**Draft Bike Network: Overcoming East/West Barriers**

Perhaps the biggest challenge for a connected, comfortable bicycle network in North Kansas City is overcoming major infrastructure barriers that divide the city into east and west. These barriers present physical challenges in the form of highways, railroads, levees, and other infrastructure, while requiring coordination with multiple jurisdictions and property owners. Each potential east-west connection has different advantages and disadvantages, and is located to serve different trip origins and destinations.

**Armour Road under I-35**

Armour Road under I-35 was identified in community feedback as one of the most dangerous and uncomfortable locations for cyclists. At the same time, a direct connection along Armour Road is among the most desired connections. Any connections along a MoDOT route crossing an Interstate highway face special challenges, but it is physically possible to provide a wider, safer bicycle and pedestrian connection under the highway on the north side of Armour without impacting the flow of traffic. This can be achieved by reconfiguring the westbound Armour to southbound I-35 on-ramp and taking advantage of the extra westbound travel lane that is introduced just east of I-35.

**Route Alternative: 14th Avenue**

With 50 feet of width between curbs, 14th Avenue is wide enough to accommodate bike lanes and on-street parking on both sides of the street. 14th Avenue provides access under I-35 but would require a new trail connection along MoDOT ROW to link to the Diamond Parkway Cycle Track and destinations beyond. With this connection, 14th Avenue provides an attractive route for coming and going to Downtown KCMO, but is very circuitous for those headed to or from destinations on Armour Road.

**ADVANTAGES**
- Continues west to Burlington
- Connects 14th Ave destinations
- AVOIDS Truck Routes

**DISADVANTAGES**
- Far away from Downtown NKC
- Requires new off-street trail and easement

**COST:** $$$$$

**PARTNERS REQUIRED:** MoDOT/Private Property Owners

**Route Alternative: 16th Avenue**

Because 16th Avenue connects directly to the Diamond Parkway under I-35 and provides the shortest connection to north-south bike corridors on Swift and Burlington, it is the most used east-west bike corridor today. With very wide lanes and limited on-street parking, 16th Avenue has physical space for striped bike lanes. However, 16th Avenue is a busy truck route, which impacts the level of comfort for cyclists, especially casual riders. While striping would not impede truck traffic or change business operations, awareness of cyclists creates an additional burden for truck drivers.

**ADVANTAGES**
- Direct connection to Diamond Parkway
- Shortest path to north-south corridors
- Most used east-west corridor today

**DISADVANTAGES**
- Busy truck route
- Some parking conflicts west of Swift
- Property owner opposition

**COST:** $$$$$

**PARTNERS REQUIRED:** Within Public Right-of-way

**Route Alternative: 18th Avenue**

18th Avenue is the closest east-west route to Downtown NKC destinations and has several destinations of its own, including residential, commercial, and community facilities. With limited on-street parking, 18th is wide enough for striped bike lanes. To get from 18th Avenue from east of I-35 requires navigating a busy intersection at 16th Avenue, and a connection on Linn Street which is a truck route. 18th Avenue narrows west of Swift, which means dedicated space for bikes is not possible if on-street parking is preserved.

**ADVANTAGES**
- Closest east-west route to Downtown NKC
- Several destinations on 18th Avenue
- Identified on adopted 2016 NKC Master Plan Mobility Map

**DISADVANTAGES**
- Major parking conflicts west of Swift
- Requires connection on Linn Street (truck route)
- Property owner opposition

**COST:** $$$$$

**PARTNERS REQUIRED:** Within Public Right-of-way
Burlington Street
Community input identified Burlington as the corridor most desired to bike on if it was safer and more comfortable. Design and engineering is underway for a two-way cycle track on the east side of Burlington Street. This bicycle connection would be the first part of a long-term effort to transform Burlington from a high-speed highway corridor to a vibrant, mixed use destination corridor. Proposed improvements on Burlington would bring outside visitors to North Kansas City destinations while linking a variety of regional bike connections including North Oak and the HOA Bridge.

Swift Street
Swift is the most popular and heavily-used bike corridor in North Kansas City today. Wide streets, slow traffic, and multiple destinations make it a desirable route already, but there are opportunities to enhance comfort and connectivity on the corridor. There is space to incorporate dedicated space for bicycles on the east side of the street while maintaining all parking and accommodating loading operations of businesses on the west side of Swift.

Diamond Parkway
A two-way cycle track on Diamond Parkway provides North Kansas City’s only north-south connection on the east side of I-35, and the only way to cross I-35 comfortably on a bike. For the Diamond Parkway cycle track to reach its full potential, barriers must be addressed at both ends of the project. To the north, connections are needed to North Kansas City Hospital, Cerner, Harrah’s, and east to Chouteau Trafficway. At the south end, more comfortable connections are needed to link both Downtown North Kansas City, and Downtown KCMO.

Route Alternative: Unused Rail Corridor
Howell Street has good connectivity through the entirety of North Kansas City and is the second most biked corridor after Swift, based on public input. However, narrow right of way, industrial uses, and haphazard on-street parking create safety and comfort challenges for people on bikes. One option to connect through the industrial area is through an unused rail corridor from 12th Ave to 16th Avenue between Howell and Iron Streets. This route would maximize comfort for people on bikes while avoiding parking and loading conflicts with adjacent businesses. However, access to this corridor would require negotiations with railroads and private property owners, and agreements are far from certain.

**ADVANTAGES**
+ Most comfortable option for cyclists
+ No impacts to business parking/loading

**DISADVANTAGES**
- Requires railroad/private property owner agreements
- Requires new infrastructure

**COST:** $$$$$

**PARTNERS REQUIRED:** Railroads / Private Property Owners

Route Alternative: Iron/Howell Streets
One option to connect through the industrial area is with one-way bike lanes on Howell and Iron Streets between 12th Avenue and 16th Avenue. Today, narrow right of way, industrial uses, and haphazard on-street parking create safety and comfort challenges for people on bikes. However, there is room for bike lanes if on-street parking is removed from one side of each street. The removal of on-street parking would not only benefit people on bikes, but also make it easier for large trucks to maneuver in these corridors, which is more difficult when cars are parked on both sides. An analysis of on-street parking use suggests that a southbound bike lane on Howell and northbound bike lane on Iron would have the least impact to existing businesses.

**ADVANTAGES**
+ Striping is inexpensive
+ Can be implemented within existing ROW
+ Eases truck circulation

**DISADVANTAGES**
- Impacts on-street parking in some areas
- Narrow roads and truck traffic create discomfort for people on bikes

**COST:** $$$$$

**PARTNERS REQUIRED:** Within Public Right-of-way

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**Draft Bike Network: North/South Connectors**
Route Alternative: Howell Street Cycle Track

North of Clark Ferguson Drive, Howell Street is very wide with perpendicular parking on the east side of the street and parallel parking on the west side of the street. One option to continue bicycle facilities on Howell between 32nd Avenue and Clark Ferguson Drive is a two-way cycle track on the west side of the street. This option avoids safety concerns of bikes interfacing with the perpendicular parking facing Macken Park. This option also helps to calm traffic on Howell by narrowing travel lanes and potentially introducing vertical features like planters that help to slow car speeds. This option would require the removal of parallel parking on the west side of Howell. However, the residential units on the west side of Howell have other parking options including parking off the alley, parking on east-west streets, and the perpendicular parking on the east side of Howell.

ADVANTAGES
+ Striking and planters are relatively inexpensive
+ Narrow lanes and vertical features help calm traffic

DISADVANTAGES
- Requires removal of parallel parking on west side of Howell
- Requires people on bikes to cross Howell to connect to potential shared path south of Clark Ferguson Drive.

COST: $ $ $ $ $ 

PARTNERS REQUIRED: Within Public Right-of-Way

Route Alternative: Expanded Macken Park Trail

One option to continue bicycle facilities on Howell between 32nd Avenue and Clark Ferguson Drive is to expand the existing jogging trail in Macken Park. Public input identified Macken Park as a popular destination for people on bikes and an expanded trail would provide direct access to park amenities. A route through Macken Park would be direct and comfortable for people on bikes, but careful design would be necessary to eliminate conflicts with the heavily used pedestrian path.

ADVANTAGES
+ Direct and comfortable route for people on bikes
+ Access to Macken Park amenities

DISADVANTAGES
- More expensive than cycle track on Howell Street
- Potential conflicts with pedestrians on heavily-used path
- Bikes currently prohibited from using trail

COST: $ $ $ 

PARTNERS REQUIRED: North Kansas City Parks Board

Howell Street: Armour Road to Clark Ferguson Drive

Howell Street is an important community connector that links several popular destinations including Macken Park, North Kansas City High School, the North Kansas City Library, City Hall, and the Splash Park. Narrow travel lanes and intermittent one-way movements limit options for dedicated bicycle facilities, but there may be room for a wide shared path behind the curb that enhances mobility for both pedestrians and people on bikes. A shared path that linked these many destinations could be further enhanced with wayfinding markers and other amenities that establish it as a gateway to adjacent neighborhoods.
Route Alternative: Ozark Street Expanded Sidewalk

Ozark Street is a logical connection for people biking from the north to destinations east of I-35, and for North Kansas City residents seeking access to planned bike facilities on Armour Road. Ozark is relatively busy for a residential street, making it slightly uncomfortable to bike in mixed traffic. One option is to expand the sidewalk on the east side of the street to function as a wide shared-use path. This would provide a comfortable bike connection, enhance the pedestrian experience, and slow cars by narrowing travel lanes.

ADVANTAGES
+ Separates people on bikes from car traffic
+ Enhances pedestrian experience

DISADVANTAGES
- Cost of new shared path infrastructure

COST: $$$$$

PARTNERS REQUIRED: Within Public Right-of-Way

Route Alternative: Ozark Street Traffic Calming

One option for a more comfortable bike connection on Ozark Street is to incorporate a mix of traffic-calming features, signage, and pavement markings to help slow traffic and increase awareness of cyclists on the street. Sometimes called a "bike boulevard" or "neighborhood greenway" this mix of improvements would still require people on bikes to ride mixed with car traffic, but in a calmer and more comfortable environment.

ADVANTAGES
+ Slows traffic through residential area
+ Less expense than new shared path

DISADVANTAGES
- Requires mixing of bikes and cars on busy residential street

COST: $$$$-

PARTNERS REQUIRED: Within Public Right-of-Way

32nd Avenue

32nd Avenue is an important local and regional connection. It connects cyclists from Route I-35, North Oak, Cherry, and Holmes to North Kansas City and links many routes within North Kansas City. On-street parking, the location of utilities, the location of adjacent development, and the configuration of the street make bike connections difficult. One option is to expand the sidewalk on the south side of 32nd Avenue to function as a shared path.

Clark Ferguson Drive

Clark Ferguson Drive is wide enough for bike lanes between Howell Street and the Parks and Recreation Facility. East of the Parks and Recreation Facility an existing bike path provides connection east to Ozark Street. An alternative route to connect to Ozark could run through Macken Park to 32nd Avenue. This would require careful design to minimize conflicts with the popular walking path.

23rd Avenue

23rd Avenue provides an alternative route for people on bikes to Downtown destinations via Burlington, Swift, and Howell. Between Burlington and Swift, 23rd Avenue is wide enough for bike lanes. East of Swift, there is not space for dedicated bicycle facilities, but traffic calming, pavement markings, and signage can make the corridor comfortable for most people on bikes.