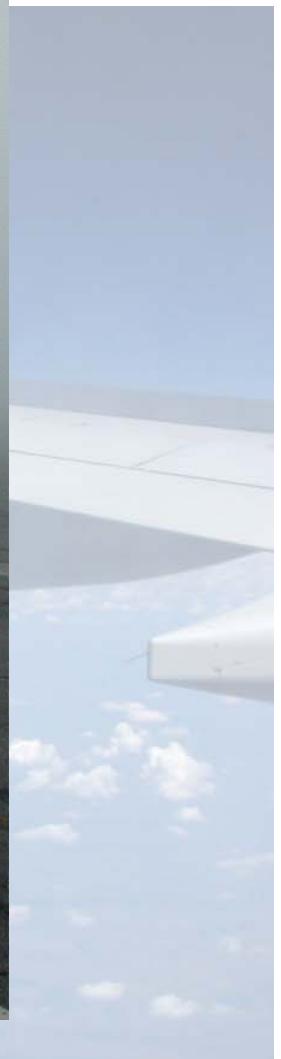


Deep cold in place recycling

Alternative approach to
rehabilitate airport pavements



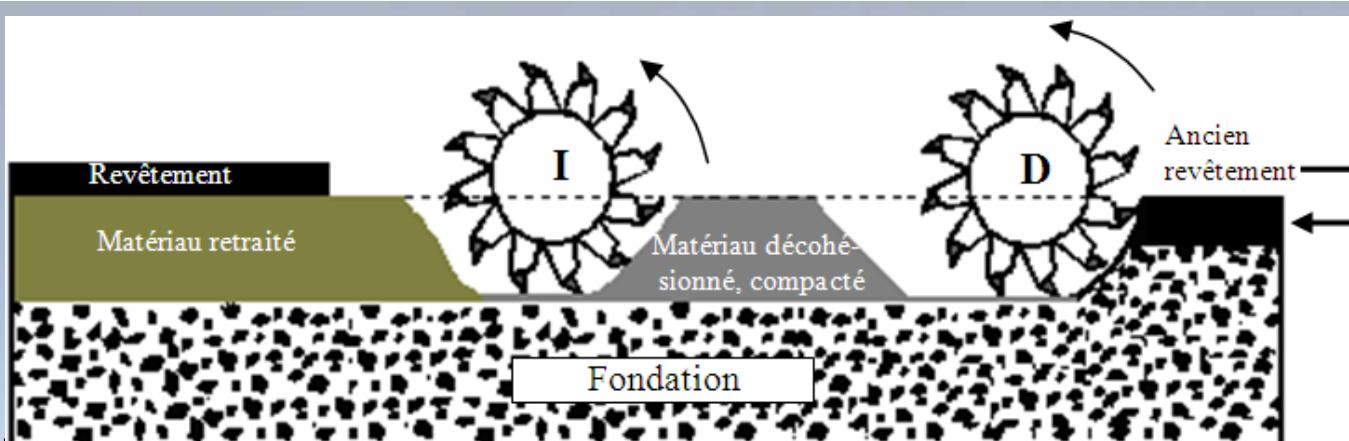






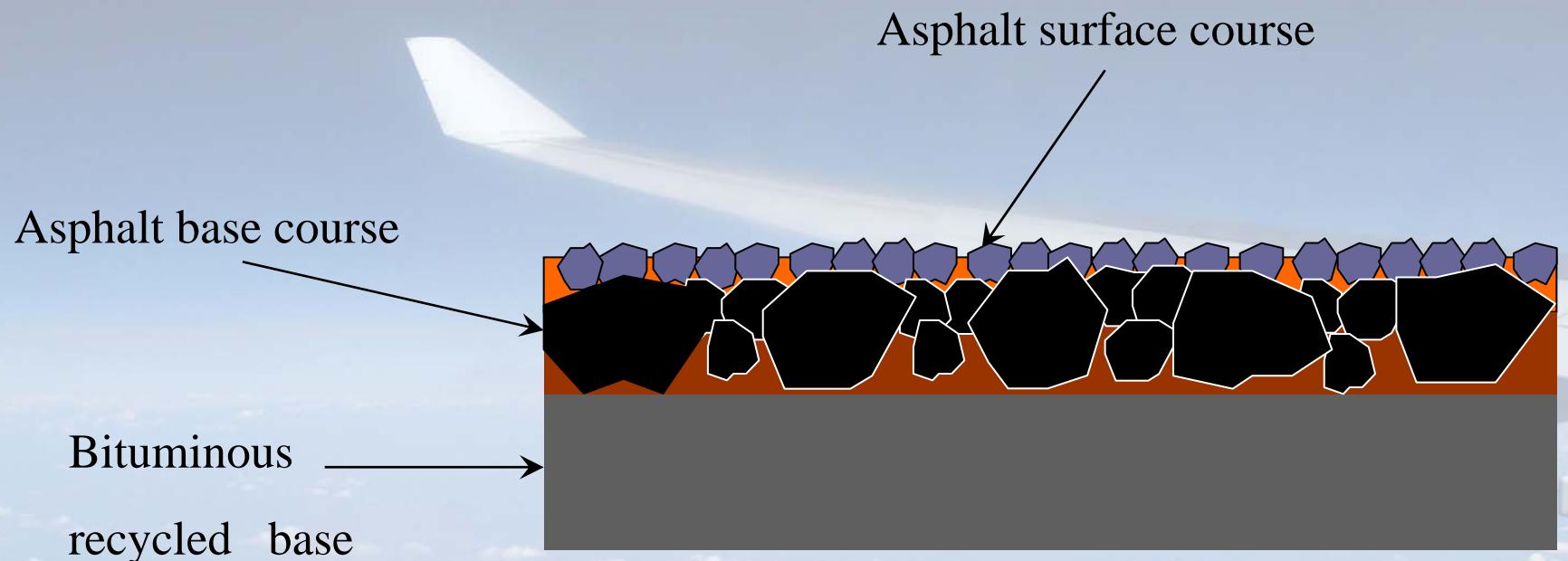


Full depth reclamation with bitumen stabilization



INTERVENTION DOUBLE	D	Opération qui consiste à fragmenter l'enrobé bitumineux en place et de malaxer simultanément une partie de la fondation granulaire sous jacente. Le matériau obtenu est mis en forme et compacté. Lorsque requis l'ajout de granulat de correction est prévu à cette étape. <u>Séquence : 1- Décohésionnement, 2- Déblai en urbain, 3- Mise en forme et 4- Compactage</u>
	I	Opération qui permet d'introduire un liant hydrocarboné ou composé au matériau fragmenté qui gagne en cohésion après curage. Le matériau retraité est nivelé mécaniquement au moyen d'une nivelleuse selon l'alignement, la pente et le bombement spécifiés. La compacité est obtenue par des rouleaux compacteurs. <u>Séquence : 1- Malaxage/Injection, 2- Mise en forme et 3- Compactage</u>

Typical section



Step # 1

- Survey existing profile
- Establish a target profile
- Transfer it in the grader electronic Trimble 3D profile controller (system precision of +/- 5 mm)
- Sampling of existing pavement for mix design preparation

Step #2 – Pulverizing, grading and compaction

- Fragmentation of the old pavement into maximum size of 28mm which is blend with a part of the granular base
- Grade to profile
- Compaction

Pulverizing and grading



3D Set up



Precision grading



Compaction



Step #3 Bitumen injection

- 1. Bitumen injection / mixing:** reclaimer push a tanker and inject bitumen or emulsion through a computerized metering system to selected thickness (100-150mm)
- 2. Grading :** using the same 3D system to establish the final platform
- 3. Compaction :** to obtain maximum mix design and job reference optimized density

Final stabilization in process







Final retreated surface



Composite binder (cement addition + bitumen)

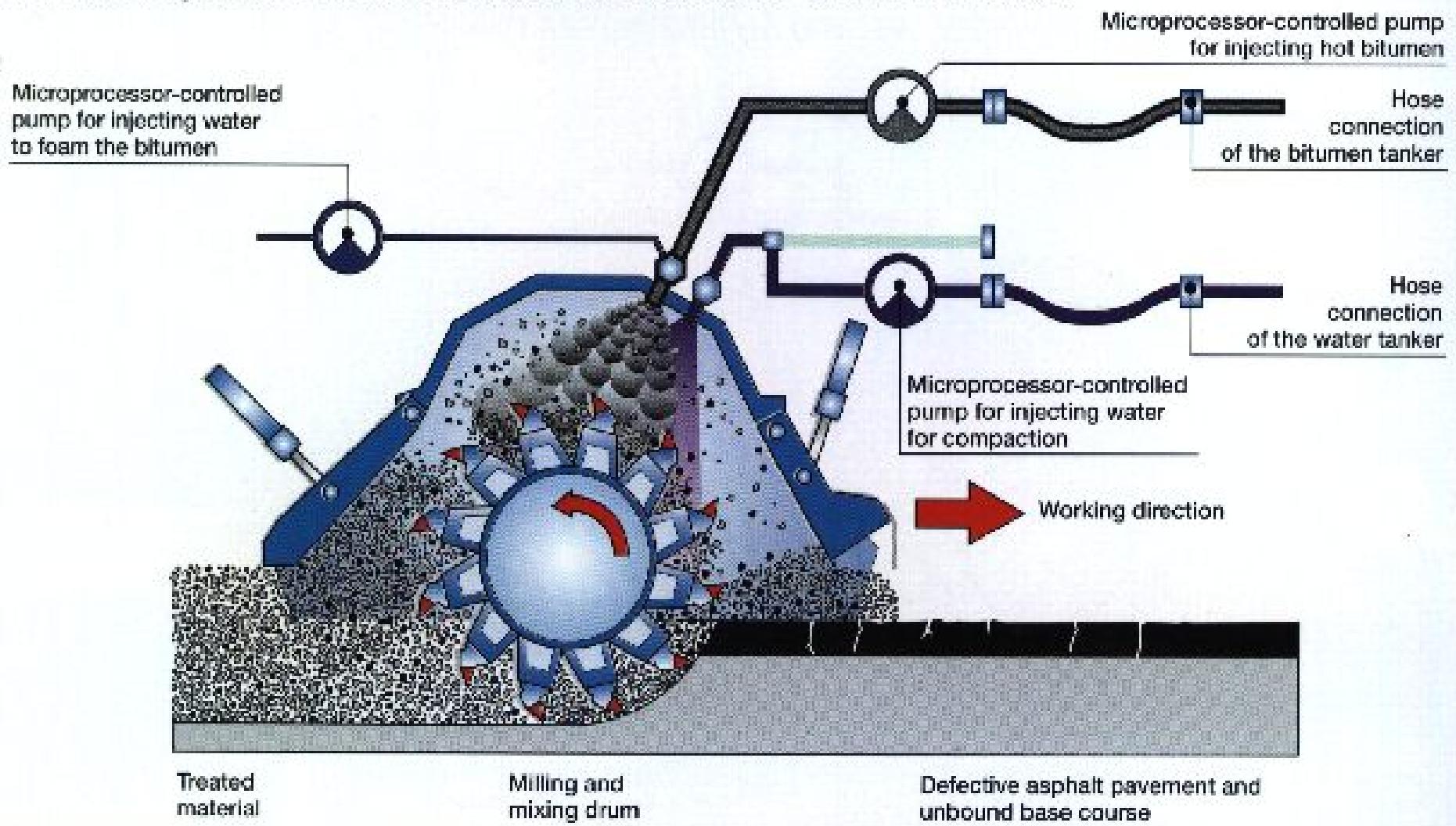
- Uniform curing through full thickness
- Higher initial and final strength
- Higher water resistance
- Possibility of using of marginal materials

Cement application

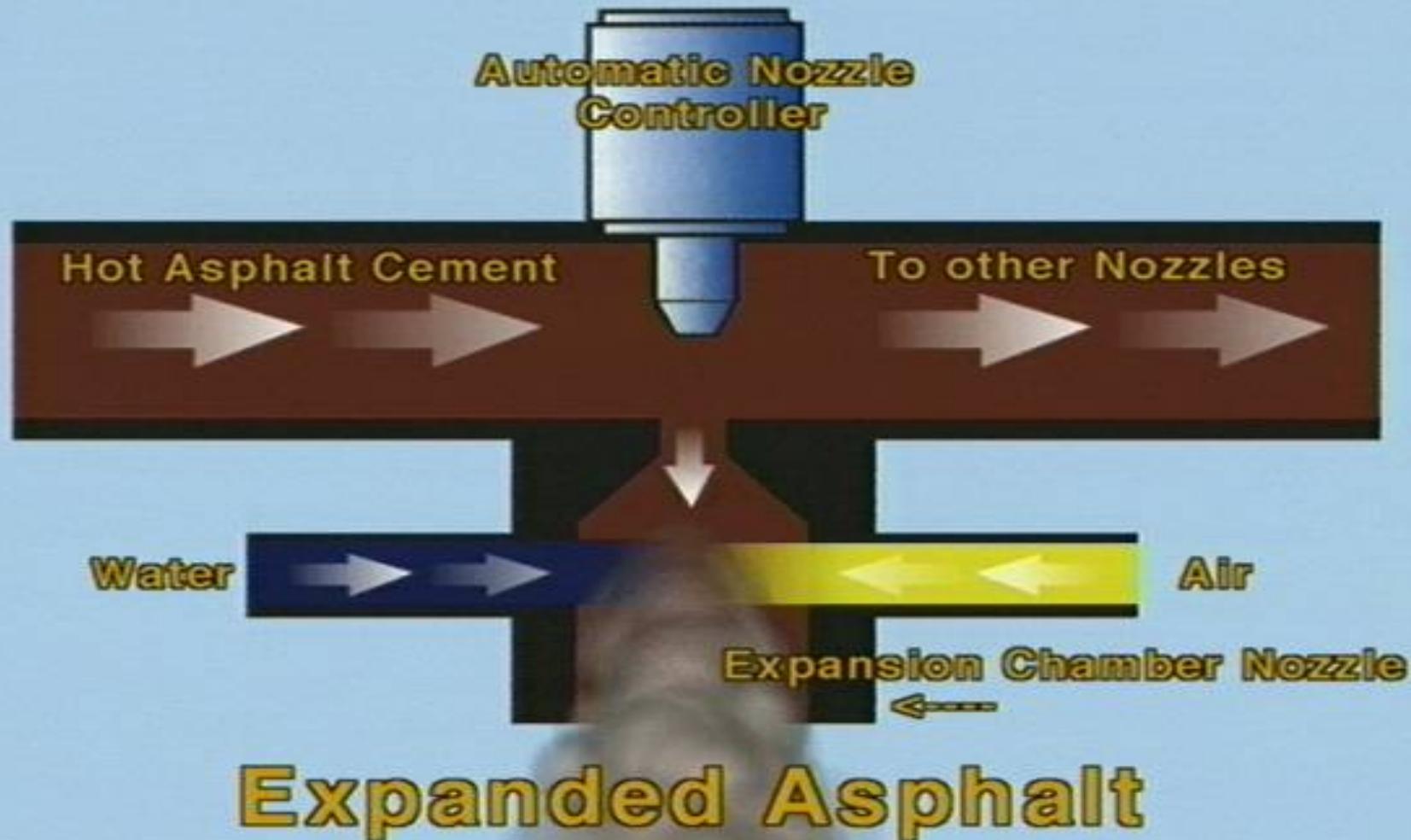


Foamed bitumen

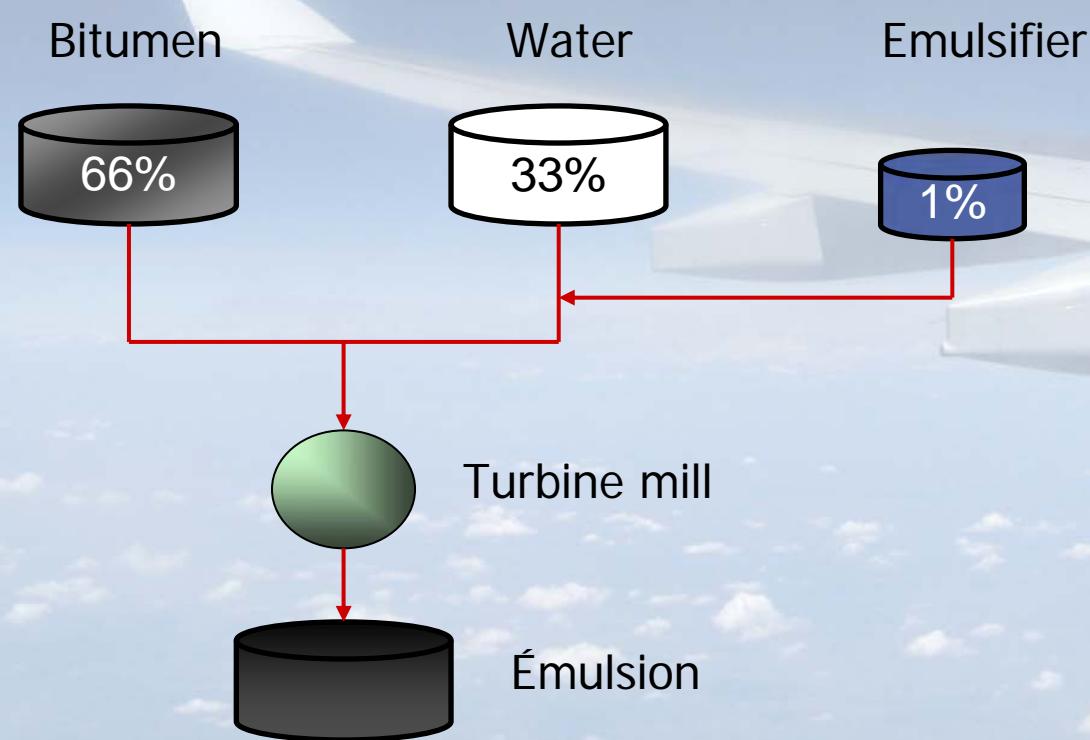
Metered injection of foamed bitumen and water via the WR 2500



Foamed bitumen



Bitumen emulsion



Step #4 Surface pavement

- Recycled base need to be overlay with asphalt course in surface
- Wearing course is design accordingly to aircraft load and structural requirement
- Type of asphalt mixes and appropriate thickness must be design for life expectancy

Optional pavement Combined cold processes

- Single surface treatment
- Covered by a microsurfacing

Surface treatment



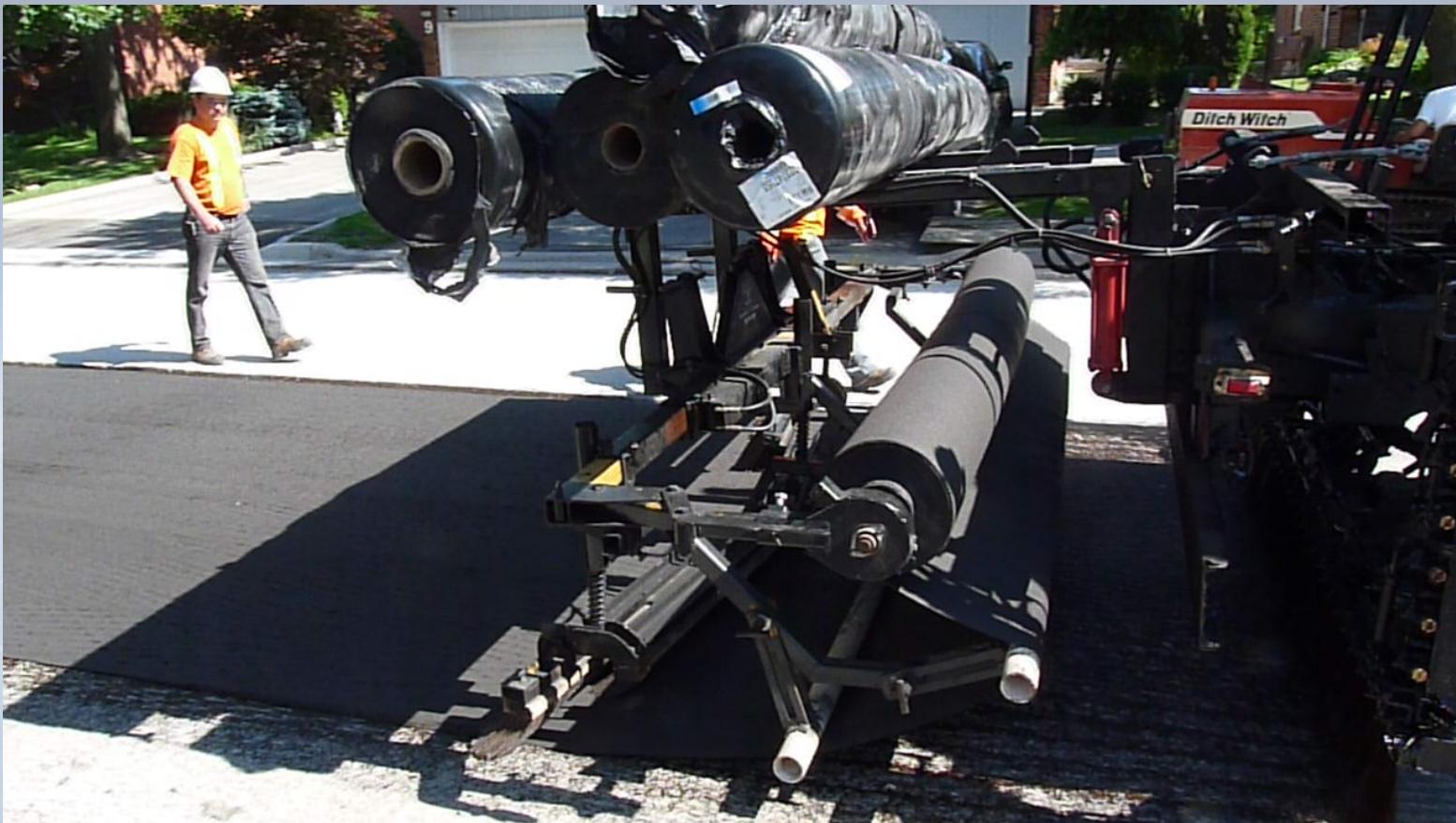
Microsurfacing







Optionnal Geotextile membrane



Conclusion

Each rehab project is a typical case and need a specific investigation

DCIPR is dollar saving and support sustained development

Visit our web site to video clips and general information on recycling and conservation processes

www.talonsebeq.com

