



# Dalton Highway

August 2011

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Northern Region Maintenance & Operations, Dalton District Superintendent

# Highway Overview



- ▶ Dalton Highway – 414 Miles
- ▶ Built to secondary road standards and completed in 1975
- ▶ The State took over maintenance in 1978
- ▶ Opened to public in 1994
- ▶ Intense truck traffic, 60% to 80% of traffic is heavy trucks
- ▶ 32 bridges
- ▶ Hundreds of culverts
- ▶ 7 maintenance camps
- ▶ 6 main airports
- ▶ Traffic increased over 25% since 2005 and projected to increase 25% from 2011 to 2014.

# Present Highway Situation

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- ▶ 40% has been reconstructed to a 32 foot hard surface with improved shoulders, drainage and turn out areas
- ▶ \$27,000/mile in maintenance costs
- ▶ Poor road geometry, blind curves, steep grades up to 12%



# Maintenance Issues

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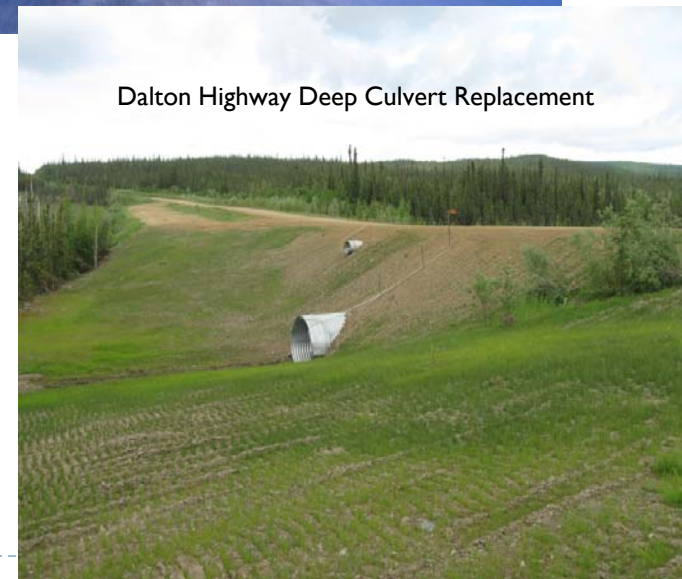
- ▶ Permafrost subsidence
- ▶ Increasing gravel surfacing wear
- ▶ Seeps and springs in cut slopes create icing problems
- ▶ Lack of embankments high enough to prevent snow drifting
- ▶ Federal funds cannot be used for routine maintenance
- ▶ The only way to better accomplish the needed maintenance is to commit additional resources



# 2011 Federal Capital Projects

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- ▶ **MP 55.5 Yukon River Bridge Seismic Retrofit**
  - ▶ Total cost about \$790,000
  - ▶ MKB Constructors
  - ▶ 80% complete
- ▶ **MP 260 – 321 Culverts**
  - ▶ Total cost about \$17,000,000
  - ▶ Granite Construction Co.
  - ▶ 85% complete
- ▶ **Dalton MP 254 – 414 Delineators**
  - ▶ Total cost about \$2,300,000
  - ▶ Granite Construction Co.
  - ▶ 50% complete
- ▶ **Dalton 274 – 289 Rehabilitation**
  - ▶ Total cost about \$27,600,000
  - ▶ Alaska Interstate Construction, LLC.
  - ▶ 10% complete



# 2011/2012 Anticipated GF Projects

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- ▶ MP 19-23 Repair slopes and embankment failures
- ▶ MP 90-175 High float and undulation repair
- ▶ MP 209-415 Calcium chloride dust palliative application (various areas)
- ▶ MP 315-321 Grade raise
- ▶ MP 334-362 High float and undulation repair
- ▶ MP 358 Grade raise and surface leveling with high float
- ▶ Increase safety areas at the Galbraith and Prospect Airports



# 2012 Anticipated Federal Capital Projects

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- ▶ Dalton 9 Mile North
  - ▶ Tentative advertise November 2011
- ▶ MP 11-18 Reconstruction
  - ▶ Tentative advertise November 2011
- ▶ MP 197-209 Rehabilitation
  - ▶ Tentative advertise October 2011



# Past General Fund Capital Projects

FY2010		<ul style="list-style-type: none"> <li>• MP 19-23 – Repair slopes and embankment failures</li> <li>• MP 90-175 – High float repairs</li> <li>• MP 209 -415 – Calcium chloride dust palliative application (various areas)</li> <li>• MP 242 – Guardrail replacement</li> <li>• MP 246 Atigun Pass guardrail replacement</li> <li>• MP 314 - 315 Reshape and surface</li> <li>• MP 326 – Ice Cut guardrail replacement</li> <li>• MP 358 Grade raise and resurface with high float</li> <li>• MP 377-415 – Resurface</li> <li>• MP 58.3, 66.7, and 71.1 – Deep culvert replacement</li> </ul>
FY2009		<ul style="list-style-type: none"> <li>• MP 0-28 – Widen, drainage, resurface</li> <li>• MP 56-90 – Grade, drainage , resurface</li> <li>• MP 228-229 – Grade raise and resurface</li> <li>• MP 241-242 – Grade raise and resurface</li> </ul>
FY2009	\$14 million (GO Bond)	<ul style="list-style-type: none"> <li>• MP 144-175 – Brush cutting, undulation, drainage, high float repair</li> <li>• MP 242-247 – Guardrail replacement</li> <li>• MP 325-334 – Road widening, grade raise, resurface</li> <li>• MP 246 – Atigun Pass – guardrail replacement, 4.5 miles</li> <li>• MP 334-362 – Grade, undulation, delineators, high float repair</li> </ul>



# Past General Funds Projects

FY2008	\$9 million	<ul style="list-style-type: none"> <li>• MP 22-56 – Widen, culvert, brush cutting and resurfacing</li> <li>• MP 70 – Multi-plate culvert replacement</li> <li>• MP 90-175 – High float repairs</li> <li>• MP 175-209 – Brush cutting, guardrail, culverts and resurfacing</li> <li>• MP 175-415 – Calcium chloride</li> <li>• MP 209-234 – Grade, drainage, brush cutting, resurfacing</li> <li>• MP 243-259 – High float application</li> <li>• MP 334-362 – High float repairs</li> <li>• MP 362-415 – Delineator replacement</li> </ul>
FY2007	\$9 million	<ul style="list-style-type: none"> <li>• MP 90-175 – High float and embankment repairs</li> <li>• MP 237-263 – Resurfacing</li> <li>• MP 362-378 – Resurfacing</li> <li>• MP 362-415 – Dust palliative and delineator replacement</li> </ul>
FY2006	\$6 million	<ul style="list-style-type: none"> <li>• MP 90-175 – Differential settlement repairs</li> <li>• MP 254-335 – Dust palliative, brush cutting, and delineator replacement</li> <li>• MP 289-306 – Resurfacing</li> <li>• MP 306-316 – Dust palliative and resurfacing</li> <li>• MP 362-415 – Dust palliative</li> </ul>

# Future Needed Projects - Unfunded

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- ▶ While the department has made considerable improvements with the funds that have been provided since 2005 there is still a considerable backlog of capital projects to be completed.
- ▶ Also many of the initial project areas have succumbed to the growing traffic numbers, requiring another surface overlay to keep a suitable and maintainable driving surface.



# Contact Information

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