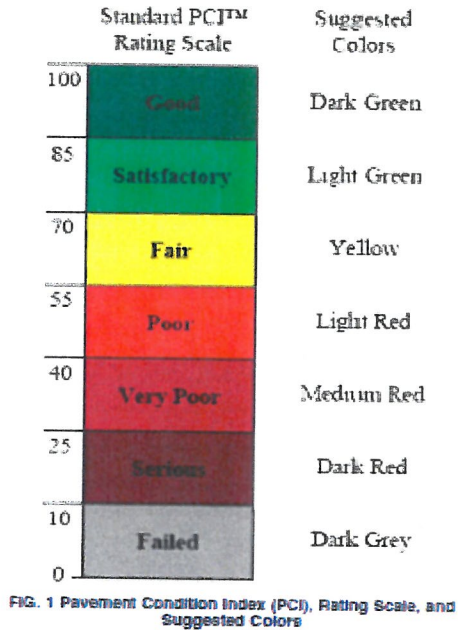


PAVEMENT INFORMATION

The Standard by which Louisville Metro Rates our Roadway Segments - American Society of for Testing Materials (ASTM) – D6433-07 “Standard Practice for Roads & Parking Lots Pavement Condition Index (PCI)”

<http://www.cee.mtu.edu/~balkire/CE5403/ASTMD6433.pdf>



Miles of roads rated 54 and below by classification as of 5/20/14:

- Local: 415.35 of 1675 total miles = 25%
- Secondary Collector: 31.63 of 141 total miles = 22%
- Primary Collector: 44.68 of 217 total miles = 21%
- Minor Arterial: 35.54 of 121 total miles = 29%
- Major Arterial: 1.43 of 8 total miles = 18%

TransMap – This is the company that produced our latest Pavement Condition Index (PCI) for each segment of Metro’s roads.

TransMap collected and evaluated over 27,242 samples on 2,164 miles of roadway. Each sample area was between 1500 sq. ft. & 3500 sq. ft. depending on width of road. Roads with a narrow width generally have sample of longer lengths (up to 182 feet), and wider roads generally have samples of shorter lengths (52 feet min.). At least one sample was collected for every 550 feet.

Various surface distress information was collected and evaluated.

ii. PAVING

- o This is a preliminary list of resurfacing projects to be completed by Public Works. Actual funding and final costs will determine how much work will be completed. The list is based on approximately \$6 million.

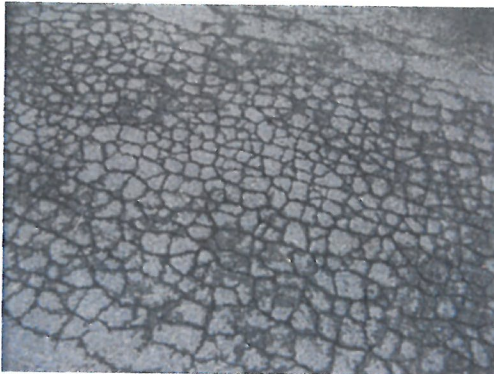
Road	From	To	District	Classification
S. 9th Street / Roy Wilkins	I-64 Ramp	W. Kentucky Street	4	Major Arterial
Pope Dale Road	Flat Rock Road	Long Run Road	19	Secondary Collector
Long Run Road	Long Run Park	County Line	19	
Old Henry Road	Evergreen Road	N. English Station Rd	19	Minor Arterial
Hikes Lane (Concrete)	Newburg Road	Taylorville Road	26	Minor Arterial
Produce Road / Hikes Lane	Bashford Avenue	Poplar Level Road	2/10	Minor Arterial
Stonestreet Road	Blevins Gap Road	Bridge past Pond Station	14	Minor Arterial
S. 16th Street	Breckenridge Street	Ormsby Avenue	6	Minor Arterial
S. 16th Street	Ormsby Ave	Dead End	6	Minor Arterial
Dumesnil St	S. 18th Street	S. 15th Street	6	Minor Arterial
Dumesnil St	S. 12th Street	10th Street / Dead End	6	Minor Arterial
W. Liberty Street	Roy Wilkins Ave	S. 1st Street/ Preston	4	Minor Arterial
River Road	Wolf Pen Branch Rd	Juniper Beach Road	16	Minor Arterial
Cherokee Gardens Drive	Beals Branch Drive	Pee Wee Reese Road	9	Primary Collector
Louisville Avenue	4221 Louisville Avenue	Woodlawn Overpass	15/21	Primary Collector
S. Ewing Avenue	Frankfort Ave	Dead End	9	Primary Collector
Freys Hill Road	Wemberley Hill	Lakeland Road	17	Primary Collector
Fairmount Road	Old Bardstown Road	Dead End	22/23	Primary Collector
Fairmount Road	Gentry Lane	Cedar Creek Road	22/23	Primary Collector
Smyrna Parkway	E. Manslick	Briscoe Lane	23	Primary Collector
Payne Street	Rubel Avenue	I-64 Overpass	4/8/9	Primary Collector
Payne Street	S. Ewing Avenue	Clifton Avenue	4/8/9	Primary Collector
Strawberry Lane / Thalia Ave	Woodlawn Overpass	E. Kenwood Drive	21	Primary Collector
Arcade Avenue	7th Street Road	Taylor Blvd	3/15	Primary Collector
Gardiner Lane	Newburg Road	Poplar Level Road	10	Primary Collector
Belmar Drive	Preston Highway	Poplar Level Road	10	Primary Collector
Whipps Mill Road	Millbrook Road	Gallant Fox Run Road	18	Primary Collector
Park Boundary Road	Barret Hill Road	Seneca Park Road	8	Primary Collector
La Grange Road	Lyndon Lane	Whipps Mill Road	7/18	Primary Collector
Applegate Lane	Shepherdsville Road	Smyrna Pkwy	23	Primary Collector
Grade Lane	Crittenden Drive	Ashbottom Road	13	Primary Collector
Springdale Road	Wolf Pen Branch Rd	Brownsboro Road	16	Primary Collector
Katherine Station Road	Dixie Highway	RR tracks	14	Secondary Collector
Pauleys Gap Road	Pendleton Road	Bridge past 14606	14	Secondary Collector
Old Millers Lane	Millers Lane	Cane Run Road	1	Secondary Collector
Old Heady Rd	County Line	Routt Road	20	Secondary Collector
Avoca Road	Alken Road	Dead End	19	Secondary Collector
E. Orell Road	Blevins Gap Road	Pendleton Road	14	Secondary Collector
Flintlock Drive	Dixie Highway	Upper Hunters Trace	12	Secondary Collector
Old Taylorville Road	Pope Lick Road	14519 Old Taylorville	20	Secondary Collector
Washburn Ave	New LaGrange Road	Columbia Ave	7	Secondary Collector
Wolf Pen Branch Rd	Springdale Rd	Norton Commons Blvd	16	Secondary Collector
Dry Ridge Road	Routt Road	Old Heady Road	20	Secondary Collector

Definitions and Description of Pavement Management Techniques

Alligator Cracking

Description

Alligator or fatigue cracking is a series of interconnecting cracks caused by repeated traffic loading such as wheel paths.



Weathering

Description

The wearing away of the asphalt binder and fine aggregate matrix from the pavement surface.



Longitudinal / Transverse Cracking

Description

Longitudinal cracks are parallel or perpendicular to the direction of travel which forms for a variety of reasons. They may be caused by (1) a poorly constructed paving lane joint, (2) shrinkage of the AC surface due to low temperatures or hardening of the asphalt, or (3) a reflective crack caused by cracks beneath the surface course.



Rutting

Description-

“A rut is a surface depression in the wheel path caused by repeated traffic load.”



Raveling

Description

Raveling is the dislodging of coarse aggregate particles from the pavement surface.



Patch / Utility Cut

Description

“Area of pavement that has been replaced with new material to repair the existing pavement”

Severity Levels



L - Patch is in good condition and satisfactory. Ride quality is rated as low severity or better.



M - Patch is moderately deteriorated, or ride quality is rated as medium severity, or both.



H - Patch is badly deteriorated, or ride quality is rated as high

Edge Cracking



Description

“Cracking along edge of roadway”

Crack Sealing



Please Note:

The following techniques can be used for pavement management however, our Roads crews only do some crack sealing and not these other processes at this time.

Micro Surfacing is a mixture of polymer modified asphalt emulsion, mineral filler, water and other additives, properly proportioned, mixed and spread on a paved surface in accordance with specifications.

Micro-Surfacing is one of the most versatile tools in road maintenance. It utilizes a polymer modified cold-mix paving system that is very eco-efficient, cost effective, and can remedy a wide range of problems on today's streets, highways, and airfields. It can be applied in thicknesses up to several inches, if applied in multiple lifts, and is the only surfacing product used world-wide to fill ruts in pavement.

Micro-Surfacing was pioneered in Germany in the late 1960's and early 1970's. German scientists began experimenting with conventional slurry to find a way to use it in thicker applications which could be applied in narrow courses for wheel ruts, and not destroy the expensive road striping lines on the autobahns. The scientists were successful in combining selected aggregates and bitumen, and then incorporating special polymers and emulsifiers that allowed the product to be applied in multi-stone thicknesses. The result was Micro-Surfacing.

How does Micro-Surfacing work?

Micro-Surfacing is applied to existing pavements by a specialized machine. The machine carries all the components and mixes them on site, and then spreads the mixture onto the road surface. The new surface changes to a finished black surface as the water is chemically ejected and it cures. In most cases the surface is cured and ready for traffic in as little as one hour.

The mix is capable of being spread in variably thick cross sections (wedges, ruts, scratch courses and surfaces) which, after curing and initial traffic consolidation, resist compaction throughout the entire design tolerance range of bitumen content and variable thicknesses to be encountered. The end product will maintain a friction resistant surface (high wet friction coefficient) throughout the serviceable life of the Micro-Surfacing.

How does chip sealing work?

Chip sealing places a thin layer of asphalt emulsion followed immediately by the application of rock chips over deteriorated pavement surfaces. Like slurry sealing, this treatment costs only a fraction of a conventional overlay, uses 90% less virgin rock, and lasts only half as long as traditional repaving. This treatment provides a coarser surface texture which increases tire traction and can improve safety during winter driving conditions.



How does slurry sealing work?

Slurry sealing is the application of a 3/16" mixture of oil and rock to the pavement. While slurry sealed pavement typically lasts only about half as long as conventional asphalt overlay, the technique costs only about 15% as much. This technique can reduced its need for virgin aggregates by nearly 90% for streets to which slurry seal is applied.

