

Rainline Pavement Marking

File: 8190-3-10

Deerfoot Trail

Evaluated on May 29, 2008

2006 application

NBL – Before the 1 Km Anderson Rd Turn-off

Yellow Edge Line



Yellow line looks in good shape with good glass bead retention.

White Skip Line

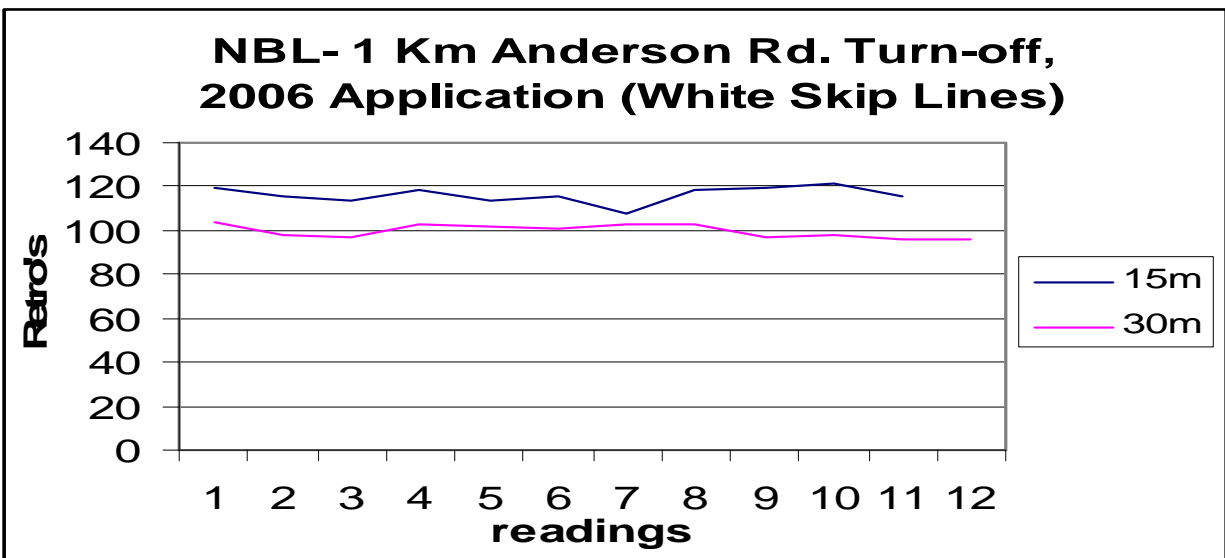
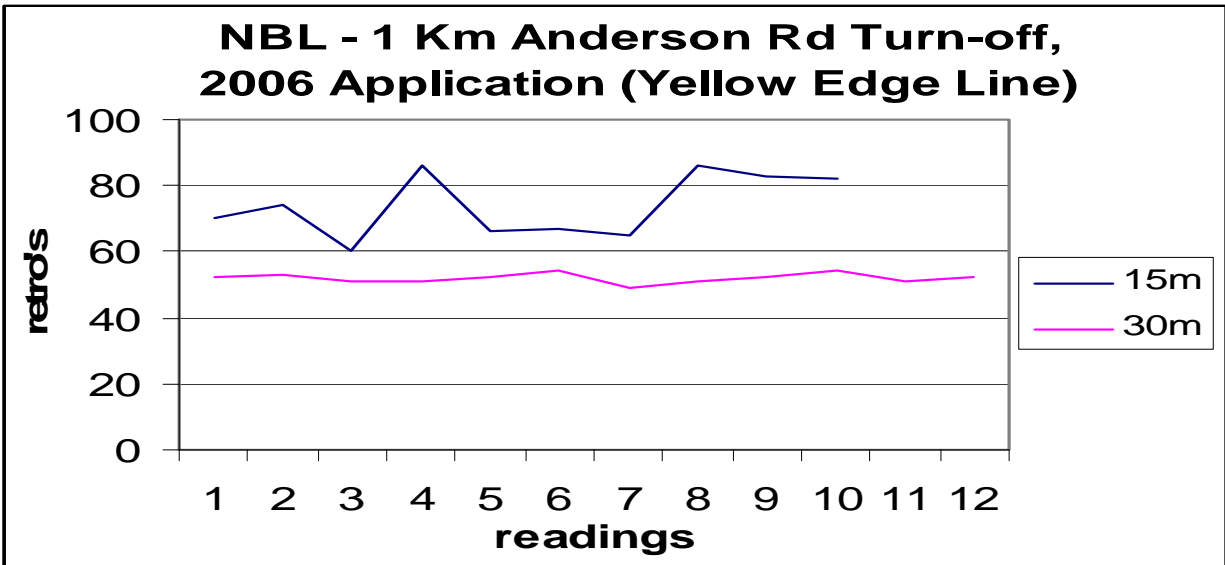


Some failure on skip lines

Retro-reflective readings at NBL 1 Km Anderson Rd. Turn-off:

Yellow edge line average retro-reflectivity - 30m geometry instrument = **52 milicandelas**
15m geometry instrument = **74 milicandelas**

White skip line average retro-reflectivity - 30m geometry instrument = **100 milicandelas**
15m geometry instrument = **116 milicandelas**



2007 application

NBL – Airport Trail East Prior to overpass

Yellow edge line



Yellow edge line looks very good with excellent glass bead retention

White skip line

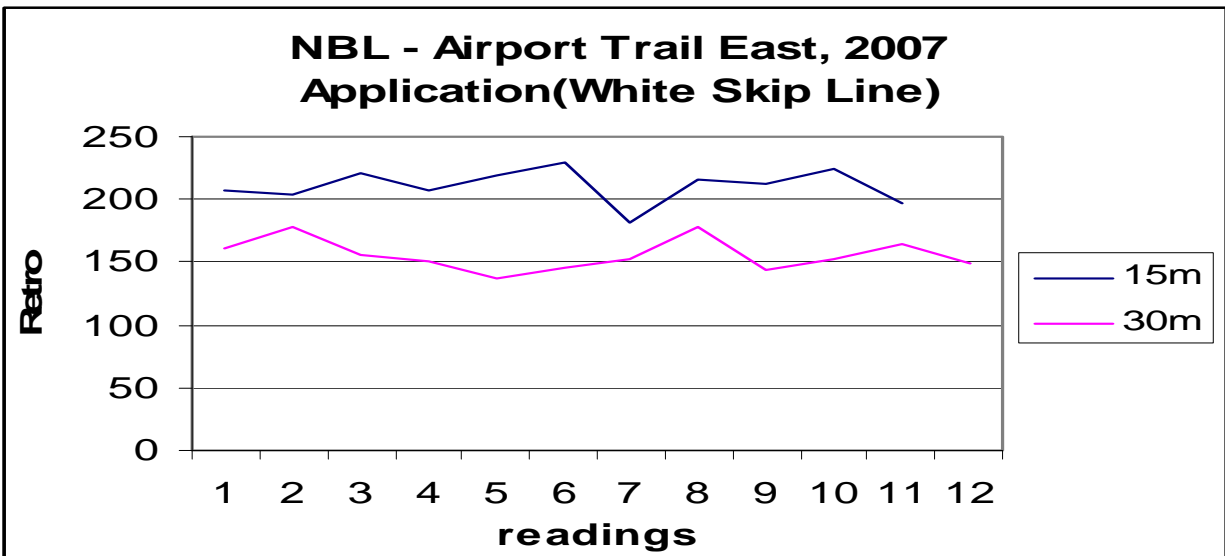
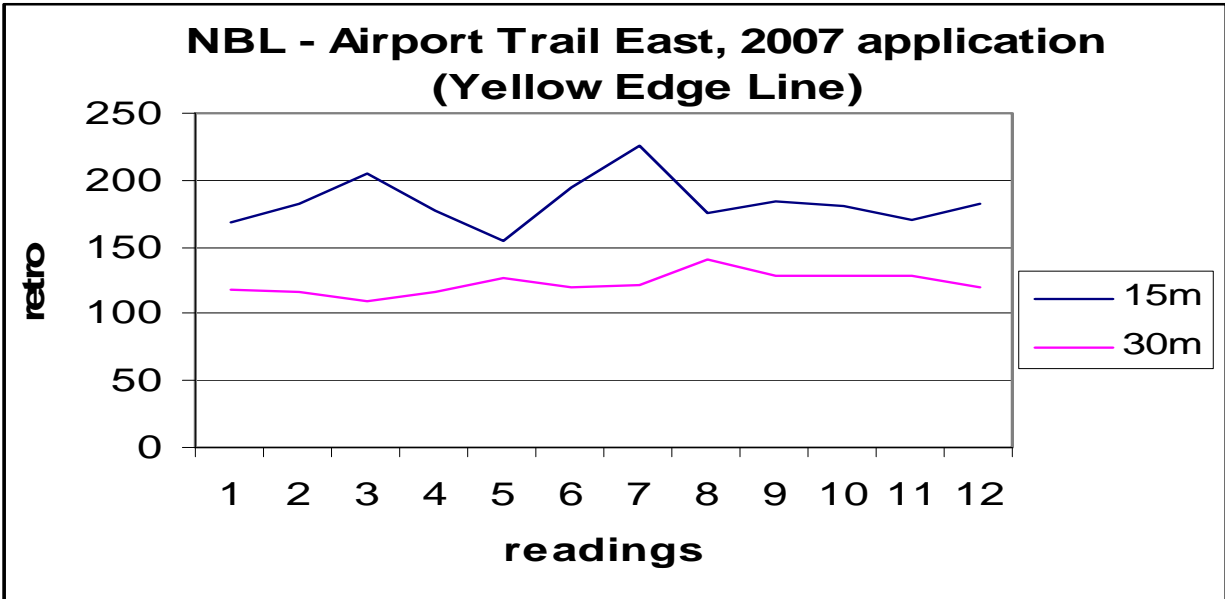


White skip line showing some chipping. Very good glass bead retention.

Retro-reflective readings at Airport Trail East Prior to overpass location:

Yellow edge line average retro-reflectivity - 30m geometry instrument = **123 milicandelas**
15m geometry instrument = **183 milicandelas**

White skip line average retro-reflectivity - 30m geometry instrument = **156 milicandelas**
15m geometry instrument = **211 milicandelas**



The Rainline pavement markings on the Deerfoot Trail look very good after two winters. There are several locations where the Rainline marking has failed or is failing. The reason for the majority of these failures is the condition of the pavement (along a crack) not the marking material itself.

15m and 30m geometry retro-reflectometers were used to take retro-reflective readings on the Rainline pavement marking. Rainline claims that the 15m geometry retro-reflectometer is better suited for profiled markings such as the Rainline product. The 30m geometry instrument does not properly pick up the reflectance of the glass beads in the profiled section of the marking due to its angle. As can be seen on the retro-reflective charts, the 15m geometry instrument readings are higher than the 30m geometry instrument.

The 2006 Rainline pavement marking retro-reflection is considerably lower for both white & yellow lines than the 2007 application (see retro-reflection charts). The reason for this is that the snowplows sheared off many of the glass beads on the flat surface area of the markings, which is due to the marking being set slightly higher than the pavement surface in 2006. It is very important that the Rainline durable marking be placed flush to the pavement surface; this will protect the marking from snowplows. Rainline is aware of this situation and did adjust their operations in 2007 by applying the marking flush to the pavement surface.

The 2006 Rainline application glass bead retention in the profiled section of the markings is holding up very well therefore this marking should continue to perform with adequate retro-reflectivity.

Overall the Rainline markings are looking good and holding up well. Time will tell on their longer term performance on this highly traveled roadway.

I recommend that retro-reflective readings be taken in the spring of 2009 to determine their longer term performance.

Joe Filice

cc: Roger Skirrow
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