

Update to Management's Response to Auditor General's Report

Impact of Changes to Road Design



Introduction

- Council Strategic Priorities
- Significant Investment in Roads
- Infrastructure Department responsible for protecting Roads Investments

Background

- Auditor General Report on Impact of Changes to Road Design
- Staff Implemented Recommendations
- Staff have and will continue to deliver value while making positive changes

“The Infrastructure Services
Department subscribes to the theory of
continuous quality improvement.”

Continuous Quality Improvement

- Application of a tack coat between the layers of asphalt pavement.
- The introduction of Cold In-Place Recycled Expanded Asphalt (CIREAM) as an alternative method to rehabilitating existing asphalt.
- For watermains, the introduction of a protective wrap on metallic fittings to prevent deterioration of the metal components.

Continuous Quality Improvement

- The Auditor General made 13 recommendations; seven recommendations have been completed; and the remaining six recommendations will be completed by the Spring of 2013 or shortly thereafter.

Continuous Quality Improvement

- A few of the major recommendations are:
 - Improved testing and reporting procedures on asphalt testing.
 - Examining alternative use for grindings if cost effective.

“Staff have always incorporated a multiple barrier approach for inspection and testing in accordance with industry guides and standards.”

Multiple Barrier Approach



Operations Committee of December 3, 2012

Multiple Barrier Approach



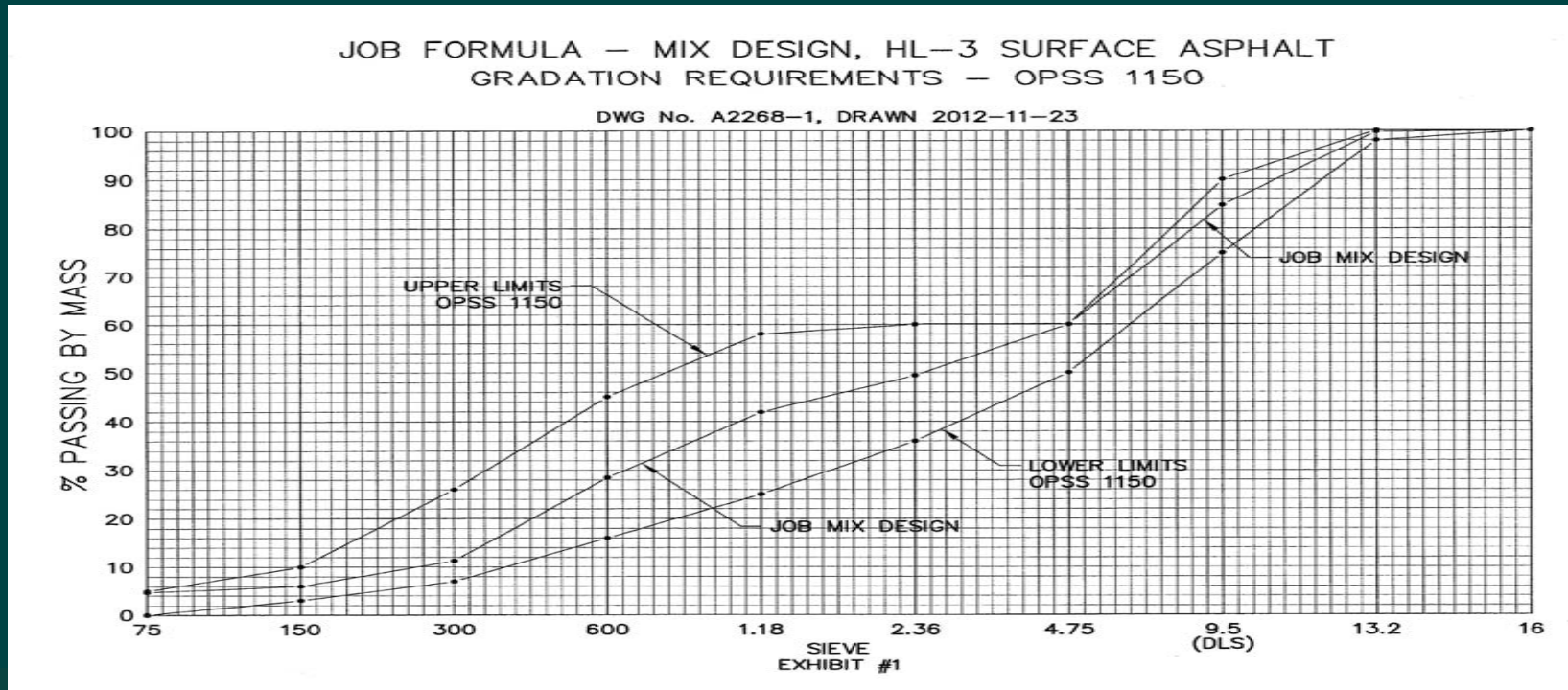
Multiple Barrier Approach



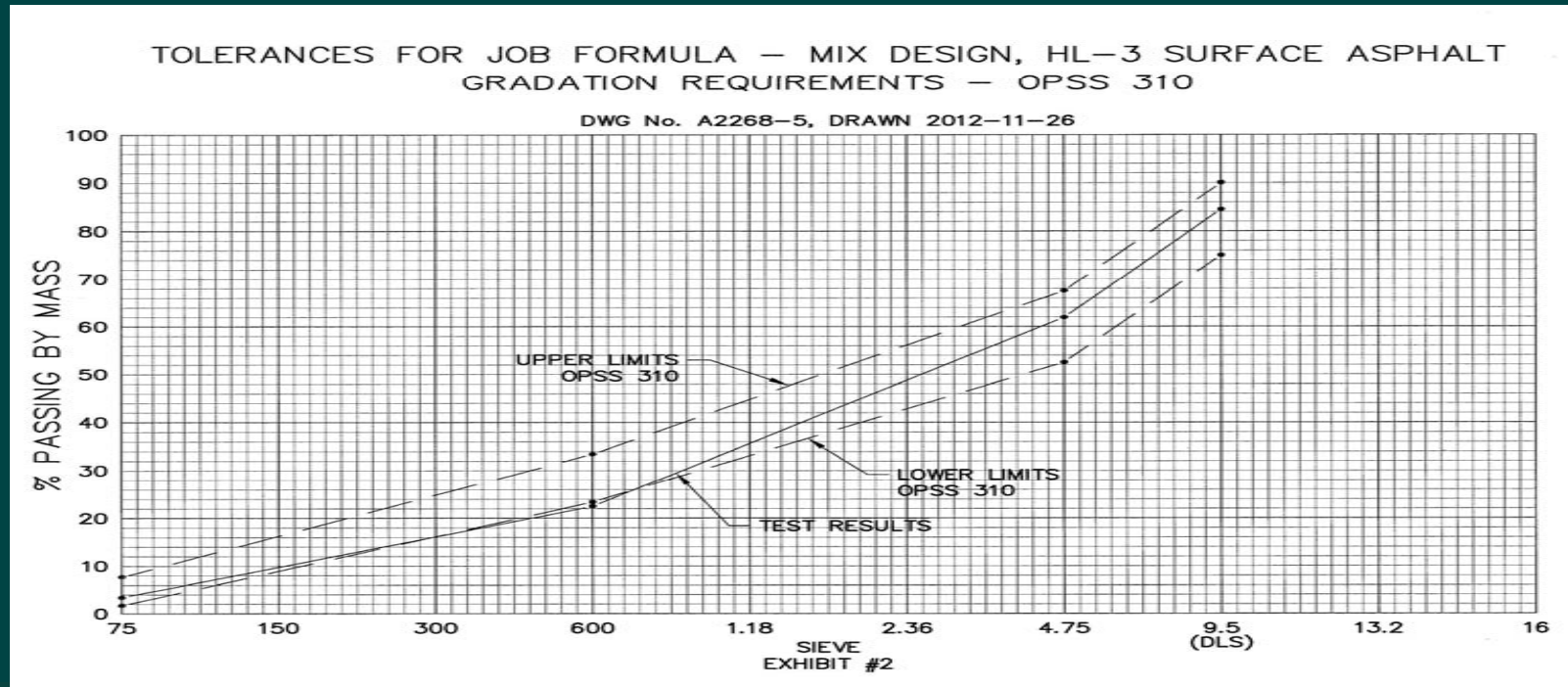
Multiple Barrier Approach

SIEVE	WEIGHT	% RET.	% PASS	SPEC.	out of spec 0.9 %
26.5					
19.0					
16.0				100	
13.2	32.0	1.5	98.5	98-100	
9.5	340.1	15.5	84.5	75-90	
4.75	834.3	38.1	61.9	52.5-67.5	
2.36	1067.5	48.7	51.3	36-60	
1.18	1325.8	60.5	39.5	25-58	
600	1697.6	77.5	22.5	23.4-33.4	
300	1916.4	87.5	12.5	7-26	
150	2035.1	92.9	7.1	3-10	
75	2116.2	96.6	3.4	1.7-7.7	
PAN	2191.0				
AC	5.67			4.7-5.7	

Multiple Barrier Approach



Multiple Barrier Approach



“Inspection and Testing procedures performed by Staff ensured the City received value for money spent on road projects.”

Inspection and Testing



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Inspection and Testing



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Inspection and Testing

- We are confident that testing procedures performed to date have adequately protected the City's interests and valuable investment in our infrastructure system.

“Innovation in road building technologies has and will continue to be a priority for staff to perform more road work with limited tax dollars.”

Innovation Technologies



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Innovations Technologies

- CIREAM is approximately 30% of the cost for the equivalent virgin hot mix asphalt.

“Limited opportunities exist for obtaining the full value of grindings, and staff will endeavour to identify the best end use through the competitive tendering process.”

Best End Use for Grindings



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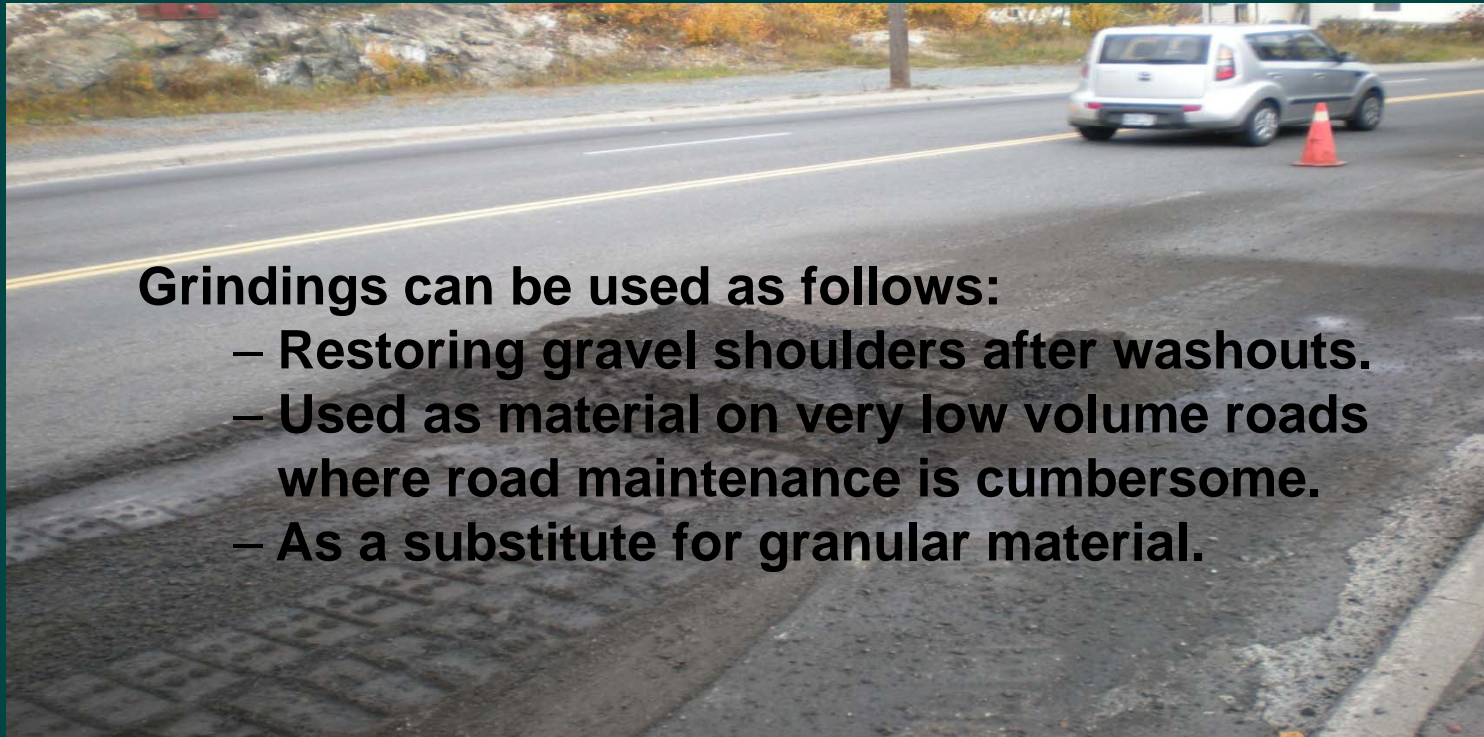
Best End Use for Grindings



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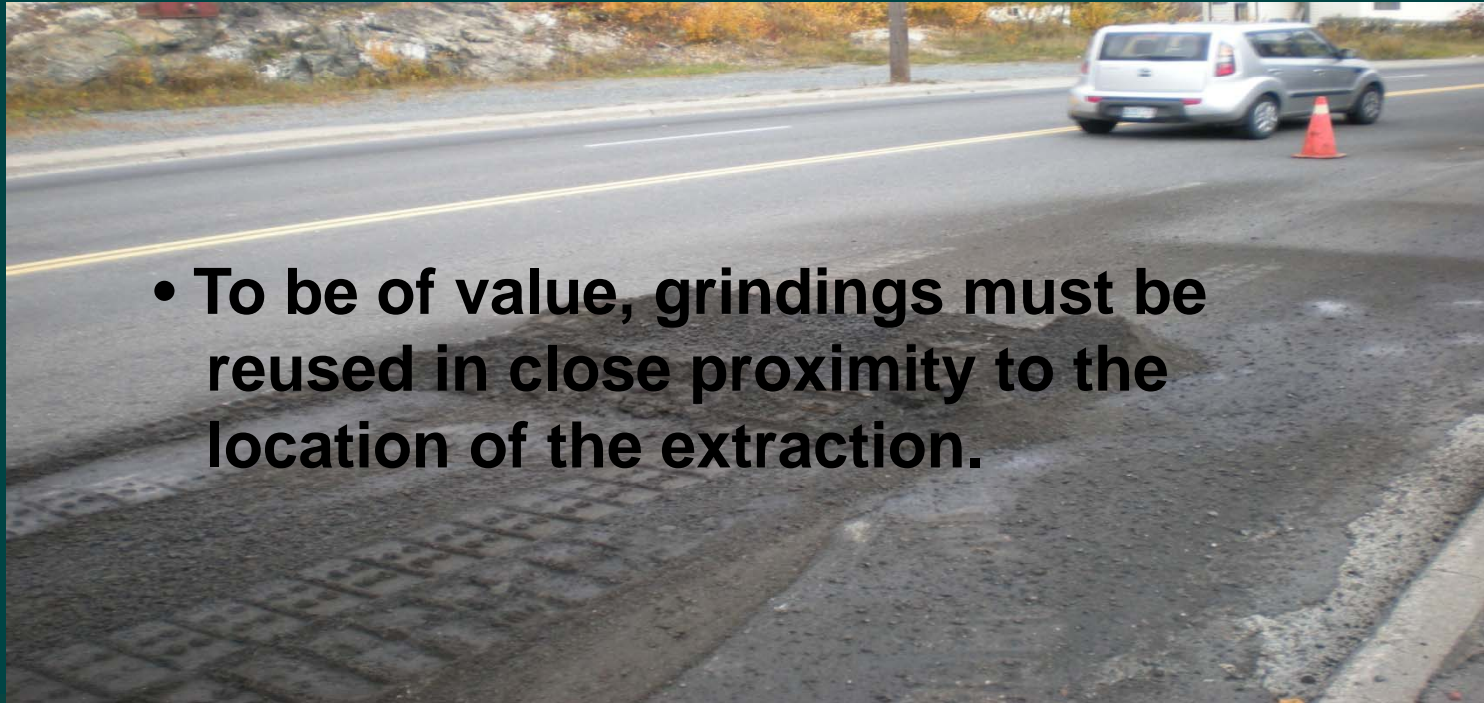
Best End Use for Grindings



Grindings can be used as follows:

- Restoring gravel shoulders after washouts.
- Used as material on very low volume roads where road maintenance is cumbersome.
- As a substitute for granular material.

Best End Use for Grindings



- To be of value, grindings must be reused in close proximity to the location of the extraction.

Summary

- Staff will continue to improve delivery;
- Staff have provided value in our road investments;
- Staff believe that an audit can add value to the road program.