

City of Winchester

Sidewalk Master Plan



Draft: 7/12/13

Introduction

Making improvements to sidewalks has been identified by City residents as one of the highest priorities when looking at City services where they feel improvements need to be made. City Council has responded to this strong desire for improved sidewalks by appropriating significant funding the past few years for sidewalk improvements. In addition, the Strategic Plan recently adopted by City Council contains the following goal:

Strategic Plan Goal #4: Create a More Livable City for All

Policy Agenda #5: Develop a Sidewalk Master Plan that includes Policy Direction, Project Priority, and a Funding Mechanism.

This document has been prepared to address this goal and policy agenda contained in the Strategic Plan.

There are three primary sidewalk issues within the City that are addressed in this Master Plan. They are:

1. Existing sidewalks that are in poor condition that need to be replaced.
2. Locations where new sidewalks need to be constructed because no sidewalks currently exist.
3. On-going maintenance of sidewalks.

Due to the high number of existing sidewalks that are in poor condition and the large number of locations where no sidewalks currently exist, it will take a sustained effort over many years and a significant amount of funding to address all of the sidewalk needs within the City.

Existing Sidewalks

The City currently maintains approximately 605,000 linear feet (115 miles) of existing sidewalks within the City which are shown in Figure 1. Many of these existing sidewalks are in relatively poor condition and need to be replaced entirely because they have deteriorated past the point where spot repairs are feasible or cost effective. Figure 2 shows the existing sidewalks that are in poor condition. The approximate length of the existing sidewalks in poor condition is approximately 301,000 linear feet, or 50% of the total length of existing sidewalks.

Previous Sidewalk Replacements

Over the past 6 years, the City has implemented an aggressive program of sidewalk replacements. During this period, approximately 120,100 linear feet (22.7 miles) of sidewalks have been replaced. This length also includes adding sidewalks in the project area where none previously existed and there were “gaps” in the sidewalk network. Figure 3 shows the locations of the sidewalks that have been replaced since 2007.

Some of the sidewalks replaced during this period were projects solely for the purpose of replacing the sidewalks. However, the majority of sidewalk replacements have been included as a part of utility replacement projects where the underground utilities and sidewalks have been replaced in addition to repaving the entire street. Replacing all of public infrastructure during a single project, when feasible, is more efficient and saves money when compared to completing multiple projects over several years in the same location. A breakout of the type of sidewalk projects since 2007 is provided below.

Project Type	Approximate Length of Sidewalk Replacement or New Sidewalk from 2006 - 2013 (linear feet)	% of Total
Sidewalk Replacement Project Only	44,300	37%
Combined Utility, Sidewalk, and Street Replacement Project	75,800	63%
Total	120,100 (22.7 miles)	100%

Priority of Future Sidewalk Replacements

With such a large number of existing sidewalks in poor condition, it is very important that sidewalk replacements be prioritized so that those sidewalks with the highest amount of use by pedestrians are replaced first. It is also important to coordinate sidewalk only replacement projects with utility replacement projects so that sidewalks are not replaced one year and then excavated a few years later to replace the underground utilities.

The following criteria have been used to prioritize future sidewalk replacements:

Priority A: Location along an arterial roadway with a high number of pedestrians.

Priority B: Location along a collector roadway or adjacent/near:

- 1) a school

- 2) Winchester Transit bus stop or other facility
- 3) Other public institution with a high number of pedestrians.

Priority C: All other locations (i.e. residential areas)

Based on this priority system, Figure 4 shows the proposed prioritized sidewalk replacements that are needed within the City.

Costs for Sidewalk Replacements

Based on recent sidewalk replacement projects, the current cost per linear foot of sidewalk replacement (5-foot wide) is approximately \$80/linear foot. There can be a fairly wide range in the actual cost depending on factors such as if curb and gutter and drainage inlets need to be replaced as part of the sidewalk replacement. Based on this cost figure, the total cost to replace all of the sidewalks that are currently in poor condition would be approximately \$24 million.

Funding Sources for Sidewalk Replacements

The following are the primary funding sources that are available to the City to fund sidewalk replacements and a brief discussion of each:

1. City's General Fund

The City's General Fund is one potential funding source for sidewalks. Most recently, the General Fund paid for one-half of the \$2 million cost of the Citywide Sidewalk Replacement Project that replaced sidewalks on Valley Avenue, S. Loudoun, Millwood, Woodstock Lane, Purcell, and Cork Street.

2. City's Utility Fund

The majority of the sidewalk replacements (63%) during the past seven years have been included as part of utility replacement projects. The Utility Department plans to continue with the program to replace underground utility lines throughout the City as part of a long term program needed to replace aging infrastructure. Replacing sidewalks as a part of these projects is expected to continue in the future.

3. Highway Maintenance Fund

The City receives approximately \$2.7 million per year from the state based solely on the number of lane miles of streets the City maintains. These funds can be used for sidewalk replacement. However, since this amount of funding is not adequate to properly maintain all the streets at a level desired, there is generally very little of this funding available for sidewalk replacements.

4. VDOT Revenue Sharing Funds.

Revenue sharing funds administered by VDOT is another funding source for sidewalk replacements. These funds were utilized as the other half of the funding for the Citywide Sidewalk Replacement Project mentioned above. Unfortunately, the City has just learned that due to limited funds, there will be no Revenue Sharing funds available for sidewalk replacements in FY14.

5. Community Development Block Grant Funds (CDBG).

CDBG funds can be used for sidewalk replacements in areas of the City that are below income threshold levels. The sidewalks on National, N. Kent, Baker Lane, and Liberty that have been replaced during the past six years were paid for using CDBG funds. Over the next six years, the City has dedicated all of the CDBG funding it will receive to the Taylor Hotel Renovation Project.

6. Adjacent Property Owners

The current City Code requires that the adjacent property owner is responsible for the cost to maintain or replace the sidewalk adjacent to their property when it is in poor. However, this has never been strictly enforced. This topic is discussed later in more detail in the Sidewalk Maintenance section of this report.

7. Federal Transit Authority Funds.

Federal Transit Authority funds are a possible funding source for sidewalk improvements where the sidewalk is necessary for the safety and access of pedestrians that utilize the Winchester Transit services.

Areas with No Existing Sidewalks

There are several areas within the City where no sidewalks currently exist. These locations are shown in Figure 5. A large number of these areas are locations that were already developed when they were annexed into the City in the 1970's. Beginning in 1995, the City required that sidewalks be constructed adjacent to public streets within all new developments.

One of the primary goals in the City's Comprehensive Plan is for the City to be a "walkable community". To achieve this goal of sidewalks on both sides of all streets throughout the City, approximately 64 miles of sidewalks will need to be constructed in locations along streets where none currently exist. There are some locations, however, where a new sidewalk on one side of the street would be sufficient.

Priority of Locations for New Sidewalks

The criteria for determining the locations to construct new sidewalks where none currently exist are basically the same criteria for prioritizing sidewalk replacements. They are:

Priority A: Location along an arterial roadway with a high number of pedestrians.

Priority B: Location along a collector roadway or adjacent/near:

- 1) a school
- 2) Winchester Transit bus stop or other facility
- 3) Other public institution with a high number of pedestrians.

Priority C: All other locations (i.e. residential areas)

Based on this priority system, Figure 6 shows the proposed prioritized locations for new sidewalks within the City.

Costs for New Sidewalks

The costs for constructing new sidewalks within the City will vary greatly depending on the specific location. Most of the areas that do not have sidewalks also do not have curb & gutter. Installing curb & gutter and adequate drainage facilities is usually necessary before sidewalks can be installed and the cost for this infrastructure will be much higher than the actual cost of the sidewalk. In addition, some locations will require significant grading or retaining walls for the new sidewalks to be constructed which will greatly increase the overall cost.

For purposes of this report, the following assumptions were used to estimate the costs for new sidewalks (5-feet wide):

- Cost per Linear Foot of New Sidewalk Only: \$50/linear foot

- Cost for Curb & Gutter/Drainage/Grading per Linear Foot of New Sidewalk: \$125 - \$300+/linear foot (depends on drainage requirements) – Use average of \$175/linear foot for purposes of this report.
- Total Cost per Linear Foot of New Sidewalk and Curb & Gutter: \$225/linear ft

Based on this unit cost, the total estimated cost to construct sidewalks along both sides of all existing streets where a sidewalk does not currently exist is approximately \$75 million.

Funding Sources for New Sidewalks

The following are the primary funding sources that are available to the City to fund sidewalk replacements and a brief discussion of each:

1. City's General Fund

The City's General Fund is one potential funding source for new sidewalks.

2. City's Utility Fund

During recent utility replacement projects, there were some areas where new sidewalks were constructed as a part of the project where no sidewalks previously existed. Examples of this were on East Lane, Woodstock Lane, and some sections of Amherst Street. There will be other utility replacement projects in the future where the potential will exist to include the construction of new sidewalks.

The City will also be considering the possibility of implementing a Stormwater Utility in the near future. This mechanism would allow for a dedicated revenue source for stormwater improvements, including the curb & gutter and drainage

improvements that are necessary to construct new sidewalks in most locations where none currently exist.

3. Highway Maintenance Fund

The City receives approximately \$2.7 million per year from the state based solely on the number of lane miles of streets the City maintains. These funds can be used for new sidewalks. However, since this amount of funding is not adequate to properly maintain all the streets at a level desired, there is generally very little of this funding available for sidewalk replacements, let alone new sidewalks.

4. VDOT Revenue Sharing Funds

Revenue Sharing funds administered by VDOT is another funding source for new sidewalks. Projects where new sidewalks are constructed (along with curb & gutter and drainage improvements) are eligible to receive 50% of the total project cost from state Revenue Sharing funds. Projects with new sidewalks have a higher priority than projects with sidewalk replacements when state Revenue Sharing funds are allocated.

5. Community Development Block Grant Funds (CDBG).

CDBG funds can be used for new sidewalks in areas of the City that are below income threshold levels. Over the next six years, the City has dedicated all of the CDBG funding it will receive to the Taylor Hotel Renovation Project.

6. Special Improvement Districts

Section 2-11 of the City Code describes the process where a special improvements district may be established to pay for the costs of constructing new sidewalks. An additional property tax is levied against the properties within the established district to pay for the improvements.

7. Federal Transit Authority Funds.

Federal Transit Authority funds are a possible funding source for sidewalk improvements where the sidewalk is necessary for the safety and access of pedestrians that utilize the Winchester Transit services.

8. Federal/State Safe Route to Schools Funds.

Funds may be available in the future to construct new sidewalks within the Safe Routes to School program that is administered by VDOT. These funds could be used to construct sidewalks which are necessary to allow school children to walk safely to and from schools.

Sidewalk Maintenance

As the City has invested a considerable amount of funding for sidewalk replacements and new sidewalks in recent years and since this trend is expected to occur in the future, it is imperative that the City allocate adequate resources in the future to properly maintain these sidewalks. This is especially true in order to avoid the current situation where little maintenance was completed on existing sidewalks in the past resulting in the very high number of existing sidewalks that are in poor condition.

Section 26-7 of City Code addresses the responsibility for maintaining the sidewalks. In essence, current City code requires the property owner or tenant to be responsible for the cost of maintaining the sidewalk adjacent to their property. This section of the code has been in place for a long time, but has never really been enforced. This, combined with inadequate City resources devoted towards sidewalk replacements has resulted in the current situation where the majority of existing sidewalks are in poor condition. The majority of cities and localities in Virginia do not require the adjacent property owners to pay for the cost of

maintaining or replacing their sidewalk. In these locales, the cities are responsible for sidewalk maintenance.

Since the City has started an aggressive program of sidewalk replacements during the past six years, The Public Services Department recommends that City Council repeal Section 26-7 City Code, which would, in essence, mean that the City would be responsible for maintaining existing sidewalks within the public right-of-way. Section 26-7 of the existing City Code is provided in Appendix 1.

Proposed 5-year Sidewalk Plan

Based on the priorities developed herein for sidewalk replacements and new sidewalks, a proposed 5-year plan for sidewalk construction has been developed and is presented in Figure 7. A detailed listing of the specific locations for the proposed sidewalk construction, the estimated costs, and the proposed funding sources for the improvements is found in Appendix 2.

A summary of the proposed 5-year program is shown in the following table:

Fiscal Year	Length Sidewalk Replacement (linear feet)	Cost of Sidewalk Replacements	Length of "New" Sidewalks (linear feet)	Cost of "New" Sidewalks (Includes curb & gutter and drainage)
2014	10,300	\$ 800,000	0	\$ 0
2015	10,600	\$ 848,000	12,000	\$2,700,000
2016	7,800	\$ 784,000	12,200	\$2,745,000
2017	18,770	\$1,743,000	9,000	\$2,025,000
2018	18,950	\$1,516,000	8,200	\$1,845,000
Totals	66,420 (12.6 miles)	\$5,715,000	41,400 (7.8 miles)	\$9,315,000
Average Per Year	13,280 (2.5 miles)	\$1,143,000	8,280 (1.6 miles)	\$1,863,000

The proposed five-year plan will require significant funding to implement. The following are the proposed primary funding sources to construct the improvements in the 5-year plan:

- General Fund
- Utility Fund (including a possible Stormwater Utility)
- State Revenue Sharing Funds (VDOT)

A summary of the estimated funding sources for the proposed 5-year sidewalk plan is presented in the table below.

Fiscal Year	General Fund	Utility Fund (including possible Stormwater Utility)	State Revenue Sharing Funds (VDOT)	Total Funding
2014	\$ 800,000	\$ 0	\$ 0	\$ 800,000
2015	\$ 848,000	\$1,350,000	\$1,350,000	\$3,548,000
2016	\$ 784,000	\$1,372,500	\$1,372,500	\$3,529,000
2017	\$1,743,000	\$1,012,500	\$1,102,500	\$3,768,000
2018	\$1,516,000	\$ 922,500	\$ 922,500	\$3,361,000
Average Per Year	\$1,143,000	\$ 931,500	\$ 931,500	\$3,006,000

While the proposed 5-year plan is an aggressive plan that continues with the significant sidewalk improvements constructed during the past six years, assuming that the sidewalk replacements continue at the approximate same rate

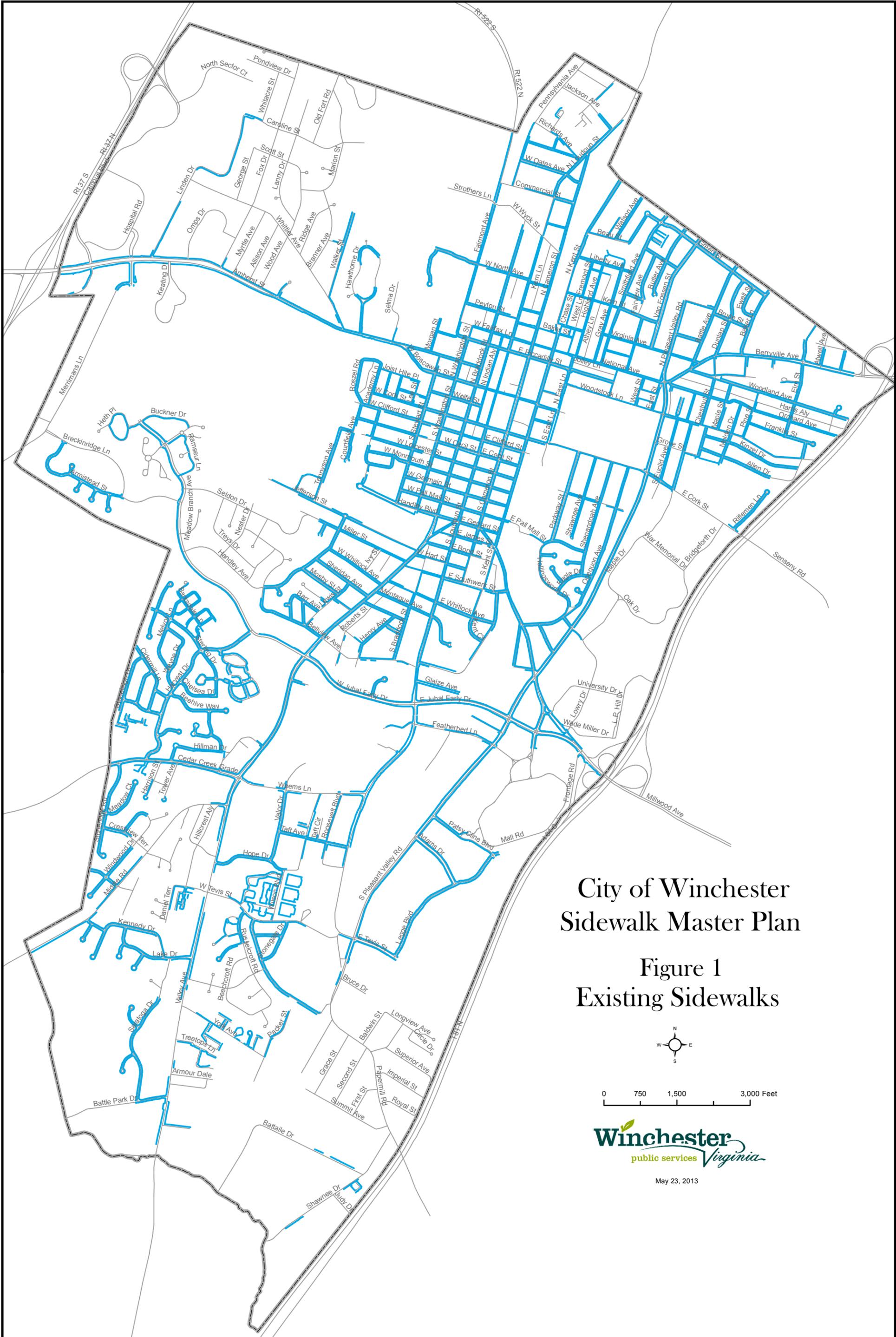
(\$1.1 million per year) in the future, it will still take over 20 years to replace all of the existing sidewalks that are currently in poor condition. Should City Council wish to expedite this program of sidewalk replacements, supplemental funding such as general obligation bonds or other revenue sources would need to be secured.

Summary and Recommendations

1. The City currently maintains approximately 115 miles of existing sidewalks within the City. Approximately 50% of the existing sidewalks are in poor condition and need to be replaced or need major repairs. The estimated cost for replacing/repairing all of the existing sidewalks in poor condition is approximately \$24 million.
2. Approximately 64 miles of sidewalks would need to be constructed within the City for there to be a sidewalk on both sides of every street where none currently exist. The estimated cost to construct these 64 miles of sidewalks is approximately \$75 million. A significant amount of this total cost would be for the curb & gutter and drainage improvements that would be necessary to construct the new sidewalks.
3. During the past six years, approximately 22.7 miles of sidewalks have been constructed. This includes sidewalk replacements and constructing new sidewalks where none previously existed.
4. A proposed 5-year plan for sidewalk construction has been developed and is presented herein. This plan includes both sidewalk replacements and the construction of sidewalks in locations where none currently exist.
5. The proposed 5-year plan will require a significant amount of funding to successfully complete. Over the 5-year period, an average approximately \$3 million in funding will be needed. The primary funding sources that

have been projected to meet this need are the General Fund, the Utility Fund (including a possible Stormwater Utility), and state Revenue Sharing Funds.

6. The proposed 5-year plan will complete an average of approximately \$1.1 million of sidewalk replacements per year which would be funded primarily by the General Fund. However, since the current need for existing sidewalk replacements is approximately \$24 million, it will take over 20 years to replace all of the existing sidewalks that are currently in poor condition. Should City Council wish to expedite this schedule, additional funding such as general obligation bonds or other revenue sources will be required.
7. Since economic conditions are difficult to forecast in the future and the projected funding levels may change, it is important to update this Sidewalk Master Plan, and particularly the 5-year plan of sidewalk improvements on an annual basis.
8. Section 26-7 of the City Code requires the property owner to be responsible for the costs of maintaining or replacing the sidewalk adjacent to their property. This provision has never really been enforced, especially during the past 20 years. Since the City has started an aggressive program of replacing sidewalks, it is recommended that City Council repeal Section 26-7 of the City Code.



City of Winchester Sidewalk Master Plan

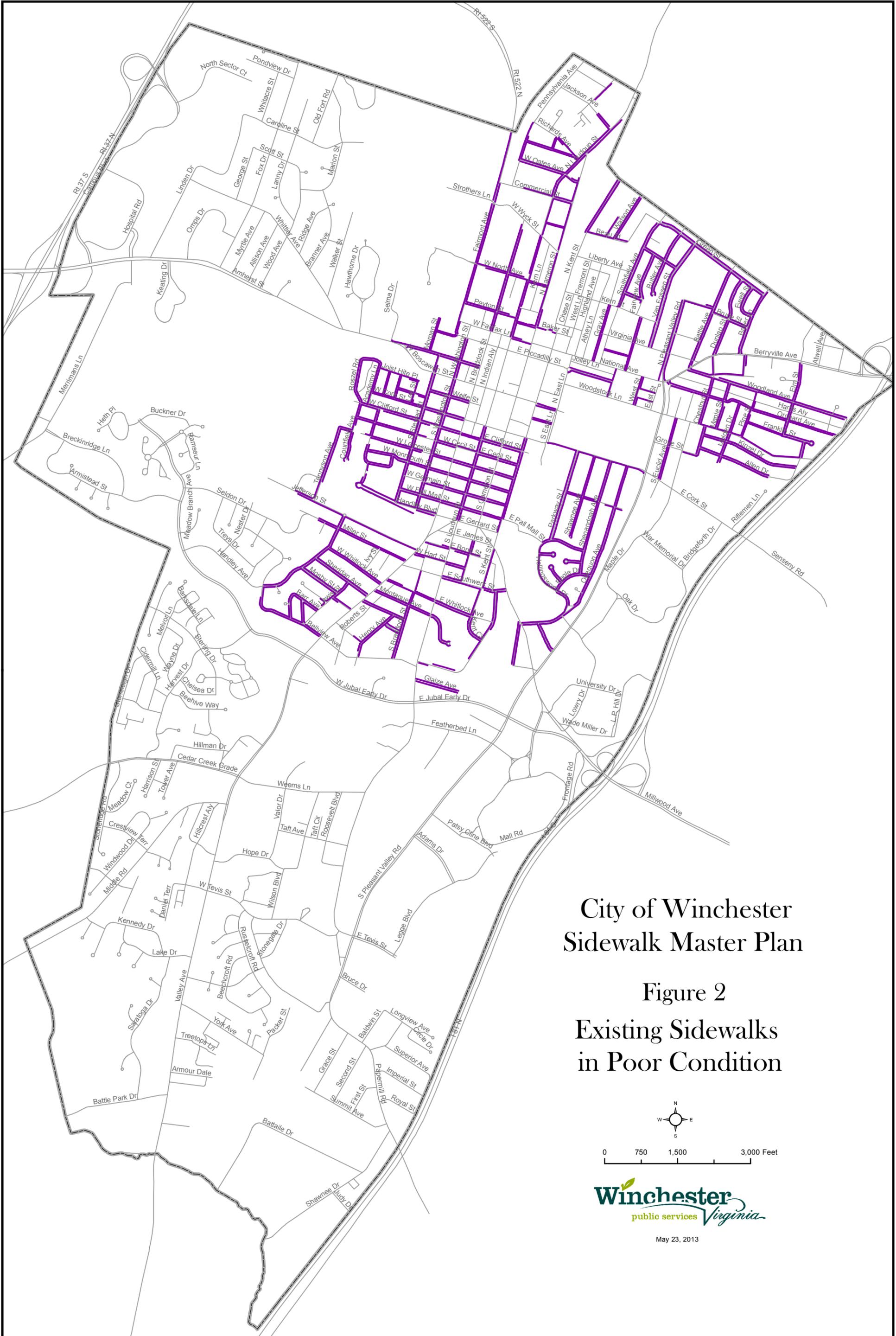
Figure 1 Existing Sidewalks



0 750 1,500 3,000 Feet

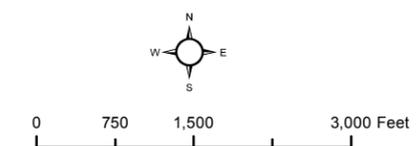


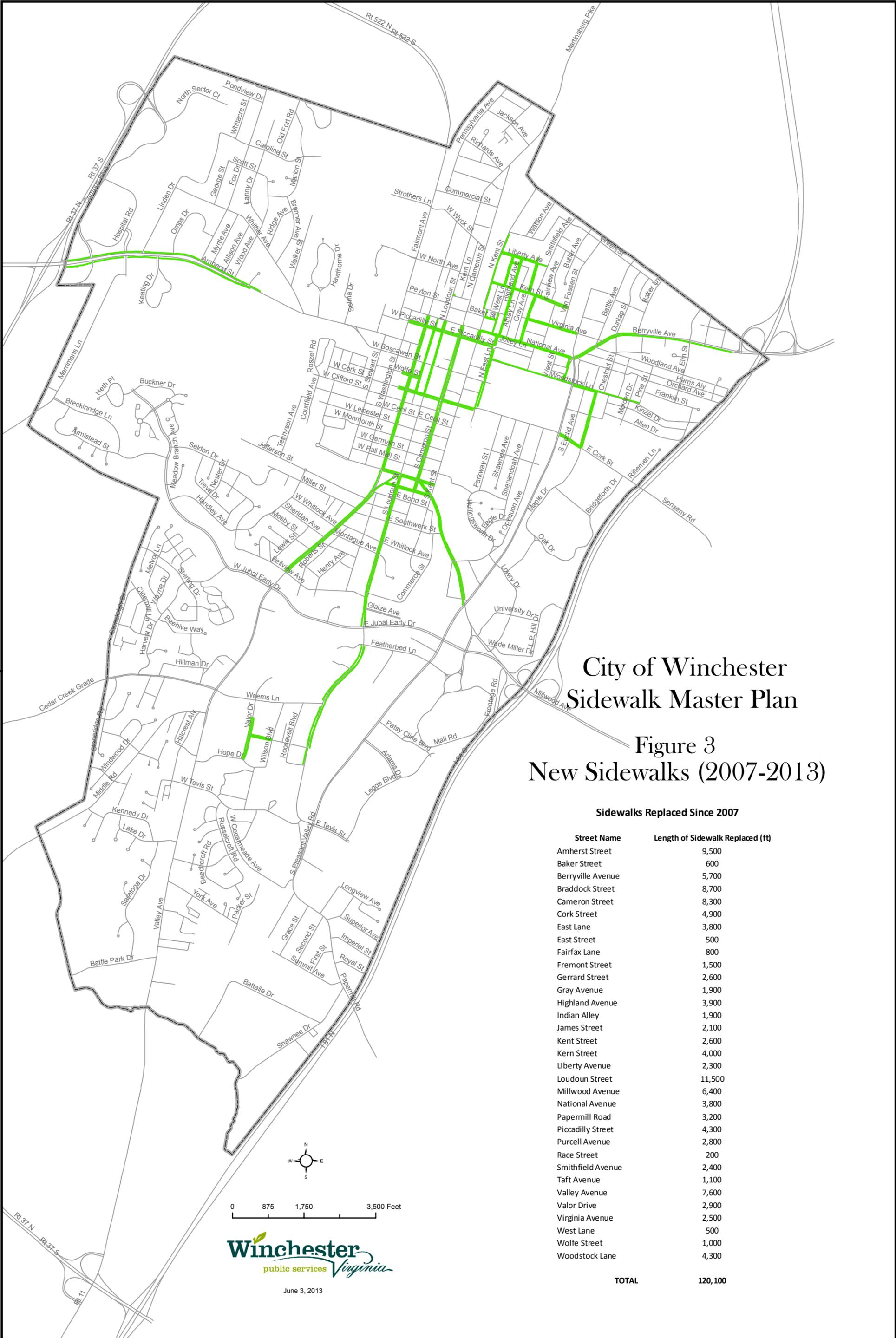
May 23, 2013



City of Winchester Sidewalk Master Plan

Figure 2
Existing Sidewalks
in Poor Condition





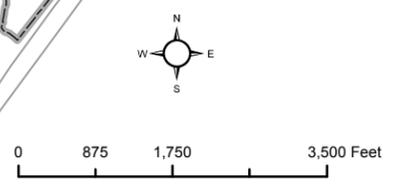
City of Winchester Sidewalk Master Plan

Figure 3 New Sidewalks (2007-2013)

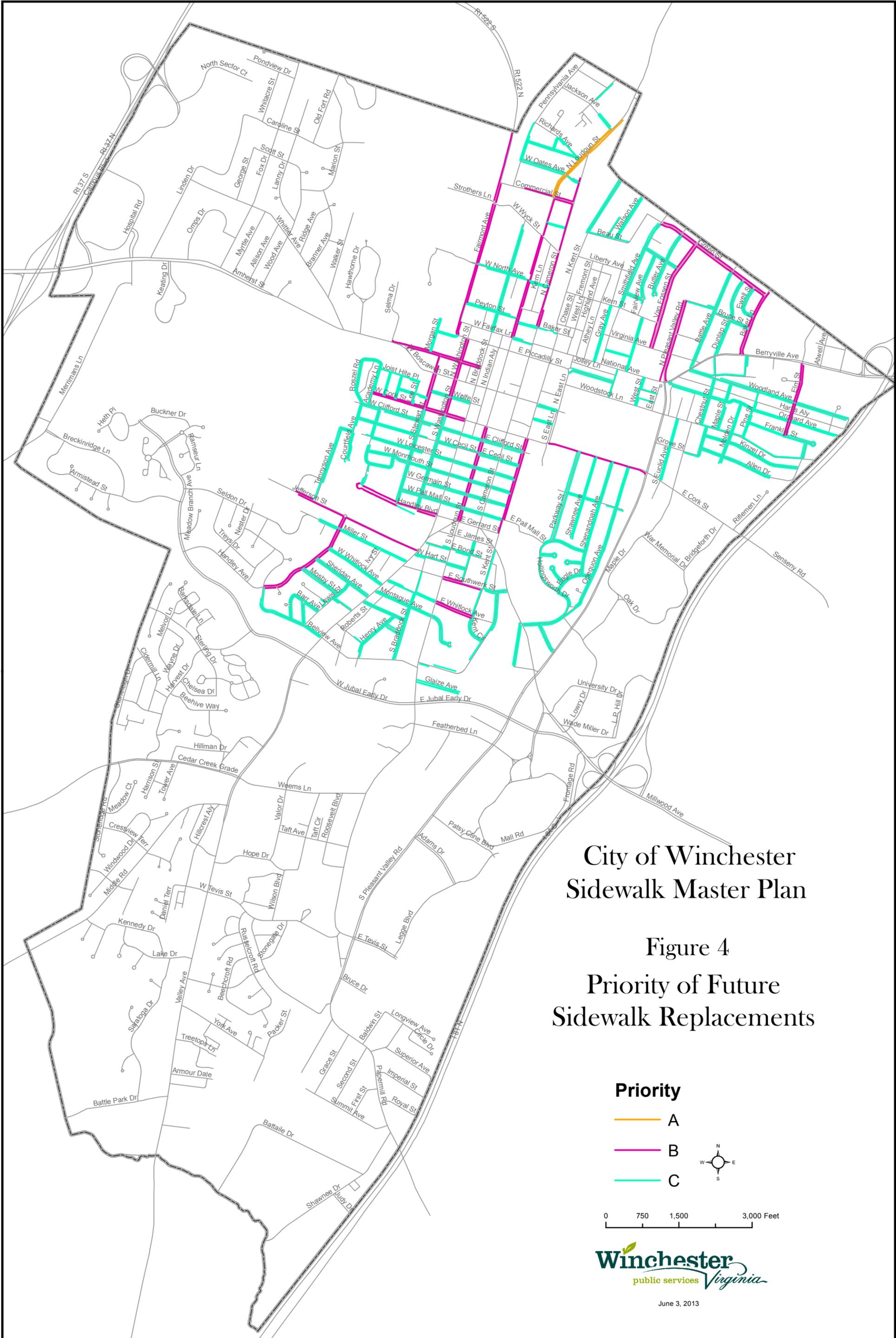
Sidewalks Replaced Since 2007

Street Name	Length of Sidewalk Replaced (ft)
Amherst Street	9,500
Baker Street	600
Berryville Avenue	5,700
Braddock Street	8,700
Cameron Street	8,300
Cork Street	4,900
East Lane	3,800
East Street	500
Fairfax Lane	800
Fremont Street	1,500
Gerrard Street	2,600
Gray Avenue	1,900
Highland Avenue	3,900
Indian Alley	1,900
James Street	2,100
Kent Street	2,600
Kern Street	4,000
Liberty Avenue	2,300
Loudoun Street	11,500
Millwood Avenue	6,400
National Avenue	3,800
Papermill Road	3,200
Piccadilly Street	4,300
Purcell Avenue	2,800
Race Street	200
Smithfield Avenue	2,400
Taft Avenue	1,100
Valley Avenue	7,600
Valor Drive	2,900
Virginia Avenue	2,500
West Lane	500
Wolfe Street	1,000
Woodstock Lane	4,300

TOTAL 120,100



June 3, 2013



City of Winchester Sidewalk Master Plan

Figure 4
Priority of Future
Sidewalk Replacements

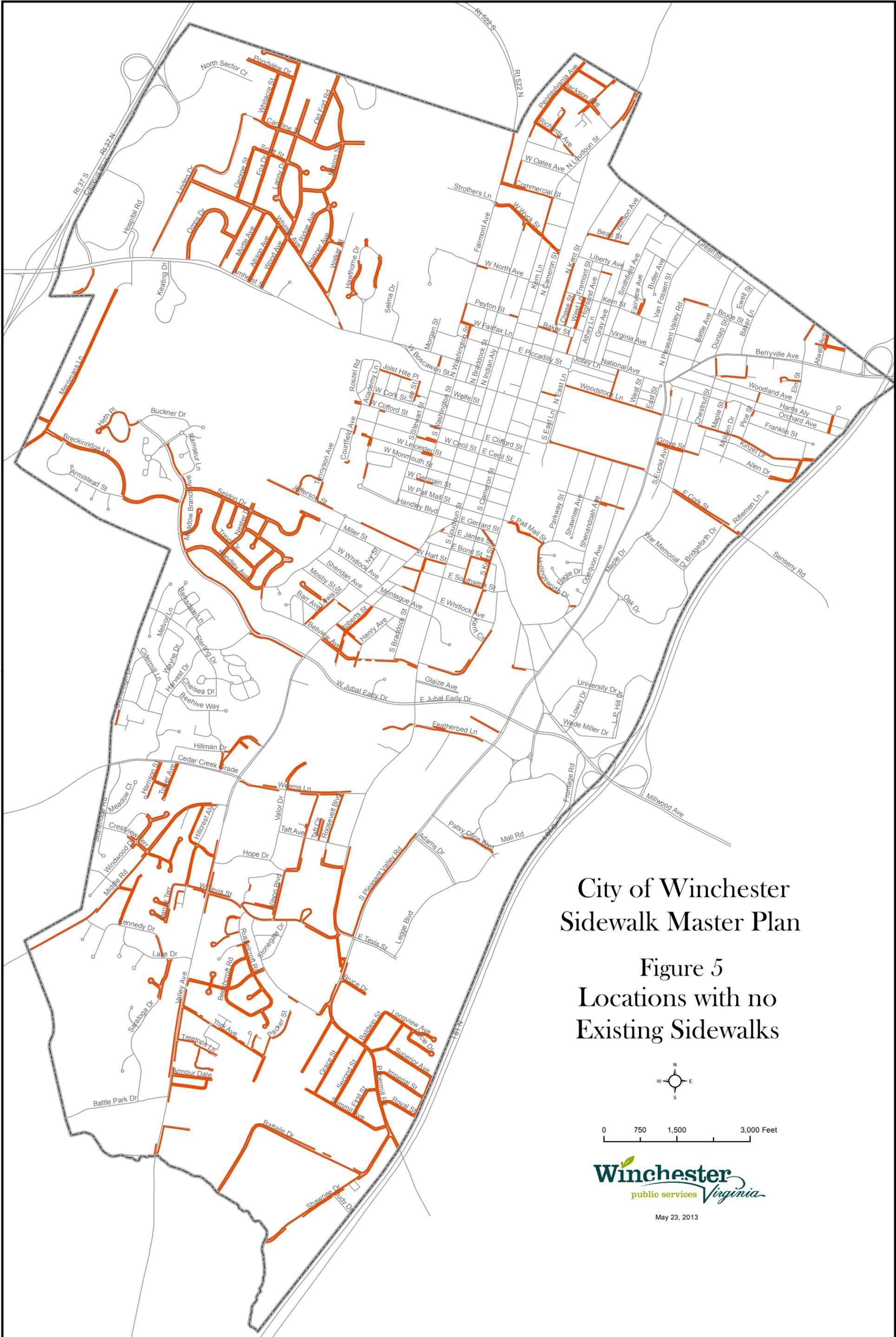
Priority

- A
- B
- C

0 750 1,500 3,000 Feet



June 3, 2013



City of Winchester Sidewalk Master Plan

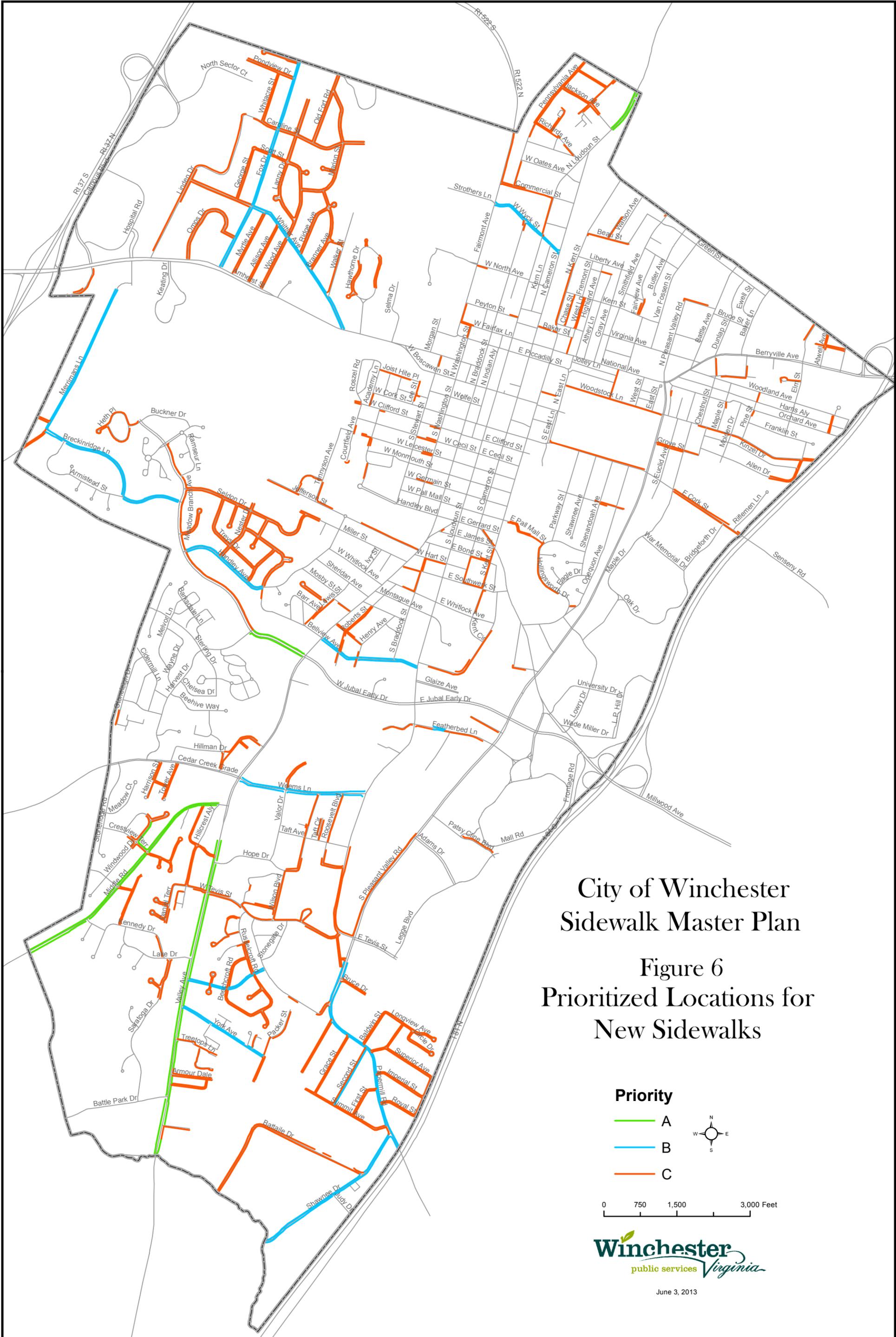
Figure 5
Locations with no
Existing Sidewalks



0 750 1,500 3,000 Feet



May 23, 2013



City of Winchester Sidewalk Master Plan

Figure 6 Prioritized Locations for New Sidewalks

Priority

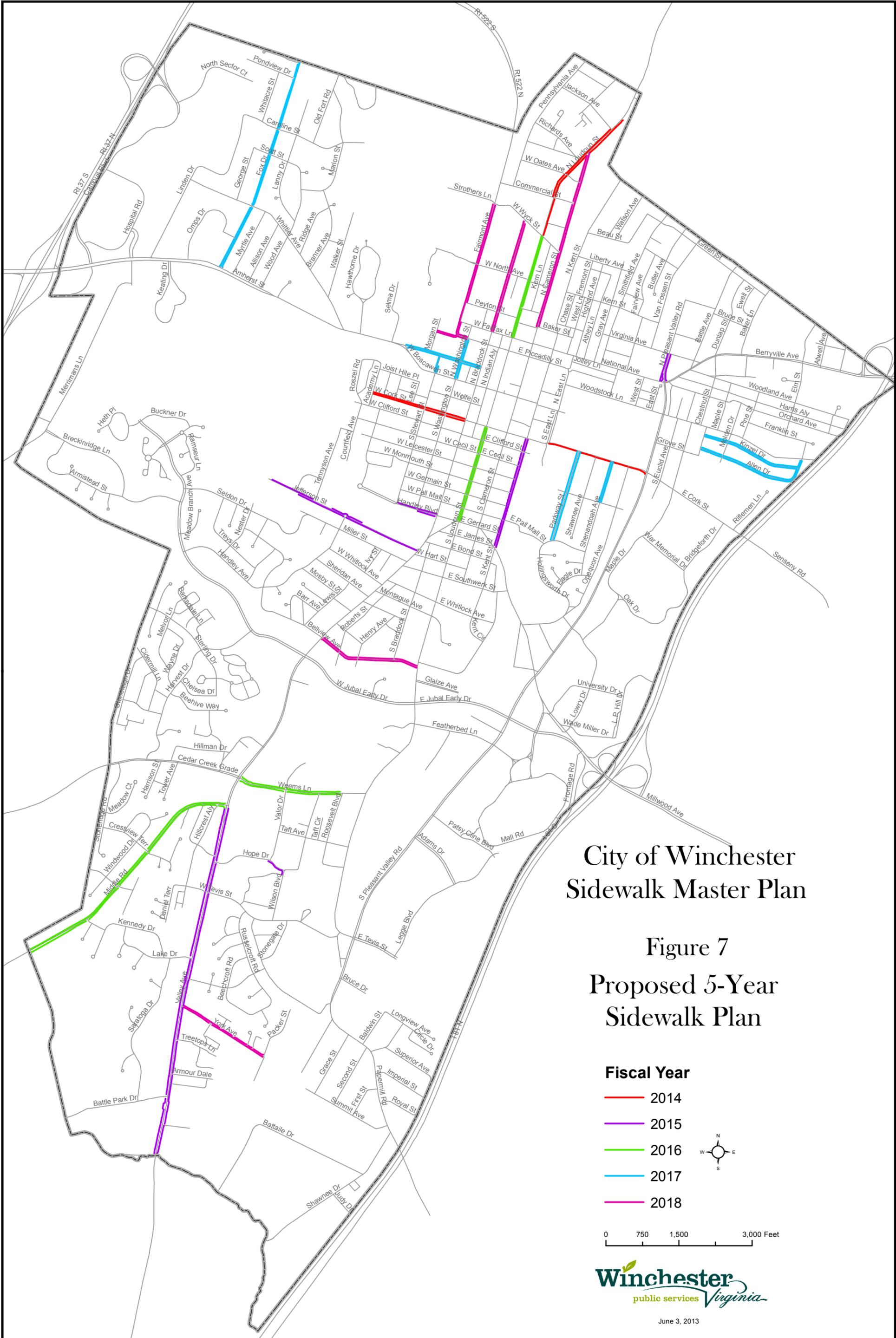
- A
- B
- C



0 750 1,500 3,000 Feet



June 3, 2013



City of Winchester Sidewalk Master Plan

Figure 7 Proposed 5-Year Sidewalk Plan

Fiscal Year

- 2014
- 2015
- 2016
- 2017
- 2018



0 750 1,500 3,000 Feet

STREETS AND SIDEWALKS

SECTION 26-7. PAVING, REPAVING, AND REPAIRING SIDEWALKS ON EXISTING STREETS.

- (a) Every owner or occupier of lots or parts of lots abutting on existing streets in the city shall cause the existing sidewalks and driveway entrances to be paved, repaved, or repaired at the expense of such owner or occupier.
- (b) The public works department shall notify the owners or occupiers of lots or parts of lots abutting on existing streets to pave, repave, or repair the sidewalks when required. Such notice shall be by registered or certified letter sent to such owner or occupier at his last known address or served by a member of the police department. If, after diligent inquiry, no address can be found for such owner, such letter shall be posted in a conspicuous place on the property.
- (c) In the event an owner or occupier or either of them shall neglect or refuse to pave, repave, or repair the sidewalk when required pursuant to this section, the council may have such sidewalk paved, repaved, or repaired and recover the expenses therefor before the general district court or the circuit court, and in all cases where a tenant is required to pave in front of the property used in his occupation, the expenses of the paving so done shall be a good offset against so much of the rent as he shall have paid toward such paving, but no tenant shall be required to pay more for or on account of such paving than such tenant may owe at the time of the commencement of such work or as may become due to the end of his tenancy.
- (d) No owner or occupier of a lot or lots in front of which paving has been laid shall be required to repave or repair such sidewalk, in whole or in part, at his own expense more often than once in five (5) years; provided, further, that the expense for such paving, repaving, and repairing shall not be in excess of the peculiar benefits resulting therefrom to such abutting land. (Code 1959, §22-21.3; Ord. of 6-14-78)
- (e) Curb ramps shall be constructed at intersections for use of handicapped persons. No ramps shall be required for curbs in place on January 1, 1975; however, ramps shall be required on all replacement of such curbs adjoining sidewalks at intersections leading to crosswalks. Such ramps shall comply with the Virginia Department of Transportation's Road and Bridge Standards. This section shall not apply where finalized plans for replacement of curbs had been advertised for bid, contracts awarded, and work commenced prior to June 30, 1975. (Ord. No. 042-95, 9-12-95)

Charter reference--Assessments for paving of sidewalks §17.

State Law Reference--Code of Virginia, §15.1-381.

SECTION 26-8. PAVING OF DRIVEWAY ENTRANCES.

City of Winchester
Proposed 5-year Sidewalk Plan
Draft: 6/5/13

Appendix 2

Street	From	To	Linear Feet of Sidewalk	Estimated Cost	Proposed Funding Source	Year	New Sidewalk or Replacement
N. Loudoun	Wyck	City Limit	5,500	\$ 440,000	General Fund	FY2014	Replacement
Cork	Pleasant Valley	East Lane	2,000	\$ 160,000	General Fund	FY2014	Replacement
Cork	Braddock	Academy Ln	2,800	\$ 224,000	General Fund	FY2014	Replacement
				\$ 824,000			
Handley Blvd	Braddock	Stewart	1,600	\$ 128,000	General Fund	FY2015	Replacement
Pleasant Valley	Berryville	Virginia	1,000	\$ 80,000	General Fund	FY2015	Replacement
Jefferson	Valley	End	3,400	\$ 272,000	General Fund	FY2015	Replacement
S. Kent	Cork	Millwood	4,600	\$ 368,000	Utility Project/General Fund	FY2015	Replacement
Valley Avenue	Middle Road	City Limit	12,000	\$ 2,700,000	General Fund/Stormwater Utility/State Revenue Sharing	FY2015	New
				\$ 3,548,000			
N. Loudoun	Fairfax Ln	Wyck	3,800	\$ 304,000	Utility Project/General Fund	FY2016	Replacement
S. Loudoun	Cork	Gerrard	4,000	\$ 480,000	Utility Project/General Fund	FY2016	Replacement
Weems Lane	Valley	Roosevelt	3,800	\$ 855,000	General Fund/Stormwater Utility/State Revenue Sharing	FY2016	New
Middle Road	Valley	City Limit	8,400	\$ 1,890,000	General Fund/Stormwater Utility/State Revenue Sharing	FY2016	New
				\$ 3,529,000			
Amherst	Braddock	Boscawen	3,000	\$ 375,000	Utility Project/General Fund	FY2017	Replacement
Washington	Boscawen	Piccadilly	1,650	\$ 206,250	Utility Project/General Fund	FY2017	Replacement
Stewart	Boscawen	Amherst	720	\$ 90,000	Utility Project/General Fund	FY2017	Replacement
Parkway	Cork	Hollingsworth	3,800	\$ 304,000	Utility Project/General Fund	FY2017	Replacement
Shenandoah Avenue	Cork	Leicester	1,800	\$ 144,000	Utility Project/General Fund	FY2017	Replacement
Kinzel Drive	Christopher	End	3,000	\$ 240,000	Utility Project/General Fund	FY2017	Replacement
Allen Drive	Christopher	End	4,800	\$ 384,000	Utility Project/General Fund	FY2017	Replacement
Fox Drive	Amherst	City Limit	9,000	\$ 2,025,000	General Fund/Stormwater Utility/State Revenue Sharing	FY2017	New
				\$ 3,768,250			
N. Cameron	Baker	N. Loudoun	7,400	\$ 592,000	General Fund	FY2018	Replacement
Fairmont Avenue	Piccadilly	Wyck	5,600	\$ 448,000	Utility Project/General Fund	FY2018	Replacement
Braddock	Fairfax	Wyck	4,600	\$ 368,000	Utility Project/General Fund	FY2018	Replacement
Piccadilly	Washington	Morgan	1,350	\$ 108,000	Utility Project/General Fund	FY2018	Replacement
York Avenue	Valley	Packer	4,000	\$ 900,000	General Fund/Stormwater Utility/State Revenue Sharing	FY2018	New
Bellview Ave.	S. Loudoun	Valley	4,200	\$ 945,000	General Fund/Stormwater Utility/State Revenue Sharing	FY2018	New
				\$ 3,361,000			