



# THE CITY OF Litchfield Park

## *Ten-Year Pavement Management Program October 2015 Update*



EXPIRES 03/09/2016



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**CITY OF LITCHFIELD PARK**  
**TEN-YEAR PAVEMENT MANAGEMENT PROGRAM**  
**October 2015 Update**

**Executive Summary**

The Ten-Year Pavement Management Program provides a structured approach to the preservation of all public streets in the City of Litchfield Park for a period of ten years. Annual updates to this program allow for flexibility in the treatments and new options as they are developed in the industry and adjustments based on lessons learned in the past years. Research was conducted to verify that the treatments used by Litchfield Park are the best available methods for extending the useful life of asphalt pavement in this desert environment.

The City's first Ten-Year Pavement Management Program was developed in 2006. Since that time, much progress has been made in the repairs and upgrades to the City's street network. In the coming years and, as funding is available, this program will continue to preserve asphalt paved streets and provide a safe and efficient system for its citizens and the public at large.

The main objectives for a ten-year pavement management program are:

1. Preserve the pavement investment
2. Maintain a high level of service

The benefits of utilizing a pavement management program include:

- Improved pavement performance
- Higher public satisfaction
- Cost savings
- Increased safety

There are numerous types of treatments available which rejuvenate and protect the asphalt and provide varying degrees of additional structural capacity to the pavement. Six main types of treatment options are recommended for use in Litchfield Park; crack filling and sealing, high density mineral bond (HA5), slurry sealing, micro sealing, mill and overlay, and milling and full depth asphalt replacement (milling and paving). The use of these different treatments is dependent on the age and condition of the existing asphalt pavement and underlying base material.

Through a systematic analysis of pavement life cycles, a pavement management program can help to determine the most appropriate time to rehabilitate pavement, what the most cost effective method is, and how many dollars it will take to maintain the street system at a desirable condition level. The time and treatment type can vary according to how the asphalt pavement is performing and holding up to traffic and the elements. **Figures 1**

**and 2** show a typical life-cycle treatment plan for asphalt pavement preservation of arterial, collector, and local residential streets in the City.

This year's update has been a comprehensive process and included the reevaluation of treatment methods, information on past accomplishments, and the proposed schedule of treatments for the next ten years. **Appendix A** shows all the pavement preservation and reconstruction projects completed since 2009. The planned pavement preservation projects for the years 2016 thru 2020 and 2021-2025 are shown in **Appendices B and C**, respectfully. The latest schedule of the program with projected treatment types and estimated costs are shown in **Appendix D** sorted by street name and in **Appendix E** sorted by street condition. A detailed maps of the proposed pavement treatments for each of the first three years, 2016, 2017 and 2018, are included, for reference, in **Appendices F, G, and H**, respectfully.

Each year there will be coordination with existing utility providers and new developments that may have or may be installing facilities within the City's right-of-way. Coordination will also be done with the school districts, emergency services providers and adjacent local agencies to ensure impacts to traffic and operations are considered in the scheduling of the preservation projects. Another important aspect of this coordination is to avoid damages to recently treated pavement by utility and developer projects.

An update of the program each year will be done to evaluate the effectiveness of past projects and refine the treatment methods and schedules for the future. Each year, the maps and existing conditions matrix will be updated to include the next outer year of future pavement preservation.

A target schedule, shown in **Table 1, page 6**, has been developed for the annual program to assist in providing accurate budget estimates and to ensure construction is completed on schedule each year. This also provides consistency and predictability to the program which assists the City, emergency services, utility providers, and adjacent local agencies in their operations and scheduling of infrastructure improvements in or adjacent to Litchfield Park.

The City of Litchfield Park benefits by applying this systematic approach to the future of the pavement infrastructure and having the ability to plan for future costs. The plan provides the basis for programming short- and long-term budget needs and supports good engineering practice and public safety.

### **Purpose**

The purpose of a pavement management program is to maintain or restore the surface characteristics of the existing pavement and to extend the service life of Litchfield Park's streets. As a means of improving the condition of the pavement and reducing the overall rate of deterioration, preventive maintenance treatments are used in a pavement management program to extend the life of existing asphalt pavement. Since they are relatively inexpensive in comparison to rehabilitation or reconstruction projects, preventive maintenance treatments are an effective means of preserving the investment in existing street infrastructure.

An effective pavement management program has two main objectives:

1. Preserve the pavement investment

This objective involves minimizing the pavement failures and extending the structural life cycle of the pavement to preserve the investment that has been made.

2. Maintain a high level of service

This objective involves maintaining acceptable smoothness and surface friction in order to provide a high level of service for the users of the streets.

The implementation of a pavement management program is good practice for the City. The benefits of using a pavement management program include:

- Improved pavement performance—preservation activities extend the performance of the pavement and help to improve the overall condition.
- Higher public satisfaction—use of preservation activities can lead to smoother streets and fewer construction delays.
- Cost savings—less expensive treatments and the extension of service lives of pavements help to lower or stabilize operating costs.
- Increased safety—preventive maintenance treatments are designed to provide safer pavement surfaces in terms of improved pavement texture and correction of safety related defects such as cracking, ruts and potholes, and to improve surface drainage.

Through a systematic analysis of pavement life cycles, a pavement management program can help to determine the most appropriate time to rehabilitate pavement, what the most cost effective method is, and how many dollars it will take to maintain the street system at a desirable condition level.

### **History**

The City of Litchfield Park began its pavement management program in Fiscal Year 2006 with the development of its first 10-year program. All of the streets in the City were reviewed in the field and their pavement conditions were classified in one of four categories of deterioration; severe, extensive, moderate, and minimal. This review was based on visual inspection of the pavement and ride quality. Research was then conducted to identify the various pavement preservation treatments and determine the best treatments for the City's streets. Additional research has been done as a part of the development of these guidelines to ensure that the program is current with the best engineering practices being used today.

### **Pavement Treatments**

There are numerous types of treatments available which rejuvenate and protect the asphalt and provide varying degrees of additional structural capacity to the pavement. These treatments include crack sealing, fog seal, micro seal, slurry seal, high density mineral bond (HA5), chip seals, thin overlays, milling and paving, and mill and full-depth reconstruction. Each treatment has different qualities and applications and is used based on the condition and deterioration of the existing pavement. Based on this research, six main types of treatment options are now

recommended for use in Litchfield Park; crack filling and sealing, high density mineral bond (HA5), slurry sealing, micro sealing, mill and overlay, and milling and full depth asphalt replacement (milling and paving).

Each of these treatments is described in more detail as follows:

- **Crack Filling and Sealing:** Cracking of asphalt pavement is inevitable in Arizona. These cracks are caused by poor soils, and thermal expansion and contraction of the pavement. The cracks allow water and debris into the pavement and base material which accelerates the deterioration and damages the structural integrity of the pavement. The process entails placing specialized materials either above or into cracks to prevent this intrusion of water and debris. Crack sealants firmly adhere to the walls of the cracks and remain flexible as expansion and contraction occurs.
- **High Density Mineral Bond:** This treatment is also known in the industry as HA5. This is a first preservation treatment applied to new pavement within one year of construction and to existing asphalt pavement in good condition. This treatment is used mainly on lower volume collector and all residential streets to seal the pavement surface to prevent oxidation and water infiltration. It is a dense mixture of fine aggregates and polymers suspended in a mineral emulsion. This treatment reduces cracking and raveling by effectively preserving the existing asphalt binder. This treatment is used for minimal deterioration, blocks Ultra-Violet rays which cause oxidation, and lasts for up to 5 or 6 years.
- **Slurry Seal:** This is a mixture of slow-setting emulsified asphalt, fine aggregate, and mineral filler with water added to produce a slurry consistency. This treatment is used mainly on low volume collector and residential streets and parking lots. It is best suited for use when the street has started to lose the fine aggregates on the surface.
- **Micro-Seal:** This is a mixture of latex-modified emulsified asphalt, small aggregates, mineral filler, water and additives. This treatment is used mainly on higher volume collector and all arterial streets to address surface roughness and prevent water infiltration. It is used for moderate and minimal deterioration and is quite cost effective.
- **Mill and Overlay:** This treatment involves removing a thin layer (1 inch or less) of the existing asphalt and replacing it with a geotextile fabric, if appropriate, and new asphalt pavement. This effectively seals out water and debris and restores some structural capacity. This treatment is used mainly for arterial streets with moderate to severely damaged pavements and is more expensive than the previous treatments.
- **Mill and Paving:** This treatment removes the entire asphalt pavement down to the base material, assuming the base course is suitable. The base is then graded and new, full-depth asphalt pavement is placed to provide full structural capacity and protection of the base material. This is the most expensive method of preservation and is used on all classifications of streets with the most severely deteriorated asphalt pavement.

The use of these different treatments is dependent on the age and condition of the existing asphalt pavement and underlying base material. A pavement management program should begin as soon as possible after a street has been constructed with treatments applied on a predetermined but flexible schedule to get the most out of the City's infrastructure. The time and treatment type can vary according to how the asphalt pavement is performing and holding up to traffic and the elements. **Figures 1 and 2** show a typical life-cycle treatment plan for asphalt

pavement preservation of arterial, collector, and local residential streets in the City. Existing streets will be inserted into these cycles based on their conditions and latest treatments.

An existing conditions matrix was developed showing the condition of each street and the proposed type of treatment and schedule. The implementation of the City's 10-Year Pavement Management Program began in Fiscal Year 2007 which recommended using chip seal, preservative seal, and slurry seal. In the following years, additional streets were treated according to the category of deterioration and appropriate preservation treatment as shown in the matrix. The 10-Year Pavement Management Program has been updated periodically based on the work accomplished. This year's update has been a comprehensive process and included the reevaluation of treatment methods, information on past accomplishments, and the proposed schedule of treatments for the next ten years. **Appendix A** shows all the pavement preservation and reconstruction projects completed since 2009. The planned pavement preservation projects for the years 2016 thru 2020 and 2021-2025 are shown in **Appendices B and C**, respectfully. The latest schedule of the program with projected treatment types and estimated costs are shown in **Appendix D** sorted by street name and in **Appendix E** sorted by street condition. Detailed maps of the proposed pavement treatments for each of the first three years, 2016, 2017 and 2018, are included, for reference, in **Appendices F, G, and H**, respectfully.

### **Coordination with Stakeholders**

It is critical that there be coordination with existing utility providers and new developments that may have or may be installing facilities within the City's right-of-way. Of particular importance are their Capital Improvement Programs (CIP) and any maintenance projects planned that may involve excavation within the existing pavement areas. Trench excavation in asphalt pavement results in opportunities for cracks to develop at the edges of patches and for settling of the trench. This will accelerate the deterioration of the existing pavement.

Coordination will also be done with the school districts, emergency services providers and adjacent local agencies to ensure impacts to traffic and operations are considered in the scheduling of the preservation projects.

Another important aspect of this coordination is to avoid damages to recently treated pavement by utility and developer projects. This results in costly repairs, reduced life of the pavement, and poor public relations. It is poor practice to allow trenching and damage to a recently paved street and results in costs to both the City and the utility or development. Treatment schedules could be adjusted to accommodate planned activities and Capital Improvement Projects. The City has addressed this in City Code Article 7-16, which restricts activities disrupting the pavement by utilities and others in the right-of-way. The pavement management program will ensure that these requirements are included as a part of the coordination efforts.

### **Annual Updates**

It is important to conduct an update of the program each year to evaluate the effectiveness of past projects and refine the treatment methods and schedules for the future. This update will be completed prior to the annual budget process which begins in April of each year. Each year, the maps and existing conditions matrix will be updated to include the next outer year of future pavement preservation. Streets scheduled for treatment in the

next three years will be re-evaluated in the field to verify that the recommended treatment is still appropriate and needed as scheduled. Coordination with stakeholders as described above will again be done for those streets to ensure nothing is changed in their CIP projects or operations scheduling. According to this update, the annual pavement preservation projects will be developed and recommended for inclusion in the next fiscal year budget.

Crack sealing will be programmed at a constant level of \$25,000 per year which is consistent with past years. Due to the temperatures changes, heavy rains, and poor soil conditions experienced in Arizona, pavement cracking can change dramatically from one year to the next. The streets will be reviewed each year for cracking and the streets experiencing the most damage that can be addressed by sealing will be programmed to the extent of the budget. If there is a need, the budget for crack sealing could be increased for a year which would come from the total program budget. This would have minimal effect on the amount of other treatments being done in that year.

A target schedule, shown below in **Table 1**, has been developed for the annual pavement management program to assist in providing accurate budget estimates and to ensure construction is completed on schedule each year. This also provides consistency and predictability to the program which assists the City, emergency services, utility providers, and adjacent local agencies in their operations and scheduling of infrastructure improvements in or adjacent to Litchfield Park.

**Table 1**  
**Typical Program Schedule**

<b>Activity</b>	<b>Submittal or Bid</b>	<b>Bid Award</b>	<b>Complete</b>
<b>Start Annual Update</b>	November		March
<b>Field Review</b>	December		January
<b>Recommend projects to City Manager</b>	February		
<b>Budget Request to Council</b>	March		
<b>Proposed Projects to Council for Approval</b>	July		
<b>Crack Sealing Project</b>	October	November	January
<b>High Density Mineral Bond Project **</b>	April	May	June
<b>Slurry Seal/Micro Seal Project</b>	March	April	May
<b>Mill &amp;Paving Project</b>	April	May	June

\*\*Under Cooperative Contract

**Conclusion**

A successful pavement management program requires that everyone have a clear understanding of what pavement preservation is and how it relates to existing maintenance activities. Pavement preservation includes all activities carried out to provide and maintain a high level of service on our roadways, preserve our investment, extend pavement life, and enhance pavement performance.

Preventative maintenance is a pavement preservation tool to provide cost effective treatment to the surface of a structurally sound pavement to preserve the system and delay future deterioration. Time is the element by which cost-effectiveness is defined. A preventive maintenance treatment placed on a road too late will result in poor performance because it is not designed to increase structural capacity. Conversely, placing the treatment too early will result in unnecessary costs.

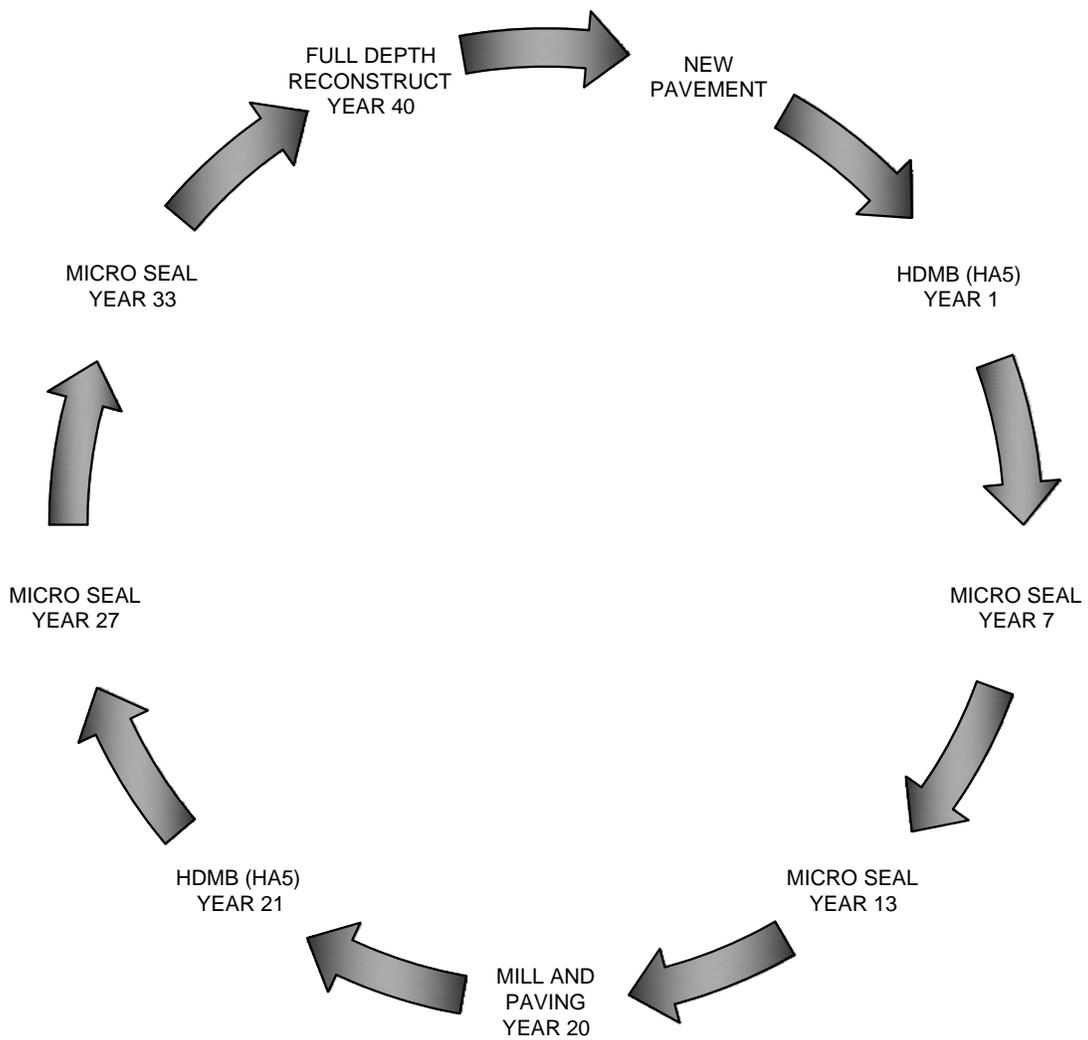
The City of Litchfield Park benefits by applying this systematic approach to the future of the pavement infrastructure and having the ability to plan for future costs. The plan provides the basis for programming short- and long-term budget needs and supports good engineering practice and public safety.

Respectfully Submitted,

\_\_\_\_\_  
Michael A Gillespie, PE  
Senior Project Manager

\_\_\_\_\_  
Date

FIGURE 1  
PAVEMENT MAINTENANCE PROGRAM  
TYPICAL LIFE CYCLE  
MAJOR AND MINOR ARTERIAL STREETS  
MAJOR COLLECTOR STREETS

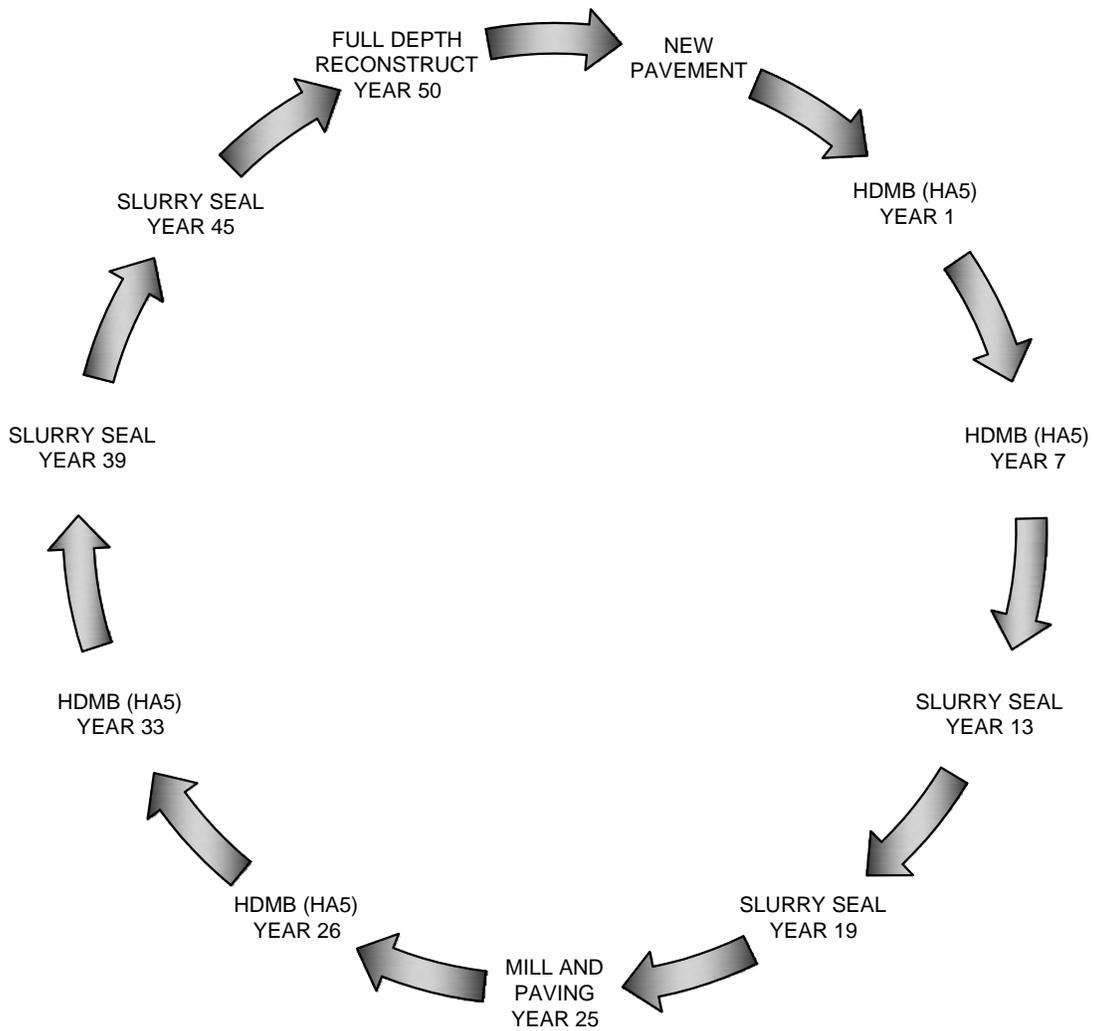


HIGH DENSITY MINERAL BOND (HDMB)

# FIGURE 2

## PAVEMENT MAINTENANCE PROGRAM TYPICAL LIFE CYCLE

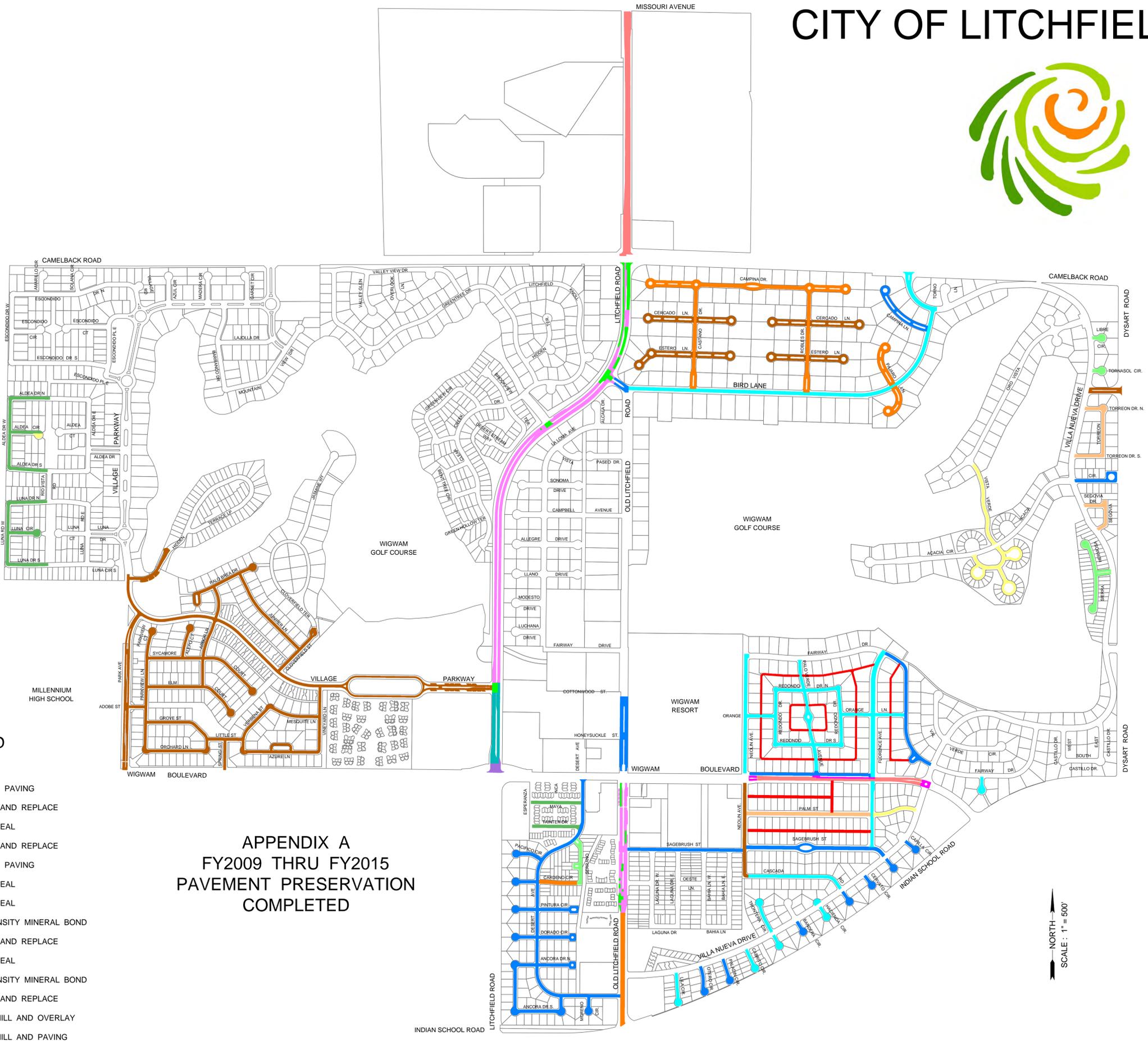
### RESIDENTIAL COLLECTOR STREETS LOCAL RESIDENTIAL STREETS



HIGH DENSITY MINERAL BOND (HDMB)

# APPENDIX A

# CITY OF LITCHFIELD PARK



**LEGEND**

- 2009 PAVING
- 2010 MILL AND PAVING
- 2010 REMOVE AND REPLACE
- 2011 MICRO - SEAL
- 2011 REMOVE AND REPLACE
- 2013 MILL AND PAVING
- 2013 MICRO - SEAL
- 2014 MICRO - SEAL
- 2014 HIGH DENSITY MINERAL BOND
- 2014 REMOVE AND REPLACE
- 2015 MICRO - SEAL
- 2015 HIGH DENSITY MINERAL BOND
- 2015 REMOVE AND REPLACE
- 2013 A.D.O.T. MILL AND OVERLAY
- 2013 A.D.O.T. MILL AND PAVING

**APPENDIX A  
FY2009 THRU FY2015  
PAVEMENT PRESERVATION  
COMPLETED**

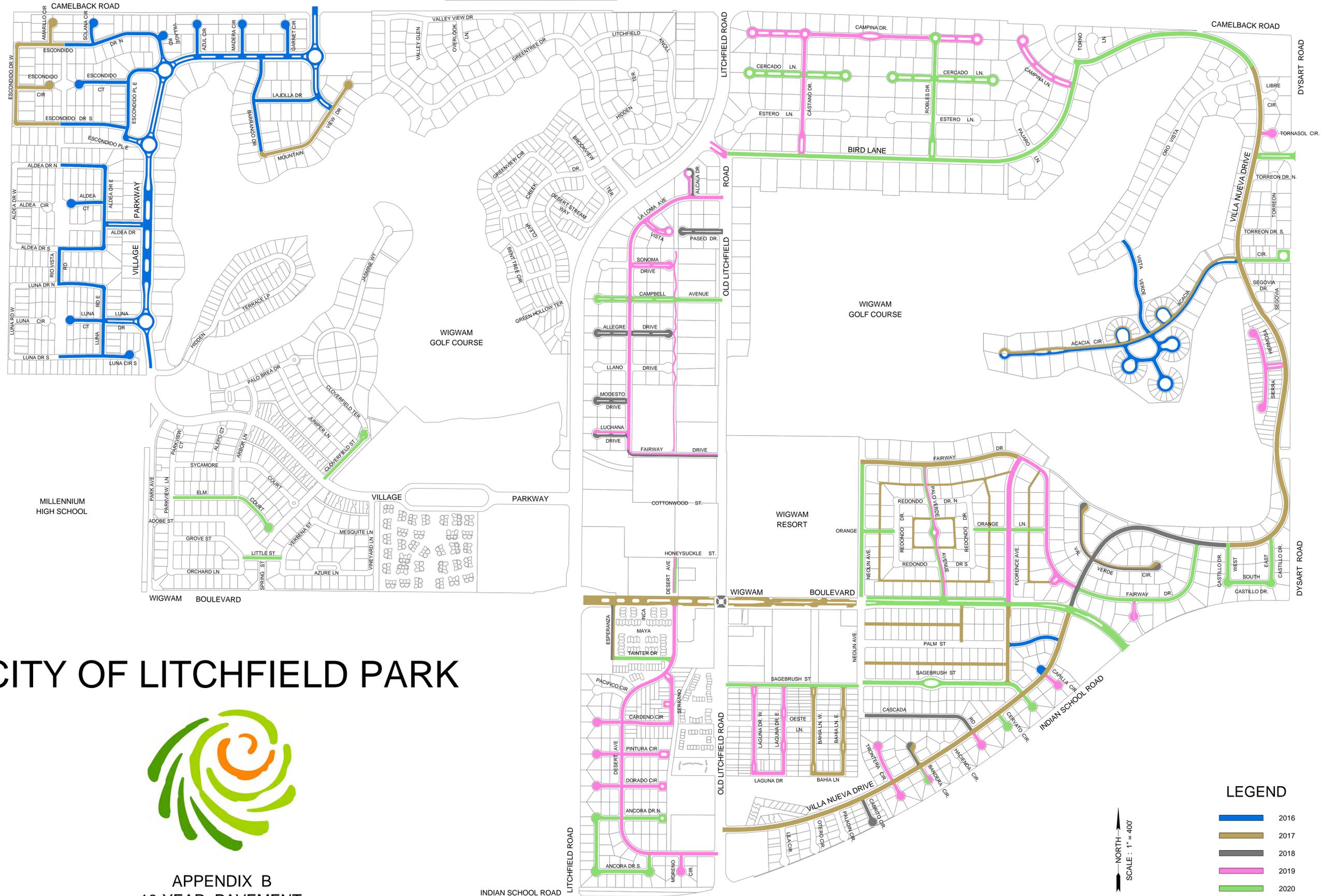
NORTH  
SCALE : 1" = 500'

# APPENDIX B

# CITY OF LITCHFIELD PARK



## APPENDIX B 10-YEAR PAVEMENT MAINTENANCE PROGRAM FY2016 THRU FY2020



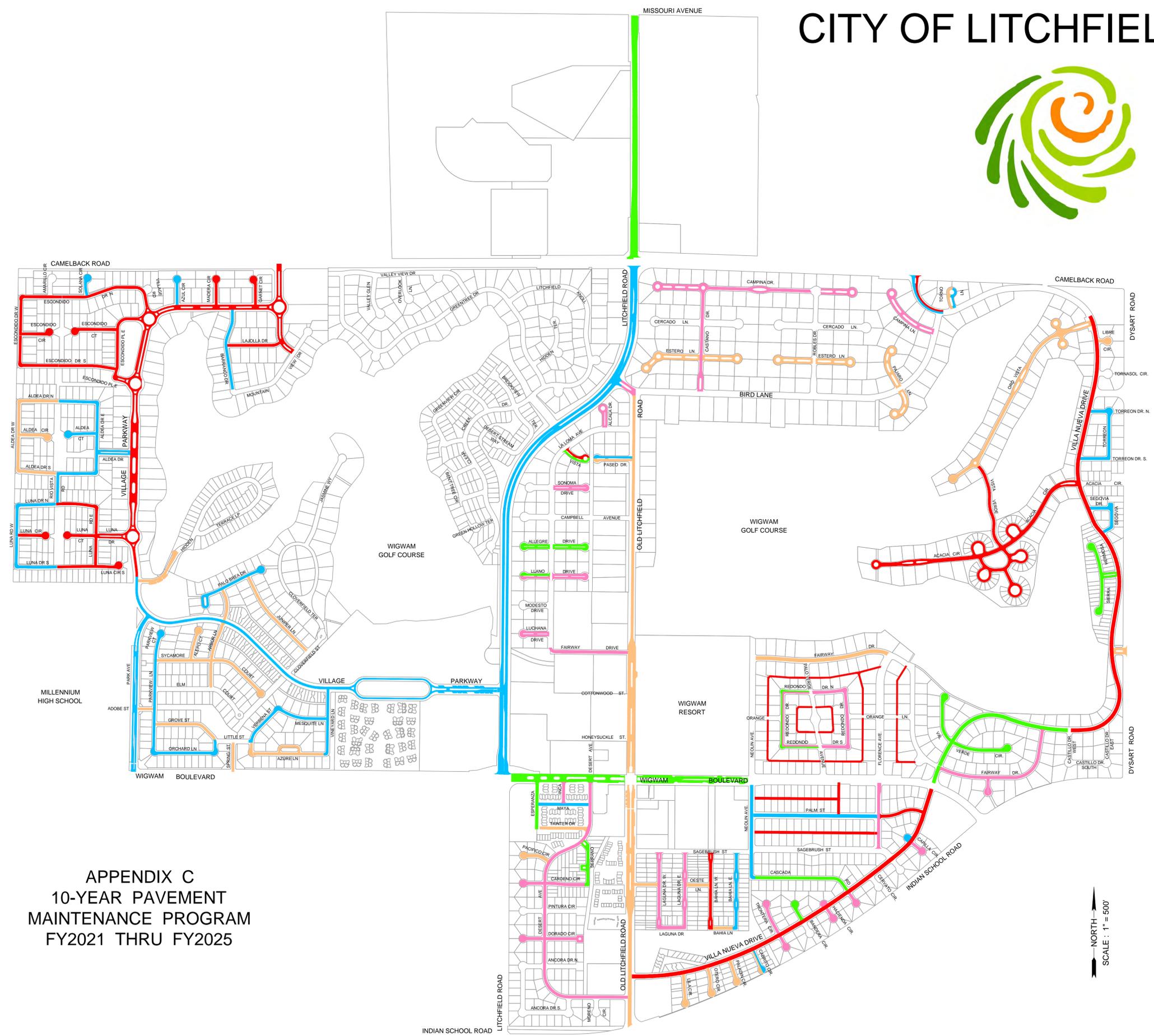
### LEGEND

- █ 2016
- █ 2017
- █ 2018
- █ 2019
- █ 2020

NORTH  
SCALE : 1" = 400'

# APPENDIX C

APPENDIX C  
10-YEAR PAVEMENT  
MAINTENANCE PROGRAM  
FY2021 THRU FY2025



**LEGEND**

- 2021
- 2022
- 2023
- 2024
- 2025

NORTH  
SCALE : 1" = 500'

# CITY OF LITCHFIELD PARK



# APPENDIX D



## 10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - ALPHABETICAL OCTOBER 2015

ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT		2016 TREATMENT		2017 TREATMENT		2018 TREATMENT		2019 TREATMENT		2020 TREATMENT		2021 TREATMENT		2022 TREATMENT		2023 TREATMENT		2024 TREATMENT		2025 TREATMENT		TOTAL CONST. COST	TOTAL PROJECT COST
							2015 COST	2016 COST	2017 COST	2018 COST	2019 COST	2020 COST	2021 COST	2022 COST	2023 COST	2024 COST	2025 COST													
ACACIA CIRCLE E	VILLA NUEVA DR	ACACIA EAST END	1883	28	1,883	High Density Mineral Bond											HDMB seal	\$4,723											\$10,014	\$12,017
ACACIA CIRCLE W	VILLA NUEVA DR	ACACIA CIRCLE WEST END CUL	2590	36	10,358	Remove and Reconstruction Pavement Surface			mill & repave	\$258,949	HDMB seal	\$21,255											HDMB seal	\$30,701					\$310,904	\$373,085
ACACIA CIRCLE W NORTH SIDE LOOP	ACACIA CIR W	ACACIA CIR W	533	28	1,658	Remove and Reconstruction Pavement Surface			mill & repave	\$41,461	HDMB seal	\$3,403											HDMB seal	\$4,916					\$49,780	\$59,735
ADOBE DRIVE	PARK AVENUE	PARKVIEW LANE	210	24	425	High Density Mineral Bond	HDMB seal 05/15/2015	\$714												HDMB seal	\$1,130								\$1,844	\$2,213
ALCALA	LA LOMA DR	ALCALA NORTH END CUL	255	36	1,181	Remove and Reconstruction Pavement Surface							mill & repave	\$35,080	HDMB seal	\$2,783										HDMB seal	\$3,860		\$41,724	\$50,068
ALEGRE	LA LOMA DR	ALEGRE EAST END CUL	365	36	1,723	Micro Seal	crack fill seal 05/18/2015						micro seal	\$3,337												HDMB seal	\$5,368		\$8,706	\$10,447
ALEGRE	LA LOMA DR	ALEGRE WEST END CUL	320	36	1,453	Micro Seal	crack fill seal 05/18/2015						micro seal	\$2,814												HDMB seal	\$4,527		\$7,341	\$8,809
ALDEA CIR	ALDEA RD W	ALDEA CT TO EAST END CUL	327	26	1,281	High Density Mineral Bond	micro seal [1] 05/15/2015	\$5,201												HDMB seal	\$3,407								\$8,608	\$10,329
ALDEA CT	ALDEA DR E	ALDEA CT TO WEST END CUL	330	26	1,260	High Density Mineral Bond			HDMB seal	\$2,368													HDMB seal	\$3,541.93					\$5,910	\$7,092
ALDEA RD E	ALDEA DR N	ALDEA DR S	743	26	2,181	High Density Mineral Bond			HDMB seal	\$4,099													HDMB seal	\$6,131.78					\$10,231	\$12,278
ALDEA DR W	ALDEA DR N	ALDEA DR S	638	26	2,131	High Density Mineral Bond	micro seal [1] 05/15/2015	\$8,653												HDMB seal	\$5,669								\$14,323	\$17,187
ALDEA DR N	ALDEA DR W	ALDEA DR E	819	26	2,400	High Density Mineral Bond			HDMB seal	\$4,512													HDMB seal	\$6,748.58					\$11,260	\$13,513
ALDEA DR N	ALDEA DR W	RIO VISTA RD	373	26	1,078	High Density Mineral Bond	micro seal [1] 05/15/2015	\$4,375												HDMB seal	\$2,866								\$7,241	\$8,690
ALDEA DR S	ALDEA DR W	ALDEA DR E	819	26	2,401	High Density Mineral Bond			HDMB seal	\$4,515													HDMB seal	\$6,752.74					\$11,267	\$13,521
ALDEA DR S	ALDEA DR W	RIO VISTA RD EXT	364	26	1,052	High Density Mineral Bond	micro seal [1] 05/15/2015	\$4,272												HDMB seal	\$2,799								\$7,071	\$8,485
ALDEA DR	ALDEA DR E	VILLAGE PKWY WEST	282	28	1,123	High Density Mineral Bond			HDMB seal	\$2,112													HDMB seal	\$3,158.94					\$5,271	\$6,325
ALEPPO COURT	SYCAMORE LANE	ALEPPO CT NORTH END CUL	332	25	1,245	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,092												HDMB seal	\$3,312								\$5,404	\$6,485
ALLEY BETWEEN PALM ST & SAGEBRUSH ST	FLORENCE AVE	NEOLIN AVE	1285	25	3,555	High Density Mineral Bond					HDMB seal	\$7,294													HDMB seal	\$5,403			\$12,698	\$15,237
ALLEY BETWEEN PALM ST & WIGWAM BLVD	NEOLIN AVE	NORTH-SOUTH ALLEY	872	25	2,406	High Density Mineral Bond					HDMB seal	\$4,937													HDMB seal	\$7,131			\$12,067	\$14,481
ALLEY BETWEEN FLORENCE AVE & NEOLIN AVE	PALM ST	WIGWAM BLVD	329	25	897	High Density Mineral Bond					HDMB seal	\$1,840													HDMB seal	\$2,657			\$4,497	\$5,397
ALLEY BETWEEN FAIRWAY DR & FLORENCE AVE	FAIRWAY DR	ORANGE LN EAST	544	16	949	High Density Mineral Bond					HDMB seal	\$1,947													HDMB seal	\$2,812			\$4,758	\$5,710
ALLEY BETWEEN FAIRWAY DR & FLORENCE AVE	ORANGE LANE EAST	FAIRWAY DR	652	16	1,161	High Density Mineral Bond					HDMB seal	\$2,382													HDMB seal	\$3,441			\$5,824	\$6,988
ALLEY BETWEEN NEOLIN AVE & REDONDO DR N	ORANGE LANE	PALO VERDE AVE	822	16	1,463	High Density Mineral Bond					HDMB seal	\$3,002													HDMB seal	\$4,337			\$7,339	\$8,807
ALLEY BETWEEN NEOLIN AVE & REDONDO DR S	ORANGE LANE	PALO VERDE AVE	992	16	1,748	High Density Mineral Bond					HDMB seal	\$3,587													HDMB seal	\$5,181			\$8,769	\$10,522
ALLEY BETWEEN FLORENCEAVE & REDONDO DR N	ORANGE LANE	PALO VERDE AVE & FLORENCE AVE	1213	16	2,172	High Density Mineral Bond					HDMB seal	\$4,457													HDMB seal	\$6,438			\$10,894	\$13,073
ALLEY BETWEEN FLORENCE AVE & REDONDO DR S	ORANGE LANE	PALO VERDE AVE	860	16	1,543	High Density Mineral Bond					HDMB seal	\$3,166													HDMB seal	\$4,573			\$7,740	\$9,287
ALLEY BETWEEN PALO VERDE AVE & REDONDO DR WEST	PALO VERDE DR	PALO VERDE DR	618	16	1,117	High Density Mineral Bond					HDMB seal	\$240													HDMB seal	\$347			\$588	\$705
ALLEY BETWEEN PALO VERDE AVE & REDONDO DR EAST	PALO VERDE DR	PALO VERDE DR	604	16	1,071	High Density Mineral Bond					HDMB seal	\$2,034													HDMB seal	\$3,173			\$5,207	\$6,249
AMARILLO CIR	ESCONDIDO DR N	AMARILLO CIR NORTH END CUL	242	26	978	Micro Seal					micro seal [1]	\$1,763																	\$1,763	\$2,116
ANCORA DRIVE	DESERT AVE	DESERT AVE	1352	28	5,242	High Density Mineral Bond														HDMB seal	\$3,391								\$15,553	\$18,664
ANCORA DRIVE	DESERT AVE	ANCORA DRIVE EAST END CUL	411	30	1,446	High Density Mineral Bond														HDMB seal	\$1,031								\$4,385	\$5,262
ARBOR LANE	ELM COURT	VILLAGE PARKWAY	758	25	1,907	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,204																	HDMB seal	\$2,016			\$5,221	\$6,265
ARBOR LANE	VILLAGE PARKWAY	PALO BREA DRIVE (VERDE DRIVE)	334	25	915	High Density Mineral Bond	HDMB seal 05/15/2015	\$1,537																	HDMB seal	\$888			\$2,425	\$2,910
AZURE LANE	VINEYARD LANE	LITTLE STREET	807	23	2,804	High Density Mineral Bond	HDMB seal 05/15/2015	\$4,711																	HDMB seal	\$2,147			\$6,858	\$8,230



## 10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - ALPHABETICAL OCTOBER 2015

ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT		2016 TREATMENT		2017 TREATMENT		2018 TREATMENT		2019 TREATMENT		2020 TREATMENT		2021 TREATMENT		2022 TREATMENT		2023 TREATMENT		2024 TREATMENT		TOTAL CONST. COST	TOTAL PROJECT COST
							2015 TREATMENT	2015 COST	2016 TREATMENT	2016 COST	2017 TREATMENT	2017 COST	2018 TREATMENT	2018 COST	2019 TREATMENT	2019 COST	2020 TREATMENT	2020 COST	2021 TREATMENT	2021 COST	2022 TREATMENT	2022 COST	2023 TREATMENT	2023 COST	2024 TREATMENT	2024 COST		
AZUL CIR	VILLAGE PKWY	AZUL CIR NORTH END CUL	306	26	1,198	High Density Mineral Bond			HDMB seal	\$2,251											HDMB seal	\$3,367					\$5,619	\$6,743
BAHIA LN EAST	SAGEBRUSH ST	BAHIA LN EAST SOUTH END	798	28	2,651	Micro Seal					micro seal	\$4,781									HDMB seal	\$7,455					\$12,236	\$14,683
BAHIA LN SOUTH	BAHIA LN WEST	BAHIA LN EAST	245	29	1,160	High Density Mineral Bond							HDMB seal	\$2,556					micro seal	\$3,085						\$5,642	\$6,770	
BAHIA LN WEST	SAGEBRUSH ST	BAHIA LN WEST SOUTH END	804	28	2,628	Micro Seal					micro seal	\$4,739											HDMB seal	\$7,788			\$12,527	\$15,032
BANDERA CIR	VILLA NUEVA DR	BANDERA CIR SOUTH END CUL	155	24	778	High Density Mineral Bond									mill & overlay	\$24,705	HDMB seal	\$1,952								\$28,462	\$34,155	
BANDERA CIR	VILLA NUEVA DR	BANDERA CIR NORTH END CUL	259	24	969	Remove and Reconstruction Pavement Surface					mill & overlay	\$22,972	HDMB seal	\$2,136										HDMB seal	\$3,020	\$28,128	\$33,753	
BARRANCO DR	MOUNTAIN VIEW RD	VILLAGE PKWY WEST	843	26	2,544	High Density Mineral Bond			HDMB seal	\$4,783											HDMB seal	\$7,154				\$11,937	\$14,324	
BIRD LANE	LITCHFIELD RD	OLD LITCHFIELD RD	255	40	952	High Density Mineral Bond									HDMB seal	\$2,243								HDMB seal	\$3,112	\$7,564	\$9,077	
BIRD LANE	VILLA NUEVA DR	OLD LITCHFIELD RD	3693	33	13223	Micro Seal											micro seal	\$33,164								\$61,462	\$73,755	
CABRITO CIR	VILLA NUEVA DR	CABRITO SOUTH END CUL	249	30	1048	Micro Seal						micro seal	\$2,031						mill & overlay	\$38,009	HDMB seal	\$2,948				\$45,230	\$54,276	
CAMELBACK RD [S]	LITCHFIELD RD	BULLARD WASH	4754	12	6360	High Density Mineral Bond																				\$0	\$0	
CAMPBELL AVE	OLD LITCHFIELD ROAD	LA LOMA DR	823	36	3,093	Micro Seal	crack fill seal 05/18/2015											micro seal	\$6,818							\$6,818	\$8,181	
CAMPBELL AVE	LA LOMA DR	CAMPBELL AVE WEST END CUL	316	26	1,496	Micro Seal	crack fill seal 05/18/2015											micro seal	\$3,299							\$3,299	\$3,959	
CAMPINA DR	CAMPINA DR WEST END CUL	CASTANO DR	490	36	2259	High Density Mineral Bond									HDMB seal	\$5,323								HDMB seal	\$7,383	\$17,630	\$21,156	
CAMPINA DR	CASTANO DR	ROBLES DR	1075	30	3659	High Density Mineral Bond									HDMB seal	\$5,323								HDMB seal	\$11,956	\$25,254	\$30,305	
CAMPINA DR	ROBLES DR	CAMPINA DR EAST END CUL	379	36	1784	High Density Mineral Bond									HDMB seal	\$4,203								HDMB seal	\$5,830	\$13,921	\$16,706	
CAMPINA LANE	BIRD LANE	CAMPINA LANE NORTH END CUL	691	33	3139	High Density Mineral Bond									HDMB seal	\$7,395								HDMB seal	\$10,258	\$24,936	\$29,923	
CAPILLA CIR	VILLA NUEVA	CAPILLA SOUTH END CUL	169	36	824	High Density Mineral Bond									HDMB seal	\$1,940								HDMB seal	\$2,691	\$6,542	\$7,851	
CAPILLA CIR	VILLA NUEVA	CAPILLA NORTH END CUL	70	24	502	High Density Mineral Bond			HDMB seal	\$945											HDMB seal	\$1,413				\$2,357	\$2,829	
CARDENO CIRCLE	DESERT AVE	SERRANO DR	169	36	1260	High Density Mineral Bond									HDMB seal	\$2,969								HDMB seal	\$4,118	\$9,834	\$11,800	
CARDENO CIRCLE	DESERT AVE	CARDENO CIRCLE WEST END CUL	450	30	1082	High Density Mineral Bond									HDMB seal	\$2,549								HDMB seal	\$3,535	\$8,594	\$10,313	
CASCADA CIRCLE	VILLA NUEVA DR	CASCADA CIRCLE SOUTH END CUL	156	33	787	High Density Mineral Bond									HDMB seal	\$1,855								HDMB seal	\$2,573	\$6,256	\$7,507	
CASCADA ROAD	VILLA NUEVA DR	NEOLIN RD NORTH	1073	28	3184	High Density Mineral Bond							HDMB seal	\$7,018										HDMB seal	\$9,922	\$23,753	\$28,504	
CASTANO DR	BIRD LANE	CAMPINA DR	1084	28	4206	High Density Mineral Bond									HDMB seal	\$9,909								HDMB seal	\$13,744	\$32,822	\$39,386	
CASTILLO DR	VILLA NUEVA SOUTH	VILLA NUEVA NORTH	1231	28	4,128	High Density Mineral Bond											HDMB seal	\$10,352								\$18,813	\$22,576	
CERCADO LN EAST	ROBLES DR	CERCADO WEST END	434	36	1956	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,287										HDMB seal	\$4,907							\$8,193	\$9,832	
CERCADO LN EAST	ROBLES DR	CERCADO EAST END CUL	594	34	2616	High Density Mineral Bond	HDMB seal 05/15/2015	\$4,395										HDMB seal	\$6,560							\$10,955	\$13,146	
CERCADO LN WEST	CASTANO DR	CERCADO EAST END CUL	472	34	1,956	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,287										HDMB seal	\$4,907							\$8,193	\$9,832	
CERCADO LN WEST	CASTANO DR	CERCADO WEST END CUL	353	34	2,464	High Density Mineral Bond	HDMB seal 05/15/2015	\$4,140										HDMB seal	\$6,181							\$10,321	\$12,385	
CERVATO CIRCLE	VILLA NUEVA DR	CERVATO DR SOUTH END CUL	157	28	788	High Density Mineral Bond											mill & repave	\$26,619								\$28,447	\$34,136	
CLOVERFIELD ST	VILLAGE PARKWAY	CLOVERFIELD TER	618	24	1,951	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,277										HDMB seal	\$4,892							\$8,170	\$9,803	
DESERT AVENUE	WIGWAM BLVD	HONEYSUCKLE INCLUDED	366	24	1,226	To be Reconstructed by Developer									mill & repave	\$38,914	HDMB seal	\$3,074								\$41,988	\$50,386	
DESERT AVENUE	OLD LITCHFIELD RD	WIGWAM BLVD	888	30	10,228	High Density Mineral Bond									HDMB seal	\$25,653								HDMB seal	\$33,426	\$80,047	\$96,056	
DORADO CIRCLE	DESERT AVE	DORADO CIR END WEST CUL	196	30	1,062	High Density Mineral Bond									HDMB seal	\$2,663								HDMB seal	\$3,470	\$8,595	\$10,315	



## 10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - ALPHABETICAL OCTOBER 2015

			SEVERE EXTENSIVE MODERATE MINIMAL																														
ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT	2015 COST	2016 TREATMENT	2016 COST	2017 TREATMENT	2017 COST	2018 TREATMENT	2018 COST	2019 TREATMENT	2019 COST	2020 TREATMENT	2020 COST	2021 TREATMENT	2021 COST	2022 TREATMENT	2022 COST	2023 TREATMENT	2023 COST	2024 TREATMENT	2024 COST	2025 TREATMENT	2025 COST	TOTAL CONST. COST	TOTAL PROJECT COST			
DORADO CIRCLE	DESERT AVE	DORADO CIRCLE EAST END CUL	329	30	1,447	High Density Mineral Bond									HDMB seal	\$3,629												HDMB seal	\$4,728	\$11,713	\$14,056		
DYSART ROAD (NORTH ACCESS)	DYSART ROAD	VILLA NUEVA DR	350	20	1,709	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,871									HDMB seal	\$4,287												\$7,158	\$8,589		
DYSART ROAD (SOUTH ACCESS)	DYSART ROAD	VILLA NUEVA DR	350	20	821	High Density Mineral Bond													HDMB seal	\$2,184										\$2,184	\$2,621		
DYSART ROAD	DYSART RD WEST SIDE DRAINAGE	DYSART ROAD (SOUTH ACCESS)	---	---	---	Install Drywell and Rock Mulch																								\$62,254	\$74,705		
ELM COURT	ARBOR LANE	ELM COURT SOUTH END CUL	428	25	1,530	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,571									HDMB seal	\$3,494												\$6,065	\$7,278		
ELM STREET	PARKVIEW LANE	ARBOR STREET	589	25	1,832	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,741									HDMB seal	\$3,726												\$6,467	\$7,761		
ESCONDIDO CIR	ESCONDIDO DR W	E ESCONDIDO CIR EAST END CUL	349	26	1,282	Micro Seal					micro seal [1]	\$2,312												HDMB seal	\$3,800					\$6,112	\$7,334		
ESCONDIDO CT	ESCONDIDO PL	E ESCONDIDO CT WEST END CUL	493	26	1,700	High Density Mineral Bond			HDMB seal	\$3,196														HDMB seal	\$5,038					\$8,234	\$9,881		
ESCONDIDO DR N	ESCONDIDO DR N EAST HALF	VILLAGE ROAD	856	26	2,472	High Density Mineral Bond			HDMB seal	\$4,648														HDMB seal	\$7,328					\$11,976	\$14,371		
ESCONDIDO DR N	ESCONDIDO DR W	ESCONDIDO DR N WEST HALF	389	26	1,123	Micro Seal					micro seal [1]	\$2,025												HDMB seal	\$3,327					\$5,352	\$6,422		
ESCONDIDO DR S	ESCONDIDO DR S WEST HALF	ESCONDIDO PL	362	26	1,046	Micro Seal					micro seal [1]	\$1,887												HDMB seal	\$3,101					\$4,988	\$5,986		
ESCONDIDO DR S	ESCONDIDO DR W	ESCONDIDO DR S EAST HALF	596	26	1,727	High Density Mineral Bond			HDMB seal	\$3,246														HDMB seal	\$5,118					\$8,364	\$10,037		
ESCONDIDO DR W	ESCONDIDO DR N	ESCONDIDO DR S	719	26	2,096	Micro Seal					micro seal [1]	\$3,780												HDMB seal	\$6,212					\$9,993	\$11,991		
ESCONDIDO PL E	ESCONDIDO PL N	ESCONDIDO PL S	599	26	1,754	High Density Mineral Bond			HDMB seal	\$3,297														HDMB seal	\$5,198					\$8,495	\$10,194		
ESCONDIDO PL N	ESCONDIDO PL E	VILLAGE PKWY WEST	196	26	562	High Density Mineral Bond			HDMB seal	\$1,056														HDMB seal	\$1,664					\$2,720	\$3,264		
ESCONDIDO PL S	ESCONDIDO PL E	VILLAGE PKWY WEST	113	26	437	High Density Mineral Bond			HDMB seal	\$822														HDMB seal	\$1,297					\$2,119	\$2,543		
ESPERANZA DRIVE	TAINTER DR	WIGWAM BLVD	501	28	1,831	Remove and Reconstruction Pavement Surface					mill & repave	\$38,673	HDMB seal	\$3,596											HDMB seal	\$5,083				\$47,352	\$56,823		
ESTERO EAST	ROBLES DR	ESTERO LN EAST END CUL	438	36	1,931	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,243																HDMB seal	\$5,135					\$8,379	\$10,055		
ESTERO EAST	ROBLES DR	ESTERO WEST END CUL	753	36	1,957	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,287																	HDMB seal	\$5,205					\$8,493	\$10,191	
ESTERO WEST	CASTANO DR	ESTERO LN WEST END CUL	629	34	3,182	High Density Mineral Bond	HDMB seal 05/15/2015	\$5,345																	HDMB seal	\$8,463					\$13,808	\$16,569	
ESTERO WEST	CASTANO DR	ESTERO LN EAST END	442	34	1,947	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,271																	HDMB seal	\$5,179					\$8,450	\$10,140	
FAIRWAY DR (CUL)	FAIRWAY DR	FAIRWAY DR CUL SOUTH END	164	36	753	High Density Mineral Bond									HDMB seal	\$1,773											HDMB seal	\$2,460			\$5,979	\$7,175	
FAIRWAY DR [3]	OLD LITCHFIELD ROAD	LA LOMA DR	774	28	2,633	Remove and Reconstruction Pavement Surface	crack fill seal 05/18/2015						mill & repave	\$152,530	HDMB seal	\$6,203												HDMB seal	\$8,605			\$167,338	\$200,806
FAIRWAY DR	NEOLIN RD	FLORENCE AVE	1423	36	5,611	High Density Mineral Bond																		HDMB seal	\$14,925						\$14,925	\$17,910	
FAIRWAY DR	FLORENCE AVE	VILLA NUEVA DR	1570	28	5,127	High Density Mineral Bond									HDMB seal	\$12,079															\$23,973	\$28,768	
FAIRWAY DR	VILLA NUEVA DR SOUTH	VILLA NUEVA DR NORTH	1425	28	4,520	High Density Mineral Bond											HDMB seal	\$11,335									HDMB seal	\$14,770			\$26,105	\$31,326	
FLORENCE AVE	WIGWAM BLVD	FAIRWAY DR	1394	42	6276	High Density Mineral Bond									HDMB seal	\$14,787															\$28,218	\$33,862	
FLORENCE AVE	SAGEBRUSH ST	WIGWAM BLVD	766	28	2266	Remove and Reconstruction Pavement Surface					mill & repave	\$53,709															HDMB seal	\$7,404			\$65,962	\$79,154	
GARNET CIR	VILLAGE PKWY	GARNET CIR NORTH END CUL	321	26	1,203	High Density Mineral Bond			HDMB seal	\$2,262														HDMB seal	\$3,565					\$5,827	\$6,992		
GROVE ST	PARKVIEW LANE	LITTLE STREET	727	26	2,018	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,390																			HDMB seal	\$5,367			\$8,757	\$10,509	
HACIENDA CIR	VILLA NUEVA DR	HACIENDA CIR SOUTH END CUL	206	24	792	High Density Mineral Bond																					HDMB seal	\$2,588			\$4,282	\$5,139	
HACIENDA CIR	VILLA NUEVA DR	HACIENDA CIR NORTH END CUL	166	24	367	High Density Mineral Bond																					HDMB seal	\$1,198			\$1,983	\$2,380	
HIDDEN TERRACE LP	VILLAGE PARKWAY	HIDDEN TERRACE NORTH END LOOP	574	24	2,311	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,882																			HDMB seal	\$6,147			\$10,029	\$12,035	
INCA ROAD	WIGWAM BLVD	MAYA DR	359	28	723	Micro Seal																					micro seal	\$2,076			\$2,076	\$2,491	



## 10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - ALPHABETICAL OCTOBER 2015

		SEVERE EXTENSIVE MODERATE MINIMAL																													
ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT	2015 COST	2016 TREATMENT	2016 COST	2017 TREATMENT	2017 COST	2018 TREATMENT	2018 COST	2019 TREATMENT	2019 COST	2020 TREATMENT	2020 COST	2021 TREATMENT	2021 COST	2022 TREATMENT	2022 COST	2023 TREATMENT	2023 COST	2024 TREATMENT	2024 COST	2025 TREATMENT	2025 COST	TOTAL CONST. COST	TOTAL PROJECT COST	
JUNIPER LANE	PALO BREA DRIVE (VERDE DRIVE)	CLOVERFIELD ST	1036	23	2,780	High Density Mineral Bond	HDMB seal 05/15/2015	\$4,670											HDMB seal	\$7,394									\$12,063	\$14,476	
LAJOLLA DR	BARRANCO DRIVE	VILLAGE PKWY SOUTH	554.8	26	1,602	High Density Mineral Bond			HDMB seal	\$3,012													HDMB seal	\$4,749					\$7,761	\$9,313	
LA LOMA AVE	OLD LITCHFIELD ROAD	FAIRWAY DR	2909	28	8,998	Micro Seal									micro seal	\$18,633													\$18,633	\$22,359	
LA LOMA CART PATH	CAMPBELL AVENUE	NORTH END OF LA LOMA CART PATH	425	12	551	Micro Seal									micro seal	\$1,142													\$1,142	\$1,370	
LA LOMA CART PATH	CAMBELL AVENUE	SOUTH END OF LA LOMA CART PATH	782	12	1,665	Micro Seal									micro seal	\$3,448													\$3,448	\$4,138	
LAGUNA DR EAST	SAGEBRUSH ST	LAGUNA DR E SOUTH END	798	28	2,662	High Density Mineral Bond																				HDMB seal	\$8,698	\$14,209	\$17,051		
LAGUNA DR SOUTH	LAGUNA DR WEST	LAGUNA DR EAST	244	29	1,162	High Density Mineral Bond																				HDMB seal	\$3,796	\$6,202	\$7,442		
LAGUNA DR WEST	SAGEBRUSH ST	LAGUNA DR W SOUTH END	798	28	2,633	High Density Mineral Bond																				HDMB seal	\$8,604	\$14,056	\$16,867		
LIBRE CIRCLE	VILLA NUEVA DR	LIBRE END EAST CUL	140	24	746	High Density Mineral Bond																							\$13,234	\$15,881	
LILA CIRCLE	VILLA NUEVA DR	LILA CIRCLE SOUTH END CUL	342	30	1,354	High Density Mineral Bond																							\$6,497	\$7,797	
LITCHFIELD RD	WIGWAM BLVD	CAMELBACK RD	5754	80	36,960	Micro Seal																micro seal	\$109,401						\$478,770	\$574,524	
LITCHFIELD RD	CAMELBACK RD	MISSOURI AVE	2551	53	17,106	Micro Seal	crack fill seal 05/18/2015																			micro seal	\$46,851		\$214,695	\$257,634	
LITTLE ST	GROVE ST	VERBENA LN	385	24	940	High Density Mineral Bond	HDMB seal 05/15/2015	\$1,580																						\$3,939	\$4,726
LLANO	LA LOMA AVE	LLANO EAST END CUL	378	36	1763	Remove and Reconstruction Pavement Surface	crack fill seal 05/18/2015																				mill & repave	\$80,354	\$80,354	\$96,425	
LLANO	LA LOMA AVE	LLANO WEST END CUL	316	36	1496	Remove and Reconstruction Pavement Surface	crack fill seal 05/18/2015																			mill & repave	\$65,031	HDMB seal	\$4,890	\$69,921	\$83,905
LUCHANA DR	LA LOMA AVE	LUCHANA DR TO WEST END OF CUL	316	36	1502	Remove and Reconstruction Pavement Surface	crack fill seal 05/18/2015						mill & repave	\$44,608	HDMB seal	\$3,539											HDMB seal	\$4,909	\$53,056	\$63,667	
LUNA CIR	LUNA RD W	LUNA CIR TO EAST END CUL	327	26	1,258	High Density Mineral Bond	micro seal 05/15/2015	\$5,107																HDMB seal	\$3,729				\$8,836	\$10,603	
LUNA CT	VILLAGE PKWY WEST	LUNA RD E	330	26	1,273	High Density Mineral Bond			HDMB seal	\$2,394																				\$6,169	\$7,402
LUNA RD E	LUNA DR N	LUNA CT	281.5	26	958	High Density Mineral Bond			HDMB seal	\$1,800																				\$4,639	\$5,567
LUNA RD E	LUNA DR S	LUNA CT	283.8	26	820	High Density Mineral Bond			HDMB seal	\$1,542																				\$3,973	\$4,767
LUNA RD W	LLANO DR N	LLANO DR S	638.1	26	2,148	High Density Mineral Bond	micro seal 05/15/2015	\$8,723														HDMB seal	\$6,042							\$14,764	\$17,717
LUNA DR N	RIO VISTA RD	LUNA RD E	831.9	26	1,123	High Density Mineral Bond			HDMB seal	\$2,112																				\$5,442	\$6,530
LUNA DR N	LUNA RD W	RIO VISTA RD	389.7	26	1,052	High Density Mineral Bond	micro seal 05/15/2015	\$4,270															HDMB seal	\$2,958						\$7,228	\$8,673
LUNA DR S	RIO VISTA RD EXT	LUNA RD E	414.4	26	1,197	High Density Mineral Bond			HDMB seal	\$2,250																				\$5,797	\$6,956
LUNA DR S	LUNA RD W	RIO VISTA RD EXT	387.7	26	1,120	High Density Mineral Bond	micro seal 05/15/2015	\$4,548															HDMB seal	\$3,150						\$7,697	\$9,237
LUNA CIR S	LUNA RD E	LUNA DR SOUTH TO EAST END	290.9	26	1,115	High Density Mineral Bond			HDMB seal	\$2,096																				\$5,401	\$6,481
LUNA DR	LUNA RD E	VILLAGE PKWY WEST	282.4	28	943	High Density Mineral Bond			HDMB seal	\$1,773																				\$4,569	\$5,483
MADERA CIR	VILLAGE PKWY	MADERA CIR NORTH END CUL	306	26	1,197	High Density Mineral Bond			HDMB seal	\$2,251																				\$5,800	\$6,960
MAYA DR	DESERT AVE	ESERANZA	478	28	1,633	High Density Mineral Bond	micro seal 05/15/2015	\$1,637																						\$6,229	\$7,475
MESQUITE LANE	VERBENA LN	VINEYARD LN	547	24	1,804	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,030																						\$8,103	\$9,723
MODESTO DR	LA LOMA AVE	MODESTO DR WEST END CUL	316	36	1,496	Remove and Reconstruction Pavement Surface	crack fill seal 05/18/2015							mill & repave	\$44,435															\$44,435	\$53,323
MOUNTAIN VIEW DR	BARRANCO DRIVE	MOUNTAIN VIEW WEST END CUL	1147	26	3,625	Micro Seal						micro seal [1]	\$6,538																	\$6,538	\$7,846
MORENO CIRCLE	DESERT AVE	MORENO CIR TO SOUTH END CUL	376	30	853	High Density Mineral Bond																								\$3,987	\$4,784
NEOLIN AVE	WIGWAM BLVD	CASCADA RD	982	34	3,551	High Density Mineral Bond	HDMB seal 05/15/2015	\$5,966																						\$15,952	\$19,142



## 10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - ALPHABETICAL OCTOBER 2015

			SEVERE		EXTENSIVE		MODERATE		MINIMAL																							
ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT	2015 COST	2016 TREATMENT	2016 COST	2017 TREATMENT	2017 COST	2018 TREATMENT	2018 COST	2019 TREATMENT	2019 COST	2020 TREATMENT	2020 COST	2021 TREATMENT	2021 COST	2022 TREATMENT	2022 COST	2023 TREATMENT	2023 COST	2024 TREATMENT	2024 COST	2025 TREATMENT	2025 COST	TOTAL CONST. COST	TOTAL PROJECT COST		
NEOLIN AVE	FAIRWAY DR	WIGWAM BLVD	1261	30	4429	High Density Mineral Bond											HDMB seal	\$11,107											\$20,585	\$24,702		
OESTE LN	OLD LITCHFIELD RD	LAGUNA DR WEST	223	28	782	High Density Mineral Bond													HDMB seal	\$2,080									\$3,894	\$4,673		
OESTE LN	LAGUNA DR EAST	BAHIA LN WEST	223	28	787	High Density Mineral Bond													HDMB seal	\$2,095									\$3,922	\$4,706		
OLD LITCHFIELD RD	172 FT NORTH OF FAIRWAY DR	BIRD LN	2527	28	7539	High Density Mineral Bond													HDMB seal	\$20,053									\$20,053	\$24,063		
OLD LITCHFIELD RD	106 FT SOUTH OF COTTONWOOD ST	172 FT NORTH OF FAIRWAY DR	762	varies	6121	High Density Mineral Bond													HDMB seal	\$16,283									\$16,283	\$19,540		
OLD LITCHFIELD RD	WIGWAM BLVD	106 FT SOUTH OF COTTONWOOD ST	391	99	4872	High Density Mineral Bond													HDMB seal	\$12,960									\$24,263	\$29,116		
OLD LITCHFIELD RD	WIGWAM BLVD	PINTURA EXTENSION	1380	50	9,938	High Density Mineral Bond													HDMB seal	\$26,434									\$48,099	\$57,718		
OLD LITCHFIELD RD.	PINTURA EXTENSION	INDIAN SCHOOL	1163	50	4,706	High Density Mineral Bond													HDMB seal	\$12,518									\$22,777	\$27,332		
OLD LITCHFIELD RD INTERSECTION [2]	OLD LITCHFIELD RD	WIGWAM BLVD	----	----	1,845	Reconstruct Intersection							intersection reconstruction	\$133,400															\$133,400	\$160,080		
ORANGE LN	NEOLIN RD	REDONDO DR W	281	30	942	Remove and Reconstruction Pavement Surface													mill & repave	\$32,948										\$34,963	\$41,956	
ORANGE LN	REDONDO DR	FLORENCE AVENUE	299	30	927	Remove and Reconstruction Pavement Surface													mill & repave	\$32,423										\$34,407	\$41,288	
ORANGE LN	FLORENCE AVE	FAIRWAY DR	306	30	948	Remove and Reconstruction Pavement Surface													mill & repave	\$33,158										\$35,186	\$42,223	
ORCHARD LN	PARKVIEW CT	LITTLE ST	770	26	2,095	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,520														HDMB seal	\$5,891.30						\$9,411	\$11,293		
ORO VISTA	VILLA NUEVA DR	ORO VISTA WEST END CUL	2915	28	10,851	Micro Seal														micro seal	\$25,371									\$25,371	\$30,445	
OTERO CIR	VILLA NUEVA DR	OTERO CIR TO SOUTH END CUL	300	30	1148	High Density Mineral Bond														HDMB seal	\$3,055									\$5,719	\$6,863	
PACIFICO	DESERT AVE	PACIFICO WEST END CUL	221	30	1,283	High Density Mineral Bond														HDMB seal	\$3,412									\$6,388	\$7,666	
PAJARO LANE	BIRD LANE	PAJARO LANE SOUTH END CUL	398	36	1,849	High Density Mineral Bond														HDMB seal	\$4,919									\$51,482	\$61,779	
PAJARO LANE	BIRD LANE	PAJARO LN NORTH END CUL	467	36	2,338	High Density Mineral Bond														HDMB seal	\$6,219									\$11,316	\$13,580	
PALADIN CIR	VILLA NUEVA DR	PALADIN TO SOUTH END CUL	288	30	1,099	High Density Mineral Bond														HDMB seal	\$2,924									\$5,474	\$6,569	
PALM ST	FLORENCE AVE	NEOLIN RD	1309	34	4762	High Density Mineral Bond	HDMB seal 06/30/2015	\$8,001														HDMB seal	\$13,391.81						\$131,693	\$158,031		
PALM ST	VILLA NUEVA DR	FLORENCE AVENUE	456	28	1450	High Density Mineral Bond	mill & repave 07/16/2015	\$35,543	HDMB seal	\$2,727														HDMB seal	\$4,299					\$42,569	\$51,083	
PALO BREA DR	PALO BREA DR WEST END CUL	PALO BREA DR EAST END CUL	760	25	2,951	High Density Mineral Bond	HDMB seal 05/15/2015	\$4,957															HDMB seal	\$8,297.87						\$13,255	\$15,906	
PALO VERDE AVE	FAIRWAY DR	WIGWAM BLVD	1067	36	4,300	Remove and Reconstruction Pavement Surface											mill & repave	\$141,303.84	HDMB seal	\$10,785										\$161,291	\$193,549	
PARK AVE	WIGWAM BLVD	VILLAGE PKWY	1698	20	6,207	High Density Mineral Bond	HDMB seal 05/15/2015	\$10,427															HDMB seal	\$17,452.71						\$27,880	\$33,456	
PARKVIEW CT	SYCAMORE CT	PARKVIEW CT NORTH END CUL	288	25	1,179	High Density Mineral Bond	HDMB seal 05/15/2015	\$1,981																HDMB seal	\$3,316.32						\$5,298	\$6,357
PARKVIEW LN	SYCAMORE CT	ORCHARD LN	969	24	3,080	High Density Mineral Bond	HDMB seal 05/15/2015	\$5,175																HDMB seal	\$8,661.68						\$13,837	\$16,604
PINTURA CIR	DESERT AVE	PINTURA CIR WEST END CUL	183	30	1062	High Density Mineral Bond														HDMB seal	\$2,278										\$4,741	\$5,689
PINTURA CIR	DESERT AVE	PINTURA CIR EAST END CUL	349	30	1547	High Density Mineral Bond														HDMB seal	\$3,319										\$6,909	\$8,291
REDONDO DR	ORANGE LANE WEST	PALO VERDE AVE	1233	28	3998	Remove and Reconstruction Pavement Surface																			mill & repave	\$173,773	HDMB seal	\$13,066.99	\$195,397	\$234,476		
REDONDO DR	PALO VERDE AVE	ORANGE LN EAST	1257	28	3951	Remove and Reconstruction Pavement Surface																				mill & repave	\$180,083			\$188,538	\$226,246	
RIO VISTA RD	ALDEA DR S	LUNA DR N	289	26	835	High Density Mineral Bond				HDMB seal	\$1,571													HDMB seal	\$2,349.39					\$3,920	\$4,704	
ROBLES DR	BIRD LN	CAMPINA DR	1022	28	4228	High Density Mineral Bond														HDMB seal	\$10,605										\$20,415	\$24,498
SAGEBRUSH ST	VILLA NUEVA DR	NEOLIN AVE	1492	34	5592	High Density Mineral Bond														HDMB seal	\$14,024										\$26,997	\$32,396
SAGEBRUSH ST	NEOLIN AVE	OLD LITCHFIELD RD	1476	28	3758	High Density Mineral Bond														HDMB seal	\$9,426										\$18,145	\$21,775



## 10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - ALPHABETICAL OCTOBER 2015

ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT		2016 TREATMENT		2017 TREATMENT		2018 TREATMENT		2019 TREATMENT		2020 TREATMENT		2021 TREATMENT		2022 TREATMENT		2023 TREATMENT		2024 TREATMENT		2025 TREATMENT		TOTAL CONST. COST	TOTAL PROJECT COST	
							2015 TREATMENT	2015 COST	2016 TREATMENT	2016 COST	2017 TREATMENT	2017 COST	2018 TREATMENT	2018 COST	2019 TREATMENT	2019 COST	2020 TREATMENT	2020 COST	2021 TREATMENT	2021 COST	2022 TREATMENT	2022 COST	2023 TREATMENT	2023 COST	2024 TREATMENT	2024 COST	2025 TREATMENT	2025 COST			
SAGEBRUSH CIR	VILLA NUEVA DR	SAGEBRUSH ST SOUTH END CUL	269	36	781	High Density Mineral Bond											HDMB seal	\$1,959											\$3,771	\$4,525	
SEGOVIA DR	VILLA NUEVA DR	VILLA NUEVA DR	592	28	1843	High Density Mineral Bond	HDMB seal 06/30/2015	\$3,096														HDMB seal	\$5,183						\$49,654	\$59,585	
SERRANO DRIVE	DESERT AVE	CARDENO CIR	443	28	2103	High Density Mineral Bond										HDMB seal	\$4,954									HDMB seal	\$6,552		\$42,758	\$51,309	
SIERRA HERMOSA DR	VILLA NUEVA DR	SIERRA HERMOSA DR N & S END CUL	1412	24	3774	High Density Mineral Bond										HDMB seal	\$8,892									HDMB seal	\$11,760		\$130,825	\$156,990	
SPRING ST	WIGWAM BLVD	LITTLE ST	356	23	845	High Density Mineral Bond	HDMB seal 05/15/2015	\$1,419													HDMB seal	\$30,273							\$31,692	\$38,030	
SOLANA CIR	ESCONDIDO DR N	SOLANA CIR NORTH END CUL	240	26	971	High Density Mineral Bond			HDMB seal	\$1,826												HDMB seal	\$2,731						\$4,557	\$5,468	
SONOMA DR	LA LOMA AVE	SONOMA DR WEST END CUL	258	36	1,284	Remove and Reconstruction Pavement Surface	crack fill seal 05/18/2015																						\$0	\$0	
SONOMA DR	LA LOMA AVE	SONOMA DR EAST END CUL	375	36	1,764	Micro Seal										micro seal	\$6,344									HDMB seal	\$5,765		\$12,108	\$14,530	
SYCAMORE CT	ARBOR LN	SYCAMORE CT SOUTH END CUL	425	25	2,231	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,749														HDMB seal	\$5,936						\$9,685	\$11,622	
SYCAMORE LN	PARKVIEW CT	ARBOR LN	587	25	1,549	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,602														HDMB seal	\$4,120						\$6,723	\$8,067	
TAINTER DR	DESERT AVE	ESPERANZA DR	494	28	1,579	Remove and Reconstruction Pavement Surface	micro seal 05/15/2015	\$5,622										mill & repave	\$53,368	HDMB seal	\$4,201								\$63,192	\$75,830	
TORNASOL CIRCLE	VILLA NUEVA DR	TORNASOL END EAST CUL	231	30	760	High Density Mineral Bond																							\$13,250	\$15,900	
TORNO LN	VILLA NUEVA DR	TORNO DR END NORTH CUL	461	18	1,217	Remove and Reconstruction Pavement Surface																				mill & repave	\$43,634	HDMB seal	\$3,423	\$47,057	\$56,469
TORREON DR	VILLA NUEVA DR	VILLA NUEVA DR	1070	28	3,366	High Density Mineral Bond	HDMB seal 06/30/2015	\$5,654															HDMB seal	\$9,464.35					\$89,394	\$107,272	
TRONTERA CIR	VILLA NUEVA DR	TRONTERA CIR SOUTH END CUL	344	24	782	High Density Mineral Bond																						HDMB seal	\$2,555	\$6,070	\$7,284
TRONTERA CIR	VILLA NUEVA DR	TRONTERA CIR NORTH END CUL	491	24	1,445	High Density Mineral Bond																						HDMB seal	\$4,722	\$11,219	\$13,462
VAL VERDE CIRCLE	VILLA NUEVA DR	VAL VERDE NORTH END CUL	614	28	1,996	Remove and Reconstruction Pavement Surface						mill & repave	\$47,326	HDMB seal	\$4,400												HDMB seal	\$6,221	\$57,947	\$69,536	
VAL VERDE CIRCLE	VILLA NUEVA DR	VAL VERDE EAST END CUL	764	28	2,291	Remove and Reconstruction Pavement Surface						mill & repave	\$54,300	HDMB seal	\$5,048												HDMB seal	\$7,137	\$66,486	\$79,783	
VERBENA LANE	LITTLE ST	MEQUITE LN	583	26	1,660	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,789															HDMB seal	\$4,668.98					\$7,458	\$8,950	
VILLA NUEVA	OLD LITCHFIELD RD	WIGWAM BLVD	3989	36	15,651	High Density Mineral Bond	crack fill seal 05/18/2015					HDMB seal	\$32,116														HDMB seal	\$46,390	\$78,506	\$94,207	
VILLA NUEVA	CAMELBACK RD	BIRD LN	553	36	2,517	Remove and Reconstruction Pavement Surface																	mill & repave	\$95,373	HDMB seal	\$7,461			\$108,221	\$129,866	
VILLA NUEVA	BIRD LN	ORO VISTA	3130	36	7,135	High Density Mineral Bond												HDMB seal	\$17,895										\$17,895	\$21,474	
VILLA NUEVA	ORO VISTA	ACACIA CIR	3457	36	7,441	Micro Seal						micro seal	\$13,420														HDMB seal	\$22,054	\$35,474	\$42,569	
VILLA NUEVA	ACACIA CIR	DYSART ROAD (SOUTH ACCESS)	3457	36	7,105	Micro Seal						micro seal	\$12,814														HDMB seal	\$21,058	\$33,872	\$40,647	
VILLA NUEVA	DYSART ROAD (SOUTH ACCESS)	CASTILLO DR WEST	3457	36	4,978	Micro Seal						micro seal	\$8,978														HDMB seal	\$14,755	\$23,733	\$28,480	
VILLA NUEVA	CASTILLO DR WEST	FAIRWAY DRIVE	3457	36	6,547	Micro Seal								micro seal	\$12,682												HDMB seal	\$20,399	\$33,082	\$39,698	
VILLA NUEVA	FAIRWAY DRIVE	WIGWAM BLVD	1975	36	7,300	Micro Seal								micro seal	\$14,142												HDMB seal	\$22,748	\$36,890	\$44,268	
VILLAGE PKWY NORTH	CAMELBACK RD	MOUNTAIN VIEW DR	937	28	3,859	High Density Mineral Bond																					HDMB seal	\$11,437	\$18,691	\$22,430	
VILLAGE PKWY WEST	VILLAGE PKWY NORTH	VILLAGE RD	1166	28	4,525	High Density Mineral Bond																					HDMB seal	\$13,413	\$21,920	\$26,304	
VILLAGE PKWY NORTH	VILLAGE RD	HIDDEN TERRACE LP	2899	28	13,755	High Density Mineral Bond																					HDMB seal	\$40,770	\$66,630	\$79,956	
VILLAGE PKWY NORTH PARKING	ESCONDIDO PL NORTH	ESCONDIDO PL SOUTH	425	8.5	401	High Density Mineral Bond																					HDMB seal	\$1,189	\$1,943	\$2,331	
VILLAGE PKWY	HIDDEN TERRACE LP	PARK AVE	460	25	1,371	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,303															HDMB seal	\$3,854.56					\$6,157	\$7,389	
VILLAGE PKWY	PARK AVE	LITCHFIELD RD	5004	25	13,299	High Density Mineral Bond	HDMB seal 05/15/2015	\$22,343															HDMB seal	\$37,397.82					\$59,741	\$71,689	
VILLAGE RD	ESCONDIDO DR N	VILLAGE PKWY WEST	283	26	1,152	High Density Mineral Bond																					HDMB seal	\$3,414	\$5,580	\$6,696	

10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - ALPHABETICAL  
OCTOBER 2015

ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT		2016 TREATMENT		2017 TREATMENT		2018 TREATMENT		2019 TREATMENT		2020 TREATMENT		2021 TREATMENT		2022 TREATMENT		2023 TREATMENT		2024 TREATMENT		2025 TREATMENT		TOTAL CONST. COST	TOTAL PROJECT COST*		
							2015 TREATMENT	2015 COST	2016 TREATMENT	2016 COST	2017 TREATMENT	2017 COST	2018 TREATMENT	2018 COST	2019 TREATMENT	2019 COST	2020 TREATMENT	2020 COST	2021 TREATMENT	2021 COST	2022 TREATMENT	2022 COST	2023 TREATMENT	2023 COST	2024 TREATMENT	2024 COST	2025 TREATMENT	2025 COST				
VINYARD LANE	VILLAGE PKWY	AZURE LN	694	25	1,965	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,300													HDMB seal	\$5,524.30							\$8,825	\$10,590		
VISTA PASEO EAST	OLD LITCHFIELD RD	VISTA PASEO DR WEST END CUL	405	36	1,847	Remove and Reconstruction Pavement Surface														mill & repave	\$68,532	HDMB seal	\$5,194.36							\$73,726	\$88,471	
VISTA PASEO WEST	LA LOMA AVE	VISTA PASEO EAST END	298	36	1,375	Micro Seal									micro seal	\$4,944							mill & repave	\$56,840	HDMB seal	\$4,284			\$66,068	\$79,282		
VISTA VERDE DR	ACACIA CIR	ORO VISTA	881	28	2,753	High Density Mineral Bond	mill & repave 07/16/2015	\$67,344	HDMB seal	\$5,175													HDMB seal	\$8,159					\$80,678	\$96,813		
VISTA VERDE LOOP AND CIRCLES	ACACIA CIR W	ACACIA CIR W	1684	28	5,239	High Density Mineral Bond	mill & repave 07/16/2015	\$120,745	HDMB seal	\$9,849													HDMB seal	\$15,528					\$146,122	\$175,346		
WIGWAM BLVD	LITCHFIELD RD	OLD LITCHFIELD RD	1178	46	8,124	High Density Mineral Bond					HDMB seal	\$16,670													HDMB seal	\$25,314		\$41,985	\$50,382			
WIGWAM BLVD	OLD LITCHFIELD RD	NEOLIN AVE	1167	48	6,577	High Density Mineral Bond					HDMB seal	\$13,496														HDMB seal	\$20,494		\$33,990	\$40,788		
WIGWAM BLVD	NEOLIN AVE	INDIAN SCHOOL RD	651	36	11,886	High Density Mineral Bond											HDMB seal	\$29,809										\$29,809	\$35,771			
WIGWAM FRONTAGE ROAD	NEOLIN AVE	FLORENCE AVE	1266	26	3585	High Density Mineral Bond											HDMB seal	\$8,991										\$17,631	\$21,157			
Crack/Fill Seal [4]								\$25,000		\$25,000		\$25,000		\$25,000		\$25,000		\$25,000														
TOTAL SY							618,066																									
TOTAL ANNUAL PROJECT COST							(20% ADDED)																									
							0.00		1.00		1.08		1.16		1.24		1.32		1.40		1.48		1.56		1.64		1.72					

Starting with 2015, an 8% per year cost factor has been added.



## 10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - ALPHABETICAL OCTOBER 2015

ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT		2016 TREATMENT		2017 TREATMENT		2018 TREATMENT		2019 TREATMENT		2020 TREATMENT		2021 TREATMENT		2022 TREATMENT		2023 TREATMENT		2024 TREATMENT		2025 TREATMENT		TOTAL CONST. COST	TOTAL PROJECT COST*
							2015 COST	2016 COST	2017 COST	2018 COST	2019 COST	2020 COST	2021 COST	2022 COST	2023 COST	2024 COST	2025 COST													
Type of Material Used	Unit Cost / SY				Actual 2015 Average Bid Unit Cost / SY		Actual 2016 Average Bid Unit Cost / SY		Actual 2017 Average Bid Unit Cost / SY		Actual 2018 Average Bid Unit Cost / SY		Actual 2019 Average Bid Unit Cost / SY		Actual 2020 Average Bid Unit Cost / SY		Actual 2021 Average Bid Unit Cost / SY		Actual 2022 Average Bid Unit Cost / SY		Actual 2023 Average Bid Unit Cost / SY		Actual 2024 Average Bid Unit Cost / SY		Actual 2025 Average Bid Unit Cost / SY					
Preservative Seal / SY 2012	\$1.20				-----																									
Micro Seal with Crack Fill Seal / SY 2012	\$8.40				-----																									
Micro Seal without Crack Fill Seal / SY 2012	\$4.00				-----																									
Micro Seal without Crack Fill Seal / SY 2014	\$2.90				\$2.90																									
Crack Fill Seal / SY 2012	\$0.80				\$2.12																									
2" Mill / SY 2012	\$3.20				-----																									
2" Mill & Overlay / SY 2012	\$18.00				-----																									
2" Rubberized Asphalt Overlay / SY 2012	\$14.00				-----																									
3" Milling & Paving / SY	\$25.55				\$25.60																									
High Density Mineral Bond with Crack Seal / SY	\$1.73				\$1.68																									
	Cost per Lane Mile				-----																									
Chip Seal/12' lane mile	\$6,688.00				-----																									
Restorative Seal per 12' lane mile	\$3,872.00				-----																									
Slurry Seal per 12' lane mile	\$6,688.00				-----																									
Mill and Overlay per SY	\$20.00				-----																									
Overlay per SY	\$12.00				-----																									

**LEGEND**

Park Ave	Villages at Litchfield Park Phase 1
Village Rd	The Villages at Litchfield Park Phase 2

[1] Micro Seal Improvements paid for by Toll Brothers.  
 [2] Intersection reconstruction for only the street concrete and pavement.  
 [3] Street Improvements to be coordinated with Scout Park Improvements in FY 2018.  
 [4] Yearly street inspection will be required to determine Crack Fill/Seal priorities for streets.  
 [5] No Funds Allocated - The majority of Camelback Road falls within MCDOT jurisdiction, except for small strips that are within COLP jurisdiction.

# APPENDIX E



## 10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - CONDITION OCTOBER 2015

ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT		2016 TREATMENT		2017 TREATMENT		2018 TREATMENT		2019 TREATMENT		2020 TREATMENT		2021 TREATMENT		2022 TREATMENT		2023 TREATMENT		2024 TREATMENT		2025 TREATMENT		TOTAL CONST. COST	TOTAL PROJECT COST
							2015 TREATMENT	2015 COST	2016 TREATMENT	2016 COST	2017 TREATMENT	2017 COST	2018 TREATMENT	2018 COST	2019 TREATMENT	2019 COST	2020 TREATMENT	2020 COST	2021 TREATMENT	2021 COST	2022 TREATMENT	2022 COST	2023 TREATMENT	2023 COST	2024 TREATMENT	2024 COST	2025 TREATMENT	2025 COST		
ACACIA CIRCLE W	VILLA NUEVA DR	ACACIA CIRCLE WEST END CUL	2590	36	10,358	Remove and Reconstruction Pavement Surface			mill & repave	\$258,949	HDMB seal	\$21,255											HDMB seal	\$30,701					\$310,904	\$373,085
ACACIA CIRCLE W NORTH SIDE LOOP	ACACIA CIR W	ACACIA CIR W	533	28	1,858	Remove and Reconstruction Pavement Surface			mill & repave	\$41,461	HDMB seal	\$3,403											HDMB seal	\$4,916					\$49,780	\$59,735
ALCALA	LA LOMA DR	ALCALA NORTH END CUL	255	36	1,181	Remove and Reconstruction Pavement Surface							mill & repave	\$35,080	HDMB seal	\$2,783											HDMB seal	\$3,860	\$41,724	\$50,068
BANDERA CIR	VILLA NUEVA DR	BANDERA CIR NORTH END CUL	259	24	969	Remove and Reconstruction Pavement Surface					mill & overlay	\$22,972	HDMB seal	\$2,136												HDMB seal	\$3,020	\$28,128	\$33,753	
DESERT AVENUE	WIGWAM BLVD	HONEYSUCKLE INCLUDED	366	24	1,226	To be Reconstructed by Developer									mill & repave	\$38,914	HDMB seal	\$3,074											\$41,988	\$50,386
ESPERANZA DRIVE	TAINTER DR	WIGWAM BLVD	501	28	1,831	Remove and Reconstruction Pavement Surface					mill & repave	\$38,673	HDMB seal	\$3,596											HDMB seal	\$5,083	\$47,352	\$56,823		
LUCHANA DR	LA LOMA AVE	LUCHANA DR TO WEST END OF CUL	316	36	1,502	Remove and Reconstruction Pavement Surface	crack fill seal 05/18/2015						mill & repave	\$44,608	HDMB seal	\$3,539											HDMB seal	\$4,909	\$53,056	\$63,667
MODESTO DR	LA LOMA AVE	MODESTO DR WEST END CUL	316	36	1,496	Remove and Reconstruction Pavement Surface	crack fill seal 05/18/2015						mill & repave	\$44,435															\$44,435	\$53,323
VAL VERDE CIRCLE	VILLA NUEVA DR	VAL VERDE NORTH END CUL	614	28	1,996	Remove and Reconstruction Pavement Surface					mill & repave	\$47,326	HDMB seal	\$4,400											HDMB seal	\$6,221	\$57,947	\$69,536		
VAL VERDE CIRCLE	VILLA NUEVA DR	VAL VERDE EAST END CUL	764	28	2,291	Remove and Reconstruction Pavement Surface					mill & repave	\$54,300	HDMB seal	\$5,048											HDMB seal	\$7,137	\$66,486	\$79,783		
ALEGRE	LA LOMA DR	ALEGRE EAST END CUL	365	36	1,723	Micro Seal	crack fill seal 05/18/2015						micro seal	\$3,337												HDMB seal	\$5,368	\$8,706	\$10,447	
ALEGRE	LA LOMA DR	ALEGRE WEST END CUL	320	36	1,453	Micro Seal	crack fill seal 05/18/2015						micro seal	\$2,814												HDMB seal	\$4,527	\$7,341	\$8,809	
CAMPBELL AVE	OLD LITCHFIELD ROAD	LA LOMA DR	823	36	3,093	Micro Seal	crack fill seal 05/18/2015										micro seal	\$6,818										\$6,818	\$8,181	
CAMPBELL AVE	LA LOMA DR	CAMPBELL AVE WEST END CUL	316	26	1,496	Micro Seal	crack fill seal 05/18/2015										micro seal	\$3,299										\$3,299	\$3,959	
FAIRWAY DR	VILLA NUEVA DR SOUTH	VILLA NUEVA DR NORTH	1425	28	4,520	High Density Mineral Bond											HDMB seal	\$11,335								HDMB seal	\$14,770	\$26,105	\$31,326	
FLORENCE AVE	SAGEBRUSH ST	WIGWAM BLVD	766	28	2,266	Remove and Reconstruction Pavement Surface					mill & repave	\$53,709														HDMB seal	\$7,404	\$65,962	\$79,154	
LLANO	LA LOMA AVE	LLANO EAST END CUL	378	36	1,763	Remove and Reconstruction Pavement Surface	crack fill seal 05/18/2015																			mill & repave	\$80,354	\$80,354	\$96,425	
LLANO	LA LOMA AVE	LLANO WEST END CUL	316	36	1,496	Remove and Reconstruction Pavement Surface	crack fill seal 05/18/2015																		mill & repave	\$65,031	HDMB seal	\$4,890	\$69,921	\$83,905
OLD LITCHFIELD RD INTERSECTION [2]	OLD LITCHFIELD RD	WIGWAM BLVD	----	----	1,845	Reconstruct Intersection							intersection reconstruction	\$133,400														\$133,400	\$160,080	
SONOMA DR	LA LOMA AVE	SONOMA DR WEST END CUL	258	36	1,284	Remove and Reconstruction Pavement Surface	crack fill seal 05/18/2015																					\$0	\$0	
SONOMA DR	LA LOMA AVE	SONOMA DR EAST END CUL	375	36	1,764	Micro Seal									micro seal	\$6,344										HDMB seal	\$5,765	\$12,108	\$14,530	
VISTA PASEO EAST	OLD LITCHFIELD RD	VISTA PASEO DR WEST END CUL	405	36	1,847	Remove and Reconstruction Pavement Surface											mill & repave	\$68,532	HDMB seal	\$5,194.36								\$73,726	\$88,471	
ACACIA CIRCLE E	VILLA NUEVA DR	ACACIA EAST END	1883	28	1,883	High Density Mineral Bond											HDMB seal	\$4,723										\$10,014	\$12,017	
ADOBE DRIVE	PARK AVENUE	PARKVIEW LANE	210	24	425	High Density Mineral Bond	HDMB seal 05/15/2015	\$714											HDMB seal	\$1,130							\$1,844	\$2,213		
ALDEA CT	ALDEA DR E	ALDEA CT TO WEST END CUL	330	26	1,260	High Density Mineral Bond			HDMB seal	\$2,368												HDMB seal	\$3,541.93				\$5,910	\$7,092		
ALDEA RD E	ALDEA DR N	ALDEA DR S	743	26	2,181	High Density Mineral Bond			HDMB seal	\$4,099													HDMB seal	\$6,131.78				\$10,231	\$12,278	
ALDEA DR N	ALDEA DR W	ALDEA DR E	819	26	2,400	High Density Mineral Bond			HDMB seal	\$4,512													HDMB seal	\$6,748.58				\$11,260	\$13,513	
ALDEA DR S	ALDEA DR W	ALDEA DR E	819	26	2,401	High Density Mineral Bond			HDMB seal	\$4,515													HDMB seal	\$6,752.74				\$11,267	\$13,521	
ALDEA DR	ALDEA DR E	VILLAGE PKWY WEST	282	28	1,123	High Density Mineral Bond			HDMB seal	\$2,112												HDMB seal	\$3,158.94				\$5,271	\$6,325		
ALLEY BETWEEN PALM ST & SAGEBRUSH ST	FLORENCE AVE	NEOLIN AVE	1285	25	3,555	High Density Mineral Bond					HDMB seal	\$7,294											HDMB seal	\$5,403			\$12,698	\$15,237		
ALLEY BETWEEN PALM ST & WIGWAM BLVD	NEOLIN AVE	NORTH-SOUTH ALLEY	872	25	2,406	High Density Mineral Bond					HDMB seal	\$4,937												HDMB seal	\$7,131		\$12,067	\$14,481		
ALLEY BETWEEN FLORENCE AVE & NEOLIN AVE	PALM ST	WIGWAM BLVD	329	25	897	High Density Mineral Bond					HDMB seal	\$1,840												HDMB seal	\$2,657		\$4,497	\$5,397		
ALLEY BETWEEN FAIRWAY DR & FLORENCE AVE	FAIRWAY DR	ORANGE LN EAST	544	16	949	High Density Mineral Bond					HDMB seal	\$1,947												HDMB seal	\$2,812		\$4,758	\$5,710		
ALLEY BETWEEN FAIRWAY DR & FLORENCE AVE	ORANGE LANE EAST	FAIRWAY DR	652	16	1,161	High Density Mineral Bond					HDMB seal	\$2,382												HDMB seal	\$3,441		\$5,824	\$6,988		



## 10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - CONDITION OCTOBER 2015

		SEVERE EXTENSIVE MODERATE MINIMAL																													
ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT	2015 COST	2016 TREATMENT	2016 COST	2017 TREATMENT	2017 COST	2018 TREATMENT	2018 COST	2019 TREATMENT	2019 COST	2020 TREATMENT	2020 COST	2021 TREATMENT	2021 COST	2022 TREATMENT	2022 COST	2023 TREATMENT	2023 COST	2024 TREATMENT	2024 COST	2025 TREATMENT	2025 COST	TOTAL CONST. COST	TOTAL PROJECT COST	
ALLEY BETWEEN NEOLIN AVE & REDONDO DR N	ORANGE LANE	PALO VERDE AVE	822	16	1,463	High Density Mineral Bond					HDMB seal	\$3,002											HDMB seal	\$4,337					\$7,339	\$8,807	
ALLEY BETWEEN NEOLIN AVE & REDONDO DR S	ORANGE LANE	PALO VERDE AVE	992	16	1,748	High Density Mineral Bond					HDMB seal	\$3,587											HDMB seal	\$5,181					\$8,769	\$10,522	
ALLEY BETWEEN FLORENCEAVE & REDONDO DR N	ORANGE LANE	PALO VERDE AVE & FLORENCE AVE	1213	16	2,172	High Density Mineral Bond					HDMB seal	\$4,457											HDMB seal	\$6,438					\$10,894	\$13,073	
ALLEY BETWEEN FLORENCE AVE & REDONDO DR S	ORANGE LANE	PALO VERDE AVE	860	16	1,543	High Density Mineral Bond					HDMB seal	\$3,166											HDMB seal	\$4,573					\$7,740	\$9,287	
ALLEY BETWEEN PALO VERDE AVE & REDONDO DR WEST	PALO VERDE DR	PALO VERDE DR	618	16	1,117	High Density Mineral Bond					HDMB seal	\$240											HDMB seal	\$347					\$588	\$705	
ALLEY BETWEEN PALO VERDE AVE & REDONDO DR EAST	PALO VERDE DR	PALO VERDE DR	604	16	1,071	High Density Mineral Bond					HDMB seal	\$2,034											HDMB seal	\$3,173					\$5,207	\$6,249	
AMARILLO CIR	ESCONDIDO DR N	AMARILLO CIR NORTH END CUL	242	26	978	Micro Seal					micro seal [1]	\$1,763																	\$1,763	\$2,116	
AZUL CIR	VILLAGE PKWY	AZUL CIR NORTH END CUL	306	26	1,198	High Density Mineral Bond			HDMB seal	\$2,251												HDMB seal	\$3,367						\$5,619	\$6,743	
BAHIA LN SOUTH	BAHIA LN WEST	BAHIA LN EAST	245	29	1,160	High Density Mineral Bond							HDMB seal	\$2,556					micro seal	\$3,085									\$5,642	\$6,770	
BARRANCO DR	MOUNTAIN VIEW RD	VILLAGE PKWY WEST	843	26	2,544	High Density Mineral Bond			HDMB seal	\$4,783												HDMB seal	\$7,154					\$11,937	\$14,324		
CAPILLA CIR	VILLA NUEVA	CAPILLA NORTH END CUL	70	24	502	High Density Mineral Bond			HDMB seal	\$945												HDMB seal	\$1,413						\$2,357	\$2,829	
DYSART ROAD (NORTH ACCESS)	DYSART ROAD	VILLA NUEVA DR	350	20	1,709	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,871									HDMB seal	\$4,287											\$7,158	\$8,589	
DYSART ROAD (SOUTH ACCESS)	DYSART ROAD	VILLA NUEVA DR	350	20	821	High Density Mineral Bond													HDMB seal	\$2,184									\$2,184	\$2,621	
ESCONDIDO CIR	ESCONDIDO DR W	E ESCONDIDO CIR EAST END CUL	349	26	1,282	Micro Seal					micro seal [1]	\$2,312											HDMB seal	\$3,800					\$6,112	\$7,334	
ESCONDIDO CT	ESCONDIDO PL	E ESCONDIDO CT WEST END CUL	493	26	1,700	High Density Mineral Bond			HDMB seal	\$3,196													HDMB seal	\$5,038					\$8,234	\$9,881	
ESCONDIDO DR N	ESCONDIDO DR N EAST HALF	VILLAGE ROAD	856	26	2,472	High Density Mineral Bond			HDMB seal	\$4,648													HDMB seal	\$7,328					\$11,976	\$14,371	
ESCONDIDO DR N	ESCONDIDO DR W	ESCONDIDO DR N WEST HALF	389	26	1,123	Micro Seal					micro seal [1]	\$2,025											HDMB seal	\$3,327					\$5,352	\$6,422	
ESCONDIDO DR S	ESCONDIDO DR S WEST HALF	ESCONDIDO PL	362	26	1,046	Micro Seal					micro seal [1]	\$1,887											HDMB seal	\$3,101					\$4,988	\$5,986	
ESCONDIDO DR S	ESCONDIDO DR W	ESCONDIDO DR S EAST HALF	596	26	1,727	High Density Mineral Bond			HDMB seal	\$3,246													HDMB seal	\$5,118					\$8,364	\$10,037	
ESCONDIDO DR W	ESCONDIDO DR N	ESCONDIDO DR S	719	26	2,096	Micro Seal					micro seal [1]	\$3,780											HDMB seal	\$6,212					\$9,993	\$11,991	
ESCONDIDO PL E	ESCONDIDO PL N	ESCONDIDO PL S	599	26	1,754	High Density Mineral Bond			HDMB seal	\$3,297													HDMB seal	\$5,198					\$8,495	\$10,194	
ESCONDIDO PL N	ESCONDIDO PL E	VILLAGE PKWY WEST	196	26	562	High Density Mineral Bond			HDMB seal	\$1,056													HDMB seal	\$1,664					\$2,720	\$3,264	
ESCONDIDO PL S	ESCONDIDO PL E	VILLAGE PKWY WEST	113	26	437	High Density Mineral Bond			HDMB seal	\$822													HDMB seal	\$1,297					\$2,119	\$2,543	
FAIRWAY DR	NEOLIN RD	FLORENCE AVE	1423	36	5,611	High Density Mineral Bond													HDMB seal	\$14,925									\$14,925	\$17,910	
GARNET CIR	VILLAGE PKWY	GARNET CIR NORTH END CUL	321	26	1,203	High Density Mineral Bond			HDMB seal	\$2,262													HDMB seal	\$3,565					\$5,827	\$6,992	
INCA ROAD	WIGWAM BLVD	MAYA DR	359	28	723	Micro Seal																				micro seal	\$2,076		\$2,076	\$2,491	
LAJOLLA DR	BARRANCO DRIVE	VILLAGE PKWY SOUTH	554.8	26	1,602	High Density Mineral Bond			HDMB seal	\$3,012													HDMB seal	\$4,749					\$7,761	\$9,313	
LA LOMA AVE	OLD LITCHFIELD ROAD	FAIRWAY DR	2909	28	8,998	Micro Seal									micro seal	\$18,633													\$18,633	\$22,359	
LA LOMA CART PATH	CAMPBELL AVENUE	NORTH END OF LA LOMA CART PATH	425	12	551	Micro Seal									micro seal	\$1,142														\$1,142	\$1,370
LA LOMA CART PATH	CAMPBELL AVENUE	SOUTH END OF LA LOMA CART PATH	782	12	1,655	Micro Seal									micro seal	\$3,448														\$3,448	\$4,138
LAGUNA DR EAST	SAGEBRUSH ST	LAGUNA DR E SOUTH END	798	28	2,662	High Density Mineral Bond													HDMB seal	\$5,511							HDMB seal	\$8,698	\$14,209	\$17,051	
LAGUNA DR SOUTH	LAGUNA DR WEST	LAGUNA DR EAST	244	29	1,162	High Density Mineral Bond													HDMB seal	\$2,406							HDMB seal	\$3,796	\$6,202	\$7,442	
LAGUNA DR WEST	SAGEBRUSH ST	LAGUNA DR W SOUTH END	798	28	2,633	High Density Mineral Bond													HDMB seal	\$5,452							HDMB seal	\$8,604	\$14,056	\$16,867	
LUNA CIR	LUNA RD W	LUNA CIR TO EAST END CUL	327	26	1,258	High Density Mineral Bond	micro seal 05/15/2015	\$5,107															HDMB seal	\$3,729					\$8,836	\$10,603	



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			SEVERE		EXTENSIVE		MODERATE		MINIMAL																					
ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT	2015 COST	2016 TREATMENT	2016 COST	2017 TREATMENT	2017 COST	2018 TREATMENT	2018 COST	2019 TREATMENT	2019 COST	2020 TREATMENT	2020 COST	2021 TREATMENT	2021 COST	2022 TREATMENT	2022 COST	2023 TREATMENT	2023 COST	2024 TREATMENT	2024 COST	2025 TREATMENT	2025 COST	TOTAL CONST. COST	TOTAL PROJECT COST
LUNA CT	VILLAGE PKWY WEST	LUNA RD E	330	26	1273	High Density Mineral Bond			HDMB seal	\$2,394													HDMB seal	\$3,775					\$6,169	\$7,402
LUNA RD E	LUNA DR N	LUNA CT	281.5	26	958	High Density Mineral Bond			HDMB seal	\$1,800													HDMB seal	\$2,839					\$4,639	\$5,567
LUNA RD E	LUNA DR S	LUNA CT	283.8	26	820	High Density Mineral Bond			HDMB seal	\$1,542													HDMB seal	\$2,431					\$3,973	\$4,767
LUNA RD W	LUNA DR N	LUNA DR S	638.1	26	2148	High Density Mineral Bond	micro seal 05/15/2015	\$8,723														HDMB seal	\$6,042						\$14,764	\$17,717
LUNA DR N	RIO VISTA RD	LUNA RD E	831.9	26	1123	High Density Mineral Bond			HDMB seal	\$2,112													HDMB seal	\$3,330					\$5,442	\$6,530
LUNA DR N	LUNA RD W	RIO VISTA RD	389.7	26	1052	High Density Mineral Bond	micro seal 05/15/2015	\$4,270														HDMB seal	\$2,958						\$7,228	\$8,673
LUNA DR S	RIO VISTA RD EXT	LUNA RD E	414.4	26	1197	High Density Mineral Bond			HDMB seal	\$2,250													HDMB seal	\$3,547					\$5,797	\$6,956
LUNA DR S	LUNA RD W	RIO VISTA RD EXT	387.7	26	1120	High Density Mineral Bond	micro seal 05/15/2015	\$4,548														HDMB seal	\$3,150						\$7,697	\$9,237
LUNA CIR S	LUNA RD E	LUNA DR SOUTH TO EAST END	290.9	26	1115	High Density Mineral Bond			HDMB seal	\$2,096													HDMB seal	\$3,305					\$5,401	\$6,481
LUNA DR	LUNA RD E	VILLAGE PKWY WEST	282.4	28	943	High Density Mineral Bond			HDMB seal	\$1,773													HDMB seal	\$2,796					\$4,569	\$5,483
MADERA CIR	VILLAGE PKWY	MADERA CIR NORTH END CUL	306	26	1197	High Density Mineral Bond			HDMB seal	\$2,251													HDMB seal	\$3,549					\$5,800	\$6,960
MAYA DR	DESERT AVE	ESERANZA	478	28	1,633	High Density Mineral Bond	micro seal 05/15/2015	\$5,814														HDMB seal	\$4,592						\$10,407	\$12,488
MOUNTAIN VIEW DR	BARRANCO DRIVE	MOUNTAIN VIEW WEST END CUL	1147	26	3625	Micro Seal					micro seal [1]	\$6,538																	\$6,538	\$7,846
OLD LITCHFIELD RD	172 FT NORTH OF FAIRWAY DR	BIRD LN	2527	28	7539	High Density Mineral Bond																HDMB seal	\$20,053						\$20,053	\$24,063
OLD LITCHFIELD RD	106 FT SOUTH OF COTTONWOOD ST	172 FT NORTH OF FAIRWAY DR	762	varies	6121	High Density Mineral Bond																HDMB seal	\$16,283						\$16,283	\$19,540
ORO VISTA	VILLA NUEVA DR	ORO VISTA WEST END CUL	2915	28	10,851	Micro Seal																micro seal	\$25,371						\$25,371	\$30,445
RIO VISTA RD	ALDEA DR S	LUNA DR N	289	26	835	High Density Mineral Bond			HDMB seal	\$1,571												HDMB seal	\$2,349.39						\$3,920	\$4,704
ROBLES DR	BIRD LN	CAMPINA DR	1022	28	4228	High Density Mineral Bond											HDMB seal	\$10,605											\$20,415	\$24,498
SOLANA CIR	ESCONDIDO DR N	SOLANA CIR NORTH END CUL	240	26	971	High Density Mineral Bond			HDMB seal	\$1,826												HDMB seal	\$2,731						\$4,557	\$5,468
TORNO LN	VILLA NUEVA DR	TORNO DR END NORTH CUL	461	18	1217	Remove and Reconstruction Pavement Surface																mill & repave	\$43,634	HDMB seal	\$3,423				\$47,057	\$56,469
VILLA NUEVA	OLD LITCHFIELD RD	WIGWAM BLVD	3989	36	15,651	High Density Mineral Bond	crack fill seal 05/18/2015				HDMB seal	\$32,116											HDMB seal	\$46,390					\$78,506	\$94,207
VILLA NUEVA	BIRD LN	ORO VISTA	3130	36	7,135	High Density Mineral Bond											HDMB seal	\$17,895											\$17,895	\$21,474
VILLA NUEVA	ORO VISTA	ACACIA CIR	3457	36	7,441	Micro Seal					micro seal	\$13,420											HDMB seal	\$22,054					\$35,474	\$42,569
VILLA NUEVA	ACACIA CIR	DYSART ROAD (SOUTH ACCESS)	3457	36	7,105	Micro Seal					micro seal	\$12,814											HDMB seal	\$21,058					\$33,872	\$40,647
VILLA NUEVA	DYSART ROAD (SOUTH ACCESS)	CASTILLO DR WEST	3457	36	4,978	Micro Seal					micro seal	\$8,978											HDMB seal	\$14,755					\$23,733	\$28,480
VILLA NUEVA	CASTILLO DR WEST	FAIRWAY DRIVE	3457	36	6,547	Micro Seal							micro seal	\$12,682											HDMB seal	\$20,399			\$33,082	\$39,698
VILLA NUEVA	FAIRWAY DRIVE	WIGWAM BLVD	1975	36	7,300	Micro Seal							micro seal	\$14,142											HDMB seal	\$22,748			\$36,890	\$44,268
VILLAGE PKWY NORTH	CAMELBACK RD	MOUNTAIN VIEW DR	937	28	3,859	High Density Mineral Bond			HDMB seal	\$7,254													HDMB seal	\$11,437					\$18,691	\$22,430
VILLAGE PKWY WEST	VILLAGE PKWY NORTH	VILLAGE RD	1166	28	4525	High Density Mineral Bond			HDMB seal	\$8,507													HDMB seal	\$13,413					\$21,920	\$26,304
VILLAGE PKWY NORTH	VILLAGE RD	HIDDEN TERRACE LP	2899	28	13,755	High Density Mineral Bond			HDMB seal	\$25,860													HDMB seal	\$40,770					\$66,630	\$79,956
VILLAGE PKWY NORTH PARKING	ESCONDIDO PL NORTH	ESCONDIDO PL SOUTH	425	8.5	401	High Density Mineral Bond			HDMB seal	\$754													HDMB seal	\$1,189					\$1,943	\$2,331
VILLAGE RD	ESCONDIDO DR N	VILLAGE PKWY WEST	283	26	1,152	High Density Mineral Bond			HDMB seal	\$2,166													HDMB seal	\$3,414					\$5,580	\$6,696
VISTA PASEO WEST	LA LOMA AVE	VISTA PASEO EAST END	298	36	1375	Micro Seal									micro seal	\$4,944							mill & repave	\$56,840	HDMB seal	\$4,284			\$66,068	\$79,282
WIGWAM BLVD	LITCHFIELD RD	OLD LITCHFIELD RD	1178	46	8,124	High Density Mineral Bond					HDMB seal	\$16,670													HDMB seal	\$25,314			\$41,985	\$50,382

10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - CONDITION  
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		SEVERE EXTENSIVE MODERATE MINIMAL																												
ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT	2015 COST	2016 TREATMENT	2016 COST	2017 TREATMENT	2017 COST	2018 TREATMENT	2018 COST	2019 TREATMENT	2019 COST	2020 TREATMENT	2020 COST	2021 TREATMENT	2021 COST	2022 TREATMENT	2022 COST	2023 TREATMENT	2023 COST	2024 TREATMENT	2024 COST	2025 TREATMENT	2025 COST	TOTAL CONST. COST	TOTAL PROJECT COST
WIGWAM BLVD	OLD LITCHFIELD RD	NEOLIN AVE	1167	48	6,577	High Density Mineral Bond					HDMB seal	\$13,496													HDMB seal	\$20,494			\$33,990	\$40,788
WIGWAM BLVD	NEOLIN AVE	INDIAN SCHOOL RD	651	36	11,886	High Density Mineral Bond											HDMB seal	\$29,809										\$29,809	\$35,771	
ALDEA CIR	ALDEA RD W	ALDEA CT TO EAST END CUL	327	26	1,281	High Density Mineral Bond	micro seal [1] 05/15/2015	\$5,201											HDMB seal	\$3,407									\$8,608	\$10,329
ALDEA DR W	ALDEA DR N	ALDEA DR S	638	26	2,131	High Density Mineral Bond	micro seal [1] 05/15/2015	\$8,653											HDMB seal	\$5,669									\$14,323	\$17,187
ALDEA DR N	ALDEA DR W	RIO VISTA RD	373	26	1,078	High Density Mineral Bond	micro seal [1] 05/15/2015	\$4,375											HDMB seal	\$2,866									\$7,241	\$8,690
ALDEA DR S	ALDEA DR W	RIO VISTA RD EXT	364	26	1,052	High Density Mineral Bond	micro seal [1] 05/15/2015	\$4,272											HDMB seal	\$2,799									\$7,071	\$8,485
ALEPPO COURT	SYCAMORE LANE	ALEPPO CT NORTH END CUL	332	25	1,245	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,092											HDMB seal	\$3,312									\$5,404	\$6,485
ANCORA DRIVE	DESERT AVE	DESERT AVE	1352	28	5,242	High Density Mineral Bond												HDMB seal	\$3,391										\$15,553	\$18,664
ANCORA DRIVE	DESERT AVE	ANCORA DRIVE EAST END CUL	411	30	1,446	High Density Mineral Bond												HDMB seal	\$1,031										\$4,385	\$5,262
ARBOR LANE	ELM COURT	VILLAGE PARKWAY	758	25	1,907	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,204											HDMB seal	\$2,016									\$5,221	\$6,265
ARBOR LANE	VILLAGE PARKWAY	PALO BREA DRIVE (VERDE DRIVE)	334	25	915	High Density Mineral Bond	HDMB seal 05/15/2015	\$1,537											HDMB seal	\$888									\$2,425	\$2,910
AZURE LANE	VINEYARD LANE	LITTLE STREET	807	23	2,804	High Density Mineral Bond	HDMB seal 05/15/2015	\$4,711											HDMB seal	\$2,147									\$6,858	\$8,230
BAHIA LN EAST	SAGEBRUSH ST	BAHIA LN EAST SOUTH END	798	28	2,651	Micro Seal					micro seal	\$4,781									HDMB seal	\$7,455							\$12,236	\$14,683
BAHIA LN WEST	SAGEBRUSH ST	BAHIA LN WEST SOUTH END	804	28	2,828	Micro Seal					micro seal	\$4,739											HDMB seal	\$7,788					\$12,527	\$15,032
BANDERA CIR	VILLA NUEVA DR	BANDERA CIR SOUTH END CUL	155	24	778	High Density Mineral Bond									mill & overlay	\$24,705	HDMB seal	\$1,952											\$28,462	\$34,155
BIRD LANE	LITCHFIELD RD	OLD LITCHFIELD RD	255	40	952	High Density Mineral Bond									HDMB seal	\$2,243										HDMB seal	\$3,112	\$7,564	\$9,077	
BIRD LANE	VILLA NUEVA DR	OLD LITCHFIELD RD	3693	33	13223	Micro Seal											micro seal	\$33,164											\$61,462	\$73,755
CABRITO CIR	VILLA NUEVA DR	CABRITO SOUTH END CUL	249	30	1,048	Micro Seal							micro seal	\$2,031					mill & overlay	\$38,009	HDMB seal	\$2,948							\$45,230	\$54,276
CAMELBACK RD [5]	LITCHFIELD RD	BULLARD WASH	4754	12	6360	High Density Mineral Bond																						\$0	\$0	
CAMPINA DR	CAMPINA DR WEST END CUL	CASTANO DR	480	36	2259	High Density Mineral Bond									HDMB seal	\$5,323										HDMB seal	\$7,383	\$17,630	\$21,156	
CAMPINA DR	CASTANO DR	ROBLES DR	1075	30	3659	High Density Mineral Bond									HDMB seal	\$5,323										HDMB seal	\$11,956	\$25,254	\$30,305	
CAMPINA DR	ROBLES DR	CAMPINA DR EAST END CUL	379	36	1784	High Density Mineral Bond									HDMB seal	\$4,203										HDMB seal	\$5,830	\$13,921	\$16,706	
CAMPINA LANE	BIRD LANE	CAMPINA LANE NORTH END CUL	691	33	3139	High Density Mineral Bond									HDMB seal	\$7,395										HDMB seal	\$10,258	\$24,936	\$29,923	
CAPILLA CIR	VILLA NUEVA	CAPILLA SOUTH END CUL	169	36	824	High Density Mineral Bond									HDMB seal	\$1,940										HDMB seal	\$2,691	\$6,542	\$7,851	
CARDENO CIRCLE	DESERT AVE	SERRANO DR	169	36	1260	High Density Mineral Bond									HDMB seal	\$2,969										HDMB seal	\$4,118	\$9,834	\$11,800	
CARDENO CIRCLE	DESERT AVE	CARDENO CIRCLE WEST END CUL	450	30	1,082	High Density Mineral Bond									HDMB seal	\$2,549										HDMB seal	\$3,535	\$8,594	\$10,313	
CASCADA CIRCLE	VILLA NUEVA DR	CASCADA CIRCLE SOUTH END CUL	156	33	787	High Density Mineral Bond									HDMB seal	\$1,855										HDMB seal	\$2,573	\$6,256	\$7,507	
CASCADA ROAD	VILLA NUEVA DR	NEOLIN RD NORTH	1073	28	3184	High Density Mineral Bond							HDMB seal	\$7,018											HDMB seal	\$9,922		\$23,753	\$28,504	
CASTANO DR	BIRD LANE	CAMPINA DR	1084	28	4206	High Density Mineral Bond									HDMB seal	\$9,909										HDMB seal	\$13,744	\$32,822	\$39,386	
CASTILLO DR	VILLA NUEVA SOUTH	VILLA NUEVA NORTH	1231	28	4,128	High Density Mineral Bond											HDMB seal	\$10,352										\$18,813	\$22,576	
CERCADO LN EAST	ROBLES DR	CERCADO WEST END	434	36	1,956	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,287										HDMB seal	\$4,907									\$8,193	\$9,832	
CERCADO LN EAST	ROBLES DR	CERCADO EAST END CUL	594	34	2,616	High Density Mineral Bond	HDMB seal 05/15/2015	\$4,395										HDMB seal	\$6,560										\$10,955	\$13,146
CERCADO LN WEST	CASTANO DR	CERCADO EAST END CUL	472	34	1,956	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,287										HDMB seal	\$4,907										\$8,193	\$9,832
CERCADO LN WEST	CASTANO DR	CERCADO WEST END CUL	353	34	2,464	High Density Mineral Bond	HDMB seal 05/15/2015	\$4,140										HDMB seal	\$6,181										\$10,321	\$12,385



## 10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - CONDITION OCTOBER 2015

			SEVERE EXTENSIVE MODERATE MINIMAL																											
ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT	2015 COST	2016 TREATMENT	2016 COST	2017 TREATMENT	2017 COST	2018 TREATMENT	2018 COST	2019 TREATMENT	2019 COST	2020 TREATMENT	2020 COST	2021 TREATMENT	2021 COST	2022 TREATMENT	2022 COST	2023 TREATMENT	2023 COST	2024 TREATMENT	2024 COST	2025 TREATMENT	2025 COST	TOTAL CONST. COST	TOTAL PROJECT COST
CERVATO CIRCLE	VILLA NUEVA DR	CERVATO DR SOUTH END CUL	157	28	788	High Density Mineral Bond											mill & repave	\$26,619										\$28,447	\$34,136	
CLOVERFIELD ST	VILLAGE PARKWAY	CLOVERFIELD TER	618	24	1,951	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,277									HDMB seal	\$4,892										\$8,170	\$9,803	
DESERT AVENUE	OLD LITCHFIELD RD	WIGWAM BLVD	888	30	10,228	High Density Mineral Bond									HDMB seal	\$25,653										HDMB seal	\$33,426	\$64,476	\$77,371	
DORADO CIRCLE	DESERT AVE	DORADO CIR END WEST CUL	196	30	1,062	High Density Mineral Bond									HDMB seal	\$2,663											HDMB seal	\$3,470	\$9,051	\$10,861
DORADO CIRCLE	DESERT AVE	DORADO CIRCLE EAST END CUL	329	30	1,447	High Density Mineral Bond									HDMB seal	\$3,629											HDMB seal	\$4,728	\$11,311	\$13,573
DYSART ROAD	DYSART RD WEST SIDE DRAINAGE	DYSART ROAD (SOUTH ACCESS)	---	---	---	Install Drywell and Rock Mulch																						\$62,254	\$74,705	
ELM COURT	ARBOR LANE	ELM COURT SOUTH END CUL	428	25	1,530	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,571									HDMB seal	\$3,494										\$6,065	\$7,278	
ELM STREET	PARKVIEW LANE	ARBOR STREET	589	25	1,632	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,741									HDMB seal	\$3,726										\$6,467	\$7,761	
ESTERO EAST	ROBLES DR	ESTERO LN EAST END CUL	438	36	1,931	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,243											HDMB seal	\$5,135								\$8,379	\$10,055	
ESTERO EAST	ROBLES DR	ESTERO WEST END CUL	753	36	1,957	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,287											HDMB seal	\$5,205								\$8,493	\$10,191	
ESTERO WEST	CASTANO DR	ESTERO LN WEST END CUL	629	34	3,182	High Density Mineral Bond	HDMB seal 05/15/2015	\$5,345											HDMB seal	\$8,463								\$13,808	\$16,569	
ESTERO WEST	CASTANO DR	ESTERO LN EAST END	442	34	1,947	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,271											HDMB seal	\$5,179								\$8,450	\$10,140	
FAIRWAY DR (CUL)	FAIRWAY DR	FAIRWAY DR CUL SOUTH END	164	36	753	High Density Mineral Bond									HDMB seal	\$1,773											HDMB seal	\$2,460	\$5,979	\$7,175
FAIRWAY DR [3]	OLD LITCHFIELD ROAD	LA LOMA DR	774	28	2,833	Remove and Reconstruction Pavement Surface	crack fill seal 05/18/2015						mill & repave	\$152,530	HDMB seal	\$6,203											HDMB seal	\$8,605	\$167,338	\$200,806
FAIRWAY DR	FLORENCE AVE	VILLA NUEVA DR	1570	28	5,127	High Density Mineral Bond													HDMB seal	\$12,079								\$23,973	\$28,768	
FLORENCE AVE	WIGWAM BLVD	FAIRWAY DR	1394	42	6,276	High Density Mineral Bond													HDMB seal	\$14,787								\$28,218	\$33,862	
GROVE ST	PARKVIEW LANE	LITTLE STREET	727	26	2,018	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,390												HDMB seal	\$5,367							\$8,757	\$10,509	
HACIENDA CIR	VILLA NUEVA DR	HACIENDA CIR SOUTH END CUL	206	24	792	High Density Mineral Bond																				HDMB seal	\$2,588	\$4,282	\$5,139	
HACIENDA CIR	VILLA NUEVA DR	HACIENDA CIR NORTH END CUL	166	24	367	High Density Mineral Bond																				HDMB seal	\$1,198	\$1,983	\$2,380	
HIDDEN TERRACE LP	VILLAGE PARKWAY	HIDDEN TERRACE NORTH END LOOP	574	24	2,311	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,882												HDMB seal	\$6,147							\$10,029	\$12,035	
JUNIPER LANE	PALO BREA DRIVE (VERDE DRIVE)	CLOVERFIELD ST	1036	23	2,780	High Density Mineral Bond	HDMB seal 05/15/2015	\$4,670												HDMB seal	\$7,394							\$12,063	\$14,476	
LIBRE CIRCLE	VILLA NUEVA DR	LIBRE END EAST CUL	140	24	746	High Density Mineral Bond														HDMB seal	\$1,984							\$13,234	\$15,881	
LILA CIRCLE	VILLA NUEVA DR	LILA CIRCLE SOUTH END CUL	342	30	1,354	High Density Mineral Bond														HDMB seal	\$3,601							\$6,497	\$7,797	
LITCHFIELD RD	WIGWAM BLVD	CAMELBACK RD	5754	80	38,960	Micro Seal															micro seal	\$109,401						\$478,770	\$574,524	
LITCHFIELD RD	CAMELBACK RD	MISSOURI AVE	2551	53	17,106	Micro Seal	crack fill seal 05/18/2015																		micro seal	\$46,851		\$214,695	\$257,634	
LITTLE ST	GROVE ST	VERBENA LN	385	24	940	High Density Mineral Bond	HDMB seal 05/15/2015	\$1,580										HDMB seal	\$2,359									\$3,939	\$4,726	
MESQUITE LANE	VERBENA LN	VINEYARD LN	547	24	1,804	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,030													HDMB seal	\$5,072						\$8,103	\$9,723	
MORENO CIRCLE	DESERT AVE	MORENO CIR TO SOUTH END CUL	376	30	853	High Density Mineral Bond									HDMB seal	\$2,009												\$3,987	\$4,784	
NEOLIN AVE	WIGWAM BLVD	CASCADA RD	982	34	3,551	High Density Mineral Bond	HDMB seal 05/15/2015	\$5,966													HDMB seal	\$9,986						\$15,952	\$19,142	
NEOLIN AVE	FAIRWAY DR	WIGWAM BLVD	1261	30	4,429	High Density Mineral Bond											HDMB seal	\$11,107										\$20,585	\$24,702	
OESTE LN	OLD LITCHFIELD RD	LAGUNA DR WEST	223	28	782	High Density Mineral Bond														HDMB seal	\$2,080							\$3,894	\$4,673	
OESTE LN	LAGUNA DR EAST	BAHIA LN WEST	223	28	787	High Density Mineral Bond														HDMB seal	\$2,095							\$3,922	\$4,706	
OLD LITCHFIELD RD	WIGWAM BLVD	106 FT SOUTH OF COTTONWOOD ST	391	99	4872	High Density Mineral Bond														HDMB seal	\$12,960							\$24,263	\$29,116	
OLD LITCHFIELD RD	WIGWAM BLVD	PINTURA EXTENSION	1380	50	9,938	High Density Mineral Bond														HDMB seal	\$26,434							\$48,099	\$57,718	



## 10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - CONDITION OCTOBER 2015

			SEVERE		EXTENSIVE		MODERATE		MINIMAL																					
ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT	2015 COST	2016 TREATMENT	2016 COST	2017 TREATMENT	2017 COST	2018 TREATMENT	2018 COST	2019 TREATMENT	2019 COST	2020 TREATMENT	2020 COST	2021 TREATMENT	2021 COST	2022 TREATMENT	2022 COST	2023 TREATMENT	2023 COST	2024 TREATMENT	2024 COST	2025 TREATMENT	2025 COST	TOTAL CONST. COST	TOTAL PROJECT COST
OLD LITCHFIELD RD.	PINTURA EXTENSION	INDIAN SCHOOL	1163	50	4,706	High Density Mineral Bond													HDMB seal	\$12,518									\$22,777	\$27,332
ORANGE LN	NEOLIN RD	REDONDO DR W	281	30	942	Remove and Reconstruction Pavement Surface											mill & repave	\$32,948											\$34,963	\$41,956
ORANGE LN	REDONDO DR	FLORENCE AVENUE	299	30	927	Remove and Reconstruction Pavement Surface											mill & repave	\$32,423											\$34,407	\$41,288
ORANGE LN	FLORENCE AVE	FAIRWAY DR	306	30	948	Remove and Reconstruction Pavement Surface											mill & repave	\$33,158											\$35,186	\$42,223
ORCHARD LN	PARKVIEW CT	LITTLE ST	770	26	2,095	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,520														HDMB seal	\$5,891.30						\$9,411	\$11,293
OTERO CIR	VILLA NUEVA DR	OTERO CIR TO SOUTH END CUL	300	30	1,148	High Density Mineral Bond													HDMB seal	\$3,055									\$5,719	\$6,863
PACIFICO	DESERT AVE	PACIFICO WEST END CUL	221	30	1,283	High Density Mineral Bond													HDMB seal	\$3,412									\$6,388	\$7,666
PAJARO LANE	BIRD LANE	PAJARO LANE SOUTH END CUL	398	36	1,849	High Density Mineral Bond													HDMB seal	\$4,919									\$51,482	\$61,779
PAJARO LANE	BIRD LANE	PAJARO LN NORTH END CUL	467	36	2,338	High Density Mineral Bond													HDMB seal	\$6,219									\$11,316	\$13,580
PALADIN CIR	VILLA NUEVA DR	PALADIN TO SOUTH END CUL	288	30	1,099	High Density Mineral Bond													HDMB seal	\$2,924									\$5,474	\$6,569
PALM ST	FLORENCE AVE	NEOLIN RD	1309	34	4,762	High Density Mineral Bond	HDMB seal 06/30/2015	\$8,001														HDMB seal	\$13,391.81						\$131,693	\$158,031
PALM ST	VILLA NUEVA DR	FLORENCE AVENUE	456	28	1,450	High Density Mineral Bond	mill & repave 07/16/2015	\$35,543	HDMB seal	\$2,727													HDMB seal	\$4,299					\$42,569	\$51,083
PALO BREA DR	PALO BREA DR WEST END CUL	PALO BREA DR EAST END CUL	760	25	2,951	High Density Mineral Bond	HDMB seal 05/15/2015	\$4,957														HDMB seal	\$8,297.87						\$13,255	\$15,906
PALO VERDE AVE	FAIRWAY DR	WIGWAM BLVD	1067	36	4,300	Remove and Reconstruction Pavement Surface									mill & repave	\$141,303.84	HDMB seal	\$10,785											\$161,291	\$193,549
PARK AVE	WIGWAM BLVD	VILLAGE PKWY	1698	20	6,207	High Density Mineral Bond	HDMB seal 05/15/2015	\$10,427														HDMB seal	\$17,452.71						\$27,880	\$33,456
PARKVIEW CT	SYCAMORE CT	PARKVIEW CT NORTH END CUL	288	25	1,179	High Density Mineral Bond	HDMB seal 05/15/2015	\$1,981														HDMB seal	\$3,316.32						\$5,298	\$6,357
PARKVIEW LN	SYCAMORE CT	ORCHARD LN	969	24	3,080	High Density Mineral Bond	HDMB seal 05/15/2015	\$5,175														HDMB seal	\$8,661.68						\$13,837	\$16,604
PINTURA CIR	DESERT AVE	PINTURA CIR WEST END CUL	183	30	1,062	High Density Mineral Bond													HDMB seal	\$2,278									\$4,741	\$5,689
PINTURA CIR	DESERT AVE	PINTURA CIR EAST END CUL	349	30	1,547	High Density Mineral Bond													HDMB seal	\$3,319									\$6,909	\$8,291
REDONDO DR	ORANGE LANE WEST	PALO VERDE AVE	1233	28	3,998	Remove and Reconstruction Pavement Surface																			mill & repave	\$173,773	HDMB seal	\$13,066.99	\$195,397	\$234,476
REDONDO DR	PALO VERDE AVE	ORANGE LN EAST	1257	28	3,951	Remove and Reconstruction Pavement Surface																				mill & repave	\$180,083	\$188,538	\$226,246	
SAGEBRUSH ST	VILLA NUEVA DR	NEOLIN AVE	1492	34	5,592	High Density Mineral Bond																							\$26,997	\$32,396
SAGEBRUSH ST	NEOLIN AVE	OLD LITCHFIELD RD	1476	28	3,758	High Density Mineral Bond																							\$18,145	\$21,775
SAGEBRUSH CIR	VILLA NUEVA DR	SAGEBRUSH ST SOUTH END CUL	269	36	781	High Density Mineral Bond																							\$3,771	\$4,525
SEGOVIA DR	VILLA NUEVA DR	VILLA NUEVA DR	592	28	1,843	High Density Mineral Bond	HDMB seal 06/30/2015	\$3,096														HDMB seal	\$5,183						\$49,654	\$59,585
SERRANO DRIVE	DESERT AVE	CARDENO CIR	443	28	2,103	High Density Mineral Bond																							\$42,758	\$51,309
SIERRA HERMOSA DR	VILLA NUEVA DR	SIERRA HERMOSA DR N & S END CUL	1412	24	3,774	High Density Mineral Bond																							\$130,825	\$156,990
SPRING ST	WIGWAM BLVD	LITTLE ST	356	23	845	High Density Mineral Bond	HDMB seal 05/15/2015	\$1,419																					\$31,692	\$38,030
SYCAMORE CT	ARBOR LN	SYCAMORE CT SOUTH END CUL	425	25	2,231	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,749																					\$9,685	\$11,622
SYCAMORE LN	PARKVIEW CT	ARBOR LN	587	25	1,549	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,602																					\$6,723	\$8,067
TAINTER DR	DESERT AVE	ESPERANZA DR	494	28	1,579	Remove and Reconstruction Pavement Surface	micro seal 05/15/2015	\$5,622																					\$63,192	\$75,830
TORNASOL CIRCLE	VILLA NUEVA DR	TORNASOL END EAST CUL	231	30	760	High Density Mineral Bond																							\$13,250	\$15,900
TORREON DR	VILLA NUEVA DR	VILLA NUEVA DR	1070	28	3,366	High Density Mineral Bond	HDMB seal 06/30/2015	\$5,654														HDMB seal	\$9,464.35						\$89,394	\$107,272
TRONTERA CIR	VILLA NUEVA DR	TRONTERA CIR SOUTH END CUL	344	24	782	High Density Mineral Bond																							\$6,070	\$7,284

## 10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - CONDITION OCTOBER 2015

		<span style="color: red;">RED</span> SEVERE <span style="color: blue;">BLUE</span> EXTENSIVE <span style="color: black;">BLACK</span> MODERATE <span style="color: green;">GREEN</span> MINIMAL																													
ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)	Recommended Treatment	2015 TREATMENT	2015 COST	2016 TREATMENT	2016 COST	2017 TREATMENT	2017 COST	2018 TREATMENT	2018 COST	2019 TREATMENT	2019 COST	2020 TREATMENT	2020 COST	2021 TREATMENT	2021 COST	2022 TREATMENT	2022 COST	2023 TREATMENT	2023 COST	2024 TREATMENT	2024 COST	2025 TREATMENT	2025 COST	TOTAL CONST. COST	TOTAL PROJECT COST*	
TRONTERA CIR.	VILLA NUEVA DR	TRONTERA CIR NORTH END CUL	491	24	1445	High Density Mineral Bond									HDMB seal	\$3,404											HDMB seal	\$4,722	\$11,219	\$13,462	
VERBENA LANE	LITTLE ST	MEQUITE LN	583	26	1,660	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,789														HDMB seal	\$4,668.98						\$7,458	\$8,950	
VILLA NUEVA	CAMELBACK RD	BIRD LN	553	36	2517	Remove and Reconstruction Pavement Surface															mill & repave	\$95,373	HDMB seal	\$7,461					\$108,221	\$129,866	
VILLAGE PKWY	HIDDEN TERRACE LP	PARK AVE	460	25	1,371	High Density Mineral Bond	HDMB seal 05/15/2015	\$2,303														HDMB seal	\$3,854.56						\$6,157	\$7,389	
VILLAGE PKWY	PARK AVE	LITCHFIELD RD	5004	25	13,299	High Density Mineral Bond	HDMB seal 05/15/2015	\$22,343														HDMB seal	\$37,397.82						\$59,741	\$71,689	
VINYARD LANE	VILLAGE PKWY	AZURE LN	694	25	1,965	High Density Mineral Bond	HDMB seal 05/15/2015	\$3,300														HDMB seal	\$5,524.30						\$8,825	\$10,590	
VISTA VERDE DR	ACACIA CIR	ORO VISTA	881	28	2,753	High Density Mineral Bond	mill & repave 07/16/2015	\$67,344	HDMB seal	\$5,175													HDMB seal	\$8,159				\$80,678	\$96,813		
VISTA VERDE LOOP AND CIRCLES	ACACIA CIR W	ACACIA CIR W	1684	28	5,239	High Density Mineral Bond	mill & repave 07/16/2015	\$120,745	HDMB seal	\$9,849													HDMB seal	\$15,528				\$146,122	\$175,346		
WIGWAM FRONTAGE ROAD	NEOLIN AVE	FLORENCE AVE	1266	26	3585	High Density Mineral Bond											HDMB seal	\$8,991										\$17,631	\$21,157		
							Crack/Fill Seal [4]	\$25,000		\$25,000		\$25,000		\$25,000		\$25,000		\$25,000													
TOTAL SY							618,066																								
TOTAL ANNUAL PROJECT COST							(20% ADDED)		\$555,632	\$463,027	\$454,440	\$426,845	\$494,814	\$423,107	\$438,568	\$425,931	\$422,047	\$435,362	\$438,485	\$467,229	\$6,101,248	\$7,321,498									
								0.00	1.00	1.08	1.16	1.24	1.32	1.40	1.48	1.56	1.64	1.72													

Starting with 2015, an 8% per year cost factor has been added.



## 10-YEAR PAVEMENT MAINTENANCE PROGRAM SCHEDULE - CONDITION OCTOBER 2015

			SEVERE EXTENSIVE MODERATE MINIMAL			Recommended Treatment		2015 TREATMENT 2015 COST		2016 TREATMENT 2016 COST		2017 TREATMENT 2017 COST		2018 TREATMENT 2018 COST		2019 TREATMENT 2019 COST		2020 TREATMENT 2020 COST		2021 TREATMENT 2021 COST		2022 TREATMENT 2022 COST		2023 TREATMENT 2023 COST		2024 TREATMENT 2024 COST		2025 TREATMENT 2025 COST		TOTAL CONST. COST	TOTAL PROJECT COST*					
ROAD NAME	FROM	TO	Approx. Length	Approx. Width	Actual Area (S.Y.)			Actual 2015 Average Bid Unit Cost / SY	Actual 2016 Average Bid Unit Cost / SY	Actual 2017 Average Bid Unit Cost / SY	Actual 2018 Average Bid Unit Cost / SY	Actual 2019 Average Bid Unit Cost / SY	Actual 2020 Average Bid Unit Cost / SY	Actual 2021 Average Bid Unit Cost / SY	Actual 2022 Average Bid Unit Cost / SY	Actual 2023 Average Bid Unit Cost / SY	Actual 2024 Average Bid Unit Cost / SY	Actual 2025 Average Bid Unit Cost / SY																		
Type of Material Used																																				
Preservative Seal / SY 2012								.....																												
Micro Seal with Crack Fill Seal / SY 2012								.....																												
Micro Seal without Crack Fill Seal / SY 2012								.....																												
Micro Seal without Crack Fill Seal / SY 2014								\$2.90																												
Crack Fill Seal / SY 2012								\$2.12																												
2" Mill / SY 2012								.....																												
2" Mill & Overlay / SY 2012								.....																												
2" Rubberized Asphalt Overlay / SY 2012								.....																												
3" Milling & Paving / SY								\$25.60																												
High Density Mineral Bond with Crack Seal / SY								\$1.68																												
								.....																												
Chip Seal/12' lane mile								\$6,688.00																												
Restorative Seal per 12' lane mile								\$3,872.00																												
Slurry Seal per 12' lane mile								\$6,688.00																												
Mill and Overlay per SY								\$20.00																												
Overlay per SY								\$12.00																												

**LEGEND**

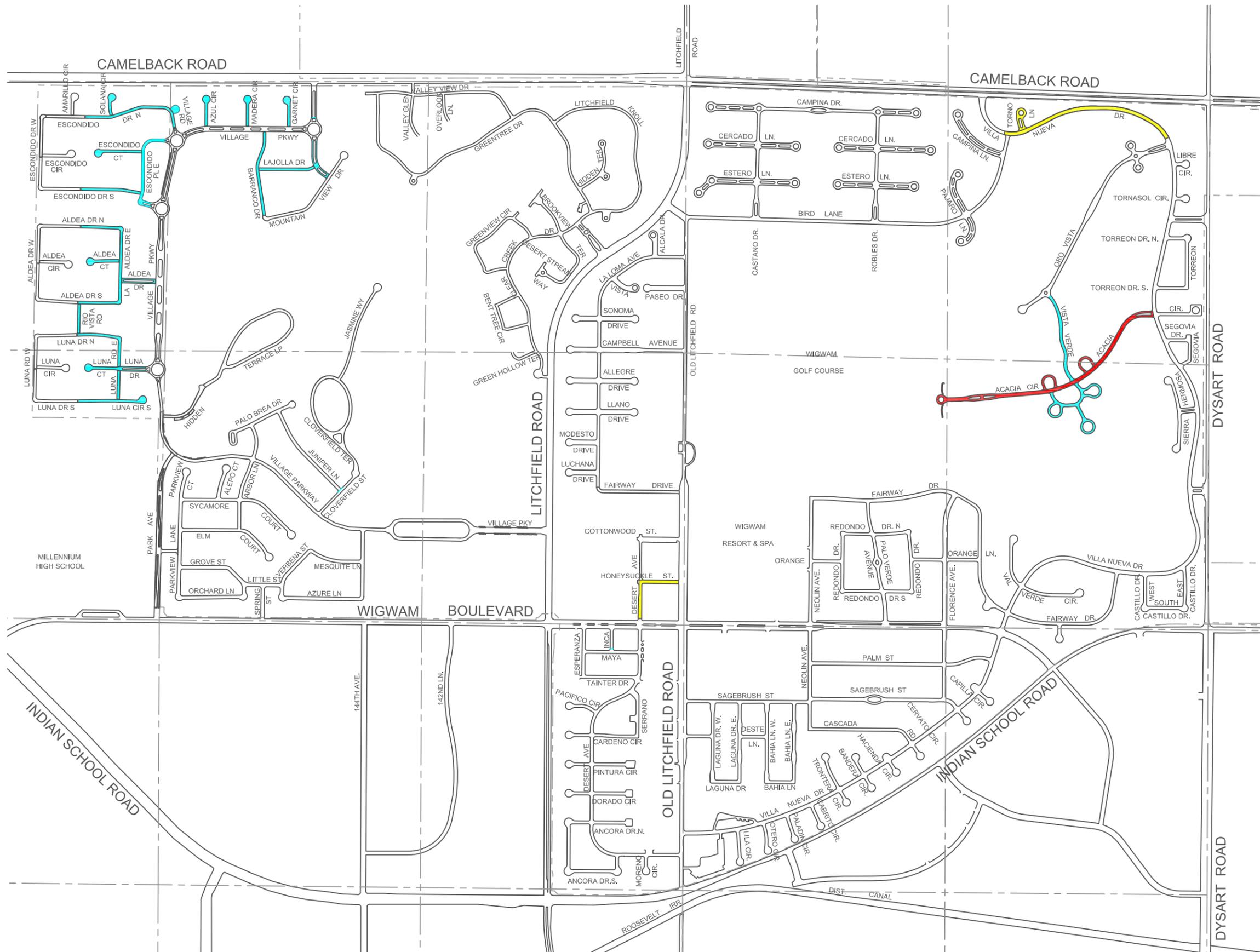
	Villages at Litchfield Park Phase 1
	The Villages at Litchfield Park Phase 2

[1] Micro Seal Improvements paid for by Toll Brothers.  
 [2] Intersection reconstruction for only the street concrete and pavement.  
 [3] Street Improvements to be coordinated with Scout Park Improvements in FY 2018.  
 [4] Yearly street inspection will be required to determine Crack Fill/Seal priorities for streets.  
 [5] No Funds Allocated - The majority of Camelback Road falls within MCDOT jurisdiction, except for small strips that are within COLP jurisdiction.

# APPENDIX F



# Litchfield Park



### MAP LEGEND

-  PRESERVATIVE
-  MICRO SEAL
-  MILL AND OVERLAY



NOT TO SCALE

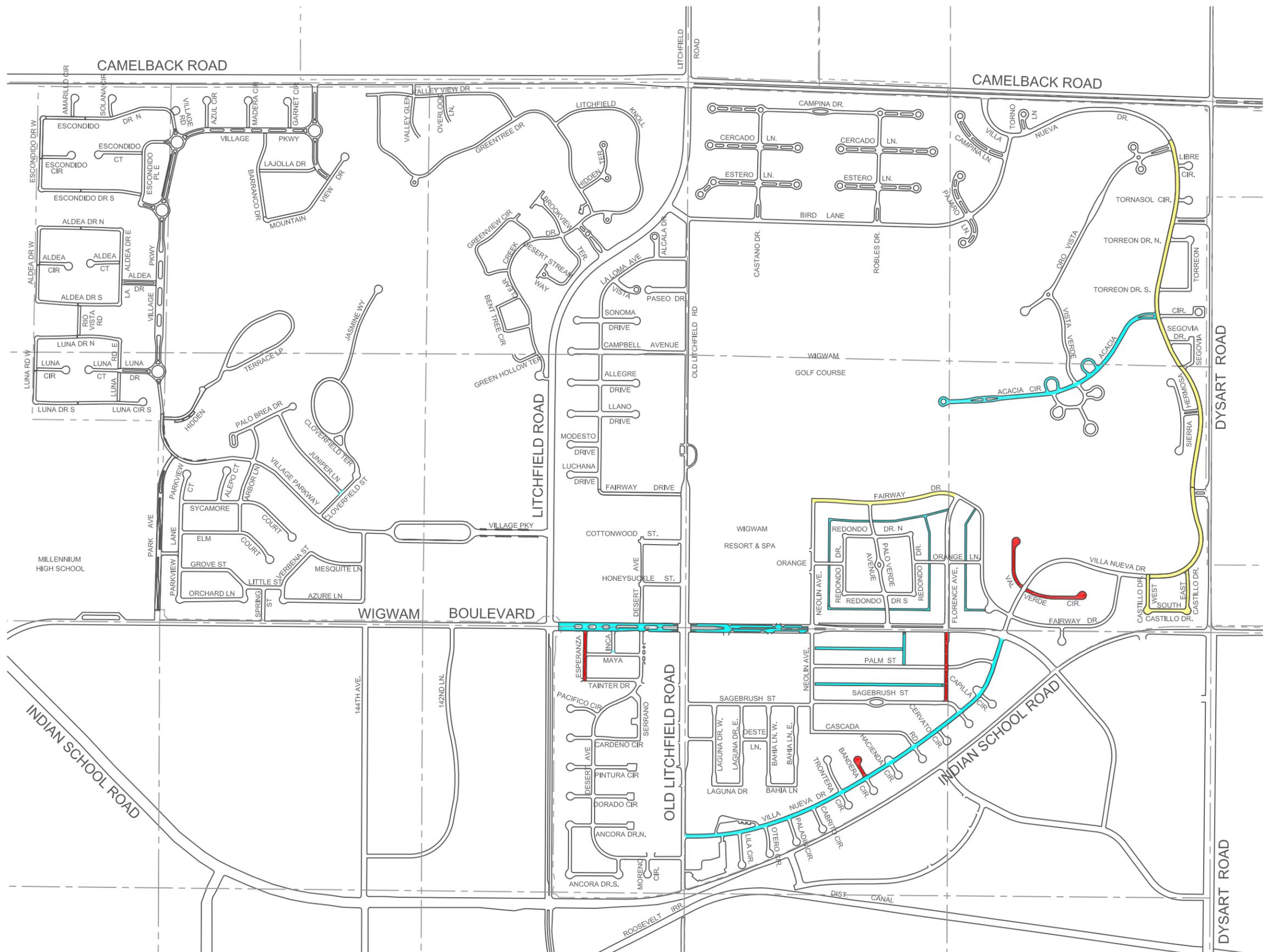
## APPENDIX F FY 2016 PAVEMENT PRESERVATION TREATMENTS

10/26/2015

# APPENDIX G



# Litchfield Park



### MAP LEGEND

-  PRESERVATIVE
-  MILL AND OVERLAY
-  MICRO SEAL



NOT TO SCALE

## APPENDIX G FY 2017 PAVEMENT PRESERVATION TREATMENTS

10/21/2015

# APPENDIX H



# Litchfield Park



### MAP LEGEND

-  PRESERVATIVE
-  MILL AND OVERLAY
-  MICRO SEAL



NOT TO SCALE

## APPENDIX H

# FY 2018 PAVEMENT PRESERVATION TREATMENTS

10/21/2015