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Columbia Sidewalk Master Plan 2022 Revision

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1. Introduction/Purpose

The Sidewalk Master Plan sets forth a public input process to prioritize sidewalk projects where gaps exist. The plan helps the City Council identify projects for which grant funding applications will be made and assists the Council in making capital budget decisions by identifying the most critical sidewalk improvement and construction locations throughout the City. Additionally, this document informs the public of the City's priorities in sidewalk construction.

There are numerous streets in the Columbia area which lack sidewalks, but the major streets lacking sidewalks present the greatest need. Many of these are especially critical for pedestrians, as they provide the connectivity that local streets frequently do not.

In recognition of these needs, the majority of the sidewalk projects contained in this Sidewalk Master Plan are on streets contained in the Major Roadway Plan (MRP). Such streets are the priority for sidewalk construction due to their greater connectivity, larger vehicular traffic volumes, pedestrian safety concerns, and other factors. The draft 2022 plan contains a total of 39 projects, 31 of which are on streets classified in the MRP.

The 2022 plan also includes eight local street sidewalk projects. All are carry-overs from the existing 2012 Columbia Sidewalk Master Plan. All are considered lower priority than projects on major streets.

The draft Plan contains eight new projects, all of which were proposed for addition by the Bicycle and Pedestrian Commission in the process of their review.

New Projects in 2022 Draft

St. Charles Road – Keene Street to Hominy Branch Trail St. Charles Road – Clark Lane roundabout to Demaret Drive Conley Road & I-70 Drive Southeast Pedestrian Connector Rangeline Street, Vandiver to Elleta Blvd Rangeline Street: W side, Boone Electric to existing sidewalk S of Vandiver New Haven Road: Lemone Industrial Blvd to S Warren Drive Clark Lane, south side, across from Creekwood Parkway Northland Drive: Blue Ridge Rd to Parker Street

While this plan only addresses street corridors lacking sidewalks, the Bicycle and Pedestrian Commission, Disabilities Commission and City Public Works Department have prepared lists of critical repair areas at the request of the City Council in recent years, and as a part of the City's ADA-Transition Plan (in progress) the City has worked with University of Missouri engineering students to gather information about sidewalk slope and surface variations and substandard curb ramps and crosswalks which may make an existing sidewalk difficult to navigate.

2. Summary of Completed or Funded Projects from 2012 Sidewalk Master Plan

The 2012 Sidewalk Master Plan approved by the City Council on April 1, 2013, had 42 proposed projects. Ten of these projects have been completed or are funded and in process, and one project was canceled. These projects have now been removed from the draft plan update, and are listed below (numbers correspond to 2012 Plan project numbers):

Completed or In Process/Funded:

- 7. Stadium Boulevard, Primrose to Business Loop 70
- 10. Nifong Boulevard, Bethel to Forum (as part of street project)
- 16. Clark Lane: Paris Road to Eastwood
- 17. North Garth Avenue: Worley to just south of Sexton Road
- 19. Oakland Gravel Road, Blue Ridge to Vandiver
- 23. Sinclair Road, from Nifong Boulevard south to existing
- 30. Forum Boulevard, Nifong to Mill Creek
- 31. Elleta Avenue: Rangeline Street (Route 763) east to existing sidewalk
- 36. Leslie Lane: North Garth Avenue to west of Newton Drive
- 42. Carter Lane, Foxfire Drive southward 1,300' to Lot 1 of Providence South Plaza Plat 1

Removed/Rejected by City Council:

28. Audubon Drive, Shepard Blvd to north of N. Azalea

3. History

Most of Columbia's residential areas developed prior to World War II included the construction of sidewalks as standard practice. The City's first comprehensive plan in 1935 recommended four foot sidewalks be built as standard practice in new development (5' is now the minimum standard). This changed during the 1950s and 60s, as the focus of new residential subdivision layouts was to provide roadways designed solely for the private motor vehicle. As a result, most neighborhoods were built with no sidewalks. In 1973, the City passed an ordinance that mandated sidewalk construction along all lot street frontages in new housing developments. While this has provided sidewalks for internal circulation in subdivisions, the lack of sidewalk construction for over two decades has resulted in a large number of gaps in the sidewalk network.

In addition to those areas developed during the noted time period, there have been large areas of unincorporated land annexed over the past 40 years. The most notable example was a 1969 involuntary annexation which nearly doubled the physical size of the City. This and other annexations added residential subdivisions developed under Boone County standards, which did not include a requirement for sidewalk construction until subdivision regulations were adopted in 1995. Annexation of these neighborhoods contributed to the City's inventory of streets lacking sidewalks.

City Sidewalk Master Plans were previously developed and adopted or amended in 1976, 1981, 1996, 1997, and 2007. The current plan, as adopted in 2013, serves as a preliminary capital projects list for sidewalks. Filling the gaps in the sidewalk network has always been one of the major objectives of the Plan, and the Plan provides a public input process to help prioritize projects. When grant opportunities for sidewalk construction funding become available, the Plan allows the City to submit publically vetted and prioritized projects under what are typically short application windows.

4. City Sidewalk Policies

City ordinances provide that property owners are responsible for maintenance, repair, and reconstruction of the sidewalks adjacent to their property.

In addition, Ordinance B382-07, adopted in December, 2007, established a sidewalk maintenance and construction policy. One of the points of this document is that the City provides funding for sidewalk maintenance, repair, and rebuilding in accordance with an annual list of priorities approved by the City Council. Funds are placed in an Annual Sidewalk account for application to those new and reconstruction projects deemed to be priorities. Such projects are included in the Capital Improvements Program (CIP), the capital project section of the City's annual budget.

In addition to providing a sidewalk project listing, the CIP also shows the funding sources identified for all programmed sidewalk and pedway projects. Sales taxes, in the form of the ¼ Cent Capital

Improvement Sales Tax and the ½ Cent Transportation Sales tax, provide most of the revenue for the City's transportation capital plan. The FY 2021 CIP budget proposed a total of \$1,732,202 in new funding for the Annual Sidewalks/Pedways account. Included in this total is \$1,026,221 for ADA curb ramp installations. Funds from this account are used both for new construction and reconstruction of existing sidewalks.

Other funding sources for sidewalks are also listed in the CIP, and are described in detail in section 5 of this document.

Ordinance B382-07 also mentions the Master Sidewalk Plan, stating that all projects on the Plan shall be built at the City's expense as funds are available

Neither of the above relieves property owners of the responsibility of constructing sidewalks in association with new development. Such development on properties lacking sidewalks along their public street frontages must include sidewalk construction in order for City occupancy permits & final approval to be issued.

5. Additional Financial Resources

GetAbout Columbia

Columbia was one of four communities nationwide to be chosen to participate in the FHWA Non-Motorized Pilot Program. The local program was called GetAbout Columbia, and was awarded \$22,435,421 during the FY 2006-2009 period to be used for the construction of facilities for pedestrian and bicycle travel, with an additional authorization of \$5,929,975 for Phase 2 of the project. This has allowed the City to construct a number of sidewalk projects using one hundred percent federal funds, thus hastening projects that would otherwise be delayed due to a lack of funding. The GetAbout Columbia Program allocated funding to a total of thirteen sidewalk projects. All of these are complete.

Community Development Block Grants (CDBG)

Approximately 19 square miles of the City is designated as a Community Development Block Grant (CDBG) area, and here CDBG funds are utilized to construct sidewalks as frequently as possible.

Transportation Alternative Program (TAP)

Another funding source that has been utilized by the City for pedestrian-related projects is the federal Transportation Alternative Program (TAP), formerly known as the Surface Transportation Program (STP) Enhancement funding. This is administered through MoDOT and past projects include sidewalk and pedway construction along Broadway (Route WW) between Old 63 and US 63, pedestrian bridges on Providence Road and Paris Road, the construction of a sidewalk on the north side of Business Loop 70 from Creasy Springs to Garth Avenue, and the Leslie Lane sidewalk referenced earlier. Further sidewalk projects may be anticipated to have a portion of their cost covered by TAP funds.

6. Sidewalk Priority Ratings Matrix

Attached is a spreadsheet with the various criteria used in rating the 39 proposed projects in the 2022 plan update. This ratings matrix was developed and vetted by the City's Bicycle and Pedestrian Commission in 2007 and revised again in 2012 and 2018. Those projects which attained ratings of 6 or more points were given priorities of #1. The assignment of points is described below in section 6A, which describes the nine ratings criteria.

The Priority Ratings Matrix also includes general cost estimates for each project. The initial cost estimates were produced by the Public Works Capital Improvements Engineering Division, and revisions are made as needed during plan updates (for inflation, project scope changes, etc.). These are preliminary estimates, and more detailed analysis would be necessary for each individual project to calculate more specific estimates. Estimates consist of construction costs plus incidental costs including right-of-way or easement acquisition, drainage structures, grading, utility relocations, and others. Project costs are estimated in Year 2020 \$.

A. Ratings Criteria

The ratings criteria matrix was developed to assign a priority rating to each of the Sidewalk Plan projects. Each project is reviewed for nine factors and given ratings points accordingly. The individual criteria are as follows:

a. **Pedestrian Attractors**. The presence of one or more specific pedestrian attractors (primarily schools and parks) in proximity to the project is considered. One or two attractors account for one point, with three or more attractors scoring two points.

b. City Bus Route. Projects that fully or partially intersect a bus route score one point.

c. **Fills Gap**. If there are existing sidewalks at each end of the proposed project, one point is given.

d. **Traffic Volumes**. The presence of heavy vehicular traffic volumes (4,000 + ADT) accounts for one point.

e. Arterial or Collector Street. If the project is on a street classified as an arterial or collector (or higher classification) on the Major Roadway Plan, one point is given.

f. **CIP/MoDOT Project**. If the sidewalk project is on a corridor that is identified as a current or future capital project in the Capital Improvements section of the City budget, no points are given, since it is assumed that a sidewalk would be constructed as part of the street project. The same is true for projects in which MoDOT has committed funding. Those sidewalk projects not on such a corridor score one point. Typically, once a funding source and an upcoming construction date for a sidewalk project is identified in the CIP a project is removed from the Sidewalk Master Plan or marked as underway.

g. **No sidewalk on either side**. If the sidewalk project is in a corridor that lacks sidewalks on either side of the street, one point is given.

h. Within the CBDG Eligibility Area. If a project is inside the CDBG area, one point is given.

i. Within the Strategic Plan boundary. If a project is contained within the boundary of one of the three Strategic Plan areas, one point is given.

Those projects that score 6 or more points are rated as Priority 1. Those with 5 points or fewer are rated Priority 2.

7. Other Pedestrian and Transportation Plans

There are a number of other plan documents that relate to pedestrian travel. A major one is the pedestrian and bicycle component of the CATSO 2050 Transportation Plan, which was adopted

in December, 2019. This pedestrian and bicycle network plan, was originally adopted as part of the 2025 Plan in 2001. A revised version was included in the 2040 Plan adopted in 2014, and this was included in the 2050 Plan with minimal changes. The network includes facilities on Major Roadway Plan streets, as well as off-street Greenbelt trail corridors.

Specific to the Greenbelt trail corridors is the Metro Greenbelt/Trail Plan, originally adopted in 2002. The CATSO 2050 Plan includes all of the trails included in the 2013 Parks & Recreation Master Plan. The trail plan proposes trail facilities in a number of the designated Greenbelt corridors. The Trail Plan does not include sidewalks in public street right-of-way.

8. Sidewalk Plan Projects Summarized by Street Classification

Summary and Cost Estimates

The total estimated cost for all projects listed in the plan is \$23,038,530. Included is \$5,182,483 for the eight Priority #1 projects, and \$17,856,047 for the thirty-one Priority #2 projects.

Combined, the sidewalk project list contains approximately 14linear miles of sidewalks. While cost estimates should be considered rough at this point, and are highly variable based upon factors such as right of way costs, grade, utility relocation needs and other elements, this breaks down to roughly \$310 per linear foot. This estimate is skewed greatly by projects with extreme topography, utility relocation requirements, and where retrofits will require existing property elements such as driveways and retaining walls to be rebuilt.

The breakdown by street category is as follows:

Major Arterial Streets - 10 Projects Total Cost: \$6,482,954 Five are Priority #1

Minor Arterial Streets – 5 Projects Total Cost: \$1,757,385 All are Priority #2

Major Collector Streets – 10 Projects Total Cost: \$8,508,059 Three are Priority #1

Neighborhood Collector Streets - 6 Projects

Total Cost: \$3,657,174 All are Priority #2

Local Streets - 8 Projects

Total Cost: \$2,632,958 All are Priority #2 Below is the list of individual potential sidewalk projects with specific information about each project. As on the ratings matrix spreadsheet, these are organized according to street classification.

A. Major Arterial Projects

1. Broadway, East of Maplewood to west of West Blvd (to meet sidewalk starting roughly across from Clinton Dr.).

Side: South
Length: Approx. 2,011'
Width: 6'
Estimated Cost: \$451,556
Bus Route: YES
Ped Attractors: West Boulevard Elementary
Comments: Construction of this section would eliminate a gap and provide a continuous
south-side sidewalk connection east to Old 63.
Priority: 2

2. Broadway, Stadium Blvd. to west of Manor

Side: South Length: Approx. 1,900' Width: 6' Estimated Cost: \$408,500 Bus Route: YES Ped Attractors: Russell Elementary, West Junior High Comments: This project would eliminate a major gap in the system. Priority: 2

3. Business Loop 70, Garth Avenue to Providence

Side: Both Length: 1,373' Estimated cost: \$524,127Bus Route: NO Ped Attractors: Hickman High School, Ridgeway Elementary, Douglass High School Comments: This is a major commercial strip with adjacent residential areas. The majority of the frontage lacks sidewalks. The entire length of the segment is 1373', but needed new sidewalk to connect to existing sidewalks would be 861'. This project is listed in the CIP as an unfunded project for 2020. Priority: 1 4. Business Loop 70, Providence to Rangeline Street

Side: North Length: 2,640' Estimated Cost: \$661,207 Bus Route: NO Ped Attractors: Hickman High School, Field Elementary Comments: Major commercial corridor with little pedestrian accommodation. This project is expected to ultimately be built by the Business Loop CID. Priority: 1

5. Business Loop 70, 7th Street to Rangeline Street

Side: South Length: 1,320' Estimated Cost: \$258,032 Bus Route: NO Ped Attractors: Hickman High School Comments: Major traffic and commercial corridor with minimal pedestrian access. This project is expected to ultimately be built by the Business Loop CID. Priority: 1

6. Business Loop 70, Rangeline Street to Route B

Side: Both Length: 3696' Estimated Cost: \$1,467,557 Bus Route: NO Ped Attractors: Hickman High School Comments: See other Business Loop projects. Provides connection to Old 63 sidewalk. Priority: 1

7. Vandiver Drive, E of Route B, existing sidewalk to Centerstate

Length: 2,950' Side: Both Bus Route: NO Estimated Cost: \$457,234 Ped Attractors: Priority: 1

- 8. Nifong Boulevard, (Sinclair Road to Country Woods Road) Side: North Length: 2,640' Bus Route: NO Estimated Cost: \$1,124,241 Columbia School District suggestion School Impacted: Mill Creek Elementary Priority: 2
- 9. Rangeline Street, Boone Electric to existing sidewalk south of Vandiver

Side: west Length: 1,100' Bus Route: YES Estimated Cost: \$335,500 Ped Attractors: Priority: 2

10. Rangeline Street, Vandiver to Elleta Blvd

Side: east Length: 2,650' Bus Route: YES Estimated Cost: \$795,000 Ped Attractors: Commercial locations along Vandiver Priority: 2

B. Minor Arterial Projects

11. Chapel Hill Road, Fairview Road to east of Handley

Side: North Length: 620' Estimated Cost: \$154,165 Bus Route: NO Ped Attractors: Twin Lakes Rec Area, Fairview School & Park, Bonnie View Nature Sanctuary Comments: Sidewalk addition to existing bridge would be necessary as part of project Priority: 2 12. Vandiver Drive, Route B to west of Warwick
Side: South
Length: 2,865'
Estimated Cost: \$556,865
Bus Route: NO
Ped Attractors: Commercial facilities
Comments: Vandiver Drive is a major east-west traffic corridor north of I-70, and carries heavy vehicle traffic volumes.
Priority: 2

13. Vandiver Drive, Providence to Rangeline

Side: South Length: 2,035' Estimated Cost: \$393,655 Bus Route: NO Ped Attractors: Commercial facilities Comments: See project # 11. Priority: 1

14. New Haven Road: Lemone Industrial Blvd to S Warren Drive

Side: north Length: 1,840' Estimated Cost: \$561,200 Bus Route: NO Ped Attractors: Commercial facilities Comments:

15. Clark Lane, across from Creekwood Parkway

Side: south Length: 300' Estimated Cost: \$91,500 Bus Route: NO Ped Attractors: Commercial facilities Comments:

C. Major Collector Projects

16. West Boulevard South, Stewart Road to Westwinds Drive

Side: Both Length: 2,135' Estimated Cost: \$640,500Bus Route: NO Comments: Ped Attractors: Westwinds Park Priority: 2

17. West Boulevard North, Ash to Worley

Side: East Length: 1,352' Estimated Cost: \$673,302 Bus Route: NO Comments: Columbia School District suggestion. No longer listed in CIP. School Impacted: West Boulevard Elementary Priority: 2

18. Oakland Gravel Road, Smiley Lane to Blue Ridge Road

Length: 2200' Side: West Bus Route: YES Estimated Cost: \$680,559 Ped Attractors: Oakland Junior High, Lange Middle School, Blue Ridge Elementary, Albert-Oakland Park Comments: This would fill in a gap in an area with a large concentration of schools. Priority: 1

19. I-70 Drive Southwest, West Blvd. to Clinkscales Length: 2,622' Side: South Bus Route: NO Estimated Cost: \$2,040,065 Ped Attractors:

Priority: 2

20. I-70 Drive Southwest, Clinkscales to Beverly

Length: 1,800' Side: South Bus Route: NO Estimated Cost: \$1,335,315 Ped Attractors: Priority: 2

21. Rock Quarry Road, Stadium Boulevard to Hinkson Creek Trail (north), and Route AC to Nifong (south)

Side: east (north section), either for south section Length: 1,600' (north section), 2117' (south section) total 3,717' Bus Route: YES (south section only) Estimated Cost: \$1,140,743 Ped Attractors: University of Missouri Comments: Project requires ROW acquisition, major grading Priority: 1

22. St. Charles Road, Keene Street to Hominy Branch Trail

Side: north side W of Albany, then switch to south side) Length: 855' Bus Route: NO Estimated Cost: \$105,755 Ped Attractors: Hominy Branch Trail, medical facilities on Keene Street Comments: Connects Keene Street sidewalk to HB Trail Priority: 1

23. St. Charles Road, Clark Lane roundabout to Demaret Drive

Side: north Length: 2,400' Bus Route: NO Estimated Cost: \$664,658 Ped Attractors: Hominy Branch Trail, Battle High School, Battle Elementary Comments: Fills gap between Clark Lane sidewalk and new sidewalk project east of Demaret Drive Priority: 2 24. Conley Road, I-70 Drive SE Pedestrian Connector Side: north Length: 1,292' Bus Route: YES Estimated Cost: \$1,028,012 Ped Attractors: Commercial area along Conley Road Comments: Connects existing sidewalk on Conley to sidewalk on I-70 Drive SE Priority: 1

25. Bernadette Drive, Worley to Stadium

ength: 675'	
ide: west side	
Vidth: 5'	
us Route: YES (partial)	
stimated Cost: \$199,149	
ed Attractors: Columbia Mall	
riority: 2	
comments: This project has been modified in scope from the 2012 Plan to reflect tha	it
najor sections of the original project have been built.	

D. Neighborhood Collector Projects

26. Garth Avenue, Thurman Street to Texas Avenue Length: 1,695' Estimated Cost: \$586,830

Side: east Bus Route: NO Ped Attractors: Parkade Elementary School Columbia School District suggestion School Impacted: Parkade Elementary Priority: 1

27. Bray Avenue, Fairview Road to terminus of existing sidewalk

Length: 1,160' Side: North Bus Route: NO Estimated Cost: \$337,914 Ped Attractors: Fairview Elementary, Fairview Park, Walking School Bus Priority: 2 28. Old Plank Road: Providence to Tessa Way

Side: North Length: 1,690' Estimated Cost: \$241,905 Bus Route: NO Ped Attractors: Rock Bridge Elementary School Comments: A potential Round 2 GetAbout project; short connection for Walking School Bus route from neighborhoods to Rock Bridge Elementary School Priority: 2

29. Shepard Boulevard, Old 63 to Danforth

Side: South Length: 924' Bus Route: NO Estimated Cost: \$179,010 Ped Attractors: Shepard Elementary, Shepard Park Comments: Would complete the existing sidewalk system along the south side of Shepard, providing a connection to the Old 63 sidewalk. Shown as unfunded in CIP for FY 2022 construction. Priority: 2

30. Rollins Road, Stadium to Bourn

Side: north Length: 175' Bus Route: NO Estimated Cost: \$20,965 Comments: This project would fill a missing link in the Rollins Road sidewalk system. Priority: 2

31. Northland Drive: Blue Ridge Rd to Parker Street

Side: optional Length: 7,510' Bus Route: NO Estimated Cost: \$2,290,550 Comments: Priority: 2

E. Local Street Projects

32. Rothwell Drive: Rollins Road to West Broadway

Length: 2,300' Side: Optional Width: 5' Bus Route: NO Estimated Cost: \$445,105 Ped Attractors: Rothwell Park Comments: This project would provide Rothwell Heights Subdivision with a link to the sidewalk on Rollins Road. It would also enhance pedestrian access to Rothwell Park and Fairview School. Priority: 2

33. Maplewood Drive: West Broadway to Rollins Road

Length: 2,700' Side: East Width: 5' Bus Route: NO Estimated Cost: \$435,429 Ped Attractors: Russell Boulevard School, Kiwanis Park Comments: This would connect the Clinkscales and West Broadway sidewalk systems with Russell Boulevard School and Kiwanis Park. Priority: 2

34. Maplewood Drive: Rollins Road to Princeton Drive

Length: 1,250' Side: West Width: 5' Bus Route: NO Estimated Cost: \$201,587 Ped Attractors: Russell School, Kiwanis Park Comments: This would increase pedestrian access for Kiwanis Park and Russell Boulevard School. Priority: 2 35. Pershing Road: Gary to Pearl Avenue

Length: 1,056' Side: East Width: 5' Bus Route: NO Estimated Cost: \$169,333 Ped Attractors: West Boulevard School, Again Park, City-County Health Department Comments: This would improve the north-south pedestrian circulation between Worley Street and Broadway and increase the pedestrian access to West Boulevard School and Again Park. Priority: 2

36. Bourn Avenue: West Broadway to Rollins Road

Length: 2,225' Side: Optional Width: 5' Bus Route: NO Estimated Cost: \$367,125 Ped Attractors: None Comments: This project would

Comments: This project would provide a north-south link between two major sidewalk systems. It also would provide some pedestrian circulation in an area devoid of sidewalks. Priority: 2

37. Concord Street: Arlington to Yorktown

Length: 650' Side: West Width: 5' Bus Route: NO Estimated Cost: \$48,381 Ped Attractors: Fairview Elementary School and Park Comments: This project would fill in a gap on a street utilized by elementary school students to walk to school. Priority: 2 38. Proctor Drive, Bear Creek Village Subdivision to Bear Creek Drive Length: 1,600' Side: South Width: 5' Bus Route: NO Estimated Cost: \$776,000 Ped Attractors: Parkade School Priority: 2

39. Burnam Road, Clarkson to Providence

Length: 475' Side: North Width: 5' Bus Route: NO Estimated Cost: \$189,997 Ped Attractors: University of Missouri Priority: 2