Founded in 1917, HDR is an employee-owned engineering, architectural, planning and consulting firm that excels at helping clients manage a wide range of projects and make sound decisions. With nearly 10,000 employees, we have grown into one of the largest and most respected architectural-engineering companies serving industries worldwide. As an integrated firm, HDR provides a total spectrum of services for our clients. Our staff of professionals represents numerous disciplines and partners on blended teams to provide solutions beyond the scope of traditional A/E/C firms.

Local Commitment, Regional Focus. With 163 employees located throughout the state of Missouri, including offices in Kansas City, Lee’s Summit, Columbia, Springfield, Forsyth, and St. Louis, HDR has served the area since 1993. Our experience and team’s knowledge will result in quick mobilization of the right technical resources supported by familiarity with department staff and understanding of the agency’s processes and requirements.

Consistently ranked among the top firms by leading industry publications including Engineering News-Record and Architectural Record, HDR has set the standard - delivering our best innovations and highest quality of service to help your program succeed. The employee-owners of HDR are proud to be partners with all the transportation professionals throughout the state of Missouri and we look forward to providing solutions to future transportation challenges.

OVERVIEW OF AVAILABLE LPA SERVICES

KANSAS CITY | ST. LOUIS | LEE’S SUMMIT | COLUMBIA | FORSYTH | SPRINGFIELD

NW 72nd Street Extension & N. Green Hills Rd./NW Waukomis Dr. Kansas City, MO

The Line Creek Valley area of Kansas City, Missouri, has a rich and storied history with untouched natural resources. Real estate speculators discovered the area in the early 1900s and created the town of Miltonwood in 1922.

The NW 72nd Street extension followed the “Barry to Parkville Road,” which as its name mentions, connected the Barry settlement at the County Line to the river settlement in Parkville.

The City of Kansas City desired to improve the safety of the road and reduce traffic congestion resulting from continued development. The design team led by HDR provided the design which included nearly two miles of arterial street improvement, a sustainable roundabout, a mile of 36-inch water transmission main serving KCI Airport, and a detailed construction phasing plan to minimize construction cost overruns and traveler heartburn. This project won the Kansas City, Missouri 2013 American Public Works Association Project of the Year Award.
3-Trails Pedestrian Bridge and Trail | 3-Trails Village, CID | Kansas City, MO

This project, for the 3-Trails Village Community Improvement District, includes the preliminary and final design of a new pedestrian bridge over I-435 in Kansas City, Missouri adjacent to the existing Bannister Road Bridge over I-435. Included is the layout and design of approximately one-half mile of new approach trail and sidewalk leading to and from the bridge as well as several at-grade trail crossings. [01] B, E

Brush Creek & Blue River Confluence Trail | Kansas City, MO

Working for the City of Kansas City, Missouri, HDR designed the Brush Creek & Blue River Confluence Trail. The project scope includes preparing biddable construction documents for the Brush Creek Trail connection to the Blue River at the Colorado St. Bridge. The alignment will follow along the north side of Brush Creek from Elmwood Ave under the BSNF and UP Railroad Bridges and bridging across the Brush Creek and connecting to the Colorado Street Bridge and connecting to the trail on the south side of the Blue River at the Colorado St. Bridge. B, E

3-Trails Pedestrian Bridge and Trail | 3-Trails Village, CID | Kansas City, MO

HDR provided engineering services for the preliminary plans, right-of-way plans, and final design for the Hominy Trail in Columbia, Missouri, from Route 63 to the Links Service Road near I-70.

The 3-mile multi-use trail consisted of a 10-foot reinforced concrete trail with an additional 5-foot aggregate jogging path all along new alignment. Project included several low water crossing bridge structures with special vehicle design loading. The structures were prestressed concrete boxes placed adjacent to a combination of drilled shaft and pile type abutments. Numerous MSE walls were constructed along this project as well. [02] B, E

Katy Trail Bridges | State of Missouri

HDR designed replacement bridges for the eight timber trail bridges located throughout central Missouri along the Katy Trail. The existing timber trestle bridges were replaced with single span prefabricated steel trail bridges with 12 foot wide concrete decks and a maximum length of approximately 140’. HDR designed the concrete abutments for each bridge in addition to bridge layout work. The trail alignment was kept at all locations. HDR also provided site survey of each location and geotechnical soil borings. [03] E

Burlington Corridor Study | North Kansas City, MO

HDR provided transportation analysis for the Burlington Corridor (MO Route 9) from the Heart of America Bridge to North Oak Trafficway, including assistance with concept development, multimodal and parking analysis, and consideration of land-use alternatives. The project included a long-term look at the potential for redevelopment to transform the corridor, which serves a dual function as a major commute route and a gateway to North Kansas City. The melding of transportation and land-use considerations was at the heart of the project. D

3-Trails Pedestrian Bridge and Trail | 3-Trails Village, CID | Kansas City, MO

HDR provided technical support to KCMO staff in the creation of the Bike KC plan. We conducted engineering analyses, developed an automated facility type selection process, developed facility recommendation maps, and created typical section drawings. HDR’s products included a memo summarizing the current state of the practice regarding bicycle facility types and recommending the facility types to be considered moving forward.

HDR identified gaps in the City's existing databases – items such as paved width, median presence, parking presence, curb presence, and traffic counts – and developed a data-collection plan to fill those gaps. HDR worked with the City to determine level of service (LOS) standards by facility type, and developed a unique selection flowchart underlying an Excel/GIS-based facility selection process. The final product is a decision-support tool that allows the City to identify and prioritize facilities going forward, including scenario testing. B, D

Burlington Corridor Study | North Kansas City, MO

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Deer Creek Drive Extension | St. Charles County, MO

HDR recently completed preliminary and final design services related to construction of a half mile roadway extension connecting Deer Creek Drive in St. Charles County to Elaine Drive in the City of O'Fallon MO. This is the first phase of a two and a half mile long multi-phase project to upgrade and ultimately extend Deer Creek Drive to Interstate 64. This new route will create a by-pass for the currently congested Missouri Route K through the heart of the City of O'Fallon. The preliminary design encompassed the entire alignment and included the preparation of a traffic circulation report, ERM, new roadway alignment involving dual roundabouts, roadway widening, two bridge structures as well as cultural and hydraulics analysis services. The completed first phase of construction included final design of: concrete pavement, ADA compliant sidewalks, storm sewers, creek channel modifications to help attain a “No Rise” certification, 700’ long horizontally curved prestressed concrete and plate girder bridge over Peruque Creek, mechanically stabilized earth retaining walls, and rock excavation, as well as limited construction services.

Harahan Bridge Design | City of Memphis, TN

The HDR led team completed preliminary engineering, bridge inspection, final design and plan services for the Harahan Bridge Boardwalk project over the Mississippi River between Memphis, Tennessee and Crittenden County, Arkansas. When completed in 1916, the existing bridge carried two railroad tracks and two, single-lane roadways - one on each side of the tracks. The bridge consists of two sections: the approach spans and the truss spans. The total length of the approach spans is 2,363 ft. and the total length of the truss spans is 2,549 ft. In 1949, roadway traffic was removed from the bridge when a new adjacent vehicular bridge was opened to traffic. This project is to add a pedestrian walkway and overlooks on one side of the existing bridge. The new walkway consists of light-weight aluminum planking on longitudinal steel stringers supported by the original roadway support brackets.

US-56/Old US-56 Intersection Improvement | Gardner, KS

HDR assisted the City of Gardner with the development of an ARRA request to signalize and improve the three-legged intersection of US-56 and Old US-56. HDR conducted a feasibility study of several intersection configurations and recommended the application of a “Continuous Green T” intersection at this location, the first of its kind in the state of Kansas. A traffic analysis was also performed to evaluate the operation of the intersection for both the opening year and a future design year. Results of the traffic analysis were used as the basis for the geometric design of the reconfigured US-56.

HDR also incorporated the design of the traffic signal and street light relocation, designed the layout of the proposed signing and pavement markings, and determined the proper construction sequencing and the layout of the traffic control. In addition, HDR was responsible for obtaining the environmental permits and clearance associated with the work in the adjoining wetland within the project site.

In addition to design, HDR provided construction support services and assistance with fine-tuning certain design elements in the field. The design and construction took place under the accelerated schedule mandated by ARRA, and had in-depth KDOT involvement at all stages. This design allows mainline through traffic to pass through the signalized intersection without stopping, by channelizing the conflicting left-turn vehicular movement via the addition of a raised concrete median that filters vehicles into an auxiliary lane.
Non-Motorized Intersection Improvements | Columbia, MO

HDR provided various services in Columbia, Missouri, as part of FHWA’s Non-Motorized Transportation Pilot Program. Columbia is one of only four cities in the country tapped to participate in this national program, which is aimed at improving safety and fairness for individuals engaged in non-motorized transportation. The overall project consisted of planning and/or design for 10 trail projects, including:

* Greenbriar Connection
* Hinkson Link
* Katy Place Connection
* Wilson Forum Katy Lane Connectors
* Rolling Norman Pedway
* Providence Bikeway
* Red Oak Lane Connector
* Stadium/MKT Connector
* Stadium Bikeway/Sidewalk
* Garth Extension

HDR was the lead consultant on this project, which involved the following tasks:

- The design of improvements at three initial intersections, considered “low-hanging fruit” where non-motorized improvements could be made fairly simply. Improvements included high-visibility crosswalks, countdown pedestrian signalization, safer low-speed right-turn channelizing islands, pedestrian tables, bicycle lanes, colored paint treatments, additional medians, landscaping and amenities for a trail head, and bicycle detection. Some of these improvements had already been considered based on stakeholder involvement.

- The conceptual design of improvements at another five intersections considered to need more complex solutions. HDR facilitated additional stakeholder involvement to assist with the design of improvements at these intersections. This effort has lead to a recent project to design two of the five intersections based on public input and available funds.

- The design of eight miles of trail improvements on various segments in the southern portion of the City. Projects range from completely new trail segments, to multi-use paths adjacent to roadways, to upgrades to existing unpaved trail facilities. B, D, E

WORK CATEGORIES

A. Roadway Design
B. Trails & Sidewalks
C. Construction Inspection
D. Traffic Engineering & TEAP
E. Structures