

# Memorandum

## City of Lawrence

### Planning & Development Services

TO: Thomas M. Markus, Lawrence City Manager  
CC Scott McCullough, Director, Planning and Development Services  
Chuck Soules, Director of Public Works  
Mark Hecker, Assistant Director of Parks & Recreation  
FROM: Jessica Mortinger, Senior Transportation Planner  
Ashley Myers, Transportation Planner  
DATE: March 21, 2017  
RE: Bike Share Feasibility Study Acceptance

#### **Background**

In late 2015 the Lawrence-Douglas County Metropolitan Planning Organization (MPO) was awarded Competitive Consolidated Planning Grant funding to conduct a bike share feasibility study to investigate the feasibility and the market demand for a bike share system, identify an operator and implementation strategies.

#### **Project Description**

In 2016 the MPO engaged Toole Design Group to explore the feasibility of a bike share program in Lawrence and to explore what a future program might look like including who would use the program, how large it would be, how it would be rolled out, who would own, manage, and operate it, how much it would cost, and how it would be funded. Based on extensive stakeholder and public outreach and a local context analysis, it would be feasible to implement a bike share program in Lawrence. Using best-practice planning principles from around the country, the report provides a framework for a bike share program that can be used by the region's stakeholders to guide its future development. The study cost \$50,000 with \$40,000 Competitive Consolidated Planning Grant and \$10,000 local Planning & Development Services budgeted funding for the MPO.

The Lawrence-Douglas County Metropolitan Planning Organization (MPO) approved this study on March 26, 2017.

#### **What is Bike Share?**

Bike share programs operate in over 60 cities in the United States including in many mid-sized communities, Midwestern cities, and in numerous cities with a significant university presence. They are a mobility option that allows users to access a network of bicycles that can be checked out automatically and returned to any station in the system. It is typically made available through a subscription fee that is a few dollars for one-day access and \$25 to \$150 for annual access. Although there are low-tech bike share options, most modern systems in the United States utilize a variety of technology including radio frequency identification (RFID), Global Positioning Systems (GPS), and secure payment technologies to increase accountability and reduce theft and vandalism.

There are two major types of bike share technology: “smart dock” systems that rely on hardware at the station to lock and unlock bikes and “smart bike” systems where the locking and check-out technology is housed on the bicycle itself. Many equipment vendors are also developing electric pedal assist (e-assist) bike share solutions and at least one vendor is already operating e-assist bike share systems in the United States and other parts of the world.

## Bike Share in 4 Easy Steps



### **Local Context Analysis**

Bike share fits with many of the City’s policy objectives and is consistent with Horizon 2020, Transportation 2040, the Lawrence Complete Streets Policy, the Countywide Bikeway System Plan, the Climate Protection Task Force, the Douglas County Community Health Plan, and the University of Kansas (KU) Sustainability Plan. Lawrence has a number of features that make it desirable for a bike share program but also a number of challenges.

The City has several areas with high density and a variety of land uses including in Downtown Lawrence and the KU and Haskell Indian Nations University campuses include a significant population of students, faculty, and staff that are likely to be early adopters of a bike share program. However, land use is relatively spread out in other parts of the city and the program would need to be deployed strategically in those areas. The city is relatively flat with the exception of some steep sections between Downtown and KU, which could be addressed through a number of planning, programmatic, and technological solutions, including considering some portion of the fleet as e-assist bicycles. There is a core network of bicycle infrastructure including several shared use pathways and numerous separated on-street bike lanes, but there are also some gaps in the network that do not fully connect the city.

### **Stakeholder Engagement**

A comprehensive stakeholder and public outreach process was conducted as part of this project, which included in-person outreach and meetings with the Bike Share Steering Committee, the Lawrence-Douglas County Bicycle Advisory Committee, key community stakeholders representing over 26 individuals from 23 organizations, stakeholder field trips to Topeka Metro Bikes and Kansas City B-cycle, three tabling events to outreach to the general public, and online outreach in the form of a long- and short-form survey and an online map where people could suggest bike share stations.

The response to public outreach was excellent with over 500 people completing the full-length survey and almost 700 students responding to the short-form student survey. In general, bike share had broad support both from the public and from stakeholders. Almost three-quarters of respondents to the full-length survey (74%) thought bike share is a good idea for Lawrence and just over half (52%) said that they would use bike share if it were available in Lawrence.

Figure E1: Proposed Phasing Plan

Table E1: Proposed Phasing Plan

PHASE	SERVICE AREA (MI <sup>2</sup> )	PERCENT OF CITY AREA	STATIONS	DOCKS	BIKES
1	4.2	12%	33	495	291
2	4.0	12%	28	420	247
Total	8.2	24%	61	915	538

### **Proposed Governance Structure**

One of the key decisions for any bike share program is to determine who will own, manage, and operate the program. Existing U.S. bike share programs operate under different governance models depending on the local environment but can be broken into four broad categories – agency owned, non-profit owned, privately owned and operated, and systems operated by other entities.

Each of these governance models was explored in the context of Lawrence and it was found that the models with the most potential were a program owned and operated by a newly formed non-profit or a University-owned program that could expand later into the City and other areas. Follow-up discussions with KU showed the need to implement a steering committee to oversee implementation of a KU Bike Share. KU Parking & Transit could feasibly house the program to complement existing transit services on campus and to help in the transition to fixed lot parking permits. Further discussion regarding a potential home at KU is needed.

### **Projected Costs and Revenues**

Cost, ridership, and revenue projections for the program were determined based on observed performance of peer systems, the proposed size and phasing of the program, and an assumed user fee structure. The capital cost to implement the entire program is likely to be between approximately \$2.4 and \$4.0 million over the next five years depending on the type of technology and the vendor. These costs include the purchase of the equipment (including the bicycles and stations), replacement parts, and station siting.

The program will also require ongoing operating funding. It will recover some of its operating costs through collection of membership and usage fees – expected to be around 40-percent. The additional 60-percent of operating costs could be recovered from a combination of sponsorship, advertising, private, or student funding. Cost efficiencies could be gained from housing the program in an existing entity such as KU Parking & Transit and utilizing existing services, staff, and equipment. Funding is likely the critical path to implementation and so it is recommended that community partners form an exploratory committee to help secure funding for the program.

### **Staff Recommendation**

Staff recommends accepting the Bike Share Feasibility Study and direct staff to participate on a implementation steering committee comprised of various University of Kansas departments and other entities as needed to explore project development by establishing a work plan and determining financial possibilities.

### **Action**

Accept the Bike Share Feasibility Study.