

**PROPOSAL FOR
CONSULTING ENGINEERING SERVICES
20-4090-02 BURNET COUNTY
PLANNING AND DESIGN ENGINEERING SERVICES**



JUDGE JAMES OAKLEY

**COMMISSIONER JIM LUTHER
COMMISSIONER DAMON BEIERLE**

**COMMISSIONER BILLY WALL
COMMISSIONER JOE DON DOCKERY**



**K.C. ENGINEERING, INC.
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Marble Falls, Texas 78654
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**BURNET COUNTY TEXAS
220 S. Pierce Street
Burnet, Texas 78611
(512) 756-5420**

CAPABILITIES / EXPERIENCE / REFERENCES

K.C. Engineering, Inc. (KCE) is a civil engineering consulting firm located in Marble Falls. KCE was formed in 1986 in Austin. A branch office was opened in Marble Falls in 2000 to provide civil engineering consulting services primarily to the Texas Hill Country and Highland Lakes areas. Because of the success of the Marble Falls office, the corporate headquarters of KCE was relocated to Marble Falls in 2005.

Greg Haley, P.E., is President and CEO of K.C. Engineering, Inc. (the Principal) with over 30 years of professional engineering experience including administration, planning, analysis, design and project management in the areas of transportation, wastewater collection design, waterline design, hydrology, hydraulics, water quality, and land development.

Greg developed extensive experience in transportation projects as Area Engineer for the TxDOT Austin District, Burnet Area Engineer Office in Burnet County for 13 years. Greg was responsible for administration, planning, design, construction and maintenance for all State Highways in Burnet, Blanco, Gillespie, Llano, and Mason Counties and portions of Hays, Travis and Williamson Counties (over 1,850 center-line miles of highway – 3,950 lane-miles of highway). Greg has a total of 20 years of roadway experience with TxDOT.

Greg's largest project was the engineering design and project management of the \$20,000,000 RM 620 Bridge Project and the highway design of RM 620 from SH 71 to RM 2222 with a combined total construction cost of approximately \$35,000,000.

As Area Engineer, Greg was responsible for over one-half of the highways in Williamson County until the Georgetown Area Engineer Office opened in the early '90s. In particular, he designed RM 1431 from IH 35 to US 183 (the original construction) and SH 29 from IH 35 to US 183 (2-lane to 4-lane with shoulders widening project).

As Area Engineer, Greg was responsible for the design and construction of several Burnet County Projects including:

- US 281 5-lane section south of Burnet

- SH 29 curb and gutter section west of Burnet
- RM 1431 curb and gutter section west of Marble Falls
- RM 1431 left turn lane at Mustang Drive
- RM 1431 curb and gutter section in Granite Shoals
- RM 1980 (Tobeyville)
- SH 71 from US 281 to RM 2147 for the widening of all structures and the addition of paved shoulders

Greg was also responsible for the planning and establishing the route location of the SH 29 Bridge at Inks Lake and of RM 3509 west of Burnet.

Greg participated in the Value Engineering Study with many local elected officials to analyze various route alternatives and to establish the SH 29 Inks Lake Bridge route location. Greg also worked with then-Burnet County Commissioner Mack Hammond and then-Burnet County Judge Martin McLean to establish the route location for RM 3509.

KCE is currently pre-certified by the Texas Department of Transportation (TxDOT) in the following work categories:

- Route Studies & Schematic Design
- Roadway Design
- Signing, Pavement Marking & Channelization
- Hydrologic Studies
- Roadway Hydraulic Design
- Roadway Construction Management & Inspection
- Major Bridge Construction Management & Inspection

While Area Engineer at TxDOT, Greg designed or directed the design and construction of an estimated \$200,000,000 of combined highway and bridge projects in nine (9) counties.

As Area Engineer at TxDOT, Greg designed or supervised the layout and plan preparation for sixty-six (66) bridges in nine (9) counties. See Exhibit 2 for a detailed listing of bridge projects.

KCE has performed numerous roadway and culvert design projects for Burnet County.



KCE performed the engineering design of 10 projects for Burnet County as part of its 2017 Tax Notes:

2017 TAX NOTES		
CR 116	CR 120	CR 208
CR 212	CR 264	CR 274
CR 401	CR 404	CR 410
	CR 414	

KCE performed the engineering design of 12 projects for Burnet County as part of its 2018 Tax Notes:

2018 TAX NOTES		
CR 120	CR 210	CR 219
CR 266	CR 322	CR 323
CR 330	CR 340	CR 342C
CR 403	CR 404	CR 423

The following are projects designed by KCE for Burnet County prior to the Tax Note Projects:

- ▶ Alligator Creek Bridge Erosion Repair
- ▶ Burnet County Road 123 Box Culverts
- ▶ Burnet County Road 207 Low-Water Crossing
- ▶ Burnet County Road 408 Low-Water Crossing

The following are projects designed by KCE for the City of Marble Falls:

- ▶ Sixth Street Reconstruction
- ▶ The Manzano Mile
- ▶ Pecan Valley Bridge
- ▶ Max Copeland Drive
- ▶ Mormon Mill Road Phase II
- ▶ Mormon Mill Road Phase III
- ▶ Innovation Loop Phase II
- ▶ Innovation Loop Phase IIIA
- ▶ Avenue L Low-Water Crossing
- ▶ Commerce Street Low-Water Crossing

In addition to the projects listed above that were designed specifically for Burnet County, the City of Marble Falls and TxDOT, KCE has designed many projects for developers that, when completed, were accepted for ownership and maintenance by the appropriate governmental entity.

The following are projects designed by KCE for the Texas Department of Transportation (TxDOT):

- ▶ SH 71 Left Turn Lane at Scott & White Hospital
- ▶ RM 1431 Left Turn Lane at The Manzano Mile
- ▶ SH 29 Left Turn Lane & Shoulders in Bertram
- ▶ US 290 Left Turn Lane West of Johnson City
- ▶ FM 1187 – Fort Worth District
- ▶ FM 156 – Fort Worth District

The following are Indefinite Delivery-Indefinite Quantity (On-Call) projects designed by KCE for the Texas Department of Transportation (TxDOT):

- ▶ Fort Worth 2004 – Engineering Design of 18 Bridges
- ▶ Fort Worth 2005 – Engineering Design of Six (6) Bridges
- ▶ Austin 2006 – Engineering Design:
 - ⊙ RM 1871 – Bridge at Llano River
 - ⊙ RM 2768 – Bridge at Llano River
 - ⊙ Three (3) County Road Bridges in Caldwell County

A partial list of roadway and bridge projects under Greg's direction as either TxDOT Area Engineer or as the Principal of KCE are:

» RM 620	\$35,000,000
» FM 1187	\$2,400,000
» FM 156	\$4,800,000
» SH 71	\$3,200,000
» SH 16	\$2,500,000
» SH 29	\$1,800,000
» RM 1431	\$7,600,000
» The Manzano Mile	\$7,400,000
» 50th Street (San Angelo)	\$2,200,000
» Mormon Mill Road	\$4,400,000
» Pecan Valley Bridge	\$1,100,000
» SH 71 & RM 1431 Turn Lanes	\$700,000
TOTAL	\$73,100,000

From 2005 through 2010, when the City of Marble Falls created the staff position of City Engineer (in 2010), Greg was the Official City Engineer for the City. His responsibilities were the oversight of all engineering-related matters affecting the City. As



City Engineer, Greg directed the engineering analysis and design of all infrastructure projects identified by the City Council and incorporated into its Capital Improvements Plan (CIP). In the development of the CIP, he was responsible for the preparation of all preliminary estimates that became the basis for the issuance of Certificates of Obligation to finance the CIP. In the instance of the 2007 Bond Program alone, the bond amount was over \$21,000,000.

Based upon the experiences described herein, Greg has a very thorough knowledge of Burnet County. As TxDOT Area Engineer and the Principal of KCE, Greg has been responsible for the design of many projects throughout Burnet County in his over 30 years of engineering practice.

KCE is currently working for the City of Burnet performing the engineering design of the following streets:

- ➡ Rhomberg Street (Pecan St. to Cemetery St.)
- ➡ Cemetery (Rhomberg St. to Westfall St.)

KCE is well known for its Value Engineering practices and its internal Quality Control - Quality Assurance (QC/QA) procedures.

Value Engineering relates directly to the quality of work. Value Engineering relates indirectly to cost control. Both work hand-in-hand to provide Burnet County highly-functional and cost-effective projects.

Value Engineering begins with a thorough understanding of the goals and objectives each Commissioner has for his project. Based upon those goals and objectives, KCE analyzes multiple design options that provide the Commissioner with what he expects for the project as economically as reasonably possible.

KCE practices QC/QA throughout the development of the project. Performing internal design reviews as the project progresses is essential to ensuring the highest quality product. Upon completion of the design, the plan set and specifications are reviewed extensively by all engineers from the micro perspective of not only identifying minor details, but also from the macro perspective of the intent of the overall design.

As the Principal of KCE, Greg Haley will be responsible for the management and oversight of all activi-

ties within the company. That responsibility includes being the point of contact for all matters with Burnet County. Greg also directs the day-to-day activities of all employees at KCE. Organizationally, Martin Stary, P.E., and Nathan Fuller, E.I.T., may direct the activities of graduate engineers and engineering technicians when, and if, applicable.

KCE has been performing engineering design in Burnet County for 20 years. With its headquarters in Burnet County, it is evident that KCE has the capability and capacity to perform the work for this contract throughout its duration – and beyond.

Page 12 – Page 14 herein are photographs of several of the roadway projects designed and constructed under Greg's supervision as a TxDOT Area Engineer or as the Principal of KCE.

Page 15 herein are photographs of several of the Burnet County Road Tax Note projects designed and constructed under Greg's supervision as the Principal of KCE.

Page 16 herein are photographs of just a few of the bridge projects designed and constructed under Greg's supervision as a TxDOT Area Engineer.

Page 17 – Page 19 herein are tabular listings of the bridge projects designed and most constructed under Greg's supervision as TxDOT Area Engineer or as the Principal of KCE.

References for all projects described herein are listed on the last page of this document.



PROJECT TEAM

Greg Haley, P.E.

Greg is the Principal of K.C. Engineering, Inc. (KCE). Prior to founding KCE, Greg worked for the Texas Department of Transportation (TxDOT) for 20 years and was the Area Engineer in the Austin District for the Burnet Area Engineer Office for 13 years. Throughout that period, Greg was responsible for all State highways and bridges in more than five counties. After retiring from TxDOT, Greg formed K.C. Engineering - Marble Falls, Inc. in January 2000. In August 2005 Greg acquired K.C. Engineering, Inc. in Austin and relocated it to Marble Falls. From 2005 until 2010, under his supervision, KCE was the Official City Engineer of the City of Marble Falls. The City of Marble Falls created the staff position of City Engineer in 2010 and KCE continued to perform engineering design for the City. With Greg as its Project Manager, KCE has held several contracts with TxDOT in the Austin and Fort Worth Districts – both urban and rural design projects. KCE has also designed several projects for the Burnet County Commissioners Court. As the Principal of KCE, Greg will be involved with all Burnet County projects 90% of the time.

D. Martin Stary, P.E.

Martin is a Senior Engineer for KCE. Martin has worked at KCE since April 2004. Martin's areas of expertise include the design of municipal infrastructure projects including streets, drainage and water quality improvements, water lines, wastewater lines (gravity and pressure) and wastewater lift stations. Martin was the lead design engineer for the \$7,400,000 Manzano Mile Street Project and the \$4,400,000 Mormon Mill Road Phase IIIA street projects for the City of Marble Falls.

Nathan Fuller, E.I.T.

Nathan is an Engineer-in-Training for KCE. Nathan has worked at KCE since September 2017. He has participated in the engineering design of several street and roadway projects throughout Burnet County, including John W. Hoover Parkway. Nathan has passed the examination for licensure as a Texas Licensed Engineer and should be receiving his professional engineering license soon.

Licensure

NAME	LICENSE	LICENSE NUMBER	LICENSING STATE
Greg Haley, P.E.	Engineering	52292	Texas
D. Martin Stary, P.E.	Engineering	102414	Texas
Nathan Fuller, P.E.	EIT	44703	Texas



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Firm Registration No. F-977



The Principal of KCE is Greg Haley, P.E. Greg will be not only supervising the work, but will performing a substantial portion of the work himself. The virtue of working with KCE is that the Principal is directly involved and he will be here from project inception through completion. Many times with larger firms, the Principal is involved only in obtaining the contract. Once the contract is executed, the client rarely, if ever, sees the Principal. In addition, large firms appoint a Project Manager and quite frequently the initial Project Manager is not involved with the project at its completion. Large firms will likely change Project Managers several times throughout a project. With Greg as the Principal, he will be managing the project throughout its entirety.

Greg will coordinate extensively with each Commissioner to ensure that the product delivered is precisely what the Commissioner expects to be delivered. Greg will not only perform the initial coordination, but will coordinate with each Commissioner throughout the duration of the project, including through construction, and beyond.

Greg will begin the design of each and every project based upon the direction KCE receives from each Commissioner. Once the fundamental components of the design are performed, Greg will directly supervise Martin, Nathan and any others that may be working on the project.

Under Greg's direction, Martin Stary, P.E., will be responsible for projects involving drainage crossings. Martin has extensive experience with hydrology and hydraulics. Although water quality features are not likely on these projects, Martin has a well-known reputation for his expertise in water quality management.

In addition to his well-known expertise in water quality management, Martin has equally extensive experience and expertise determining rainfall runoff flow rates based upon the return periods (probability of exceedance) required by most drainage criteria manuals in the local jurisdictions.

Once Martin performs the hydrologic calculations, he will then perform the hydraulic calculations to determine the size and performance characteristics of each drainage crossing. Greg and Martin will work with each Commissioner to develop specific drainage criteria. Based upon analyses using that

criteria, KCE will provide the Commissioner with a "menu" of drainage structure types. Based upon input received from the Commissioner, KCE will finalize the design of each drainage location.

Under Greg's direction, Nathan Fuller, E.I.T., will prepare the Traffic Control Plans for each project. Greg will coordinate the type of Traffic Control required by each Commissioner and Nathan will incorporate those requirements into the Traffic Control Plan.

Based upon KCE's experiences with the Commissioners, one Commissioner may choose to have the contractor perform the traffic control, while another Commissioner may choose to perform the traffic control with his own forces. Or, at the discretion of the Commissioner, a combination of each may be used.

Based upon KCE's understanding of the proposed projects, it is likely that only a few sub-consultants will be required on certain projects. However, if other sub-consultants are required, KCE has a group of firms that it has worked with for the past 15 years. Throughout that time, both KCE and its sub-consultants have developed a thorough understanding of the process of working together to ensure the goals and objectives of KCE's clients are met.

KCE currently teams with the following sub-consultants:

- ✦ Cuplin and Associates – Land Surveyors and Planners, Inc.
- ✦ P.E. Structural Consultants, Inc.
- ✦ AmaTerra Environmental Consultants, Inc.
- ✦ Holt Engineering, Inc.

Based upon its 15+ years with essentially the same sub-consultants, Greg and KCE have had very successful experiences with interdisciplinary teams and their relevant experience has been demonstrated.

Greg and the KCE team, headquartered in Burnet County, are very experienced with various types of roadway improvement projects, such as bridge projects, public roadway improvement projects, general public works projects such as drainage improvement projects, and many others.



METHOD OF APPROACH

It is K.C. Engineering, Inc.'s approach on all of its projects to partner with its clients. It is a founding principle of KCE to provide its clients with what they want – not what KCE thinks they need.

Fundamental to any project is what KCE refers to as a Project Concept Conference. KCE meets with each Commissioner to understand his goals and objectives for each project. The Project Concept Conference ensures that KCE thoroughly understands what each Commissioner wants for his project and outlines the design criteria for each one.

Based upon KCE's extensive experience, and as demonstrated herein, it is highly capable of:

- Assisting with planning and development
- Preparing preliminary project costs
- Assisting in the financial planning for projects
- Meeting with representatives from all levels of government
- Preparing conceptual schematics and designs and reviewing the designs with the County
- Proceeding with final design after approval of the conceptual schematic design
- Completing:
 - ⊙ Mapping
 - ⊙ Detailed Designs
 - ⊙ Detailed Drawings
 - ⊙ Specifications
 - ⊙ Contract Documents
 - ⊙ Estimates
 - ⊙ Performing Topo and Boundary Surveys
 - ⊙ Preparing Right of Way Maps
- Assisting in negotiations for land rights
- Attending public meetings and/or conferences
- Providing detailed drawings, specifications, and other contract documents prepared by a Registered Professional Engineer for submittals
- Attending bid openings, tabulating bids, analyzing bids, checking bid forms and bid bonds, and assisting negotiating and awarding contracts
- Attending Pre-Construction Conferences
- Informing the County of the progress of the work and attending other meetings, as required
- Reviewing shop drawings
- Providing general review and inspection of work-in-progress
- Provide construction staking, as required
- Provide material testing, as required
- Reviewing contractor's requests for progress payments and advise the County accordingly
- Preparing Change Orders
- Providing the County with Record Drawings and As-Built plans
- Performing final inspections and advise the County accordingly
- Assisting with preparation and review of environmental documents or impact statements
- Assisting with obtaining permits, applications, etc.
- Assisting Burnet County with:
 - ⊙ Property Surveys
 - ⊙ Property Plats
 - ⊙ Legal Descriptions
 - ⊙ Other Items, as Necessary
- Assisting with preparation and appearances before courts and other matters involving litigation
- Providing consultation to correct unforeseen difficulties after the County accepts the work
- Providing a warranty inspection eleven months after the County accepts the project but before expiration of the contractor's one-year warranty
- Ensuring compliance with applicable regulations specific to each project in accordance with funding sources
- Ensuring the proper licensure of all professionals involved with each project
- Providing safety equipment when required by applicable state and federal regulations
- Provide utility location services

KCE has worked for the Burnet County Commissioners Court since at least 2006. That ongoing relationship is an indicator of KCE's ability to work with Burnet County on its projects. Furthermore, KCE is currently working for Burnet County as its representative on the CAMPO TAC.



UNDERSTANDING OF REQUESTED SERVICES AND LOCAL AREA

Greg has lived and worked in Burnet County for 41 years. The majority of his work has been in Burnet County whether as the TxDOT Area Engineer or as the Principal of K.C. Engineering, Inc.

KCE's headquarters is in Marble Falls. Combining Greg's experiences as a TxDOT Area Engineer and as the Principal of KCE, with its office in Marble Falls, and with the majority of its work in Burnet County, KCE has a vast and thorough understanding of the requested services and of the local area.

In 2006 KCE was awarded a contract by the Burnet County Commissioners Court to prepare preliminary estimates for several county roads in anticipation of the County issuing \$10,000,000 in bonds for reconstruction and rehabilitation.

Each Commissioner provided KCE with a list of proposed, prioritized projects. Greg drove each county road with the respective Commissioner to review existing conditions and to better understand each Commissioner's goals and objectives for each project. Then-County Judge Dave Kithill traveled with Greg and each Commissioner to ensure consistency among the Commissioners.

August 14, 2006, Greg made a presentation to the Commissioners Court with KCE's cost estimates for the proposed county road improvement projects.



In 2013, Burnet County was invited by the Capital Area Metropolitan Planning Organization (CAM-

PO) to join its membership. Commissioner Joe Don Dockery was named the Burnet County delegate to the CAMPO Policy Board. Greg was asked by Commissioner Dockery and then-County Judge Donna Klaeger if he would represent Burnet County on the CAMPO Technical Advisory Committee (TAC). On December 5, 2013 the Burnet County Commissioners Court appointed Greg to represent Burnet County on the CAMPO Technical Advisory Committee. Greg currently represents Burnet County in that capacity and he has attended monthly TAC meetings since his appointment.

Greg's assignment on the TAC is to analyze techni-

cal issues and formulate opinions based upon his vast knowledge of the local area and his technical expertise in transportation-related matters and to vote on TAC agenda items that are in the best interest of Burnet County. In addition to participating in the TAC, it is also Greg's responsibility to provide technical advice to Burnet County's current Policy Board Member, Judge James Oakley. Greg provides Judge Oakley regular briefings on technical issues that may affect Burnet County to provide him with the best information possible to represent Burnet County on policy-related matters that are of a technical nature.

May 5, 2016, the Burnet County Commissioners Court awarded KCE a contract to prepare preliminary estimates for several roadway projects. The estimates prepared by KCE formed the basis of the 2017 Tax Anticipation Notes projects.

KCE met with Commissioner Joe Don Dockery and then-Commissioner Russell Graeter to gather their proposed roadway projects and to determine the type of work that each wanted to perform on the candidate roadways.

KCE also met with Commissioner Jim Luther and Commissioner Billy Wall to gather the same information as obtained from Commissioner Dockery and Commissioner Graeter.

KCE prepared detailed estimates for each precinct and categorized them according to the work requested. KCE obtained field measurements and performed calculations to quantify the work requested by each Commissioner. KCE researched local bidding trends to develop reasonable unit prices for the work to be performed. Combining field measurements and unit prices, KCE prepared and presented its estimates to the Commissioners Court July 26, 2016.

KCE entered into a Professional Services Agreement with Burnet County April 11, 2017 to provide planning, design and construction management services.

In 2017, KCE performed the engineering design for 15 Burnet County Roads that were funded from the 2017 Tax Anticipation Notes.



In 2019, KCE performed the engineering design for seven (7) Burnet County Roads that were funded from the 2018 Tax Anticipation Notes.

KCE performed the engineering design for County Road 340-A from a rural roadway section to an urban section from US 281 to the railroad. Upon completion, the name of the road was changed to John W. Hoover Parkway.

Based upon work previously performed by KCE for Burnet County, KCE already has a thorough understanding of the requested services and the local area for this particular Request for Proposals.

All areas have varying conditions such as climatological, geological, materials sources, and local contracting resources. As a local engineering firm, KCE is familiar with Burnet County conditions.

Directly related to climatological variances is hydrology – for these projects, the distribution and circulation of water on the ground. Hydrology determines the rainfall runoff that will contribute to a structure that is being evaluated for design. Hydraulics determine the performance characteristics of a given drainage structure, based upon the hydrology.

Demonstrating the awareness of varying hydrologic conditions, both the City of Marble Falls and the City of Burnet recognized the need to have their own Drainage Criteria Manual. Both cities recognized the experience of KCE in the local area and KCE authored the Drainage Criteria Manual for each city.

To further demonstrate varying conditions, the City of Marble Falls and the City of Burnet assumed control of regulating water quality management in their jurisdiction. The LCRA had been managing water quality through its Highland Lakes Watershed Ordinance. Again, recognizing KCE's understanding of the local area and local conditions, each city retained KCE to prepare its Nonpoint-Source Pollution Technical Manual.

KCE knows that soil conditions vary across the county. When many people think of Burnet County they think it sits atop 500' of solid rock. But that is far from factual. Clay soil is found particularly in the east and northeast parts of the county. Much of the southwest part of the county is situated on decomposed granite (granite gravel). The area in and around

Marble Falls has some of the hardest rock found anywhere. The geologic name for the rock is Marble Falls Limestone. It has a compressive strength upwards of 10,000 psi, while concrete has a compressive strength of approximately 4,000 psi – 6,000 psi.

Many have attempted to sell the idea of in-place pavement reclamation. Greg's experiences indicate that because of the presence of several local quarries that produce excellent flexible base and many of those local quarries use the same excellent crushed stone to produce high-quality hot mix asphalt, it is far more economical to use local materials. In-place pavement reclamation is not an economically-viable option in Burnet County.

In addition to a thorough knowledge of local geologic conditions, KCE also has an excellent knowledge of, and working relationship with, local contractors.

Over the years, KCE has worked with local contractors to refine its engineering designs to provide construction plans and documents that thoroughly convey the intent of each project, thereby reducing costs.

A concept that is often not employed by other firms but is fundamental to the principles and practices of KCE is that its goal is not simply to complete a set of construction plans that meets local criteria. KCE's goal is to deliver a project that meets the needs of its clients as economically as reasonably possible. KCE understands that a project is not complete until it is constructed. With that approach, it is KCE's mission to provide Burnet County with a project that meets the requirements of each commissioner, as economically as reasonably possible.

Greg, through his experiences as an Area Engineer, worked with the highway contractors to find how best to achieve the lowest bid prices possible. Working with the contractors, Greg developed one guiding principle to achieving the best bid prices: Better construction plans. Better construction plans lead directly to better bid prices for Burnet County. KCE employs those same principles on each and every project it designs.

As demonstrated herein, KCE has a vast knowledge of the requested services and the local area through the Principal working on similar projects for 40 years and from KCE maintaining its office in Burnet County for 20 years.



KCE TxDOT PROJECT EXPERIENCE

KCE Projects

KCE has worked as a consultant to TxDOT since 2002 on various Project-Specific contracts and Indefinite Delivery – Indefinite Quantity (On-Call – Open-Ended) contracts.

The following are Project-Specific projects designed by KCE for the Texas Department of Transportation (TxDOT):

- ⊙ FM 1187 – Fort Worth District
- ⊙ FM 156 South – Fort Worth District
- ⊙ FM 156 North – Fort Worth District

FM 1187

FM 1187 was a \$5,000,000, 4.5-mile widening project of rapidly-developing traffic corridor outside of Crowley, south of Fort Worth.

FM 156 South

FM 156 South was a \$7,500,000, 1-mile reconstruction project that converted an existing 2-lane highway to a 5-lane urban cross section west of IH 820 through the cities of Saginaw and Blue Mound – suburbs of Fort Worth.

FM 156 North

FM 156 North was a \$14,000,000, 5.5 mile design project to convert a 2-lane rural roadway into a divided 4-lane highway with raised median, shoulders, protected left turn lane bays, culverts, bridges and storm drain system.

The following are Project-Specific projects designed by KCE for the Texas Department of Transportation (TxDOT) and that were by Advance Funding Agreement or Donation Agreement:

SH 71

SH 71 was the addition of a left turn and right turn lane to service Baylor Scott and White Hospital south of Marble Falls.

RM 1431

RM 1431 was the design of a left turn lane to provide safer access to Marble Falls ISD facilities east of Marble Falls - particularly Colt Elementary School.

SH 29

SH 29 was the design of a left turn lane and shoulders on the west side of Bertram.

US 290

US 290 was the design of a left turn lane, deceleration lane, and acceleration lane west of Johnson City at Triple S Trail.

The following are Indefinite Delivery-Indefinite Quantity (On-Call – Open-Ended) projects designed by KCE for the Texas Department of Transportation (TxDOT):

- ▶ Fort Worth 2004 – Engineering Design of Eighteen (18) Bridges
- ▶ Fort Worth 2005 – Engineering Design of Six (6) Bridges
- ▶ Austin 2006 – Engineering Design:
 - RM 1871 – Bridge at Llano River (Mason Co.)
 - RM 2768 – Bridge at Llano River (Llano Co.)
 - Three (3) Off-System Bridges in Caldwell County



PAVING EXPERIENCE

Throughout Greg's 13 years as TxDOT Area Engineer, he was responsible for highway rehabilitation and preventive maintenance projects across his 5-county area, including approximately 3,950 lane-miles of highway. During his tenure, every lane-mile of highway received preventive maintenance at least once, and some more than once. Generally, he was responsible for all preventive maintenance projects in the western one-half of the Austin District – usually for all highways west of IH 35.

Preventive maintenance projects consisted of hot mix overlays, two-course surface treatments and seal coats.

Greg was responsible for 2" hot mix overlays on IH 35 from Georgetown to Jarrell (15 miles), US 281 from Lampasas to Blanco (70 miles), US 290 from

Dripping Springs to Fredericksburg (55 miles) and SH 29 from Burnet to Georgetown (30 miles).

It is estimated that Greg was responsible for approximately 500,000 tons of hot mix, 6,500,000 gallons of asphalt and 180,000 CY of aggregate.

The calculations of the quantities above are conservative but give an approximation of the preventive maintenance directed and supervised by Greg while TxDOT Area Engineer.

The preventive maintenance projects do not consider hot mix and seal coats on major construction projects. For example, for the RM 620 major construction project alone, Greg was responsible for approximately 72,700 tons of hot mix, 175,000 gallons of asphalt, and 4,800 CY of aggregate.

WIRTZ DAM ROAD

Being from Burnet County, KCE is familiar with local projects and planning. As a result of media exposure, KCE is aware of the plan to rebuild Wirtz Dam Road, including a proposed new bridge below Wirtz Dam. Based upon that awareness, KCE prepared a conceptual layout of what a bridge below Wirtz Dam may be:



The photos and descriptions on this page are projects that were designed and/or directed by Greg Haley, P.E., as TxDOT Senior Resident Engineer or TxDOT Area Engineer.

SH 29 Burnet



Burnet County

From Hamilton Creek to Hoover Valley Road

Design and reconstruct an existing 4-lane rural cross-section into a 5-lane urban cross-section with concrete curb and gutter and storm drain system (1/2 of the project) and reconstruct to a 5-lane with paved shoulders rural cross-section (1/2 of the project).

US 281 Burnet



Burnet County

From Houston Clinton Dr. to the Burnet City Limits

Design and reconstruct the conversion of a 4-lane rural cross section into a 5-lane with paved shoulders rural cross section meeting current design standards. The area south of Burnet experienced substantial growth as a result of Burnet's Industrial Park, airport, Delaware Springs Golf Course and two subdivisions.

SH 71 Burnet County



Burnet County

From US 281 West to RM 2147

Design and reconstruct an existing 2-lane rural cross section into a 2-lane with paved shoulders rural cross-section meeting current design standards. SH 71 had experienced increased traffic and this project greatly enhanced safety by the addition of paved safety shoulders.



The photos and descriptions on this page are projects that were designed and/or directed by Greg Haley, P.E., as TxDOT Senior Resident Engineer or TxDOT Area Engineer.

**RM 1431
Marble Falls**



Burnet County

From US 281 to Industrial Blvd.

Design and reconstruct a 4-lane rural cross section to a 5-lane urban cross section with concrete curb and gutter, storm drain system, and two bridge widenings. The project added a continuous two-way left turn lane for this heavily-developed area in Marble Falls.

**RM 1431
Granite Shoals**



Burnet County

From Phillips Ranch Rd. to Lakeview Dr.

Design and reconstruct the conversion of a 4-lane rural cross section into a 5-lane urban cross section with concrete curb and gutter, storm drain system, and culvert widenings, including a two-way continuous left turn lane.

**RM 1980
Tobeyville**



Burnet County

From RM 1431 to Tobeyville

Design and construct a new Ranch-To-Market Highway in Burnet County to current design standards: 2-lane with paved safety shoulders, rural cross section.



The photos and descriptions on this page are projects that were designed and/or directed by Greg Haley, P.E., as TxDOT Senior Resident Engineer or TxDOT Area Engineer.

**RM 3509
Burnet**



Burnet County

From SH 29 West Five Miles

Greg performed the route layout and right of way definition of this new Ranch-To-Market highway in Burnet County. The project was designed and constructed after he left TxDOT.

**RM 2147
Horseshoe Bay**



Llano County

From Slickrock Creek to SH 71

Design and reconstruct the conversion of a 2-lane rural cross section into a 2-lane with paved safety shoulders rural cross section meeting current design standards.

**RM 2900
Llano County**



Llano County

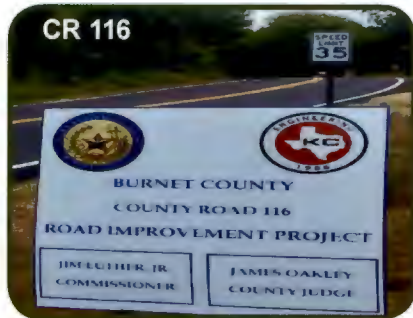
From Lake LBJ to RM 2233

Design and reconstruct an existing 2-lane rural cross section into a 2-lane with paved shoulders rural cross-section meeting current design standards.



BURNET COUNTY PROJECT EXPERIENCE

Burnet County Projects that were designed by, or directed by, Greg Haley, P.E., of K.C. Engineering, Inc.



CR 116



CR 120



CR 120



CR 208



CR 210



CR 219



CR 274



CR 323



CR 340



CR 401



CR 403



CR 404



CR 410



CR 414



CR 425



TxDOT BRIDGE PROJECT EXPERIENCE

The photos and descriptions on this page are projects that were designed and/or directed by Greg Haley, P.E., as TxDOT Senior Resident Engineer or TxDOT Area Engineer.

**RM 620
Lake Austin**



Travis County

**RM 620
Lake Austin**



Burnet County

**SH 71
Lake Travis**



Travis County

**Broadway Street
Backbone Creek**



Burnet County

**SH 29 Overpass
at IH 35**



Williamson County

**US 281
Pedernales River**



Blanco County



TxDOT BRIDGES

HIGHWAY / COUNTY ROAD	COUNTY	RIVER OR CREEK
US 281	Blanco	Pedernales River
US 281	Blanco	Miller Creek
RM 165	Blanco	Blanco River
CR 102	Blanco	Blanco River
RM 963	Burnet	North Fork San Gabriel River
RM 1431	Burnet	Hamilton Creek
RM 1431	Burnet	Sycamore Creek
RM 1431	Burnet	Whitman Branch
RM 1431	Burnet	Backbone Creek
RM 1174	Burnet	North Fork San Gabriel River
RM 1174	Burnet	Russell Fork San Gabriel River
RM 1174	Burnet	South Fork San Gabriel River
RM 2341	Burnet	North Morgan Creek
RM 2341	Burnet	South Morgan Creek
PR 4	Burnet	Peters Creek
PR 4	Burnet	Clear Creek
Broadway St.	Burnet	Backbone Creek
CR 224	Burnet	North Fork San Gabriel River
Uhland Rd.	Caldwell	Plum Creek
SH 16	Gillespie	Pedernales River
SH 16	Gillespie	Barons Creek
RM 1376	Gillespie	Grape Creek
TOTAL BRIDGES		22

HIGHWAY / COUNTY ROAD	COUNTY	RIVER OR CREEK
RM 1631	Gillespie	Barons Creek
RM 1631	Gillespie	Cave Creek
Whiteoak Rd.	Gillespie	Pedernales River
Martin Rd.	Gillespie	Pedernales River
CR 288	Hays	Blanco River
SH 16	Llano	Sandy Creek
SH 29	Llano	Inks Lake
SH 71	Llano	Byrnes Creek
SH 71	Llano	Waters Creek
SH 71	Llano	Walnut Creek
SH 71	Llano	Slickrock Creek
SH 71	Llano	Honey Creek
SH 71	Llano	Pecan Creek
SH 71	Llano	Sandy Creek
RM 152	Llano	Hickory Creek
RM 152	Llano	Six-Mile Creek
RM 2147	Llano	Little Llano River
RM 2241	Llano	Branch of Little Llano River
RM 2241	Llano	Oatman Creek
Tarrant St.	Llano	Buttery Draw
US 377	Mason	Big Bluff Creek
US 377	Mason	Little Bluff Creek
TOTAL BRIDGES		22

*Projects designed and/or directed by
Greg Haley, P.E.,
while Area Engineer for TxDOT*

TxDOT BRIDGES

HIGHWAY / COUNTY ROAD	COUNTY	RIVER OR CREEK
US 377	Mason	Honey Creek
RM 386	Mason	Willow Creek
RM 1871	Mason	Honey Creek
SH 71	Travis	Pedernales River (Lake Travis)
RM 620	Travis	Colorado River (Lake Austin)
IH 35	Williamson	SH 29 (Overpass)
IH 35	Williamson	RM 2338 (Overpass)
US 183	Williamson	North Fork San Gabriel River
RM 1431	Williamson	Brushy Creek
RM 1431	Williamson	Spanish Oak Creek
RM 1431	Williamson	Austin Northwestern Railroad
FM 1660	Williamson	San Gabriel River
CR 201	Williamson	Bear Creek
CR 219	Williamson	Berry Creek
CR 241	Williamson	Berry Creek
CR 257	Williamson	North Fork San Gabriel River
CR 301	Williamson	Willis Creek
CR 326	Williamson	Willis Creek
CR 336	Williamson	Opossum Creek
CR 366	Williamson	Opossum Creek
CR 383	Williamson	Opossum Creek
Airport Rd.	Williamson	Berry Creek
TOTAL BRIDGES		22

*Projects designed and/or directed by
Greg Haley, P.E.,
while Area Engineer for TxDOT*

Exhibit 1

KCE BRIDGES

HIGHWAY / COUNTY ROAD	COUNTY	RIVER OR CREEK
CR 108	Caldwell	West Fork Plum Creek
CR 114	Caldwell	Plum Creek
CR 146	Caldwell	Plum Creek
CR 396	Erath	Armstrong Creek
CR 136	Erath	Little Sunday Creek
CR 114	Erath	Salt Creek
CR 351	Erath	Greens Creek
Old Granbury Rd.	Hood	Rucker Creek
Henderson Ranch Rd.	Jack	Jasper Creek
Lone Star Rd.	Jack	Pool Creek
Erwin Rd.	Jack	Beans Creek
Knob Rd.	Parker	Walnut Creek
Holbrook Rd.	Parker	Walnut Creek
Highland Rd.	Parker	Walnut Creek
CR 312	Sommervell	Squaw Creek
JO Castleberry	Wise	Walnut Creek
CR 4271	Wise	Walnut Creek
Rodgers Rd.	Wise	Derrett Creek
CR 1700	Wise	Jasper Creek
CR 3381	Wise	Salt Creek
CR 3838	Wise	Boons Creek
CR 4127	Wise	Walnut Creek
TOTAL BRIDGES		22

HIGHWAY / COUNTY ROAD	COUNTY	RIVER OR CREEK
CR 3840	Wise	Willow Creek
Greenwood Rd.	Wise	Black Creek
CR 4380	Wise	West Fork Trinity River
CR 4790	Wise	Hog Branch
CR 2327	Wise	Black Creek
Pecan Valley Dr.	Burnet	Pecan Branch
TOTAL BRIDGES		6

HIGHWAY / COUNTY ROAD	COUNTY	RIVER OR CREEK
RM 1871	Mason	Llano River
RM 2768	Llano	Llano River
TOTAL BRIDGES		2

Projects designed by K.C. Engineering, Inc. as a consultant to TxDOT with Greg Haley, P.E. as the Project Manager

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