Background

Home to 4,500 residents and Baker University, Baldwin City began as a stop on the historic Santa Fe Trail. Rich railroad history and the popular Maple Leaf Festival have brought visitors from across the area to enjoy a comfortable stroll down its quiet brick streets. Located a half hour from Lawrence and less than an hour from Kansas City, Baldwin City residents can take advantage of nearby metropolitan areas while maintaining small-town charm.
Existing Pedestrian Infrastructure - Baldwin City

In 2014, MPO staff walked and/or drove all sidewalks within the city and recorded defects as they encountered them. Staff inventoried the sidewalks for the following defects:

- Vertical deflections <1”
- Vertical deflections >1”
- Manholes
- Missing sidewalk
- Horizontal gaps
- Gaps
- Tree roots
- No ADA ramp exists
- Cross slope
- ADA ramp compliant
- Brick resets
- ADA ramp non-compliant

A map of this inventory can be found in Figure 4.1, and photo examples of defects can be found in Appendix A.

Findings

Maintenance

Maintenance includes the repair of existing sidewalk defects as well as replacing missing panels within a continuous sidewalk. The cost to repair existing sidewalk defects throughout Baldwin City is estimated at $238,650. This estimated cost assumes 5’ width and $6 per square foot. Estimates do not include ancillary costs such as tree removal or utility relocation. Further maintenance information can be found in Table 4.1, and Figure 4.1 shows the location of defects throughout town.
The inventory identified 132 ADA compliant ramps, 88 which were not ADA compliant, and 630 locations where no ramp exists. The average cost to construct an ADA compliant ramp is $800. The estimated cost to install or repair ramps on existing sidewalks is $574,400. This estimate does not include ramps to be added to newly constructed sidewalk where no sidewalk currently exists. Complete ramp information can be found in Table 4.2.

Table 4.2: Baldwin City ADA Ramps (2014 Sidewalk Inventory)

<table>
<thead>
<tr>
<th>Ramp Type</th>
<th>Count</th>
<th>Cost to Repair/Build</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADA Compliant</td>
<td>132</td>
<td>N/A</td>
</tr>
<tr>
<td>Not ADA Compliant</td>
<td>88</td>
<td>$70,400</td>
</tr>
<tr>
<td>Does not Exist</td>
<td>630</td>
<td>$504,000</td>
</tr>
<tr>
<td>Total</td>
<td>850</td>
<td>$574,400</td>
</tr>
</tbody>
</table>

Ramps

The inventory identified 132 ADA compliant ramps, 88 which were not ADA compliant, and 630 locations where no ramp exists. The average cost to construct an ADA compliant ramp is $800. The estimated cost to install or repair ramps on existing sidewalks is $574,400. This estimate does not include ramps to be added to newly constructed sidewalk where no sidewalk currently exists. Complete ramp information can be found in Table 4.2.
Missing Sidewalk

Baldwin City has 256,599 linear feet of missing sidewalk. The estimated cost for installing sidewalk on both sides of every street is $7.7 million. These estimates do not include the previously discussed costs of ramp construction or maintenance to existing sidewalks. A map of missing sidewalks is shown in Figure 4.3.
Funding for Pedestrian Infrastructure in Baldwin City

Sidewalk Maintenance
The current city code for sidewalk maintenance states that “it shall be the duty of the owner of the abutting property to keep the sidewalk in repair, but the city may, after giving 15 days’ notice to the owner”, make all necessary repairs and assess the cost to the property taxes of the abutting owner\(^1\).

This sidewalk maintenance policy requires regular city inspection and notification to ensure compliance. The current condition of sidewalks, as shown in Figures 4.1 and 4.2, suggests that the existing policy is not creating a compliant sidewalk network. If the City of Baldwin City determines that enforcement of this policy is not feasible, alternative programs or ordinances should be explored.

Alternative Sidewalk Maintenance Programs
Alternatives to the current policy could be to have the City of Baldwin City take over maintenance responsibilities or develop a cost-sharing model where property owners and the City each pay a certain amount to maintain or build sidewalks. To generate revenue for this policy change, the city could increase sales tax or property tax. Table 4.3 demonstrates how much funding could be generated from different levels of taxes.

<table>
<thead>
<tr>
<th></th>
<th>Annual $ Generated</th>
<th>Years Required to Generate $1 Million</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 mill property tax</td>
<td>$ 29,500</td>
<td>34</td>
</tr>
<tr>
<td>City sales tax (1%)</td>
<td>$ 406,575</td>
<td>2.5</td>
</tr>
</tbody>
</table>

New Sidewalk Construction and Other Infrastructure Improvements

In addition to sidewalk maintenance and repair, a quality pedestrian system also relies on new improvements that enhance the pedestrian network. Currently, construction of new pedestrian infrastructure are funded out of the City’s General Fund, but in some cases, the City is able to obtain grant funding through KDOT or foundations. Recent pedestrian capital improvement projects include the shared use path leading from 11th Street to Baldwin Elementary School and a shared use path connecting the train depot to Women’s Bridge Park.

Improving the sidewalk infrastructure through these methods leads to sporadic improvements with little continuity. The Infrastructure Implementation Scenarios located at the end of this chapter identify a few ways to prioritize the construction of new pedestrian infrastructure.

\(^1\) http://baldwincity.citycode.net/index.html#articleSidewalks
Regional Pedestrian Plan

Encourage Pedestrian Trips
Through Participation in National Walk to School Day and Other Strategies

Primary Focus Areas Addressed: Health

Teachers can encourage students to walk to school, and encouragement on a broader scale could empower pedestrians of all ages. The City, in coordination with the school district, could participate in National Walk to School Day, a global event that involves communities from over 40 countries walking and biking to school on the same day. City-provided maps of walking routes, wayfinding signs, and programs driven by employer incentives are options for Baldwin City to consider.

Focus areas addressed: Safety, Health

The City of Baldwin City could benefit from identifying safe walking routes for children to reach one of the 4 schools in town as well as education and encouragement programs to empower more pedestrian trips from home to school.

Adopt Design Standards and Policies that Result in Pedestrian-Friendly Development

Primary Focus Areas Addressed: All

The Pedestrian Progress Toolbox on pages 14-19 contains site design guidelines, engineering standards, and policies that can lead to a safe and comfortable pedestrian environment. Baldwin City could benefit from adopting guidelines to ensure the pedestrian network is built thoughtfully. Early adoption of standards and policies on setbacks, block length, and sidewalk maintenance are a few ways Baldwin City can help to prevent the need to retrofit street and sidewalk connections at a later date, and often a higher cost. Many other standard and policy ideas can be found in the toolbox on pages 14-19.

Consider Applying for Safe Routes to School (SRTS) Program Funding

Policies and Programs
**Recommendations**

**Primary Focus Areas Addressed: Safety**

Traffic calming devices should be installed to improve pedestrian safety and comfort at historical crash locations as well as locations of perceived risk that deter pedestrians from walking in the area, such as 6th St north and south of Ames St/US 56. Pedestrians in crashes with motor vehicles traveling at a speed of 31 mph face a 50% risk of injury and nearly 25% risk of death. Traffic calming should be installed in response to high crash locations, but also proactively to improve pedestrian safety and comfort in locations that may currently discourage pedestrian activity.

**Primary Focus Areas Addressed: All**

It is important to understand the type, magnitude, and location of pedestrian improvements that are being implemented each year. The City should track miles of sidewalk construction and sidewalk gap infill, sidewalk maintenance, shared-use path construction, installation of other pedestrian amenities, and results of education, encouragement, and enforcement campaigns. Tracking cost, location, and program data for pedestrian improvements will demonstrate the progress Baldwin City is making on the pedestrian environment and where more work still needs to be done to further address the region’s focus areas.
**Recommendations**

**Primary Focus Areas Addressed: Connectivity**

Target resources to priority pedestrian corridors that provide the most people with access to the most parts of town, particularly to schools, grocery stores, and other landmark destinations. The Priority Network can be found in Figure 3.5. Cost estimates for installing sidewalk on at least one side of every street along the Priority Network can be found in Table 4.4. Funding should be prioritized to complete these routes first, creating continuous, quality pedestrian facilities.

Through community outreach and an online survey in April 2016, Baldwin City residents identified a few key locations as priorities. Several respondents identified Highway 56 as a barrier that discouraged walking because of limited crossings and high vehicle speed, especially for those living North of the highway attempting to access the main core of the city. Preliminary plans for a reconstruction of Highway 56 from Eisenhower to 1st Street indicate new sidewalk installation on both sides of the street. Additional crossing improvements were not identified with this project at the time of publication of this plan. Many respondents spoke of the isolation felt by pocket communities on the north, southwest, and east sides of town. School routes, State Lake Road leading to Douglas State Lake, 11th Street, and improved East/West connectivity were also mentioned as potential priorities.

Certain segments of identified SRTS routes may overlap or differ from the Priority Network. These two methods for prioritizing routes need not be mutually exclusive, as the City could pursue completion of both concurrently.

**Table 4.4: Baldwin City Priority Network Estimated Costs**

<table>
<thead>
<tr>
<th>Sidewalk on One Side of Priority Network</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Linear feet of missing sidewalk on priority network</td>
<td>6,500</td>
</tr>
<tr>
<td>Estimated cost at 5' sidewalks, 96 per square foot</td>
<td>$195,000</td>
</tr>
</tbody>
</table>
Figure 4.4: Baldwin City Priority Network

DISCLAIMER NOTICE
The map is provided "as is" without warranty or any representation of accuracy, timeliness or completeness. The burden for determining accuracy, completeness, timeliness, merchantability and fitness for or the appropriateness for use rests solely on the requester. The City of Lawrence makes no warranties, express or implied, as to the use of the map. There are no implied warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts the limitations of the map, including the fact that the map is dynamic and is in a constant state of maintenance, correction and update.
Recommendations

Primary Focus Areas Addressed: Connectivity

The Prairie Spirit Trail is a 52-mile shared use path for pedestrians and bicyclists running along an old railway that connects Ottawa to Humboldt. The Midland Railroad runs southwest out of Baldwin City to Ottawa and terminates near the trailhead for the Prairie Spirit Trail. Figure 4.5 shows the alignment of this railroad.

Work is currently being done by the Baldwin City Economic Development Corporation to obtain the necessary easement from the Midland Railroad to accommodate a shared use pedestrian and bicycle path. The EDC is also working to identify funding for the construction of the trail along the 20-mile route. This plan recommends continued efforts to establish this connection, which could be a wonderful amenity for pedestrians in the region.
Pedestrian improvements in Baldwin City currently occur as the roadways are repaired and constructed, and grants are sometimes identified to fund standalone projects. This leads to a fragmented network with no clear goal or system-wide vision.

The recommendations in this document aim to focus investment in pedestrian infrastructure so that the network is less fragmented. These recommendations are not mutually exclusive and can be implemented incrementally as funding becomes available. City officials should consider using tools found in the Pedestrian Progress Toolbox section on pages 14—19 to achieve one or more of these recommendations.

The Pedestrian Plan is an important document because it enables city staff to make consistent decisions that affect the pedestrian realm in a positive way. It sets the stage for policy discussion regarding sidewalk requirements, helps protect streets with developed pedestrian infrastructure, and prioritizes streets with underdeveloped pedestrian infrastructure for upgrades. This Plan will be incorporated into the regional long-range transportation plan, T2040, during the update in 2017.

While funding is limited, yearly improvements help improve the system by bringing existing facilities into compliance with current standards, and providing programming, education, and policy changes that can lead to more people choosing to walk. The ultimate goal is to have a complete citywide system of quality pedestrian infrastructure paired with policies and programs that encourage more people to walk. Measured progress towards this will continue to support overall walkability and economic development opportunities throughout Baldwin City.
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