



LLOYD, SMITHA & ASSOCIATES, LLC

Construction Management • Engineering • Solutions

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March 20, 2026

City of Bunker Hill Village
11977 Memorial Drive
Houston, Texas 77024

Attn: Gerardo Barrera, MBA, CPM
City Administrator

DRAFT

Pending Formal Acceptance by City Council

RE: Bunker Hill Street Assessment – 2024-2025

Dear Mr. Barrera:

LLOYD, SMITHA AND ASSOCIATES, LLC (LSA) is pleased to submit the attached roadway assessment for the City of Bunker Hill Village's pavement infrastructure. The report also identifies streets that need maintenance, so that the City can better prioritize repairs and maintenance to the City streets in the future.

Please feel free to contact me with any comments or questions regarding the information included in this report.

If you have any questions, please contact me at (281) 660-8737, or elloyd@lsa-engineers.com.

Sincerely,

A handwritten signature in blue ink, appearing to read 'E. Lloyd', written over a light blue circular stamp.

Edwin A. Lloyd, P.E., CCM
President
LLOYD, SMITHA & ASSOCIATES, LLC

CITY OF BUNKER HILL VILLAGE

ROADWAY PAVEMENT ASSESSMENT 2024-2025

February 28, 2026



By:
LLOYD, SMITH & ASSOCIATES, LLC
650 N. Sam Houston Pkwy E., Suite 218,
Houston, TX 77060



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INTRODUCTION

In June 2024, LLOYD, SMITHA & ASSOCIATES, LLC was again tasked with preparing a street condition assessment for the City of Bunker Hill Village. The purpose of performing this work was to take a comprehensive look at the City's 12 miles of public pavement infrastructure so that maintenance and replacement of roadways could be planned out in a manner as to address future funding of infrastructure over a multi-year period.

The scope of work by LLOYD, SMITHA & ASSOCIATES, LLC included to have all public streets throughout the City inspected, photographed, and submit an assessment report. As part of this work, the streets were assigned a condition rating based on criteria set forth in the Pavement Surface Evaluation and Rating (PASER) system developed by the University of Wisconsin-Madison. With the field work completed, LLOYD, SMITHA & ASSOCIATES, LLC was able to evaluate, compare, and prioritize the needs of the City's streets based on pavement condition and life expectancy.

This report discusses existing conditions, the pavement rating system, maintenance programs to extend the life of pavements, and life cycle of streets. In addition, LLOYD, SMITHA & ASSOCIATES, LLC has also prepared budgetary estimates for the upgrades or reconstruction of streets throughout the City for use in planning future projects.

BACKGROUND

Prior to the city's incorporation, German farmers settled the area and built sawmills to process local lumber. A 1936 county highway map states that the area had scattered residences near one of its sawmills. Many of the old streets (constructed up to the 1950's) started off as oyster shell or gravel roads and over time were overlaid with asphalt and have periodically been overlaid and repaired over the years. Streets constructed in the 60's and 70's incorporated more concrete, many depressed with curb and gutter and storm sewer, but these streets typically did not include any preparation of subgrade under the pavements. With the development of more stringent construction standards, streets constructed since the 1980's are engineered for the specific soil conditions and have more comprehensive construction inspection and testing which tends to yield higher quality, longer lasting streets. Many of the streets in Bunker Hill Village were constructed in the 1950's and 60's and are nearing the end of their useful lives.

Starting in 2012, the City of Bunker Hill Village undertook a program to improve the drainage of problem areas throughout the City. As part of this program, streets were also reconstructed in order to implement much needed storm drainage improvements. The City is nearing the completion of their storm drainage improvements and will be re-focusing attention on streets that are in need of repair and replacement. The drainage improvement projects improved many streets. The drainage projects are completed and now the focus of the City's infrastructure needs will shift to rehabilitation of pavements based on condition and traffic volumes.

RATING SYSTEM

LLOYD, SMITHA & ASSOCIATES, LLC chose the Pavement Surface Evaluation and Rating System (PASER), developed by the University of Wisconsin-Madison, as the rating system recommended for evaluating Bunker Hill Village's roads. It was chosen because PASER is a nationally recognized method that is widely used in the industry. The Pavement Surface Evaluation and Rating (PASER) system is a visual method, based on engineering principles, for evaluating the condition of pavement surfaces in an easy-to-learn, time efficient and consistent way. PASER data serves as the foundation for understanding the current state of pavement condition, predicting future pavement condition and building cost-effective pavement maintenance strategies. Additionally, PASER ratings also provide an understandable way for an agency to communicate pavement condition to elected officials and the public. See Appendix A for the PASER Concrete Roads Manual and Appendix B for the PASER Asphalt Roads Manual.

Data was collected in the fall of 2024 thru the summer of 2025 by LSA personnel. Each street was walked, measured, and then assigned ratings based on a generic rating system using a 'good, fair, poor' classification criteria. As this preliminary data was very useful, a generic rating system was not a favorable tool for budget and planning purposes for future capital improvement projects. The City felt it necessary to take an organized approach to the roadway management plan to set realistic budgets, make timely repairs, and set up cost effective maintenance procedures. The City realized a standardized and planned approach, is easier to explain and receives greater public support.

DATA ANALYSIS

With data collected and streets rated, LLOYD, SMITHA & ASSOCIATES, LLC then evaluated the ratings from street-to-street to prioritize roadway replacements and maintenance based upon roadway pavement conditions. The city's entire public street system was also evaluated to develop an aggregate rating for the City.

EXISTING CONDITIONS

The Bunker Hill Villages' 12 miles of public pavement infrastructure includes asphalt pavements with no curb, asphalt pavement with concrete curb and gutter, concrete pavement with no curb, concrete pavement with curb and gutter, and concrete pavement with curb and gutter and asphalt overlay. The condition of streets varies greatly, but overall, the condition of streets in Bunker Hill Village is above average. With that said, there are some signs of fatigue in many of the asphalt and concrete streets which indicate the need for point repairs or require more concentrated attention in the future.

PAVEMENT LIFE CYCLE

The anticipated life cycle for pavements varies based upon many conditions. These conditions include the initial pavement and subgrade design, drainage conditions and traffic counts, to name a few. Pavement and subgrade design sets your baseline for pavement performance. On new pavement designs, the City uses a much more robust pavement design than may have been used in decades past, but many of the older streets are still reflective of the older designs. The current standards also provide for treatment of the existing soils and base materials that lie under the pavement to make them more compatible with supporting the dynamic loads of vehicular traffic over the life of the pavement. Without treatment with lime or similar chemical treatment, Houston's clayey soils experience a degree of movement due to changing moisture conditions that fatigues pavement and leads to structural failure earlier than when subgrade soil is treated.

Drainage conditions are also important and connected to the condition of the soils under the pavement. For streets without a curb, like many in Bunker Hill Village, it is important that any water that gets into the road's subgrade can drain away. Generally, roadside ditches are utilized when streets have no curbs. The ditches are generally lower than the subgrade and allow water to drain to the ditch. In the case of curbed streets, the roadway is depressed below adjacent property to allow for water to drain over the curb into the street and then to the storm sewer. Streets with high volumes of traffic or heavy loads can also take a toll on pavement life. Most streets in Bunker Hill Village, except for Gessner, Strey Lane, Knipp Road, Bunker Hill, Taylorcrest and Memorial Drive have relatively low traffic volumes. Though the remaining streets see relatively small volumes of traffic, the traffic load from construction equipment used in the re-construction of homes in the City can take a toll on the older streets.

ASPHALT STREETS

Historically, asphalt pavement has had a lower initial construction cost than concrete but requires maintenance and replacement sooner. The life cycle for asphalt pavement has been estimated to be 40 years for the purposes of this discussion. Though the life cycle is 40 years, maintenance may be required in as little as 5 years with resurfacing needed every 8 to 15 years depending upon conditions mentioned above.

CONCRETE STREETS

Based upon current construction techniques and design, the life cycle for concrete pavement is estimated to be 50 to 60 years depending upon conditions mentioned above. For neighborhood streets with low traffic counts, the streets could even last longer; however, on streets like Gessner with very high traffic volumes it may be less. Minimal routine maintenance is required for concrete streets, but pavement joint sealing should be replaced every 5-10 years to help prevent water from penetrating and deteriorating the subgrade, causing accelerated pavement failure.

MAINTENANCE PROGRAM

Proper maintenance of pavement is very important to extending the life of the City's pavement infrastructure. The best way to extend the life of asphalt or concrete pavement is to prevent water from compromising the integrity of the subgrade on which the pavement rests. There is no defined program for determining when and in what order pavements are maintained, by the Public Works Department. The Public Works Department is quick to identify problem areas where a pothole may be developing and are quick to take action to fill in potholes before they get large enough to cause property damage.

Maintenance and minor construction, such as crack sealing, base repairs, and concrete panel replacements have been proposed on streets with a rating between (4) and (6). These streets should be scheduled for maintenance either by the Public Works Department for crack sealing or performed by contractors in conjunction with other city projects.

RECOMMENDATION - IMPLEMENT A THREE STEP PROCESS

STEP 1 – ROADWAY CONDITION ASSESSMENT

It has become a common dilemma with other local and state governments, including the City of Houston, Harris County, and the State of Texas, that they do not have adequate tax revenues to address their future infrastructure needs. Tax revenues have been diverted to other uses in most cases, and Harris County has accepted infrastructure into their road log as subdivisions have developed that they never intended to maintain and ultimately reconstruct. The City of Bunker Hill Village, due to its size and strength, may have the ability to plan its future infrastructure needs and fund the maintenance and replacement of its streets as the end of their useful life approaches. This will allow the City to meet the expectations of its residents and protect the City's residents' property values in comparison to the surrounding area. This roadway condition assessment is meant to be the first step in that process, to identify the highest priority areas.

STEP 2 - CAPITAL IMPROVEMENT PROGRAM (CIP)

The next step in this process is to develop a capital improvement program for the replacement of failing streets and projected replacement of other aging streets in the future to ensure adequate funding to keep up with the City's infrastructure needs. Based on the findings of the street assessment, cost estimates are included for the reconstruction of pavements rated less than a PASER rating of (4). Projects in contention for reconstruction are shown in Appendix C — Street Inventory — Sorted by Roadway Rating in red.

STEP 3 - MAINTENANCE PROGRAM

In conjunction with the street conditions documented in this report, formulating an annual schedule of street maintenance tasks will be helpful in extending the life of the existing streets, and possibly bringing the PASER ratings up. Projects in contention for maintenance work are shown in Appendix C — Street Inventory — Sorted by Roadway Rating in yellow. Planning out priorities for the sealing of joints and cracks will help both in the planning of expenditures and prioritizing the streets that have the greatest need for maintenance. Implementing a maintenance program will allow the City to proactively budget future work.

SUMMARY

In planning annual maintenance and repair budgets, relating a normal maintenance or rehabilitation procedure to the surface rating scheme helps local officials use the rating system. However, an individual surface rating should not automatically dictate the final maintenance or rehabilitation technique. The City should also consider safety, future traffic projections, original construction, and pavement strength since these may dictate a more comprehensive rehabilitation than the rating suggests. On the other hand, it may be appropriate under special conditions to do nothing and let the pavement fully deteriorate, and then rebuild when funds are available.

In addition to indicating the surface condition of a road, a given rating also includes a recommendation for needed maintenance or repair. This feature of the rating system facilitates its use and enhances its value as a tool in ongoing road maintenance.

The table below includes a summary of the public ASPHALT street assessments:

ASPHALT RATINGS ARE RELATED TO NEEDED MAINTENANCE OR REPAIR						
<u>RATING</u>	<u>ASPHALT PAVEMENT ASSESSMENT</u>	<u>MAJOR STREETS</u>	<u>MINOR STREETS</u>	<u>LANE MILES MAJOR STREET</u>	<u>LANE MILES MINOR STREET</u>	<u>LIFE EXPECTANCY</u>
9-10	No maintenance Required	1	4	0.13	0.62	20-40
8	Little or no maintenance	5	28	14.24	8.7	10-20
7	Routine maintenance, crack sealing and minor patching					
5-6	Preservative treatments (sealcoating)					
3-4	Structural improvement and leveling (overlay or recycling)	0	0	0	0	0-10
1-2	Reconstruction					

*Life expectancy is dependent on variables including Traffic volumes now and, in the future, current and future drainage, maintenance implementation, pavement strength, etc...

The table below includes a summary of the public CONCRETE street assessments:

CONCRETE RATINGS ARE RELATED TO NEEDED MAINTENANCE OR REPAIR						
<u>RATING</u>	<u>CONCRETE PAVEMENT ASSESSMENT</u>	<u>MAJOR STREETS</u>	<u>MINOR STREETS</u>	<u>LANE MILES MAJOR SREET</u>	<u>LANE MILES MINOR</u>	<u>LIFE EXPECTANCY</u>
9-10	New pavement or recent concrete rehabilitation. No maintenance required	0	8	0.0	2.4	40-50
7-8	First signs of wear, scaling, or cracking. Needs routine maintenance	1	67	2.3	13.9	20-40
5-6	First signs of corner cracks, faulting, and joint or crack spalling. Requires surface repairs, sealing or partial depth patching					
3-4	Moderate to severe faulting, multiple slab cracking, and joint failure. Requires extensive slab or joint rehabilitation	0	0	0	0	0-20
1-2	Pavement failure requiring complete reconstruction					

*Life expectancy is dependent on variables including: Traffic volumes now and in the future, current and future drainage, maintenance implementation, pavement strength, etc...

Using local funds most efficiently requires good planning and accurate identification of appropriate rehabilitation projects. Assessing roadway conditions is an essential first step in this process. The PASER rating procedure has proved effective in improving decision making and using roadway funds more efficiently. It may be combined with additional testing and data collection in a more comprehensive pavement management system.

Overall, the streets in Bunker Hill Village are generally in good condition.

The streets that received a PASER rating of 5 were, Applewood Dr. It may be beneficial to grind the concrete to repair surface defects, and perform partial depth patching and joint repairs. Performing these or some specific repairs, could improve the PASER rating to 6 or 7. Should the City decide to reconstruct, the table below summarizes the estimated reconstruction costs for Applewood Drive.

Streets - PASER rating 5 and below					
Street	Length in Feet	Lane Mile	Pavement	Cost/Lane Mile	Reconstruciton Cost 2 lane Miles
Applewood	175	0.03	Concrete	\$1,100,000.00	\$72,916.67

The removal and replacement cost/lane mile of concrete pavement was derived from previous existing bid items on the East side Drainage Improvement project - Flintwood Street. The cost includes 7-inch reinforced concrete pavement with curb and gutter, 6 inch stabilized base, RCP, manholes, traffic control and trench safety.

This report only includes MAJOR streets assessments for Strey Ln and Knipp Road.

Pavement Surface Evaluation and Rating

PASER Concrete Roads Manual

RATING
10



RATING
7



RATING
4



RATING
1



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This manual is intended to assist local officials in understanding and rating the surface condition of concrete pavements. It describes types and causes of distress and provides a simple system to visually rate pavement condition. The rating procedure can be used as condition data for the Wisconsin DOT local road inventory and as part of a computerized pavement management system like PASERWARE.

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Pavement Surface Evaluation and Rating

PASER Concrete Roads Manual

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Pavement Surface Evaluation and Rating

Concrete PASER Manual

Many local agencies are responsible for maintaining roadways with concrete pavements. This manual offers useful information for planning maintenance and managing Portland Cement Concrete pavements. It discusses common problems and typical repairs and includes a visual system for evaluating and rating concrete pavements.

The Wisconsin Transportation Information Center has developed PASER manuals for other pavement types (see page 29). The rating systems are similar and compatible so that local road agencies can work with a comprehensive condition rating method. The rating procedure can be used as condition data for the Wisconsin DOT local road inventory (WISLR) and as part of a computerized pavement management system like PASERWARE.

Taking an organized approach to roadway management has many benefits. By documenting the actual conditions of roads you can set realistic budgets, make timely repairs, and set up cost effective maintenance procedures. Developing an overall plan for the roadway system lets local agencies develop budgets and plan for future needs. When detailed information is available, local officials can respond more effectively to questions from the public. A planned approach is easier to explain and receives greater public support.

Several key steps are necessary to develop a meaningful roadway management plan. First, you must inventory the existing condition. This is normally done by dividing the roadway into segments with similar conditions. During the inventory you collect information on construction history, roadway width, etc. Then you need some method for assessing the condition of the existing roadway. This *Concrete PASER Manual* uses a visual approach. Other information from material sampling, testing, and traffic counts can be useful when planning specific projects.

Another necessary step is setting priorities for roadway improvements. You can use roadway condition and the local importance of these roads to assign priorities. Then budgets can be developed based on cost estimates for the projected improvements. Since not all improvements can be made in one year, you can set up a 3-5 year budget and capital improvement plan. Normally this is updated annually.

Rigid pavement performance

Most concrete pavements on local roads are either plain (non-reinforced) or reinforced concrete. Reinforcement is usually provided by steel wire mesh placed approximately at mid slab depth. The reinforcement is intended to limit crack opening and movement in the concrete slab.

Since concrete slabs need to move (expand and contract) while curing and as temperature changes, pavements are constructed with contraction joints to control cracking. These are usually sawn into the pavement shortly after initial curing. This joint gives the slab a place to crack and makes a straight, well-formed groove to seal.

Expansion joints are occasionally provided. These are wider, full depth, and filled with a material to allow expansion. If used, they are placed adjacent to structures that cannot move with the pavement such as bridges, manholes, and other utility structures.

So-called rigid pavements (concrete) carry traffic loadings differently than flexible pavements (asphalt). Concrete pavements are designed to act like a beam and use the bending strength of the slabs to carry the load. Therefore load transfer across cracks and joints is important, especially on roads with heavy truck and bus traffic. Hairline and narrow cracks still have interlocked concrete aggregate and can effectively transfer loads. Because wide cracks and widely-spaced joints open up, they cannot transfer loads and must take higher edge loads. These higher edge loads can cause further cracking and deterioration along the joint or crack edges.

Some concrete pavements use joints that have load transfer dowels. These are smooth steel bars placed across the joint. They transfer traffic loads between adjacent concrete slabs while allowing opening and closing of the joint. These bars can rust and sometimes cause problems. The corrosion causes forces on the concrete which lead to spalling, cracking and general joint deterioration. Epoxy coated dowels are now commonly used.

Unsupported slab edges will deflect or bend under a load. If the supporting soil is saturated it can squirt up through joints or cracks when the slab bends. This is called *pumping*. Eventually the loss of supporting soil through pumping creates an empty space or void under the slab. The slabs may then crack further under loads and joints deteriorate more.

Undoweled joints under heavy truck traffic may *fault*. This is when one slab edge is lower than the next slab. The downstream traffic slab will be lower than the upstream slab, creating a step. Faulting creates a poor ride.

You can often detect pumping by the soil stains around pavement joints or cracks. The resulting voids can be filled with grout. Slabs can be leveled by slab jacking or mud jacking. Obviously, sealing cracks and joints and improving drainage of the subsoils will help reduce pumping, faulting, and joint failures.

Pavement conditions and defects

It is helpful to separate various conditions common to concrete pavements. These are described individually in some detail. We also include causes for deterioration and common strategies for repair. Some defects are localized while others indicate that problems may develop throughout the pavement. It is important to distinguish between local and widespread defects. Assessing the conditions of actual roadways also involves looking for combinations of these individual defects.

Surface defects

Wear and polishing, map cracking, pop-outs, scaling, shallow reinforcing, spalling.

Joints

Longitudinal joint, transverse joints.

Pavement cracks

Transverse slab cracks, D-cracking, corner cracks, meander cracks.

Pavement deformation

Blow ups; faulting; pavement settlement or heave; utility repairs, patches and potholes; manhole and inlet cracking; curb or shoulder deformation.

In reviewing the different defects it is important to consider both their severity and extent. Generally, conditions begin slowly and progressively become more serious. Slight defects may grow into moderate and then severe conditions. In addition, the defects might initially be indicated only in a few isolated cases. Examples in the rating section will help you identify how bad a condition is and how extensive it is.

SURFACE DEFECTS

Wear and polishing

A worn or polished surface may appear from traffic wearing off the surface mortar and skid resistant texture. Extensive wear may cause slight ruts where water can collect and cause hydroplaning. Sometimes traffic may polish aggregates smooth, causing the surface to be slippery. An asphalt overlay or grinding of the concrete surface can restore skid resistance and remove ruts.

▶ **Surface mortar worn away exposing larger aggregate. Accidents or friction testing may indicate a slippery surface in need of improved texture.**

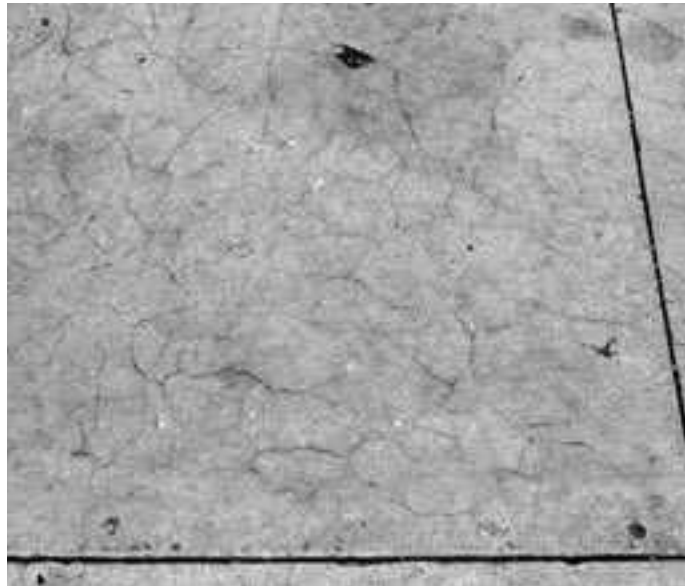


Map cracking

A pattern of fine cracks usually spaced within several inches is called map cracking. It usually develops into square or other geometrical patterns. Can be caused by improper cure or overworking the surface during finishing. If severe, cracks may spall or surface may scale. Repair is usually limited to very severe conditions. An asphalt overlay or partial depth patching may then be necessary.

Pop-outs

Individual pieces of large aggregate may pop out of the surface. This is often caused by chert or other absorbent aggregates that deteriorate under freeze-thaw conditions. Surface patching can be done temporarily with asphalt. For severe areas, a more permanent partial depth concrete patch may be necessary.



▲ **Close-up of a polished pavement surface.**

◀ **Hairline surface cracks, probably shallow in depth. May not cause any long term performance problems.**



◀ **Extensive pop-outs of large aggregate from surface. Pop-outs alone have not affected pavement serviceability.**

► Moderate surface scaling. Loss of mortar and fines from the surface beginning to expose larger aggregate.



► Severe scaling. Some larger aggregate is loose.



Reinforcing bar exposed. Shallow concrete cover caused large spall to develop around it. ▼



◀ Wire reinforcing mesh placed close to surface. Corrosion of the reinforcing steel causes the surface mortar to spall. Very difficult to patch and repair.

Scaling

Scaling is surface deterioration that causes loss of fine aggregate and mortar. More extensive scaling can result in loss of large aggregate. Often caused by using concrete which has not been air-entrained, the surface becomes susceptible to freeze-thaw damage. Scaling is also aggravated by the use of deicing chemicals.

Scaling can occur as a general condition over a large area or be isolated to locations where poor quality concrete or improper finishing techniques caused loss of air entrainment. In severe cases, deterioration can extend deep into the concrete. Traffic action may accelerate scaling in the wheel paths.

Grinding may remove poor quality surface concrete. Asphalt overlays or a bonded concrete resurfacing can prolong the life of the pavement. Partial depth patching of isolated areas may also be used.

Shallow reinforcing

If the steel reinforcing bar or mesh is placed too close to the concrete surface it will lead to concrete spalling. Corrosion of the steel creates forces that

break and dislodge the concrete. Often you can see rust stains in the surface cracks before spalling occurs. Can be temporarily patched with asphalt. Permanent repairs are difficult and usually involve replacing the steel and making a partial depth or full depth concrete repair.

◀ Surface stain parallel to joint. Indicates reinforcing steel too close to surface.



Spalling

Spalling is the loss of a piece of the concrete pavement from the surface or along the edges of cracks and joints. Cracking or freeze-thaw action may break the concrete loose, or spalling may be caused by poor quality materials. Spalling may be limited to small pieces in isolated areas or be quite deep and extensive.

Repair will depend on the cause. Small spalled areas are often patched. Spalling at joints may require full depth joint repair.

▶
**Small surface
spalls that
have been
patched.**



▶
**Spalling along
longitudinal
joints.**



▼ **A severely
spalled crack.**



▶
**Spalling over
shallow reinforcing.**



JOINTS

Longitudinal joints

Longitudinal paving joints are constructed to be narrow in width and usually well sealed. As pavements age and materials deteriorate, joints may open and further deteriorate. Cracks parallel to the initial joint may develop and accelerate into spalling or raveling of the longitudinal joint. Settlement, instability, or pumping of the subgrade soil can cause longitudinal joints to fault. One common cause of cracks parallel to the longitudinal joints is waiting too long after the pour to saw the joint. Then, during initial cure the slab will crack roughly parallel (but not exactly) to the sawn joint.

Maintaining a tight joint seal can prevent intrusion of water and reduce freeze-thaw damage and pumping. Severe joint deterioration may require full depth patching and replacement of the joint.

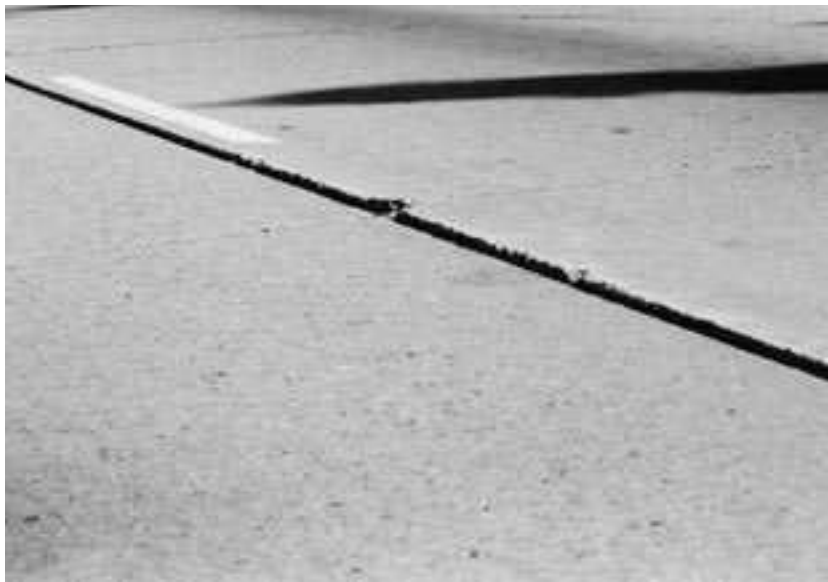


▲ Joint open about 1/2".

◀ New, well-sealed longitudinal joint.



▲ Additional joint cracking, spalling, and broken pavement. Full depth repair is needed.



▲ Faulted longitudinal joint (over 1/2") with slight edge spalling.

Transverse joints

Transverse joints are constructed in concrete pavements to permit movement of the concrete slabs. Some joints are constructed with load transfer dowels. If the pavement has poor subsurface drainage, traffic may eventually create voids under the joints due to pumping and cause the slabs to settle or fault. Freeze-thaw deterioration at the joint can cause spalling and create additional cracks parallel to the joint. Load transfer bars may corrode, creating expansive forces that further deteriorate the concrete at the joint.

Occasionally, severe joint deterioration may develop from poor quality aggregate and so-called D-cracking. Joint sealing will help, but complete replacement is usually necessary.

Overall, lack of joint maintenance and rehabilitation is a common problem. Maintaining a tight, well sealed joint can reduce water intrusion and thereby reduce freeze-thaw damage, pumping, blow-ups, D-cracking, and spalling. Early repair of minor defects can often reduce the need for complete joint repair or replacement.

▼ **New, well-sealed transverse joint.**



▼ **Transverse joint has slight faulting and spalling.**



► **Severe spalling of a transverse joint.**



►► **Cracks parallel to joint. Dark color next to transverse joint likely indicates D-cracking and additional deterioration. Full depth repair required.**



► **Severe spalling has required temporary patching. Complete joint replacement is necessary.**



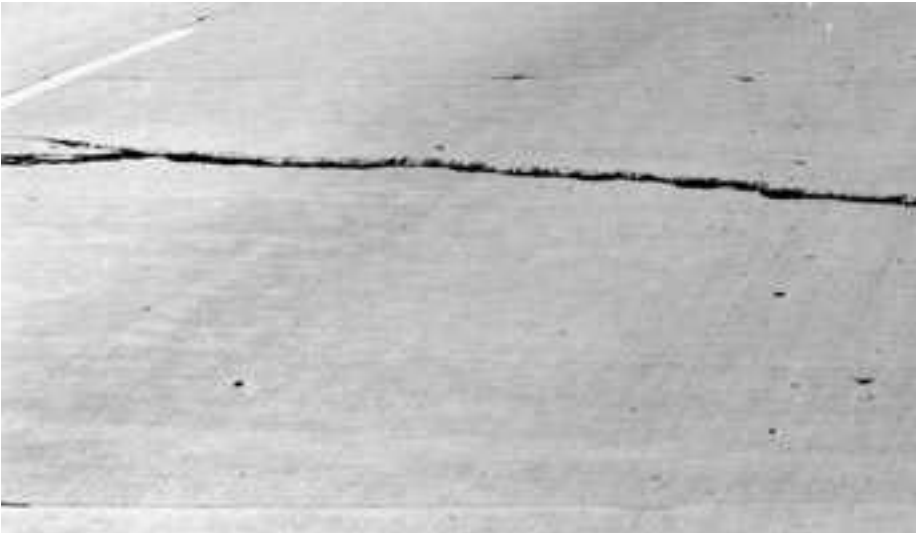
PAVEMENT CRACKS

Transverse slab cracks

Transverse cracks may appear parallel to joints and can be caused by thermal stresses, poor subgrade support, or heavy loadings. They are sometimes related to slabs having joints spaced too widely. Joints spaced more than 15' apart commonly develop mid-slab transverse cracks.



◀
**Transverse,
open crack.**



◀
**Faulted transverse
crack with slight
edge spalling.**

As with joints, these cracks may deteriorate further if not sealed well. Slabs can fault at cracks which can spall and develop additional parallel cracking. Severe deterioration may require patching individual cracks. Multiple transverse cracks in individual slabs indicate further deterioration. Extensive transverse cracking indicates pavement failure and the need for complete replacement.



◀
**Closely spaced,
hairline transverse
cracks. Indicates slab
is broken
and in need of
replacement.**

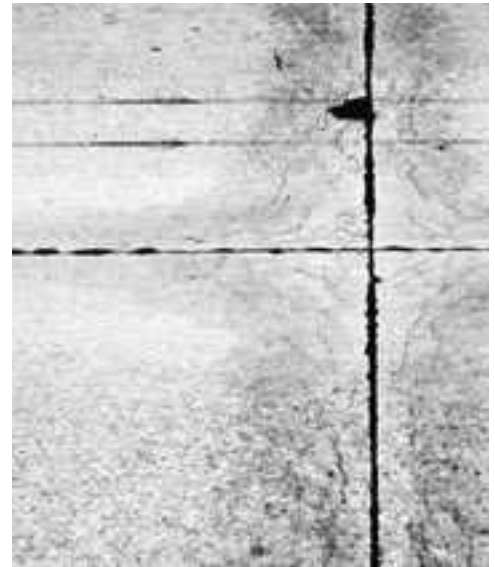
D-cracks

Occasionally, severe deterioration may develop from poor quality aggregate. So called D-cracking develops when the aggregate is able to absorb moisture. This causes the aggregate to break apart under freeze-thaw action which leads to deterioration. Usually, it starts at the bottom of the slab and moves upward.

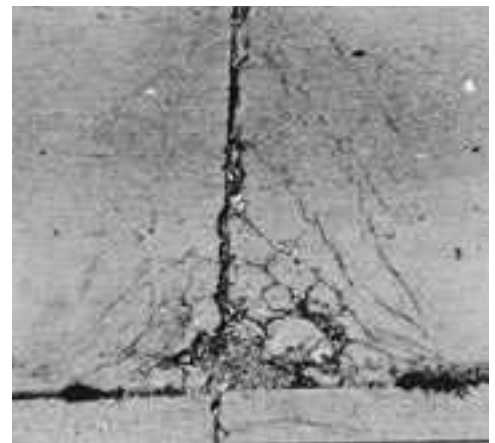
Fine cracking and a dark discoloration adjacent to the joint often indicate a D-cracking problem. Once this is visible on the surface the pavement material is usually severely deteriorated and complete replacement is required.

Joint or crack sealing helps slow D-cracking deterioration. This is a serious defect because it may indicate a material quality problem throughout the pavement.

Surface discoloration near joints and cracks indicates D-cracking and severe slab deterioration.



Multiple crack patterns adjacent to joints. Common D-cracking pattern.



Corner cracks

Diagonal cracks near the corner of a concrete slab may develop, forming a triangle with a longitudinal and transverse joint. Usually these cracks are within one foot of the corner of the slab. They are caused by insufficient soil support or concentrated stress due to temperature related slab movement. The corner breaks under traffic loading. They may begin as hairline cracks.

Some corner cracks extend the full depth of the slab while others start at the surface and angle down toward the joint. With further deterioration, more cracking develops; eventually the entire broken area may come loose. This may be a localized failure or may point to widespread maintenance problems.

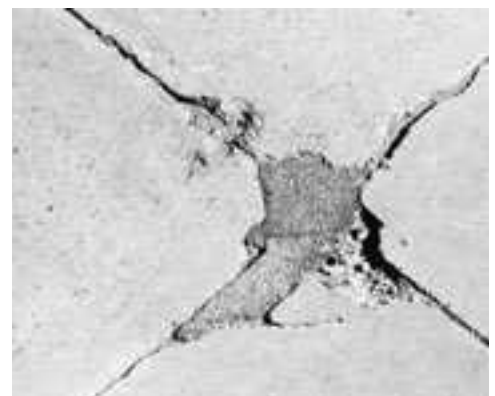
Partial or full depth concrete patching or full depth joint replacement may be necessary when corner cracking is extensive.

Corner cracking with broken concrete pieces.



First signs of corner cracking.

Severely spalled corner crack with missing pieces and patching.



Meander cracks

Some pavement cracks appear to wander randomly. They may cross a slab diagonally or meander like a serpent. Meander cracks may be caused by settlement due to unstable subsoil or drainage problems, or by utility trench settlement. Frost heave and spring thaw can also cause them. They are often local in nature and may not indicate general pavement problems.

Minor cracks may benefit from sealing to minimize water intrusion. Extensive or severe meander cracking may require replacing the slab, stabilizing the subsurface, or improving drainage.



Meander crack roughly parallel to longitudinal joint.



Meander crack caused by settlement. Lack of maintenance allows water to intrude and debris to collect in crack.



Faulting and spalling of a meander crack.

PAVEMENT DEFORMATION

Blowups

Concrete slabs may push up or be crushed at a transverse joint. This is caused by expansion of the concrete where incompressible materials (sand, etc.) have infiltrated into poorly sealed joints. As a result, there is no space to accommodate expansion. It is more common in older pavements with long joint spacing. Pressure relief joints can be installed and blowup areas must be patched or reconstructed.



◀ Internal pressure has partially raised slab at the joint. Complete replacement is required.

▼ A pavement blowup in progress. Concrete is crushed and slabs buckled.

Faulting

Joints and cracks may fault or develop a step between adjacent slabs. Faulting is caused by pumping of subgrade soils and creation of voids. Heavy truck or bus traffic can rapidly accelerate faulting. Longitudinal joints may fault due to settlement of an adjacent slab.

Faulting creates a poor ride and may cause slab deterioration. Minor faulting can be corrected by surface grinding. Voids can be subsealed, or slabs nudged back to level position. Severe cases may need joint replacement.

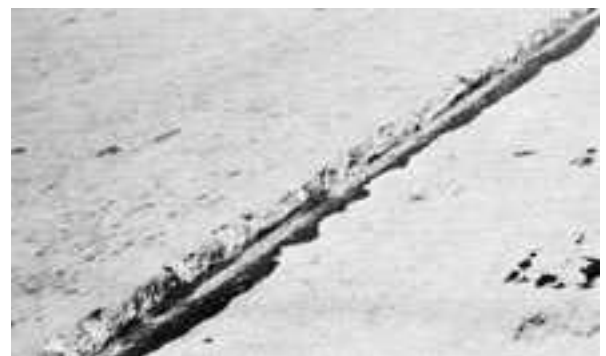


▲ Minor faulting of transverse joints. Aggravated by heavy traffic. Surface grinding will improve ride.



▲ Faulted longitudinal joint.

▶ Severely faulted joint. Slab jacking is necessary.



► Settlement caused meander crack with faulting.



Extensive cracking and patching caused by settlement. Pavement was built on unstable sub-grade soils.



Pavement settling or heave

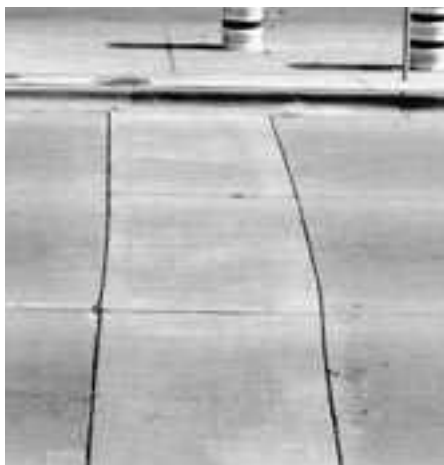
Unstable or poorly drained subgrade soils may cause pavements to settle after construction. Poorly compacted utility trenches may also settle. This may be a gentle swale or a fairly severe dip.

Frost-susceptible soils and high water tables can cause pavements to heave during the winter months. Extensive pavement cracking and loss of strength during the spring can result in severe deterioration. Improved drainage and stabilization of subgrade soils are usually necessary, along with pavement reconstruction.

Utility repairs, patches and potholes

Replacement or repair of utilities will require cuts or utility openings. When repaired these pavement patches may show settlement, joint deterioration, or distress under continued traffic loading. Patches from previous repairs may perform like original pavement or experience joint deterioration or settlement.

Localized failures of materials or subgrade soil can cause individual potholes. Surface spalling or other material defects may develop into localized potholes. Full depth patching is usually required.



▲ Utility repair or full depth joint repair. Very good condition.



▲ Asphalt patches. Poor (top) and fair (bottom) condition.



▲ Potholes caused by severe joint deterioration. Need repair.

Manhole and inlet cracks

Normal pavement movement due to frost heaving and movements due to changes in temperature often cannot be accommodated in the pavement adjacent to a manhole or a storm sewer inlet. Cracks and faulting may develop and the concrete slab may deteriorate further. These are often localized defects that may not indicate a general pavement problem. Sealing and patching may slow the deterioration. Eventually full depth repairs may be required.

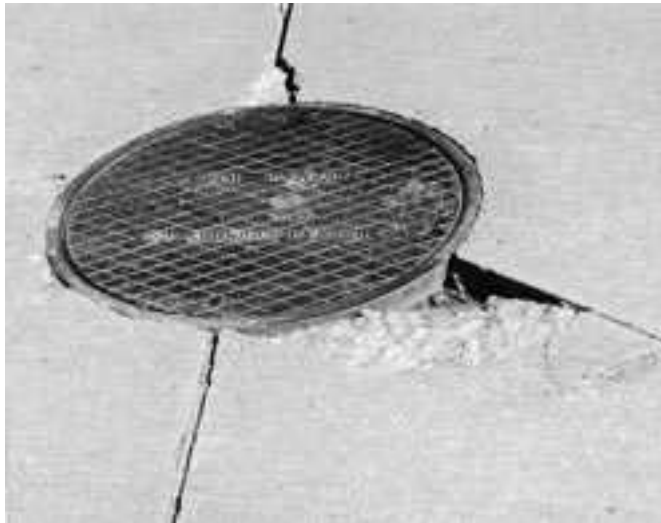
Curb or shoulder deformation

Concrete curb and gutter, or paved concrete shoulders, may separate from or settle along the main pavement. The longitudinal joints between the pavement and curb or shoulder may open, fault, or deteriorate like other longitudinal joints. When severe enough to disrupt drainage, the curb and gutter need to be replaced. Shoulder deterioration may require patching or replacement.

Settled gutter and joint filled with debris. Joint maintenance is needed. ▼



Extensive curb deterioration. Freeze-thaw damage to curb adjacent to inlet, and gutter is displaced. New curb and gutter are needed. ►



Two spalls at manhole in a new pavement. Partial depth patching would be beneficial. ◀

Extensive cracking and spalling at manhole requiring full depth repairs. ▼



Rating pavement surface condition

With an understanding of roadway conditions and distress, you can evaluate and rate concrete pavements. The rating scale ranges from **10—excellent** condition to **1—failed**. In general, most pavements will deteriorate through the phases listed in the rating scale. However, it is common for pavements to skip several levels when major defects appear or when the pavement is repaired. The time it takes to go from an excellent (10) to a very poor condition (1) depends largely on the quality of the original construction and the amount of heavy traffic loading.

Once significant deterioration begins it is common to see pavements deteriorate rapidly. This is usually due to the combined effects of loading and additional moisture. As a pavement ages and additional cracking develops, more moisture can enter the pavement and accelerate the rate of deterioration.

Look at the photographs which follow and become familiar with the descriptions of the individual rating categories. To evaluate an individual pavement segment, first determine its general condition. Is it relatively new, toward the top end of the scale? In very poor condition and at the bottom of the scale? Or somewhere in between?

Next, think generally about the appropriate maintenance method.

Finally, review the individual pavement condition and distress and select the appropriate pavement rating. Remember that individual pavements will not have all of the types of distress listed for any particular rating. They may have only one or two types. Use the categories in the table below and on page 16.

We have found that relating a normal maintenance or rehabilitation procedure to the surface rating scheme helps you

use the rating system. However, choosing an individual surface rating should not automatically dictate the final maintenance or rehabilitation technique.

You should consider safety, future traffic projections, original construction, and pavement strength since these may dictate a more comprehensive rehabilitation. On the other hand, it may be appropriate under special conditions to do nothing and let the pavement fully deteriorate and then rebuild when funds are available.

RATINGS ARE RELATED TO NEEDED MAINTENANCE OR REPAIR

Rating 9 & 10	New pavement or recent concrete rehabilitation. No maintenance required.
Rating 7 & 8	First signs of wear, scaling, or cracking. Needs routine maintenance.
Rating 5 & 6	First signs of corner cracks, faulting, and joint or crack spalling. Requires surface repairs, sealing or partial depth patching.
Rating 3 & 4	Moderate to severe faulting, multiple slab cracking, and joint failure. Requires extensive slab or joint rehabilitation.
Rating 1 & 2	Pavement failure requiring complete reconstruction.

Rating system

Surface rating	Visible distress*	General condition/ treatment measures
10 Excellent	None.	New pavement. No maintenance required.
9 Excellent	Traffic wear in wheelpath. Slight map cracking or pop-outs.	Recent concrete overlay or joint rehabilitation. Like new condition. No maintenance required.
8 Very Good	Pop-outs, map cracking, or minor surface defects. Slight surface scaling. Partial loss of joint sealant. Isolated meander cracks, tight or well sealed. Isolated cracks at manholes, tight or well sealed.	More surface wear or slight defects. Little or no maintenance required.
7 Good	More extensive surface scaling. Some open joints. Isolated transverse or longitudinal cracks, tight or well sealed. Some manhole displacement and cracking. First utility patch, in good condition. First noticeable settlement or heave area.	First sign of transverse cracks (all tight); first utility patch. More extensive surface scaling. Seal open joints and other routine maintenance.
6 Good	Moderate scaling in several locations. A few isolated surface spalls. Shallow reinforcement causing cracks. Several corner cracks, tight or well sealed. Open (1/4" wide) longitudinal or transverse joints and more frequent transverse cracks (some open 1/4").	First signs of shallow reinforcement or corner cracking. Needs general joint and crack sealing. Scaled areas could be overlaid.
5 Fair	Moderate to severe polishing or scaling over 25% of the surface. High reinforcing steel causing surface spalling. Some joints and cracks have begun spalling. First signs of joint or crack faulting (1/4"). Multiple corner cracks with broken pieces. Moderate settlement or frost heave areas. Patching showing distress.	First signs of joint or crack spalling or faulting. Grind to repair surface defects. Some partial depth patching or joint repairs needed.
4 Fair	Severe polishing, scaling, map cracking, or spalling over 50% of the area. Joints and cracks show moderate to severe spalling. Pumping and faulting of joints (1/2") with fair ride. Several slabs have multiple transverse or meander cracks with moderate spalling. Spalled area broken into several pieces. Corner cracks with missing pieces or patches. Pavement blowups.	Needs some full depth repairs, grinding, and/or asphalt overlay to correct surface defects.
3 Poor	Most joints and cracks are open, with multiple parallel cracks, severe spalling, or faulting. D-cracking is evident. Severe faulting (1") giving poor ride. Extensive patching in fair to poor condition. Many transverse and meander cracks, open and severely spalled.	Needs extensive full depth patching plus some full slab replacement.
2 Very Poor	Extensive slab cracking, severely spalled and patched. Joints failed. Patching in very poor condition. Severe and extensive settlements or frost heaves.	Recycle and/or rebuild pavement.
1 Failed	Restricted speed. Extensive potholes. Almost total loss of pavement integrity.	Total reconstruction.

* Individual pavements will not have all of the types of distress listed for any particular rating. They may have only one or two types.

**RATING 10 & 9****EXCELLENT —****No maintenance required**

Rating 10 is for new pavement. Rating 9 is used for recent concrete rehabilitation or like-new condition. Some traffic wear. Slight map cracking or pop-outs. No maintenance required.



RATING 10
New pavement
with integral
curb.



RATING 9
Like new
condition.



RATING 9
Recent joint
rehabilitation.
Like new
condition.

RATING 8

VERY GOOD — Little or no maintenance required

More surface wear, or slight defects showing in lanes. Pop-outs, slight surface scaling, partial loss of joint sealant, or isolated meander crack. Isolated manhole distress. Little or no maintenance required.



▶ Slight scaling.



▶ Isolated spall at manhole.



▲ Partial loss of joint sealant.



▶ Isolated meander crack, tight and well sealed.

RATING 7

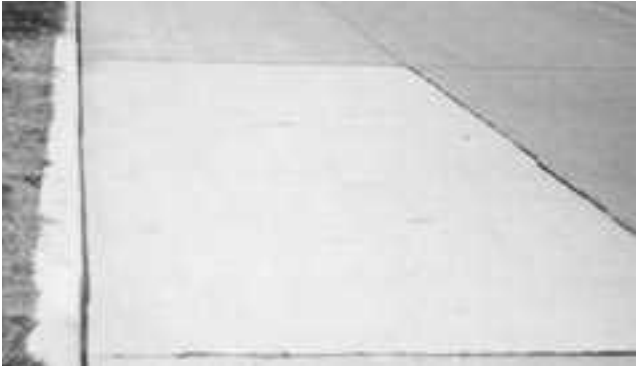
GOOD — May require some routine sealing or maintenance

First signs of transverse cracking, patching or repair; more extensive pop-outs or scaling; some manhole displacement, isolated heave or settlement. May need some sealing or routine maintenance.

◀ **Residential street pavement in good condition after many years of service. May only need periodic joint sealing maintenance.**



◀ **Extensive pop-outs. Pavement is unsightly but still provides good level of service.**



◀ **Recent full depth pavement repair. In very good condition.**



◀ **Well sealed transverse crack. Joint repairs in good condition.**

◀ **Transverse crack. Tight, sound pavement.**

RATING 6

GOOD — Joint and crack sealing needed

First signs of corner cracking or shallow reinforcement. More frequent transverse cracks. Open (1/4") joints and cracks. Moderate scaling. Needs joint and crack sealing.

▶
Several transverse cracks. Tight or well sealed.



▼
Surface rust stain. Indicates shallow reinforcing.

▶
Moderate scaling.



▲ **First signs of corner cracks.**



▲ **Isolated, tight meander crack. Several pop-outs. Remaining joints and cracks all tight and sound.**



RATING 5

FAIR — Partial depth patching and joint repairs may be needed

First signs of joint or crack spalling, or faulting. Multiple cracking at corners with broken pieces. Patching in fair condition. Surface texturing repairs may be necessary. Some partial depth patching and joint repairs may be needed.



Faulting at longitudinal joint and spalling along joint edge.



First signs of transverse joint faulting. Grinding will improve ride.



▲ Open cracks with edge spalling. Corner crack and broken corner piece.



▲ Isolated manhole problems and joint spalling. Full depth repair required adjacent to manhole.

RATING 5

FAIR — (continued)
Partial depth patching and joint repairs may be needed

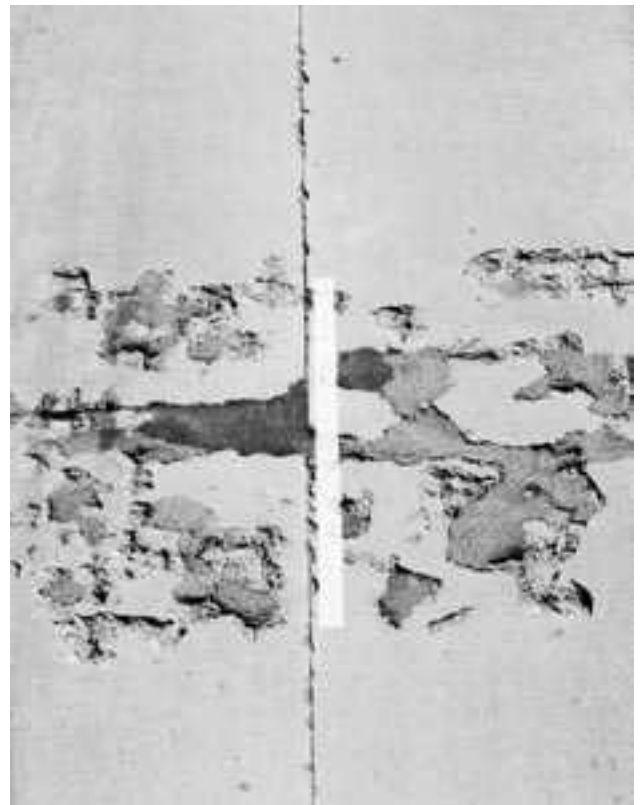
▶ Broken corner pieces. Some joint spalling.



▼ Patching in fair condition.



▲ Severe scaling over extensive areas. Patching or overlay needed.



▲ Spalling caused by shallow reinforcing steel. Temporary patching needs to be followed by extensive partial depth repairs.

Wide open meander crack (1") with edge spalling.

▼ Corner crack with spalling.



RATING 4

FAIR — Some full depth joint or crack repair required

Severe surface distress requires asphalt overlay or extensive surface texturing. Multiple transverse cracks with spalling and broken pieces. Corner cracking with potholes or patches. Blowups. Some full depth joint or crack repair required.

◀ All joints show some deterioration and spalling.



◀ Multiple open transverse cracks. Failed corner crack. Patches in fair condition.



◀ Moderate spalling at transverse joint.

▲ Corner cracking developed into small hole; moderate spalling of transverse crack.



◀ Moderate to severe longitudinal joint faulting. Transverse joint also has spalling.

RATING 3

POOR — Extensive full depth patching plus some full slab replacement required

Most joints and cracks are open (1"), spalled, or patched. D-cracking is evident. Severe (1") faulting. Extensive full depth patching required plus some full slab replacement.

▶ **Joints and cracks badly spalled. Patching is failing. Full depth repairs required.**



Multiple transverse cracks. Poor longitudinal joint with spalling. ▼



▶ **D-cracking (discoloration) at transverse joint and corner cracking. Needs full-depth repair.**



▶ **Discoloration at joints indicates D-cracking. Slab replacement needed.**



▶ **Badly spalled joint and open crack. Slab or joint replacement needed.**



▲ **Failed joint needs replacement.**



RATING 2

VERY POOR — Pavement recycling and reconstruction necessary

◀ Failed patches. Replace entire portion of lane.



▲ Remove and replace pavement around manhole and inlet.



◀ Closely spaced transverse cracks and poor longitudinal joint. Replace slab.



◀ Severe deterioration. Requires extensive reconstruction.



▲ Extensive joint failure. Major rehabilitation or complete replacement needed.

RATING 1

FAILED — Complete reconstruction necessary

▶
Slab and patch failure.



▶
Broken slabs require complete rebuilding.



▶
Total failure.



Practical advice on rating roads

Inventory and field inspection

Most agencies routinely observe roadway conditions as a part of their normal work and travel. However, an actual inspection means looking at the entire roadway system as a whole and preparing a written summary of conditions. This inspection has many benefits over casual observations. It can be helpful to compare segments, and ratings decisions are likely to be more consistent because the roadway system is considered as a whole within a relatively short time.

An inspection also encourages a review of specific conditions important in roadway maintenance, such as drainage, adequate strength, and safety.

A simple written inventory is useful in making decisions where other people are involved. You do not have to trust your memory, and you can usually answer questions in more detail. Having a written record also improves your credibility with the public.

Finally, a written inventory is very useful in documenting changing roadway conditions. Without records over several years, it is impossible to know if your overall road conditions are improving, holding their own, or declining.

Annual budgets and long range planning are best done when based on actual needs as documented with a written inventory.

The Wisconsin DOT local road inventory (WISLR) is a valuable resource for managing your local roads. Adding PASER surface condition ratings is an important improvement.

Averaging and comparing sections

For evaluation, divide the local road system into individual segments which are similar in construction and condition. Rural segments may vary from ½ mile to a mile long, while sections in urban areas will likely be 1-4 blocks

long or more. If you are starting with the WISLR Inventory, the segments have already been established. You may want to review them for consistent road conditions. Obviously no roadway segment is entirely consistent. Also, individual pavements will not have all of the types of distress listed for any particular rating. They may have only one or two types. Therefore, some “averaging” is necessary.

The objective is to rate the condition that represents the majority of the roadway. Small or isolated conditions should not influence the rating. It is useful to note special conditions on the inventory form so this information can be used in project design. For example, some spot repairs may be required.

Occasionally pavement conditions will vary significantly. For example, short sections of good condition may be followed by sections of poor pavement conditions. In this case, it is best to rate the pavement according to the worst conditions and note the variation on the form.

The overall purpose of condition rating is to be able to compare each segment relative to all the other segments in your roadway system. On completion you should be able to look at any two pavement segments and find that the better surface has a higher rating.

Within a given rating, say 6, not all pavements will be exactly the same. However, they should all be considered to be in better condition than those with lower ratings, say 5.

Sometimes it is helpful in rating a difficult segment to compare it to other previously rated segments. For example, if it is better than one you rated 5, and worse than a typical 7, then a rating of 6 is appropriate. Having all pavement segments rated in the proper relative order is important and useful.

Assessing drainage conditions

Moisture and poor pavement drainage are significant factors in pavement deterioration. Some assessment of drainage conditions during pavement rating is highly recommended. While you should review drainage in detail at the project level, at this stage simply include an

▼ Urban drainage. RATING: Excellent



▲ Adequate rural ditch and good erosion control. RATING: Good

overview drainage evaluation at the same time as you evaluate surface condition.

Look at the roadway crown and check for low surface areas that permit ponding. Paved surfaces should have approximately a 2% cross slope or crown across the roadway. Rural



▲ Reshape terrace behind curb to restore drainage and prevent damage to curb and street.

RATING: Fair

shoulders should have a greater slope to improve surface drainage.

Good drainage improves a pavement's ability to resist pumping, faulting and joint damage. Some new concrete pavements are being constructed with a special drainage layer and drain system to reduce water-related deterioration.

These systems require inspection and periodic maintenance.

You should also check curb and gutter, culverts, and storm drain systems. Storm drainage systems that are silted in, have a large accumulation of debris, or are in poor structural condition will also degrade pavement performance.

The T.I.C. publication, *Drainage Manual: Local Road Assessment and Improvement*, describes the elements of drainage systems, depicts them in detailed photographs,

and explains how to rate their condition. Copies are available from the T.I.C.

Planning annual maintenance and repair budgets

We have found that relating a normal maintenance or rehabilitation procedure to the surface rating scheme helps local officials use the rating system. However, an individual surface rating should not automatically dictate the final maintenance or rehabilitation technique.

You should consider safety, future traffic projections, original construction, and pavement strength since these may dictate a more comprehensive rehabilitation than the rating suggests. On the other hand, it may be appropriate under special conditions to do nothing and let the pavement fully deteriorate, then rebuild when funds are available.

Summary

Using local road funds most efficiently requires good planning and accurate identification of appropriate rehabilitation projects. Assessing roadway conditions is an essential first step in this process. This concrete pavement surface condition rating procedure has proved effective in improving decision making and using roadway funds more efficiently. It can be used directly by local officials and staff. It may be combined with additional testing and data collection in a more comprehensive pavement management system.



► Flooding. Curb and gutter need reconstruction.

RATING: Poor

**Transportation
Information
Center
Publications**

Pavement Surface Evaluation and Rating (PASER) Manuals

Asphalt PASER Manual, 2002, 28 pp.

Brick and Block PASER Manual, 2001, 8 pp.

Concrete PASER Manual, 2002, 28 pp.

Gravel PASER Manual, 2002, 20 pp.

Sealcoat PASER Manual, 2000, 16 pp.

Unimproved Roads PASER Manual, 2001, 12 pp.

Drainage Manual

Local Road Assessment and Improvement, 2000, 16 pp.

SAFER Manual

Safety Evaluation for Roadways, 1996, 40 pp.

Flagger's Handbook (pocket-sized guide), 1998, 22 pp.

Work Zone Safety, Guidelines for Construction, Maintenance, and Utility Operations, (pocket-sized guide), 2002, 58 pp.

Wisconsin Transportation Bulletins

- #1 Understanding and Using Asphalt
- #2 How Vehicle Loads Affect Pavement Performance
- #3 LCC—Life Cycle Cost Analysis
- #4 Road Drainage
- #5 Gravel Roads
- #6 Using Salt and Sand for Winter Road Maintenance
- #7 Signing for Local Roads
- #8 Using Weight Limits to Protect Local Roads
- #9 Pavement Markings
- #10 Seal Coating and Other Asphalt Surface Treatments
- #11 Compaction Improves Pavement Performance
- #12 Roadway Safety and Guardrail
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- #16 Geotextiles in Road Construction/Maintenance and Erosion Control
- #17 Managing Utility Cuts
- #18 Roadway Management and Tort Liability in Wisconsin
- #19 The Basics of a Good Road
- #20 Using Recovered Materials in Highway Construction
- #21 Setting Speed Limits on Local Roads

PASER

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University of Wisconsin–Madison

Concrete Roads

Pavement Surface Evaluation and Rating

PASER Asphalt Roads Manual

RATING
10



RATING
7



RATING
4



RATING
1



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This manual is intended to assist local officials in understanding and rating the surface condition of asphalt pavement. It describes types of defects and provides a simple system to visually rate pavement condition. The rating procedure can be used as condition data for the Wisconsin DOT local road inventory and as part of a computerized pavement management system like PASERWARE.

The PASER system described here and in other T.I.C. publications is based in part on a roadway management system originally developed by Phil Scherer, transportation planner, Northwest Wisconsin Regional Planning Commission.

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Pavement Surface Evaluation and Rating

PASER Manual

Asphalt Roads

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Pavement Surface Evaluation and Rating

Asphalt PASER Manual

A local highway agency's major goal is to use public funds to provide a comfortable, safe and economical road surface—no simple task. It requires balancing priorities and making difficult decisions in order to manage pavements. Local rural and small city pavements are often managed informally, based on the staff's judgment and experience. While this process is both important and functional, using a slightly more formalized technique can make it easier to manage pavements effectively.

Experience has shown that there are three especially useful steps in managing local roads:

1. Inventory all local roads and streets.
2. Periodically evaluate the condition of all pavements.
3. Use the condition evaluations to set priorities for projects and select alternative treatments.

A comprehensive pavement management system involves collecting data and assessing several road characteristics: roughness (ride), surface distress (condition), surface skid characteristics, and structure (pavement strength and deflection). Planners can combine this condition data with economic analysis to develop short-range and long-range plans for a variety of budget levels. However, many local agencies lack the resources for such a full-scale system.

Since surface condition is the most vital element in any pavement management system, local agencies can use the simplified rating system presented in this *Asphalt PASER Manual* to evaluate their roads. The PASER ratings combined with other inventory data (width, length, shoulder, pavement type, etc.) from the WisDOT local roads inventory (WISLR) can be very helpful in planning future budgets and priorities.

WISLR inventory information and PASER ratings can be used in a computerized pavement management system, PASERWARE, developed by the T.I.C and WisDOT. Local officials can use PASERWARE to evaluate whether their annual road budgets are adequate to maintain or improve current road conditions and to select the most cost-effective strategies and priorities for annual projects.

PASER Manuals for gravel, concrete, and other road surfaces, with compatible rating systems are also available (page 29). Together they make a comprehensive condition rating method for all road types. PASER ratings are accepted for WISLR condition data.

Asphalt pavement distress

PASER uses visual inspection to evaluate pavement surface conditions. The key to a useful evaluation is identifying different types of pavement distress and linking them to a cause. Understanding the cause for current conditions is extremely important in selecting an appropriate maintenance or rehabilitation technique.

There are four major categories of common asphalt pavement surface distress:

Surface defects

Raveling, flushing, polishing.

Surface deformation

Rutting, distortion—rippling and shoving, settling, frost heave.

Cracks

Transverse, reflection, slippage, longitudinal, block, and alligator cracks.

Patches and potholes

Deterioration has two general causes: environmental due to weathering and aging, and structural caused by repeated traffic loadings.

Obviously, most pavement deterioration results from both environmental and structural causes. However, it is important to try to distinguish between the two in order to select the most effective rehabilitation techniques.

The rate at which pavement deteriorates depends on its environment, traffic loading conditions, original construction quality, and interim maintenance procedures. Poor quality materials or poor construction procedures can significantly reduce the life of a pavement. As a result, two pavements constructed at the same time may have significantly different lives, or certain portions of a pavement may deteriorate more rapidly than others. On the other hand, timely and effective maintenance can extend a pavement's life. Crack sealing and seal coating can reduce the effect of moisture in aging of asphalt pavement.

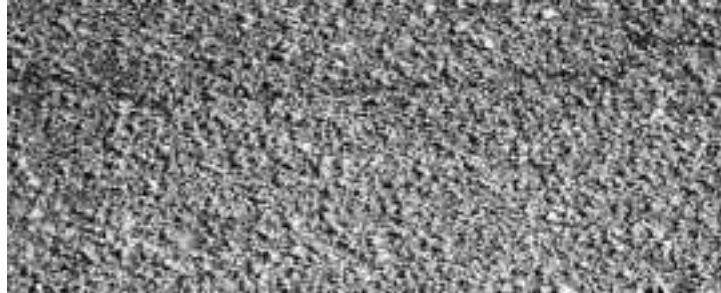
With all of these variables, it is easy to see why pavements deteriorate at various rates and why we find them in various stages of disrepair. Recognizing defects and understanding their causes helps us rate pavement condition and select cost-effective repairs. The pavement defects shown on the following pages provide a background for this process.

Periodic inspection is necessary to provide current and useful evaluation data. It is recommended that PASER ratings be updated every two years, and an annual update is even better.

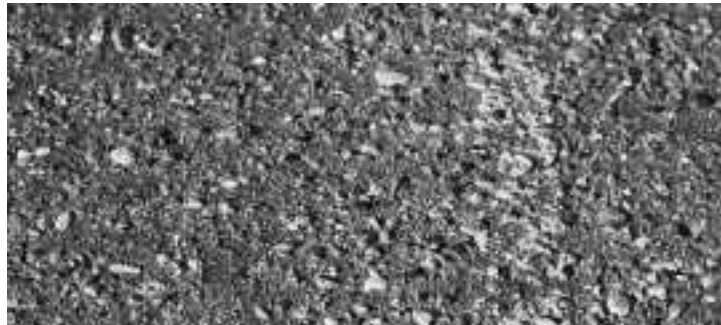
SURFACE DEFECTS

Raveling

Raveling is progressive loss of pavement material from the surface downward, caused by: stripping of the bituminous film from the aggregate, asphalt hardening due to aging, poor compaction especially in cold weather construction, or insufficient asphalt content. Slight to moderate raveling has loss of fines. Severe raveling has loss of coarse aggregate. Raveling in the wheelpaths can be accelerated by traffic. Protect pavement surfaces from the environment with a sealcoat or a thin overlay if additional strength is required.



◀ Slight raveling. Small aggregate particles have worn away exposing tops of large aggregate.



◀ Moderate to severe raveling. Erosion further exposes large aggregate.

Flushing

Flushing is excess asphalt on the surface caused by a poor initial asphalt mix design or by paving or sealcoating over a flushed surface. Repair by blotting with sand or by overlaying with properly designed asphalt mix.



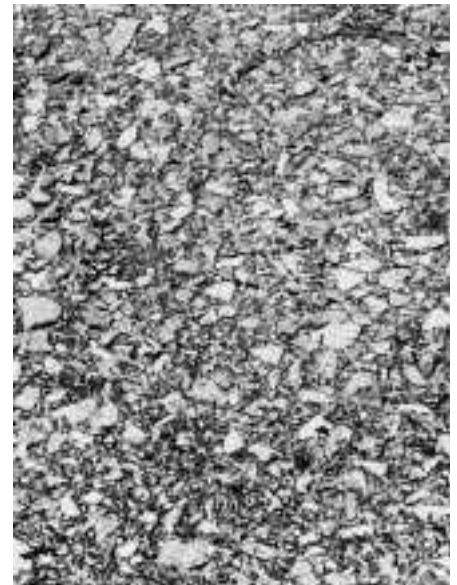
◀ Severe raveling and loss of surface material.

Polishing

Polishing is a smooth slippery surface caused by traffic wearing off sharp edges of aggregates. Repair with sealcoat or thin bituminous overlay using skid-resistant aggregate.

Polished, worn aggregate needs repair. ▼

▶ Flushing. Dark patches show where asphalt has worked to surface.



SURFACE DEFORMATION

Rutting

Rutting is displacement of material, creating channels in wheelpaths. It is caused by traffic compaction or displacement of unstable material. Severe rutting (over 2") may be caused by base or subgrade consolidation. Repair minor rutting with overlays. Severe rutting requires milling the old surface or reconstructing the roadbed before resurfacing.

◀
Even slight rutting is evident after a rain.



◀
Severe rutting over 2" caused by poor mix design.



◀
Severe rutting caused by poor base or subgrade.

Distortion

Shoving or rippling is surfacing material displaced crossways to the direction of traffic. It can develop into washboarding when the asphalt mixture is unstable because of poor quality aggregate or improper mix design. Repair by milling smooth and overlaying with stable asphalt mix.

Other pavement distortions may be caused by settling, frost heave, etc. Patching may provide temporary repair. Permanent correction usually involves removal of unsuitable subgrade material and reconstruction.

▼ Heavy traffic has shoved pavement into washboard ripples and bumps.



► Severe settling from utility trench.



► Frost heave damage from spring break-up.

▼ Widely spaced, well-sealed cracks.



CRACKS

Transverse cracks

A crack at approximately right angles to the center line is a transverse crack. They are often regularly spaced. The cause is movement due to temperature changes and hardening of the asphalt with aging.

Transverse cracks will initially be widely spaced (over 50'). Additional cracking will occur with aging until they are closely spaced (within several feet). These usually begin as hairline or very narrow cracks; with aging they widen. If not properly sealed and maintained, secondary or multiple cracks develop parallel to the initial crack. The crack edges can further deteriorate by raveling and eroding the adjacent pavement.

Prevent water intrusion and damage by sealing cracks which are more than 1/4" wide.

◀ Sealed cracks, a few feet apart.



▲ Tight cracks less than 1/4" in width.



▲ Open crack – 1/2" or more in width.



▲ Water enters unsealed cracks softening pavement and causing secondary cracks.



▲ Pavement ravels and erodes along open cracks causing deterioration.

Reflection cracks

Cracks in overlays reflect the crack pattern in the pavement underneath. They are difficult to prevent and correct. Thick overlays or reconstruction is usually required.

►
Concrete joints reflected through bituminous overlay.



Slippage cracks

Crescent or rounded cracks in the direction of traffic, caused by slippage between an overlay and an underlying pavement. Slippage is most likely to occur at intersections where traffic is stopping and starting. Repair by removing the top surface and resurfacing using a tack coat.

►
Crescent-shaped cracks characteristic of slippage.



►
Loss of bond between pavement layers allows traffic to break loose pieces of surface.



Centerline crack (still tight). ▶



Edge cracking from weakened subbase and traffic loads. ▼



Longitudinal cracks

Cracks running in the direction of traffic are longitudinal cracks. Center line or lane cracks are caused by inadequate bonding during construction or reflect cracks in underlying pavement. Longitudinal cracks in the wheel path indicate fatigue failure from heavy vehicle loads. Cracks within one foot of the edge are caused by insufficient shoulder support, poor drainage, or frost action. Cracks usually start as hairline or vary narrow and widen and erode with age. Without crack filling, they can ravel, develop multiple cracks, and become wide enough to require patching.

Filling and sealing cracks will reduce moisture penetration and prevent further subgrade weakening. Multiple longitudinal cracks in the wheel path or pavement edge indicate a need for strengthening with an overlay or reconstruction.

▶ First stage of wheelpath cracking caused by heavy traffic loads.



▼ Load-related cracks in wheel path plus centerline cracking.

Multiple open cracks at center line, wheelpaths and lane center. ▼



Block cracks

Block cracking is interconnected cracks forming large blocks. Cracks usually intersect at nearly right angles. Blocks may range from one foot to approximately 10' or more across. The closer spacing indicates more advanced aging caused by shrinking and hardening of the asphalt over time. Repair with sealcoating during early stages to reduce weathering of the asphalt. Overlay or reconstruction required in the advanced stages.

▶
Large blocks, approximately 10' across.



▶
Intermediate-size block cracking, 1'-5' across with open cracks.



▲ **Extensive block cracking in an irregular pattern.**

▶
Severe block cracking – 1' or smaller blocks. Tight cracks with no raveling.



Alligator cracks

Interconnected cracks forming small pieces ranging in size from about 1" to 6". This is caused by failure of the surfacing due to traffic loading (fatigue) and very often also due to inadequate base or subgrade support. Repair by excavating localized areas and replacing base and surface. Large areas require reconstruction. Improvements in drainage may often be required.

◀
Alligator crack pattern. Tight cracks and one patch.

◀
Characteristic "chicken wire" crack pattern shows smaller pavement pieces and patching.

◀
Open raveled alligator cracking with settlement along lane edge most likely due to very soft subgrade.



PATCHES AND POTHOLES

Patches

Original surface repaired with new asphalt patch material. This indicates a pavement defect or utility excavation which has been repaired. Patches with cracking, settlement or distortions indicate underlying causes still remain. Recycling or reconstruction are required when extensive patching shows distress.

►
Typical repair of utility excavation. Patch in fair to good condition.



►
Edge wedging. Pavement edges strengthened with wedges of asphalt. Patch is in very good condition.



►
Extensive patching in very poor condition.



Potholes

Holes and loss of pavement material caused by traffic loading, fatigue and inadequate strength. Often combined with poor drainage. Repair by excavating or rebuilding localized potholes. Reconstruction required for extensive defects.



◀
Small pothole where top course has broken away.



◀
Multiple potholes show pavement failure, probably due to poor subgrade soils, frost heave, and bad drainage.



◀
Large, isolated pothole, extends through base. Note adjacent alligator cracks which commonly deteriorate into potholes.

Rating pavement surface condition

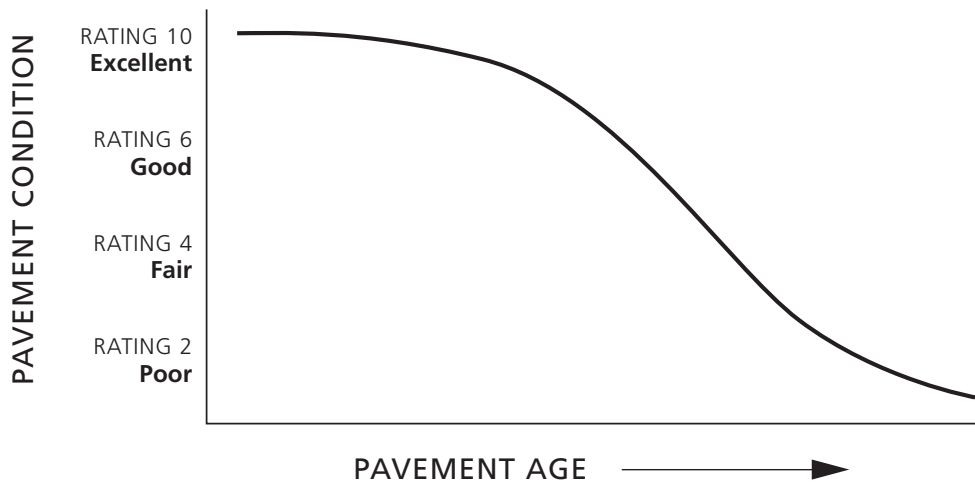
With an understanding of surface distress, you can evaluate and rate asphalt pavement surfaces. The rating scale ranges from **10—excellent** condition to **1—failed**. Most pavements will deteriorate through the phases listed in the rating scale. The time it takes to go from excellent condition (10) to complete failure (1) depends largely on the quality of the original construction and the amount of heavy traffic loading.

Once significant deterioration begins, it is common to see pavement decline rapidly. This is usually due to a combination of loading and the effects of additional moisture. As a pavement ages and additional cracking develops, more moisture can enter the pavement and accelerate the rate of deterioration.

Look at the photographs in this section to become familiar with the descriptions of the individual rating categories. To evaluate an individual pavement segment, first determine its general condition. Is it relatively new,

toward the top end of the scale? In very poor condition and at the bottom of the scale? Or somewhere in between? Next, think generally about the appropriate maintenance method. Use the rating categories outlined below.

Finally, review the individual pavement distress and select the appropriate surface rating. Individual pavements will **not** have all of the types of distress listed for any particular rating. They may have only one or two types.



In addition to indicating the surface condition of a road, a given rating also includes a recommendation for needed maintenance or repair. This feature of the rating system facilitates its use and enhances its value as a tool in ongoing road maintenance.

RATINGS ARE RELATED TO NEEDED MAINTENANCE OR REPAIR

Rating 9 & 10	No maintenance required
Rating 8	Little or no maintenance
Rating 7	Routine maintenance, cracksealing and minor patching
Rating 5 & 6	Preservative treatments (sealcoating)
Rating 3 & 4	Structural improvement and leveling (overlay or recycling)
Rating 1 & 2	Reconstruction

Rating system

Surface rating	Visible distress*	General condition/ treatment measures
10 Excellent	None.	New construction.
9 Excellent	None.	Recent overlay. Like new.
8 Very Good	No longitudinal cracks except reflection of paving joints. Occasional transverse cracks, widely spaced (40' or greater). All cracks sealed or tight (open less than 1/4").	Recent sealcoat or new cold mix. Little or no maintenance required.
7 Good	Very slight or no raveling, surface shows some traffic wear. Longitudinal cracks (open 1/4") due to reflection or paving joints. Transverse cracks (open 1/4") spaced 10' or more apart, little or slight crack raveling. No patching or very few patches in excellent condition.	First signs of aging. Maintain with routine crack filling.
6 Good	Slight raveling (loss of fines) and traffic wear. Longitudinal cracks (open 1/4"–1/2"), some spaced less than 10'. First sign of block cracking. Slight to moderate flushing or polishing. Occasional patching in good condition.	Shows signs of aging. Sound structural condition. Could extend life with sealcoat.
5 Fair	Moderate to severe raveling (loss of fine and coarse aggregate). Longitudinal and transverse cracks (open 1/2") show first signs of slight raveling and secondary cracks. First signs of longitudinal cracks near pavement edge. Block cracking up to 50% of surface. Extensive to severe flushing or polishing. Some patching or edge wedging in good condition.	Surface aging. Sound structural condition. Needs sealcoat or thin non-structural overlay (less than 2")
4 Fair	Severe surface raveling. Multiple longitudinal and transverse cracking with slight raveling. Longitudinal cracking in wheel path. Block cracking (over 50% of surface). Patching in fair condition. Slight rutting or distortions (1/2" deep or less).	Significant aging and first signs of need for strengthening. Would benefit from a structural overlay (2" or more).
3 Poor	Closely spaced longitudinal and transverse cracks often showing raveling and crack erosion. Severe block cracking. Some alligator cracking (less than 25% of surface). Patches in fair to poor condition. Moderate rutting or distortion (1" or 2" deep). Occasional potholes.	Needs patching and repair prior to major overlay. Milling and removal of deterioration extends the life of overlay.
2 Very Poor	Alligator cracking (over 25% of surface). Severe distortions (over 2" deep) Extensive patching in poor condition. Potholes.	Severe deterioration. Needs reconstruction with extensive base repair. Pulverization of old pavement is effective.
1 Failed	Severe distress with extensive loss of surface integrity.	Failed. Needs total reconstruction.

* Individual pavements will not have all of the types of distress listed for any particular rating. They may have only one or two types.

RATING 10 & 9

**EXCELLENT —
No maintenance required**

Newly constructed or recently overlaid roads are in excellent condition and require no maintenance.



▶
RATING 10
New construction.



▶
RATING 9
Recent overlay,
rural.



▶
RATING 9
Recent overlay,
urban.



RATING 8

**VERY GOOD —
Little or no maintenance required**

This category includes roads which have been recently sealcoated or overlaid with new cold mix. It also includes recently constructed or overlaid roads which may show longitudinal or transverse cracks. All cracks are tight or sealed.

◀ **Recent
chip seal.**



◀ **Recent
slurry seal.**

▼ **Widely spaced,
sealed cracks.**



▲ **New cold mix surface.**



RATING 7

GOOD —

Routine sealing recommended

Roads show first signs of aging, and they may have very slight raveling. Any longitudinal cracks are along paving joint. Transverse cracks may be approximately 10' or more apart. All cracks are 1/4" or less, with little or no crack erosion. Few if any patches, all in very good condition. Maintain a crack sealing program.

►
Tight and sealed transverse and longitudinal cracks. Maintain crack sealing program.



►
Tight and sealed transverse and longitudinal cracks.



►
Transverse cracks about 10' or more apart. Maintain crack sealing program.





RATING 6

GOOD —

Consider preservative treatment

Roads are in sound structural condition but show definite signs of aging. Seal-coating could extend their useful life. There may be slight surface raveling. Transverse cracks can be frequent, less than 10' apart. Cracks may be 1/4–1/2" and sealed or open. Pavement is generally sound adjacent to cracks. First signs of block cracking may be evident. May have slight or moderate bleeding or polishing. Patches are in good condition.

◀ **Slight surface raveling with tight cracks, less than 10' apart.**

◀ **Transverse cracking less than 10' apart; cracks well-sealed.**



▼ **Large blocks, early signs of raveling and block cracking.**

▼ **Open crack, 1/2" wide; adjoining pavement sound.**

▼ **Moderate flushing.**



RATING 5

FAIR —

Preservative maintenance treatment required

Roads are still in good structural condition but clearly need sealcoating or overlay. They may have moderate to severe surface raveling with significant loss of aggregate. First signs of longitudinal cracks near the edge. First signs of raveling along cracks. Block cracking up to 50% of surface. Extensive to severe flushing or polishing. Any patches or edge wedges are in good condition.

▼ Block cracking with open cracks.



► Moderate to severe raveling in wheel paths.



▼ Severe flushing.



▲ Wedges and patches extensive but in good condition.

Severe raveling with
▼ extreme loss of aggregate.



Load cracking and slight
▼ rutting in wheel path.



RATING 4

FAIR —
Structural improvement required

Roads show first signs of needing strengthening by overlay. They have very severe surface raveling which should no longer be sealed. First longitudinal cracking in wheel path. Many transverse cracks and some may be raveling slightly. Over 50% of the surface may have block cracking. Patches are in fair condition. They may have rutting less than 1/2" deep or slight distortion.



◀ **Longitudinal cracking; early load-related distress in wheel path. Strengthening needed.**

▼ **Slight rutting; patch in good condition.**



▼ **Extensive block cracking. Blocks tight and sound.**
◀ **Slight rutting in wheel path.**

RATING 3

POOR—

Structural improvement required

Roads must be strengthened with a structural overlay (2" or more). Will benefit from milling and very likely will require pavement patching and repair beforehand. Cracking will likely be extensive. Raveling and erosion in cracks may be common. Surface may have severe block cracking and show first signs of alligator cracking. Patches are in fair to poor condition. There is moderate distortion or rutting (1-2") and occasional potholes.

►
Many wide and raveled cracks indicate need for milling and overlay.



►
2" ruts need mill and overlay.



►
Open and raveled block cracks.



**RATING 3**

POOR — (continued)

Structural improvement required

◀ **Alligator cracking.**
Edge needs repair
and drainage needs
improvement prior
to rehabilitation.

▼ **Distortion with patches**
in poor condition. Repair
and overlay.



RATING 2

**VERY POOR—
Reconstruction required**

Roads are severely deteriorated and need reconstruction. Surface pulverization and additional base may be cost-effective. These roads have more than 25% alligator cracking, severe distortion or rutting, as well as potholes or extensive patches in poor condition.



▶
Extensive alligator cracking. Pulverize and rebuild.



▲ **Severe rutting. Strengthen base and reconstruct.**

▲ **Patches in poor condition, wheelpath rutting. Pulverize, strengthen and reconstruct.**



▶
Severe frost damage. Reconstruct.



RATING 1

**FAILED —
Reconstruction required**

Roads have failed, showing severe distress and extensive loss of surface integrity.



Potholes from frost damage. Reconstruct.



Potholes and severe alligator cracking. Failed pavement. Reconstruct.



Extensive loss of surface. Rebuild.

Practical advice on rating roads

Inventory and field inspection

Most agencies routinely observe roadway conditions as a part of their normal work and travel. However, an actual inspection means looking at the entire roadway system as a whole and preparing a written summary of conditions. This inspection has many benefits over casual observations. It can be helpful to compare segments, and ratings decisions are likely to be more consistent because the roadway system is considered as a whole within a relatively short time.

An inspection also encourages a review of specific conditions important in roadway maintenance, such as drainage, adequate strength, and safety.

A simple written inventory is useful in making decisions where other people are involved. You do not have to trust your memory, and you can usually answer questions in more detail. Having a written record and objective information also improves your credibility with the public.

Finally, a written inventory is very useful in documenting changing roadway conditions. Without records over several years it is impossible to know if road conditions are improving, holding their own, or declining.

Annual budgets and long range planning are best done when based on actual needs as documented with a written inventory.

The Wisconsin DOT local road inventory (WISLR) is a valuable resource for managing your local roads. Adding PASER surface condition ratings is an important improvement.

Averaging and comparing sections

For evaluation, divide the local road system into individual segments which are similar in construction and condition. Rural segments may vary from

1/2 mile to a mile long, while sections in urban areas will likely be 1-4 blocks long or more. If you are starting with the WISLR Inventory, the segments have already been established. You may want to review them for consistent road conditions.

Obviously, no roadway segment is entirely consistent. Also, surfaces in one section will not have all of the types of distress listed for any particular rating. They may have only one or two types. Therefore, some averaging is necessary.

The objective is to rate the condition that represents the majority of the roadway. Small or isolated conditions should not influence the rating. It is useful to note these special conditions on the inventory form so this information can be used in planning specific improvement projects. For example, some spot repairs may be required.

Occasionally surface conditions vary significantly within a segment. For example, short sections of good condition may be followed by sections of poor surface conditions. In these cases, it is best to rate the segment according to the worst conditions and note the variation on the form.

The overall purpose of condition rating is to be able to compare each

segment relative to all the other segments in your roadway system. On completion you should be able to look at any two pavement segments and find that the better surface has a higher rating.

Within a given rating, say 6, not all pavements will be exactly the same. However, they should all be considered to be in better condition than those with lower ratings, say 5. Sometimes it is helpful in rating a difficult segment to compare it to other previously rated segments. For example, if it is better than one you rated 5 and worse than a typical 7, then a rating of 6 is appropriate. Having all pavement segments rated in the proper relative order is most important and useful.

Assessing drainage conditions

Moisture and poor pavement drainage are significant factors in pavement deterioration. Some assessment of drainage conditions during pavement rating is highly recommended. While you should review drainage in detail at the project level, at this stage simply include an overview drainage evaluation at the same time as you evaluate surface condition.



Urban drainage.
RATING:
Excellent

Good rural ditch and driveway culvert. Culvert end needs cleaning.

RATING: Good



Consider both pavement surface drainage and lateral drainage (ditches or storm sewers). Pavement should be able to quickly shed water off the surface into the lateral ditches. Ditches should be large and deep enough to drain the pavement and remove the surface water efficiently into adjacent waterways.

Look at the roadway crown and check for low surface areas that permit ponding. Paved surfaces should have approximately a 2% cross slope or crown across the roadway. This will provide approximately 3" of fall on a 12' traffic lane. Shoulders should have a greater slope to improve surface drainage.

A pavement's ability to carry heavy traffic loads depends on both the pavement materials (asphalt surfacing and granular base) and the strength of the underlying soils. Most soils lose strength when they are very wet. Therefore, it is important to provide drainage to the top layer of the subgrade supporting the pavement structure.

In rural areas, drainage is provided most economically by open ditches that allow soil moisture to drain laterally. As a rule of thumb, the bottom of the ditch ought to be at least one foot below the base course of the pavement in order to drain the soils. This means that minimum ditch depth should be about 2' below the center of the pavement. Deeper ditches, of course, are required to accommodate roadway culverts and maintain the flow line to adjacent drainage channels or streams.

You should also check culverts and storm drain systems. Storm drainage systems that are silted in, have a large accumulation of debris, or are in poor structural condition will also degrade pavement performance.

The T.I.C. publication, *Drainage Manual: Local Road Assessment and Improvement*, describes the elements of drainage systems, depicts them in detailed photographs, and explains how to rate their condition. Copies are available from the Transportation Information Center.

High shoulder and no ditch lead to pavement damage. Needs major ditch improvement for a short distance.

RATING: Fair



No drainage leads to failed pavement.

RATING: Poor



Planning annual maintenance and repair budgets

We have found that relating a normal maintenance or rehabilitation procedure to the surface rating scheme helps local officials use the rating system. However, an individual surface rating should not automatically dictate the final maintenance or rehabilitation technique.

You should consider future traffic projections, original construction, and

pavement strength since these may dictate a more comprehensive rehabilitation than the rating suggests. On the other hand, it may be appropriate under special conditions to do nothing and let the pavement fully deteriorate, then rebuild when funds are available.

Summary

Using local road funds most efficiently requires good planning and accurate identification of appropriate rehabili-

tation projects. Assessing roadway conditions is an essential first step in this process. This asphalt pavement surface condition rating procedure has proved effective in improving decision making and using highway funds more efficiently. It can be used directly by local officials and staff. It may be combined with additional testing and data collection in a more comprehensive pavement management system.

**Transportation
Information
Center
Publications**

Pavement Surface Evaluation and Rating (PASER) Manuals

Asphalt PASER Manual, 2002, 28 pp.

Brick and Block PASER Manual, 2001, 8 pp.

Concrete PASER Manual, 2002, 28 pp.

Gravel PASER Manual, 2002, 20 pp.

Sealcoat PASER Manual, 2000, 16 pp.

Unimproved Roads PASER Manual, 2001, 12 pp.

Drainage Manual

Local Road Assessment and Improvement, 2000, 16 pp.

SAFER Manual

Safety Evaluation for Roadways, 1996, 40 pp.

Flagger's Handbook (pocket-sized guide), 1998, 22 pp.

Work Zone Safety, Guidelines for Construction, Maintenance, and Utility Operations, (pocket-sized guide), 1999, 55 pp.

Wisconsin Transportation Bulletins

- #1 Understanding and Using Asphalt
- #2 How Vehicle Loads Affect Pavement Performance
- #3 LCC—Life Cycle Cost Analysis
- #4 Road Drainage
- #5 Gravel Roads
- #6 Using Salt and Sand for Winter Road Maintenance
- #7 Signing for Local Roads
- #8 Using Weight Limits to Protect Local Roads
- #9 Pavement Markings
- #10 Seal Coating and Other Asphalt Surface Treatments
- #11 Compaction Improves Pavement Performance
- #12 Roadway Safety and Guardrail
- #13 Dust Control on Unpaved Roads
- #14 Mailbox Safety
- #15 Culverts-Proper Use and Installation
- #16 Geotextiles in Road Construction/Maintenance and Erosion Control
- #17 Managing Utility Cuts
- #18 Roadway Management and Tort Liability in Wisconsin
- #19 The Basics of a Good Road
- #20 Using Recovered Materials in Highway Construction
- #21 Setting Speed Limits on Local Roads

PASER

 **Transportation
Information Center**
University of Wisconsin–Madison

Asphalt Roads

CITY OF BUNKER HILL VILLAGE - STREET ASSESSMENT
STREET INVENTORY - SORTED BY **ALPHABETICAL ORDER**
MAJOR STREET INVENTORY

Street Name	Street Width feet	Street Length feet	Material Type	Drainage Type	Public	PASER RATING 2015	PASER RATING 2026	COMMENT 2015	COMMENT 2026
Blaylock Rd		8032	Asphalt	Concrete Curb/Gutter	Public	7		Open transverse joints, multiple meander cracks, transverse, and longitudinal cracks. Seal open joints and routine maintenance	
Bunker Hill Rd (Taylorcrest to Williamsburg)	21	5307	Asphalt	Concrete Curb/Gutter	Public	6		Surface shows traffic wear, minor alligator cracks, isolated rutting areas, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface	
Bunker Hill Rd (Williamsburg to Memorial)	21	5307	Asphalt	Concrete Curb/Gutter	Public	6		Surface shows traffic wear, minor alligator cracks, isolated rutting areas, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface	
Knipp	22	5139	Asphalt	Roadside Ditch	Public	8	6	Surface scaling, meander cracks. Little or no maintenance required	Surface shows traffic wear, minor alligator cracks, isolated rutting areas. Could extend life with excavating localized areas and replacing base and surface
Memorial (Don Caster to Durette)	26	2984	Asphalt	Roadside Ditch	Public	7		Meander cracks, surface shows traffic wear. Maintain with routine crack filling	
Memorial (Durette to Sandlewood)	26	1564	Asphalt	Roadside Ditch	Public	7		Meander cracks, surface shows traffic wear. Maintain with routine crack filling	
Memorial (Strey to Doncaster)	26	914	Asphalt	Roadside Ditch	Public	8		Surface scaling, meander cracks. Little or no maintenance required	
Memorial (Tealwood North to Strey)	26	2841	Asphalt	Roadside Ditch	Public	7		Surface shows traffic wear. Maintain with routine crack filling	
Memorial (Branchbend to Briar Forest)	26	953	Asphalt	Roadside Ditch	Public	7		Meander cracks, surface shows traffic wear. Maintain with routine crack filling	
Memorial (Sandlewood to Branchbend)	26	898	Asphalt	Roadside Ditch	Public	7		Meander cracks, surface shows traffic wear. Maintain with routine crack filling	
Strey	21	3646	Asphalt	Roadside Ditch	Public	9	8	Surface scaling, meander cracks. Little or no maintenance required	Surface scaling, meander cracks. Spot utility patches. Seal open joints and minor routine maintenance
Taylorcrest Ct	21	356	Asphalt	Roadside Ditch	Public	9		Surface scaling, meander cracks. Little or no maintenance required	
Gessner - Memorial to Vanderpool		1885	Concrete	Concrete Curb/Gutter	Public	7		Open transverse joints, utility patch in fair condition, multiple meander cracks, transverse, and longitudinal cracks. Seal open joints and routine maintenance	
Gessner - Memorial to Vanderpool (NB)		1885	Concrete	Concrete Curb/Gutter	Public	5		Some joint spalling, surface polishing, open transverse joints, multiple meander cracks, utility repairs in fair condition. Seal open joints, some partial depth or joint repairs needed.	
Gessner - Beauregard to Memorial		2290	Concrete	Concrete Curb/Gutter	Public	8		Some joint spalling, loss of joint sealant, well-sealed meander cracks. Seal open joints and minor routine maintenance.	

CITY OF BUNKER HILL VILLAGE - STREET ASSESSMENT
 SORTED BY **PASER RATING 2024-2025**
 MINOR STREET INVENTORY

Street Name	Street Width feet	Street Length feet	Material Type	Drainage type	Public	PASER RATING 2015	COMMENT 2015	PASER RATING 2024	COMMENT 2024-2025
Chapel Belle Ln	25	1015	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	10	New pavement. No maintenance required
Godsey Ct	23	156	Asphalt	Curb/Gutter	Public	10	No maintenance required	10	No maintenance required
Greyton Ln	27	1400	Concrete	Curb/Gutter	Public	10	New pavement. No maintenance required	10	New pavement. No maintenance required
Kilts dr	20	1165	Concrete	Roadside Ditch	Public	3	Multiple parallel cracks, open joints, open transverse and meander cracks with spalling, poor ride, utility patches. Needs full depth patching plus some slab replacement	10	New pavement. No maintenance required
Pebblehill Dr	27	444	Concrete	Curb/Gutter	Public	10	New pavement. No maintenance required	10	New pavement. No maintenance required
Warrenton Dr	20	1569	Concrete	Roadside Ditch	Public	3	Multiple parallel cracks, open joints, open transverse and meander cracks with spalling, poor ride, utility patches. Needs full depth patching plus some slab replacement	10	New pavement. No maintenance required
Williamsburg Ln	20	2385	Concrete	Curb/Gutter	Public	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas	10	New pavement. No maintenance required
Bayhurst (West)	19	754	Asphalt	Roadside Ditch	Public	9	Little or no maintenance required	9	Little or no maintenance required
Chatam Ln	27	433	Concrete	Curb/Gutter	Public	10	New pavement. No maintenance required	9	New pavement. No maintenance required
Cobblestone Dr. (W of Strey)	23	672	Concrete	Curb/Gutter	Public	10	New pavement. No Maintenance required	9	No Maintenance required
Folwell Ln	17	288	Asphalt	Roadside Ditch	Public	9	Little or no maintenance required	9	Little or no maintenance required
Homewood Ln (West)	20	430	Asphalt	Roadside Ditch	Public	9	Recent overlay. No maintenance required	9	Recent overlay. No maintenance required
Barazi oaks Ct	28	196	Concrete	Roadside Ditch	Public	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required
Bauerle Ct	27	225	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Bayhurst Dr (East)	20	160	Concrete	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Beebe Ln	27	514	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Bialock Woods	18	159	Asphalt	Roadside Ditch	Public	8	Minor cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Bradfield Ct	27	434	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Bunker Hill Cir	22	156	Concrete	Roadside Ditch	Public	9	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Carolane Trl	22	2152	Asphalt	Roadside Ditch	Public	9	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Dunnam Ln	27	985	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required

CITY OF BUNKER HILL VILLAGE - STREET ASSESSMENT
 SORTED BY **PASER RATING 2024-2025**
 MINOR STREET INVENTORY

Street Name	Street Width feet	Street Length feet	Material Type	Drainage type	Public	PASER RATING 2015	COMMENT 2015	PASER RATING 2024	COMMENT 2024-2025
Fidelia Ct	20	435	Asphalt	Roadside Ditch	Public	8	Minor cracks. Little or no maintenance required	8	Minor cracks. Little or no maintenance required
Huntington Park Cr	27	207	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Huntington park ct	27	171	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
J-Star ct	27	171	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Knipp Forest Dr	21	480	Asphalt	Roadside Ditch	Public	8	Minor cracks. Little or no maintenance required	8	Minor cracks. Little or no maintenance required
Mockingbird Ln	16	589	Asphalt	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Musket Ln	14	608	Asphalt	Roadside Ditch	Public	9	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks, edge pavement failures. Minor maintenance required. Seal meander cracks
Oak Shadows Ln	20	223	Asphalt	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Ourlane Cove	20	182	Concrete	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Ourlane Ct	20	163	Concrete	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Ourlane Pl	20	203	Concrete	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Ourlane Trl	28	215	Concrete	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Patrick Ct	27	449	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Powderhorn	21	895	Asphalt	Roadside Ditch	Public	6	Surface shows traffic wear, minor alligator cracks, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface	8	Surface shows traffic wear, minor alligator cracks, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface
Raina Ln	18	134	Asphalt	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Raydon Ln	20	483	Concrete	Roadside Ditch	Public	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required
Surrey Ln (East)	24	553	Concrete	Roadside Ditch	Public	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required
Timberknoll	19	402	Asphalt	Roadside Ditch	Public	8	Minor cracks. Little or no maintenance required	8	Minor cracks. Little or no maintenance required
Winwood Ln (East)	20	512	Concrete	Road Side Ditch	Partial	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required
Winwood Ln (West)	17	408	Asphalt	Road Side Ditch	Partial	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required
Amberton Ln	19	255	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, and surface scaling. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, and surface scaling. Seal open joints and minor routine maintenance.

CITY OF BUNKER HILL VILLAGE - STREET ASSESSMENT
 SORTED BY **PASER RATING 2024-2025**
 MINOR STREET INVENTORY

Street Name	Street Width feet	Street Length feet	Material Type	Drainage type	Public	PASER RATING 2015	COMMENT 2015	PASER RATING 2024	COMMENT 2024-2025
Arbordale Ln	20	535	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Balmoral Ln	20	161	Concrete	Roadside Ditch	Public	7	Surface shows traffic wear. Maintain with routine crack filling	7	Surface shows traffic wear. Maintain with routine crack filling
Belin manor Dr	20	480	Asphalt	Roadside Ditch	Public	7	Surface shows traffic wear. Maintain with routine crack filling	7	Surface shows traffic wear. Maintain with routine crack filling
Branch Bend	24	200	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, utility patch, pavement failure. Seal open joints and minor routine maintenance.
Broken Bough Cir	20	427	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Chartwell Ct	20	146	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Claywood St	20	241	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, noticeable settlement. Seal open joints and minor routine maintenance.
Coachman	27	441	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Cobblestone (E. of Bunker Hill)	18	392	Asphalt	Roadside Ditch	Public	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling
Cobblestone (W. of Bunker Hill)	24	494	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling
Cobblestone Dr (E of Strey)	26	1157	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Country Way	22	687	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, noticeable settlement. Seal open joints and minor routine maintenance.
Doncaster Rd	27	429	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Duchess Ct	27	374	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Eaton Ct	27	301	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Flint Forest Ln	27	437	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Flintdale	19	3881	Asphalt	Road Side Ditch	Partial	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Flintwood Dr	27	1014	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Gentilly Pl	27	422	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Green Oaks Rd	25	1011	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Greenbay Ln (E. of Bunker Hill)	27	992	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.

CITY OF BUNKER HILL VILLAGE - STREET ASSESSMENT
 SORTED BY **PASER RATING 2024-2025**
 MINOR STREET INVENTORY

Street Name	Street Width feet	Street Length feet	Material Type	Drainage type	Public	PASER RATING 2015	COMMENT 2015	PASER RATING 2024	COMMENT 2024-2025
Greenbay Ln (near Flintdale)	20	1086	Asphalt	Roadside Ditch	Public	7	Surface shows traffic wear. Maintain with routine crack filling	7	Surface shows traffic wear. Maintain with routine crack filling
Habersham Ln	20	405	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, noticeable settlement. Seal open joints and minor routine maintenance.
Heritage Ct	27	394	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, Seal open joints and minor routine maintenance.
Hickory Ridge	20	374	Asphalt	Roadside Ditch	Public	7	Surface shows traffic wear. Maintain with routine crack filling	7	Surface shows traffic wear. Maintain with routine crack filling
Homewood Ln (East)	24	527	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Knipwood In	17	646	Asphalt	Roadside Ditch	Public	7	Minor cracks, Edge pavement failure . Minor maintenance required	7	Minor cracks. Little or no maintenance required. Seal meander cracks
Longleaf Ln	20	545	Asphalt	Roadside Ditch	Public	8	Minor cracks. Little or no maintenance required	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Mayerling	20	2368	Asphalt	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
McLeod's	18	362	Asphalt	Roadside Ditch	Public	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling
Monica St	20	1670	Asphalt	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling
Norvell Ct	27	350	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Oak Glen Ct	27	145	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Ourlane Circle	20	935	Asphalt	Roadside Ditch	Public	7	Surface shows traffic wear and edge failure, or Maintain with routine crack filling and isolated full depth pavement repair	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open cracks joints and minor routine maintenance.
Providence park	25	189	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Rebecca pines Ct	20	279	Asphalt	Roadside Ditch	Public	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling
Rip Van Winkle	18	452	Asphalt	Roadside Ditch	Public	7	Surface shows traffic wear. Maintain with routine crack filling	7	Surface shows traffic wear. Maintain with routine crack filling.
Shady grove	27	519	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Stoney Ridge Ln	20	386	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Surrey Ln (West)	24	468	Asphalt	Roadside Ditch	Public	7	Surface shows traffic wear. Maintain with routine crack filling	7	Surface shows traffic wear. Maintain with routine crack filling
Tall Oaks	21	397	Asphalt	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	7	Surface shows traffic wear, minor alligator cracks, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface
Tamerlane Dr	27	1619	Concrete	Curb/Gutter	Public	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement	7	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, possible panel replacement

CITY OF BUNKER HILL VILLAGE - STREET ASSESSMENT
 SORTED BY **PASER RATING 2024-2025**
 MINOR STREET INVENTORY

Street Name	Street Width feet	Street Length feet	Material Type	Drainage type	Public	PASER RATING 2015	COMMENT 2015	PASER RATING 2024	COMMENT 2024-2025
Valley Star	27	849	Concrete	Curb/Gutter	Public	5	Multiple utility patches, moderate to severely polishing, some joint spalling, multiple broken pieces, and noticeable isolated settlement areas. Grind to repair surface defects, and needs partial depth patching or joint repairs needed.	7	Multiple utility patches, moderate to severely polishing, some joint spalling, multiple broken pieces, and noticeable isolated settlement areas.
Willowgren	21		Concrete/Asphalt	Curb/Gutter	Public	n/a	n/a	7	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas
Windy Ln	27	522	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Wink Rd	20	535	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, noticeable settlement. Seal open joints and minor routine maintenance. Cul-de-sac showing signs of deterioration
Wolf Ct	20	135	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Wood	17	1133	Asphalt	Roadside Ditch	Partial	8	Surface scaling, meander cracks. Little or no maintenance required	7	Surface scaling, meander cracks. Little or no maintenance required
Brandon Way	20	421	Concrete	Roadside Ditch	Public	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement
Breeds hill Ct	27	286	Concrete	Curb/Gutter	Public	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement
Broken bough Dr	26	1260	Concrete	Curb/Gutter	Public	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas
Churchill Ct	24	678	Concrete	Roadside Ditch	Public	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas
Clarendon Ln	27	434	Concrete	Curb/Gutter	Public	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas
Durette	20	519	Concrete	Roadside Ditch	Public	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement
Forrest Glen	20	986	Asphalt	Roadside Ditch	Public	6	Surface shows traffic wear, minor alligator cracks, isolated rutting areas, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface	6	Surface shows traffic wear, minor alligator cracks, isolated rutting areas, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and re-surfacing
Longworth Ln	27	627	Concrete	Curb/Gutter	Public	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement
Plantation Rd	27	1615	Concrete	Curb/Gutter	Public	7	Surface scaling, meander cracks, spot utility patches, noticeable settlement, minor manhole cracking. Seal open joints and minor routine maintenance.	6	Surface scaling, meander cracks, noticeable settlement, Seal open joints and minor routine maintenance.
Plantation Rd - Memorial to Rhett	27	1615	Concrete	Curb/Gutter	Public	7	Surface scaling, meander cracks, spot utility patches, noticeable settlement, minor manhole cracking. Seal open joints and minor routine maintenance.	6	Surface scaling, meander cracks, noticeable settlement, Seal open joints and minor routine maintenance.
Starwood Dr	27	582	Concrete	Curb/Gutter	Public	6	Surface shows traffic wear, minor alligator cracks, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface	6	Surface shows traffic wear, minor alligator cracks, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface
Stoney Creek Dr	27	1587	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	6	Surface shows traffic wear, minor alligator cracks, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface
Tara/Rhett	25	1221	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement, and surface scaling. Seal open joints and minor routine maintenance.	6	Some joint spalling, meander cracks, spot utility patches, noticeable settlement, and surface scaling. Seal open joints and minor routine maintenance.
Tealmeadow Ct	27	360	Concrete	Curb/Gutter	Public	6	Corner Cracks, Longitudal cracks, Traverse joints cracks, slab cracks and utility patches. Recommend joint sealant	6	Corner Cracks, Longitudal cracks, Traverse joints cracks, slab cracks and utility patches. Recommend joint sealant
Wendover	23	412	Concrete	Roadside Ditch	Public	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas

CITY OF BUNKER HILL VILLAGE - STREET ASSESSMENT
 SORTED BY PASER RATING 2024-2025
 MINOR STREET INVENTORY

Street Name	Street Width feet	Street Length feet	Material Type	Drainage type	Public	PASER RATING 2015	COMMENT 2015	PASER RATING 2024	COMMENT 2024-2025
Williamsburg Ln (Cobblestone to Bunker Hill)	20	1653	Concrete/Asphalt	Curb/Gutter	Public	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas
Winshire	27	1076	Concrete	Curb/Gutter	Public	7	Surface scaling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	6	Surface scaling, meander cracks, noticeable settlement. Seal open joints and minor routine maintenance.
Applewood	27	175	Concrete	Curb/Gutter	Public	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement	5	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement

Knipp Road



Surface Type	Asphalt
Roadway Width	22 feet
Roadway Rating	8
Roadway Rating - 2024	6
Drainage Type	Roadside Ditch

Comments

- Knipp Road, Surface shows traffic wear
- Minor alligator cracks, isolated rutting areas
- Could extend life with excavating localized areas and replacing base and surface

Strey Ln



Surface Type	Asphalt
Roadway Width	21 feet
Roadway Rating	9
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Strey Ln, Surface scaling, spot utility patches
- Seal open joints and minor maintenance

Amberton Ln.



Surface Type	Concrete
Roadway Width	19 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb & gutter

Comments

- Some joint spalling
- Meander cracks
- Spot utility patches
- Noticeable settlement
- Seal open joints and minor routine maintenance recommended

Applewood



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	6
Roadway Rating - 2024	5
Drainage Type	Curb & gutter

Comments

- Joint spalling
- Surface scaling
- Map cracking
- Multiple meander cracks
- Pavement settlement
- Need general crack sealing and overlay scaled areas, and isolated full depth replacement

Arbordale Ln.



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Ditch

Comments

- Joint spalling,
- Meander cracks
- Spot utility patches
- Noticeable settlement on Arbordale Ln.
- Sealing open joints and minor routine maintenance are recommended

Balmoral Ln.



Surface Type	Asphalt
Roadway Width	21 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Balmoral Ln. shows meander cracks and
- traffic wear on the surface.
- Routine crack filling is recommended to maintain the roadway.

Barazi Oaks Ct.



Surface Type	Concrete
Roadway Width	28 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Barazi Oaks Ct. displays surface scaling and meander cracks.
- Partial loss of joint sealant
- Little or no maintenance is required currently

Bauerle Ct.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Curb & gutter

Comments

- The roadway at Bauerle Ct. has surface scaling and meander cracks
- Maintenance needs are minimal

Bayhurst Drive (East)



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Bayhurst Drive (East) shows surface scaling and meander cracks
- Little or no maintenance is required

Bayhurst Drive (West)



Surface Type	Asphalt
Roadway Width	19 feet
Roadway Rating	9
Roadway Rating - 2024	9
Drainage Type	Roadside Ditch

Comments

- Bayhurst Drive (West) requires little or no maintenance.

Beebe Ln



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Curb & gutter

Comments

- Beebe Ln. shows surface scaling and meander cracks
- Minimal maintenance is required

Berlin Manor Dr.



Surface Type	Asphalt
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Berlin Manor Dr. exhibits traffic wear.
- Routine crack filling is recommended for maintenance

Blaylock Woods St.



Surface Type	Asphalt
Roadway Width	18 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Surface scaling
- Minor cracks are present on Blaylock Woods St., but little or no maintenance is required.

Bradfield Ct.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Curb & gutter

Comments

- Bradfield Ct. has surface scaling and meander cracks. Minimal maintenance is necessary.

Branch Bend



Surface Type	Concrete
Roadway Width	24 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Branch Bend features some joint spalling
- Meander cracks,
- Spot utility patches
- Noticeable settlement, pavement failure
- Sealing open joints and minor routine maintenance are advised.

Brandon Way



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	6
Roadway Rating - 2024	6
Drainage Type	Curb & Gutter

Comments

- Brandon Way demonstrates joint spalling,
- Surface scaling
- Map cracking
- Multiple meander cracks
- Pavement settlement
- General crack sealing, overlaying scaled areas, and isolated full depth replacement are recommended.

Breeds Hill Ct.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	6
Roadway Rating - 2024	6
Drainage Type	Cur/Gutter

Comments

- Breeds Hill Court, Some joint spalling, map cracking
- Multiple meander cracks
- Pavement settlement, need general crack sealing
- Overlay scaled areas and isolated full depth replacement

Broken Bough Circle



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Broken Bough Circle presents some joint spalling,
- Meander cracks
- Spot utility patches, noticeable settlement
- Routine maintenance and sealing of open joints are recommended

Broken Bough Dr.



Surface Type	Concrete
Roadway Width	26 feet
Roadway Rating	6
Roadway Rating - 2024	6
Drainage Type	Curb & gutter

Comments

- Broken Bough Dr. suffers from joint spalling
- Surface scaling, Loss of joint sealant
- Multiple meander cracks
- Noticeable settlement
- General crack sealing and overlaying scaled areas are recommended.

Bunker Hill Circle



Surface Type	Concrete
Roadway Width	22 feet
Roadway Rating	9
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Bunker Hill Circle, surface scaling
- Meander cracks
- Requires little or no maintenance.

Carolane Trl.



Surface Type	Asphalt
Roadway Width	22 feet
Roadway Rating	9
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Carolane Tri, surface scaling
- Meander cracks
- Requires little or no maintenance.

Chapel Belle Ln.



Surface Type	Concrete
Roadway Width	25 feet
Roadway Rating	7
Roadway Rating - 2024	10
Drainage Type	Curb/Gutter

Comments

- Chapel Belle Lane, New pavement, no maintenance required.

Chartwell Ct.



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Chartwell Court some joint spalling
- Spot utility patches
- Noticeable settlement Meander cracks
- Recommendation seal open joints and minor routine maintenance

Chatam Ln.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	10
Roadway Rating - 2024	9
Drainage Type	Curb/Gutter

Comments

- Chatam Lane, New pavement, no maintenance required.

Churchill Ct



Surface Type	Concrete
Roadway Width	24 feet
Roadway Rating	6
Roadway Rating - 2024	6
Drainage Type	Roadside Ditch

Comments

- Churchill Court some joint spalling, surface scaling
- Loss of joint sealant, multiple meander cracks
- Noticeable settlement
- Need general crack sealing and overlay scaled areas

Clarendon Ln.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	6
Roadway Rating - 2024	6
Drainage Type	Curb/Gutter

Comments

- Clarendon Lane, some joint spalling, surface scaling
- Loss of joint sealant, multiple meander cracks
- Noticeable settlement
- Need general crack sealing and overlay scaled areas

Claywood St.



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Claywood St, some joint spalling,
- Meander cracks
- Noticeable settlement
- Seal open joints and minor routine maintenance

Coachman



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Coachman, some joint spalling, meander cracks
- Spot utility patches
- Noticeable settlement
- Seal open joints and minor routine maintenance

Cobblestone (East of Bunker Hill)



Surface Type	Asphalt
Roadway Width	18 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Cobblestone (E. of Bunker Hill) Meander cracks
- Surface shows traffic wear
- Maintain with routine crack filling

Cobblestone (West of Bunker Hill)



Surface Type	Concrete
Roadway Width	24 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Cobblestone (W. of Bunker Hill) Meander cracks
- Surface shows traffic wear
- Maintain with routine crack filling

Cobblestone (East of Strey Ln.)



Surface Type	Concrete
Roadway Width	26 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Cobblestone Dr (E of Strey) Some joint spalling, meander cracks
- Spot utility patches, noticeable settlement
- Seal open joints and minor routine maintenance

Cobblestone (West of Strey Ln.)



Surface Type	Concrete
Roadway Width	23 feet
Roadway Rating	10
Roadway Rating - 2024	10
Drainage Type	Curb/Gutter

Comments

- Cobblestone Dr (W of Strey) pavement in good condition. No Maintenance required

Country Way Circle



Surface Type	Concrete
Roadway Width	22 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Country Way Some joint spalling, meander cracks
- Noticeable settlement
- Seal open joints and minor routine maintenance

Doncaster Rd.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Doncaster Rd Some joint spalling, meander cracks
- Spot utility patches
- Noticeable settlement
- Seal open joints and minor routine maintenance

Duchess Ct



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Duchess Ct Some joint spalling, meander cracks
- Spot utility patches
- Noticeable settlement
- Seal open joints and minor routine maintenance

Dunnam Ln.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Curb/Gutter

Comments

- Dunnam Lane, Some surface scaling
- Meander cracks
- Little or no maintenance required

Durette



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	6
Roadway Rating - 2024	6
Drainage Type	Roadside Ditch

Comments

- Durette, Joint spalling, surface scaling
- Map cracking, multiple meander cracks
- Pavement settlement
- Need general crack sealing and overlay scaled areas, and isolated full depth replacement

Eaton Ct.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Eaton Ct, Some joint spalling, meander cracks
- Spot utility patches
- Noticeable settlement
- Seal open joints and minor routine maintenance

Fidelia Ct.



Surface Type	Asphalt
Roadway Width	20 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Fidelia Court, Some joint spalling
- Meander cracks, Spot utility patches
- Noticeable settlement
- Seal open joints and minor routine maintenance

Flint Forest Ln.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Flint Forest Lane, Some joint spalling, meander cracks
- Spot utility patches
- Noticeable settlement
- Seal open joints and minor routine maintenance

Flintdale -Taylorcrest Greenbay



Surface Type	Asphalt
Roadway Width	19 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Flintdale, Some joint spalling, meander cracks
- Spot utility patches Noticeable settlement
- Seal open joints and minor routine maintenance

Flintwood Dr.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Flintwood Dr, Some joint spalling,
- Meander cracks, spot utility patches
- Noticeable settlement
- Seal open joints and minor routine maintenance

Folwell Ln.



Surface Type	Asphalt
Roadway Width	17 feet
Roadway Rating	9
Roadway Rating - 2024	9
Drainage Type	Roadside Ditch

Comments

- Folwell Lane, Little or no maintenance required

Forrest Glen St.



Surface Type	Asphalt
Roadway Width	20 feet
Roadway Rating	6
Roadway Rating - 2024	6
Drainage Type	Roadside Ditch

Comments

- Forrest Glen, Surface shows traffic wear
- Minor alligator cracks
- Isolated rutting areas, and longitudinal cracks
- Could extend life with excavating localized areas and replacing base and re-surfacing

Gentilly Pl.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Gentilly Pl, Some joint spalling, meander cracks
- Seal open joints and minor routine maintenance

Godsey Ct.



Surface Type	Asphalt
Roadway Width	23 feet
Roadway Rating	10
Roadway Rating - 2024	10
Drainage Type	Curb/Gutter

Comments

- Godsey Court, No Maintenance required

Green Oaks Rd.



Surface Type	Concrete
Roadway Width	25 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Green Oaks Road, Some joint spalling, meander cracks
- Spot utility patches Noticeable settlement
- Seal open joints and minor routine maintenance

Greenbay (East of Bunker Hill Ln.)



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Greenbay Lane (E. of Bunker), Some joint spalling, meander cracks
- Spot utility patches Noticeable settlement
- Seal open joints

Greenbay Ln (Near Flintdale)



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Greenbay Lane (near Flintdale), Surface shows traffic wear.
- Maintain with routine crack filling

Greyton Ln.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	10
Roadway Rating - 2024	10
Drainage Type	Curb/Gutter

Comments

- Greyton Lane, New pavement. No Maintenance required.

Habersham Ln.



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Habersham Lane, Some joint spalling, meander cracks
- Noticeable settlement
- Seal open joints and minor routine maintenance

Heritage Ct.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Heritage Court, Some joint spalling
- Meander cracks
- Seal open joints and minor routine maintenance

Hickory Ridge Ln.



Surface Type	Asphalt
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Hickory Ridge, Surface shows traffic wear
- Maintain with routine crack filling

Homewood Ln. (East)



Surface Type	Concrete
Roadway Width	24 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Homewood Lane (East), Some joint spalling
- Meander cracks
- Seal open joints and minor routine maintenance

Homewood Ln. (West)



Surface Type	Asphalt
Roadway Width	20 feet
Roadway Rating	9
Roadway Rating - 2024	9
Drainage Type	Roadside Ditch

Comments

- Homewood Lane (West), Recent overlay. No maintenance required

Huntington Park Circle



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Curb/Gutter

Comments

- Huntington Park Circle, Surface scaling
- Meander cracks
- Little or no maintenance required

Huntington Park Court



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Curb/Gutter

Comments

- Huntington Park Court, Surface scaling
- Meander cracks
- Little or no maintenance required

J-Star Ct.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Curb/Gutter

Comments

- J-Star Court, Surface scaling, Meander cracks
- Little or no maintenance required

Kilts Dr.



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	3
Roadway Rating - 2024	10
Drainage Type	Curb/Gutter

Comments

- Kilts Dr, New pavement. No maintenance required

Knipp Forest Dr.



Surface Type	Asphalt
Roadway Width	21 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Knipp Forest Dr, Minor cracks
- Little or no maintenance required

Knippwood Ln.



Surface Type	Asphalt
Roadway Width	17 feet
Roadway Rating	7
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Knippwood Lane, Minor cracks
- Little or no maintenance required.
- Seal meander

Longleaf Ln.



Surface Type	Asphalt
Roadway Width	20 feet
Roadway Rating	8
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Longleaf Lane, Some joint spalling
- Meander cracks
- Seal open joints and minor cracks

Longworth Ln.



Surface Type	Concrete
Roadway Width	feet
Roadway Rating	6
Roadway Rating - 2024	6
Drainage Type	Curb/Gutter

Comments

- Longworth Lane, Joint spalling, surface scaling
- Map cracking, multiple meander cracks
- Pavement settlement
- Need general crack sealing and overland, called areas, and isolated full depth replacement

Mayerling



Surface Type	Asphalt
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Mayerling, Some joint spalling
- Meander cracks
- Spot utility patches
- Noticeable settlement
- Seal open joints and minor routine maintenance

McLeods



Surface Type	Asphalt
Roadway Width	18 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- McLeod's, Meander cracks
- Surface shows traffic wear
- Maintain with routine

Mockingbird Ln.



Surface Type	Asphalt
Roadway Width	16 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Mockingbird Lane, Surface scaling meander cracks
- Little or no maintenance required.

Monica St.



Surface Type	Asphalt
Roadway Width	20 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Monica St, Surface scaling
- Meander cracks
- Little or no maintenance required.

Musket Ln.



Surface Type	Asphalt
Roadway Width	14 feet
Roadway Rating	9
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Musket Lane, Surface scaling
- Meander cracks
- Edge pavement failures
- Minor maintenance required.
- Seal meander cracks

Norvell Ct.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Norvell Court, Meander cracks
- Spot utility patches
- Noticeable settlement
- Seal open joints and minor routine maintenance

Oak Glen Ct.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Oak Glen Court, Some joint spalling
- Meander cracks
- Seal open joints
- Minor routine maintenance

Oak Shadows Ln.



Surface Type	Asphalt
Roadway Width	20 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Oak Shadows Lane, Surface scaling
- Meander cracks
- Little or no maintenance required.

Ourlane Circle



Surface Type	Asphalt
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Ourlane Circle, Some joint spalling
- Meander cracks
- Spot utility patches, noticeable settlement
- Seal open cracks joints and minor routine maintenance

Ourlane Cove



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Ourlane Cove, Surface scaling
- Meander cracks
- Little or no maintenance required.

Ourlane Court



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Ourlane Court, Surface scaling
- Meander cracks
- Little or no maintenance required.

Ourlane Place



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Ourlane Place, Surface scaling
- Meander cracks
- Little or no maintenance required.

Ourlane Trail



Surface Type	Concrete
Roadway Width	28 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Ourlane Trail, Surface scaling
- Meander cracks
- Little or no maintenance required.

Patrick Ct.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Patrick Court, Surface scaling
- Meander cracks
- Little or no maintenance required.

Pebble Hill Dr.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	10
Roadway Rating - 2024	10
Drainage Type	Curb/Gutter

Comments

- Pebble Hill Dr, New pavement. No maintenance required.

Plantation Rd.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	6
Drainage Type	Curb/Gutter

Comments

- Plantation Road, Surface scaling
- Meander cracks
- Noticeable settlement
- Seal open joints
- Minor routine maintenance

Powderhorn



Surface Type	Asphalt
Roadway Width	21 feet
Roadway Rating	6
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Powderhorn, Surface shows traffic wear
- Minor alligator cracks and longitudinal cracks
- Could extend life with excavating localized area
- Replace base and surface

Providence Park



Surface Type	Concrete
Roadway Width	25 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Providence Park, Some joint spalling
- Seal open joints
- Minor routine maintenance

Raina Ln.



Surface Type	Asphalt
Roadway Width	18 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Raina Lane, Surface scaling
- Meander crack
- Little or no maintenance

Raydon Ln.



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Raydon Lane, Some joint spalling
- Meander cracks
- Partial loss of joint sealant
- Little or no maintenance required

Rebecca Pines Ct.



Surface Type	Asphalt
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Rebecca Pines Court, Surface shows traffic wear
- Meander cracks
- Minor routine maintenance

Rip Van Winkle



Surface Type	Asphalt
Roadway Width	18 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Rip Van Winkle, Surface shows traffic wear
- Maintenance with routine crack filling

Shady Grove Ln.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	8
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Shady Grove, Surface scaling
- Meander cracks
- Little or no maintenance required

Starwood Dr.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	6
Roadway Rating - 2024	6
Drainage Type	Curb/Gutter

Comments

- Starwood Drive, Surface shows traffic wear
- Minor alligator cracks, and longitudinal cracks
- Could extend life with excavating localized area

Stoney Creek Rd.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	6
Drainage Type	Curb/Gutter

Comments

- Stoney Creek Dr Some joint spalling
- Meander cracks
- Seal open joints and minor routine maintenance

Stoney Ridge Ln.



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Stoney Ridge Lane, Some joint spalling
- Meander cracks
- Spot utility patches, noticeable settlement
- Seal open joints and minor routine maintenance

Surrey Ln (East)



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Surrey Lane (East), Some joint spalling
- Meander cracks
- Partial loss of joint sealant
- Little or no maintenance

Surrey Ln (West)



Surface Type	Asphalt
Roadway Width	24 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Surrey Lane (West), Surface shows traffic wear
- Maintain with routine crack filling

Tall Oaks



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	8
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Tall Oaks, Surface scaling
- Meander cracks
- Little or no maintenance required

Tamerlane Dr.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	6
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Tamerlane Dr, Joint spalling, surface scaling
- Map cracking, multiple meander cracks
- Pavement settlement
- Need general crack sealing and overlay scaled areas
- Possible panel replacement

Tara/Rhett Rd.



Surface Type	Concrete
Roadway Width	25 feet
Roadway Rating	7
Roadway Rating - 2024	6
Drainage Type	Curb/Gutter

Comments

- Tara/Rhett Road, Some joint spalling,
- Meander cracks, spot utility patches
- Noticeable settlement and surface scaling
- Seal open joints and minor routine maintenance

Teal Meadow CT



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	6
Roadway Rating - 2024	6
Drainage Type	Curb/Gutter

Comments

- Teal Meadow Court, Corner cracks
- Longitudinal cracks
- Traverse joints cracks, slab cracks
- Utility patches

Timberknoll St.



Surface Type	Asphalt
Roadway Width	19 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Timberknoll, Minor cracks
- Little or no maintenance required

Valley Star



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	5
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Valley Star, Multiple utility patches
- Moderate to severely polishing
- Some joint spalling, multiple broken pieces
- Noticeable isolated settlement areas

Warrenton Dr.



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	3
Roadway Rating - 2024	10
Drainage Type	Roadside Ditch

Comments

- Warrenton Drive, New pavement. No maintenance required

Wendover



Surface Type	Concrete
Roadway Width	23 feet
Roadway Rating	6
Roadway Rating - 2024	6
Drainage Type	Roadside Ditch

Comments

- Wendover, Some joint spalling, surface scaling
- Multiple meander cracks
- Noticeable settlement
- Need general cracks sealing and overlay scaled area

Williamsburg Ln



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	6
Roadway Rating - 2024	10
Drainage Type	Curb/Gutter

Comments

- Williamsburg Lane, New pavement. No maintenance required

Willowgren



Surface Type	Concrete/Asphalt
Roadway Width	21 feet
Roadway Rating	na
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Willowgren, Some joint spalling
- Surface scaling, loss of joint sealant
- Multiple meander cracks, noticeable settlement
- Need general crack sealing and overlay scale areas

Windy Ln.



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- Windy Lane, Some joint spalling
- Meander cracks
- Spot utility patches, noticeable settlement
- Seal open joints and minor routine maintenance

Wink Rd.



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Curb/Gutter

Comments

- WinK Road, Some joint spalling
- Meander cracks, noticeable settlement
- Seal open joints and minor routine maintenance
- Cul-de-sac showing signs of deterioration

Winshire Circle



Surface Type	Concrete
Roadway Width	27 feet
Roadway Rating	7
Roadway Rating - 2024	6
Drainage Type	Curb/Gutter

Comments

- Winshire, Surface scaling
- Meander cracks
- Noticeable settlement
- Seal open joints and minor routine maintenance

Winwood (East)



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Windwood Lane (East), Some joint spalling
- Meander cracks
- Partial loss of joint sealant
- Little to no maintenance required

Winwood (West)



Surface Type	Asphalt
Roadway Width	17 feet
Roadway Rating	8
Roadway Rating - 2024	8
Drainage Type	Roadside Ditch

Comments

- Windwood (West), Some joint spalling
- Meander cracks
- Partial loss of joint sealant Little or no maintenance required

Wolf Ct.



Surface Type	Concrete
Roadway Width	20 feet
Roadway Rating	7
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Wolf Court, Some joint spalling
- Meander cracks
- Spot utility patches, noticeable settlement
- Seal open joints and minor routine maintenance

Wood Ln.



Surface Type	Asphalt
Roadway Width	17 feet
Roadway Rating	8
Roadway Rating - 2024	7
Drainage Type	Roadside Ditch

Comments

- Wood Lane, Surface scaling
- Meander cracks
- Little or no maintenance

CITY OF BUNKER HILL VILLAGE - STREET ASSESSMENT
 SORTED BY **STREET NAME**
 MINOR STREET INVENTORY

Street Name	Street Width feet	Street Length feet	Material Type	Drainage type	Public	PASER RATING 2015	COMMENT 2015	PASER RATING 2024	COMMENT 2024-2025
Amberton Ln	19	255	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, and surface scaling. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, and surface scaling. Seal open joints and minor routine maintenance.
Applewood	27	175	Concrete	Curb/Gutter	Public	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement	5	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement
Arbordale Ln	20	535	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Balmoral Ln	20	161	Concrete	Roadside Ditch	Public	7	Surface shows traffic wear. Maintain with routine crack filling	7	Surface shows traffic wear. Maintain with routine crack filling
Barazi oaks Ct	28	196	Concrete	Roadside Ditch	Public	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required
Bauerle Ct	27	225	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Bayhurst (West)	19	754	Asphalt	Roadside Ditch	Public	9	Little or no maintenance required	9	Little or no maintenance required
Bayhurst Dr (East)	20	160	Concrete	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Beebe Ln	27	514	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Belin manor Dr	20	480	Asphalt	Roadside Ditch	Public	7	Surface shows traffic wear. Maintain with routine crack filling	7	Surface shows traffic wear. Maintain with routine crack filling
Blalock Woods	18	159	Asphalt	Roadside Ditch	Public	8	Minor cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Bradfield Ct	27	434	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Branch Bend	24	200	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, utility patch, pavement failure. Seal open joints and minor routine maintenance.
Brandon Way	20	421	Concrete	Roadside Ditch	Public	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement
Breeds hill Ct	27	286	Concrete	Curb/Gutter	Public	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement
Broken Bough Cir	20	427	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Broken bough Dr	26	1260	Concrete	Curb/Gutter	Public	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas
Bunker Hill Cir	22	156	Concrete	Roadside Ditch	Public	9	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Carolane Tri	22	2152	Asphalt	Roadside Ditch	Public	9	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Chapel Belle Ln	25	1015	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	10	New pavement. No maintenance required
Chartwell Ct	20	146	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.

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Street Name	Street Width feet	Street Length feet	Material Type	Drainage type	Public	PASER RATING 2015	COMMENT 2015	PASER RATING 2024	COMMENT 2024-2025
Chatam Ln	27	433	Concrete	Curb/Gutter	Public	10	New pavement. No maintenance required	9	New pavement. No maintenance required
Churchill Ct	24	678	Concrete	Roadside Ditch	Public	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas
Clarendon Ln	27	434	Concrete	Curb/Gutter	Public	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas
Claywood St	20	241	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, noticeable settlement. Seal open joints and minor routine maintenance.
Coachman	27	441	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Cobblestone (E. of Bunker Hill)	18	392	Asphalt	Roadside Ditch	Public	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling
Cobblestone (W. of Bunker Hill)	24	494	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling
Cobblestone Dr (E of Strey)	26	1157	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Cobblestone Dr. (W of Strey)	23	672	Concrete	Curb/Gutter	Public	10	New pavement. No Maintenance required	9	No Maintenance required
Country Way	22	687	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, noticeable settlement. Seal open joints and minor routine maintenance.
Doncaster Rd	27	429	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Duchess Ct	27	374	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Dunnam Ln	27	985	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Durette	20	519	Concrete	Roadside Ditch	Public	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement
Eaton Ct	27	301	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Fidelia Ct	20	435	Asphalt	Roadside Ditch	Public	8	Minor cracks. Little or no maintenance required	8	Minor cracks. Little or no maintenance required
Flint Forest Ln	27	437	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Flintdale	19	3881	Asphalt	Road Side Ditch	Partial	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Flintwood Dr	27	1014	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Folwell Ln	17	288	Asphalt	Roadside Ditch	Public	9	Little or no maintenance required	9	Little or no maintenance required
Forrest Glen	20	986	Asphalt	Roadside Ditch	Public	6	Surface shows traffic wear, minor alligator cracks, isolated rutting areas, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface	6	Surface shows traffic wear, minor alligator cracks, isolated rutting areas, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and re-surfacing

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Gentilly Pl	27	422	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Godsey Ct	23	156	Asphalt	Curb/Gutter	Public	10	No maintenance required	10	No maintenance required
Green Oaks Rd	25	1011	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Greenbay Ln (E. of Bunker Hill)	27	992	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Greenbay Ln (near Flintdale)	20	1086	Asphalt	Roadside Ditch	Public	7	Surface shows traffic wear. Maintain with routine crack filling	7	Surface shows traffic wear. Maintain with routine crack filling
Greyton Ln	27	1400	Concrete	Curb/Gutter	Public	10	New pavement. No maintenance required	10	New pavement. No maintenance required
Habersham Ln	20	405	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, noticeable settlement. Seal open joints and minor routine maintenance.
Heritage Ct	27	394	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, Seal open joints and minor routine maintenance.
Hickory Ridge	20	374	Asphalt	Roadside Ditch	Public	7	Surface shows traffic wear. Maintain with routine crack filling	7	Surface shows traffic wear. Maintain with routine crack filling
Homewood Ln (East)	24	527	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Homewood Ln (West)	20	430	Asphalt	Roadside Ditch	Public	9	Recent overlay. No maintenance required	9	Recent overlay. No maintenance required
Huntington Park Cr	27	207	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Huntington park ct	27	171	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
J-Star ct	27	171	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Kilts dr	20	1165	Concrete	Roadside Ditch	Public	3	Multiple parallel cracks, open joints, open transverse and meander cracks with spalling, poor ride, utility patches. Needs full depth patching plus some slab replacement	10	New pavement. No maintenance required
Knipp Forest Dr	21	480	Asphalt	Roadside Ditch	Public	8	Minor cracks. Little or no maintenance required	8	Minor cracks. Little or no maintenance required
Knippwood ln	17	646	Asphalt	Roadside Ditch	Public	7	Minor cracks, Edge pavement failure . Minor maintenance required	7	Minor cracks. Little or no maintenance required. Seal meander cracks
Longleaf Ln	20	545	Asphalt	Roadside Ditch	Public	8	Minor cracks. Little or no maintenance required	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Longworth Ln	27	627	Concrete	Curb/Gutter	Public	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement
Mayerling	20	2368	Asphalt	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
McLeod's	18	362	Asphalt	Roadside Ditch	Public	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling

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Mockingbird Ln	16	589	Asphalt	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Monica St	20	1670	Asphalt	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling
Musket Ln	14	608	Asphalt	Roadside Ditch	Public	9	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks, edge pavement failures. Minor maintenance required. Seal meander cracks
Norvell Ct	27	350	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Oak Glen Ct	27	145	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Oak Shadows Ln	20	223	Asphalt	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Ourlane Circle	20	935	Asphalt	Roadside Ditch	Public	7	Surface shows traffic wear and edge failure, or Maintain with routine crack filling and isolated full depth pavement repair	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open cracks joints and minor routine maintenance.
Ourlane Cove	20	182	Concrete	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Ourlane Ct	20	163	Concrete	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Ourlane Pl	20	203	Concrete	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Ourlane Trl	28	215	Concrete	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Patrick Ct	27	449	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Pebblehill Dr	27	444	Concrete	Curb/Gutter	Public	10	New pavement. No maintenance required	10	New pavement. No maintenance required
Plantation Rd	27	1615	Concrete	Curb/Gutter	Public	7	Surface scaling, meander cracks, spot utility patches, noticeable settlement, minor manhole cracking. Seal open joints and minor routine maintenance.	6	Surface scaling, meander cracks, noticeable settlement, Seal open joints and minor routine maintenance.
Plantation Rd - Memorial to Rhett	27	1615	Concrete	Curb/Gutter	Public	7	Surface scaling, meander cracks, spot utility patches, noticeable settlement, minor manhole cracking. Seal open joints and minor routine maintenance.	6	Surface scaling, meander cracks, noticeable settlement, Seal open joints and minor routine maintenance.
Powderhorn	21	895	Asphalt	Roadside Ditch	Public	6	Surface shows traffic wear, minor alligator cracks, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface	8	Surface shows traffic wear, minor alligator cracks, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface
Providence park	25	189	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Raina Ln	18	134	Asphalt	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	8	Surface scaling, meander cracks. Little or no maintenance required
Raydon Ln	20	483	Concrete	Roadside Ditch	Public	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required
Rebecca pines Ct	20	279	Asphalt	Roadside Ditch	Public	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling	7	Meander cracks, surface shows traffic wear. Maintain with routine crack filling
Rip Van Winkle	18	452	Asphalt	Roadside Ditch	Public	7	Surface shows traffic wear. Maintain with routine crack filling	7	Surface shows traffic wear. Maintain with routine crack filling.

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Shady grove	27	519	Concrete	Curb/Gutter	Public	8	Surface scaling, meander cracks. Little or no maintenance required	7	Some joint spalling, meander cracks. Seal open joints and minor routine maintenance.
Starwood Dr	27	582	Concrete	Curb/Gutter	Public	6	Surface shows traffic wear, minor alligator cracks, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface	6	Surface shows traffic wear, minor alligator cracks, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface
Stoney Creek Dr	27	1587	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	6	Surface shows traffic wear, minor alligator cracks, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface
Stoney Ridge Ln	20	386	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.
Street Name	Street Width feet	Street Length feet	Material Type	Drainage type	Public	PASER RATING	COMMENT		
Street Name	Street Width feet	Street Length feet	Material Type	Drainage type	Public	PASER RATING	COMMENT		
Street Name	Street Width feet	Street Length feet	Material Type	Drainage type	Public	PASER RATING	COMMENT		
Surrey Ln (East)	24	553	Concrete	Roadside Ditch	Public	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required
Surrey Ln (West)	24	468	Asphalt	Roadside Ditch	Public	7	Surface shows traffic wear. Maintain with routine crack filling	7	Surface shows traffic wear. Maintain with routine crack filling
Tall Oaks	21	397	Asphalt	Roadside Ditch	Public	8	Surface scaling, meander cracks. Little or no maintenance required	7	Surface shows traffic wear, minor alligator cracks, and longitudinal cracks. Could extend life with excavating localized areas and replacing base and surface
Tamerlane Dr	27	1619	Concrete	Curb/Gutter	Public	6	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, and isolated full depth replacement	7	Joint spalling, surface scaling, map cracking, multiple meander cracks, pavement settlement. Need general crack sealing and overlay scaled areas, possible panel replacement
Tara/Rhett	25	1221	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement, and surface scaling. Seal open joints and minor routine maintenance.	6	Some joint spalling, meander cracks, spot utility patches, noticeable settlement, and surface scaling. Seal open joints and minor routine maintenance.
Tealmeadow Ct	27	360	Concrete	Curb/Gutter	Public	6	Corner Cracks, Longitudinal cracks, Traverse joints cracks, slab cracks and utility patches. Recommend joint sealant	6	Corner Cracks, Longitudinal cracks, Traverse joints cracks, slab cracks and utility patches. Recommend joint sealant
Timberknoll	19	402	Asphalt	Roadside Ditch	Public	8	Minor cracks. Little or no maintenance required	8	Minor cracks. Little or no maintenance required
Valley Star	27	849	Concrete	Curb/Gutter	Public	5	Multiple utility patches, moderate to severely polishing, some joint spalling, multiple broken pieces, and noticeable isolated settlement areas. Grind to repair surface defects, and needs partial depth patching or joint repairs needed.	7	Multiple utility patches, moderate to severely polishing, some joint spalling, multiple broken pieces, and noticeable isolated settlement areas.
Warrenton Dr	20	1569	Concrete	Roadside Ditch	Public	3	Multiple parallel cracks, open joints, open transverse and meander cracks with spalling, poor ride, utility patches. Needs full depth patching plus some slab replacement	10	New pavement. No maintenance required
Wendover	23	412	Concrete	Roadside Ditch	Public	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas
Williamsburg Ln	20	2385	Concrete	Curb/Gutter	Public	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas	10	New pavement. No maintenance required
Williamsburg Ln (Cobblestone to Bunker Hill)	20	1653	Concrete/Asphalt	Curb/Gutter	Public	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas	6	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas
Willowgren	21		Concrete/Asphalt	Curb/Gutter	Public	n/a	n/a	7	Some joint spalling, surface scaling, loss of joint sealant, multiple meander cracks, noticeable settlement. Need general crack sealing and overlay scaled areas
Windy Ln	27	522	Concrete	Curb/Gutter	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.

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Wink Rd	20	535	Concrete	Roadside Ditch	Public	7	Some joint spalling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	7	Some joint spalling, meander cracks, noticeable settlement. Seal open joints and minor routine maintenance. Cul-de-sac showing signs of deterioration
Winshire	27	1076	Concrete	Curbs/Gutter	Public	7	Surface scaling, meander cracks, spot utility patches, noticeable settlement. Seal open joints and minor routine maintenance.	6	Surface scaling, meander cracks, noticeable settlement. Seal open joints and minor routine maintenance.
Winwood Ln (East)	20	512	Concrete	Road Side Ditch	Partial	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required	8	Some joint spalling, meander cracks, partial loss of joint sealant. Little or no maintenance required