finding gap	=25mi/h=critical-3 =35mi/h=marginal-2 =45mi/h=marginal-2 =55mi/h=marginal-2
#58 Freeway lane change Incorrect or illegal lane change	= 25 mi/h = catastrophic - 4 = 35 mi/h = critical - 3 =45mi/h=critical-3 =55mi/h=critical-3
#59 Multilane lane change Inappropriate gap acceptance	=25mi/h=marginal-2 =35mi/h=marginal-2 = 45 mi/h = marginal - 2
#60 Multilane lane change Difficulty finding gap	=25mi/h=minor- 1 =35mi/h=minor- 1 =45mi/h=minor- 1

Merging or Lane Change Errors	Potential Severity Value
#61 Multilane lane change Incorrect or illegal lane change	= 25 mi/h = marginal - 2 =35mi/h=marginal-2 =45mi/h=marginal-2

Speed	Potential Severity Value
#62 Too slow less than 10 mi/h under limit Due to indecision	minor - 1
#63 Too slow 10 to 20 mi/h under limit Due to indecision	marginal - 2
#64 Too slow Greater than 20 mi/h under limit Due to indecision	critical - 3

Table 27. Detailed error number description and assigned potential severity (continued).
1 mi/h = 1.61 km/h

#66 Too fast 10 mi/h over limit	marginal - 2
#67 Too fast 10 to 20 mi/h over limit	critical - 3
# 68 Too fast Greater than 20 mi/h over limit	catastrophic - 4
# 33 Glance time > 2.5 s results in extreme slow speed Occurs in comer Hazard present	Extreme Slow = critical - 3
# 34 Glance time > 2.5 s results in extreme slow speed Occurs in comer No hazard present - but extreme slow speed results	Extreme Slow = critical - 3
# 35 Glance time > 2.5 s results in extreme slow speed Occurs in or before intersection Hazard present	Extreme Slow = critical - 3
#36 Glance time > 2.5 s results in extreme slow speed Occurs in or before intersection No hazard present - but extreme slow speed results	Extreme Slow = critical - 3
# 37 Glance time > 2.5 s results in extreme slow speed Occurs in straight roadway Hazard present	Extreme Slow = critical - 3
# 38 Glance time > 2.5 s results in extreme slow speed Occurs in straight roadway No hazard present - but extreme slow speed results	Extreme Slow = critical - 3

<u>Corners / Turn Errors - All Others</u>	<u>Potential Severity Value</u>
# 69 Late turn initiation- safe lateral acceleration maintained Hazard present	=25mi/h=marginal-2 =35mi/h=critical-3 =45mi/h=critical-3 = 55 mi/h = catastrophic - 4
#70 Late turn initiation- safe lateral acceleration maintained No hazard present	Considered non - safety- related event
#71 Inappropriate speed - exceed safe lateral acceleration Hazard present	=25mi/h=marginal-2 =35mi/h=critical-3 =45mi/h=critical-3 = 55 mi/h = catastrophic - 4

Table 27. Detailed error number description and assigned potential severity (continued).
1 mi/h = 1.61 km/h

#72 Inappropriate speed - exceed safe lateral acceleration No hazard present	Considered non - safety-related event
# 83 Inappropriate turning track - Illegal U-turn Safe lateral acceleration maintained Hazard present	Road Speed: = 25 mi/h = marginal - 2 = 35 mi/h = critical - 3 =45mi/h=critical-3
# 84 Inappropriate turning track - Illegal U-turn Safe lateral acceleration maintained No hazard present	Road Speed: =25mi/h=marginal-2 =35mi/h=critical-3 =45mi/h=critical-3
# 85 Inappropriate turning track - Illegal U-turn Exceed safe lateral acceleration Hazard present	Road Speed: =25mi/h=marginal-2 =35mi/h=critical-3 =45mi/h=critical-3
# 86 Inappropriate turning track - Illegal U-turn Exceed safe lateral acceleration No hazard present	Road Speed: = 25 mi/h = marginal - 2 =35mi/h=critical-3 =45mi/h=critical-3
# 87 Unsafe braking in comer - safe longitudinal acceleration exceeded Maintain lane position	=25mi/h=critical-3 =35mi/h=critical-3 = 45 mi/h = catastrophic - 4 = 55 mi/h = catastrophic - 4

<u>Intersections - Missed Control Devices</u>	<u>Potential Severity Value</u>
#91 Failure to yield at uncontrolled intersection	=25mi/h=marginal-2
# 92 4-way stop sign Missed traffic control device	= 25 mi/h = marginal - 2 =35mi/h=critical-3 =45mi/h=critical-3
#93 4-way stop sign Look but roll through stop without fully stopping	= 25 mi/h = marginal - 2 =35mi/h=critical-3 =45mi/h=critical-3
#94 2-way stop sign Missed traffic control device	= 25 mi/h = critical - 3 = 35 mi/h = catastrophic - 4 = 45 mi/h = catastrophic - 4

Table 27. Detailed error number description and assigned potential severity (continued).
1 mi/h = 1.61 km/h

#95 2-way stop sign Look but roll through stop without fully stopping	=25mi/h=critical-3 = 35 mi/h = catastrophic - 4 = 45 mi/h = catastrophic - 4
#96 Traffic light Missed traffic control device	=25mi/h=critical-3 = 35 mi/h = catastrophic - 4 = 45 mi/h = catastrophic - 4
#97 Traffic light Look but roll through stop without fully stopping	=25mi/h=critical-3 = 35 mi/h = catastrophic - 4 = 45 mi/h = catastrophic - 4
#98 Traffic light Run yellow light	=25mi/h=marginal-2 =35mi/h=critical-3 =45mi/h=critical-3

<u>Intersections - Uncontrolled Intersections</u>	<u>Potential Severity Value</u>
#99 Uncontrolled intersections Indecision about turn correctness Unsafe or illegal lane change results	=25mi/h=marginal-2
# 100 Uncontrolled intersections Indecision about turn correctness Slow speed results Traffic present	= 25 mi/h = marginal - 2
# 101 Uncontrolled intersections Indecision about turn correctness Slow speed results No traffic present	=25mi/h=minor- 1
# 102 Uncontrolled intersections Indecision about turn correctness Turn tried then canceled Traffic present	=25mi/h=marginal-2
# 103 Uncontrolled intersections Indecision about turn correctness Turn tried then canceled No traffic present	= 25 mi/h = marginal - 2

Table 27. Detailed error number description and assigned potential severity (continued).
 1mi/h =1.61km/h

# 106 Uncontrolled intersections Illegal turn made or attempted	=25mi/h=marginal-2
# 107 Uncontrolled intersections Inappropriate gap acceptance, pullout, or failure to yield	=25mi/h=marginal-2

<u>Intersections - 4-way Stop Intersections</u>	<u>Potential Severity Value</u>
# 108 4 - way stops Indecision about turn correctness Unsafe or illegal lane change results	=25mi/h=marginal-2 =35mi/h=critical-3
# 109 4 - way stops Indecision about turn correctness Slow speed results Traffic present	=25mi/h=marginal-2 =35mi/h=critical-3
# 110 4 - way stops Indecision about turn correctness Slow speed results No traffic present	=25mi/h=marginal-2 =35mi/h=critical-3
# 111 4 - way stops Indecision about turn correctness Turn tried then canceled Traffic present	=25mi/h=marginal-2 =35 mi/h = critical - 3
# 112 4 - way stops Indecision about turn correctness Turn tried then canceled No traffic present	=25mi/h=marginal-2 =35mi/h=critical-3
# 115 4 - way stops Illegal turn made or attempted	=25mi/h=marginal-2 =35mi/h=critical-3
# 116 4 way stops Inappropriate gap acceptance, pullout, or failure to yield	=25mi/h=marginal-2 =35mi/h=critical-3

Table 27. Detailed error number description and assigned potential severity (continued).
 1 mi/h = 1.61 km/h

<u>Intersections - 2-way Stop Intersections</u>	<u>Potential Severity Value</u>
# 117 2 - way stops Indecision about turn correctness Unsafe or illegal lane change results	=25mi/h=marginal-2 =35mi/h=critical-3 =45mi/h=critical-3
# 118 2 - way stops Indecision about turn correctness Slow speed results Traffic present	= 25 mi/h = marginal - 2 =35mi/h=critical-3 =45mi/h=critical-3
# 119 2 - way stops Indecision about turn correctness Slow speed results No traffic present	=25mi/h=marginal-2 =35mi/h=critical-3 =45mi/h=critical-3
# 120 2 - way stops Indecision about turn correctness Turn tried then canceled Traffic present	= 25 mi/h = marginal - 2 =35mi/h=critical-3 =45mi/h=critical-3
# 121 2 - way stops Indecision about turn correctness Turn tried then canceled No traffic present	= 25 mi/h = marginal - 2 =35mi/h=critical-3 =45mi/h=critical-3
# 124 2 - way stops Illegal turn made or attempted	=25mifh=marginal-2 =35mi/h=critical-3 =45mi/h=critical-3
# 125 2 - way stops Inappropriate gap acceptance, pullout, or failure to yield	= 25 mi/h = marginal - 2 =35mi/h=critical-3 = 45 mi/h = critical - 3