

# M8 Junc 5 to 6 Research Project

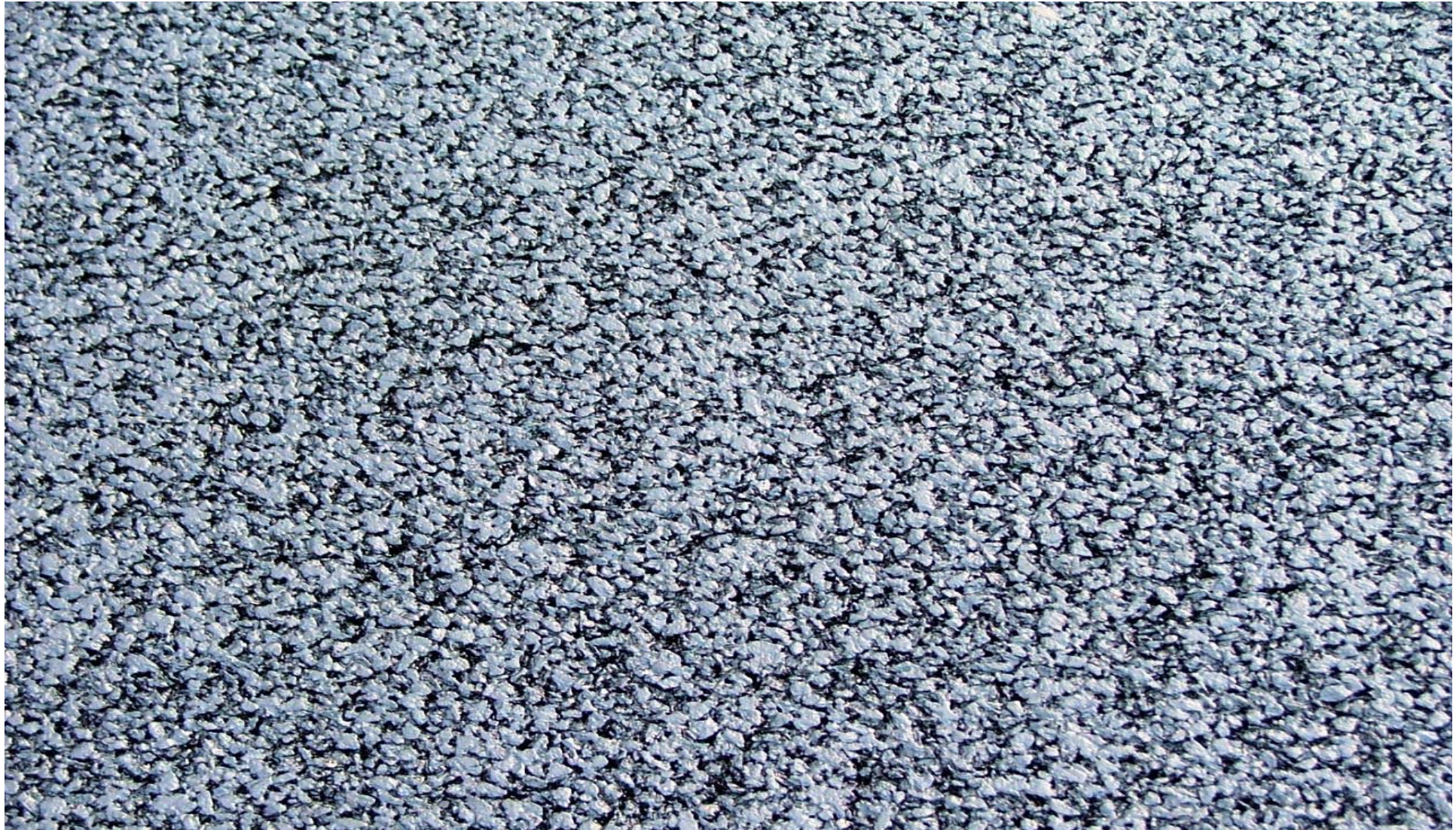


- **Short introduction to the research project**
- **Pre Trial work**
- **Outcomes of Skid resistance measurements**

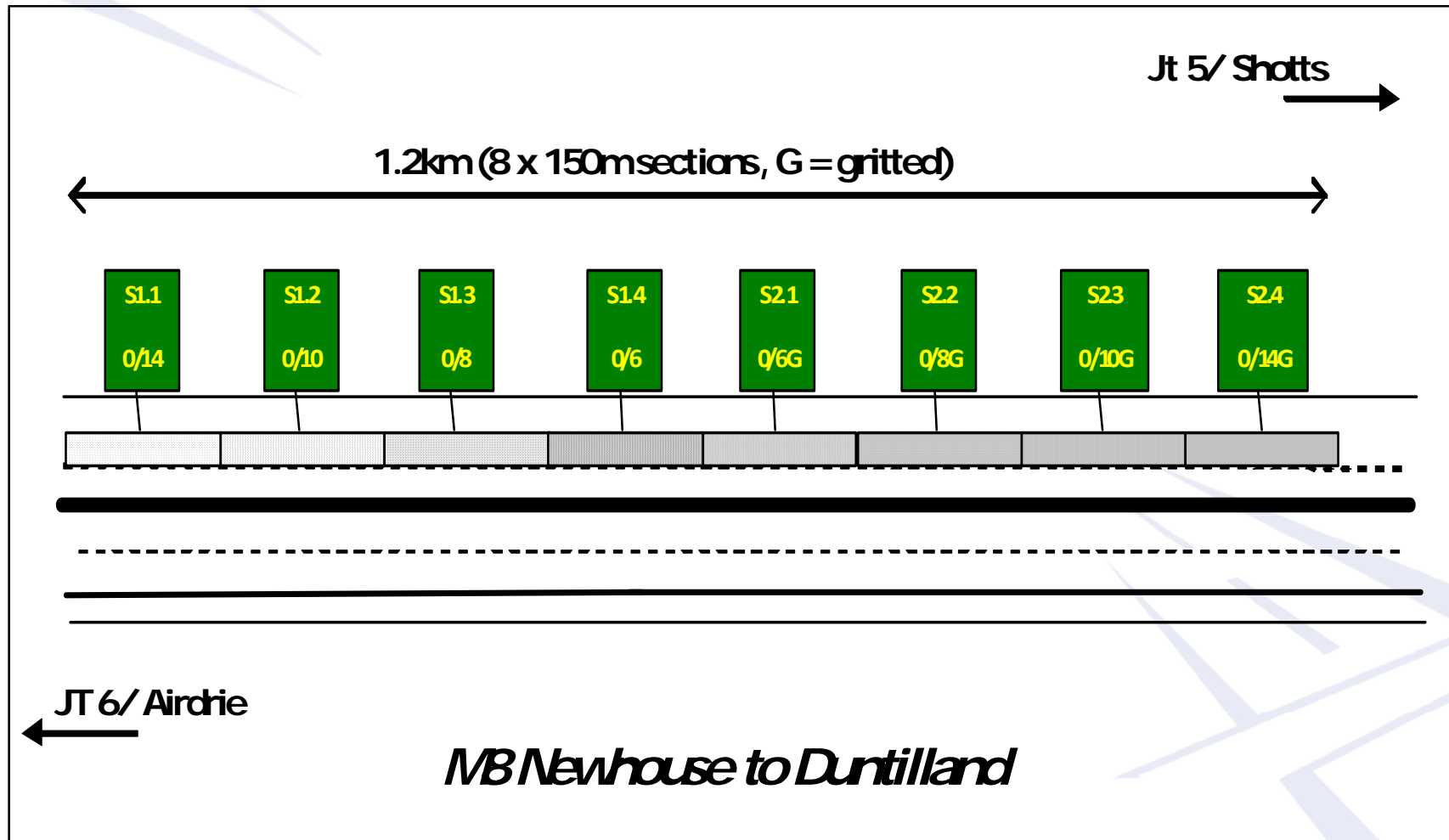
# Pre-Trial



# 10mm SMA



# Trial panels



**Close-up of 0/14mm before (left) and immediately after (right) gritting**



# Application of coated grit



## Gritting

- Followed 2 – 3 initial passes by roller
- 1/2.8 mm grit applied from hopper attached to roller (1.5% binder)
- 1.0 kg/m<sup>2</sup> spread rate
- Initially slow, but consistent method quickly developed
- Surplus grit swept prior to opening road to live traffic.

# M8 trial



Laid 10 – 11 November 2009



## Conditions

- Day 1: 5°C, 9 to 25 km/h (breezy)
- Day 2: 7°C, 10 to 14 km/h
- Good test on weather effects!

## Compaction/laying

- Three 8-10 tonne vibratory tandem rollers
- Vibration used at longitudinal joints
- Rich appearance but no significant signs of flushing during compaction
- No transverse joints



# Summary : manufacture and laying

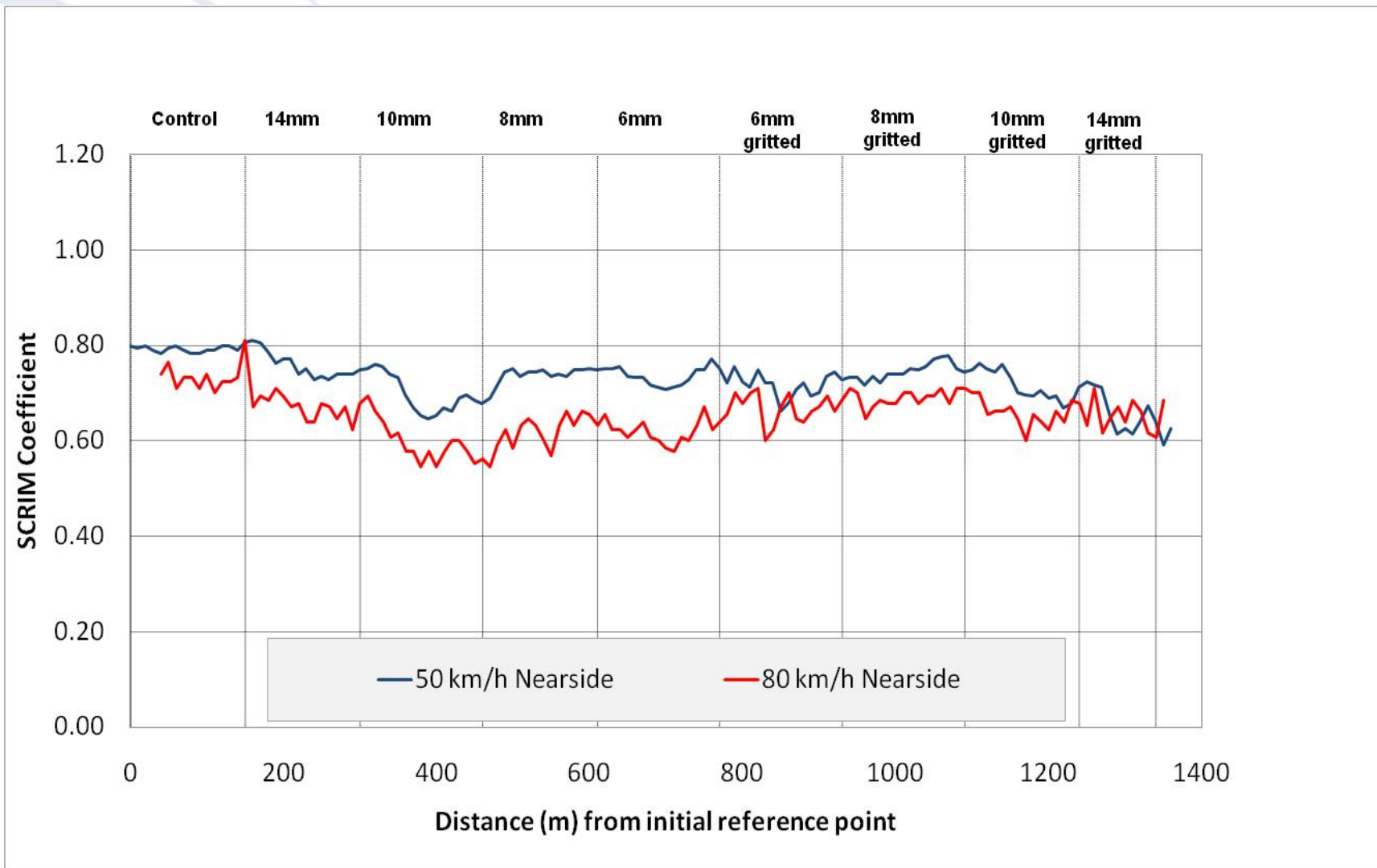


- Different compositions can be successfully manufactured and laid
- Early indications show that the materials provide a good ride quality
- Based on low void contents and higher bitumen contents - potential for improved durability

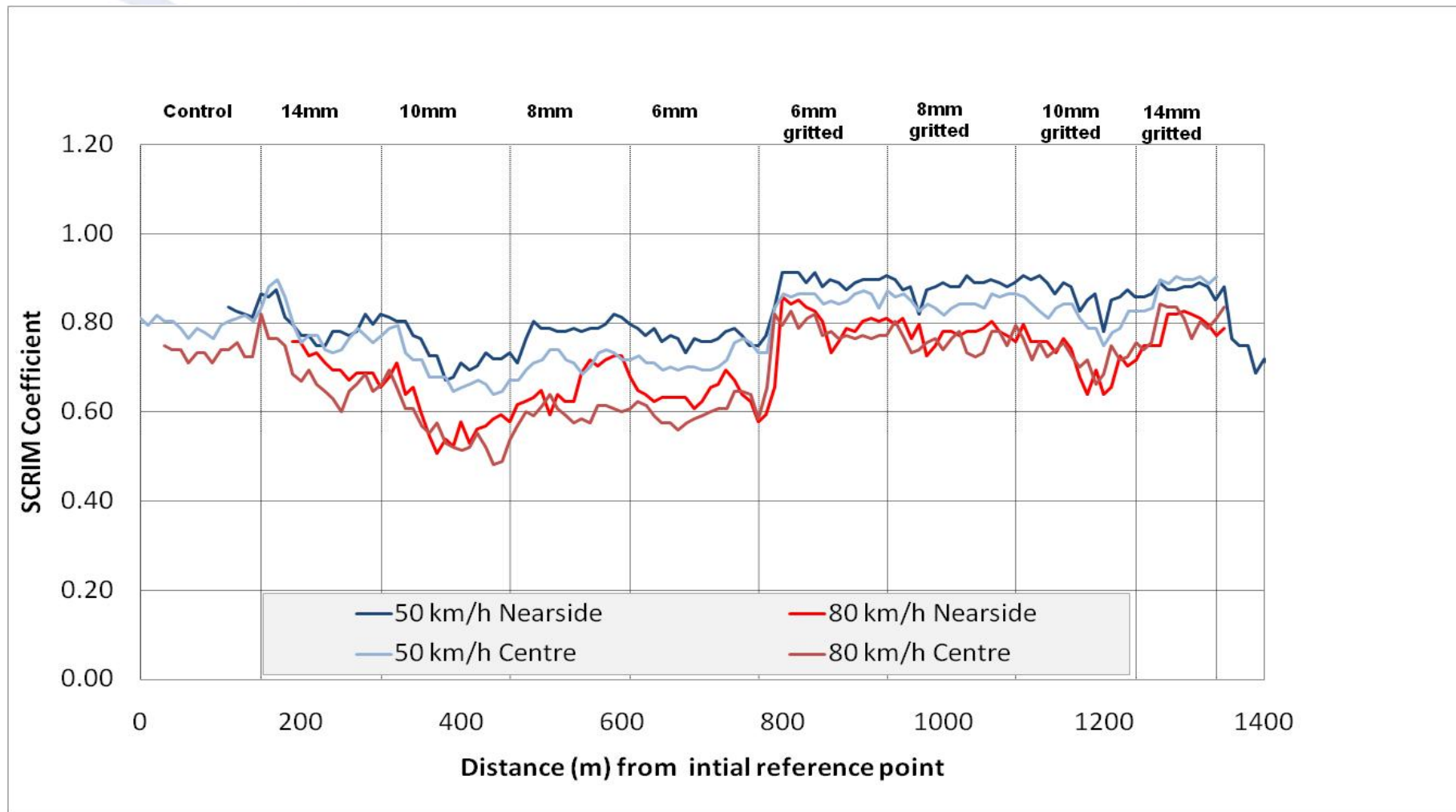


**User Safety Important**

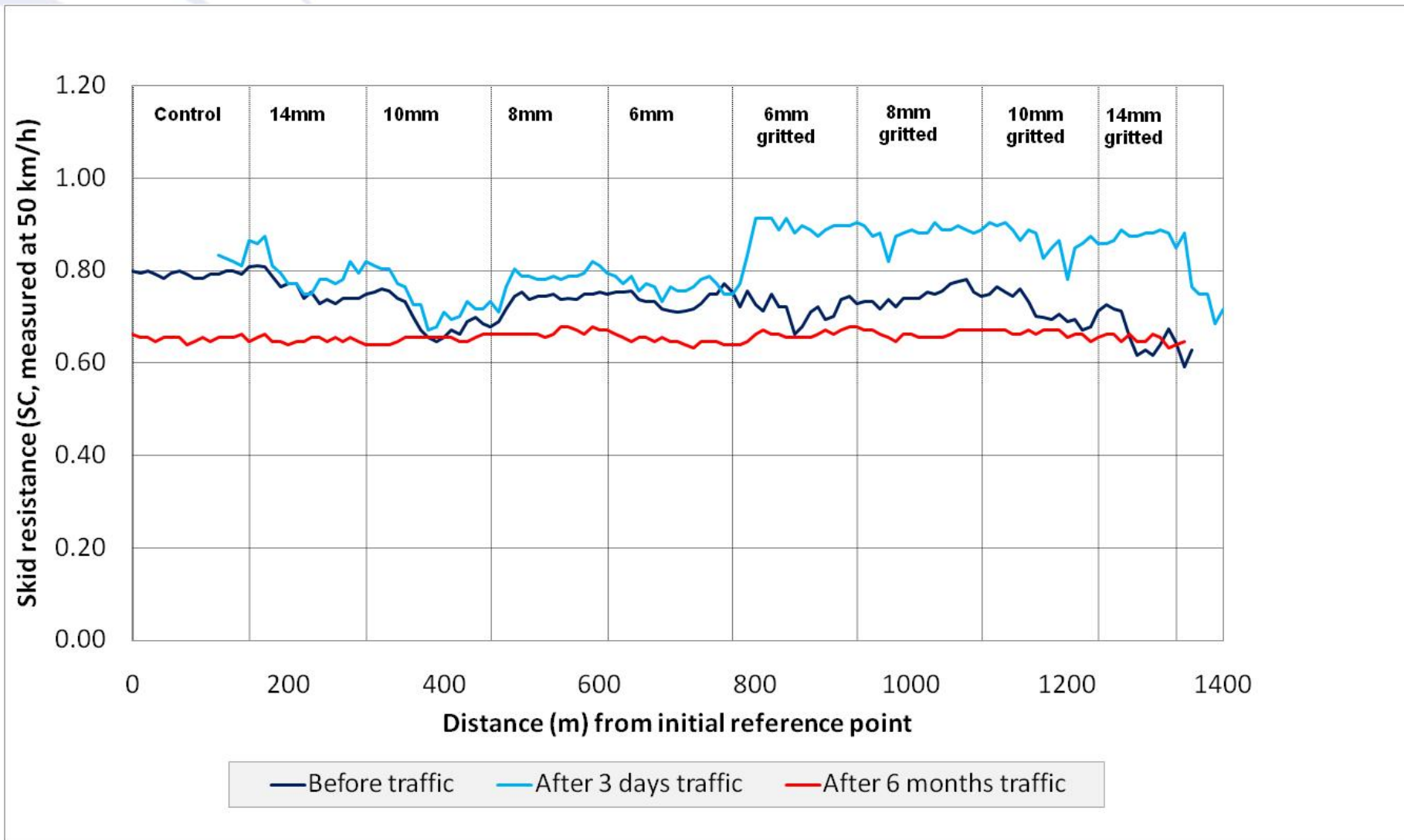
# Low-speed wet skid resistance – before opening to traffic



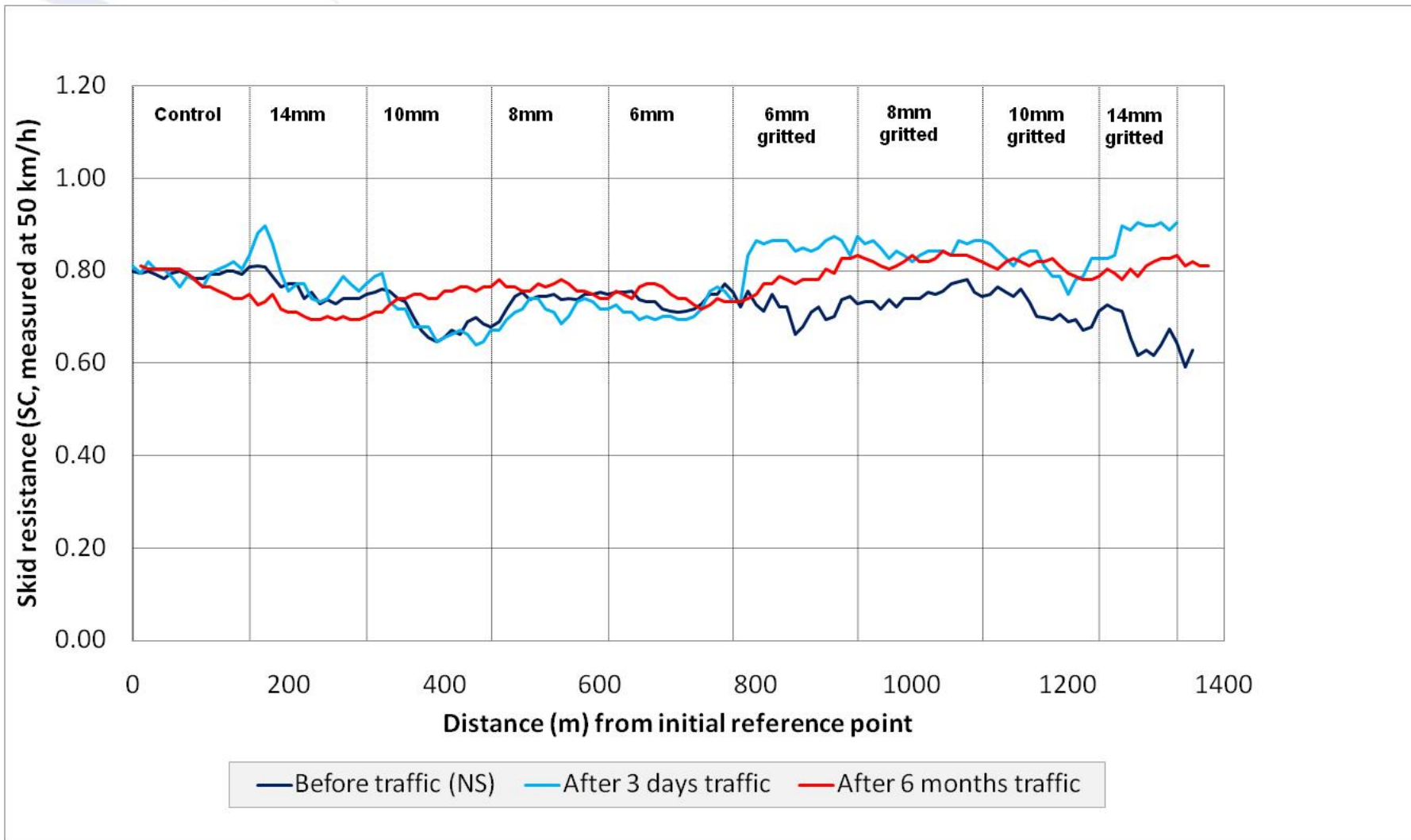
# Low-speed wet skid resistance – after opening to traffic



# SCRIM at 50 km/h over 3 visits (NS wheelpath)



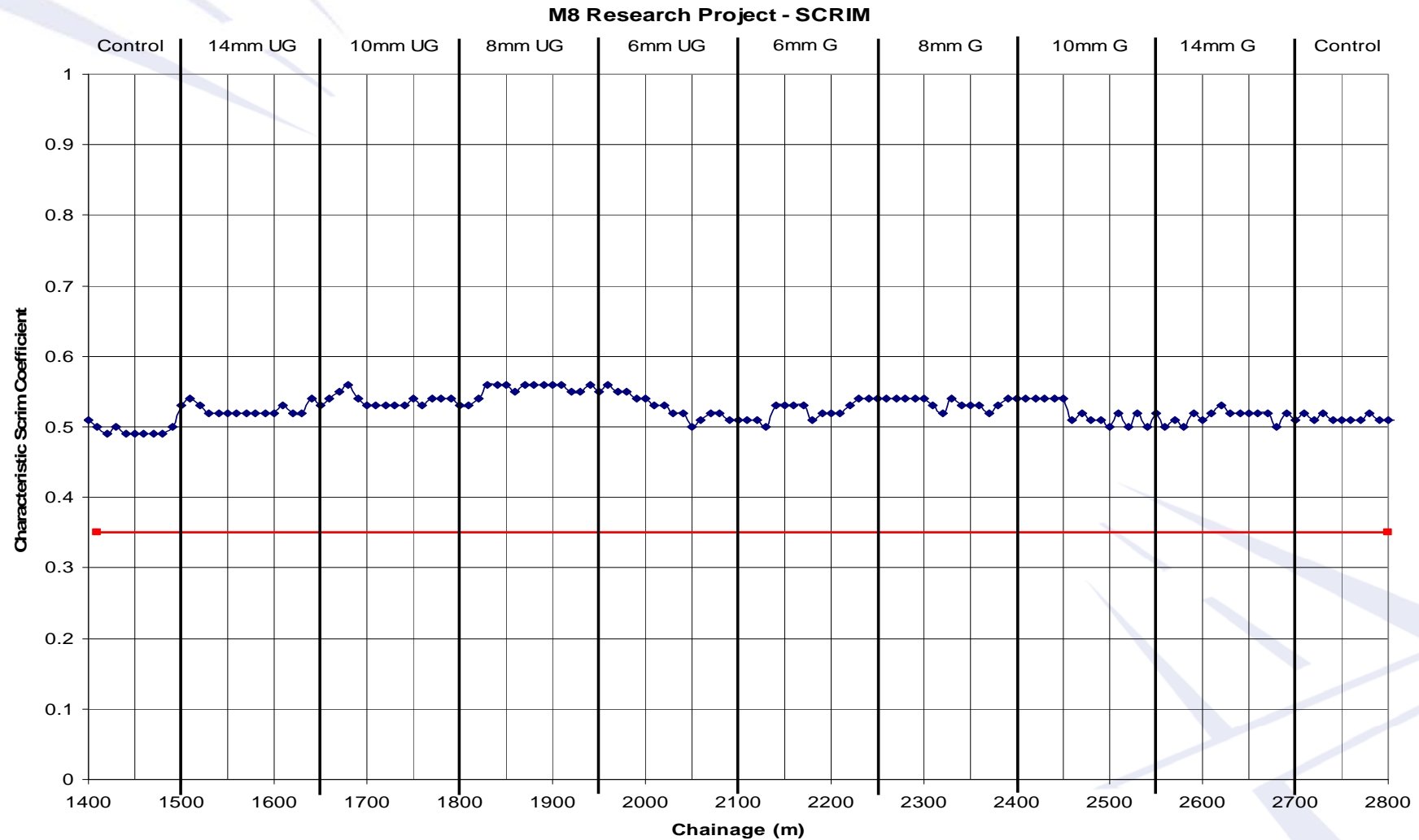
# SCRIM at 50 km/h over 3 visits (Centre of lane)



# Research TS 2010

- superior durability
- lower noise levels
- good skid resistance, including early-life
- high resistance to permanent deformation
- decreased life-time costs
- thin layer application
- excellent ride quality
- reduced use of HFS
- reduced use of expensive imported aggregates
- increased use of a wider range of sustainable aggregate sources.
- Potential for lower spread rate of salt for winter maintenance

# Scrim at 2 years





# What Next?

- **Controlled introduction**
- **Monitor and record progress**
- **Feedback to Suppliers throughout TAIT process**
- **Learn from all concerned**
- **Improve specification based on recorded data and monitoring**
- **Use more local aggregates once specification provides confidence to do so**

# We are getting there!

