

**Statement of Qualifications**  
COUNTY OF LEAVENWORTH, DEPARTMENT OF PUBLIC WORKS

# LEAVENWORTH COUNTY SALES TAX PROJECTS



April 24, 2015



**CDM  
Smith**®



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April 24, 2015

Mr. Michael W. Spickelmier, PE  
Public Works Director  
Leavenworth County  
300 Walnut, Suite 007  
Leavenworth, Kansas 66048-2815

Subject: Consultant Qualification Packet Solicitation for Leavenworth County Sales Tax Projects

Dear Mr. Spickelmier and Selection Committee Members:

With the recent passage of the County's sales tax extension for infrastructure improvements, the County is ready to proceed with the design and construction of three priority projects:

- ✓ 147<sup>th</sup> Street from Fairmount Road to Parallel Road – 4 miles of 2-lane upgrade in Basehor, KS
- ✓ McIntyre Road between K-7 and K-5 – 2 miles of 2-lane upgrade in Lansing, KS
- ✓ Eisenhower Road from 155<sup>th</sup> Street to Tonganoxie Road – Complete streets upgrade in Leavenworth, KS

All three projects will benefit their local communities by offering better connectivity and development potential along the corridor. **The CDM Smith team is ready to assist the County to successfully deliver one or all three of these projects.** Our local Kansas City office has more than 45 professionals with expertise in transportation design and construction engineering. A key element of the CDM Smith project team is our exceptional subconsulting firms providing local expertise on this project. These firms include:

- Kaw Valley Engineering – *Surveys, Geotechnical, Construction Engineering*
- Hg Consult – *Structural Design*

This team will be led by Barbara Wells, PE, ensuring that all transportation services are addressed. Ms. Wells served as project manager and successfully completed the design of Leavenworth County Road 1 in 2008. That project has many similarities with the three projects included in this packet.

It has been our privilege to work with the County in the past, and we look forward to the opportunity to continue working with you through this project. If you have any questions regarding our submittal, please contact me at (816) 412-3112 or wellsbl@cdmsmith.com.

Very truly yours,

Barbara Wells, PE  
Project Manager  
CDM Smith Inc.





## Section 1

### Understanding

Leavenworth County is a growing rural county that experienced a 14 percent growth in population from 2010 to 2013, according to the US Census. Of the three project partners the City of Basehor has experienced the highest rate of growth, having increased its population by 112 percent over the same time period. This type of rapid growth puts increasing pressure on the infrastructure of the community, including the transportation system. With the passage of the sales tax extension for infrastructure improvements, Leavenworth County is able to move forward with three of its identified projects on its Capital Improvement Plan (CIP) adopted by the County Commission on November 8, 2012.

At **CDM Smith**, we take a multidisciplined approach to design projects to ensure that the needs of the community are being met. CDM Smith maintains the size, stability, and resources to successfully undertake a diverse range of projects with a local staff of 45 employees. In addition, **Kaw Valley Engineering** and **Hg Consult** have joined the CDM Smith team to expand this multi-disciplined approach.

### 147th Street from Fairmount Road to Parallel Road

Planning and designing a transportation system that can handle this growth is key to maintaining a successful community. The 147th Street project is an excellent example of this. The *Comprehensive Plan for the City of Basehor, Kansas* identifies 147th Street as a future arterial roadway with increased residential development, but currently it is a 2-lane gravel local roadway for most of its length. The City of Basehor Official Zoning Map shows residential areas at the entrance to Falcon Lakes Drive

and a planned residential subdivision located along 147th near Parallel Road. The proximity of this route to K-7 offers the benefit of becoming a reliever route for the residents of the County.

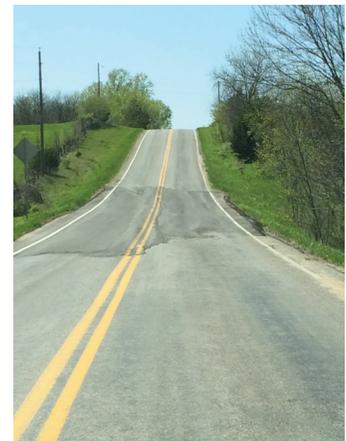
Similar to the Country Road 1 project, it is the desire of the County to upgrade this roadway to a collector with two 12' lanes and 6' shoulders. This gives an overall width of 36' roadbed which provides the County the flexibility to upgrade the roadway to three lanes in the future. Assuming a 60' right-of-way, the project will look for opportunities to bring the vertical profile to standard while maintaining its current right-of-way. However, additional right-of-way may be warranted along the corridor specifically at the Falcon Lakes entrance and next to the West Star electrical substation.

This project will also include surveys and geotechnical investigation where a potential new box culvert or open span bridge is needed for drainage purposes. Utility relocations as a field investigation show overhead power lines along the west side of the corridor, waterlines, gas lines and fiber. Intersection layouts at Hollingsworth Road, Donahoo Road, Leavenworth Road, and Parallel Road will be investigated for safety and operations. The team will utilize APWA standards as applicable and create a design criteria memorandum to assure consistency between team members. A 40 mph design speed has already been established. For the purpose of this project, pedestrian accommodation will not be provided.

### McIntyre Road between K-7 and K-5

As listed in the County's CIP, two miles of McIntyre Road shall be improved from K-7 to K-5 to provide better connectivity for the County and City of Lansing, Kansas. It will also be the link that allows for future development in the southeast part of Lansing and the County. With a traffic study already completed, the CDM Smith team will be able to utilize the information to determine the most efficient intersection layouts at K-7 and K-5.

The current roadway is a 2-lane gravel roadway without shoulders to 127th Street and then a 2-lane paved roadway without shoulders to the K-5 intersection. This project will upgrade the



roadway to 32'-40' section. Sidewalks will also be considered as the area is prime for development. As with the 147th Street project, this project will include upgrading the roadway and vertical profile to meet today's standards. Surveys, drainage design, maintenance of traffic, and intersection design will all be implemented as a part of the final plans.

## Eisenhower Road from 155th Street to Tonganoxie Road



This project is a new addition for the County. Not currently a part of the CIP, the County is looking to expand the current 2-lane road to a 4-lane facility with sidewalks. This project

will be in coordination with Mid-America Regional Council and the Kansas Department of Transportation (KDOT) as a part of its complete streets program. This project will include storm drainage system design, sidewalks, and lighting. Utility coordination will be key for this project with the high power transmission lines located on the north side of existing Eisenhower Road.

*For each of these projects the CDM Smith team will successfully integrate survey; roadway, structural, and drainage design; geotechnical; utility coordination; environmental assessment; and public involvement support to produce a design that not only meets the community's needs but is a project they can be proud of. Our approach is to provide a truly cost-effective design that is construction-ready. The quality of design plans can be measured by the ease of construction and the number of change orders. CDM Smith prides itself in providing quality plans that can be easily constructed.*

### VALUE ADDED SERVICES

In addition to the services discussed previously, CDM Smith can also provide environmental assessment and public involvement support, if the project warrants.

#### Environmental Assessment

If the design project warrants it, CDM Smith has knowledge and expertise available to complete environmental assessments at any level. Allan Zafft leads CDM Smith's Kansas City office in the preparation of complex environmental documents and corridor studies. He has

### Project that Best Fits our Capabilities

The CDM Smith team brings the breadth and depth of transportation services to handle any of the three projects proposed by the County. However, if we are to be awarded one project, as a team we would prefer to deliver the **147th Street project**. This project is similar in size and complexity to County Road 1, which was successfully delivered by our project manager, Barbara Wells. These similarities include:

- Upgrading the vertical alignment to meet today's standards
- Structural design for a small water crossing
- Intersection design
- Utility coordination
- Right-of-way coordination and design
- Coordination with the County Commission

Our team qualifications are also more aligned with the 147th Street project with the addition of our subconsultants, Kaw Valley Engineering and Hg Consult. We deliberately added these firms to our team to provide their specified roles on the 147th Street project; Kaw Valley for their surveying, geotechnical, and construction engineering qualifications and Hg for their structural expertise. The 147th Street project requires these specific services with the potential new structure just south of Donahoo Road.

extensive experience with all levels of NEPA analysis and processes, has led and participated in numerous complex environmental impact statements and environmental assessments, and is well-versed in all facets of NEPA compliance, including requirements added and amended under MAP-21.

#### Public Involvement

As with most design projects, it's essential to keep the community informed about proposed plans and infrastructure improvements. Gina Murphy leads CDM Smith's Kansas City office in the development and preparation for public meetings, stakeholder meetings, town hall discussions, and general public outreach activities. She has led this effort for the City of Sugar Creek with their Lewis and Clark Expressway project, which includes coordination with MoDOT, FHWA, MoDNR, US Army Corps of Engineers, and EPA. These relationships and experience

can be very beneficial for Leavenworth County as it coordinates with similar agencies.

## PROJECT MANAGEMENT

At CDM Smith, our project approach philosophy is a continuous, seamless integration of quality and responsiveness into everything the project team does. CDM Smith offers clients a proactive project management approach with clear lines of communication, clear definition of activities and responsibilities at each management level, established quality assurance and quality control (QA/QC) procedures, direct access to resources and professional staff and rapid effective implementation and control of work assignments. Barbara Wells, our project manager, provides the experience and expertise to manage both small and large projects. The organization of this philosophy includes the following components:

- Quality Assurance Program
- Scheduling Controls
- Cost Controls and Reporting

### Quality Assurance Program

The QMP process ensures project success from start to finish and includes the following:

- **Project Quality Management Session** – CDM Smith will initiate a Project Quality Management (PQM) workshop (part of the Kick-Off Meeting). The PQM session has proven vital to steering projects in the right direction from the onset and improving overall execution and efficiency.
- **Project Work Plan** – Following the conclusion of the kick-off meeting, the project manager will finalize the Project Work Plan for approval prior to start of work. The PQM process allows County staff to have input into the project from the notice-to-proceed and it provides the basis for quality reviews and checks throughout the project.
- **Project Briefings** – Throughout the project, CDM Smith will hold regular project briefings with County staff to assess progress and determine and address current needs and concerns. These meetings are typically held monthly, or more regularly, as warranted by the pace or complexity of the tasks under way. We consider close communication and a close working relationship with County staff to be critical to the success.
- **Technical Review Committee** - The project-specific technical review committee (TRC) is the foundation of

individual project quality management and is typically conducted at the preliminary design stage and the 60-percent completion stage. The TRC is composed of senior-level professionals with in-depth experience directly applicable to a particular project. The committee is established during the earliest project planning stages based upon the specific areas of expertise needed to carry out assertive, independent evaluations of each project deliverable. In addition to technical review, CDM Smith's TRC system also incorporates constructability and construction cost savings into the review process. CDM Smith utilizes modern, computer-based project management, scheduling and cost control tools as well as quality systems and procedures to ensure our projects are completed on schedule and within budget. These tools and procedures will enhance project efficiency and are described in the following paragraphs.

### Scheduling Controls

CDM Smith believes that meeting our commitments for submittal of deliverables on schedule is of critical importance to project success. Thus, we have always taken a sophisticated approach to project scheduling to provide deliverables to clients on time. We accomplish this by using software programs (such as Microsoft Project) capable of critical path method (CPM) schedule analysis, cost control analysis, and resource usage and leveling analyses. These programs enable our project managers to readily access scheduling and analysis system capabilities.

### Cost Controls and Reporting

Project cost controls are provided through CDM Smith's computerized management information system (PRISMView), which has been refined over the years to best meet our clients' needs. A key element of the system is its flexibility in producing project reports—tailored to suit individual clients—for a variety of purposes:

- Monthly status reports
- Invoices and supporting cost detail reports
- Monthly financial reports
- Additional or ad hoc reports

PRISMView is organized into a series of reports that serve as a monitoring aid in cost control, including cash flow, for the project manager. The most useful report details "current period charges." A current period charges report is generated weekly for all projects and is presented to project managers to facilitate monitoring of charges

to activities they have established on the projects. This report displays charges by project, employee labor, and expense, and summarizes charges for week-ending, month-ending, to-date, and the percentage of budget spent compared to the total available budget. This report also helps project managers be aware of those individuals charging to the project and to carefully control all costs related to the project.

## Section 2

### Previous Experience/References

*CDM Smith provides lasting and integrated solutions in water, environment, and transportation. In transportation specifically, we offer full consulting services ranging from roadway design, traffic capacity analysis and simulation to pedestrian, bicycle, transit, and multipurpose transportation corridor studies.*



Our philosophy is simply to first **listen** and **think**, and then **deliver** the best option.

Our pragmatic solutions for a multimodal transportation network demonstrate vast experience with safety issues and needs, congestion management, roadway throughput, signal warrant criteria, and more. Our portfolio includes technically-challenging, successful projects that have consistently placed us among the most globally-recognized firms in the industry.

CDM Smith is the product of the merger of Camp, Dresser and McKee (CDM) and Wilbur Smith Associates. In 2012, these two successful firms came together as CDM Smith to become a fully integrated provider of water, transportation, environmental, and facilities services. CDM Smith is a full-service firm with 45 employees in the Kansas City office and 10 employees in Wichita, Kansas.

#### Introduction to the Team

CDM Smith will serve as the lead design professional for this contract. We have partnered with Kaw Valley Engineers to provide surveys, geotechnical services, and construction engineering. Hg Consult will be a part of our team to provide structural design as needed.



#### Survey, Geotechnical, and Construction Engineering: Kaw Valley Engineering

Kaw Valley Engineering has been providing transportation engineering services to DOTs, local government agencies, private developers, educational institutions, and military installations since 1982. Current members of the transportation engineering team have been performing surveying and design for more than 25 years on street and roadway projects in Kansas and Missouri. Kaw Valley Engineering has developed plans for various improvements on many types of roadways, from 4-lane divided highways to rural gravel roads, and their transportation engineers have considerable experience with widening and reconstruction elements such as route alignments, geometrics, roadway grading, and drainage, while also being well-versed in pavement design, subgrade treatments, overlays, and joint sealing. Kaw Valley Engineering's KDOT testing certifications are available upon request.



#### Structural Design: Hg Consult, Inc.

Hg Consult is a recently formed consulting engineering firm based in Kansas City, Missouri. They were incorporated January 14th, 2010 in Missouri, with offices in Kansas City, Missouri and Lenexa, Kansas. Their staff is well known and highly respected in the local engineering community, derived from their extensive background in transportation planning and design. Hg is fully committed to providing professional consulting services based on three key factors: responsiveness, quality, and open communication. They have complete transportation design capabilities, including project management, traffic counting and traffic analysis, traffic operations, geometrics, traffic control, drainage, public information and outreach, utility coordination, NEPA documentation and planning, and construction inspection services. Hg has varied project experience from small roadway reconstructions to major interchanges and understand the different needs and requirements of each. Their primary clients are the City of Kansas City, Missouri; the United Government of Kansas City; Kansas/Wyandotte County, MoDOT; and most major transportation consultants in the Kansas City area.

## Team Experience

*From minor roadway design and intersection improvements to projects that employ the latest technologies delivering world-class facilities that serve major transportation networks, CDM Smith's experience is as diverse as our clients. We leverage the full power of our resources, expertise, and experience to provide our clients with exceptional service, quality results and enduring value across the entire project life cycle is to reach one goal—yours—by providing the right total solutions.*

CDM Smith has successfully performed a wide range of planning, engineering, and environmental projects throughout the Midwest. We take pride in our past performance, particularly in terms of cost control, quality of work, and compliance with performance schedules. We also pride ourselves in hearing our clients tell us that CDM Smith is who they think of when a project presents unique challenges because we bring creative problem

solving and high technical expertise to the projects. CDM Smith is fully capable of leading and performing projects ranging in size from those that need a single specialist to those requiring large and complex professional teams. Our systematic project management approach to turnkey engineering offers our clients the assurance of on-time delivery of comprehensive services – including services performed on a “fast track” basis with no compromise to quality.

The following details relevant projects on which CDM Smith has proven its delivery capabilities. Each was completed on time and some were completed on aggressive schedules. CDM Smith takes pride in providing exceptional service and is dedicated to meeting our client's needs and expectations. The descriptions below provide an “at-a-glance” look at these projects and, illustrates CDM Smith's experience in accomplishing similar projects, timeliness on similar projects, and ability to identify cost saving and cost-effective solutions.

Relevant Experience of This Team					
Project Name	Rural 2-lane Highway	Suburban 4-lane Roadway & Intersection	Traffic Analysis & Intersection Design	Worked with KDOT	Other Local Municipality
I-70 KTA/County Road 1, Leavenworth County, KS	✓		✓	✓	✓
I-135/47th Street, Wichita, KS		✓	✓	✓	✓
Route 350/Raytown Road Intersection, Raytown, MO		✓	✓		✓
Traffic Services, Roeland Park, KS		✓	✓		✓
Blue Ridge and Wornall Road Intersection Improvements, Kansas City, MO		✓	✓		✓
Lewis and Clark Expressway Design, Sugar Creek, MO	✓	✓	✓		✓
Gateway Interchange (I-435, I-35, K-10) Design-Build, Lenexa, KS		✓	✓	✓	✓
Old Highway 40 Bridge Replacements, Dickinson County, KS	✓			✓	✓
Fairfax/US 69 Bridges Design-Build, Riverside, MO and Kansas City, MO		✓	✓	✓	



**Rural 2-lane Highway**  
**Suburban 4-lane Roadway & Intersection**  
**Work with KDOT & Other Local Municipalities**

**I-70 KTA/COUNTY ROAD 1, LEAVENWORTH COUNTY, KS**

**Reference: Mike Spickelmier, Leavenworth County Engineer, (913) 684-0470**

Leavenworth County and the Kansas Turnpike partnered to provide the County a new interchange and upgrades to County Road 1. The turnpike interchange provided the County its first access from I-70 to the town of Tonganoxie, KS. *Barbara Wells, PE served as Project Manager for this project for both Leavenworth County and the Kansas Turnpike.* The project also consisted of upgrading six miles of County Road 1 from the US 24 intersection to the north to K-32 to the south. Upgrades included vertical profile adjustment, new drainage culverts, and bridge structure at Nine Mile Creek. The project also included surveys, pavement design, maintenance of traffic plans, signing and pavement marking plans, earthwork and erosion control plans, lighting design, and associated tollway designs. Public involvement was a crucial part of the project as the project team held public meetings as well as presented at County Commission meetings. The project team also provide design services during construction including shop drawing reviews, contractor request for information, as-built plans and attended contractor meetings.



**I-135/47TH STREET, WICHITA, KS.**

**Reference: Steve King, KDOT Squad Leader, (785) 296-4255**

*Barbara Wells served as project manager and was responsible for the redesign of the existing interchange and associated arterial roadways.* Planning for the project included a Break in Access Report for FHWA that analyzed three interchange types; partial cloverleaf, diverging diamond, and single point urban diamond. The project included the widening of the existing 47th Street, intersection improvements for 47th Street/Broadway and 47th Street/Emporia Road, redesign of the interchange ramps, bridge replacements, drainage design, phased traffic control and public involvement. This project served multiple clients, including the City of Wichita, Kansas, Sedgwick County, the Kansas Turnpike and KDOT.

**ROUTE 350/RAYTOWN ROAD INTERSECTION, RAYTOWN, MO**

**Reference: John Benson, City of Raytown, (816) 737-6075**

CDM Smith completed a corridor study for MoDOT for Route 350 that specifically examined the link between transportation improvements and economic development. Phase II of this project is to complete the intersection design of Route 350 and Raytown Road. CDM Smith is using SYNCHRO to analyze the various intersection and turning lane scenarios, coordinating with utilities, performing preliminary and final design, signal and lighting design, maintenance of traffic plans, and construction cost estimates. *As project manager, Barbara Wells is coordinating closely with the City of Raytown and MoDOT to ensure their expectations are realized.* This project is scheduled to be completed by October 2015.

**TRAFFIC SERVICES, ROELAND PARK, KS**

**Reference: Joe Carter, City Administrator, (913) 722-2600**

CDM Smith conducted a traffic engineering study of Roe Avenue, a project that grew into an ongoing relationship where CDM Smith acted as the City's on-call traffic engineer. Services included: collecting traffic volumes, intersection analysis of Roe Boulevard and 55th Street, school zone signing and pavement marking study, intersection safety audit at Roe Boulevard and 48th Street, sight distance evaluations, and a review of signal installation.

**BLUE RIDGE AND WORNALL ROAD INTERSECTION IMPROVEMENTS, KANSAS CITY, MO**

**Reference: Patty Hilderbrand, KCMO Project Manager, (816) 513-2576**

The existing intersection operation is a four way stop sign controlled. Along with the commercial and retail development along State Line Road, new single family housing construction in the area has recently increased traffic volumes and raised safety concerns at the intersection. High accident history and large queues backup during the peak travel periods. The unimproved roadway



approaches on the south and west legs of the intersection lie within a narrow right-of-way corridor and cross over

a large drainage channel. At the intersection, the lane approaches are unbalanced in both directions thus causing confusion for drivers who are unfamiliar with the intersection. CDM Smith was selected to provide professional engineering design services for the Capital Improvements Management Office of Kansas City, Missouri.

Project tasks included:

- Analyzing accident data and identifying deficiencies in roadway geometrics and traffic control
- Analyzing traffic volume data and determining existing operating conditions and appropriate performance measures
- Developing conceptual plans and summarizing traffic operating conditions, performance measures, safety benefits, right-of-way needs, and cost estimates
- Conducting comparative analysis of each alternative and recommending the most suitable plan for the intersection improvement
- Preparing preliminary plan for the selected alternative
- Preparing construction plans, specifications, and cost estimate

### LEWIS AND CLARK EXPRESSWAY

#### DESIGN, SUGAR CREEK, MO

Reference: Ron Martinovich, City Administrator, (816) 252-4400

CDM Smith was selected to provide planning and engineering services for the city of Sugar Creek in partnership with the cities of Kansas City and Independence, Missouri. CDM Smith led a diverse team of consultants to complete this multi-phase project. Phase 1 consisted of a NEPA re-evaluation of the alignment and corridor that was completed in the middle to late 1990's, the conceptual plans for a new 4-lane urban



expressway from Front Street (East of I-435) to Cement City Road (West of Vermont Street), and the preliminary design for the Sterling Avenue and Cement City Road improvements. Phase 2 consisted of right-of-way plans and final plans for the Sterling Avenue and Cement City Road Improvements. Phase 3 will be preliminary design and right-of-way plans for the Expressway (a new alignment from Century Avenue to the intersection of Sterling Avenue and Cement City Road) and Front Street Improvements (Front Street and Century Avenue intersection to Century Avenue improvements). The following represents some of the more important details of the project:

- Design of a new 3-mile 4-lane expressway
- Realigning and reconstructing 1.5 miles of Sterling Avenue and Cement City Road
- A grade separation structure over BNSF Railroad facilities
- A grade separation structure over KC Southern Railroad facilities
- A river crossing over the Blue River just south of the Missouri River
- A stream crossing over Rock Creek just south of the Missouri River
- Three stream crossings over Sugar Creek just south of the Missouri River
- 100-year flood plain impacts to the Missouri River
- Hazardous waste mitigation impacts
- NEPA re-evaluation
- City of Sugar Creek Primary and Secondary Gateway features
- Public outreach coordination
- Public grant applications and cost estimates
- Multi-use trails and pedestrian bridge
- 9/11 Memorial and Trailhead
- Construction phasing and traffic management plans
- Hydrology, flood plain studies, and CLOMR for Missouri River, Blue River, Rock Creek, Sugar Creek
- Five intersection layouts
- Three signal layouts

**OLD HIGHWAY 40 BRIDGE REPLACEMENTS, DICKINSON COUNTY, KS**

**Reference: John Gough, County Engineer, (785) 263-7067**

Kaw Valley Engineering provided surveying, design and construction inspection for the replacement of two bridges on Old Highway 40 between Detroit and Abilene in Dickinson County, Kansas. Both replacements were with KDOT-standard RFB's modified to have a crowned top slab acting as the driving surface to maximize the waterway openings. At the request of the client, the RCB's were extended beyond the clear zone for a 60 mph design speed on this well-traveled stretch of Old 40. Also adding to the complexity of this project was the presence of multiple fiber optic cables, power poles, side road intersections and the sole natural gas feed to the town of Detroit. All of these tasks required some form of relocation or special consideration by the contractor.



**GATEWAY INTERCHANGE (I-435, I-35, AND K-10) DESIGN-BUILD, LENEXA, KS**

**Reference: Burt Morey, (913) 577-0000**

Kaw Valley Engineering is providing on-call third party materials testing during construction of KDOT's first project built with the design-build delivery method. The project is expected to relieve traffic congestion in the southwestern Kansas City metro by reconfiguring and reconstructing six urban interchanges and widening and improving three mainline divided highways to move traffic more safely and efficiently through the area. In addition to the highway improvements, several intersecting local roadways are also being reconfigured and improved to allow traffic to more efficiently access the



highways. During construction, Kaw Valley Engineering provided on-call services to test construction materials. Their services included observation and testing

of native and chemically stabilized soil embankments, sampling and laboratory testing of hot mix asphalt materials, in place nuclear density testing of compacted asphalt pavement, sampling and testing of concrete for pavement and incidental construction items, and pavement coring.

Hg Consult provided bridge design, erosion control and roadway design services for the complete replacement of the Gateway Interchange – where I-435, I-35 and K-10 come together in the southwest corner of Kansas City. The programmed cost of the project was approximately \$250 million. Hg Consult was responsible for the rehabilitation plans for the two K-10 bridges over Renner Boulevard, erosion control plans for the entire project and roadway design services for a large pavement replacement segment.



**FAIRFAX/US 69 BRIDGES DESIGN-BUILD, RIVERSIDE, MO AND KANSAS CITY, MO**

**Reference: Kris Norton, KDOT Squad Leader, (785) 296-4255**

Hg Consult is providing roadway and bridge design, environmental permitting and document control assistance for the replacement of the existing US 69 bridges (Platte Purchase and Fairfax) over the Missouri River. The programmed cost of the project is \$79 million. When the project is complete in 2016, the new bridge will provide two northbound lanes and two southbound lanes, as well as a 10-foot wide bike/pedestrian shared use path over the Missouri River, two levee systems and several railroad tracks. In addition N.W. Argosy Parkway will be realigned at the north end of the project.



## Section 3

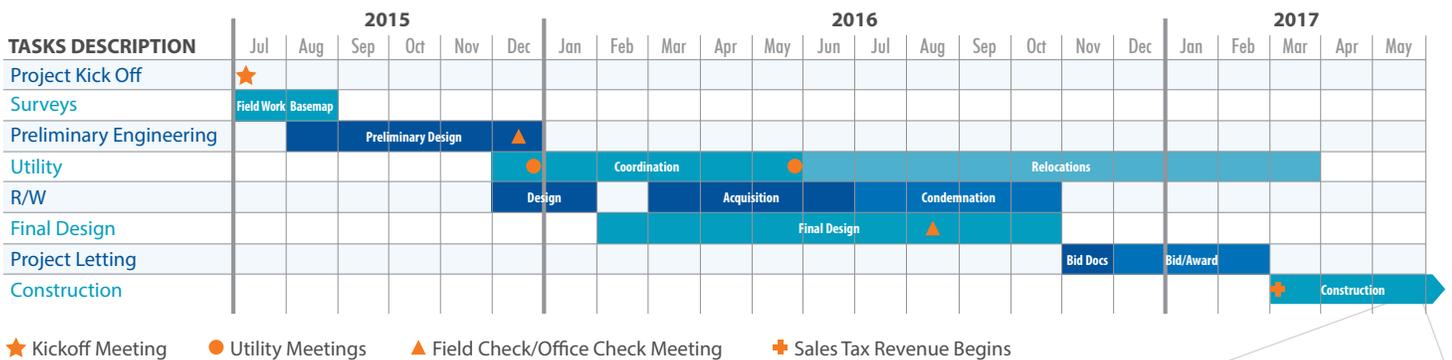
### Ability to Perform Work

CDM Smith commits its team of transportation engineering professionals to the County of Leavenworth, Department of Public Works for the sales tax projects. Based on the completion of all of our in-office design projects, we anticipate that our staff will be fully and immediately dedicated to this project, if chosen. As shown in the table below, the CDM Smith team is ready and available to begin work on any of these projects.

Name	% Available	% Already Committed	List of Current/Anticipated Projects or Commitments
Barbara Wells	50%	20%	I-435/210 Interchange Project; Rt. 350 Intersection Design
Dana Frishman	55%	35%	I-435/210 Interchange Project; Rt. 350 Intersection Design
Nathan Hladky	55%	45%	I-435/210 Interchange Project; Rt. 350 Intersection Design
Brenda Macke	25%	30%	Target Green West Marlborough Green Infrastructure and Stormwater Conveyance Design; Blue River Central I/I Reduction, Project Area 2; Universal Avenue, Phase 2 Improvements, Construction Phase
Terry Hood (Hg)	60%	20%	I-235/US 54 Interchange
Kenneth Dedrick (Kaw Valley)	30%	50%	Sherman Army Airfield Complete Runway Revitalization Surveys; Custer & 5th Artillery Roads Design through Construction Surveys, Ft. Leavenworth; 159th Street, Olathe Design Survey; Quivira Road Design Survey, Overland Park

#### SCHEDULE

The schedule presented below provides a realistic estimate of timeline for design and survey.



## Section 4

# Experience, Qualifications, and Certifications of Project Design and Management Team

### Plan for Survey

Kaw Valley Engineering will perform site visits and review the County's requests prior to developing a work plan for the Leavenworth County sales tax projects. Kaw Valley Engineering will then develop a scope and schedule for the performance of the work. Once completed, Kaw Valley Engineering shall meet with the County to confirm the scope and schedule and make adjustments accordingly.

In addition to using the Kansas One-Call system, the surveyors will contact local municipalities, KDOT, and local water department(s) to schedule location of existing underground utilities, prior to the commencement of survey activities.

Kaw Valley Engineering will comply with KDOT regulations regarding work within KDOT's right-of-ways and commence field work only after obtaining the proper written permission to work within. Each survey crew shall maintain a copy of, and adhere to, Kaw Valley Engineering's written safety manual.

All survey work will meet or exceed the requirements within the current KDOT survey manual and local requirements. All survey work shall be performed by or supervised by a Kansas Registered Land Surveyor. Kaw Valley Engineering will create a topographic basemap that will show the conditions of the existing roadway, adjoining safety zones, unpaved areas, and the connections with the project area as required by the project engineer.

Kaw Valley Engineering will develop the existing right-of-way lines based on the available information and filed documents. The right-of-way lines shall be shown within the basemap along with all monumentation found or used to develop its location. A right-of-way plan sheet signed by a Kansas Registered Land Surveyor shall be delivered to the client.

Kaw Valley Engineering will deliver copies of all field notes, maps, plats, plans, and filed documents gathered in the course of the survey to the County. They will also

supply an electronic CAD drawing, in either AutoCAD or Microstation, as desired by the County. This drawing shall be completed using the client's layer/level, line type, symbology and text styles, if supplied to the surveyor prior to the start of the project.

### Ability to Complete a Thorough Roadway Design to Owner's Specifications

Roadway clients today must navigate increasingly more complex regulatory, environmental, and operational challenges. With extensive design expertise for projects ranging from local roads to major interstates, CDM Smith provides experience with local, state, federal, and private sector clients. Our roadway designers are highly-qualified and offer practical, creative, and context-sensitive solutions for a broad range of roadway infrastructure projects. From conception to implementation, CDM Smith provides significant experience for all functional classifications, including expressways, principal and minor arterials, collectors, and rural and urban local roads. We are experienced in both KDOT standards as well as APWA specifications and will deliver completed plan sets per the client's specification. Our full spectrum of roadway services includes:

- Freeway including rural and urban interstates design
- Interchanges and intersections
- Rural/urban roadway (arterials to local roads)
- Traffic signal warrants analysis and design
- Right-of-way and utility design
- Context sensitive solutions
- Bridges and culvert design
- Streetscape (ADA compliant) design
- Bike trail/greenway and pedestrian design
- Roadway signage and pavement marking
- Complex traffic control plans
- Traffic impact studies
- Stormwater management plans
- NEPA documents and permitting
- Hydraulics, hydrology and drainage
- Geotechnical/pavement design

- Roadway lighting
- Complete streets design
- Green roadways design
- Construction Engineering Inspection

## Utility Relocation Experience

Many times the construction of roadway improvement projects will require the location or relocation of utility facilities. These facilities include power transmission, telephone, water, gas, petroleum products, steam, sewer, drainage, and fiber optic. They may be located above or below ground. They may be owned by public or private entities. It is critical to the successful completion of any roadway improvement project to ensure these facilities are located or relocated in a timely manner.

In coordination with Kaw Valley Engineering, CDM Smith will start early in the design process to contact and coordinate with utilities along the corridors. CDM Smith's utility coordinator, Nathan Hladky, will be our point of contact throughout the project. Mr. Hladky has provided utility coordination for the Lewis and Clark Expressway and Route 350 projects.

Coordination starts with Kaw Valley Engineering as they begin the survey process. They will locate and contact all utilities along the corridor in



order to provide their information on the basemap. Once the preliminary design is approved and we begin to prepare right-of-way plans, we will develop a utility set of plans to distribute to the affected utilities along the corridor. These plans will provide the utility companies with a visual of potential conflicts. If relocations are required, Nathan will work with the utilities to ensure that the roadway improvements and their relocations do not conflict.

CDM Smith will also host two utility meetings. The first meeting will take place at the right-of-way stage and another as we near final plans. This first meeting will be our opportunity to go through the roadway

improvements and identify conflicts with the utility companies. The second meeting will consist of final coordination and review of their relocation plans. If agreements are needed, Mr. Hladky will be available to assist the County in those documents.

## Construction Engineering and Administration Abilities

A key element in delivering exceptional service that exceeds our clients' expectations is finding a dedicated team of professionals that can partner with the client to deliver successful results. Kaw Valley Engineering brings a comprehensive team with an excellent record of experience, performance and a strong understanding of processes and standards from an owner's standpoint. With numerous on-call agreements and federally funded projects for municipal clients in our portfolio, the Kaw Valley Engineering team offers Leavenworth County all of these elements – and more.

Our team has a thorough understanding of the services required for this contract. Kaw Valley Engineering has provided successful construction inspection/administration and materials testing services for federal, state, and local governmental entities in the Kansas City metro area and across Kansas for more than 30 years. The County can consider us an extension of their staff, and we will assist you in defining and implementing the goals of your projects.

Open and effective communications are essential to achieving the level of success we have enjoyed. Kaw Valley Engineering will use the following client-centered open communication approach to provide high value professional services to Leavenworth County:

- Meet with County staff to discuss project requirements and constraints.
- Staff the project with experienced and knowledgeable staff.
- Support field technicians with central dispatching and experienced supervision.
- Perform the assignment from the County's perspective with the County's interest as priority.
- Provide timely communication of concerns as they arise on a project.
- Assist the County in monitoring and resolving any construction materials issues that arise.

- Provide clear and timely documentation of the services provided.

Kaw Valley Engineering’s competent, qualified personnel in the field and in the office understand this need and take their responsibilities to the County very seriously. Our field and laboratory technicians are trained, KDOT certified and qualified to perform the testing and inspection services typically required by a local public works department. They are also trained to identify potential issues that frequently arise on a typical construction project and alert both the contractor and the Client’s personnel immediately with the intent of resolving the situation at the simplest most cost effective level possible.

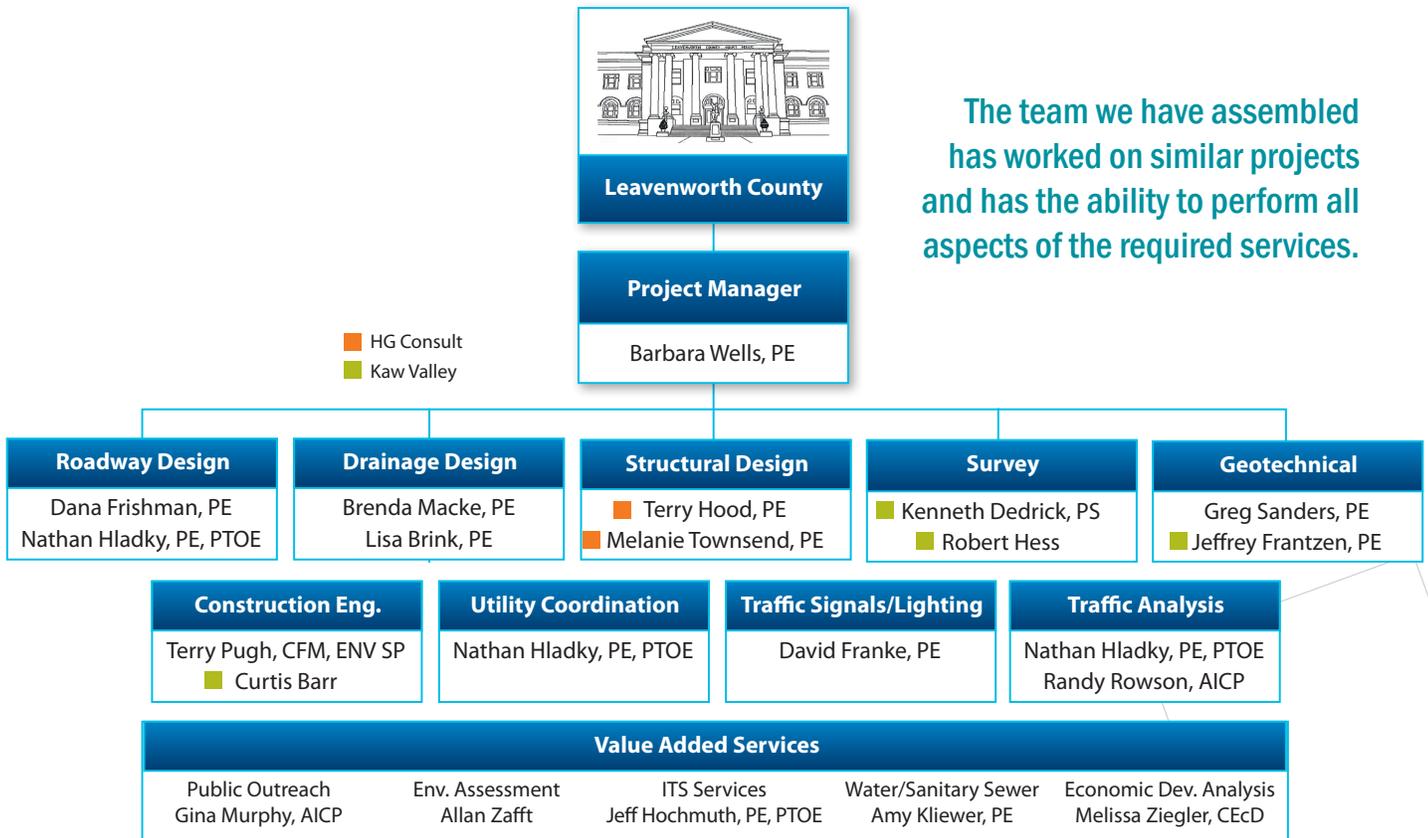
Kaw Valley Engineering’s staff is centrally dispatched and available 24 hours a day, seven days a week. We prefer as much notice as possible when scheduling services, but are typically able to respond on as little as four hours notice. When work is expected to occur overnight, on weekends or during holidays, we ask that a courtesy of at least 24 hours notice is provided. We will not add a surcharge for work at night or on weekends. We ask that work on holidays be of substantial duration to allow our field personnel to achieve a full work day.

Occasionally, a project may require engineering and testing expertise that goes beyond normal construction requirements. Kaw Valley Engineering possesses considerable expertise in problem solving for site civil, geotechnical, pavement, and materials engineering challenges that arise during construction. All of the resources of the firm, not just our on-site inspectors, are available to collaborate with the County’s Public Works staff as needed to achieve successful completion.

### Project Organization and Management

In this submittal, CDM Smith presents an established team of working colleagues. Collectively, this team has technical professionals located in Kansas City, Missouri who can offer responsiveness and fast delivery and local government coordination. This team of professionals has a proven track record of performing together to ensure that all expectations for project management and preconstruction planning, conceptual design and preliminary plans, environmental and utility coordination, right-of-way plans and final plans are not only met, but exceeded. As shown on the organizational chart, this team offers a well-balanced, comprehensive, and highly qualified staff.

The team we have assembled has worked on similar projects and has the ability to perform all aspects of the required services.



CDM Smith takes pride in our versatility to address Leavenworth County's needs and objectives, and to integrate change when working on accelerated schedules under unique conditions, or necessary accelerations. We will approach tasks as if we are an extension of the County staff with an appreciation for the value of communication, schedule and scope understanding, and quality of each deliverable. As an extension of the County staff, we are readily available to address project related issues at a moment's notice. The depth of our staff enables us to initiate work immediately upon your request and to schedule resources as necessary. The following are brief biographies of our proposed manager and key team leaders. The staff presented here are the people who will coordinate and work directly with you through this contract. Please see the end of this proposal for detailed resumes for all key staff.

**Project Manager: Barbara Wells, PE** joined CDM Smith's Kansas City, Missouri, office as a client service leader and principal in 2012. She has 20 years of experience in transportation, including roadway planning and design, statewide initiatives for freight, tollway design, and long range transportation planning. Ms. Wells is an experienced project manager for the state of Kansas, including the I-70 KTA/County Road 1 project in Leavenworth County, I-70 Widening through Lawrence, I-135/47th Street project in Wichita. Ms. Wells is an experienced designer and is registered as a Professional Engineer in the states of Kansas and Missouri.

**Roadway Design Task Lead: Dana Frishman, PE** serves as a lead designer and project manager on roadway improvements projects for state DOTs and local municipalities. His experience includes design for many types of projects such as city streets, highways, bridges, culverts, storm drainage studies and hydraulic modeling. He has served as project engineer on numerous roadway projects that varied in size from intersection rehabilitation to over 7-mile-long roadways. These projects have included such activities as environmental permitting, site grading, storm sewers, drainage and hydraulic design, and intersection improvements with state highways and primary arterial roadways.

**Drainage Design Task Lead: Brenda Macke, PE** has more than 14 years of technical, management, and marketing/sales experience working in the civil engineering industry. She has strong project management skills and is proficient in scheduling, design, and hydraulic modeling software. Her passion is planning and designing



**Barbara Wells, PE brings 20 years of design experience working throughout the Midwest. The majority of her experience has been focused on managing and designing roadway projects for KDOT, MoDOT, and Kansas City. Serving as project manager, she will apply both her technical expertise and proactive management style to drive this project to completion, while being readily available to meet with County staff on project issues.**

sustainable infrastructure, including conveyance systems and green infrastructure facilities. Ms. Macke's work includes a variety of regional and national projects focused on helping communities meet NPDES Phase II regulations, FEMA requirements, and EPA consent orders.

**Roadway Design, Utility Coordination: Nathan Hladky, PE, PTOE** is a design engineer located in Kansas City, Missouri. During his nine-year career, Mr. Hladky has experience on several roadway engineering projects, including serving as a team member on a wide range of transportation related projects.

**Structural Design Task Lead: Terry Hood, PE (Hg)** is a structural engineer with 23 years of design experience, including the structural design, detailing, plan and specification preparation for cast-in-place, drilled shaft and MSE retaining walls and bridges, including prestress girder, welded plate girder, reinforced concrete slab bridges, staged construction, bridge widening, and bridge rehabilitation and repair.

**Survey: Kenneth Dedrick, PS (Kaw)** has more than 30 years of professional experience in all aspects of surveying. His extensive experience includes providing and supervising boundary and topographic surveys; ALTA/ACSM Land Title surveys and GPS surveys for both private and public sectors of land. He has provided surveying services throughout the Midwest, and was a member of the national committee that creates the Land Surveyors Licensing Test at the National Council of Examiners for Engineering and Surveying.



## Barbara L. Wells, PE

### Project Manager

Ms. Wells has 20 years of experience in transportation. She is an experienced project manager for the state of Kansas including the I-70 KTA/ County Road 1 project in Leavenworth County, I-70 Widening through Lawrence, I-135/47th Street project in Wichita.

**Project Manager, I-70 KTA/County Rd 1, Leavenworth County, KS.** This new interchange project and upgrade included grading preliminary and final design of a 6-mile stretch of CR 1 from the US 24 intersections south to the K-32 intersection. Project included grading, horizontal and vertical geometry, geology, drainage, new bridge structure, maintenance of traffic plans, pavement marking and signage plans and lighting design. Also included public meetings and coordination with the County Commission.

**Project Manager, Route 350/Raytown Road, Raytown, MO.** Ms. Wells services as project manager for this intersection project which included evaluating the benefit cost of the Route 350 corridor through the City of Raytown. Project analyzes realignment of the eastbound and westbound lanes, land use, access, development opportunities, and right of way/ environmental impacts.

**Project Manager, I-435/Rt 210 Diverging Diamond Interchange, Kansas City, MO.** The diverging diamond concept was selected due to its heavy left turn truck volumes created from the adjacent industry park corridor along Rt. 210. Project also includes reconstruction of I-435, bridge design, drainage design, traffic control plans for the interchange, signal layout and coordination, and construction cost estimates. Practical design concepts were applied to the project to reduce earthwork and rock fill quantities.

**Alternative Technical Concept Manager, I-35/Pleasant Valley Interchange, Liberty, MO.** CDM Smith was selected to provide interstate roadway design as well as serve as lead for Missouri's new innovative alternative technical concept program. Similar to a design build program, the ATC program engages contractors at the 60% design phase to give them the opportunity to develop innovative concepts that would benefit their team in the bidding process. Ms. Wells' duties include developing an ATC guideline white paper, liaison between the MoDOT, contractors, contractor design teams and the client design team. She also provides quality control of the designs and will assist the DOT through bidding.

**Project Manager, I-235/13th Street Floodway Project, Wichita, KS.** The project included a break-in-access study that obtained approval from FHWA for the new interchange. Practical improvements were evaluated during the Break in Access phase in order to determine final design scope. Preliminary and final design was also completed including, grading, horizontal and vertical geometry, geology and seepage analysis, drainage, two flyover bridge structures, MSE walls, maintenance of traffic plans, landscaping plans and signal and lighting design. Final plans were submitted to the City of Wichita in March 2012.

**Project Manager, M-150/Botts Road Diverging Diamond Interchange, Kansas City, MO.** Ms. Wells was the project manager for this new interchange project in southern Kansas City. Project included a Value Engineering Study and Concept Study Report that was used to determine the interchange type. The study analyzed four types of interchanges including standard diamond, split diamond, SPUI and DDI. Preliminary and final design was also completed including, grading, drainage, bridge structures, MSE walls, signal and lighting design, landscaping and aesthetic features.

#### Education

- B.S. - Civil Engineering, Iowa State University, 1995

#### Registrations

- Professional Engineer: KS, MO

#### Professional Activities

- State Director 2012-2015, Missouri Society of Professional Engineers (MSPE)
- Treasurer 2014-2015, Women in Transportation Seminar, Kansas City Chapter (WTS)
- Member, International Bridge, Tunnel and Turnpike Association (IBTTA)



## Dana Frishman, PE

### Roadway Design Task Lead

Mr. Frishman's responsibilities with CDM Smith include roadway design, Project management, project quality assurance, design process improvement, and training and mentoring of transportation design staff. He is also responsible for the success of the wide variety of transportation and civil engineering projects for numerous municipal, county, and federal clients, as well as private industry clients.

His experience includes design for many types of projects such as city streets, highways, bridges, culverts, storm drainage studies and hydraulic modeling. He has served as project engineer on numerous roadway projects that varied in size from intersection rehabilitation to over 7-mile long roadways. These projects have included such activities as environmental permitting, site grading, storm sewers, drainage and hydraulic design, and intersection improvements with state highways and primary arterial roadways.

**(KDOT-BLP) Limit Street (20th Street to 15th Street) - Leavenworth, KS.** This project consisted of reconstructing approx. 1/2 mile of Limit Street and converting it from a two 10' lane open ditched roadway into a dual 12'-lane roadway with curb & gutter, 5' Sidewalk and an 8' multiuse trail. This project also included replacing an existing single narrow lane bridge structure with a new single cell 20' x 12' box bridge culvert that accommodated the new roadway foot print along with the new sidewalk & trail. Mr. Frishman served as both Project Manager & designer on this project; responsibilities included performing major aspects of design such as developing the proper horizontal & vertical profile throughout the corridor to minimize residential impacts while improving sight distance. Also developing the proper stage construction sequence to ensure resident access throughout construction. Responsibilities also included project management with KDOT and the city of Leavenworth overseeing and managing the day to day aspects of design as well as managing the project through construction.

**FAA Localizer Relocation & Road Realignment – Hutchinson Municipal Airport, Hutchinson, KS.** This project consisted of two parts; 1) the relocation the airport's localizer ( moving the localizer a total of 1,020 feet off the end of the runway), 2) the realignment of 4th Avenue (a one mile stretch of roadway around the new localizer location and future airport expansion). Mr. Frishman served as the project design lead for the roadway portion of this project which included a new 34' wide concrete pavement road section with open ditching, a school zone advanced warning system, and the re-alignment of Kisiwa Creek that included a new 10x4 cross road drainage structure. The channel realignment also included a large Flood plain analysis of Kisiwa Creek that covered over 12 square miles of drainage area that resulted in the development of a CLOMR/LOMR submittal to FEMA.

**(KDOT) US 69 Improvements (Lacygne to Pleasanton)- Linn County, KS.** Mr. Frishman served as a design engineer on this multi-leg highway improvement project for the Kansas Department of Transportation. The project stretched for more than 18 miles and involved the complete reconstruction of US 69 existing two-lane highway and converting it to a four-lane divided freeway. The improvements consisted of five interchanges, 14 access roads, and 20 bridges. Responsibilities included multiple aspects of roadway design; such as horizontal and vertical alignment design, interchange design, all aspects of drainage design, quantities, and estimates.

#### Education

- B.S. - Civil Engineering, University of Kansas, 1993

#### Registrations

- Professional Engineer: KS



## Brenda Macke, PE, CFM, ENV SP

### Drainage Design Task Lead

Ms. Macke is a professional engineer with over 14 years of technical, management, and marketing/sales experience working in the civil engineering industry. She has strong project management skills and is proficient in scheduling, design, and hydraulic modeling software. Her passion is planning and designing sustainable infrastructure, including conveyance systems and green infrastructure facilities. Ms. Macke's work includes a variety of regional and national projects focused on helping communities meet NPDES Phase II regulations, FEMA requirements, and EPA consent orders.

#### **Project Manager, 183rd and Cedar Niles Stormwater Conveyance**

**Analysis, Johnson County, KS.** Ms. Macke managed a team who evaluated existing stormwater infrastructure in a rural area of Johnson County for improvements to be made as part of an upcoming roadway improvement project. The goal of the analysis was to find the best level of service that was not cost prohibitive for a culvert and adjacent road improvements. As part of this project, the team analyzed and updated an existing regulatory FEMA model to reflect possible improvement to meet multiple levels of service. In collaboration with the client, the team selected the improvements that provided the best level of service for the client while remaining feasible for construction in the area.

#### **Project Engineer, Middle Blue River Green Infrastructure/Distributed Storage for Areas Tributary to Outfall 059, Kansas City, MO.**

Ms. Macke is the project engineer for a multi-discipline team of professionals that is evaluating and designing green infrastructure solutions for the basins tributary to Outfall 059. The regulatory requirement is to capture wet weather events to reduce the number of overflows at the outfall to less than seven. The team evaluated green infrastructure in combination with strategic stormwater separation to meet this requirement. Ms. Macke is responsible for coordinating design activities for CDM Smith staff and subconsultants to meet defined schedule. The project design includes a 25 acre-foot wetland feature, 3 bioretention facilities, and approximately 30,000 LF of storm sewer and associated structures. The final design and construction schedule is required to meet the approved CSO Long Term Control Plan (LTCP) which includes a 5 year period to evaluate the applications of green infrastructure. Results of this project will be used to potentially refine and update the LTCP to integrate additional green infrastructure projects to control overflows.

**Project Manager, W 198th Street and Rosewood Drive Culvert Design, Johnson County, KS.** Based on the preliminary engineering study completed for this area by CDM, Ms. Macke led the project team in design of a conservation culvert configuration alternative for Johnson County, Kansas Public Works and Infrastructure. This included coordination with the design team on incorporation of county and the Kansas Department of Transportation (KDOT) design standards to meet client expectations.

**Task Lead, W 198th Street and Rosewood Preliminary Engineering Study, Johnson County, KS.** Ms. Macke is responsible for developing a preliminary engineering study for Johnson County, Kansas Public Works and Infrastructure. In addition to her project management duties, she is responsible for leading the hydraulic modeling team and compiling all data. The purpose of this project is to develop alternatives to mitigate flood risk, and to support the city in its efforts to obtain government funding to implement solutions.

#### **Education**

- M.S. - Engineering Management, University of Kansas, 2005
- B.S. - Civil Engineering, Environmental Option, Kansas State University, 2000

#### **Registration**

- Professional Engineer: KS, MO, IA

#### **Certifications**

- Certified Floodplain Manager, 2010
- Envision Sustainability Professional Credential, 2015



## Nathan W. Hladky, PE, PTOE

### Utility Coordination/Roadway Design

Mr. Hladky is a design engineer located in the Kansas City, Missouri office. During his 10 year career Mr. Hladky has experience on several roadway engineering projects. He has been a team member in a wide range of transportation related projects

**RM 1826 Safety Improvements, TX.** Mr. Hladky is the roadway design lead for this 2-mile long project. The project consists of adding 6-foot wide paved shoulders to both sides of the roadway, as well as roadway widening to provide left-turn lanes at five key intersections along the corridor. Mr. Hladky was responsible for the roadway design, plan production, sub-consultant coordination, quantity calculations and cost estimate. He also assisted in the utility coordination efforts. This project was on an extremely fast schedule and is on track to be completed in three months.

**Design Engineer Platte Landing Park, Parkville, MO.** Mr. Hladky was the lead design engineer and client contact for the design of approximately  $\frac{3}{4}$  of a mile of new roadway, two new parking lots and a boat ramp into the Missouri River for the Platte Landing Park project in Parkville, Missouri. He coordinated the roadway design with other park amenities including a dog park, riverfront trail, and extended a waterline the length of the project. He also coordinated with utility companies for the relocation of utilities that would be impacted by the park construction.

**Design Engineer, I-35 and Pleasant Valley Road Interchange, Kansas City, MO.** Mr. Hladky was the design engineer for approximately 2.5 miles of adding auxiliary lanes to Interstate 35 in Kansas City, Missouri. The project was a part of the Interstate 35 and Pleasant Valley Road interchange improvement project. The project consisted of milling and overlay existing pavement while shifting the crown of the roadway to accommodate the auxiliary lanes on existing pavement. A new horizontal alignment was created for this crown transition, tying into the existing alignment at project limits. Minor shoulder widening was also designed to accommodate the new auxiliary lane. The project also included design of one directional ramp that included new horizontal and vertical alignments. Nathan also coordinated with bridge designers for the replacement of one bridge on the project, and the widening of another. Vertical clearances of all other existing bridges were checked.

**Staff Engineer, Red Bridge Road (Phase 1), Kansas City, MO.** Mr. Hladky was a staff engineer on the roadway design of this project extending from Holmes Road to Blue River Road. I was responsible for necessary traffic signal modifications at the Holmes Rd. and Red Bridge Road intersection, storm drainage calculations and design. Mr. Hladky assisted in designing construction phasing plans, pavement markings and signage. I prepared the construction cost estimate and technical specifications for the construction documents. Mr. Hladky was also involved with the public involvement process of this project.

**Designer, Various Traffic Signal Designs, Kansas City, MO.** Mr. Hladky was the lead designer for the traffic signal at 10th and Eisenhower in Leavenworth, Kansas. He led the signal design efforts, plan production, facilitated utility coordination, and assisted during the construction phase of the project.

**Traffic Impact Studies, Kansas City Metropolitan Area.** Project engineer on approximately 35 traffic impact studies for various municipalities in the KC-Metro Area. SYNCHRO was the primary analysis tool for access locations for egress and ingress into the development. The development's trip generation was applied to the surrounding roadway network, and key intersections were analyzed for capacity and operation deficiencies.

#### Education

- B.S. - Civil Engineering, Kansas State University, 2004

#### Registration

- Professional Engineer: KS, MO, NE, SD
- Professional Traffic Operations Engineer

## **Terry Hood, PE**

### **Structural Engineer**

#### **Education**

B.S. Civil Engineering  
Kansas State University

#### **Registration**

Licensed Professional Engineer  
Missouri, Kansas and Virginia

#### **Professional Memberships**

American Public Works Association  
American Society of Professional Engineers

#### **Industry Tenure**

23 Years

Mr. Hood is a Structural Engineer with twenty-three years of design experience. His experience includes the structural design, detailing, plan and specification preparation for cast-in-place, drilled shaft and MSE retaining walls and bridges including: prestress girder, welded plate girder, reinforced concrete slab bridges, staged construction, bridge widening and bridge rehabilitation and repair.



**Main Street Viaduct over the KC Terminal, Kansas City, MO** – Bridge engineer involved in the development of demolition plans to remove the Main-Walnut viaduct ramp. Responsibilities included design of a cast-in-place reinforced concrete retaining wall to maintain a continuous sidewalk along the east side of Main Street.

**Fairfax/US 69 Missouri River Bridge, Kansas City, MO** – Design engineer responsible for the design of the prestressed spread box beams for the single span bridge carrying US 69 over Argosy Parkway and the bents for the main span over the Missouri

River. Design tasks also included the global stiffness analysis and design of bearings, piers and abutments for the second unit of two for the main US 69 bridge over the Missouri river.

**Gateway Interchange Bridges (I-435, I-35, K-10), Lenexa, KS** – Lead bridge engineer responsible for developing rehabilitation plans for two welded plate girder bridges carrying east and westbound K-10 over Renner Boulevard in Lenexa, Kansas. Responsibilities also included the design and detail of corridor wide standards for the construction of cast-in-place reinforced concrete retaining walls and assistance in the development of the erosion control plans

**I-70 Bridge over Manchester Trafficway, Kansas City, MO** – Design Engineer responsible for the global stiffness analysis and design of bearings and intermediate concrete bents for both east and westbound bridges carrying I-70 over the Manchester Trafficway. Responsibilities also included design of intermediate concrete bents for the widening of the I-70 bridges over US 40 and the new US 40 Bridge over the Blue River.

**Mill Street Bridge, Unified Government, KS** – Project engineer responsible for the design and design oversight of multiple structures: a two span reinforced haunched slab bridge featuring drilled shaft supported abutments, drilled shaft retaining walls, a box culvert and replacement of an existing culvert wingwall.



**KENNETH DEDRICK, PS**  
Professional Surveyor

**Years Experience:**

Total: 33 | With Current Firm: 8

**Education:**

AAS, Land Survey, Johnson County Community College, 2015

**Professional Registration:**

Registered Land Surveyor: Kansas (1990, #1067); Missouri (1996, #LS-2571); Nebraska (2008, #670); Tennessee (2014, PLS-3032)

**Professional Memberships & Affiliations:**

Kansas Society of Land Surveyors; Missouri Society of Professional Surveyors

**Continuing Education:**

Safety Training for Union Pacific, Burlington Northern Santa Fe Railroad, Kansas City Southern Railroad, and Colorado Interstate Gas

**Professional Record:**

Kenneth has more than 30 years of professional experience in all aspects of surveying. His extensive experience includes providing and supervising boundary and topographic surveys; ALTA/ACSM Land Title surveys and GPS surveys for both private and public sectors of land. Kenneth has provided surveying services throughout the Midwest, and has previously been a member of the national committee that creates the Land Surveyors Licensing Test at the National Council of Examiners for Engineering and Surveying. Kenneth is a 20 year veteran of the United States Army, and is currently serving in the National Guard.

**Relevant Experience:**

**College Boulevard (Ridgeview Road to Renner Road), Olathe and Lenexa, Kansas**

Survey Manager for a route survey for the reconstruction of one-mile of roadway. Fast-track survey for the Kansas Department of Transportation (KDOT) Gateway Project. The project was completed in four months. It consisted of: Extension of existing KDOT control network; location and reporting of government land corners; recovery of thirty-two property parcels; verification of existing street right-of-ways; topographic survey of fourteen thousand feet of arterial and collector street; location of existing utilities; storm water management systems and sanitary sewers; development of easements and exhibits for required takings; field staking of easement locations for appraisal; and full book submittal to KDOT

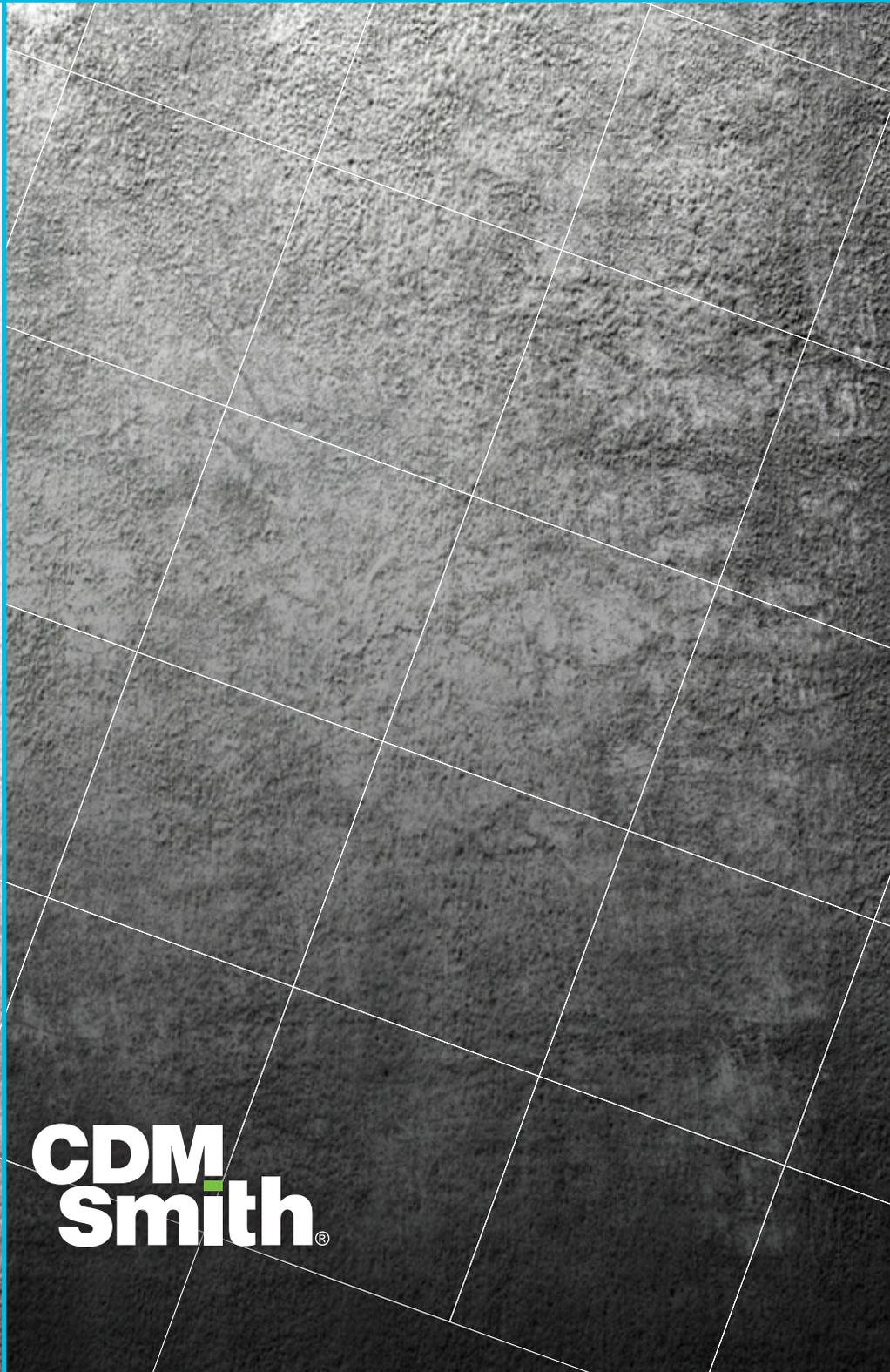
**159th Street (Old US-56 Highway to Lone Elm Road), Olathe, Kansas**

Survey Manager, as a subconsultant to HNTB Corporation, for a route survey for the reconstruction of 1.0 mile of roadway. This project consisted of: establishment of control network based on Johnson County Control Network; location and reporting of government land corners; recovery of 22 property parcels; verification of existing street right-of-ways; topographic survey of 8,000 feet of rural unimproved roadway; location of existing utilities, storm water management systems and sanitary sewers; development of easements and exhibits for required takings; and field staking of easement locations for appraisal.

**343rd Street (Lookout Road to Cedar Niles Road), Osawatomie, Kansas\***

Project Surveyor for a route survey for the reconstruction of one and one-half mile of gravel roadway to paved super-two. Project consisted of: Establishment of control network based on National Geodetic Control Network; location and reporting of government land corners; recovery of twenty two property parcels; verification of existing road right-of-ways; topographic survey of twelve thousand feet of rural unimproved roadway; one at grade railroad crossing; one existing bridge structure; hydrographic survey for bridge design; location of existing utilities; storm water management systems and sanitary sewers; development of easements and exhibits for required takings; and field staking of easement locations for appraisal.

*\*Denotes projects completed prior to joining Kaw Valley Engineering.*



**CDM  
Smith**®