

Sampson Morris Group
Property Management
Prepared by: Michael Murphy

Asphalt Repair Assessment

FALL 2009

Contents:

- Summary
- Photos of Infrared and Rejuvenation repair method
 - Pros and Cons of repair/replacement types
 - Cost Comparison
 - Seal Coating and Rejuvenation Images
- Specific Example: North Pointe Commons Apartments
 - Infrared Examples
 - Rejuvenation Warranty

Summary:

New asphalt repair technologies are able to extend the life of surfaces for a much longer time than traditional repair methods, perhaps indefinitely. Through Infrared heating maintenance, surface areas that would once need replaced can be extended. Additionally, Rejuvenation Seal Coating can compliment Infrared Repair making an attractive and solid surface. The cost of Infrared Heating is so economical that it compares more than favorably to other repair methods. The risks of adopting such a new technology are minimal when the investment cost is this low. The Infrared repaired asphalt should last as long as other repairs, however no data currently exists. Rejuvenation on the other hand is expensive compared to traditional seal coating. However, the Rejuvenation process has significant data and evidence of its performance. The Rejuvenation manufacture provides a warranty and written avadavat of performance from the FAA for their Airport asphalt projects. Rejuvenation seal coating, though more expensive than traditional has significant advantages. The following pages show the advantages and disadvantages of all popular asphalt repair methods, including examples.

Monroeville Business Park 500 Repair



BEFORE



DURING



AFTER

Total Replacement:

PROS:

- strongest surface
- longest life expectancy
- most attractive
- new sub-base and grading

CONS:

- most disruptive to tenant
- most expensive
- dependent on variable asphalt prices

Asphalt Layover:

PROS:

- less expensive than replacement
- less disruptive and quicker than replacement
- attractive new surface look

CONS:

- reflection cracking can occur within the first few years
- existing sub-base problems not corrected

Infrared Heating Repair w/Hotbox:

PROS:

- Not disruptive to tenants, can drive over almost immediately
- Inexpensive
- Consistent pricing, less dependent on asphalt pricing
- Seamless hot seams, no tarring

CONS:

- Not as strong as new replacement
- Do not know how long repairs will last.
- Parking lot can look like a patch quilt if seal coating is not done afterward to make consistent color

Sawcut Replacement:

PROS:

- All new asphalt material compared to recycled infrared process
- New stone base and structural integrity

CONS:

- Open seams, needs tarring
- More expensive than infrared
- Longer process, more disruptive than infrared
- Parking lot can look like a patch quilt if seal coating is not done afterward to make consistent color

Traditional Seal Coating:

PROS:

- Inexpensive
- Consistent and attractive lot surface
- Seals out contaminants

CONS:

- Begins very fading quickly
- Some companies water product down
- Parking lot must be very clean for application

Rejuvenation Seal Coating:

PROS:

- Does not fade quickly
- 3 year manufacture warranty
- Consistent and attractive lot surface
- Seals out contaminants
- Improves condition of asphalt
- Improves malleability and can decrease the amount and severity of cracks

CONS:

- Only one company with patent
- Expensive
- Company is small and not timely
- No competitors, Reclimite is inferior product

Cost Comparison of Asphalt Replacement/Repair Types

Evaluation By Square Foot:

Note: prices assume large repair

Repair Type:	Square Foot Price:	Notes:
Total Replacement	\$3.00	Price could be \$5.00 for smaller lots (8,000S.F. minimum) 4-6base, 4"asphult
Asphalt Layover	\$1.60	Price could be \$2.00 for smaller parking lots
Infrared Heating Repair	\$0.48	
Saw cut Replacement	\$3.50	For small repairs price could be as high as \$6.00/sf, minimum of \$500
Traditional Seal Coating	\$0.11	
Rejuvenation Seal Coating	\$0.21	
Tar Crack Filling	NA	Crack filling is very hard to estimate per square foot amount

Traditional Seal Coating:
1.5 years



Rejuvenation Seal Coating:
6 Months



North Pointe Commons Example:

Entire Property: 125868 Square Feet

Evaluation

Square Feet	Type	Price	Savings over replacement	Per Unit	Notes
125868	Total Replacement	\$377,604.00		na	3.00
125868	Entire surface Layover	\$201,388.80	\$176,215.20	1.60	
41955	Layover 1/3	\$75,519.00	\$302,085.00	1.80	
41955	Sawcut 1/3	\$146,842.50	\$230,761.50	3.50	It is not realistic to infrared or sawcut much more than a 1/3 of the parking lot. The expense and time would discourage both the contractor and owner.
41955	Infrared 1/3	\$20,138.40	\$357,465.60	0.48	
125868	Rejuvenation	\$25,802.94		0.21	includes prep
125868	seal coating	\$16,362.84		0.11	includes prep

All of the 4 parking lots and several drive lanes at North Pointe Commons are in need of repair. The actual estimate and solutions Sampson-Morris Group chose for this project will cost \$60,000-\$80,000 over the next 10 years. Much of this work will be done in the Fall of 2009 through the Spring of 2010. A majority of the parking/drive lanes can be repaired via infrared process. Only 15,000S.F. of parking lot is deteriorated beyond the repair capabilities of Infrared. These areas will be laid-over. Approximately \$6,800 worth of tar crack filling will fill the voids not treated with the aforementioned repair methods. Rejuvenation seal coating will be applied to all surfaces except for the new layovers. An estimate from the lender was requiring the owners retain \$250,000 for asphalt surface repairs at NPC. The lender was suggesting many of the surfaces needed total replacement. We successfully argued that layovers would be the most drastic method needed and significant additional savings could be gained through Infrared maintenance.



Infrared Examples:



Quality Asphalt Inc. Warranty

Sampson-Morris Group
2500 Eldo Road
Monroeville PA 15146

RE: 500 Rico Drive
Monroeville Industrial Park

WARRANTY

K.A.E. PAVING CONSULTANTS, INC. (KAE) and Edward M. Gallagher & Sons, Inc. (EMG) warrant that from the date PAVEMENT DRESSING CONDITIONER (PDC) is applied and for a period of three (3) years thereafter, PDC will not flake, peel, chip or spall or KAE and EMG will reapply PDC as necessary.

Further, KAE and EMG will warrant the treated surface to be fuel resistant and remain fuel resistant for a period of three (3) years after the date of application. This guarantee shall be effective only if spills are cleaned up as per local environmental regulations. KAE and EMG further warrant the PDC treatment will reduce the viscosity (ASTM D 2170) in the top one-half inch of the treated asphalt surface.

The Owner has the right to test any or all sections treated. Should Owner desire testing be performed, Owner must notify KAE and EMG of the intent to test prior to KAE and EMG's application of PDC. Core samples must be taken by the Owner prior to PDC treatment or a control section of at least 10 square yards (8.4 square meters) will remain untreated. Testing must be performed between 90 days and one year after date of application.

Further, KAE or EMG will provide free on site inspection of the treated pavement at scheduled intervals commencing thirty days following date of application of PDC and thereafter, annually for the next two years. Any defect due to failure of the PDC will be repaired at no charge.

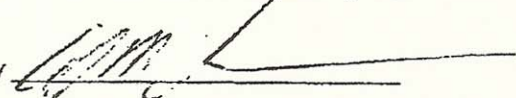
EDWARD M. GALLAGHER & SONS, INC.

By



K.A.E. PAVING CONSULTANTS, INC.

By



Effective Date: June 5, 2009

Quality Asphalt Inc. Warranty

Sampson-Morris Group
2500 Eldo Road
Monroeville PA 15146

RE: Hulton Industrial Park – Kerotest Parking Lot

WARRANTY

K.A.E. PAVING CONSULTANTS, INC. (KAE) and Edward M. Gallagher & Sons, Inc. (EMG) warrant that from the date PAVEMENT DRESSING CONDITIONER (PDC) is applied and for a period of three (3) years thereafter, PDC will not flake, peel, chip or spall or KAE and EMG will reapply PDC as necessary.

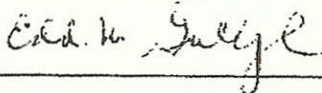
Further, KAE and EMG will warrant the treated surface to be fuel resistant and remain fuel resistant for a period of three (3) years after the date of application. This guarantee shall be effective only if spills are cleaned up as per local environmental regulations. KAE and EMG further warrant the PDC treatment will reduce the viscosity (ASTM D 2170) in the top one-half inch of the treated asphalt surface.

The Owner has the right to test any or all sections treated. Should Owner desire testing be performed, Owner must notify KAE and EMG of the intent to test prior to KAE and EMG's application of PDC. Core samples must be taken by the Owner prior to PDC treatment or a control section of at least 10 square yards (8.4 square meters) will remain untreated. Testing must be performed between 90 days and one year after date of application.

Further, KAE or EMG will provide free on site inspection of the treated pavement at scheduled intervals commencing thirty days following date of application of PDC and thereafter, annually for the next two years. Any defect due to failure of the PDC will be repaired at no charge.

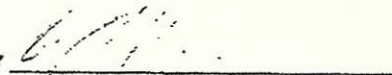
EDWARD M. GALLAGHER & SONS, INC.

By



K.A.E. PAVING CONSULTANTS, INC.

By



Effective Date: June 5, 2009