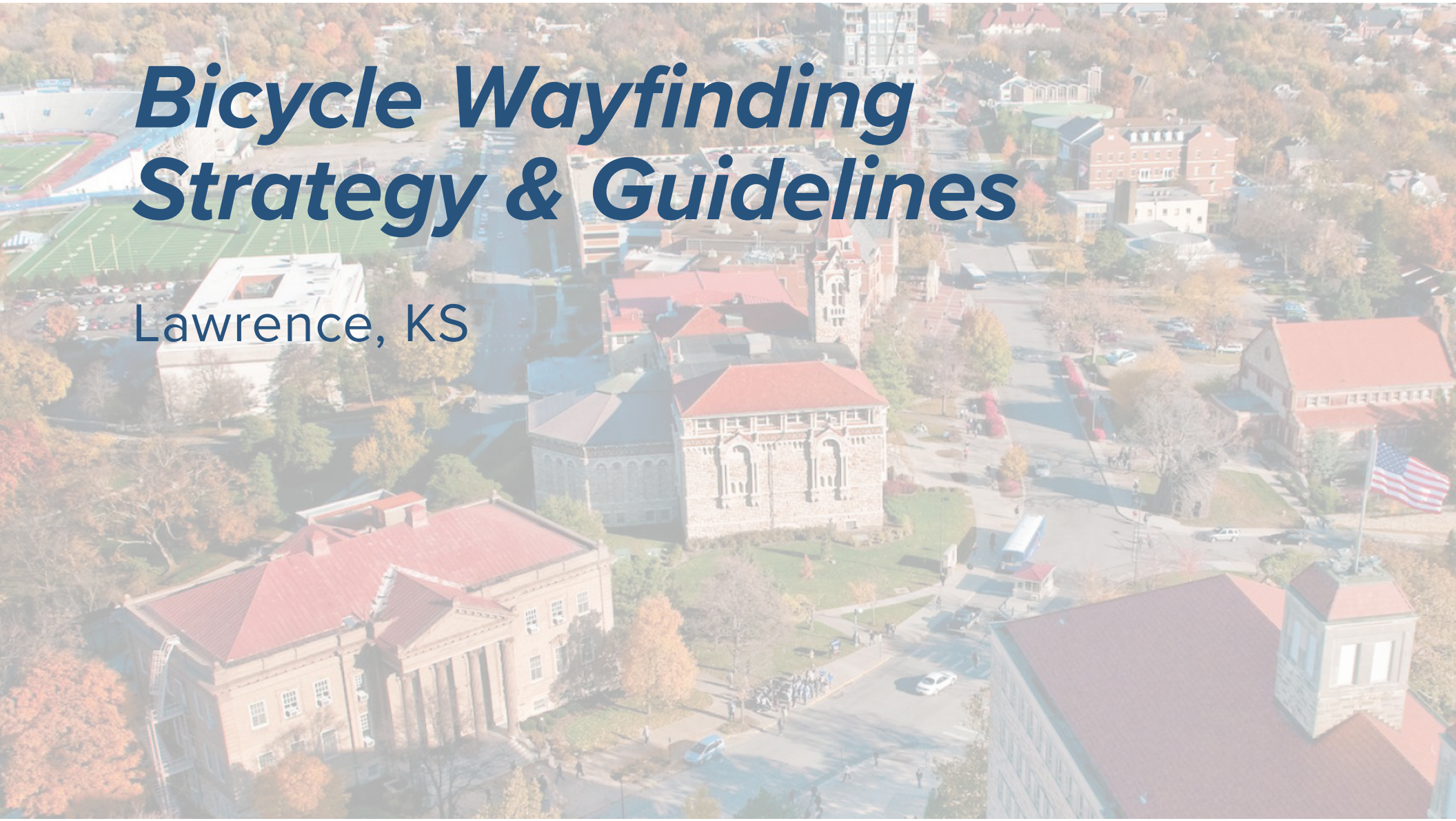

Bicycle Wayfinding Strategy & Guidelines

Lawrence, KS

March 29, 2024

CITY OF LAWRENCE, KANSAS

alta

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VISION AND GOALS

Wayfinding can be defined as an information system that helps people orient themselves in a physical space and navigate from place to place. In the built environment, it typically takes the form of signage, maps, or environmental graphics - such as pavement markings - and is all around us, whether we consciously recognize it or not. But wayfinding is so much more than the strategic placement of messages in the built environment to guide an individual from A to B.

A cohesive, well-designed wayfinding system can create a recognizable identity for a given place or network and can significantly influence people's perceptions of the navigability and overall convenience of a place, thus increasing its use/visitorship. In the case of this plan, which focuses on bicycle wayfinding throughout Lawrence, the proposed wayfinding system has the potential to a) get more people bicycling, b) increase the safety of bicyclists, and c) normalize bicycling as legitimate mode of transportation.

These high-level benefits of the proposed bicycle wayfinding system for Lawrence are as follows:

- **Encouraging people to consider more sustainable and healthier modes of transportation (getting more people to bike):** For many people, the decision to ride a bike is made difficult for a variety of perceived barriers. For instance, someone who is new, visiting, or otherwise unfamiliar with the bicycle network may not be aware of how connected it is (or that it even exists), and that it can be used to get to useful destinations. In addition to connectivity/feasibility, the perceived barrier of time and distance can discourage active transportation use. Wayfinding can bring to light network connectivity and proximity of destinations, helping to minimize the tendency to overestimate the amount of time it takes to travel by bicycle.
- **Increasing the safety of bicyclists**: Perceived safety is continually one of the primary factors in one's decision to travel by bicycle. While signage, maps, and pavement markings should never replace the need for safe infrastructure (e.g. separated facilities, streets designed to manage speed, etc.), the thoughtful design and placement of wayfinding elements increases the visibility of vulnerable road users to those in motor vehicles and promotes a culture of intermodal awareness and cooperation.
- **Normalizing bicycling as legitimate mode of transportation:** Because wayfinding elements can make bicycling more visible to all road users, it communicates that active modes belong in and are an integral part of the overall transportation system. Furthermore, an intentional, region-wide wayfinding system is a visible investment that sends a message that the City recognizes the importance and validity of bicycling as a mode of transportation - equal in legitimacy to driving a car or taking public transit.

It is important to remember that while wayfinding plays a significant role in promoting active transportation, as stated above, it should not be considered a replacement for safe infrastructure, and should only be implemented along corridors where appropriate bicycle accommodations are made.

EXISTING CONDITIONS

The images on this page represent a collection of existing wayfinding signage throughout the City of Lawrence. Conversations with the Lawrence Bicycle Wayfinding Steering Committee determined that the existing wayfinding strategies should not be the basis of the proposed bicycle wayfinding package, due to an ongoing audit of existing City signs and historical markers, and the potential for those wayfinding systems to change or be updated in the future.

WAYFINDING PRINCIPLES

The built environment should be designed so that people can quickly orient themselves, recognize areas of different character, and intuitively locate and navigate to destinations. The degree to which a place accomplishes these things determines its legibility, or how easily both locals and visitors can understand where they are and where they're going. A cohesive, attractive wayfinding system can greatly contribute to a place's legibility and identity by better enabling individuals to:

- Easily and successfully find their destination
- Understand where they are with respect to other key locations
- Orient themselves in an appropriate direction with little misunderstanding or stress
- Discover new places and services

The following guiding principles, based on best practices from around North America, will help create an effective bicycle wayfinding system in Lawrence.

CONNECT PLACES

An effective bicycling wayfinding system should directly connect to places locals and visitors want to go and enable them to discover new destinations that can be reached by bicycling.

Wayfinding connects neighborhoods and provides navigational assistance to both local and regional destinations, and is an extension to the bicycling network, providing a seamless travel experience for non-motorized users. Wayfinding provides benefits that go beyond physical signage. It can create a deeper connection to a place, cultivate a sense of pride by reflecting community values, and support local economic development by encouraging residents and visitors to use local services.

KEEP INFORMATION SIMPLE

Wayfinding should provide clear information in a logical succession, and not overburden users with excess information. Information should be presented in as clear and logical format as possible. Wayfinding signage should be both universal and usable for the widest possible demographic and with special consideration for those without high educational attainment, English language proficiency, or spatial reasoning skills. It is important to provide information in manageable amounts. Too much information can be difficult to process quickly; too little, and people will lack the confidence to make decisions. Information should be provided in advance of where major changes in direction are required, repeated as necessary, and confirmed when the maneuver is complete.

WAYFINDING DESIGN AT A GLANCE

IN THIS PROCESS, WE'RE TRYING TO ANSWER THREE QUESTIONS:

1. **What should the signs look like?**
2. **What information should be included on the signs?**
3. **Where should signs be located?**

MAINTAIN MOTION

Wayfinding information should be presented in a way that is quickly understood. Bicycling requires physical effort, and frequent stopping and starting to check directions may lead to frustration and discourage use. Wayfinding information that can be quickly and easily grasped contributes to a more enjoyable environment for bicycling. Consistent, clear, and visible wayfinding elements allow active transportation users to navigate while maintaining movement.

BE PREDICTABLE

Wayfinding should be predictable and consistent. When information is predictable, it can be recognized and quickly understood. Predictability should relate to all aspects of wayfinding placement and design (i.e., sign materials, dimensions, colors, forms, and placement). Design consistency also contributes to a continuity of experience as landscapes and context change along bicycling routes. Once users trust that they will encounter consistent and predictable information, their level of comfort is raised and new journeys become easier to attempt and complete, thereby promoting an experience that is welcoming and friendly. Similarly, maps should employ consistent symbology, fonts, colors, and style.

PROMOTE ACTIVE TRAVEL

Wayfinding should encourage active transportation by creating an accessible, clear, and attractive system that is intuitive to navigate by bicycling. Whether directed towards people bicycling or seen by passing vehicles, the system should integrate into the cultural environment and should be easy to understand. An effective wayfinding system has the potential to validate bicycling as a viable transportation option by communicating network connectivity and addressing perceived barriers such as time and distance to destinations.

Wayfinding should also expand the awareness and use of bicycle facilities by the whole community. The installation of wayfinding has the potential to increase bicycling on existing facilities with low levels of use. This is an efficient use of active transportation investments on infrastructure already in place. Wayfinding also helps expand the use of the existing transportation network without costly infrastructure improvements. In many cases, streets with low speeds and volumes may be good candidates for cycling routes and simply need the installation of wayfinding to raise the awareness of these route options.

WAYFINDING ELEMENTS

The goal of a wayfinding system is to simplify navigation in urban environments. This section describes the spectrum of elements that may be used along bicycle routes in Lawrence, which were selected based on feedback from the Lawrence Bicycle Wayfinding Steering Committee. These elements are listed below and outlined in further detail on subsequent pages.

ACCESS ELEMENTS (See Page 8)

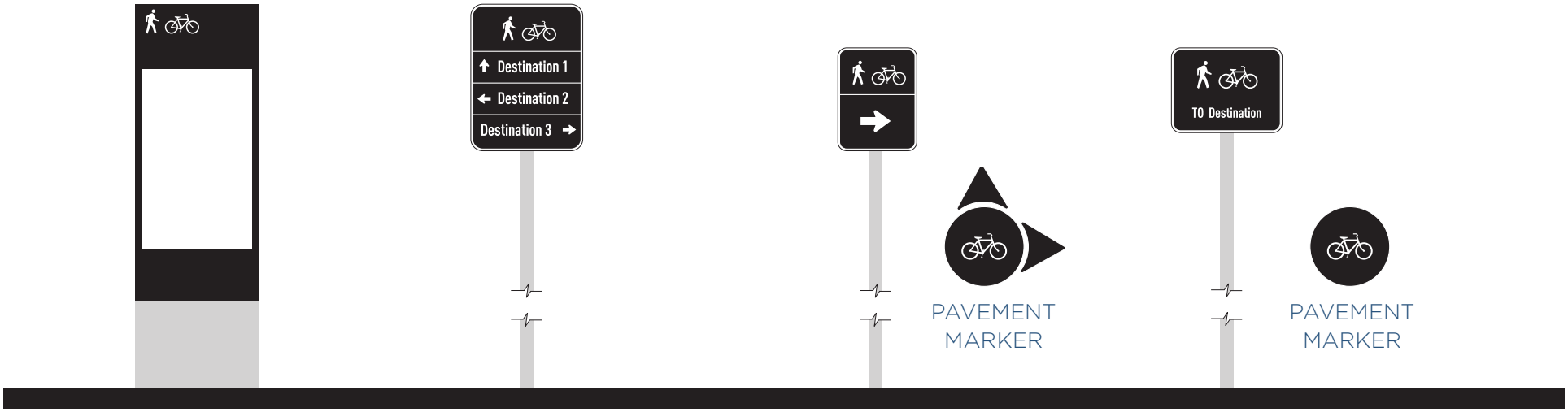
- Information kiosks
- Secondary access signage, or alternative kiosk

FUNDAMENTAL NAVIGATIONAL ELEMENTS (See Page 9)

- Decision signs
- Confirmation signs
- Turn signs

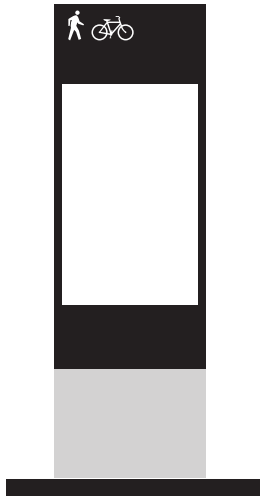
ENHANCED NAVIGATIONAL ELEMENTS (See Page 12)

- Pavement markings



Access Elements

Access elements guide users into the network served by the wayfinding system either by marking physical entry to trails, pathways, or other facilities, or by providing information to new or potential users in a clear and understandable way that encourages participation in active travel. The most common application of access elements is for off-street trails and paths, but they are also effective in downtown areas, in conjunction with transit hubs, or in other multimodal transfer locations. Access elements can include gateway monuments, information kiosks, and secondary access signage. Note that it may be possible to combine multiple access elements in some cases; or, for instance, kiosks may serve the purpose of gateway monuments, and vice versa.



INFORMATION KIOSKS

Kiosks that include area or regional maps provide helpful navigational information, especially where users may be stopping long enough to digest more information (i.e., transit stations or stops, busy intersections, trailheads). Kiosks should be located in conspicuous areas along the primary route from parking areas to the trail. Sufficient space should be provided around the kiosk to allow people to observe the information without obstructing adjacent walkways, while meeting ADA clear zone requirements.

Typical elements to include on information kiosks are:

- City or regional map, including bicycle and pedestrian facilities, transit stations, bus stops, bike share or micromobility stations, and common destinations
- Community branding
- Regulations, etiquette, and safety information
- Trail name (if applied to a specific trail)

Additionally, per the Americans with Disabilities Act (ADA) standards, trailhead facilities built with federal funds shall include the following information:

- Length of the trail or trail segment
- Surface type/firmness/stability
- Typical and minimum width
- Typical and maximum running slope
- Typical and maximum cross slope

SECONDARY ACCESS SIGNAGE (ALTERNATIVE KIOSK)

Secondary access points with limited parking, services, or user traffic may not necessitate the same level of information and signage as formal access points with greater use. Signage at these locations may vary from a simple confirmation sign stating the name of the trail to a scaled down trailhead kiosk complete with user map, rules and regulations, permitted and restricted uses, and destination information.

Fundamental Navigational Elements

Fundamental navigational elements are the foundation of a wayfinding system to guide bicyclists to their destinations along designated facilities. These fundamental elements as they pertain to on-street bicycling are found in the Manual of Uniform and Traffic Control Devices (MUTCD) (Section 9B.20) and include decision signs, confirmation signs, and turn signs. While MUTCD standards relate directly to on-street bicycle networks, the same sign types and design considerations apply to off-street shared use paths. Fundamental navigation elements for off-street facilities differ from on-street MUTCD-regulated facilities in that they consider multiple modes beyond just bicycles (e.g. pedestrians, skateboards, scooters, etc.) and opportunities exist for more flexible sign design and branding.

DECISION SIGNS

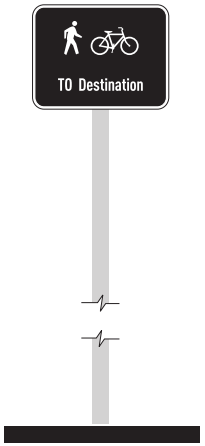
Decision signs mark and are placed prior to the junction of two or more bikeways. These signs also inform users how to access nearby destinations. These signs include destinations that can be paired with distances in time and/or mileage, and arrows. Users can orient themselves within the bikeway system based on key destinations including culturally significant landmarks, shopping districts, and other recreational facilities. These signs provide direction and distance to key destinations.

CHARACTERISTICS OF DECISION SIGNS

- Mark the junction of two or more bikeways
- Inform users of designated routes to access key destinations
- Provide direction and distance to destinations
- May include travel times to destinations

PLACEMENT CRITERIA FOR DECISION SIGNS

- For on-street applications, place 50-100 feet prior to a decision point; for off-street: 25-50 feet. These are adequate distances for bicyclists to see and respond to sign messaging. Exact distances will vary depending on context
- Placed at key junctions alongside a bike route to indicate nearby destinations
- Left turns for bicyclists require special consideration. The decision sign should be located within various distances before the intersection based on the number of lanes the bicyclist must merge across in order to make a legal left turn. The following distances should be used to allow adequate notification of left turns:
  - Zero lane merge: 50’
  - One lane merge: 100’
  - Two lane merge: 200’
- Signs should have a maximum of three destinations
- Signs should have a 2-foot minimum lateral offset of from edge of path or curb to edge of sign to prevent clipping from traffic



CONFIRMATION SIGNS

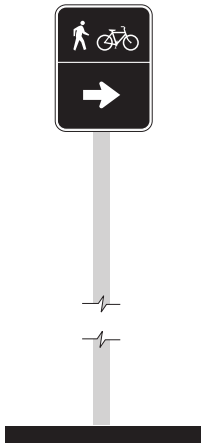
Confirmation signs identify designated bike routes. This builds confidence that the user is on the correct path or route. In addition, these signs increase awareness of bicyclists by informing motorists of their presence. Confirmation signs are an integral component of any trail or bike system that crosses roads, changes direction, and has intermediate access points between trail or route beginning or end.

CHARACTERISTICS OF CONFIRMATION SIGNS

- Placed after access points along a trail or on-street bikeway, as well as after decision or turn signs
- Spaced periodically along a route or trail to maintain a consistent level of confidence that users are still traveling along the same route
- Do not indicate a change in direction
- May have informational or branding content such as the name of the route
- May include up to one directional destination (e.g. downtown)

PLACEMENT CRITERIA FOR CONFIRMATION SIGNS

- After decision signs and decision points
- Locations where a designated route is not linear as well as after complex intersections (e.g. intersections with more than four approaches, roundabouts, or indirect routing)
- Approximately every 1-2 miles on off-street facilities, unless another type of bicycle-specific sign (such as a turn, decision, mile marker, or other bicycle regulatory sign) or pavement marking is present within the 1-2 mile interval
- Within 50-100 feet immediately following turns to confirm designated bicycle route
- Signs should have a 2-foot minimum lateral offset from edge of path or curb to edge of sign to prevent clipping from traffic
- Mounting height should be a minimum of 7’ from the bottom of the sign to finished grade for on-street signs and a minimum of 4’ for signs along off-street facilities
- If the signed route is approaching a turn, turn signs or decision signs should be used instead of confirmation signs



TURN SIGNS

Turn signs indicate where a bikeway turns from one street onto another street, and only one route option is available. Turn signs are at key points of navigation for bikeway users. Turn signs direct the cyclist where to turn to remain on the designated route, allowing the cyclist to dedicate most of his or her attention to riding safely and responsibly.

CHARACTERISTICS OF TURN SIGNS

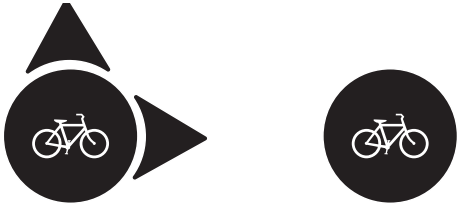
- Clear direction for bicyclists to turn when a route transitions from one roadway or trail to another
- May be a combination of a confirmation sign (MUTCD D11-1) and directional arrow (MUTCD M6-1) or a stand-alone decision plaque (MUTCD D1-1, D1-1b)
- May include travel distance to destination (MUTCD D1-1a, D1-1c)

PLACEMENT CRITERIA FOR TURN SIGNS

- The turn sign should be located in the block immediately preceding the turn
- When a bikeway turns, a turn sign will be located at 50-100 feet (on-street) or 25-50 feet (off-street) in advance of the turn, or near side of the intersection)
- Left turns for bicyclists require special consideration. The turn sign should be located within various distances before the intersection based on the number of lanes the bicyclist must merge across in order to make a legal left turn. The following distances should be used to allow adequate notification of left turns:
  - Zero lane merge: 50’
  - One lane merge: 100’
  - Two lane merge: 200’
- Signs should have a 2-foot minimum lateral offset from edge of path or curb to edge of sign to prevent clipping from traffic
- Mounting height should be a minimum of 7’ from the bottom of the sign to finished grade for on-street signs and a minimum of 4’ for signs along off-street facilities
- In locations where there are two or more bike routes, a decision sign, rather than two turn signs, should be used

Enhanced Navigational Elements

Enhanced navigational elements provide additional wayfinding assistance beyond fundamental signage, improving the user experience and providing more opportunities for system branding and identity. Enhanced navigational elements could include pavement markings, mile markers, street/trail intersection signs, and fingerboard signs.



PAVEMENT MARKINGS

For on-street bikeways, pavement markings typically function to position bicyclists in the proper lane location and communicate to motor vehicle drivers the presence of bicyclists. However, pavement markings can serve a variety of wayfinding purposes along bikeways and trails. They can often be utilized to communicate direction, route name, community branding, mile markers, and street crossings. Pavement markings may be provided in lieu of, or in addition to standard signs, thus limiting sign clutter. Common materials used for pavement markings include pre-formed thermoplastic, paint, stamped concrete, or embedded metal.

DESTINATION SELECTION AND PROGRAMMING

Following the principle of "connect places," this section describes an approach for selecting potential destinations to which people traveling along Lawrence's bicycle network may want to go. Wayfinding signs typically only allow for a limited number of destinations per sign. Thus, a consistent approach to selecting destinations for inclusion on wayfinding elements is necessary, given the multitude of potential destinations possible. Signs should follow the same approach throughout Lawrence so that the system is clear and predictable. Destinations and their names should be referred to consistently on all relevant wayfinding signs. As a general rule, only destinations that are open and accessible to the public should be signed.

DESTINATION HIERARCHY

Due to the number of destinations in Lawrence that are accessible by bicycle, it is best to organize these destinations into a hierarchy. A hierarchy of destinations is necessary in order to determine which destinations to include when there are too many possible destinations. Such a hierarchy allows information to be layered through a series of decision points as a visitor enters the City and makes their way to destinations. The concept is simple—it is giving the right information at the right time.

Prioritizing and categorizing destinations into hierarchies also helps determine the physical distance from which the locations are signed. Note there is flexibility in these hierarchies as locations may not fit neatly into each.

PRIMARY DESTINATIONS

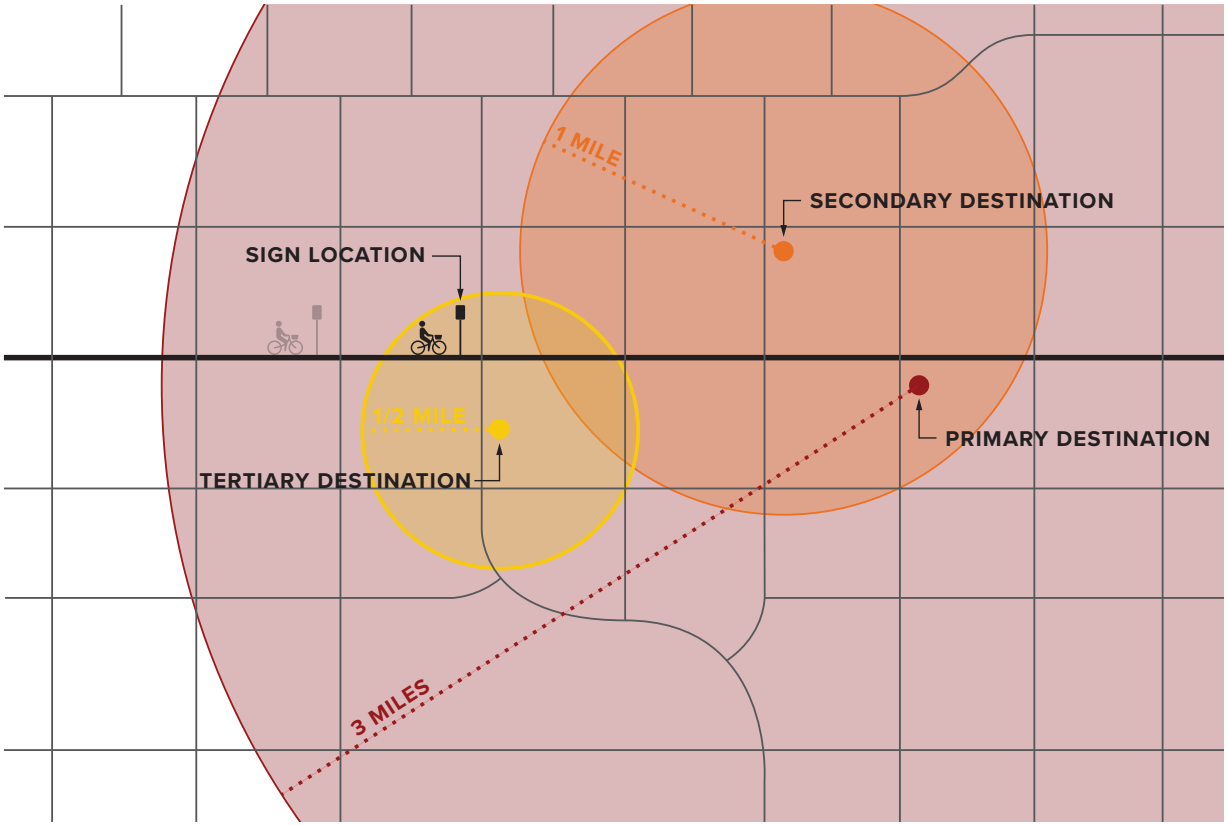
Destinations in this category are of primary importance and receive directional information to their locations on directional signs from a large radius throughout the City. They serve as "pull through" destinations because they draw visitors through the City from longer distances. These destinations serve a primary visitor function, such as a visitor center or convention center. Examples of destinations that fall into this category are downtowns, statewide or regional trails, districts (of regional significance), major and regional parks, arenas and stadiums, culturally significant landmarks, major institutions, universities, and other municipalities.

SECONDARY DESTINATIONS

Destinations in this category are of major importance and receive directional information to their locations on signs from a smaller radius surrounding their locations. Typically this is limited to the decision points located closest to the point of interest. These are generally recognized destinations that have access to the bikeway or trail system nearby. Examples of destinations that fall into this category are transit stations, community parks, secondary schools, and neighborhood shopping districts.

TERTIARY DESTINATIONS

Destinations in this category are minor, or exclusively civic destinations, and are primarily accessed by pedestrians, non-motorized vehicles or offer non-motorized activity such as trails, skate park, and water activities. These destinations are generally local attractions or activities such as community and recreation centers.



Which destinations are included on the sign?

Yes	No	Yes

SIGNING DISTANCES

Signing distances suggest the maximum distance that destinations should appear on directional signs. This process ensures that information is spread along the journey in manageable amounts according to users' immediate needs.

Distances may be measured either to a destination boundary or center, as long as the approach is consistent throughout the region. Cities typically have a well-defined edge and thus should be measured to boundary lines. Districts are less defined in terms of their boundaries and can be measured to their centers or widely recognized/perceived boundaries such as streets or landmarks. Parks, schools, are other specific destinations typically have a street address and thus distances should be measured to the main entrance of the specific location. If a destination is large or has several access points, distance should be measured to the point at which the bicyclist or pedestrian will most likely arrive.

PRIMARY DESTINATION SIGNING DISTANCE

Primary destinations provide navigational guidance to the widest spectrum of system users and thus should be prioritized on signs. In the case of Lawrence, primary destinations should appear on signs up to three miles away, but may be signed for distances longer than three miles if they have a strong regional pull.

SECONDARY DESTINATION SIGNING DISTANCE

Secondary destinations appeal to a broad spectrum of users and should be included on signs up to two miles away.

TERTIARY DESTINATION SIGNING DISTANCE

Tertiary destinations are typically places local or neighborhood interest and should be signed up to one mile away.

DESTINATION ORDER

Decision signs should be limited to no more than three lines of destinations, which include place names, route numbers, street names, and cardinal directions.

A straight-ahead location should always be placed in the top slot followed by the destination to the left and then the right, even if destinations to the right or left are closer. If two destinations occur in the same direction, the closer destination should be listed first followed by the farther destination.

Arrows should be placed for glance recognition, meaning straight and left arrows are located to the left of the destination name, while a right arrows are placed to the right of the destination name.

ABBREVIATIONS

When placing destination names on signs, names and routes should not exceed a maximum of 28 characters (including spaces and icons). When insufficient space is available for full wording, abbreviations may be used. Unless necessary to avoid confusion, periods, commas, apostrophes, question marks, ampersands, and other punctuation marks or characters that are not letters or numerals should be avoided. All abbreviated destination names should be approved by the City and conform to the specifications in the design intent drawings.

GENERAL PLACEMENT GUIDANCE

Consistent and appropriate placement of wayfinding elements helps to provide a legible wayfinding system while ensuring the signage elements do not create undue safety hazards. The Guide for the Development of Bicycle Facilities by the American Association of State Highway Transportation Officials (AASHTO) provides information on the physical infrastructure needed to support bicycling facilities. Most of this guidance applies to off-street, shared-use paths as well. The AASHTO Guide largely defers to Part 9 of the MUTCD for basic guidelines related to the design of wayfinding systems. Additional information provided by AASHTO regarding sign placement is as follows:

- Wayfinding guidance may be used to provide connectivity between two or more major facilities, such as a street with bike lanes and/or sidewalks and a shared-use path
- Wayfinding may be used to provide guidance and continuity in a gap between existing sections of a facility, such as a bike lane or shared-use path
- Road/path name signs should be placed at all path-roadway crossings to help users track their locations
- On a shared-use path, obstacles, including signs, shall be placed no closer than 24" from the near edge of the travel way and no more than 6' away. For pole-mounted signs, the lowest edge of the sign shall be 4' above the existing ground plane

ACCESSIBILITY STANDARDS

As wayfinding systems often relate to accessible routes, it is important to consider technical guidance from the Americans with Disabilities ACT (ADA) in order to implement wayfinding signs and other elements that do not impede travel or create unsafe situations for pedestrians, bicyclists, and/or those with disabilities. The Architectural and Transportation Barriers Compliance Board and the AASHTO Guide for the Development of Bicycle Facilities also provide guidance for safe and accessible design for the built environment. The following are standards that should be considered when designing and placing wayfinding signs.

VERTICAL CLEARANCE

On-Street: Vertical clearance shall be a minimum of 84" when adjacent to a sidewalk or on-street environment.

Off-Street: Vertical clearance shall be 96" high maximum (when overhanging the path), or 48" minimum from the grade of the path to the bottom of the sign and 24" from the edge of the path tread to the edge of the sign when the sign is mounted adjacent to the trail.

POST-MOUNTED OBJECTS

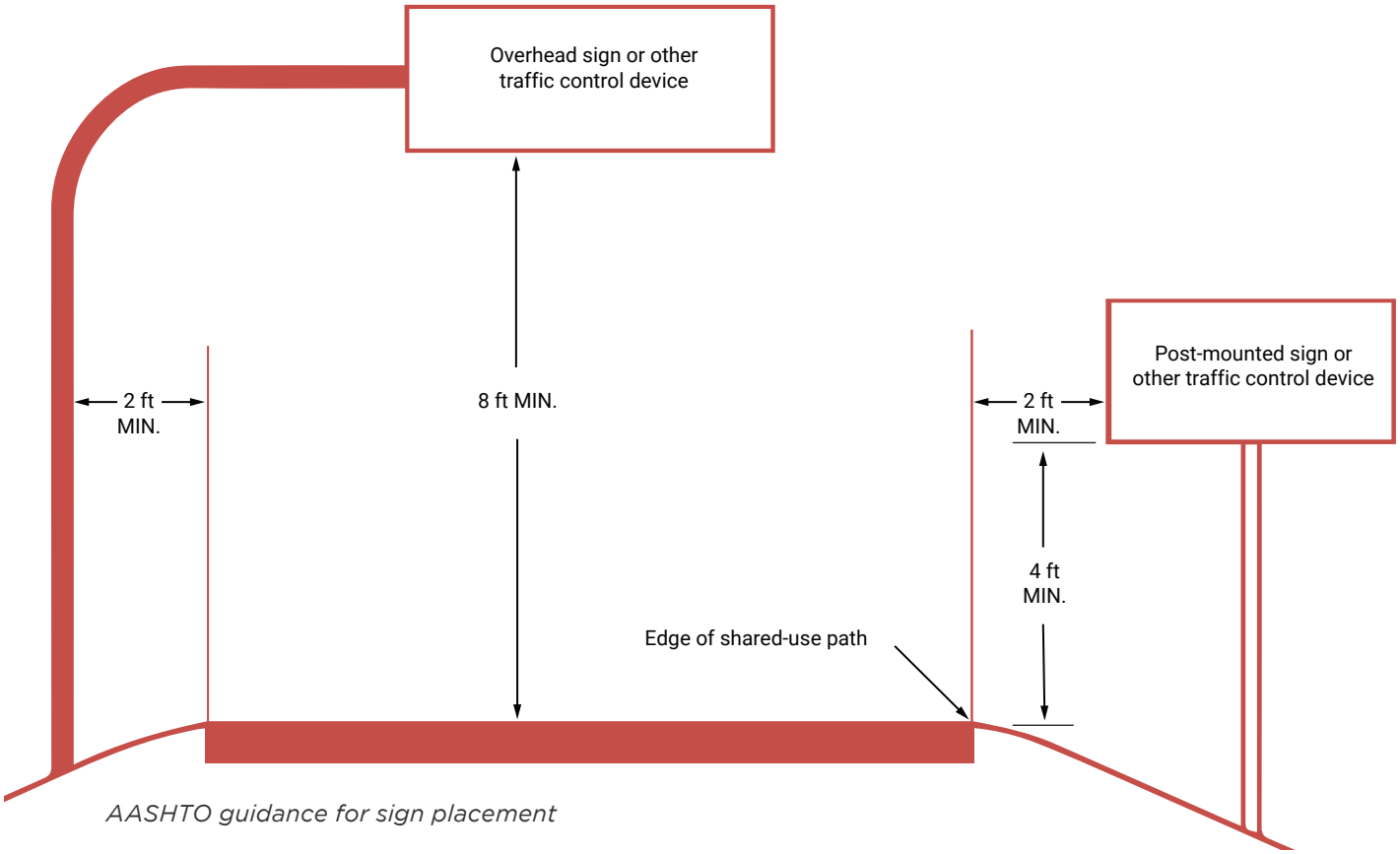
Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12", the lowest edge of such sign or obstruction shall be 27" minimum or 80" maximum above the finished floor or ground.

PROTRUDING OBJECTS

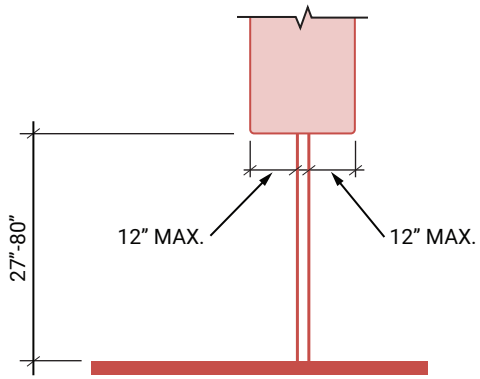
Objects with leading edges more than 27" and not more than 80" above the finished floor or ground shall protrude 4" maximum horizontally into the circulation path.

REQUIRED CLEAR WIDTH

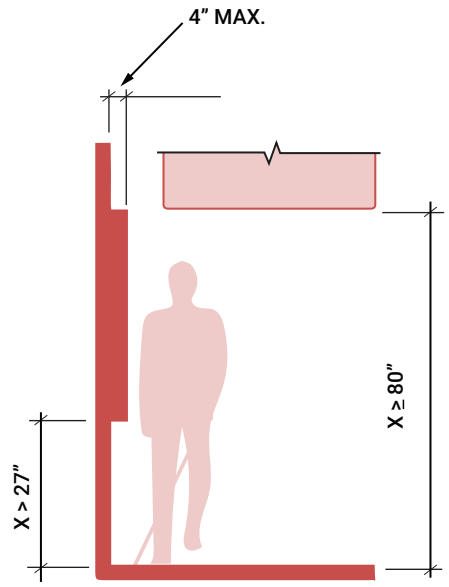
Protruding objects may not, in any case, reduce the clear width required for accessible routes. Generally, this requirement is met by maintaining 4' minimum clear width for people maneuvering mobility devices. This requirement applies to sidewalks and other pedestrian circulation paths.



AASHTO guidance for sign placement



a) Minimum clearance for post-mounted objects



VISUAL PREFERENCE SURVEY

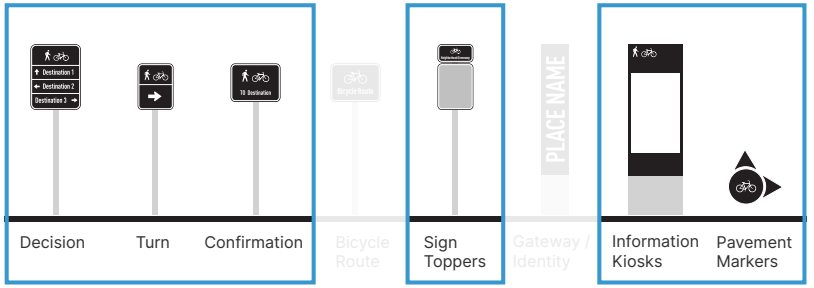
1

What should the signs look like?

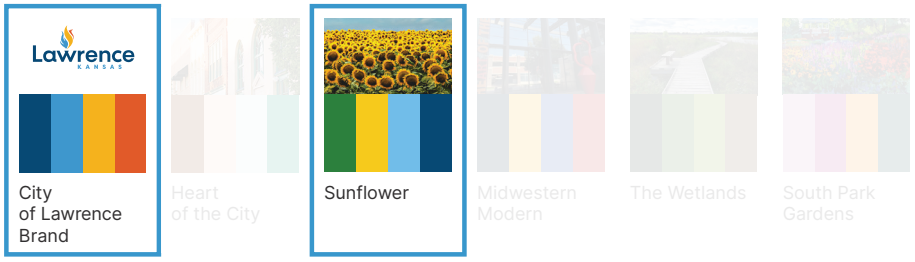
The design process to create the Lawrence Bicycle Wayfinding Family was initiated by a visual preference survey that was facilitated with the Lawrence Bicycle Wayfinding Steering Committee. Visual preference surveys engage stakeholders through open-ended questions that don't require any background in design. The visual preference survey is a team-building and data-gathering tool to start forming a shared language of design, to get people talking about their preferences, and primarily, to elicit a sense of place, desired tone, and creative intent for the design process. These surveys can also help understand which information is most important for the wayfinding system, such as mileage and maximum number of destinations. Findings from survey participants play a meaningful role in the development and customization of wayfinding sign concepts and programming.

The visual preference survey was facilitated by Alta during a virtual Lawrence Bicycle Wayfinding Steering Committee meeting and the results were shared back with the committee for confirmation. Some of these results are displayed to the right, and the full visual preference survey can be found in the appendix. Survey results were discussed among the stakeholders and the basis of this design discussion served as the guiding principles to create the first draft of wayfinding family concepts, which can be found on the following pages.

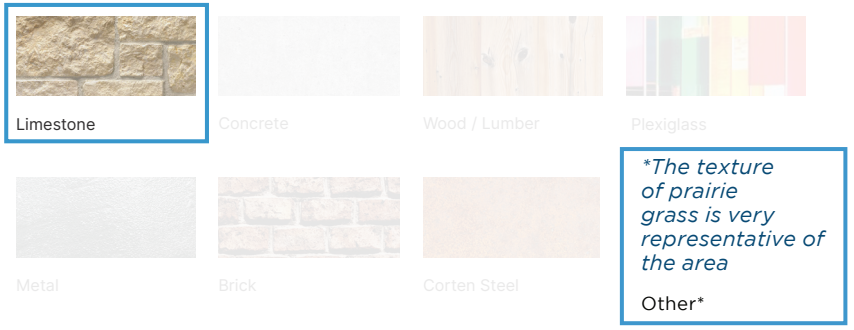
Which types of wayfinding signs are most helpful to you as a cyclist? Select up to 5.



Which colors resonate with your vision for a unified wayfinding system in Lawrence?



Are there materials or inspirational elements that are representative of the area, native to the land, or meaningful to the community?



DRAFT WAYFINDING FAMILY CONCEPTS

DRAFT CONCEPT 1A: NEW FASHIONED OFF-STREET (GREEN)

** Color not a part of the City of Lawrence brand guidelines*

GREEN* BLUE GOLD ORANGE

The first draft of wayfinding family concepts consisted of two design themes with two color schemes each. Each concept also offered a more polished post option for the off-street signs than a typical steel post used for regulatory signs.

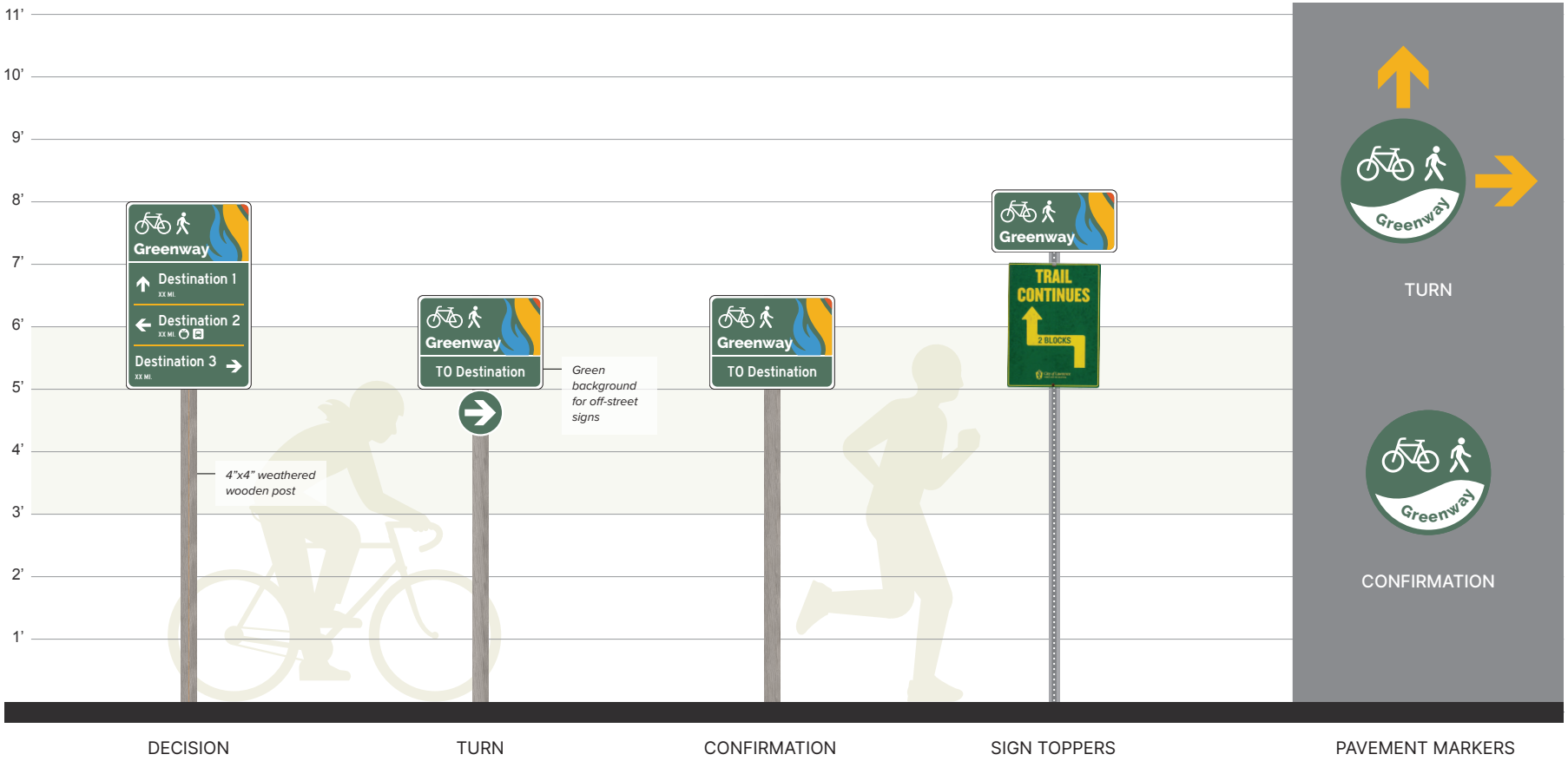
The New Fashioned concept takes inspiration from the Lawrence Flame and draws on the design principles of the MUTCD. The color scheme is based around the City of Lawrence Brand, with the option of adding a green hue that is compliant with MUTCD sign standards.

The Vibrant Lawrence concept is based on the Sunflower theme and color scheme that was also favored in the visual preference survey. This concept offers a light version of the color scheme as well as a dark version.

DRAFT CONCEPT 1A: NEW FASHIONED ON-STREET (GREEN)

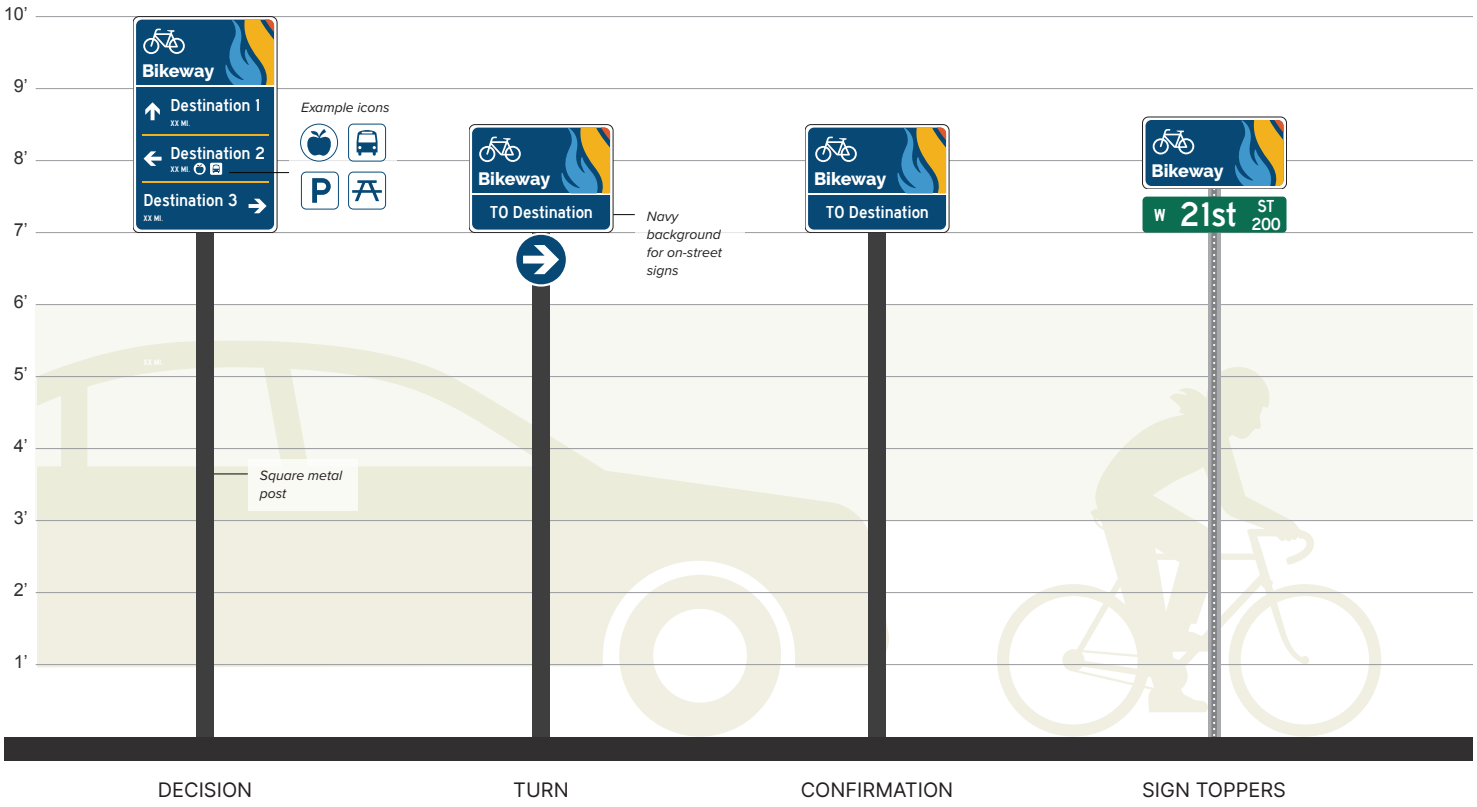
GREEN* BLUE GOLD ORANGE

** Color not a part of the City of Lawrence brand guidelines*



DRAFT CONCEPT 1B: NEW FASHIONED ON-STREET (BLUE)

NAVY BLUE GOLD ORANGE

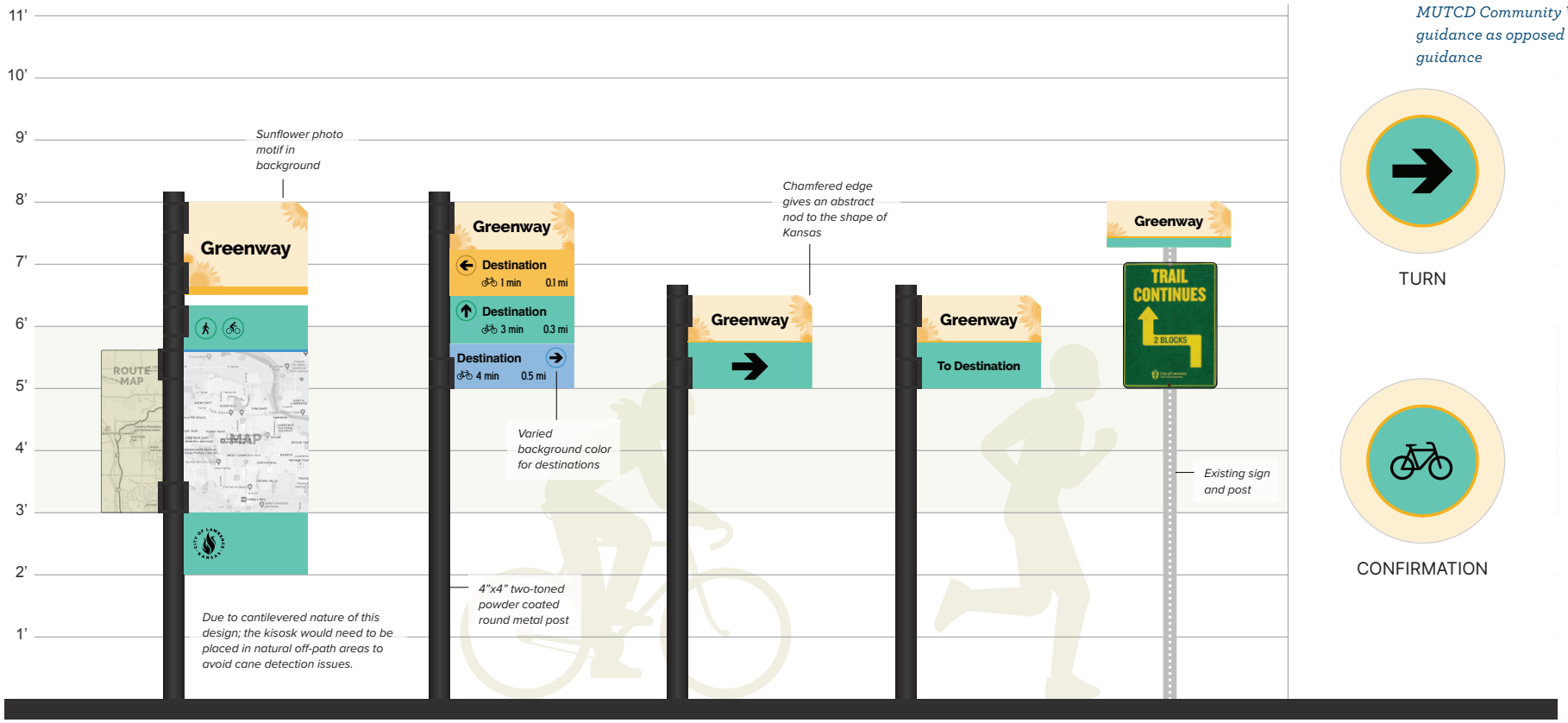


DRAFT CONCEPT 2A: VIBRANT LAWRENCE OFF-STREET (LIGHT)

AQUA* BLUE BLUE 60% GOLD 20% GOLD 80%

** Color not a part of the City of Lawrence brand guidelines*

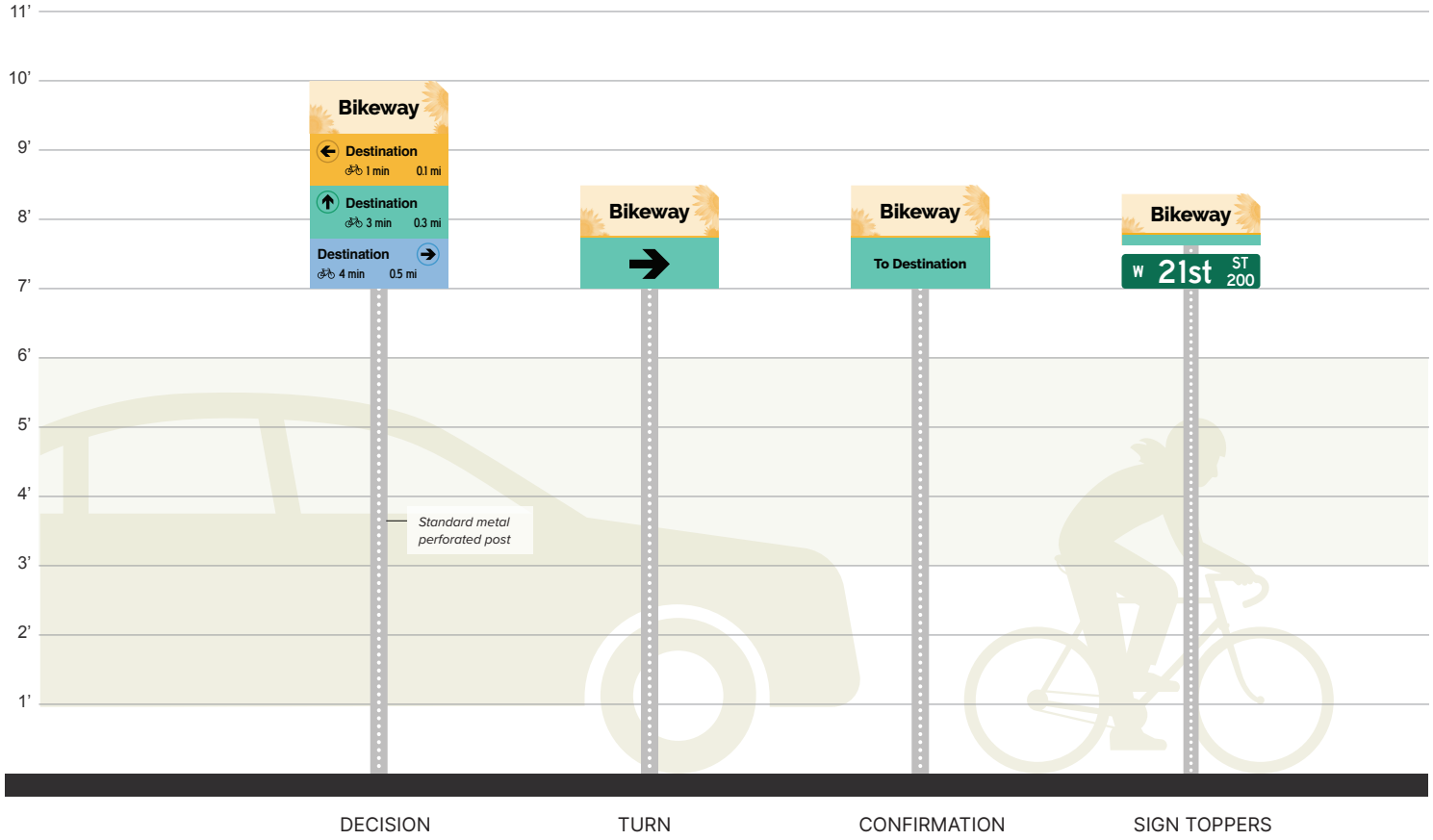
Note: this approach uses the MUTCD Community Wayfinding guidance as opposed to chapter 9 guidance



TURN

CONFIRMATION

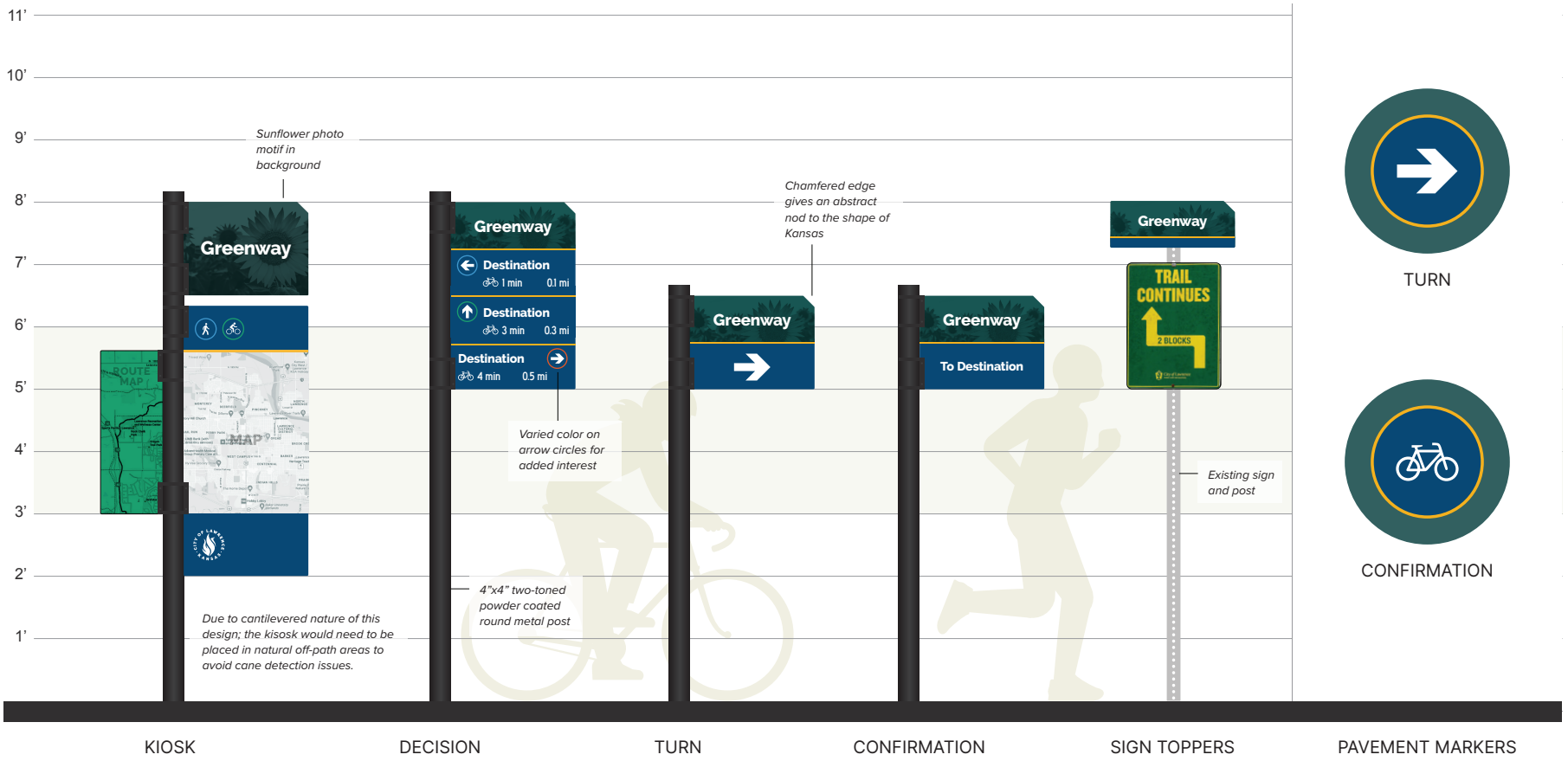
DRAFT CONCEPT 2A: VIBRANT LAWRENCE ON-STREET (LIGHT)



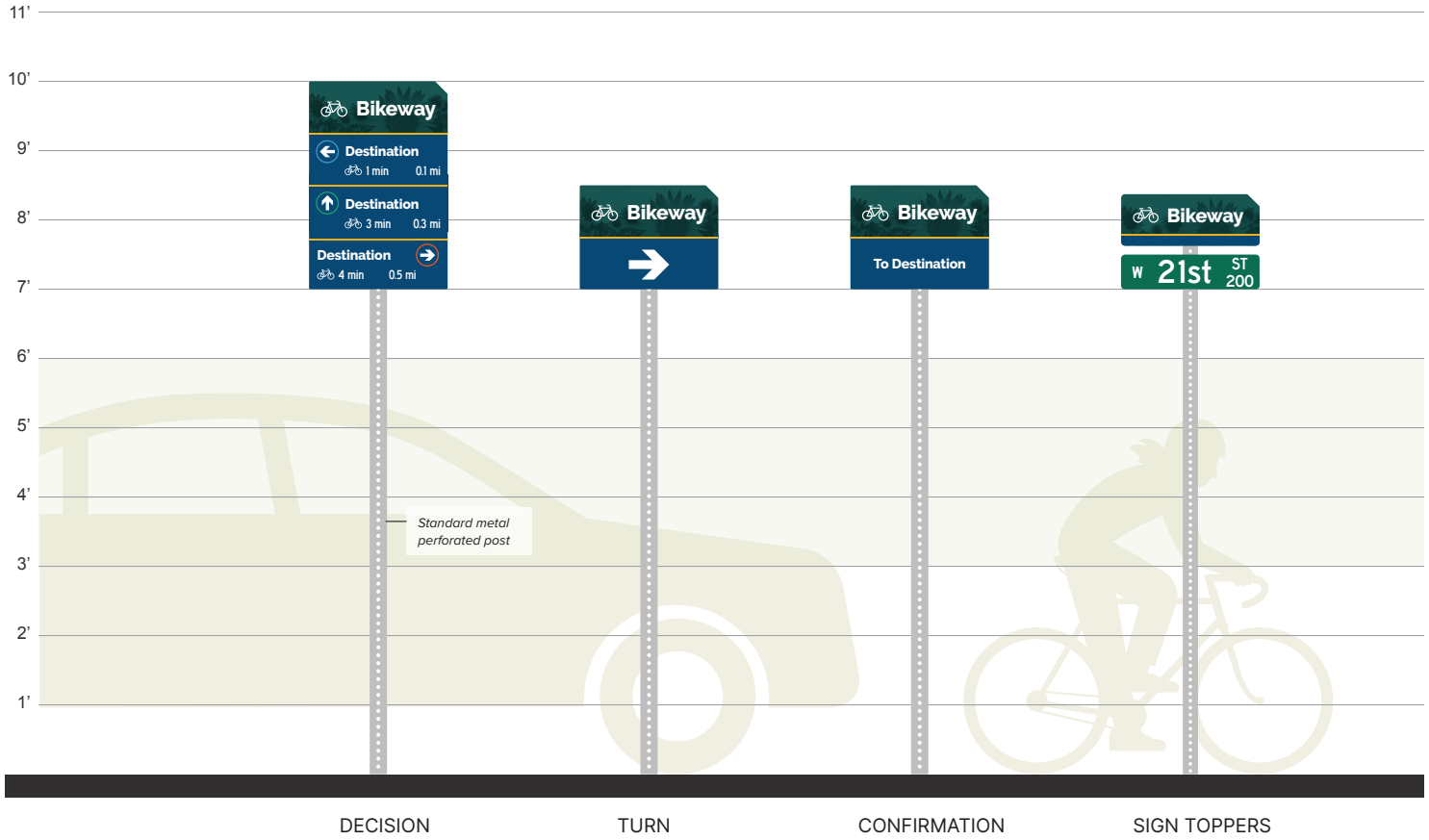
DRAFT CONCEPT 2B: VIBRANT LAWRENCE OFF-STREET (DARK)

BLUE NAVY HUNTER* GREEN* GOLD ORANGE

** Color not a part of the City of Lawrence brand guidelines*



DRAFT CONCEPT 2B: VIBRANT LAWRENCE ON-STREET (DARK)

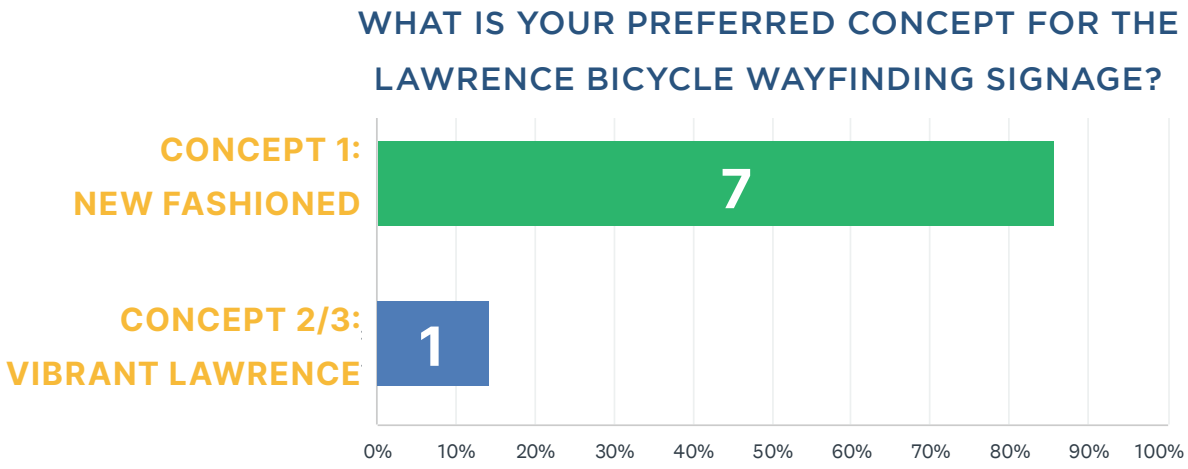


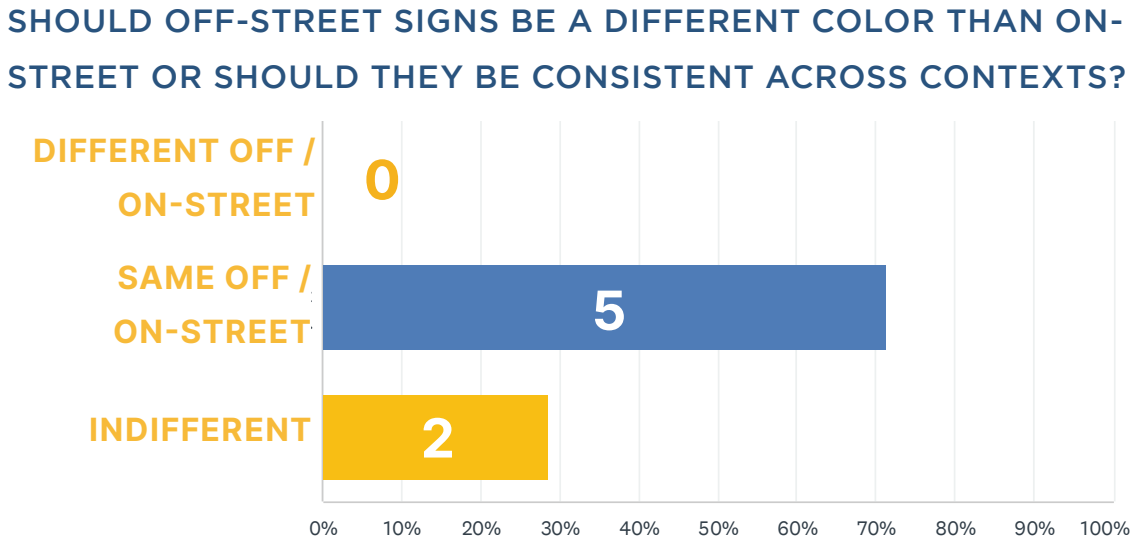
PREFERRED WAYFINDING FAMILY

As a follow-up to the visual preference survey and draft wayfinding family concepts, a new survey was created to determine which concept best captured the vision for the Lawrence Bicycle System. The Steering Committee overwhelmingly preferred the New Fashioned concept and the blue color scheme over the green. The majority of the committee agreed that the sign family should look the same whether on or off-street, except for the pole/post type. The committee preferred that the off-street posts be specified as wood or composite wood with a weathered finished over the standard steel regulatory posts.

The Steering Committee also stated preference for the modular style of kiosk in the Vibrant Lawrence concept over the kiosk alternative in the New Fashioned concept. This sign typology was then adapted into the New Fashioned concept as the kiosk alternative, with an added limestone-style base to match the kiosk.

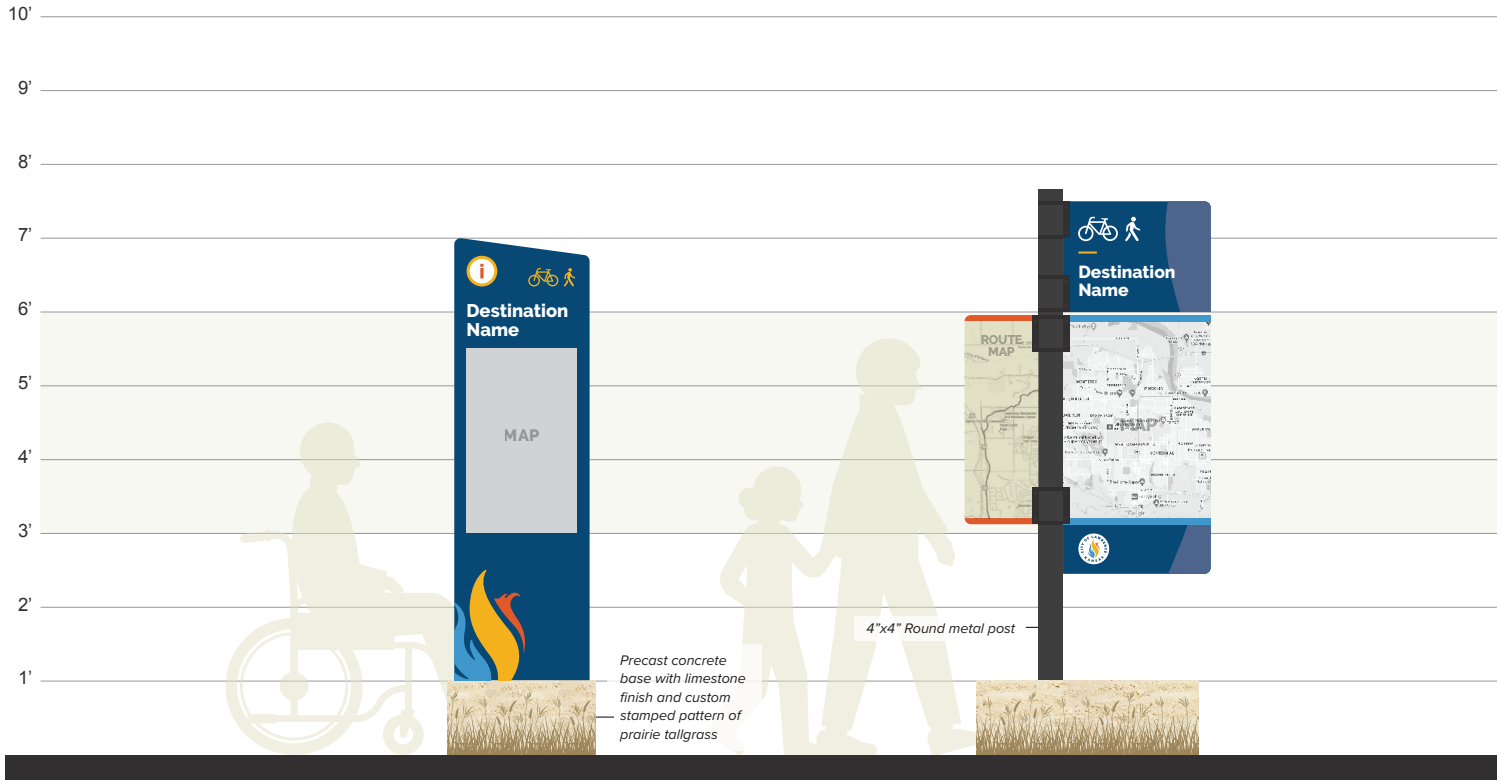
The full preferred wayfinding family concept can be found on the following pages. The complete design intent drawing package to be sent to sign fabricators for bid can be found in the appendix.





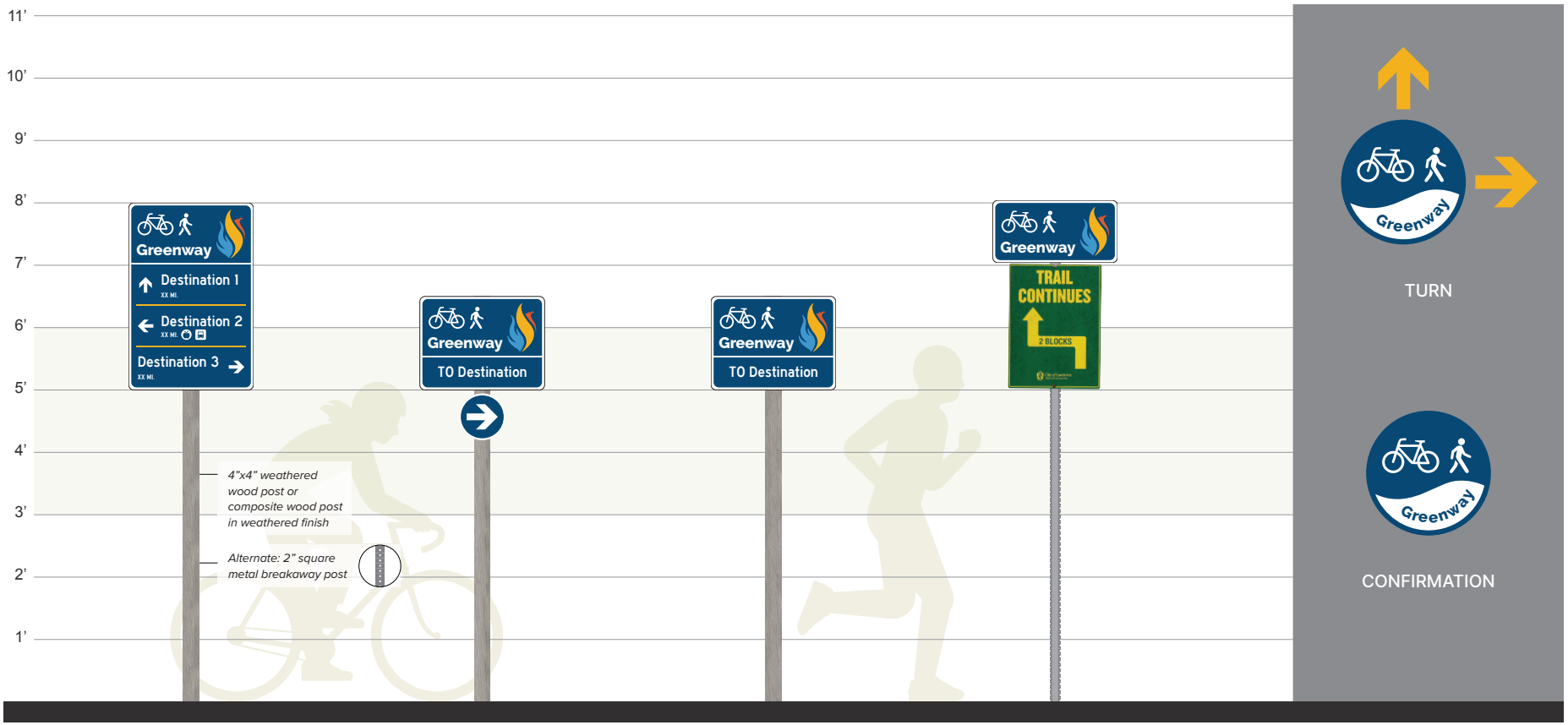
PREFERRED WAYFINDING FAMILY: OFF-STREET

NAVY BLUE GOLD ORANGE

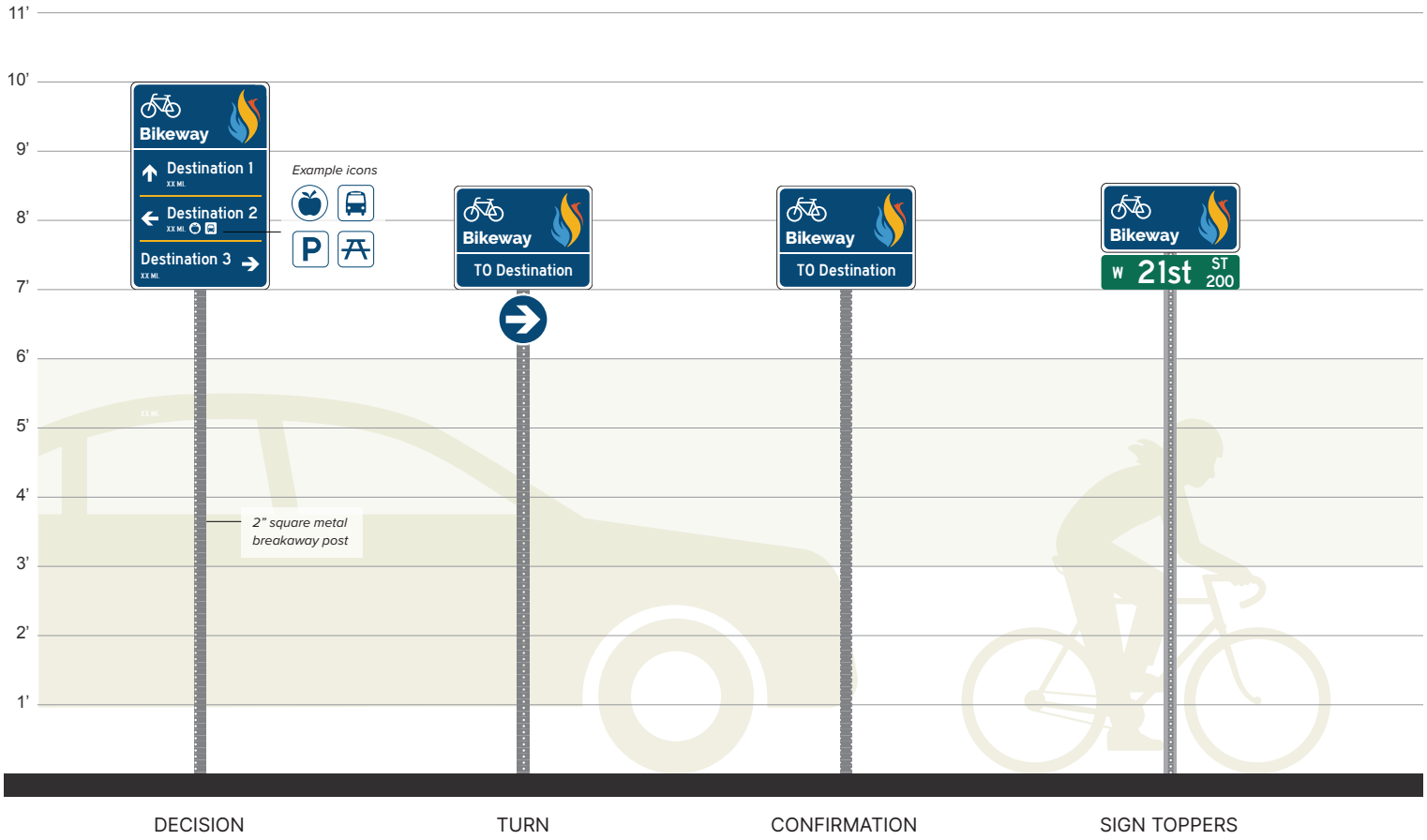


KIOSK KIOSK (ALTERNATE)

PREFERRED WAYFINDING FAMILY: OFF-STREET (CONTINUED)



PREFERRED WAYFINDING FAMILY: ON-STREET



Note: this approach uses the MUTCD Community Wayfinding guidance as opposed to chapter 9 guidance

LAWRENCE DESTINATIONS

Working closely with City staff and key stakeholders, the project team identified, located, and prioritized key destinations throughout Lawrence. These include destinations that are deemed as important for community members and visitors, such as public buildings, colleges, and recreational facilities. Primary destinations highlight main destinations in Lawrence which includes college districts, The Lawrence Loop, and popular parks like Clinton Lake State Park, Rock Chalk Park, and South Park. Secondary destinations include grade schools, public facilities, museums, and mid-sized parks. Tertiary destinations are mainly facilities that residents will access, like parks. The prioritization of these destinations were confirmed by stakeholders, and the list can be found on the following pages.

LEGEND

Wayfinding Destinations

Hierarchy

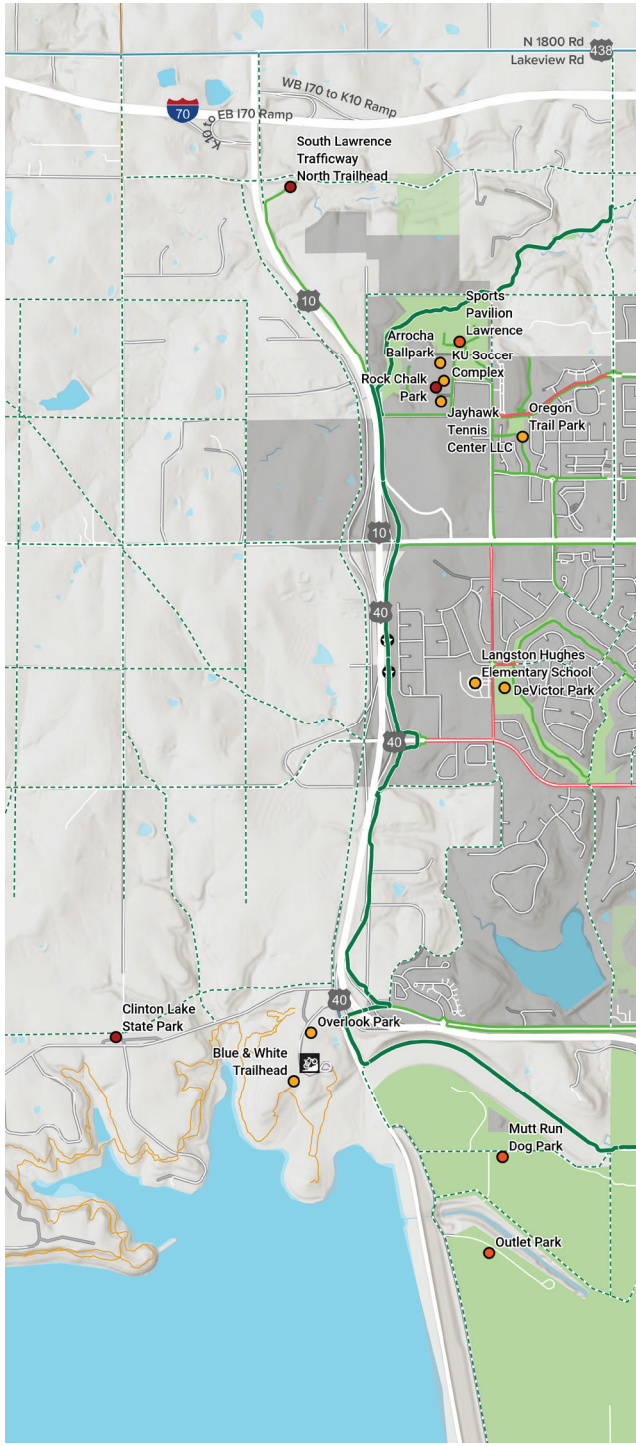
- Primary
- Secondary
- Tertiary

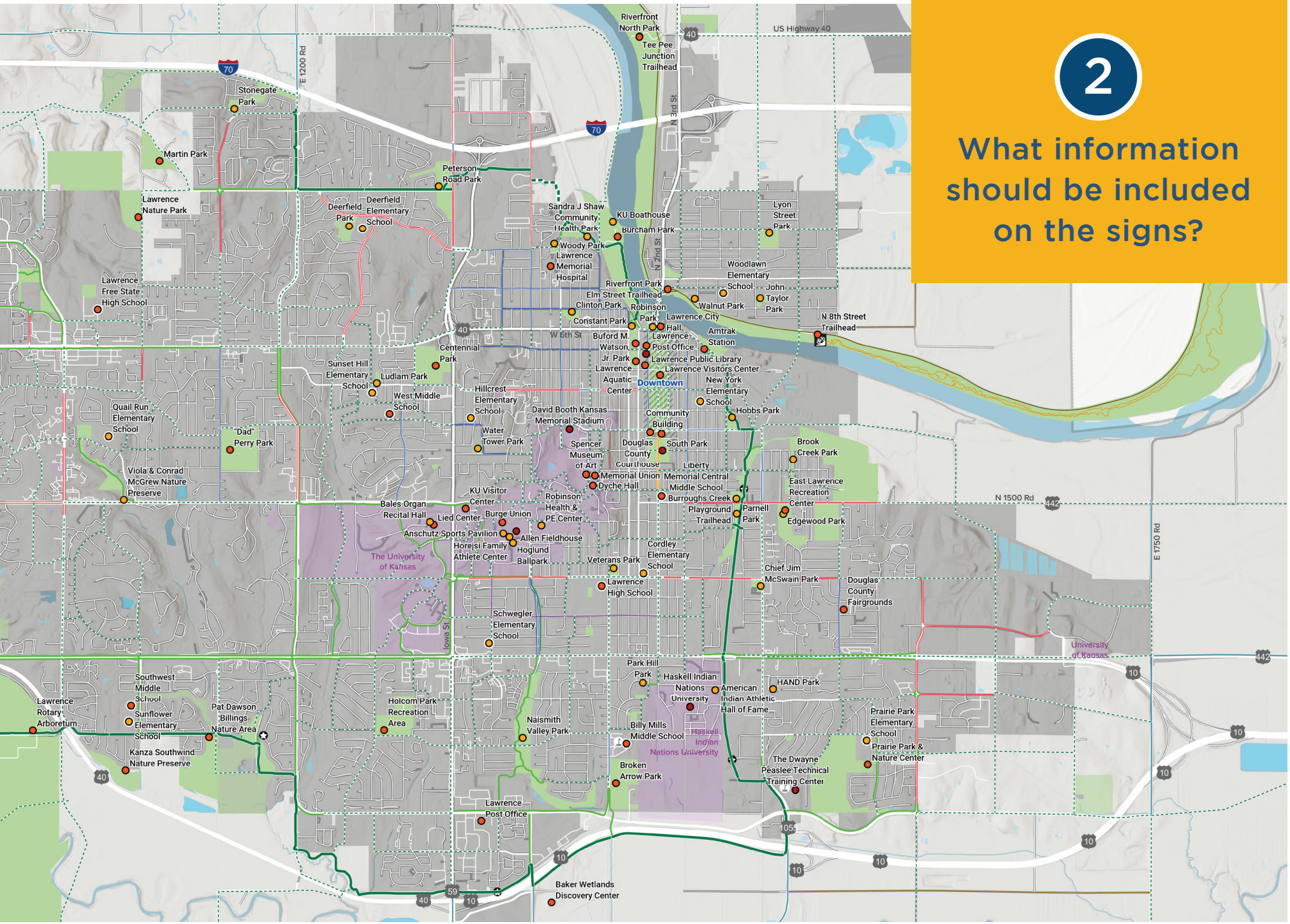
Lawrence Loop

- Existing Route
- Future Route

Bikeways (Existing and Future)

- Shared Use Path
- Bike Boulevard
- Bike Lane
- Buffered Bike Lane
- Marked Shared Lane
- Paved Shoulder
- Gravel
- Unpaved Trail
- Future Bikeway - Within Plan 2040 Growth Tier
- Future Bikeway - Shared Street
- Off-road Trailheads
- Lawrence Loop Access Points
- Off-Road Trails
- Downtown
- Parks - City
- University





2

What information should be included on the signs?

PRIMARY DESTINATIONS

- Haskell Indian Nations University
- Rock Chalk Park
- Clinton Lake State Park
- Downtown
- KU Central District*
- KU North District*
- KU West District*
- North Lawrence District
- Peaslee Tech
- Allen Fieldhouse
- David Booth Kansas Memorial Stadium
- Lawrence Public Library
- Lawrence Loop
- South Park
- Baker Wetlands Discovery Center

*Because KU Districts are generally within a mile of each other, "University of Kansas" is the default destination name unless one or a combination of the following conditions occur:

- There is only one district within range of a proposed sign
- There are multiple immediate decision points for campus within range of a proposed sign
- There are limited non-KU destinations within range of a proposed sign

SECONDARY DESTINATIONS

- Lawrence Community Center
- Douglas County Fairgrounds
- Lawrence City Hall
- Douglas County Courthouse
- Central Station
- Prairie Park & Nature Center
- East Lawrence Community Center
- Sports Pavilion Lawrence
- Lawrence Nature Park
- Lawrence Levee Trailhead
- Lawrence River Trails
- Pat Dawson-Billings Nature Area
- Mutt Run Dog Park
- Community Building
- Lawrence Memorial Hospital West
- Lawrence Rotary Arboretum
- "Dad" Perry Park
- Broken Arrow Park
- Buford M. Watson, Jr. Park
- Burcham Park
- Centennial Park
- Clinton Lake Outlet Park
- Clinton Lake Youth Sports Complex
- Martin Park
- Holcom Park Recreation Area
- Riverfront Park
- Lawrence Memorial Hospital
- Lawrence Aquatics Center
- Lawrence Visitors Center
- Senior Resource Center
- Spencer Museum of Art
- Kanza Southwind Nature Preserve
- KU Natural History Museum
- KU Memorial Union
- Lied Center
- KU Visitor Center
- KU Burge Union
- Liberty Memorial Central Middle School
- Billy Mills Middle School
- West Middle School
- Southwest Middle School
- Lawrence High School
- Free State High School
- Post Offices
- Warehouse Arts District

TERTIARY DESTINATIONS

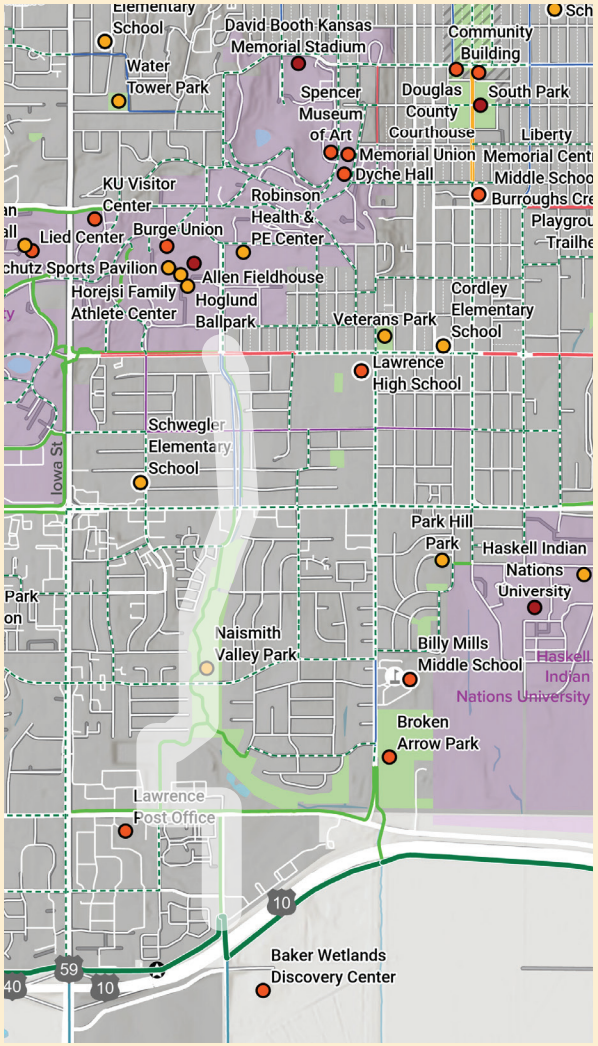
- McGrew Nature Preserve
- American Indian Athletic Hall of Fame
- KU Soccer Complex
- Brook Creek Park
- Chief Jim McSwain Park
- Clinton Park
- Constant Park
- Deerfield Park
- DeVictor Park
- Edgewood Park
- HAND Park
- Hobbs Park
- John Taylor Park
- Ludlam Park
- Lyons Park
- Park Hills Park(s)
- Parnell Park
- Robinson Park
- Sandra J Shaw Community Health Park
- Stonegate Park
- Veterans Park
- Walnut Park
- Water Tower Park
- Woody Park
- Bales Organ Recital Hall
- Peterson Road Park
- Anschutz Pavilion
- Arrocha Ballpark
- Hoglund Ballpark
- Horejsi Family Volleyball Arena
- Jayhawk Tennis Center
- Robinson Natatorium
- Rowing Boathouse
- Burroughs Creek Park
- Naismith Valley Park
- Cordley Elementary
- Deerfield Elementary
- Hillcrest Elementary
- Langston Hughes Elementary
- New York Elementary
- Prairie Park Elementary
- Quail Run Elementary
- Schwegler Elementary
- Sunflower Elementary
- Sunset Hill Elementary
- Woodlawn Elementary
- North Shore Trailhead
- Overlook Park
- Oregon Trail Park
- Pat Dawson-Billings Nature Area

NOTE:

If destinations exceed 28 characters on proposed wayfinding signage, all abbreviations must be approved by the City of Lawrence prior to fabrication; avoid reducing text size to maintain consistency of legibility.

Refer to MUTCD Table 1D-1 for standard acceptable abbreviations.

PLACEMENT PLAN



The Steering Committee identified that the existing bicycle route from W 19th St to Michigan Street south through Naismith Valley Park to the Lawrence Loop is the first bicycle route to incorporate the Lawrence Bicycle Wayfinding Family as a pilot project for the overall bicycle wayfinding system. The placement plan for these signs is geolocated with specific locations for each wayfinding feature. The placement plan has been provided to the City of Lawrence as a kmz file to facilitate simple sharing with contractors and partner agencies. Images of the placement plans can be seen on the following page. The placement plan calls for the installation of 34 signs and pavement markers, with the following breakdown:

- 20 Decision Signs (2 strapped to existing wooden light poles, 14 attached to 12 new wood posts, 3 attached to existing steel posts, and 1 attached to a new steel post)
- 2 Kiosks
- 12 Pavement Markers

A sign schedule laying out the sign face direction, destination names, directional arrows, and destination mileage for all these signs, as well as notes specific to each installation application, can be found in the appendix.

FUTURE PLACEMENT AND PROGRAMMING

Following the guidelines set forth in Section 2 (Wayfinding Best Practices) and the sign schedule provided as part of this plan, the City of Lawrence can properly locate and program wayfinding signs. This plan recommends that any bikeways or trails that are existing or slated for near-term construction should be prioritized for wayfinding implementation. Moving forward, wayfinding elements should be considered part of the complete implementation of any future bikeways or trails and should be installed at the time of construction. Therefore, wayfinding elements should be considered in cost projections and the design process.

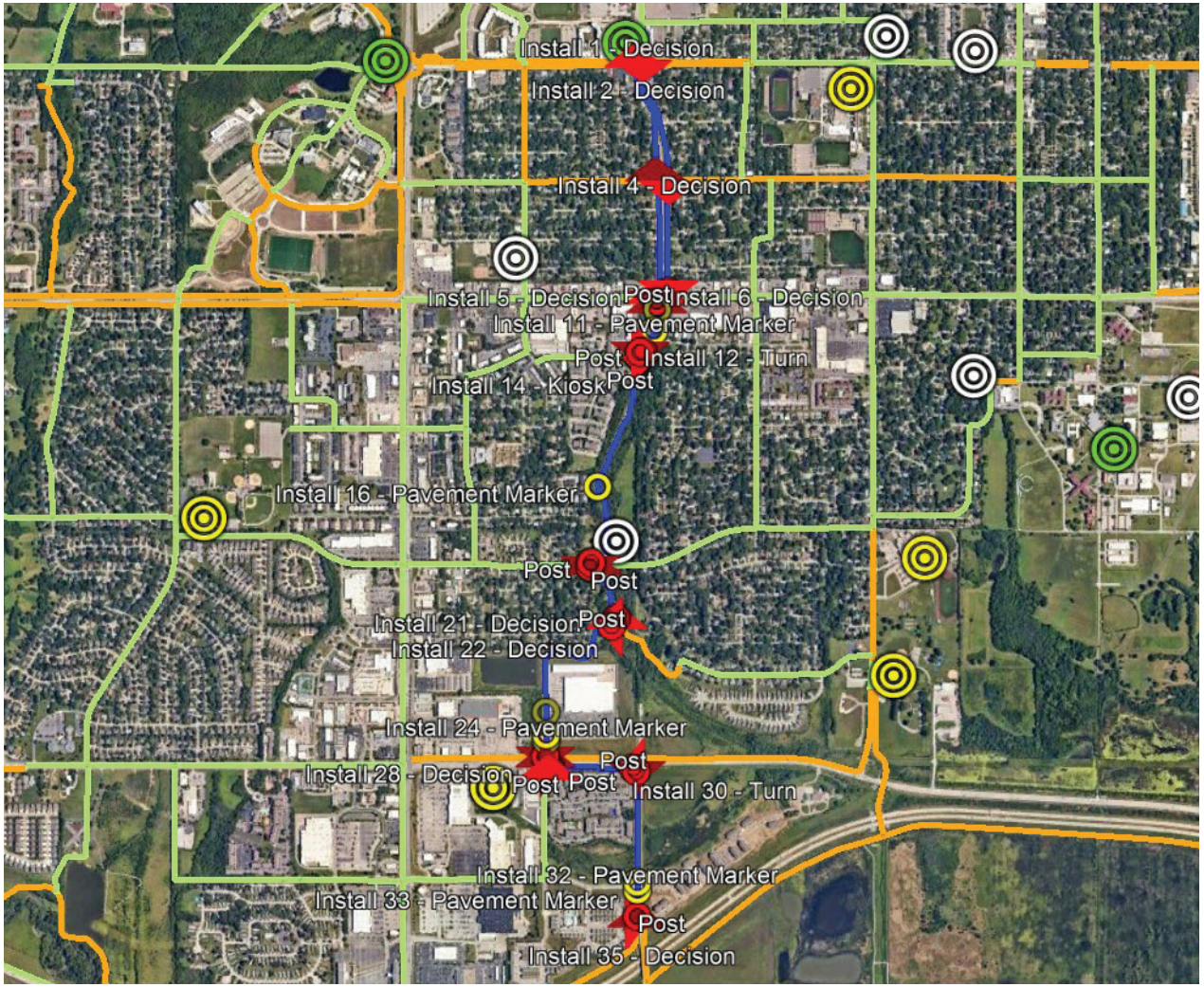
FLEXIBILITY IN SIGN PLACEMENT AND PROGRAMMING

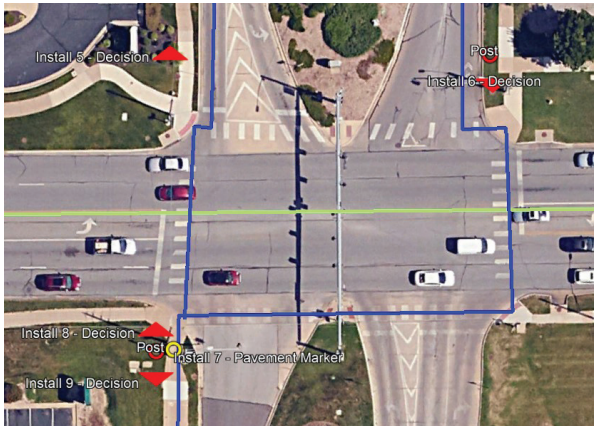
It is important to recognize that flexibility and adaptability will be necessary in future efforts to locate and program wayfinding signage. While the Wayfinding Best Practices section of this plan serves as a guide, City staff may need to make judgments regarding which destinations to include and potential abbreviations, perceived sense of arrival from destination locations, or the specific location of signs depending on context.

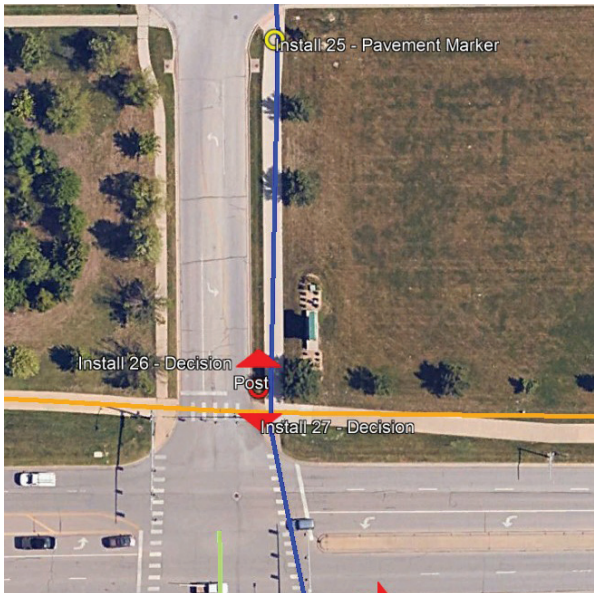
Additionally, as new bikeways and trails are built, existing signage will need to be updated to reflect connections made by new routes.

3

Where should signs be located?


Install 1 - Decision
Install 2 - Decision
Install 4 - Decision
Install 5 - Decision
Post
Install 6 - Decision
Install 11 - Pavement Marker
Post
Install 12 - Turn
Install 14 - Kiosk
Post
Install 16 - Pavement Marker
Post
Post
Post
Install 21 - Decision
Install 22 - Decision
Install 24 - Pavement Marker
Post
Install 28 - Decision
Post
Post
Install 30 - Turn
Install 32 - Pavement Marker
Install 33 - Pavement Marker
Post
Install 35 - Decision


Install 5 - Decision
Post
Install 6 - Decision
Install 8 - Decision
Post
Install 7 - Pavement Marker
Install 9 - Decision


Install 25 - Pavement Marker
Install 26 - Decision
Post
Install 27 - Decision

Lawrence, Kansas Bicycle Wayfinding VPS Summary

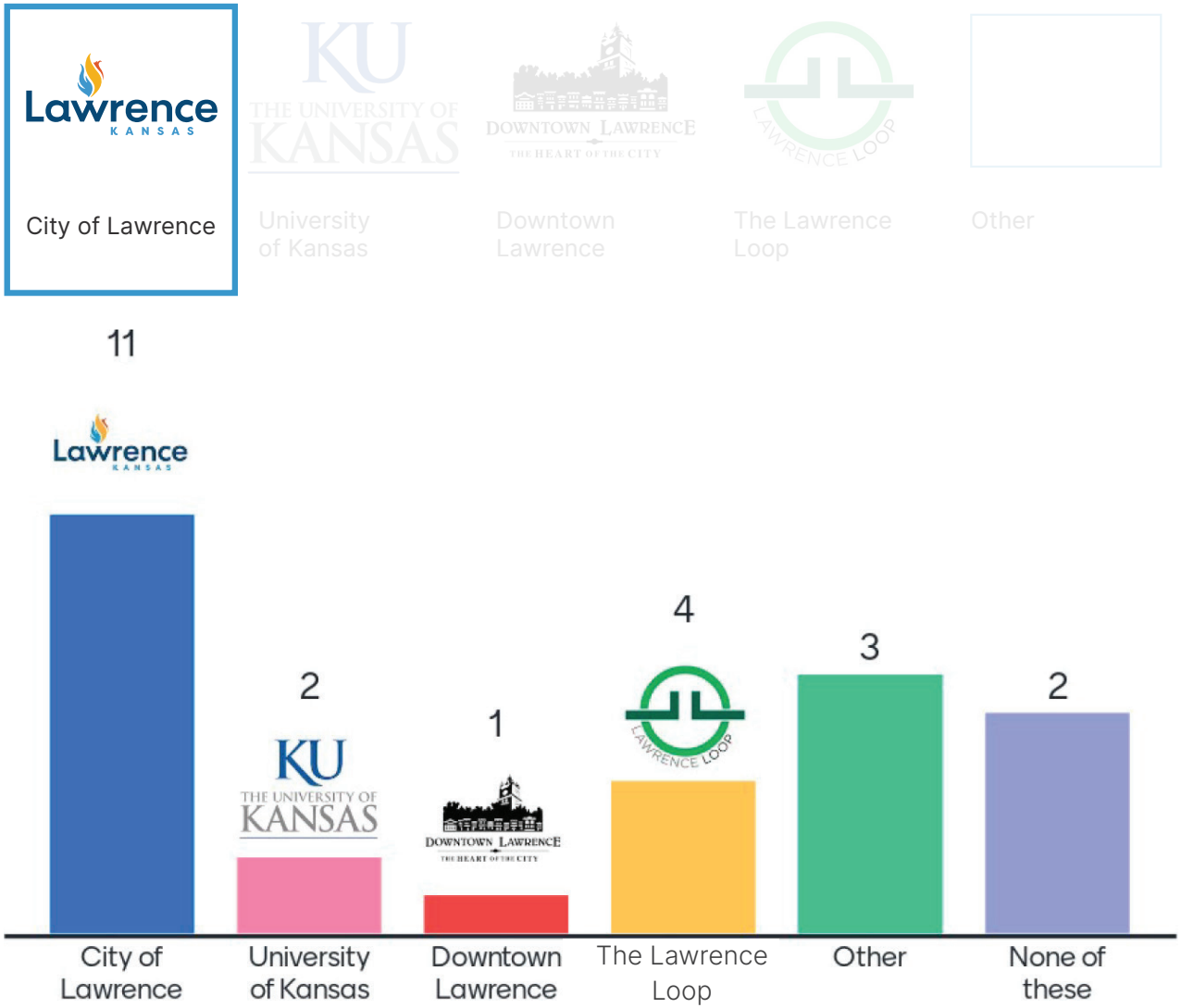
AUGUST 2023

Introduction

The following pages are the results from the Visual Preference Survey conducted in August 2023. Images that were not favored have reduced opacity, while images that were favored have a blue band around them. Other important notes and considerations are listed on the side. These results will guide development of the signage design.

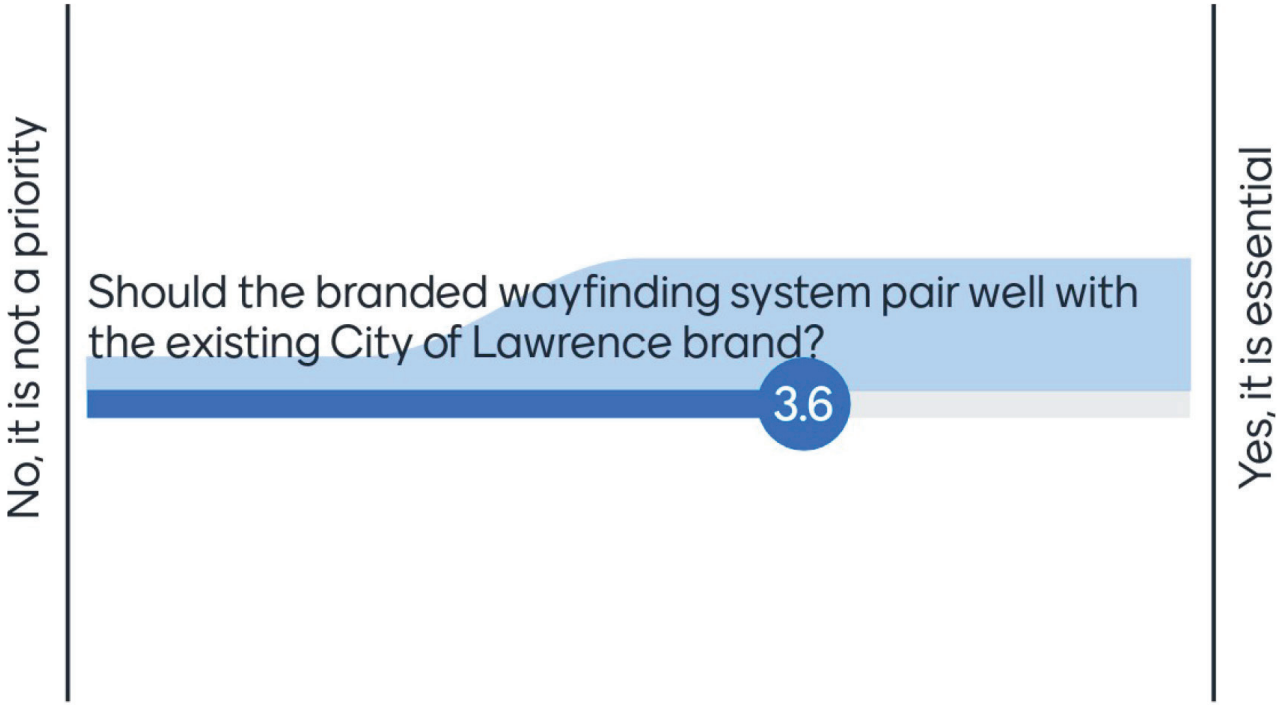
EXISTING BRANDING

Should any of these existing local brands be used as inspiration for the new wayfinding system?



EXISTING BRANDING

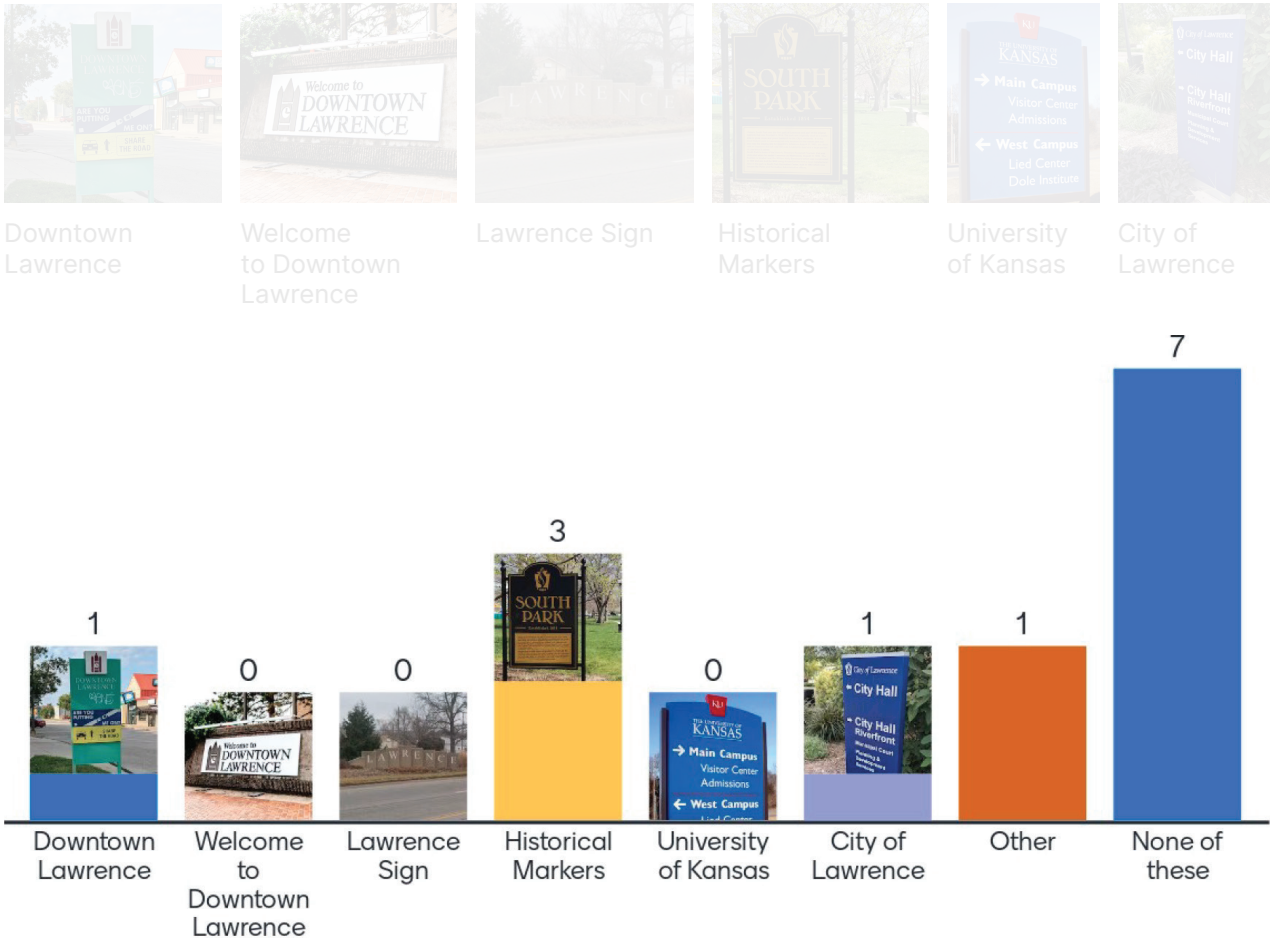
Should the branded wayfinding system pair well with the existing City of Lawrence brand?



EXISTING SIGNAGE

Should any of these existing local signs be used as inspiration for the new wayfinding system?

"The City of Lawrence signs and the historical marker signs are currently being audited and may change next year—new signs should not be based off of these current signs."

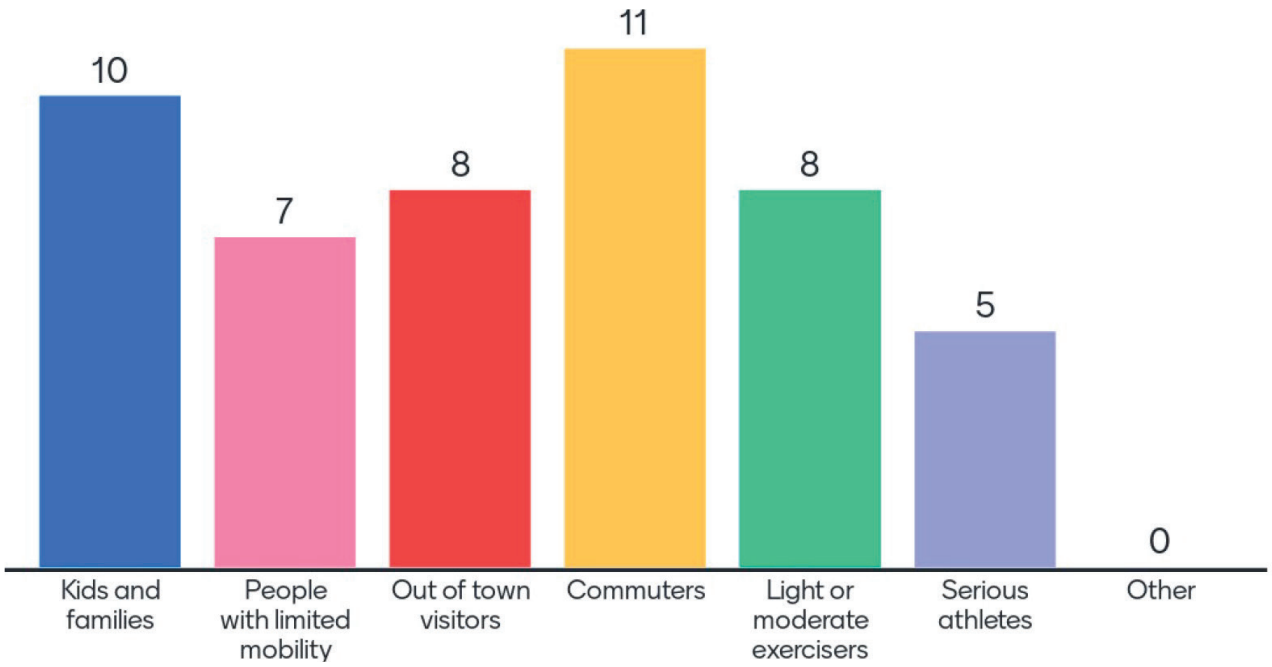


CUSTOMIZATION

What level of customization are you looking for?

AUDIENCE

Who is the audience, or the intended user, of the wayfinding system?



EXPERIENCE

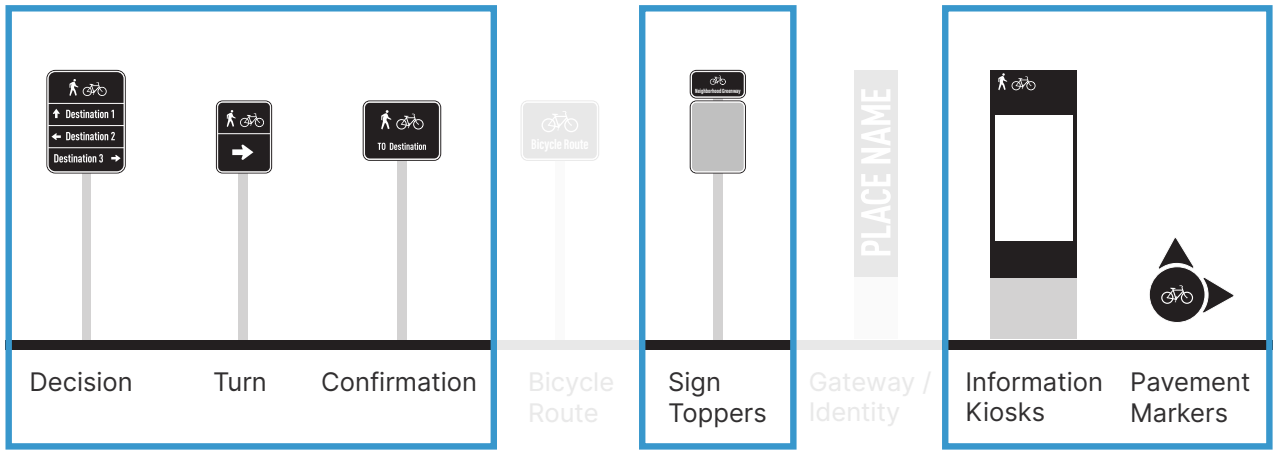
How do you want users to feel when using the wayfinding system?

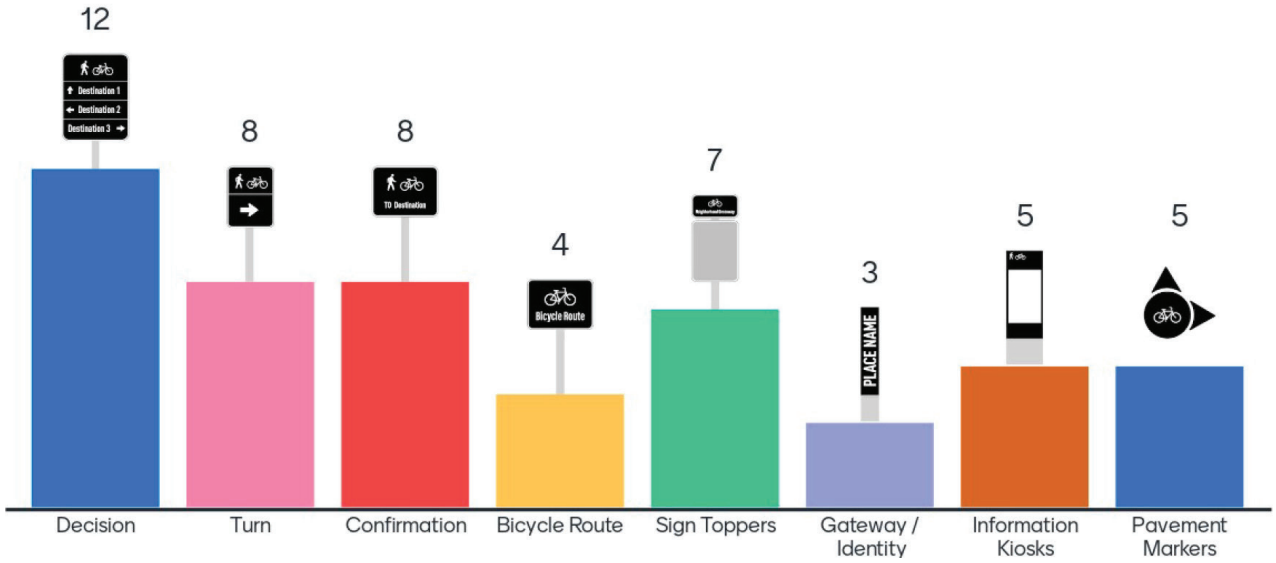
SIGN TYPES

Which types of wayfinding signs are most helpful to you as a cyclist? Select up to five.

"Gateway signs seem less useful for this sign family."

"We already have lots of 'Bicycle Route' signs and don't need more of them."

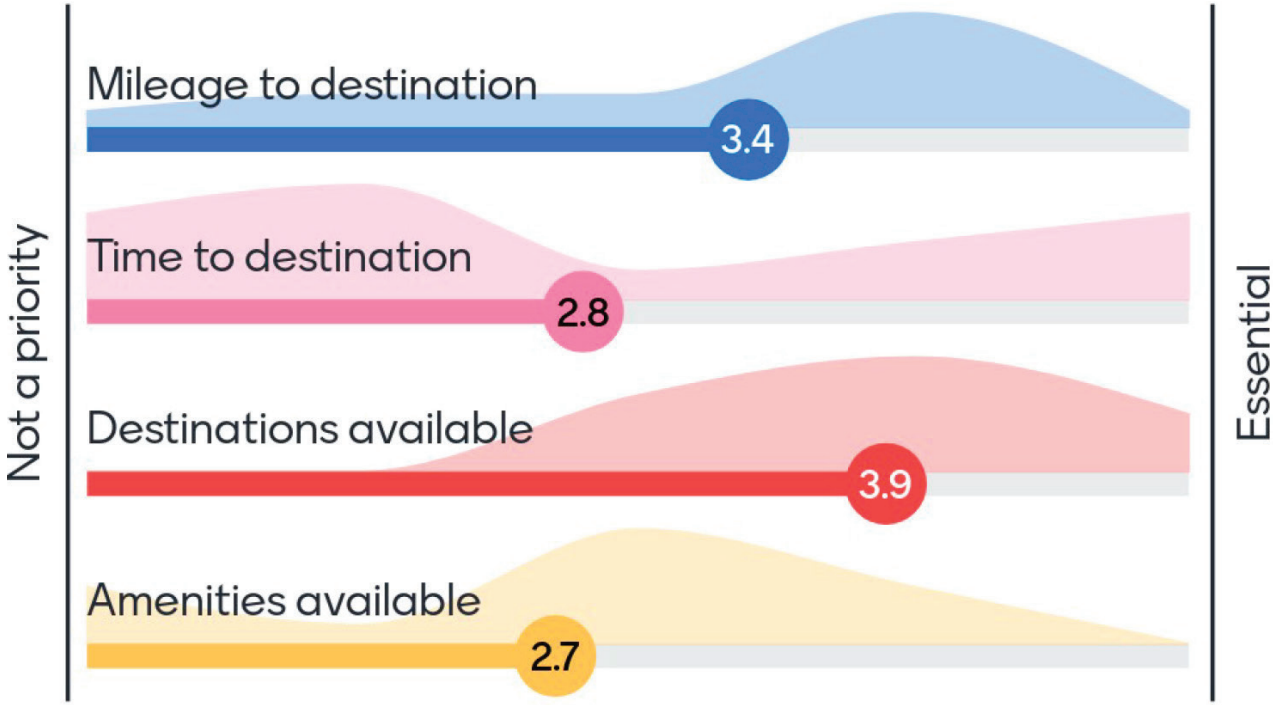




INFORMATION

Please rate the following programming options.

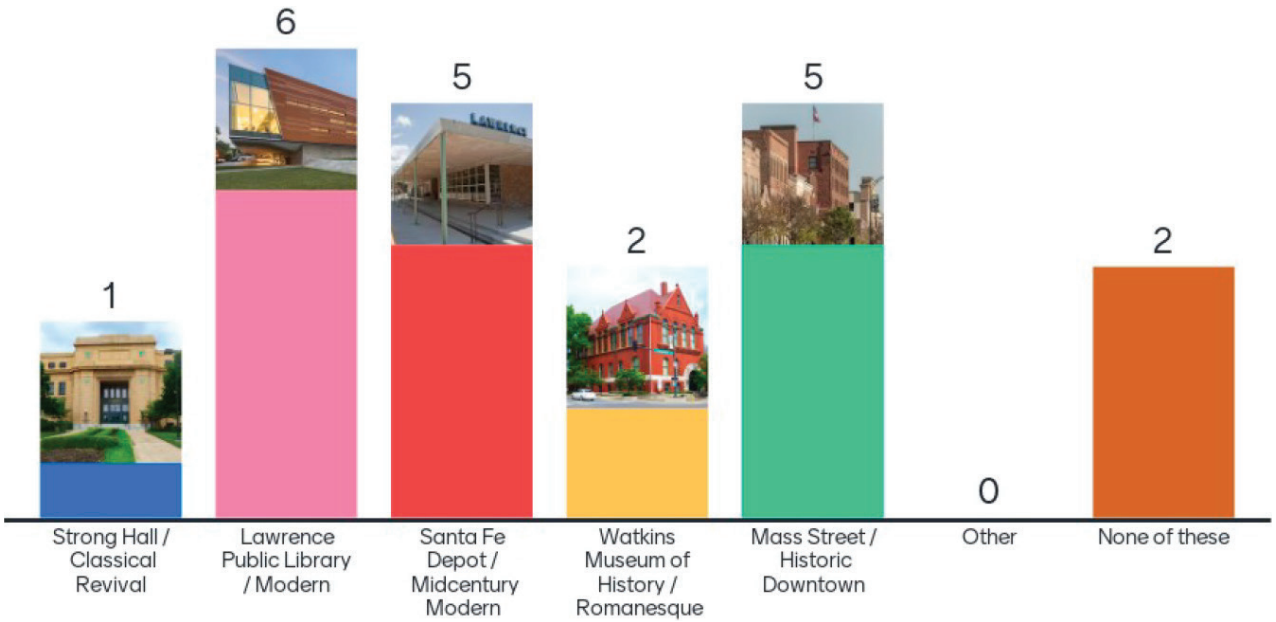
"Some folks felt time to destination was most important, other folks felt mileage to destination was most important. There was no final consensus on which would be more successful or useful to users."



CHARACTER

Is there an architectural/design style that resonates with your vision for the wayfinding system?

"All of these are representative of Lawrence—consider combining elements of each."



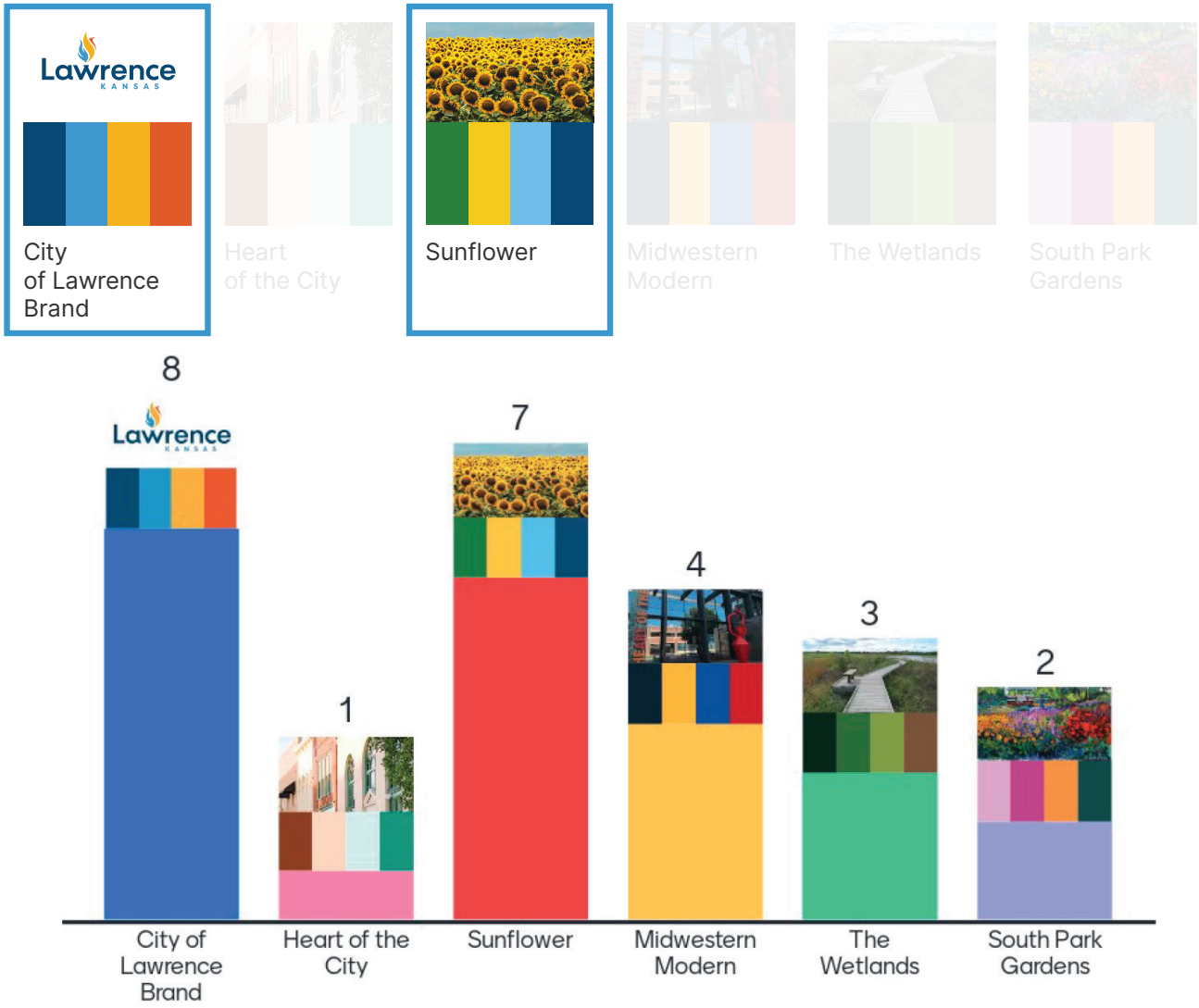
WORDPLAY

Please select five or more words that describe your desired visual impression for the wayfinding system.

COLOR

Which colors resonate with your vision for a unified wayfinding system in Lawrence?

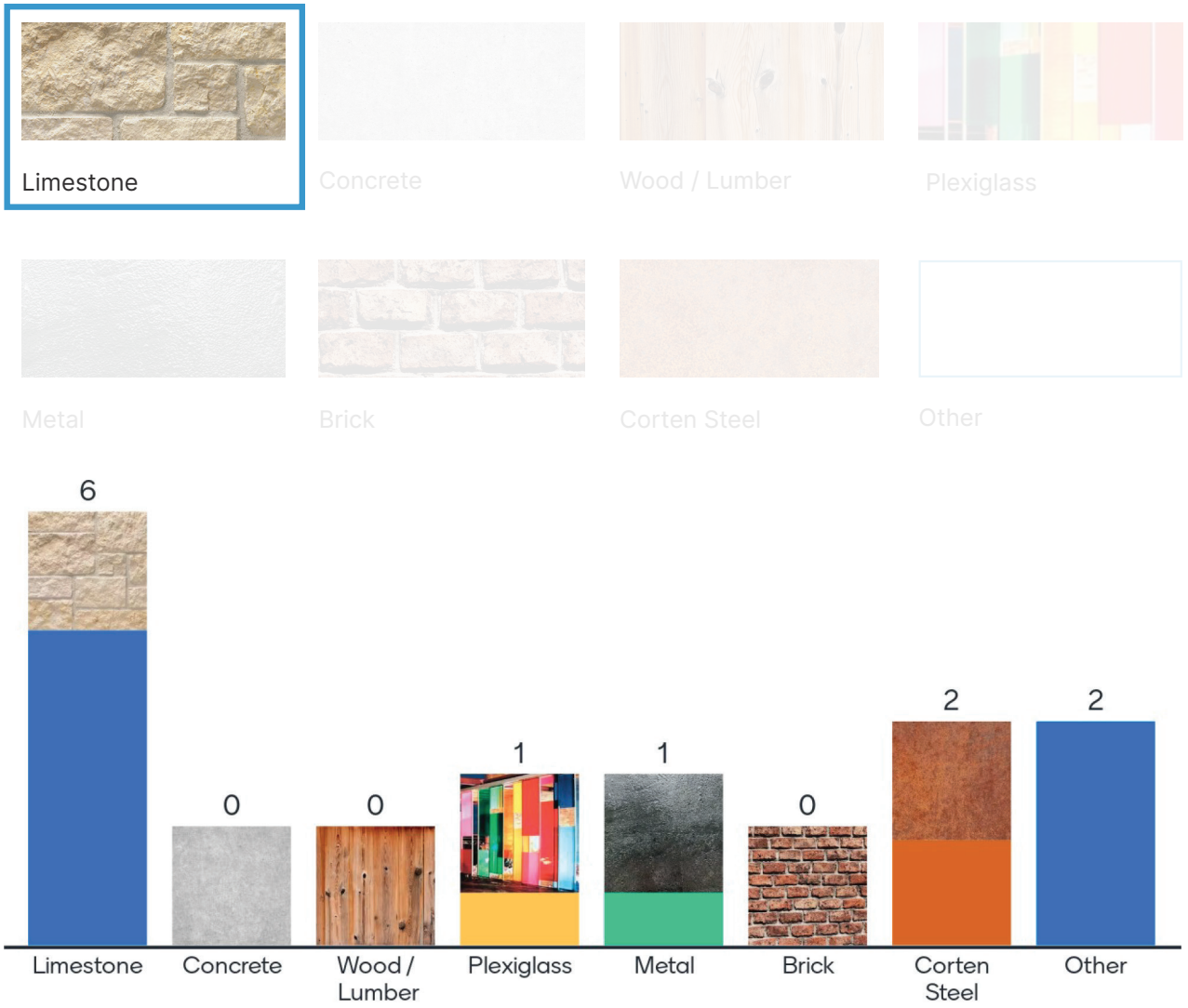
"Make sure the palette isn't overly representative of KU (red and blue)—sometimes Lawrence absorbs the KU palette and they become one in the same."



MATERIALS & INSPIRATIONAL ELEMENTS

Are there materials or inspirational elements that are representative of the area, native to the land, or meaningful to the community?

"The texture of prarie grass is very representative of the area."



GRAPHICAL ELEMENTS

Are there any local references (landmarks, historic figures, symbols, etc.) important to Lawrence that we could use as potential graphical elements in the wayfinding system?

Baker wetlands, downtown, KU

Langston Hughes, Haskell University, Baker Wetlands

Kansas River, Downtown, KU and Haskell, Library, Lawrence Loop, Warehouse Arts District, some parks, new Transit Center, Baker Wetlands, Clinton Lake, some historic markers(?)

The flame/ Phoenix, sunflower, wells overlook, the river

Freestate, Phoenix, river, Naismith, haskell

Kansas River, Flame

This could be an interesting way to engage residents or artists. Make sure there is Indigenous representation

The flame (sculpture in front of city hall not necessarily the logo)

John Speer, founder of the LL&G Railroad (Leavenworth, Lawrence & Galveston), which was the rail line that became the Burroughs Creek Trail

Transit hubs - Central Station, Downtown

Sports Pavilion Lawrence

High schools? Middle schools?

APPENDIX: VISUAL PREFERENCE SURVEY

DESIGN INTENT DRAWINGS

Lawrence, Kansas Bicycle Wayfinding

March 2024

DRAFT

The purpose of these drawings is to illustrate design intent. Drawings are not for construction. Written dimensions on these drawings have precedence over scaled dimensions.

The further development and engineering of these drawings shall be submitted as shop drawings to the Project Owner. Contractors shall verify and be responsible for all final quality, dimensions, materials and conditions on the job.

Project owner shall be notified of any variations from the dimensions and conditions shown by these drawings prior to the execution of any work, including changes to graphic designs or typography.

Drawing scale shown on plans is for full size plans only. Alta shall not be responsible for scale discrepancies caused by reduced or enlarged drawings.

TABLE OF CONTENTS

Graphic Standards	2	Kiosk Alternate	7	Confirmation/Turn Sign	12
General Notes	3	Kiosk Alternate Detail - 1	8	Confirmation/Turn Sign Detail	13
System Overview	4	Kiosk Alternate Detail - 2	9	Sign Topper	14
Kiosk	5	Decision Sign	10	Sign Topper Detail	15
Kiosk Detail	6	Decision Sign Detail	11	Pavement Markers	16

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470-290-1200 | altago.com

APPENDIX: DESIGN INTENT DRAWINGS

MATERIALS PALETTE

Contractor shall be responsible for supplying samples for all colors and materials within the palette.

	W White	B Black	N Navy	LB Light Blue	G Gold	O Orange	Wr White - Reflective
Color:	White	Pantone: 425 C (shown as gray for clarity on details)	Color match: 0, 72, 116	Color match: 65, 151, 203	Color match: 248, 178, 59	Color Match: 229, 88,53	
Materials:	Matthews Paint	Matthews Paint	Matthews paint	Matthews paint	Matthews paint	Matthews Paint	3M 3930 High Intensity Retroreflective
Process:	Surface painted, with Matthews Polyurethane Clear Coat Protectant	Surface painted, with Matthews Polyurethane Clear Coat Protectant	Surface painted, with Matthews Polyurethane Clear Coat Protectant	Surface painted, with Matthews Polyurethane Clear Coat Protectant	Surface painted, with Matthews Polyurethane Clear Coat Protectant	Surface painted, with Matthews Polyurethane Clear Coat Protectant	

TYPOGRAPHY

Fabricator is responsible for acquiring project related fonts.

Highway Gothic Regular

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz 1234567890

Highway Gothic Narrow

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz 1234567890

Raleway Extra Bold

Aa Bb Cc Dd Ee Ff Gg Hh Ii Jj Kk Ll Mm Nn Oo Pp Qq Rr Ss Tt Uu Vv Ww Xx Yy Zz 1234567890

ARTWORK

All artwork illustrated on this page shall be provided by Project Owner as electronic vector art.

Do NOT substitute with any other artwork

Information Icon

Lawrence Flame

City of Lawrence Logo

Pavement Marking Graphic

Bicycle Icon

Pedestrian Icon

Arrow

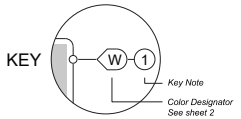
Jogged Arrow

Destination Icons

Prairie Grass Pattern

alta
84 Peachtree Street NW, #600 | Atlanta, GA 30303
470-290-1200 | altago.com

DRAFT



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NOTES

City of Lawrence

CLIENT

Lawrence, KS
Bicycle Wayfinding

PROJECT

March 2024

DOCUMENT ISSUE

Graphic Standards

SHEET TITLE

2

SHEET NUMBER

APPENDIX: DESIGN INTENT DRAWINGS

FABRICATION SPECIFICATIONS

A. Quality Standards
The materials, products, equipment and performance specifications described within, establish a standard of required function, dimension, appearance, performance and quality to be met by the Fabricator.

B. Structural Design
Details on design intent drawings indicate a design approach for sign structure but do not necessarily include all fabrication details required for the complete structural integrity of the signs, including consideration for static, dynamic and erection loads during handling, erecting, and service at the installed locations, nor do they necessarily consider the preferred shop practices of the individual Fabricators. Therefore, it shall be the responsibility of the Fabricator to perform the complete structural design and engineering of the signs and to incorporate all the safety features necessary to adequately support the sign for its intended use and purpose and to protect the Owner. Fabricator shall also be responsible for ensuring that all signs meet local, state and federal codes.

C. Vandalism Design
Fabrication and installation design is to withstand severe abuse and souvenir theft vandalism, but not less than the equivalent of resisting simple hand implements and tools (screwdrivers, knives, coins, keys, and similar items), and adult physical force. All hardware and fasteners within reach shall be vandal resistant.

D. Substitution
No substitution will be considered unless the Owner has received written request for approval. Fabricator may recommend equal or better equipment or method, but will be required, prior to the bid submittal, to provide full documentation establishing such a substitution's equality or superiority as measured in the following:

- compliance with the visual design intent;
- cost;
- ease of maintenance; and
- performance.

The burden of proof of the merit of the proposed substitute is upon the Fabricator. The Owner's decision of approval or disapproval of a proposed substitution shall be final.

E. Material Handling
The Fabricator is to pack, wrap, crate, bundle, box, bag, or otherwise package, handle, transport, and store all fabricated work as necessary to provide protection from damage by every cause. Fabricator shall provide clear and legible identifying information on all product packaging to ensure proper on-site identification and installation.

F. Sign Specifications: Construction Methodology
The drawings call for a variety of fabrication techniques. Fabricators are given leeway to fabricate the signs to meet the intent of the designs depicted by the drawings.

1. Because different systems of extrusions may result in slightly different dimensional requirements, the total height and width dimensions described in the sign construction on the drawings may be considered "nominal" for the purposes of cost quote.

2. Sign faces are to be fabricated using aluminum plate of varying thicknesses, as specified on design intent drawings, with a minimum thickness of .125 inches unless otherwise noted.

3. Sign cabinet seams shall be sealed to ensure they are watertight.

4. All finishes are to be satin finish, free from fading, peeling or cracking. Paint preparation of all exterior metal surfaces of the sign to include removal of all scratches and imperfections, sanding and chemical etching. Substrate cleaning, preparation, paint application and paint thickness to be in strict compliance with Matthews Paint or AkzoNobel published recommendations. Acceleration of the drying process is not allowed.

5. Unless otherwise noted on the design intent drawings, all cutout push-through lettering and shapes shall be routed from a single sheet of white acrylic, with a minimum thickness of 3/8" and pushed through 1/16". Routed letters and shapes that are bonded to a separate acrylic sheet are not acceptable; they must be routed from a single sheet.

Acrylic is to be attached to the back of the sign using adhesive, mechanical fasteners, or both depending on the design specifications.

- All letter knock-outs (interior of letter forms) are to be stud mounted through the acrylic.
- When illuminating the acrylic face with LED, 2447 shall be the standard white acrylic.
- Acceptable spacing between the push-through acrylic and the cut-out aluminum is 1/32" to 1/16" depending on the copy height (if the copy is larger than 32", alternate spacing may be used to allow for the change in material expansion).

6. Except where approved otherwise by Owner, conceal fasteners.

7. Exposed welded joints must be filled and ground smooth so that there is no seam visible when painted.

8. Any sign faces smaller than 8' by 20' are to be fabricated from 1 piece of seamless material.

9. On welded joints, dimensional and structural welding defects will not be accepted, including but not limited to: poor weld contours, including excessive bead convexity and reinforcement, and considerable concavity or undersized welds; cracks; undercutting; porosity; incomplete fusion; inadequate penetration; spatter; and non-metallic inclusions. Welding is to be performed by AWS (or similar) certified personnel, following AWS Standard Welding Procedure Specifications (SWPSs) for steel, aluminum, and stainless steel as appropriate.

10. Non-welded joints between various portions of signs must have a tight, hairline-type appearance, without gaps. Provide sufficient fastenings to preclude looseness, racking, or similar movement. Provide drain holes as needed to prevent accumulation of water within signs. Holes must be inconspicuous and be in inconspicuous locations; holes must be located such that drainage does not occur onto signs, or other surfaces subject to staining. Provide internal system of baffles to prevent "light leaks" through drain holes of illuminated signs. Provide color-coordinated insect screening over drain holes.

11. Non-illuminated sign faces are to have lettering and graphics created as mask and spray or surface-applied vinyl typography using Avery or 3M exterior grade, minimum 5-year warranty. Certain applications are to be engineer-grade reflective vinyl as specified on the design intent drawings.

12. Visible metal joints must adhere to a fit tolerance of .01".

13. Unlit channel letter faces must be .25" aluminum. Channel letter returns must be .080" aluminum.

G. Sign Specifications: Illumination & Electrical

1. It shall be the responsibility of the sign fabricator to perform the complete electrical design for illuminated signs. Illuminated signs shall be designed by an electrical engineer and shall be fabricated and wired to be compliant with current UL® listing requirements, and shall be UL® certified.

2. All internally illuminated sign cabinets are to have an access panel that is tight fitting, lightproof and waterproof. Access panels are to be in an accessible location, out of sight, and shall be shown on shop drawings.

3. Internally illuminated signs are to have adequate internal system of ventilation to assure a uniform dissipation of heat from electrical components of electrically powered and illuminated signs, heat absorption by sign and other sources. Any openings in exterior surfaces must be internally baffled to prevent light leaks and prevent entry of rain, snow, wind-blown debris, and other foreign matter, and are to be covered with interior color-coordinated insect screen.

4. Only labels required by law are permitted to be mounted on the exterior of the sign face, and they shall be located in a position that is as discreet as possible.

5. All internally illuminated interior metal surfaces shall be painted white using Matthews' refl ective white paint, or shall be lined with 3M's Matte White Light Enhancement Film, to enhance and evenly distribute light.

6. All electrical components shall be built to be housed within sign cabinets. All wiring and raceways within the sign are to be completely enclosed. Internal illumination by lamps is required to provide adequate and even illumination over the face of the sign without hot spots or shadows. "Halo" effects, "spreading" or similar light spill due to excessive transmission of the backlight source shall be minimized.

7. Illumination to be provided by exterior UL® rated LED only, (as specified on design intent drawings). Lamps or other internal hardware must not be visible through the translucent letterforms and graphics.

8. All internally illuminated exterior signs are to have their own electric eye on/off control to turn the sign on at night and off in the morning, unless the Owner specifies a need for a timer.

9. Verify location of power provided by others prior to sign fabrication.

10. Face-lit channel letters with a 16" or shorter cap height shall be trimless. Face-lit channel letters taller than 16" may use a low-profile trim cap. Internally illuminated channel letters shall be illuminated using LED, unless otherwise noted on the design intent drawings. Transformers for channel letters shall be remote transformers wherever possible. If remote transformers are not applicable, then all electrical components shall be contained within the channel letter Raceways are not acceptable unless specifically noted on the design intent drawing or if approved by the Owner. All raceways must be painted the same color as the wall on which the sign will be mounted. Channel letters to be painted on the inside with Matthews' reflective white paint, or lined with 3M's Matte White Light Enhancement Film to enhance and evenly distribute light.

I. Fonts/Typefaces
The fonts used for this project were selected specifically for this project by the Owner, and include those listed in the graphic standards. It is the responsibility of the fabricator to purchase the fonts. No substitution of any other typefaces may be made. Under no circumstances are typefaces to be electronically distorted ("squeezed" or "extended") for purposes of fitting to the specified sign or general alteration of the sign face composition unless noted in the drawings. This includes (but is not limited to) stretching, squeezing, tilting, outlining or shadowing.

1. All letterforms, symbols or graphics shall be reproduced either by photographic or computer-generated means. Hand-cut characters are not acceptable. Cutting shall be done in such manner that edges and corners of finished letterforms will be sharp and true. Letterforms with nicked, cut, ragged, rounded corners, and similar disfigurements will not be acceptable.

2. All letterforms shall be made from material and gauge as indicated on design intent drawings. Typefaces shall be replicated as indicated on the drawing.

3. Ligatures are to be turned off.

4. Apostrophes are to be used, not foot marks. Note that there is a difference in most fonts.

5. Silk-screened and vinyl copy is to match the sheen of the copy panel background (satin). Edges of letters shall be straight and corners sharp. Surface of letters shall be uniform in color finish, and free from pinholes and other imperfections.

6. Silk-screened images shall be executed with photo screens prepared from original art. No hand-cut screens will be accepted. Original art shall be defined as artwork that is a first generation reproduction of the specified art.

7. Silk-screening shall be highest quality, with sharp lines and no sawtooths or uneven ink coverage. Screens shall be photographically produced. Application of inks through screens shall consist of one flood pass and one print pass. Images shall be uniform in color and ink thickness. Images shall be free from squeegee marks and lines resulting from improper print stroke or screen off contact height. Signs shall be placed in adequate drying racks with minimum of 2 inches between racks for ample airflow. Sign racks shall have system of forced airflow between layers to provide proper drying and curing of inks. After signs have dried completely according to the ink manufacturer's time allowance, signs may be packaged.

8. "Pushed-through" copy must fit accurately into routed portions of cabinet with tight, hairline joints and snugly into back of formed (channel) letters.

9. The edges and corners of routed letterforms shall be sharp and Letterforms with nicked, cut, ragged, rounded (positive or negative) corners, and similar disfigurements will not be acceptable. Letterforms shall be aligned so as to maintain a base line parallel to the sign format, with margins and layout as indicated on design intent drawings and approved shop drawings. Vertical strokes shall be plumb. Mechanically fasten center of letters to acrylic plastic as described in the design intent.

10. Vinyl graphics and letterforms shall be computer-cut.

Installation

A. Permits and Variances
Fabricator shall be knowledgeable of relevant local code requirements and honor same in fabrication and installation. Where applicable, it is the responsibility of the Fabricator to secure any and all necessary permits for signage installation. It is the responsibility of the Owner to secure variances, should any be required. It is the Owner's responsibility to call the appropriate agency to have all underground utilities properly located and marked. Any damage to below-grade utilities or structures for which the Owner has provided adequate location information is the responsibility of the Fabricator.

B. Site Visit
Prior to installation of the signs, the Fabricator is to visit the proposed site to observe existing conditions and verify all signage required and its location with Owner. At this time the locations shall be staked using a non-permanent visible device such as spray chalk or nonpermanent Certain signs may be located on sloped grades and may require uneven footings for each post. Site-verify all locations to determine special requirements for footing templates, if required.

The final Sign Message Schedule and Sign Location Plan shall be consulted together and shall be approved by the Owner to determine the precise location for each sign. Any necessary adjustments will be made with the approval of the Owner.

C. Masonry/Footings
Any concrete bases for signage are to be poured in place and footings are to extend beneath the frost line, or deeper to meet local code. All footings or bases should be poured within a form and level with grade unless otherwise specified in the design intent drawings. Foundation/footings should be level with grade unless otherwise noted or as specified by state or local code. Foundation/ footings should not extend above grade more than 2" and exposed edges should be finished with a bevel to prevent chipping. It's recommended that the concrete be floated by machine or hand before finishing in order to embed larger aggregates especially when part of the footing or base extends above ground. Concrete surface should have a smooth or brushed finish grade appearance. All concrete bases and footings should be edged to break any bond with the form and create a neat appearance. All forms should be removed once the concrete has properly cured. Concrete and reinforcement specifications shall be shown on shop drawing submittals. The Fabricator is responsible for the necessary templates, mounting plates and hardware for concrete and masonry bases. A minimum 2' rock bed with landscape edging or concrete pad must be added around each concrete base as protection from landscaping maintenance as specified on the drawings.

All masonry (concrete block, poured concrete, brick, slab, veneer, mortar, etc.) is to be properly treated and protected to maintain the structural integrity of the masonry work with exposure to all environmental conditions found at the site. For exposed or visible masonry, this shall include the application of protective sealers or similar finishes to diminish the effects of close-proximity sprinkling or irrigation systems.

Signs are to be mounted on J-bolt footings, centered on the concrete base or footing and engineered per code unless otherwise specified in the design intent drawings.

D. Wind Load
Signs, banners and mounting devices shall be engineered to withstand a minimum 30-psf wind load normal to the sign, or greater as per local code, in addition to the weight of the sign. The Fabricator shall determine appropriate method of anchoring signs to the locations specified to meet these requirements as well as all local code requirements.

E. Mounting
All signs to be mounted level and true. All exposed hardware is to be touch-up painted on site as required. It is preferred that all bolts, nuts, washers, or other fasteners shall be stainless. However galvanized steel is acceptable, so long as all exposed surfaces are sealed.

While sign type drawings may specify or indicate possible mounting and/or mounting hardware details, the Fabricator will be able to substitute equal or better hardware and techniques, based upon their experience with similar mounting situations and as long as the visual appearance of the sign is not compromised from that shown in the design intent drawings.

All signage products must be installed such that there are no misalignments between visible components. Sign elements intended to be removable or changeable after installation must function as intended without binding, sticking or blocking. It will be the responsibility of the Fabricator to correct any installation misalignments at no charge.

Fabricator and their installers are expected to have knowledge of ADA and Title 24/OSHPD mounting guidelines and city zoning codes, general sign locating practices, and any particular unique installations defined by Owner. It is the desire of the Owner that the Fabricator follow these guidelines as well as architectural cues in installing for the best visual placement, keeping a reasonable distance from protruding objects. Any signage that is improperly located is to be moved to the proper location by the Fabricator, and repairs to wall surfaces and signage are to be at the Fabricator's expense.

If the installers are unable to make a decision about any sign locations, they can contact the Owner, providing a graphic representation of the questionable area, or contact the Owner for on-site options.

F. Electrical
The Owner will be responsible for providing a power source to within 10 feet of the base of each sign requiring power (either at grade or below grade). Power is to be 120 or 277 (LED illumination should be volts at 60 cycles unless otherwise noted in the documents. It is the responsibility of the Fabricator to manipulate the existing conduit to its proper location, install an external disconnect, extend the conduit through the concrete base (or posts) to align with the point of hookup, and run the power supply through it. Conduit running from the disconnect to the sign shall travel within the concrete base, not on its surface. The Owner will be responsible for the final electrical connection.

G. Punchlist
It is required that the Fabricator complete a walk through with the Owner immediately following installation to identify any errors, such as construction or installation issues. Such errors are to be corrected in a timely manner, and to the satisfaction of the Owner.

H. Signage Warranty
The Fabricator is to provide a written five (5) year full replacement warranty to the Owner that all signs will be free of defects due to craft work and materials including, but not limited to:

- Bubbling, chalking, rusting or other disintegration of the sign panel, graphics or of the edges.
- Corrosion appearing beneath paint surfaces of panels, brackets, posts or other support assemblies (except as an obvious result of vandalism or other external damage).
- Corrosion of fasteners.
- The assemblies not remaining true and plumb on their supports.
- Fading, chalking and discoloration of the colors and finishes within the vinyl and paint manufacturer's stated warranty period.
- Peeling, delamination or warping ("oil canning").
- Repair and reinstallation of signage due to failed mountings.

Fabricator shall also extend in writing to the Owner all manufacturers' warranties.

I. Repair or Replacement
Without additional cost to the Owner the Fabricator shall repair or replace, including installation, any defective signs or hardware which develop during the warranty period and repair any damage to other work due to such imperfections. The Fabricator will be required to fully replace all signs that are in error relative to the working documents (sign message schedule and sign type drawings) that will be submitted to the Fabricator upon award of contract.

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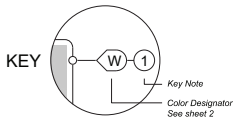

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NOTES

City of Lawrence
CLIENT

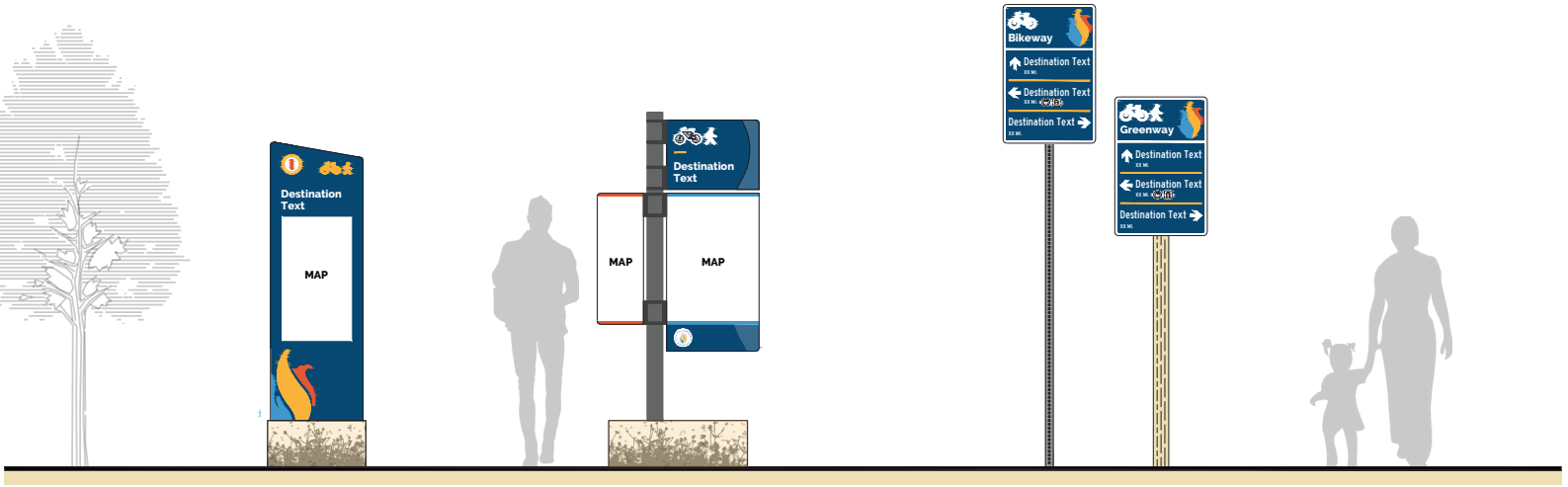
Lawrence, KS
Bicycle Wayfinding
PROJECT

March 2024
DOCUMENT ISSUE

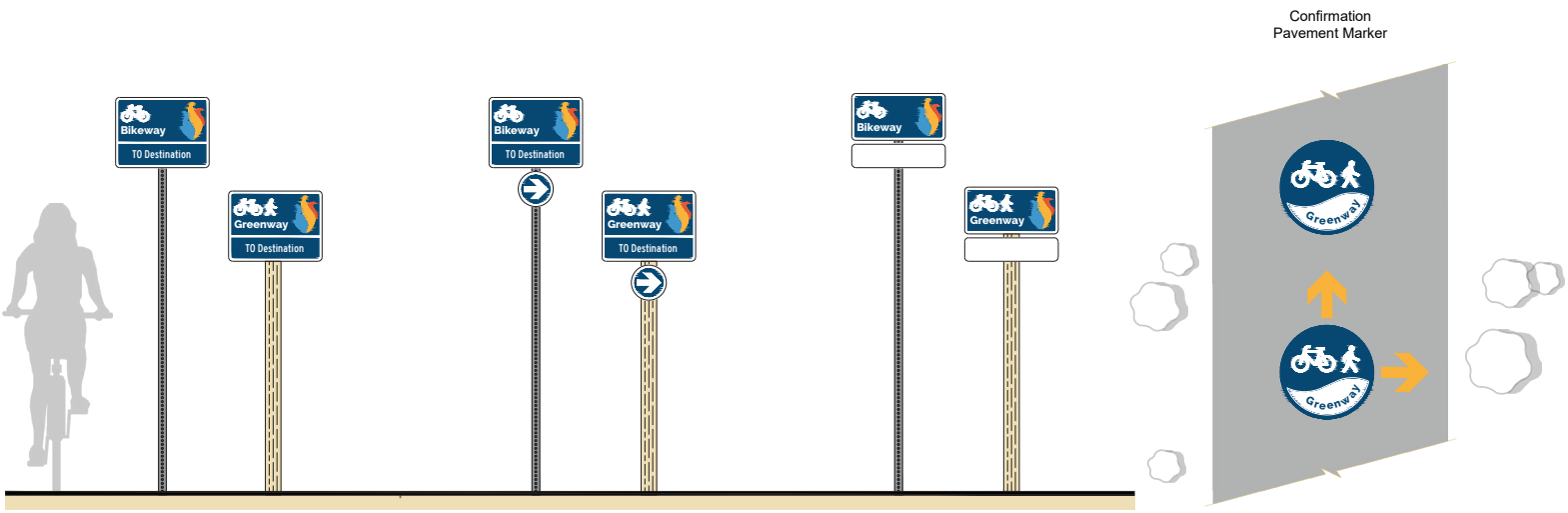
General Notes
SHEET TITLE

3
SHEET NUMBER

APPENDIX: DESIGN INTENT DRAWINGS



Kiosk | Kiosk (Alternate) | Decision Signs



Confirmation Signs | Turn Signs | Sign Toppers | Turn Pavement Marker

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KEY
W 1
Key Note
Color Designator
See sheet 2

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City of Lawrence
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Lawrence, KS
Bicycle Wayfinding
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DOCUMENT ISSUE

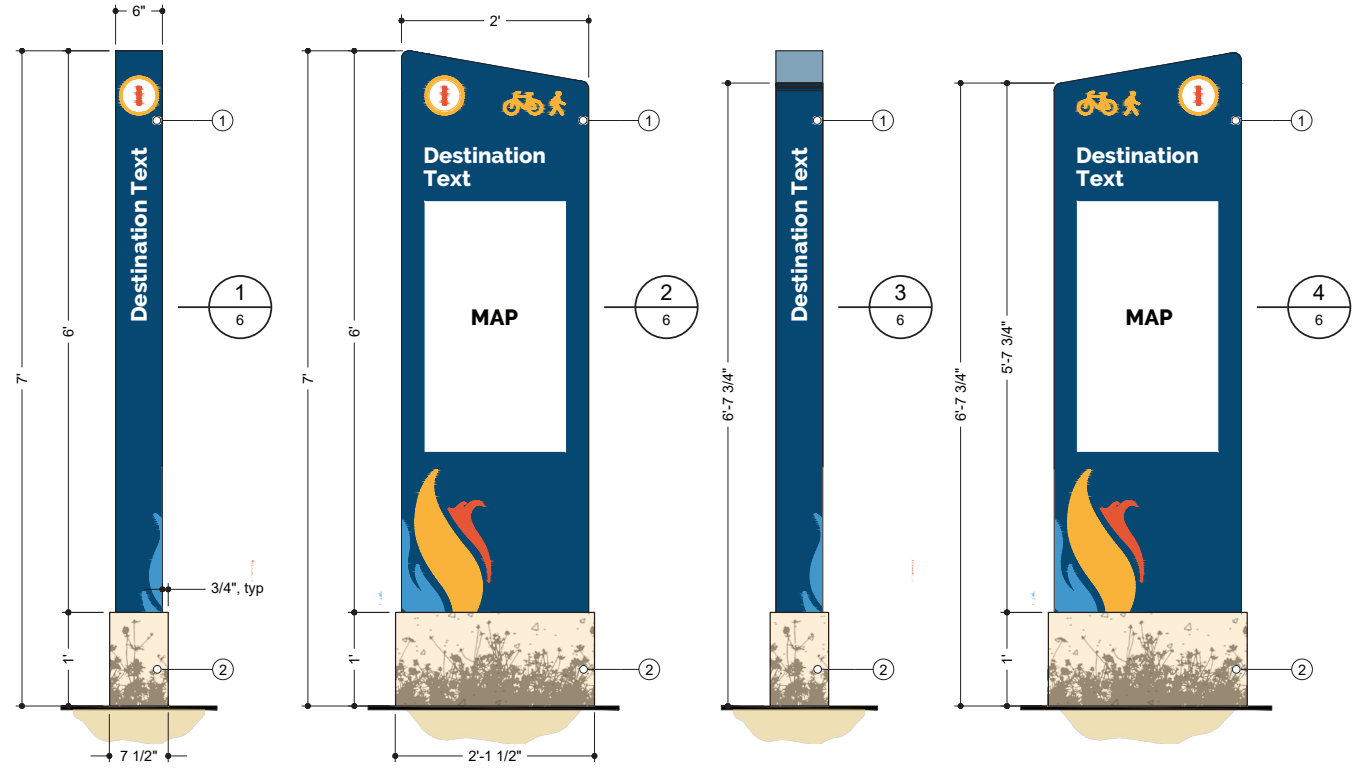
System Overview
SHEET TITLE

4
SHEET NUMBER

KEY NOTES

1. **ALUMINUM SLEEVE AND FRAME**
   MATERIAL: 1/8" thick aluminum
   Fabricated aluminum sheet sign face, back, and top, fully welded and fabricated sides with all edges and corners neatly finished
   FRAME: Fabricated aluminum channel internal structure to engineer's specifications. Frame to be set inside perimeter of sign sleeve.
   GRAPHICS/TEXT: screen printed
   COATING: graffiti/UV protection

2. **CONCRETE FOUNDATION**
   MATERIAL: 3200 PSI concrete to extend below grade. Depth of concrete and footer details per sign fabricator engineer recommendations.
   FINISH: Stained limestone color with stamped prairie grass pattern in a darker stain hue



1 Left Side Elevation
Scale: 3/4" = 1'-0"

2 Front Elevation
Scale: 3/4" = 1'-0"

3 Right Side Elevation
Scale: 3/4" = 1'-0"

4 Back Elevation
Scale: 3/4" = 1'-0"

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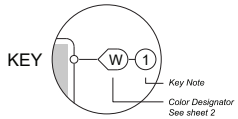

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City of Lawrence
CLIENT

Lawrence, KS
Bicycle Wayfinding
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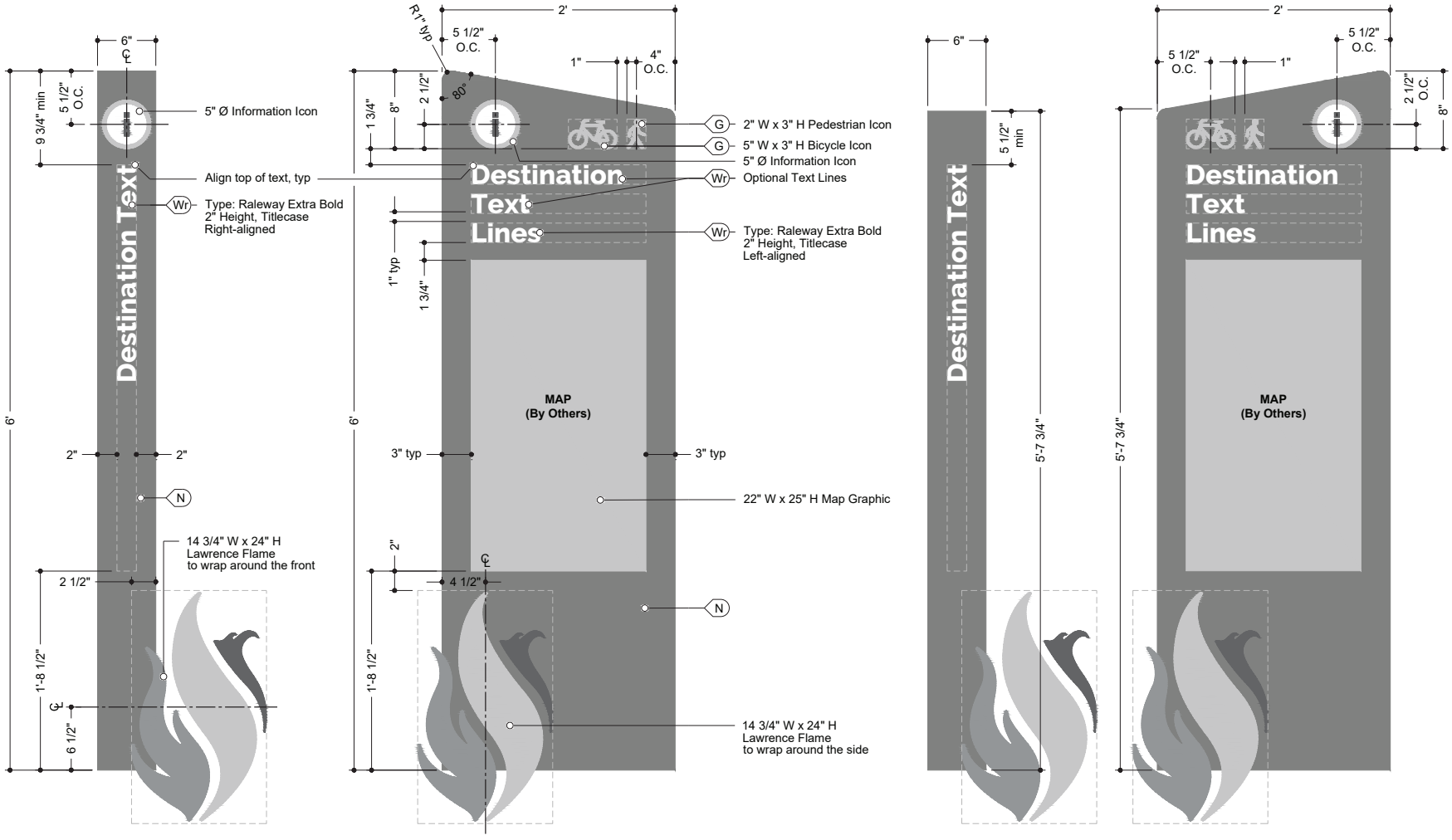
DOCUMENT ISSUE

Kiosk
SHEET TITLE

5
SHEET NUMBER



1 Left Side Layout
Scale: 1" = 1'-0"

2 Front Sign Layout
Scale: 1" = 1'-0"

3 Right Side Layout
Scale: 1" = 1'-0"

4 Back Sign Layout
Scale: 1" = 1'-0"

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KEY
W 1
Key Note
Color Designator
See sheet 2

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Lawrence, KS
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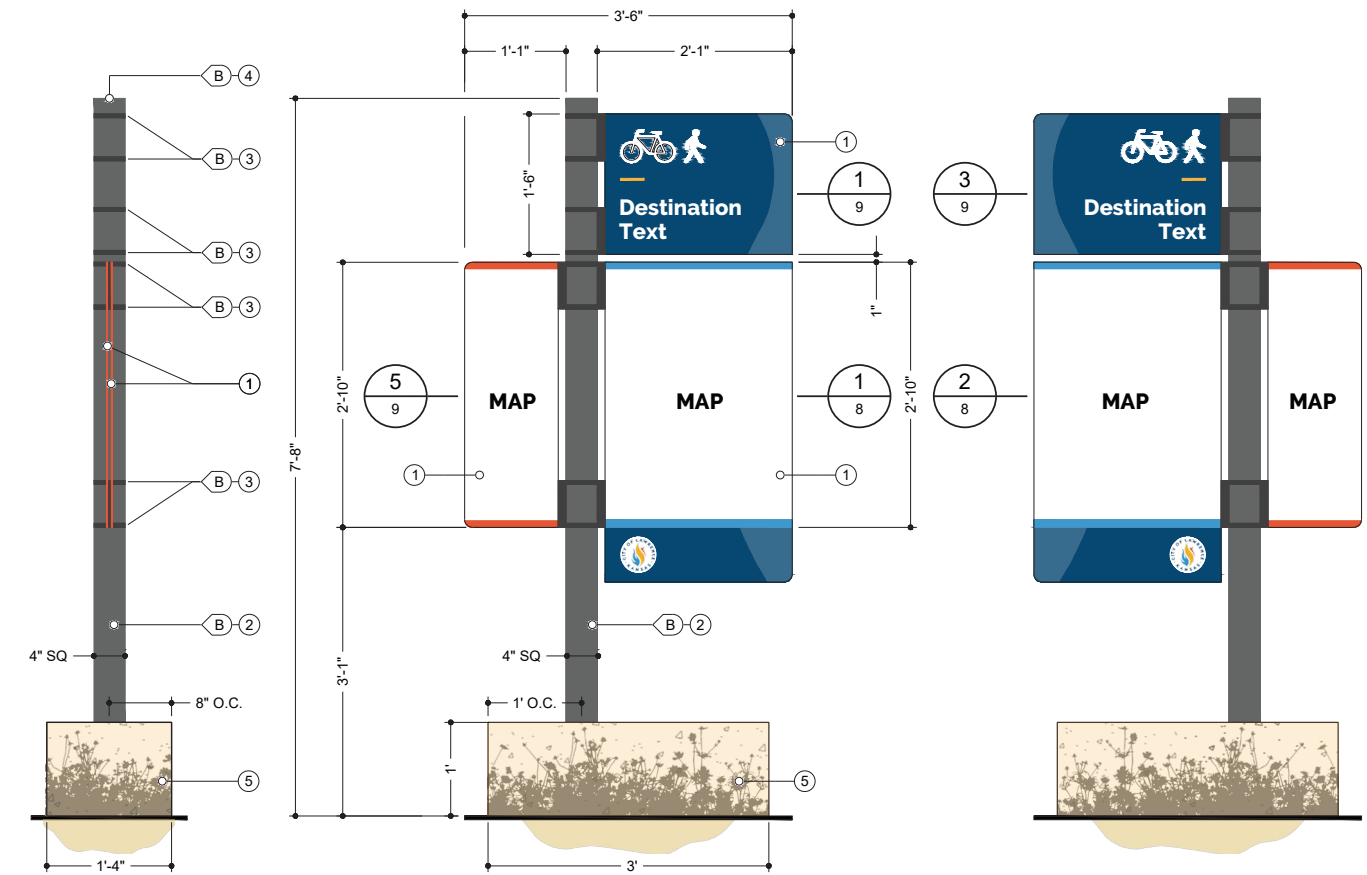
Kiosk Detail
SHEET TITLE

6
SHEET NUMBER



1 Left Side Elevation
Scale: 3/4" = 1'-0"

2 Front Elevation
Scale: 3/4" = 1'-0"

3 Back Elevation
Scale: 3/4" = 1'-0"

KEY NOTES

1. **SIGN PANEL**
   MATERIAL: 1/8" thick aluminum
   FABRICATION PROCESS: router cut
   EDGES: routed, finished smooth
   GRAPHICS/TEXT: two panels back-to-back with screen printed on one side of panel
   COATING: Graffiti/UV protection
   FRAMING: 1" x 2" sq. tube framing inset 3" from edge of sign panel, in between two back-to-back sign panels. Material of framing per sign fabricator engineer recommendations

2. **POST**
   MATERIAL: 4" square aluminum post, fabricator to engineer wall thickness
   FINISH: Black powder-coat

3. **MOUNTING BRACKET**
   MATERIAL: 1/2" x 22" steel mounting plates affixed with clamshell mounting bracket and set screws
   FINISH: Black powder-coat to match post
   BOLTS: Tamper-proof aluminum thru-bolts, lock washers and nuts; fabricator to determine size. Bolts painted to match brackets.
   NOTE: Sign panels to be placed back-to-back with mounting bracket placed in between. Mounting hardware/bolts should be placed in a manner that does NOT obscure the graphics or text on the sign

4. **POST CAP**
   MATERIAL: 1/8" thick aluminum
   FABRICATION PROCESS: fabricated aluminum sheet top, fully welded and fabricated sides with all edges and corners neatly finished
   FASTENER: mechanically fasten to post
   FINISH: Black powder-coat

5. **CONCRETE FOUNDATION**
   MATERIAL: 3200 PSI concrete to extend below grade. Depth of concrete and footer details per sign fabricator engineer recommendations
   FINISH: Stained limestone color with stamped prairie grass pattern in a darker stain hue

NOTE:
Black painted elements are shown as grey in this document for design clarity only.

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KEY
W 1
Key Note
Color Designator
See sheet 2

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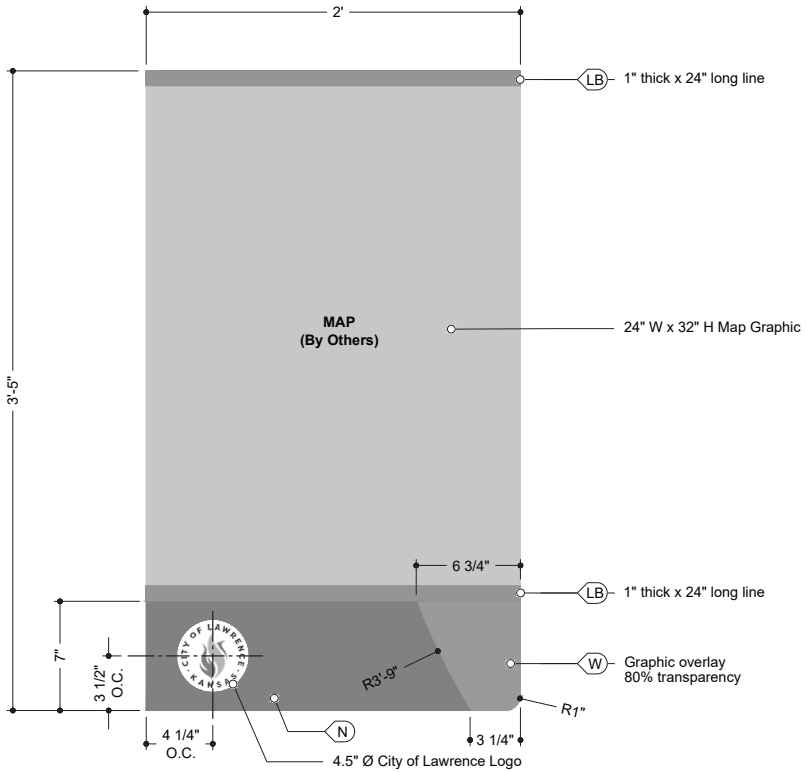
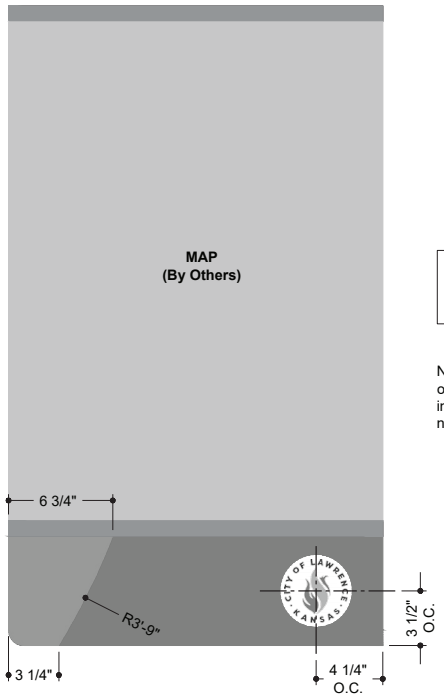
Kiosk Alternate
SHEET TITLE

7
SHEET NUMBER

APPENDIX: DESIGN INTENT DRAWINGS



1 Front Sign Layout
Scale: 1 1/2" = 1'-0"



2 Back Sign Layout
Scale: 1 1/2" = 1'-0"

See front sign layout for additional dimensions and callouts

NOTE: If preference is for only one side of the sign to display information, a back sign panel is not needed.

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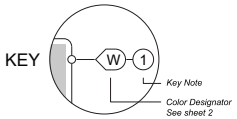

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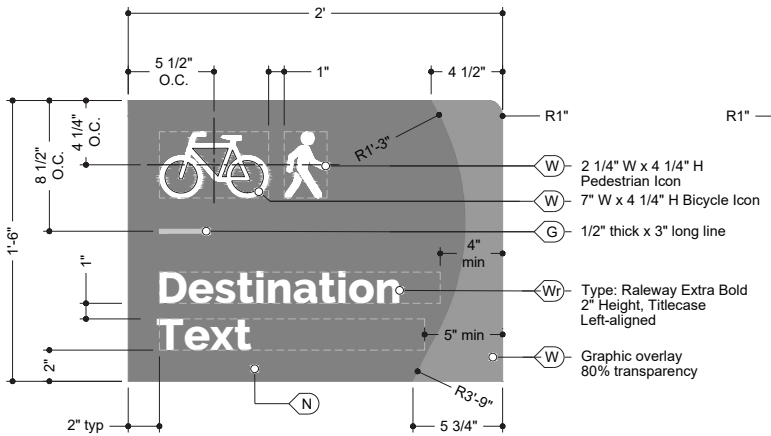
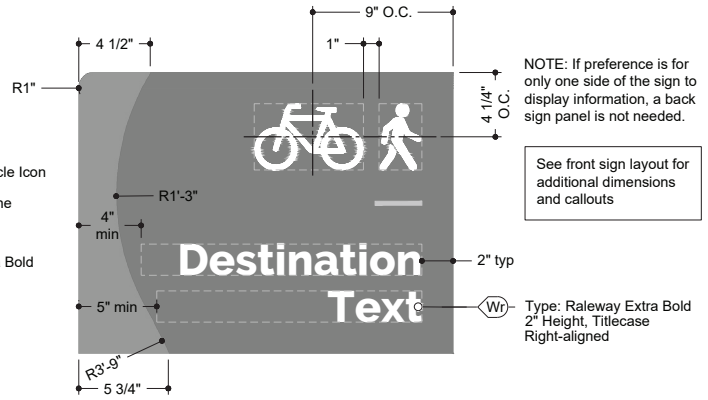
Kiosk Alternate Detail - 1
SHEET TITLE

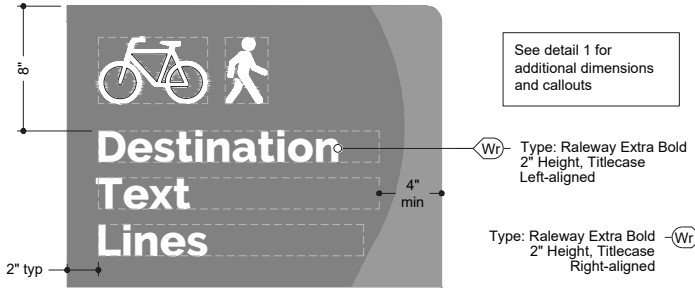
8
SHEET NUMBER



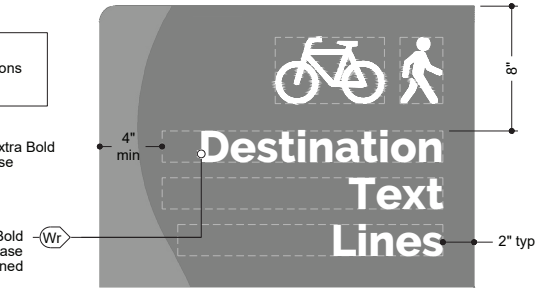
1 Front Sign Layout - Two Lines
Scale: 1 1/2" = 1'-0"



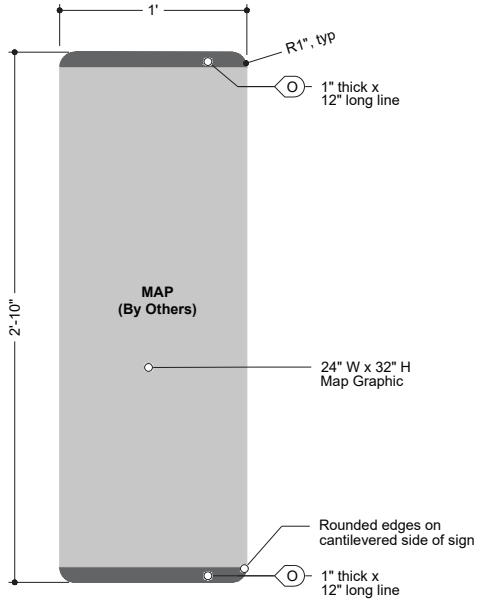
3 Back Sign Layout - Two Lines
Scale: 1 1/2" = 1'-0"



2 Front Sign Layout - Three Lines
Scale: 1 1/2" = 1'-0"



4 Back Sign Layout - Three Lines
Scale: 1 1/2" = 1'-0"



5 Front and Back Sign Layout
Scale: 1 1/2" = 1'-0"

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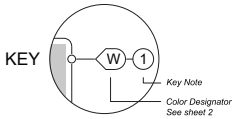

NOTES

City of Lawrence
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Lawrence, KS
Bicycle Wayfinding
PROJECT

March 2024
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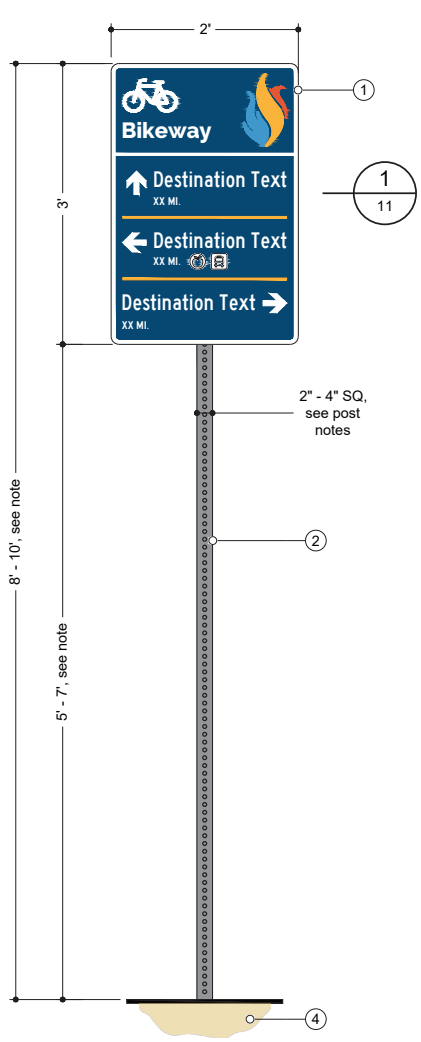
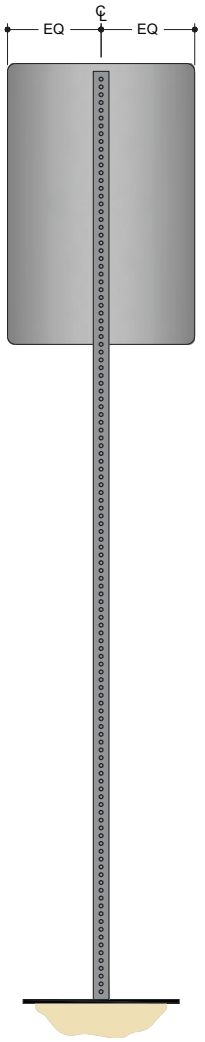
Kiosk Alternate Detail - 2
SHEET TITLE

9
SHEET NUMBER

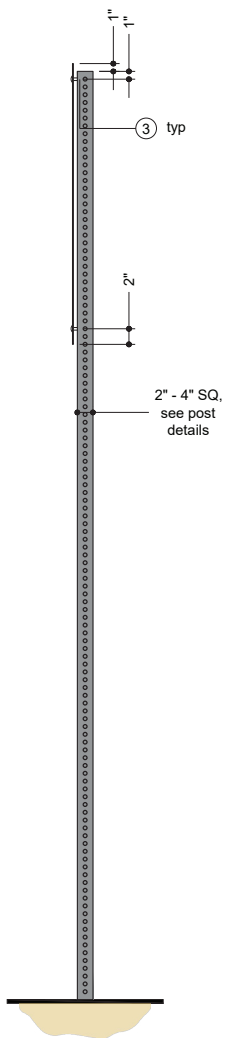
APPENDIX: DESIGN INTENT DRAWINGS



1 Front Elevation
Scale: 3/4" = 1'-0"



2 Back Elevation
Scale: 3/4" = 1'-0"



3 Right Side Elevation
Scale: 3/4" = 1'-0"

KEY NOTES

1. **SIGN PANEL**
   MATERIAL: 1/8" thick aluminum
   FABRICATION PROCESS: router cut
   EDGES: routed, finished smooth
   GRAPHICS/TEXT: screen printed
   COATING: Graffiti/ UV protection
   FASTENER: bolted to post

2. **POST**
   MATERIAL: Multiple mounting options that include: 2" square standard galvanized steel tube (shown on plans), 4" square weathered wood post, 4" square composite wood post with weathered finish, or existing light pole.
   EDGES: rounded, 1/4" radius

3. **MOUNTING HARDWARE**
   FASTENER: 3/8" drive rivets
   MATERIAL: Aluminum
   INSTALLATION: Align the tops of the signs. Place rivets to not obscure text, icons, or logos. Paint tops of bolts to match the color of the sign
   NOTE: Two round leg aluminum strapping brackets will be needed for installation onto existing light poles, per engineer's specifications

4. **POST ANCHOR**
   2-1/4" drivable anchor for soil application or steel mounting plate bolted onto concrete, per engineer's specifications

NOTE:
Minimum sign clearance height of 5 is ONLY allowed in locations where the sign is 3' min. from edge of greenway and not adjacent to a roadway.

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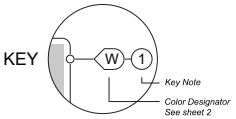

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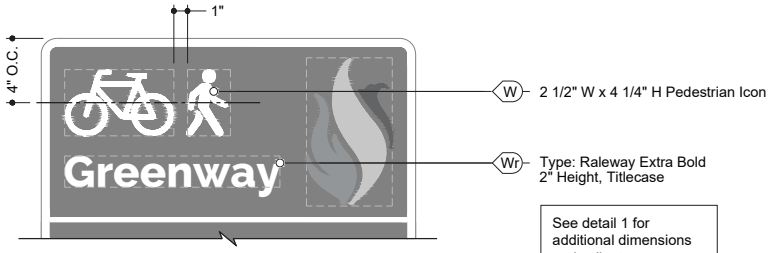
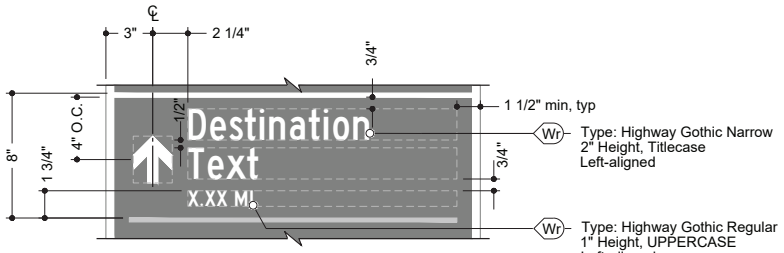
SHEET TITLE
Decision Sign

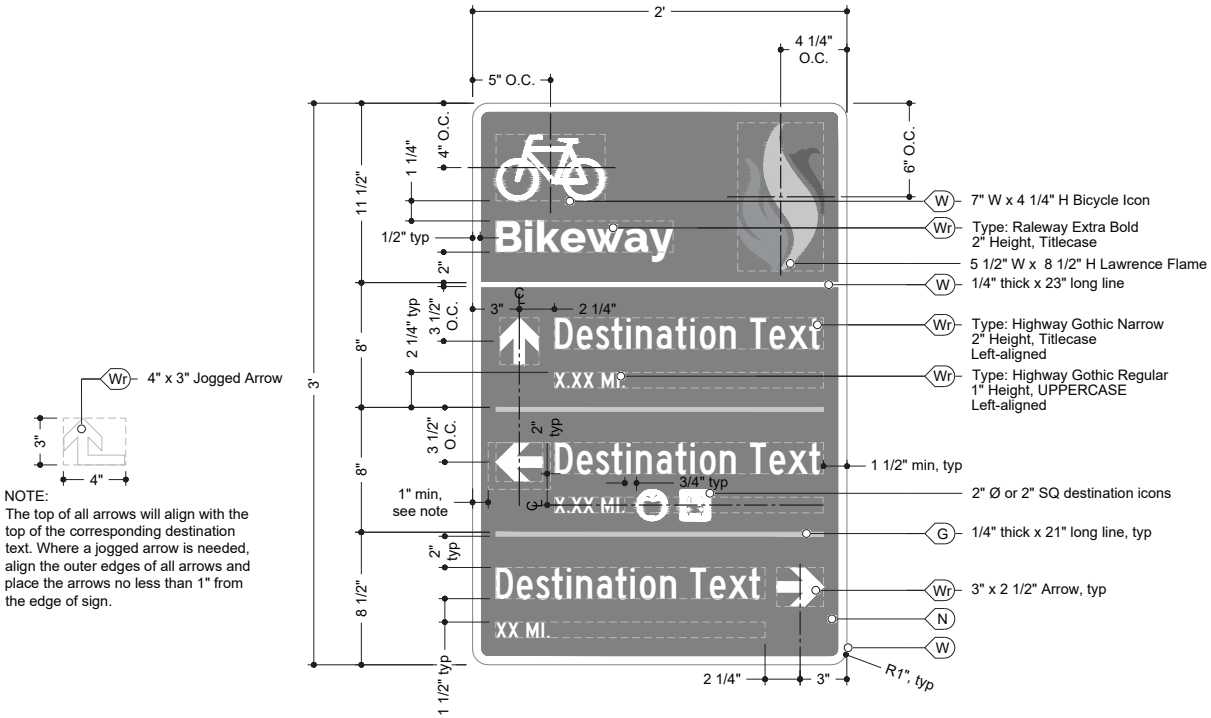
SHEET NUMBER
10



2 Greenway Sign Layout
Scale: 1 1/2" = 1'-0"



3 Two-Line Destination Layout
Scale: 1 1/2" = 1'-0"



NOTE:
The top of all arrows will align with the top of the corresponding destination text. Where a jogged arrow is needed, align the outer edges of all arrows and place the arrows no less than 1" from the edge of sign.

1 Bikeway Sign Layout
Scale: 1 1/2" = 1'-0"

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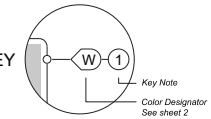

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Lawrence, KS
Bicycle Wayfinding
PROJECT

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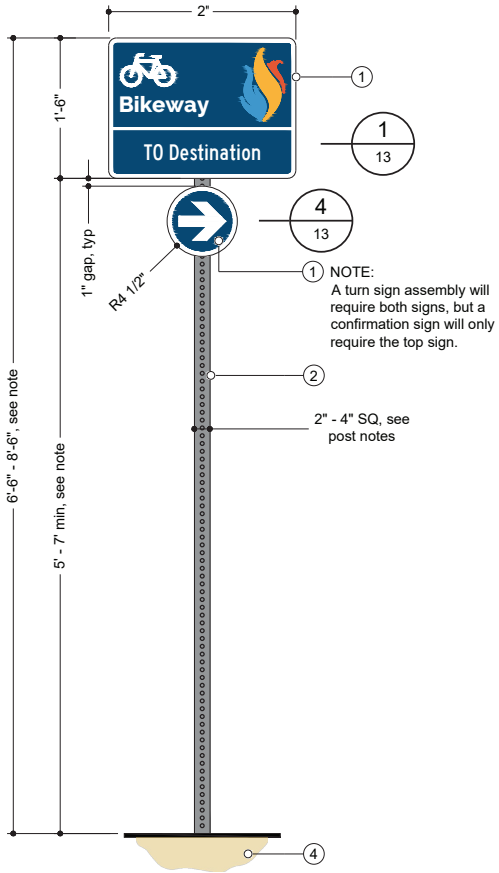
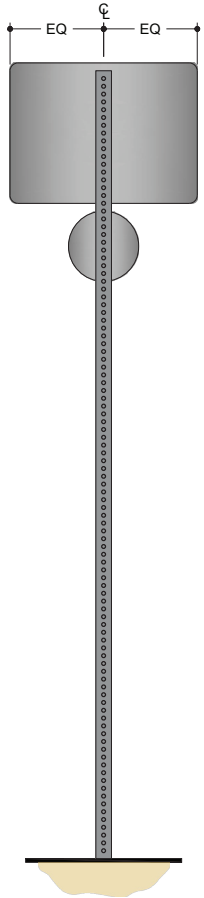
Decision Sign Detail
SHEET TITLE

11
SHEET NUMBER

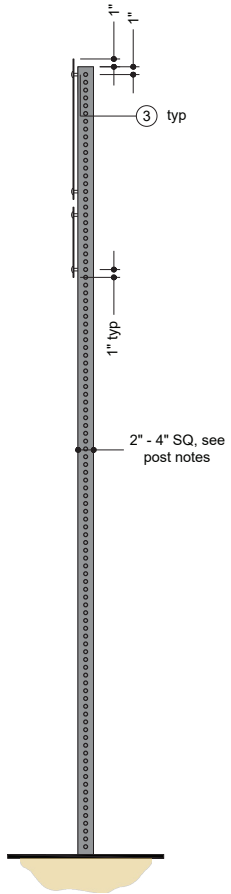
APPENDIX: DESIGN INTENT DRAWINGS



1 Front Elevation
Scale: 3/4" = 1'-0"



2 Back Elevation
Scale: 3/4" = 1'-0"



3 Right Side Elevation
Scale: 3/4" = 1'-0"

KEY NOTES

1. **SIGN PANEL**
   MATERIAL: 1/8" thick aluminum
   FABRICATION PROCESS: router cut
   EDGES: routed, finished smooth
   GRAPHICS/TEXT: screen printed
   COATING: Graffiti/ UV protection
   FASTENER: bolted to post

2. **POST**
   MATERIAL: Multiple mounting options that include: 2" square standard galvanized steel tube (shown on plans), 4" square weathered wood post, 4" square composite wood post with weathered finish, or existing light pole.
   EDGES: rounded, 1/4" radius

3. **MOUNTING HARDWARE**
   FASTENER: 3/8" drive rivets
   MATERIAL: Aluminum
   INSTALLATION: Align the tops of the signs. Place rivets to not obscure text, icons, or logos. Paint tops of bolts to match the color of the sign
   NOTE: Two round leg aluminum strapping brackets will be needed for installation onto existing light poles, per engineer's specifications

4. **POST ANCHOR**
   2-1/4" drivable anchor for soil application or steel mounting plate bolted onto concrete, per engineer's specifications

NOTE:
Minimum sign clearance height of 5 is ONLY allowed in locations where the sign is 3' min. from edge of greenway and not adjacent to a roadway.

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KEY
W 1
Key Note
Color Designator
See sheet 2

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NOTES

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Lawrence, KS
Bicycle Wayfinding
PROJECT

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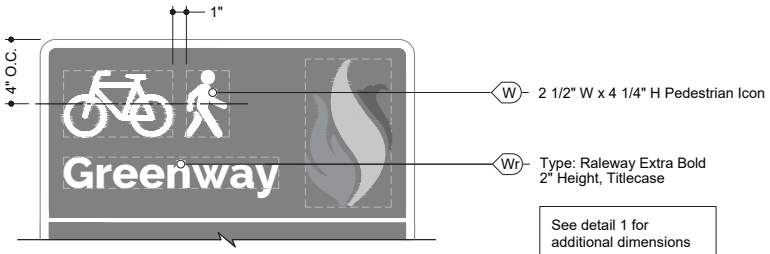
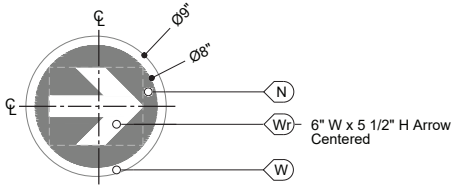
Confirmation/Turn Sign
SHEET TITLE

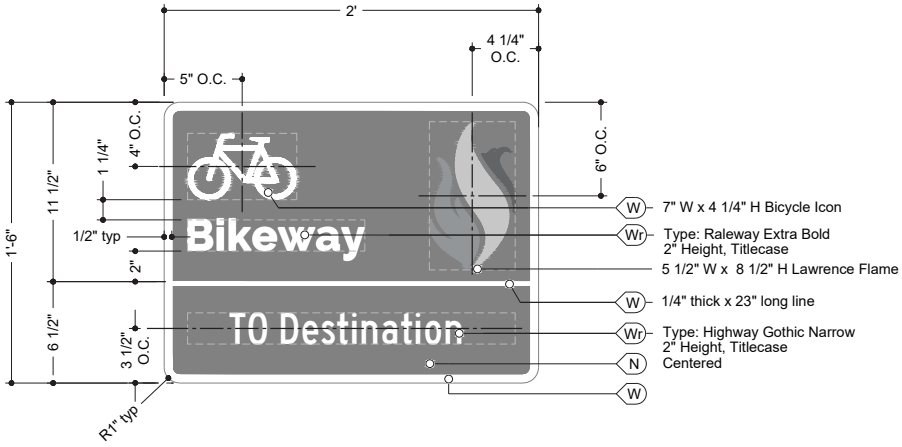
12
SHEET NUMBER



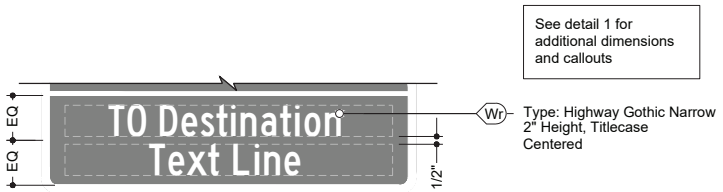
3 Greenway Sign Layout
Scale: 1 1/2" = 1'-0"



4 Turn Sign Layout
Scale: 1 1/2" = 1'-0"



1 Bikeway Sign Layout - One Line
Scale: 1 1/2" = 1'-0"



2 Sign Layout - Two Lines
Scale: 1 1/2" = 1'-0"

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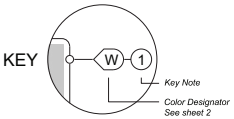

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PROJECT

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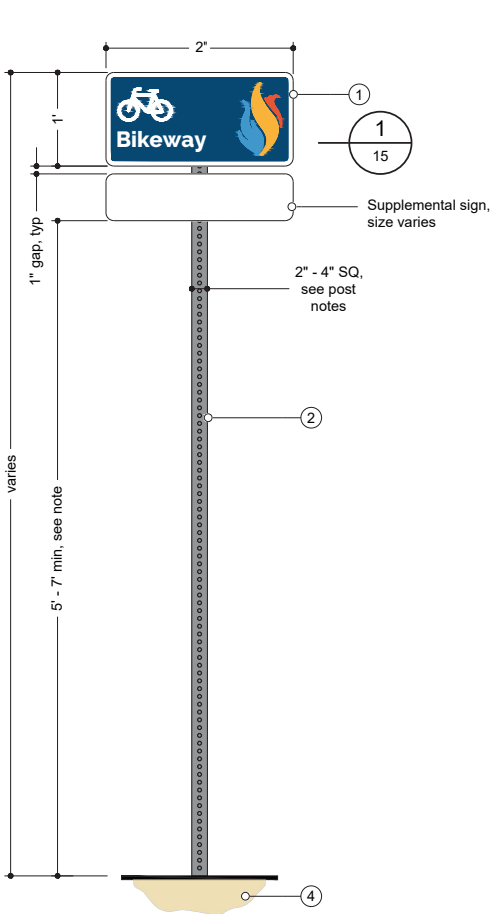
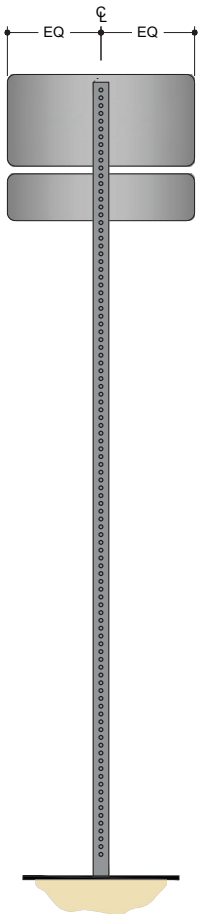
Confirmation/Turn Sign Detail
SHEET TITLE

13
SHEET NUMBER

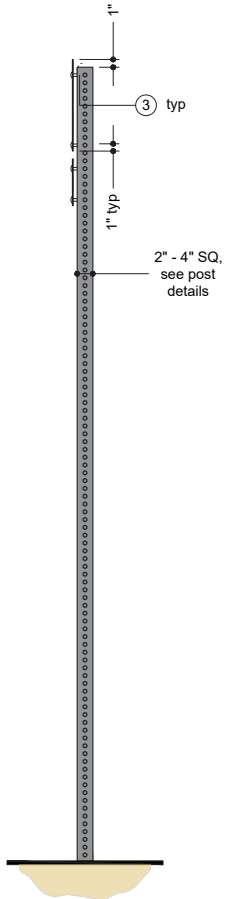
APPENDIX: DESIGN INTENT DRAWINGS



1 Front Elevation
Scale: 3/4" = 1'-0"



2 Back Elevation
Scale: 3/4" = 1'-0"



3 Right Side Elevation
Scale: 3/4" = 1'-0"

KEY NOTES

1. **SIGN PANEL**
   MATERIAL: 1/8" thick aluminum
   FABRICATION PROCESS: router cut
   EDGES: routed, finished smooth
   GRAPHICS/TEXT: screen printed
   COATING: Graffiti/ UV protection
   FASTENER: bolted to post

2. **POST**
   MATERIAL: Multiple mounting options that include: 2" square standard galvanized steel tube (shown on plans), 4" square weathered wood post, 4" square composite wood post with weathered finish, or existing light pole.
   EDGES: rounded, 1/4" radius

3. **MOUNTING HARDWARE**
   FASTENER: 3/8" drive rivets
   MATERIAL: Aluminum
   INSTALLATION: Align the tops of the signs. Place rivets to not obscure text, icons, or logos. Paint tops of bolts to match the color of the sign
   NOTE: Two round leg aluminum strapping brackets will be needed for installation onto existing light poles, per engineer's specifications

4. **POST ANCHOR**
   2-1/4" drivable anchor for soil application or steel mounting plate bolted onto concrete, per engineer's specifications

NOTE:
Minimum sign clearance height of 5 is ONLY allowed in locations where the sign is 3' min. from edge of greenway and not adjacent to a roadway.

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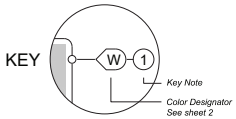

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City of Lawrence
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Lawrence, KS
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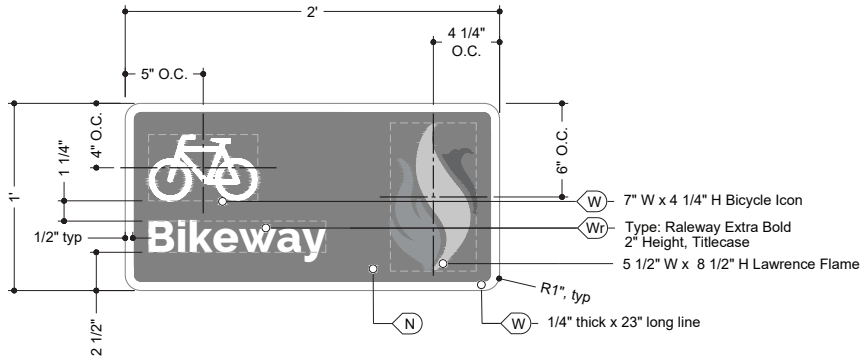
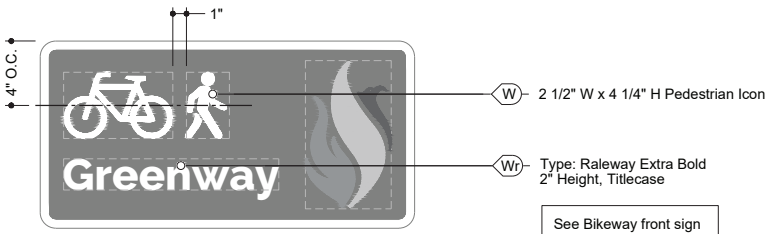
Sign Topper
SHEET TITLE

14
SHEET NUMBER



1 Bikeway Front Sign Layout
Scale: 1 1/2" = 1'-0"



2 Greenway Front Sign Layout
Scale: 1 1/2" = 1'-0"

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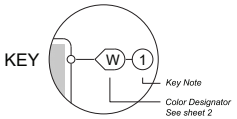

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City of Lawrence
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Lawrence, KS
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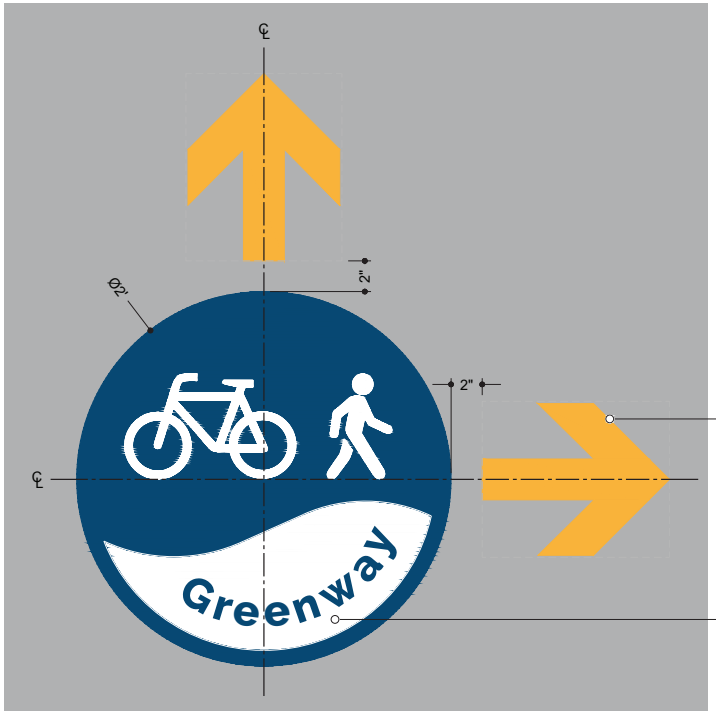
Sign Topper Detail
SHEET TITLE

15
SHEET NUMBER

1 Confirmation Pavement Marker
Scale: 3/4" = 1'-0"

NOTE:
Minimum of 1 arrow required

2 Turn Pavement Marker
Scale: 3/4" = 1'-0"



3 Typical Marker Layout
Scale: 1 1/2" = 1'-0"

KEY NOTES

1. **GRAPHIC PAVEMENT MARKER**
   MATERIAL: Foil backed decal with slip resistant surface and digitally printed graphics/text such as Asphalt Art or equivalent product
   APPLICATION: Pre-treat the area and remove loose dirt. Remove liner from back of decal and apply to surface. Use hard rubber roller to roll up and down the decal and activate the adhesive
   GRAPHICS: Graphics artwork files available in vector format

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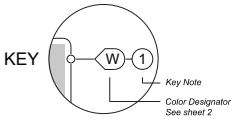

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NOTES

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Lawrence, KS
Bicycle Wayfinding
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Pavement Markers
SHEET TITLE

16
SHEET NUMBER

APPENDIX: PLACEMENT PLAN SIGN SCHEDULE

Lawrence, KS Bicycle Wayfinding Placement Plan

Installation No.	User Direction	Sign Type	Arrows	Route/Destinations	Distance (miles)	Text Lines	Post Type	Notes
1	South	Decision Sign		Sign Top - Bikeway			Existing	Existing steel post - replace existing bike route signage
			↑	Haskell · HINU	2.5	1		
			←	Lawrence HS	0.4	1		Baker Wetlands could be on sign (primary destination) but Lawrence HS (secondary) is closer
			→	KU West District	0.6	1		
2	North	Decision Sign		Sign Top - Bikeway			Existing	Existing steel post - replace existing bike route signage
			↑	KU Central District		2		
			↑	Allen Fieldhouse	0.3	1		
			↑	KU North District	0.5	1		
3	South	Decision Sign		Sign Top - Bikeway			Existing	Existing wood light pole
			↑	Lawrence Loop	2	1		
			↑	Haskell · HINU	2.25	1		
			↑	Baker Wetlands	2.5	1		
4	North	Decision Sign		Sign Top - Bikeway			Existing	Existing wood light pole
			↑	KU Central District	0.25	2		
			←	KU West District	0.6	1		
			→	Lawrence HS	0.4	1		could be South Park (primary), but HS is closer and more direct
5	South	Decision Sign		Sign Top - Bikeway			Existing	Existing steel post - replace existing bike route signage
			↑	Lawrence Loop	1.5	1		
			↑	Haskell · HINU	2	1		
			↑	Baker Wetlands	2	1		
6	North	Decision Sign		Sign Top - Bikeway			Steel	decision sign since there is a planned east-west facility on 23rd
			↑	KU Central District	0.5	2		
			↑	Lawrence HS	0.7	1		
			↑	KU West District	0.9	1		
7	South	Pavement Marker	No					
8	South	Decision Sign		Sign Top - Greenway			Wood Post	decision sign since there is a planned east-west facility on 23rd
			↑	Lawrence Loop	1.5	1		
			↑	Haskell · HINU	2	1		
			↑	Baker Wetlands	2	1		
9	North	Decision Sign		Sign Top - Greenway			See Install 8	
			_↑	KU Central District	0.5	2		jogged arrow
			_↑	Lawrence HS	0.7	1		jogged arrow
			_↑	KU West District	0.9	1		jogged arrow
10	East	Pavement Marker	No					
11	SE	Pavement Marker	No					
12	SW	Decision Sign		Sign Top - Greenway			Wood Post	
			←	Lawrence Loop	1.3	1		
			←	Haskell · HINU	1.8	1		
			←	Baker Wetlands	1.8	1		

Lawrence, KS Bicycle Wayfinding Placement Plan

Installation No.	User Direction	Sign Type	Arrows	Route/Destinations	Distance (miles)	Text Lines	Post Type	Notes
13	North	Decision Sign		Sign Top - Greenway			Wood Post	
			→	KU Central District	0.7	2		
			→	Lawrence HS	0.9	1		
			→	KU West District	1.1	1		
14	South	Kiosk						
				Naismith Valley Park		2		
15	SW	Pavement Marker	No					
16	NE	Pavement Marker	No					
17	North	Pavement Marker	No					
18	South	Decision Sign		Sign Top - Greenway			Wood Post	could consolidate with pedestrian scale stop sign, but might need to be taller. Need clarity on what signage is already with stop sign
			↑	Lawrence Loop	0.8	1		
			↑	Baker Wetlands	1.3	1		
			←	Haskell · HINU	1.3	1		
19	North	Decision Sign		Sign Top - Greenway			Wood Post	could consolidate with pedestrian scale stop sign, but might need to be taller. Need clarity on what signage is already with stop sign
			↑	University of Kansas	1.2	2		
			→	Billy Mills MS	0.7	1		
			→	Haskell · HINU	1.3	1		
20	South	Pavement Marker	No					
21	SW	Decision Sign		Sign Top - Greenway			Wood Post	
			→	Post Office	0.6	1		
			→	Lawrence Loop	0.7	1		
			→	Baker Wetlands	1.2	1		
22	East	Decision Sign		Sign Top - Greenway			Wood Post	
			←	University of Kansas	1.3	2		
			←	Haskell · HINU	1.4	1		
			←	Billy Mills MS	0.8	1		
23	West	Pavement Marker	No					
24	North	Pavement Marker	No					
25	South	Pavement Marker	No					
26	South	Decision Sign		Sign Top - Greenway			Wood Post	
			↑	Post Office	0.1	1		
			↑	Lawrence Loop	0.2	1		
			↑	Baker Wetlands	0.7	1		
27	North	Decision Sign		Sign Top - Greenway			See Install 27	Sign must be placed as close to 31st St as possible so people turning right to Broken Arrow see it in time to turn
			↑	University of Kansas	1.8	2		
			↑	Haskell · HINU	1.9	1		
			→	Broken Arrow Park	0.9	2		

APPENDIX: PLACEMENT PLAN SIGN SCHEDULE

Lawrence, KS Bicycle Wayfinding Placement Plan

Sheet 3 of 3

Installation No.	User Direction	Sign Type	Arrows	Route/Destinations	Distance (miles)	Text Lines	Post Type	Notes
28	South	Decision Sign		Sign Top - Greenway			Wood Post	
			←	Lawrence Loop	0.2	1		
			←	Baker Wetlands	0.7	1		
			→	Post Office	0.1	1		
29	West	Decision Sign		Sign Top - Greenway			Wood Post	
			↑	Post Office	0.1	1		
			→	University of Kansas	1.8	2		
			→	Haskell · HINU	1.9	1		
30	East	Decision Sign		Sign Top - Greenway			Wood Post	
			→	Lawrence Loop	0.1	1		
			→	Baker Wetlands	0.6	1		
31	North	Decision Sign		Sign Top - Greenway			Wood Post	
			←	Post Office	0.3	1		
			←	University of Kansas	2	2		
			←	Haskell · HINU	2.1	1		
32	North	Pavement Marker	No					
33	South	Pavement Marker	No					
34	South	Kiosk						
				Lawrence Loop		2		

APPENDIX: PLACEMENT PLAN SIGN SCHEDULE

March 27, 2024

BUDGETARY PROPOSAL FOR WORK

Alta Planning + Design, Inc.
Attn: Chloe Weigle
Atlanta, GA

RE: Lawrence, KS - Bicycle Wayfinding

BUDGET TO PROVIDE:
FastSigns of Lawrence respectfully submits this price quote to provide and install all signage & graphics for the above referenced bid package. All construction, materials, finishes, and installation methods conform to bid document drawings and specifications or are as otherwise described within this proposal.

Pricing is based upon information and drawings provided at time of bidding and subject to change based upon engineering requirements, revised specifications, or changes in scope. Pricing is subject to change based on price increases from vendors or suppliers from the date of this proposal through the date when the project is released to production.

BUDGETARY SCOPE OF WORK:

- **Kiosk Signage**- Supply and install qty (1) Kiosk Sign 6'-8" x 2' in size. Sign constructed per drawings on page 5 of bid docs with removable side panels to access epoxy anchors for signage installation. All graphics to be applied vinyl graphics with UV laminated applied digital print for map. Install on custom concrete footing.
- **Decision Signage** - Supply and install qty (20) decision signs per drawings on page 10 of bid documents. Sign panels to be sized at 3' x 1' in size. Install on galvanized steel perforated posts with break away sleves or baseplate mounts in paved areas. All graphics to be applied standard color vinyl on painted background.
- **Turn Signage** - Supply and install qty (2) turn signs per drawings on page 12 of bid documents. All sign panels to be 18" x 12" in size with smaller 4 1/2" radius arrow panels. Graphics to be applied standard color graphics on painted background. Posts to be 4" x 4" wood posts mounted in concrete footing.
- **Pavement Markers** - Supply and install qty (12) pavement markers. Markers to be 2' radius decal with supplimentary arrow graphics. Graphics to be produced as foil backed decal with slip resistant surface and digital print graphics per drawing on page 16 of bid documents. Install directly to asphalt or similar surface.

BEDGETARY PRICING INCLUDES:

- Shop drawings for approval (includes initial drawings and one revision). Additional revisions billed at $100 per hour
- Material and color samples
- Field verification of measurements (if required) prior to shop drawings and fabrication
- Complete fabrication and finishing of all signage
- Complete project management and coordination of fabrication and installation schedules with general contractor or related trades as required
- Installation of all signs in approved locations
- Touch up/clean up

- Pricing assumes we have clear access behind wall for all remote power supplies and secondary wiring
- As-builts and instructions
- These prices are for the complete project as described; if any items are omitted, we reserve the right to re-price

BUDGETARY PRICING EXCLUDES:

- Permits and procurement as required
- Bid or performance bonds
- Mock ups and prototypes
- Certified engineer stamp on drawings
- Sign programming or content development
- Final creation of digital print artwork; FastSigns to provide "Digital Art Submittal Guidelines" for required formats
- Surface preparation as needed to achieve graphics or signage adhesion to interior walls
- Union or prevailing wage installation
- Blocking or additional structure as required behind signs
- Primary electric to be brought to sign locations by others
- Voltage other than 120V or 277V
- Electrical hook-up or permits
- Photocell or timer for electric signs
- Locates for privately owned utility
- Rock, poor soil conditions, water in excavations and other unforeseen site conditions may incur additional charges.
- Overtime charges due to circumstances beyond our control
- Excludes sales tax or use taxes; unless a tax-exempt certificate is provided, taxes will be included with each invoice.

BUDGETARY SUBTOTALS:

Kiosk Signage	$	18,000.00
Decision Signage	$	30,000.00
Turn Signage	$	3,000.00
Pavement Markers	$	3,000.00
Subtotal All Items	**$**	**54,000.00**

TERMS:

Budget pricing only. Final pricing required to proceed with order.

We appreciate the opportunity to bid on this project. Please call me if you have any questions or need further information.

Thank you,

Jim Lyle
Signage Consultant

Fast Signs of Lawrence
1830 W 6th St., Ste 2
Lawrence, KS 66044