

**City of Winchester**

**Sidewalk Master Plan**



**Revised April 2022**

## **Introduction**

Making improvements to sidewalks has long 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 several years for sidewalk improvements. In addition, the City's Strategic Plan contains the following goal:

**Strategic Plan Goal #4: Moving Winchester – Facilitate the movement of people and goods around the City in all modes with comfortable sidewalks and trails, reliable transit, and safe streets.**

This document has been prepared to help address this goal as sidewalk improvements are necessary to enhance the quality of life.

There are two 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.

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 continue to 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 740,000 linear feet (140.2 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 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 262,000 linear feet (49.6 miles), or 35% of the total length of existing sidewalks.

## **Previous Sidewalk Replacements**

Since 2007, the City has implemented an aggressive program of sidewalk construction. During this period, approximately 226,000 linear feet (42.8 miles) of new sidewalks have been installed. This length also includes adding sidewalks where none previously existed. **Figure 3** shows the locations of the new sidewalks that have been installed since 2007.

## **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 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/nearby:

- 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)

## **Costs for Sidewalk Replacements**

Based on recent sidewalk replacement projects, the current cost per linear foot of a concrete sidewalk replacement (5-foot wide) is approximately \$125 - \$150 per 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, or if brick sidewalks are installed. Based on this cost figure, the total cost to replace all of the sidewalks that are currently in poor condition would be approximately \$40 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 a funding source for sidewalks. In December 2021, the General Fund issued \$3 million in general obligation bonds for sidewalk replacements.

### 2. City's Utility Fund

Over half of the sidewalk replacements during the past 15 years have been included as part of utility replacement projects. The Utility Fund 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 \$3.4 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 repairs and replacements. 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 possible funding source for sidewalk replacements. However, there have been no revenue sharing funds available for sidewalk replacements during the past several years.

### 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 recently replaced on Battle Avenue, Kinzel Drive and West Street utilized CDBG funds.

## 6. 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 4**. 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 1989, the City required that sidewalks be constructed adjacent to public streets within all new developments, unless an exception was granted. In 1995, Council amended the walkway provisions of the Subdivision Ordinance to explicitly require a minimum of 4-foot wide sidewalks instead of 5-foot wide sidewalks along all public streets. Sidewalks that are only 4-feet wide do not provide desirable width for two persons to walk side by side. Many jurisdictions across the country, including VDOT, require new sidewalks to be a minimum of 5-foot wide.

One of the primary goals in the City's Comprehensive Plan is for the entire City to be a "walkable community". To achieve this goal of sidewalks on both sides of all streets throughout the City, over 56 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/nearby:

- 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)

### **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-foot wide):

- Cost per Linear Foot of New Sidewalk Only: \$75/linear foot
- Cost for Curb & Gutter/Drainage/Grading per Linear Foot of New Sidewalk: \$ - \$400+/linear foot (depends on drainage requirements) – Use average of \$250/linear foot for purposes of this report.
- Total Cost per Linear Foot of New Sidewalk and Curb & Gutter: \$325/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 \$96 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 a funding source for new sidewalks. The new sidewalks being installed along Hope Drive and on sections on Valley Avenue south of Middle Road are being funded by general obligation bonds issued by the General Fund.

## 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.

## 3. Highway Maintenance Fund

The City receives approximately \$3.4 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 or SMART Scale 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. Revenue sharing funds are being used to construct the new sidewalks along Hope Drive extension and Valley Avenue south of Middle Road. SMART Scale funds from VDOT are another possible funding source.

## 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.

## 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

The City utilized \$450,000 from this program recently to construct new sidewalks along Wentworth Drive.

### **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.

### **Proposed Sidewalk Improvements Plan for Period 2022 - 2027**

Based on the priorities developed herein and anticipated revenue sources for sidewalk replacements, the plan for sidewalk replacements during this period has been developed and is presented in **Figure 5**. The funding for the locations shown in orange has already been secured and construction will begin in the summer of 2022. Completing the sidewalk replacements in the locations shown in blue is contingent upon an additional \$3 million in funding during the period between 2025 – 2027.

Sidewalk replacements that are slated to be completed after 2027 are shown in **Figure 6**. The City will be actively pursuing additional state and federal funding opportunities in an effort to expedite sidewalk replacements as much as possible.

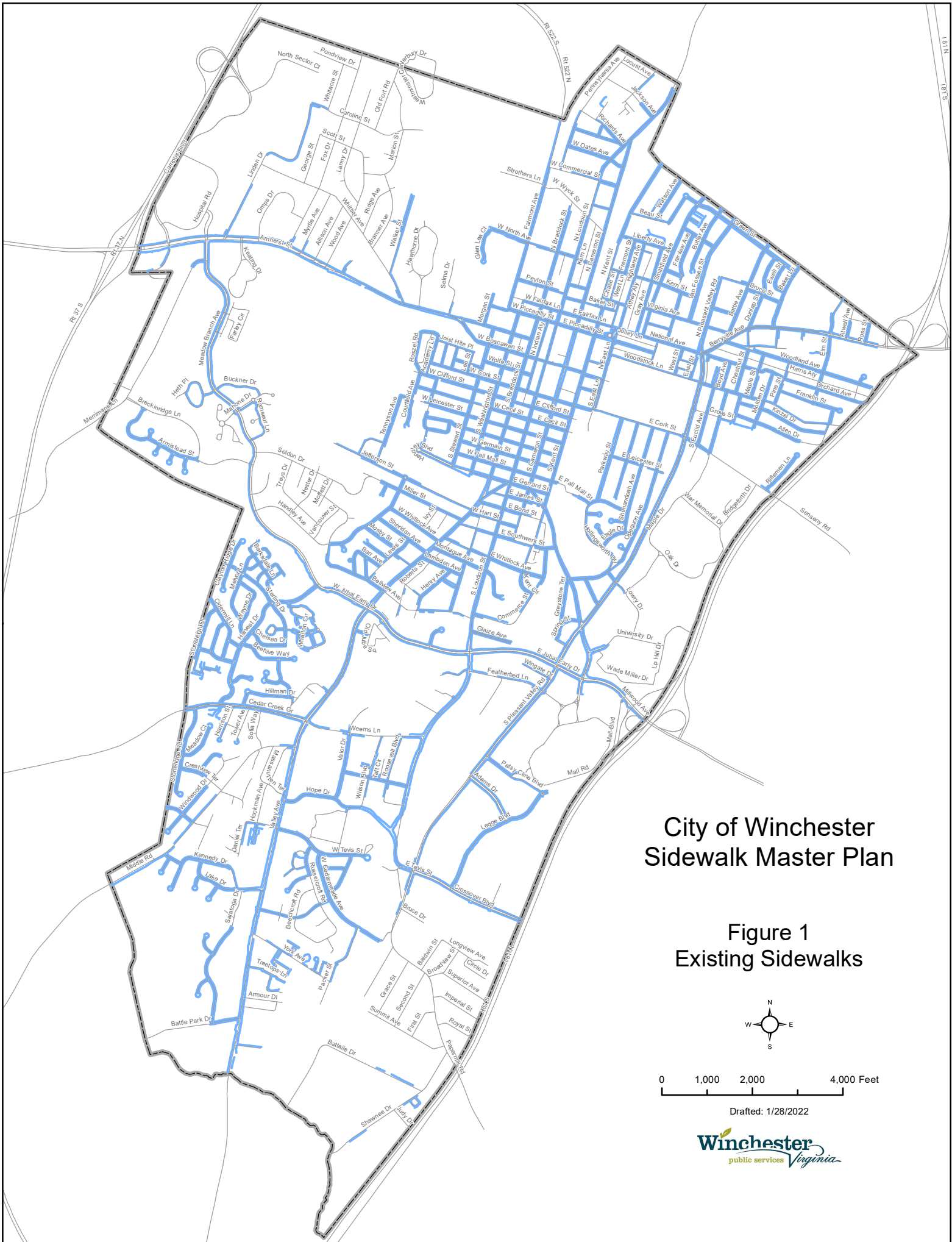
The highest priority locations for new sidewalks are shown in **Figure 7**. The new sidewalks along Wyck Street and N. Kent Street will be completed as a part of the N. Cameron Drainage project. The current priorities for the other new sidewalks shown are:

1. Middle Road
2. Papermill Road



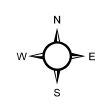
3. Fox Drive
4. Weems Lane
5. Bellview Avenue

The schedule for constructing these new sidewalks will be based on when the funding for each project can be secured. The City is actively pursuing funding for these projects from VDOT and will continue in these efforts, especially pursuing federal infrastructure funds that may be available.



# City of Winchester Sidewalk Master Plan

## Figure 1 Existing Sidewalks

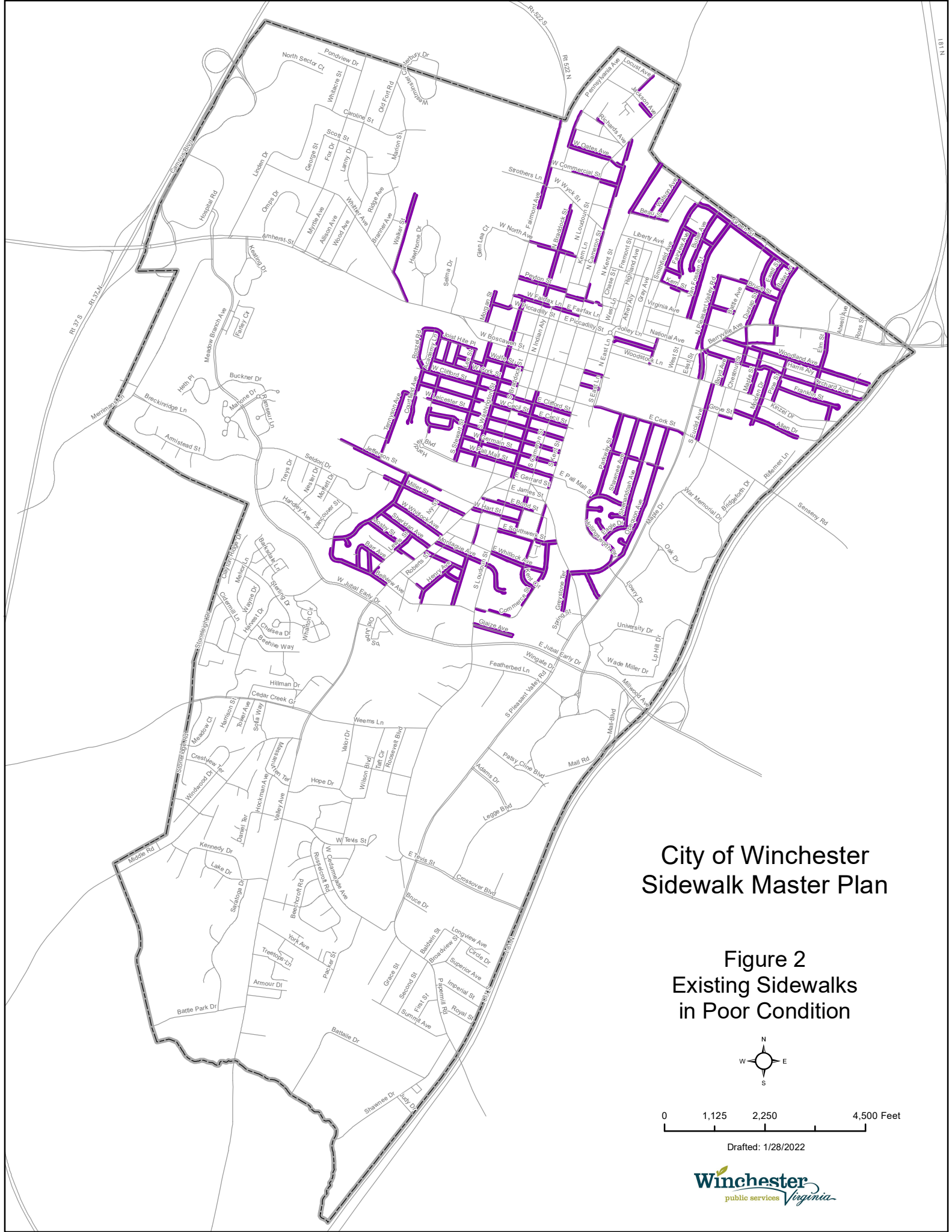


0 1,000 2,000 4,000 Feet

Drafted: 1/28/2022

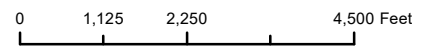
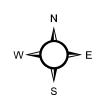


181°N  
181°S



# City of Winchester Sidewalk Master Plan

**Figure 2**  
Existing Sidewalks  
in Poor Condition



Drafted: 1/28/2022



# City of Winchester Sidewalk Master Plan

## Figure 3 (New Sidewalks 2007-2022)

New Sidewalks 2007-2017

New Sidewalks 2018-2022

| Street Name      | Length Replaced (LF) | Street Name    | Length Replaced (LF) |
|------------------|----------------------|----------------|----------------------|
| Amherst St       | 9,500                | Allen Dr       | 150                  |
| Baker St         | 600                  | Amherst St     | 3,000                |
| Berryville Ave   | 5,700                | Battle Ave     | 4,500                |
| Braddock St      | 8,700                | Braddock St    | 1,000                |
| Cameron St       | 8,300                | Charles St     | 1,000                |
| Castleman Dr     | 1,300                | Chestnut St    | 1,100                |
| Cork Street      | 1,800                | Christopher Dr | 1,100                |
| Cork Street      | 7,000                | Crossover Blvd | 3,000                |
| East Ln          | 3,800                | Darriway Cir   | 300                  |
| East St          | 500                  | Fairmont Ave   | 5,000                |
| Fairfax Ln       | 800                  | Fairview Ave   | 2,200                |
| Fremont St       | 1,500                | Franklin St    | 1,500                |
| Gerrard St       | 2,600                | Gibbens St     | 700                  |
| Gray Ave         | 1,900                | Gray Ave       | 2,300                |
| Handley Blvd     | 3,300                | Jubal Early Dr | 2,800                |
| Highland Ave     | 3,900                | Kent St        | 4,600                |
| Indian Alley     | 1,900                | Kinzel Dr      | 4,100                |
| James St         | 2,100                | Loudoun St     | 4,800                |
| Jubal Early      | 1,000                | Morningside Dr | 2,000                |
| Kent St          | 2,600                | North Ave      | 800                  |
| Kern St          | 4,000                | Orchard Ave    | 3,500                |
| Liberty Ave      | 2,300                | Pine St        | 1,500                |
| Loudoun St       | 18,000               | Richards Ave   | 1,200                |
| Meadowbranch Ave | 3,000                | South St       | 300                  |
| Millwood Ave     | 7,700                | Stewart St     | 700                  |
| National Ave     | 4,800                | Tevis St       | 4,900                |
| Papermill Rd     | 3,200                | Valley Ave     | 14,600               |
| Piccadilly St    | 4,300                | Virginia Ave   | 1,000                |
| Purcell Ave      | 2,800                | Wentworth Dr   | 3,340                |
| Race St          | 200                  | West St        | 1,000                |
| Smithfield Ave   | 2,400                | Whitlock Ave   | 1,700                |
| Spring Street    | 1,500                | Woodstock Ln   | 2,000                |
| Taft Ave         | 1,100                | <b>TOTAL</b>   | <b>81,690</b>        |
| University Drive | 900                  |                |                      |
| Valley Ave       | 300                  |                |                      |
| Valley Ave       | 200                  |                |                      |
| Valley Ave       | 7,600                |                |                      |
| Valor Dr         | 2,900                |                |                      |
| Virginia Ave     | 2,500                |                |                      |
| West Ln          | 500                  |                |                      |
| Wolfe St         | 1,000                |                |                      |
| Woodstock Ln     | 4,300                |                |                      |
| <b>TOTAL</b>     | <b>144,300</b>       |                |                      |

— 2007-2017  
— 2018-2022



0 1,125 2,250 4,500 Feet







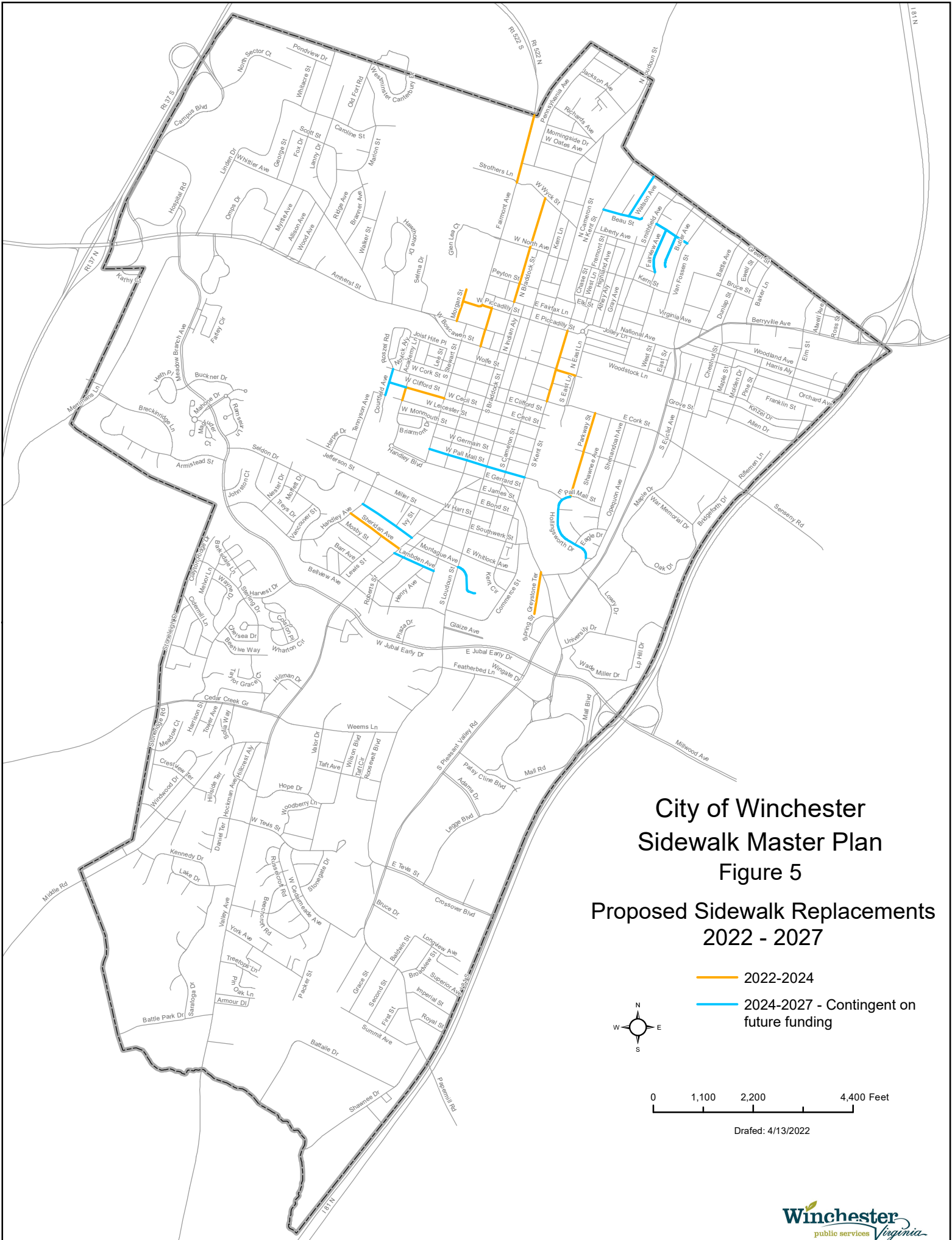
# City of Winchester Sidewalk Master Plan

Figure 4  
Locations with no Existing Sidewalks



0 1,125 2,250 4,500 Feet

Drafted: 3/2/2022



# City of Winchester Sidewalk Master Plan Figure 5

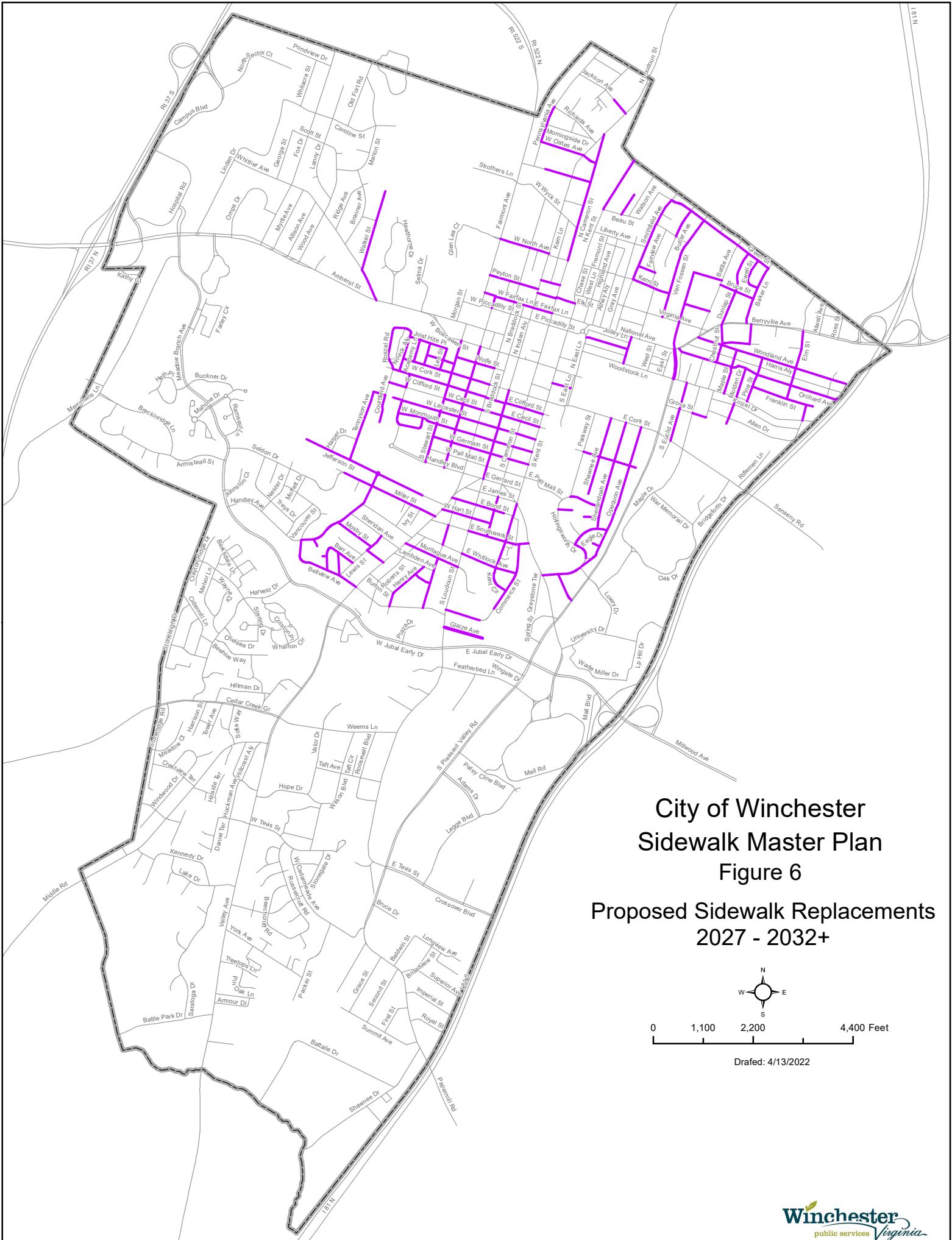
## Proposed Sidewalk Replacements 2022 - 2027

- 2022-2024
- 2024-2027 - Contingent on future funding



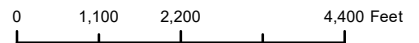
0 1,100 2,200 4,400 Feet

Drafted: 4/13/2022



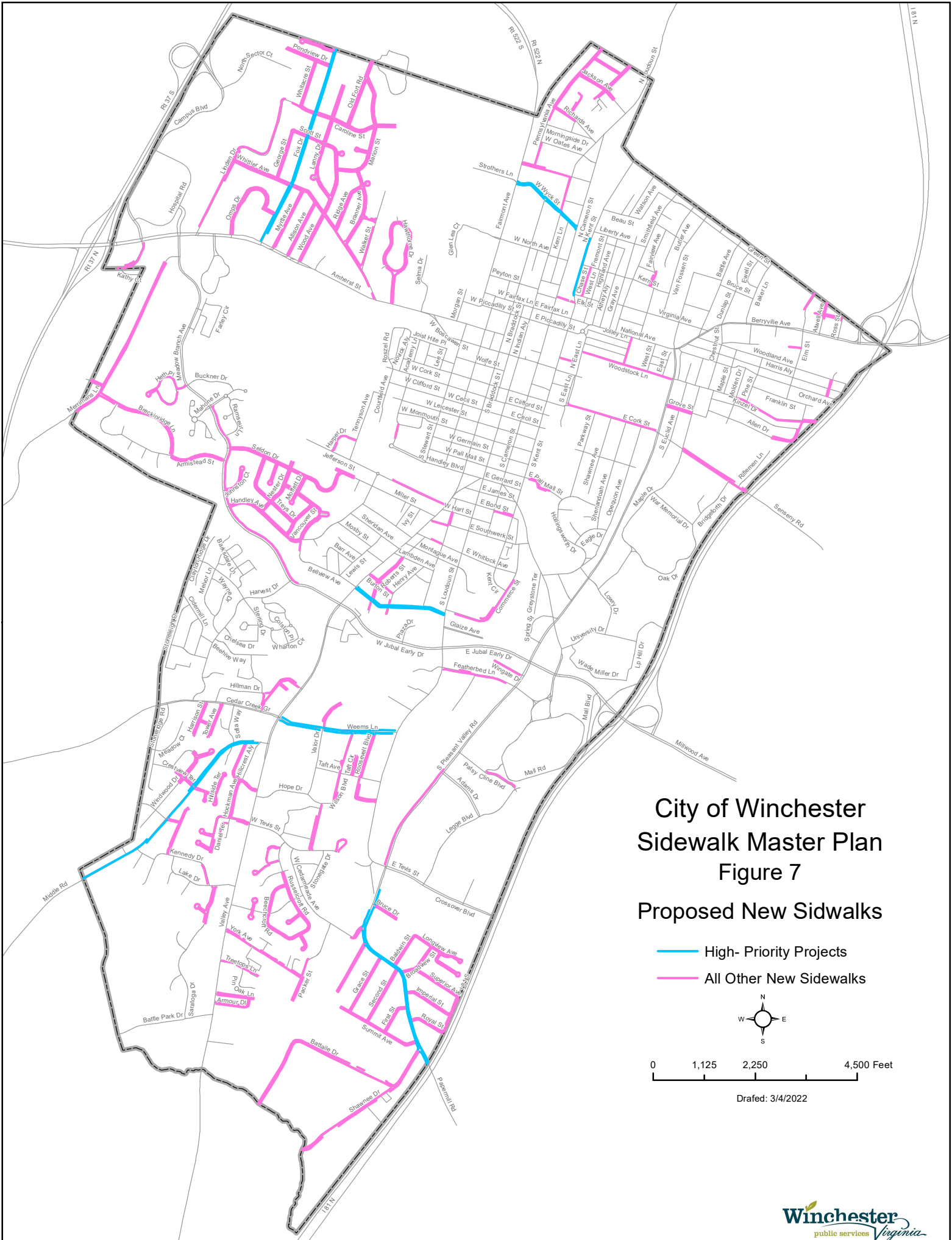
**City of Winchester  
Sidewalk Master Plan  
Figure 6**

**Proposed Sidewalk Replacements  
2027 - 2032+**



Drafted: 4/13/2022





# City of Winchester Sidewalk Master Plan Figure 7 Proposed New Sidewalks

- High- Priority Projects
- All Other New Sidewalks



0 1,125 2,250 4,500 Feet

Drafted: 3/4/2022