

BURNET COUNTY

STATEMENT OF QUALIFICATIONS

CONSULTING ENGINEERING SERVICES PLANNING AND DESIGN ENGINEERING SERVICES

RFQ# 20-4090-02

Due: February 10, 2020 at 2:00 P.M.



M&S ENGINEERING
CIVIL | ELECTRICAL | STRUCTURAL | MEP

Kyle Dicke
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SOQ for Consulting Engineering Services Burnet County



February 10, 2020

Burnet County
Attn: County Auditor/Purchasing Agent
133 E Jackson St.
Burnet, Texas 78611

RE: RFP # 20-4090-02 for Consulting Engineering Services Planning and Design Engineering Services

M&S Engineering (M&S) is submitting this Statement of Qualifications (SOQ) for consideration to provide consulting engineering services for Burnet County. Helping counties similar to Burnet County is a core business of M&S Engineering and we possess a number of unique qualifications that are summarized below.

- ✓ M&S Engineering just celebrated 20 years in business. We are a well-run, financially strong company that delivers with confidence and is an enjoyable work partner.
- ✓ Our Team offers many talented professionals who have the ability to provide the engineering services Burnet County is seeking.
- ✓ Our depth and diversity of project experiences will serve Burnet County well. M&S Engineering currently provides consulting city engineer services to over 15 municipalities in the Hill Country area. While providing county engineering services, we make it our business to acquire specific knowledge about our client's infrastructure and the nuances that make each community special.
- ✓ Jerod Mott, PE, CFM, our team's primary contract manager, has 12 years of experience working on infrastructure projects and is well suited to manage the county's projects given his depth of knowledge and broad experience.
- ✓ Our on-call contract management approach is used on over 25 current municipal, electric cooperative, and commercial engineering services contracts, affording our clients increased flexibility on scope diversity and project timing.
- ✓ M&S uses a time-tested project management approach that consistently produces successful assignments and satisfied clients through closely monitoring and communicating progress on each of the project constraints.
- ✓ We have worked throughout the Hill Country area with many governmental agencies and utility companies to deliver successful projects. We effectively work with a broad spectrum of agencies to complete projects in a timely manner.
- ✓ M&S Engineering will provide services primarily from our New Braunfels office. Our proximity enables us to be very responsive and cost effective while delivering services.

M&S Engineering's primary contact person is Jerod Mott, PE, CFM. He is authorized to represent the company in all matters regarding this SOQ. Mr. Mott's contact information is as follows:

Jerod Mott, PE, CFM

376 Landa Street	(830) 228-4155
New Braunfels, TX 78130	(906) 282-2920 (cell)
	jmott@msengr.com

We thank you for this opportunity to be considered and for your valuable time in evaluating our qualifications. You have my assurance that M&S Engineering is committed to delivering these services to Burnet County in the manner described in this Statement of Qualifications. Please contact me if you have any questions or need additional information.

Sincerely,

Kyle Dicke
Business Development Manager
SOQ Attached



STATEMENT OF QUALIFICATIONS

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CONSULTANT'S CAPABILITIES / EXPERIENCE / REFERENCES

M&S Engineering, LLC is a full-service engineering firm that offers civil, electrical, MEP, and structural engineering. Along with its sister company, Sherwood Surveying & S.U.E., the M&S family has the capability to serve as a one stop shop for clients such as Burnet County. Providing county and municipal engineering services is one of our core businesses. We were recently listed among the ENR Top 500 Engineering firms and ranked the 4th largest engineering firm in the San Antonio area. M&S Engineering is licensed to practice engineering in the State of Texas (F-1394) and Sherwood Surveying & S.U.E. is licensed to practice land surveying in the State of Texas (100442-00).

SERVICES WE OFFER

M&S Engineering, LLC is a full-service regional engineering firm capable of providing a broad range of services to our clients. A list of civil, electrical, MEP and structural engineering related services we offer is provided below.

CIVIL ENGINEERING SERVICES

- | | | |
|---------------------------------------|---------------------------------------|--|
| ✓ Project Management | ✓ Water Distribution System Design | ✓ Regional Detention Pond Design |
| ✓ Construction Management | ✓ Wastewater Collection System Design | ✓ Site Specific Detention Pond Design |
| ✓ Plan Review | ✓ Land Planning | ✓ Water Quality Facilities Design |
| ✓ CAD/GIS | ✓ Master Planning | ✓ Dam/Embankment Design |
| ✓ Road/Utility Design | ✓ Lot and Roadway Design | ✓ Drainage & Inundation Studies |
| ✓ Subdivision Design | ✓ Platting and Zoning | ✓ Floodplain Determination & Analysis |
| ✓ Commercial Site Design | ✓ Variance / Waivers | ✓ Surface Water Rights, Acquisitions, Permitting |
| ✓ Drainage Design | ✓ Preliminary Engineering | ✓ FEMA Flood Map Revisions |
| ✓ Water System Modeling and Analysis | ✓ Hydrologic & Hydraulic Engineering | ✓ ADA/TDLR Compliance |
| ✓ Water & Wastewater Treatment Design | ✓ Reservoir Design | ✓ Sidewalks |

M.E.P ENGINEERING SERVICES

- ✓ Electrical & Lighting Design
- ✓ Plumbing Systems
- ✓ Mechanical & HVAC
- ✓ Acoustical Design
- ✓ LEED/Sustainable Design
- ✓ Emergency Power Systems
- ✓ Fire Alarm Systems
- ✓ Audio & Visual (A/V) Systems
- ✓ Supervisory Control and Data Acquisition (SCADA)
- ✓ Coordination Studies & Arc-Flash Analysis
- ✓ Project Management
- ✓ Construction Administration Services

S.U.E. SERVICES

- ✓ Underground Utility Mapping
- ✓ Relocation Design
- ✓ New Build, Re-Build & Relocate
- ✓ Utilities Condition Assessments
- ✓ Site Surveys
- ✓ Topographic Surveys
- ✓ AutoCAD depiction of As-Built
- ✓ Global Positioning (GPS)
- ✓ Ground Penetrating Radar
- ✓ Vacuum Excavation
- ✓ Horizontal & Vertical Positioning of Existing Utilities
- ✓ Utilities Coordination & Communication

SURVEYING SERVICES

- ✓ Aerial Control
- ✓ Right of Way & Easements
- ✓ LiDAR Verification
- ✓ ALTA Surveys
- ✓ Topographic Surveys & Boundaries
- ✓ Global Positioning (GPS)
- ✓ Construction Staking
- ✓ Routing surveys
- ✓ As-built surveying services
- ✓ New Build, Re-Build & Relocate
- ✓ Platting

STRUCTURAL ENGINEERING SERVICES

- | | | |
|---------------|----------------------|------------------------------|
| ✓ Foundations | ✓ Retaining Walls | ✓ Construction Design Review |
| ✓ Bridges | ✓ Special Structures | ✓ Forensic Investigation |



EXPERIENCE WITH SIMILAR PROJECTS



ROADWAY DESIGN PROJECTS

M&S Engineering has provided roadway and transportation design for many municipalities. The representative projects listed herein show our experience in providing the range of roadway design related services Burnet County may need, including arterials, residential streets, maintenance projects.

RIVERY BOULEVARD T.I.A. IMPROVEMENTS | CITY OF GEORGETOWN: M&S Engineering (as prime consultant) prepared PS&E to City standards for the addition of right turn lanes at three (3) intersections: Wolf Ranch Parkway, Hintz Road, and Williams Drive. Improvements are being completed to support traffic growth in the Rivery development. 30% design plans were modified at each location to minimize impacts to existing utilities and to eliminate ROW take at the Williams Dr. location. Through lanes and existing left turn lanes at each location are being re-striped to narrow the lanes to 11-foot widths to avoid relocation of electrical duct bank and a 16-inch waterline. M&S services include: roadway, storm sewer and water quality design, signing and striping, multi-phase traffic control plan, traffic and pedestrian signal improvements, survey and S.U.E. services (Level B), utility coordination, including verification of Texas Gas transmission line depth, TCEQ WPAP modifications at each location, and preparation of easement documents. M&S also provided coordination of environmental services and ADA/TDLR review (provided by Altura Solutions).

N. EAST STREET IMPROVEMENTS | CITY OF LEANDER: M&S Engineering (as prime consultant) prepared a schematic and PS&E to the City and TxDOT Standards for 0.4 miles of roadway consisting of new alignment and reconstruction or existing rural segment from FM 2243 to Hero Way, including spanning the S. Fork of Brushy Creek. Schematic phase included assessing impacts/benefits of removing Hero Way from the floodplain, including potential permitting impacts of channel improvements on the project schedule and purchase cost of easements, against benefit of removing potential commercial property from the floodplain. Design services included: roadway design (new and existing alignment), multi-span bridge design (160-feet), bridge scour analysis, FIS stream analysis using HEC-RAS, CLOMR/ LOMR process, storm sewer design, S. Brushy Creek channel improvements design, including coordination of private channel improvements with developer and consultant, intersection design, public utility design (water/WW), street lighting design,

S.U.E. services (Levels B & C), utility coordination and relocation (electric/telecom), and TxDOT permitting. Cox|McLain Environmental Consulting (CMEC) provided environmental permitting (USACE Sec. 404), wetland delineation, coordination of property acquisition services, public involvement including public notification requirements and one-on-one meetings with property owners, survey services, including parcel descriptions, coordination of geotechnical services performed by Raba Kistner Consulting (RKCI), and bid and construction services. Project Status: Schematic phase is complete, and 60% design submittal is being prepared. Construction is not funded at this time.

BREHMER LANE ROADWAY IMPROVEMENTS PROJECT | CITY OF FREDERICKSBURG: As a prime consultant, M&S Engineering prepared PS&E and bid phase services for this project. This project consisted of the reconstruction of 1200 feet of Brehmer Lane (from E. Highway Street to Sunrise Street) for the City. The project scope included surveying, S.U.E., roadway, drainage, utilities, and utility coordination for this commercial street within existing ROW. The design of the project included new ribbon curb, utility adjustments (water & sewer), SW3P, driveways, sidewalks, ADA handicap wheelchair ramps, and construction of a two-course chip seal coat street section located in poor soil conditions.

ALVES LANE IMPROVEMENTS | CITY OF NEW BRAUNFELS: M&S Engineering designed the reconstruction and widening of Alves Lane from SH 46 to Barbarosa (approximately two miles) from a two-lane roadway to a three-lane roadway. We provided surveying (topography and ROW Acquisition), S.U.E., geotechnical engineering, traffic studies/engineering, roadway design (including drainage, water lines and sewer lines), structural engineering, public involvement, plans, specifications, cost estimates, agency/utility coordination, permitting, bidding and construction phase services, and construction observation.

DAVIS STREET MILL AND OVERLAY | CITY OF LULING: M&S Engineering designed the repair and resurfaced 1,300 feet of Davis Street between Magnolia Avenue (SH 80) and Walnut Avenue in downtown Luling. The existing pavement was milled to a depth of 2-inches and replaced with a leveling course and 2-inches of new asphalt pavement. The project required coordination of traffic control with TxDOT on SH 80 and US 90 (E. Pierce Street) and included restriping of the pavement and head-in parking spaces. M&S provided surveying, roadway design, surface utility adjustments, plans, specifications, cost estimates, agency coordination, permitting, bidding and construction phase services, and construction observation.



OLYMPIA PARKWAY IMPROVEMENTS PROJECT | CITY OF SELMA:

As a prime consultant, M&S Engineering provided design and construction documents, as well as bid and construction phase services for this roadway improvement project. The project area consisted of Olympia Parkway from IH 35 to the city limits of Universal City and several other neighborhood streets. The improvements consisted of sidewalks, bike lanes, intersection/traffic signal improvements (at Medusa), landscaping, signing, pavement markings, and striping. M&S Engineering's work effort included traffic control plans, TxDOT coordination, and cost estimates. We provided design surveying and apparent ROW locations. The existing right-of-way contained numerous above and below ground utilities. A Quality Level C utility map was prepared that included water, electric (OH/UG), telephone (OH/UG), cable-TV, and sanitary sewer. Quality Level A (potholing) was also provided to locate a large water main so proposed traffic pole locations could be designed to avoid conflicts and potential damage during the signal pole's installation. Work on this project required coordination with several utility companies, the Forum Shopping Center, and the City of Selma to coordinate the City of Selma's proposed traffic signal at the Medusa intersection. M&S provided surveying, roadway design, surface utility adjustments, plans, specifications, cost estimates, agency coordination, permitting, and construction observation.

7 YEAR STREET MAINTENANCE PLAN | CITY OF SELMA:

M&S Engineering (as the prime consultant) conducted a citywide evaluation of all streets within the City of Selma and rated their condition using ASTM guidelines. Using this information, a seven-year maintenance program was developed. Using funding levels provided by the City of Selma (approximately \$350,000/Year), M&S Engineering prioritized street maintenance based on condition and developed a rehabilitation approach for each roadway. The program involved nearly all forms of street rehabilitation, including street preparation/repair, crack sealing, fog seal, slurry seal, chip seals, overlay, and reconstruction. Condition assessments, mapping, and CIP planning for the City's street system, drainage system, water system, wastewater system, and parks were also part of the effort.



DRAINAGE DESIGN PROJECTS

M&S Engineering has considerable drainage facility design experience for municipal/public works projects. The representative projects provided herein demonstrate our ability to provide drainage design services Burnet County may need, including drainage studies and stormwater system design.

CONSOLIDATED MAINTENANCE FACILITY REGIONAL DETENTION POND / ECKHARDT CHANNEL IMPROVEMENTS

| CITY OF FREDERICKSBURG: M&S Engineering (as prime consultant) was hired by the City of Fredericksburg to assist in resolving erosion issues occurring downstream of the existing detention pond on the Eckhardt property. A hydrology and hydraulic (H&H) study was completed to determine discharge rates from the pond and develop drainage channel alternatives. A drainage analysis was also conducted to confirm the storage characteristics of the regional pond. M&S Engineering provided land surveying, easement field notes and plats, prepared designs for a re-aligned outfall channel to mitigate erosion including plans, specifications, and cost estimates. Bidding and construction phase services were also provided.

GERONIMO CREEK FLOOD PROTECTION PLAN | GUADALUPE COUNTY:

M&S Engineering was contracted for the Geronimo Creek Flood Protection Plan which was funded by a Texas Water Development Board grant. To effectively evaluate flooding for Geronimo Creek in Guadalupe County, it was quickly realized there were many shareholders and a broader region needed to be investigated. Therefore, the project ultimately also included Comal County, the City of New Braunfels, the City of Seguin, and the Guadalupe-Blanco River Authority. This project region included the Alligator and Geronimo Creek watersheds. While the goal of minimizing flood damage could not be achieved through peak flow reduction in a cost-effective manner, M&S proposed a flood planning and regulatory approach which was initiated. This approach included the creation of regional detention regulations to minimize future growth of the floodplain, increasing restrictions for future construction within the 1% annual floodplain, and the installation of physical measures such as flood warning systems and automatic floodgates. M&S Engineering provided drainage studies, public involvement, and cost estimates.

BARONS CREEK FLOOD STUDY | CITY OF FREDERICKSBURG:

M&S Engineering conducted a flood study on approximately 1.25 miles of Barons Creek within the City of Fredericksburg. A hydrology and hydraulic (H&H) study was completed to determine discharge rates that were used along with a stream modeling tool, HEC-RAS, to determine water surface elevations and flood inundation pattern starting at US 290 and following the creek around the City's existing WWTP. A comparison was made between existing FEMA water surface elevations and the flood plain models using recent survey cross-sections of the creek. M&S Engineering also provided surveying and drainage studies.



STORMWATER MANAGEMENT PLAN (MS4) | CITY OF SELMA:

M&S Engineering (as prime consultant) was hired by the City of Selma to modify, update, and implement their SMP. We assessed their existing SMP and modified it to comply with State requirements. Several of the plan components were implemented on behalf of the City, including assessment and documentation of drainage conditions, preparation and distribution of educational materials, staff training, and inlet markings.



GENERAL SITE DESIGN PROJECTS

M&S Engineering has considerable experience providing site design for cities and governmental entities. The representative projects listed herein demonstrate our ability to provide site design and related services that may be needed by Burnet County on the proposed Consulting Engineering Services Contract.

MORNINGSIDE PARK | CITY OF NEW BRAUNFELS: M&S Engineering, as a sub-consultant to Luck Design Services, prepared the site design for this new park, including parking lots, driveways, detention ponds, drainage, grading, walking paths, and site utilities. The services we provided included land surveying, geotechnical, structural, public involvement, plans, specifications, cost estimates, utility/agency coordination, bidding, and construction phase services.

ANIMAL SHELTER | CITY OF SEGUIN: M&S Engineering, as a sub-consultant to Quorum Architects, provided the site design for a new animal shelter in Seguin, Texas. The improvements included parking lots, driveways, detention ponds, drainage, grading, sidewalks, and site utilities. The services we provided included land surveying, geotechnical, structural, public involvement, plans, specifications, cost estimates, utility/agency coordination, bidding, and construction phase services.

EMS STATION | BLANCO COUNTY ESD#2: M&S Engineering, as a sub-consultant to Dailey and Spear Architects, provided the site design for a new EMS Station in Blanco County, Texas. The improvements included parking lots, driveways, detention ponds, drainage, grading, sidewalks, and site utilities. The services we provided included land surveying, geotechnical, structural, plans, specifications, cost estimates, utility/agency coordination, bidding, and construction phase services.

FIRE STATIONS | BEXAR COUNTY ESD#3: M&S Engineering, as a sub-consultant to BRW Architects, provided the site design for two new fire stations in Bexar County, Texas. These stations are located on Omicron Drive and at the

National Shooting Complex. The improvements included parking lots, driveways, detention ponds, drainage, grading, sidewalks, and site utilities. The services we provided included land surveying, geotechnical, structural, plans, specifications, cost estimates, utility/agency coordination, bidding, and construction phase services.



TRANSPORTATION AND TRAFFIC ENGINEERING PROJECTS

AC Group, LLC specializes in collecting traffic data for transportation and traffic engineers, transportation planners, public works agencies, real estate firms, and commercial developers. AC Group has experience in traffic engineering studies, minor roadway design, traffic impact analysis, traffic signal timing and optimization, traffic signal design, traffic control plans, and traffic simulation modeling. AC Group is certified by the State of Texas as a Historically Underutilized Business (HUB) and by the South Central Texas Regional Certification Agency (SCTRCA) as a Small, Disadvantaged and Minority Business Enterprise (SBE/DBE/MBE). AC Group's relevant experience is listed below.

HAUSMAN ROAD DRAINAGE PROJECT PHASE II (LC-10) | BEXAR COUNTY (UNINTECH CONSULTING ENGINEERS):

As a subconsultant to Unintech Consulting Engineers, AC Group conducted a traffic operations analysis for Hausman Road between Babcock Road and Roadrunner Way to determine intersection improvements in conjunction with roadway improvements developed for the Hausman Road Drainage Project Phase II (LC-10). The capacity and level-of-service analysis for Hausman Road included the intersections with Babcock Road, Jetlyn Drive, and Roadrunner Way. The analysis was conducted using traffic simulation models developed with the Synchro Traffic Signal Software to evaluate operations with the existing (2011) and forecasted (2031) traffic volumes for the existing and proposed roadway geometrics. Traffic signal warrants were also conducted for each of the study intersections.

PAVEMENT MARKING LAYOUTS | PORT SAN ANTONIO:

AC Group prepared pavement marking layouts for General McMullen Boulevard and Tinker Drive as required for the opening of Building 171 within the Port San Antonio facility. Pavement markings layouts were prepared for approximately 1,300 feet along General McMullen Drive and 2,200 feet along Tinker Drive. AC Group also prepared preliminary signing for truck delivery routes.



TRAFFIC SIGNAL DESIGN | CITY OF SAN ANTONIO: As a subconsultant to Lockwood, Andrews, & Newnam (LAN) on a City of San Antonio On-Call Traffic Engineering Contract, AC Group prepared traffic signal design plans for multiple intersections.

AC Group traffic signal design plans included existing conditions layout, existing utility facilities layout, proposed traffic signal layout, conduit and electrical schedules, pole and mast arm elevations, existing and proposed pavement markings, proposed pedestrian ramp and sidewalk improvements, and relevant city and state standard sheets.



ROW/EASEMENT ACQUISITION PROJECTS

7Arrows Land Staff, LLC (7Arrows) was established in 2011 as a limited liability company within the state of Texas with the objective of providing right of way, easement and real estate acquisition services. 7Arrows is a certified HUB and Women's Owned Business (WBE).

SH-45 WATER & WASTEWATER PROJECT, SH-130 & WASTEWATER TREATMENT PLANT, OLD AUSTIN HUTTO ROAD WASTEWATER PROJECT; KELLY LANE ROAD PROJECT & COLORADO SAND ROAD PROJECT | CITY OF PFLUGERVILLE:

Services for these water, wastewater, and road projects included project management, obtaining Right of Entry, appraisal coordination, survey coordination, title and title curative, negotiation, closing, and condemnation support.

WEST SIDE COLLECTION SYSTEM, WATER TREATMENT PLANT SYSTEM; WASTEWATER ROUTE, WATER TRANSMISSION ROUTE | CITY OF BASTROP:

Services for these projects included project management, route development, obtaining Right of Entry, appraisal coordination, survey coordination, title and title curative, negotiation, closing, and condemnation support.

FM 2181 UTILITY RELOCATION | CITY OF DENTON: Acquired easements required by TxDOT for the expansion of FM 2181. Reviewed routes with TxDOT, City of Denton, engineering firm, and survey group to develop most viable route for the movement of existing water, sewer, and electric lines which will be impacted by the expansion of FM 2181. Responsible for acquiring land rights to keep the acquisition component of the project on schedule to facilitate timely construction.



RESIDENTIAL PROJECTS

M&S Engineering has considerable experience providing Resident Project Representative (RPR) services to governmental clients on public works projects. The

representative projects shown herein demonstrates our ability to provide these services that may be required by Burnet County on the proposed Engineering Services contract.

VENTURA BLVD. ROADWAY RECONSTRUCTION PROJECT |

CITY OF SELMA: M&S Engineering is providing Resident Project Representative services for this multiple street reconstruction project that includes Ventura Blvd. from the southern City limit to Arcadia Dr., Deerfield Park, Clearwater Blvd., Belle Glade Blvd., Yellow Bark Blvd., Mountcrest Dr., Mandelane Dr., Utopia Blvd., Arcadia Dr., and El Monte St. In addition to construction phase services, M&S Engineering is providing schedule reviews, attending construction progress, serving as the liaison between engineer and contractor, responding to RFI's, providing clarifications, daily observations of progress, reviewing quality of work and identifying defective work, participating in inspections and reviewing payment requests.

WATER SYSTEM IMPROVEMENTS | CITY OF FLORESVILLE:

M&S Engineering is providing Resident Project Representative services for this USDA funded water system improvement project water line replacement, water meter replacement, a ground storage tank, and other miscellaneous improvements. In addition to construction phase services, M&S Engineering is daily construction observations, serving as liaison between engineer and contractor, providing clarifications, reviewing quality of work and identifying defective work.



ENVIRONMENTAL PROJECTS

Cox|McLain Environmental Consulting, Inc. (CMC)

is an environmental consulting firm specializing in compliance with the National Environmental Policy Act (NEPA), National Historic Preservation Act, and the state antiquities code. They provide Categorical Exclusions (CE), Environmental Assessments (EA), Environmental Impact Statements, historic buildings/structures reports, archeological reports, and other compliance documents. Their staff includes biologists, wetland ecologists, planners, GIS specialists, archeologists, archival researchers, architectural historians, and a historic architect. CMC was founded in 2007 and headquartered in Austin. CMC is a HUB/DBE/WBE-certified environmental consulting firm.

2018 WATER QUALITY PROTECTION LAND SURVEYS | CITY

OF AUSTIN: Performed Black-capped Vireo and Golden-cheeked Warbler surveys and territory mapping according to USFWS protocol on three of the City's Water Quality Protection Lands, within Hays and Travis Counties.



LCRA 2010 AND 2011 GOLDEN-CHEEKED WARBLER SURVEYS; 2011 BLACK-CAPPED VIREO SURVEYS | LOWER COLORADO RIVER AUTHORITY:

Performed golden-cheeked warbler surveys according to USFWS protocol on several LCRA Recreational Areas, including five survey events and a full avian inventory for the Turkey Bend, Gloster Bend and Canyon of the Eagles preserves, Burnet and Travis Counties.

PROGRAMMATIC CATEGORICAL EXCLUSION (PCE) FOR US 281

| BURNET COUNTY: Project Manager for preparation of PCE document for US 281 roadway improvements, including widening and replacement of two bridges at Delaware Springs Creek in Burnet County, Texas. Prepared under 2008 Standard of Uniformity guidance. Cleared January 2009.



TRAFFIC IMPACT ANALYSIS REVIEW PROJECTS

M&S Engineering has teamed with **AC Group** to offer transportation impact analysis services, as needed for this contract. AC Group's traffic impact analysis project experience is listed below.

TRAFFIC IMPACT ANALYSIS | CITY OF SAN ANTONIO:

AC Group traffic impact analysis studies include the preparation of the scoping meeting worksheets for the City of San Antonio, traffic data collection, trip generation and distribution, intersection capacity analysis (using the Synchro traffic simulation and analysis software), mitigation recommendations, turn lane analysis, threshold worksheet preparation, and rough proportionality worksheet preparation. AC Group engineers attend all meetings as required by the City of San Antonio, Bexar County, and the Texas Department of Transportation.

INGRAM ROAD LOW WATER CROSSING #58 (LC-8) | BEXAR COUNTY (UNINTECH CONSULTING ENGINEERS):

As a subconsultant to Unintech Consulting Engineers, AC Group conducted a traffic operations analysis for Ingram Road between Potranco Road and Northwestern Drive to determine intersection improvements in conjunction with roadway improvements developed for the Ingram Road Low Water Crossing #58 (LC-8). The capacity and level-of-service analysis for Ingram Road included the intersections with Potranco Road and Northwestern Drive. The analysis was conducted using traffic simulation models developed with the Synchro Traffic Signal Software to evaluate operations with the existing (2011) and forecasted (2012) traffic volumes for the existing and proposed roadway geometrics. A turn-lane analysis was also conducted for each of the two study intersections.



LAND SURVEYING/SUBSURFACE UTILITY ENGINEERING (S.U.E.) PROJECTS

M&S Engineering's sister company, **Sherwood Surveying and S.U.E., LLC (Sherwood)** has provided land surveying for many governmental entities supporting a number of projects. The representative projects listed herein show our experience in providing the range of land surveying services Burnet County may need, including topographic surveys (DTM), construction staking, boundary surveys, field notes, and plats for ROW acquisition and S.U.E.

SPORTS COMPLEX BOUNDARY AND TOPOGRAPHIC SURVEY

| CITY OF FLORESVILLE: Sherwood prepared topographic and boundary survey to support the development of an expanded sports complex for the City of Floresville. The tract of land, located on SH 97 near the San Antonio River, is approximately 102 acres in size. The work effort involved locating all improvements on the property including playing fields, courts, buildings, trees, utilities, fences, rodeo arena, roads, parking areas, etc.

COLLEGE STREET IMPROVEMENTS CONSTRUCTION STAKING (KING ST. TO SH 123) | CITY OF SEGUIN:

Sherwood provided construction staking for the improvements to reconstruct ½-mile of College Street in Seguin, Texas. The project included barricades, detouring, traffic control, excavation, haul off of waste materials, SWPPP, utility adjustments, curb and gutter, driveways, sidewalks, ADA handicap wheel chair ramps, storm drainage improvements and construction of an HMA pavement street section.

RUDELOFF ROAD RECONSTRUCTION AND WIDENING | CITY OF SEGUIN:

This project consisted of the reconstruction and widening of Rudeloff Road, between SH 46 and Huber Lane. It was a STP-MM project funded by the Alamo Area MPO and administered by TxDOT-San Antonio. Sherwood provided the field surveying for this project, which included obtaining rights-of-entry agreements, establishing horizontal and vertical control, topographic surveys, channel cross-sections, driveway profiles, apparent right-of-way surveys, utility surveying and preparation of a DTM file. This effort supported the design and PS&E preparation for the project. Sherwood also provided subsurface utility engineering to support the design and PS&E preparation. The scope of work included Quality Level B utility map and potholing of select utilities in locations where conflicts were likely. The utilities within the project site included overhead and underground electric, water lines, TxDOT signal communication lines, gas lines, and multiple underground communications cables. This work was completed as a sub-consultant to another engineering firm for the City of Seguin.



ALVES LANE IMPROVEMENTS | CITY OF NEW BRAUNFELS:

Sherwood performed the design surveying and ROW surveying for this two-mile roadway and drainage, widening and reconstruction project. The design surveying consisted of establishing survey controls, locating all improvements within the ROW, obtaining one foot contour information, locating apparent ROW, and creating a DTM. Sherwood also prepared ROW acquisition plats and field notes on 40+ parcels. Sherwood also prepared a QL-B utility map of the project area (between SH 46 and Barbarosa) including 2-miles of roadway and drainage outfalls. Numerous utilities were mapped including water, sewer, gas distribution, high pressure gas lines, electric (OH/UG), telephone (OH/UG), cable-TV. This effort included QL-A (potholing) of existing high-pressure gas mains in the project area. The surveying and S.U.E. work on this project is complete.



GEOTECHNICAL SERVICES PROJECTS

Rock Engineering & Testing Laboratory, Inc (Rock) will provide geotechnical services on projects as needed. Rock has provided similar services for M&S Engineering on previous projects in Bastrop, Comal, Guadalupe and Medina Counties. Rock is registered as an MBE and WBE by the SCTPCA.

GEOTECHNICAL ENGINEERING & CONSTRUCTION MATERIALS

TESTING IDIQ | WILLIAMSON COUNTY: Rock Engineering & Testing Laboratory, Inc. (RETL) is currently under contract with Williamson County as part of their Geotechnical Engineering and Construction Materials Testing IDIQ. The scope of services includes both Geotechnical Engineering and Construction Materials Testing for a variety of Williamson County projects. We were chosen based on their requirements for finding "highly qualified providers" for these services based on the demonstrated competence and qualifications of our experience. We were only recently selected, and eagerly await our first project.

FM 471/CULEBRA PASS THROUGH PROJECT | BEXAR

COUNTY: Bexar County developed a 2.4 mile segment of FM 471 (Culebra Rd) East, between Kallison Lane and FM 1560 as a Pass Through Toll Financing Project. The construction of FM 471 completed the capacity gap that currently exists from Kallison Lane to FM 1560. The project is a continuation of the previously constructed TxDOT roadway project on Culebra Road from FM 1560 to Loop 1604. The improvements widened Culebra Road from its existing two-lane configuration to a four-lane divided roadway with bicycle and pedestrian amenities. The project increased roadway capacity to allow for projected growth, increased safety with the continuation

of the existing section east of FM 1560, and added bicycle amenities to enhance regional mobility. RETL reviewed and approved material testing reports, material submittals, and provided general supervision of the Material Quality Assurance Program for the project. This included representing the interest of the client throughout all aspects and phases of construction operations and in its dealings with the contractor, suppliers, subcontractors, engineers, government entities, utilities, property owners, and the general public.

SIDEWALK IMPROVEMENTS | CITY OF SAN ANTONIO:

RETL is performing concrete testing for new sidewalks, curbs and gutters, approaches and driveways, and wheelchair ramps throughout San Antonio. The replacement and improvements have taken place along both sides of residential roadways at various sections of designated roadways. Improvements have been made to improve pedestrian traffic and safety in San Antonio neighborhoods. All sampling and testing procedures have been performed by RETL's ACI certified technicians.

KARNES COUNTY JAIL | KARNES CITY:

RETL performed Geotechnical Engineering for the new 48-bed Karnes County Jail with offices and courtroom. This project consisted of an approximately 28,409 SF, 1-story building. The structure utilized concrete tilt wall construction with structural steel roof framing. It also included parking areas and driveways.



STRUCTURAL ENGINEERING PROJECTS

M&S Engineering has considerable experience providing structural engineering for governmental agency projects. The representative projects shown herein demonstrate our experience in providing structural engineering services that Burnet County may need including bridges, and buildings.

BUERGER LANE BRIDGE TO NOLTE ISLAND | GUADALUPE-

BLANCO RIVER AUTHORITY (GBRA): This project is located on property owned and operated by GBRA and only used by GBRA personnel. The bridge will cross a man-made channel of the Guadalupe River. Our services were to design a TxDOT style single span bridge; therefore 2014 TxDOT specs were utilized, where possible. We used a geotechnical report and a survey the client provided. A 30% conceptual design of the bridge and a submittal were produced at the end of this design segment. The conceptual design consisted of layouts and selected conceptual detail sheets. The layouts will show abutment locations, conceptual beam spacing and type, roadway width, foundation depth, and alignments. M&S also provided a Conceptual Phase Opinion of Probable Cost. This included



quantity-based unit pricing from TxDOT as well as careful consideration of the accessibility of the site, scale of the project, equipment necessary, and mobilization difficulties. We provided a second interim submittal for client review and comment. The submittal consisted of final abutment locations and designs, final beam designs and spacing, deck details, including haunch information, final alignments, and specification selections, based on TxDOT standards. During this phase, it was determined that an approach slab was not the best option for this project and the details were removed. The M&S design team continued to track the probable cost of this feature in event it was added to the project. M&S provided surveying, geotechnical, structural/roadway design, plans, specifications and cost estimates.

LANDA PARK GOLF COURSE ACCESS RAMP | CITY OF NEW

BRAUNFELS: M&S Engineering (as the prime consultant) designed and produced construction drawings for ADA modifications for the golf course clubhouse parking lot. Previous renovations to the building did not include an accessible entrance. Under two separate contracts, M&S provided an at grade solution similar to a concrete sidewalk and also an elevated wood ramp. The wood ramp was selected to move forward to final design. We provided all civil services associated with grading plans, accessible parking and pathways, and grades on the ramp. We provided all structural services including connection details, foundation details, ramp and landing plans, and designs. M&S provided surveying structural design, plans, specifications and cost estimates.

COMAL COUNTY JAIL | COMAL COUNTY: M&S Engineering provided the structural engineering for the Comal County Jail, located in New Braunfels. This work was done as a sub-consultant to HDR, Inc., the prime design firm on the project. Our services included the design and preparation of construction documents for all building structural systems including the foundation (two-way post-tensioned suspended slab on drilled shafts), tilt walls/sandwich panels, and roof. M&S provided surveying, structural design, plans, specifications, and cost estimates.

INTERNAL PROCEDURES AND /OR POLICIES RELATED TO WORK QUALITY AND COST CONTROL

RESPONDENT'S PROJECT MANAGEMENT METHODOLOGY

Delivering projects on-time is essential to providing on-call engineering services to clients like Burnet County. The project management approach described herein is used by M&S Engineering to ensure our projects are delivered when the County needs them.

Project Management: The core of M&S Engineering's project management approach involves preparing well thought out work plans, effectively communicating them

to the project team and partners, implementing the work plan with resolve, and adapting to situations needed to achieve the County's goals. Our project manager (PM) is responsible for leading the project team and providing the direction and supervision working with Burnet County and other agencies to successfully complete an assignment.

Project Planning and Work Plan: M&S Engineering starts our project planning process during task order negotiations when our project manager prepares a "work breakdown" by identifying all notable tasks that must be done to complete the assignment. Each notable task is evaluated for its interrelationship with other tasks and used to create a Gantt Chart type schedule, including identifying the critical path of activities. Nearly every project is financially constrained. Therefore, we identify the project budget early and plan our activities in order to work within the established budget. All this information is used to prepare a project work plan (PWP) that includes overview, team organization, scope of work, list of deliverables, schedule, budget, and quality plan. It is used to establish a clear understanding among the project team about what is to be done, who is to do it, when tasks must be accomplished, and how much the project will cost.

Project Execution: Our PM is the direct point of contact for Burnet County on a particular assignment and will be responsible for the day to day management of the project team throughout the duration of the assigned project.

MANAGEMENT AND ORGANIZATIONAL STRUCTURE

Even with the disparate types of projects a consultant can be awarded by the County, a basic project management approach can be applied. M&S's method is relatively consistent across any project type. Project assignments, whether it be a roadway, utility infrastructure, survey, environmental services, construction services, or a study, require several similar aspects to deliver an Owner, like the Burnet County, a successful project.

The two biggest features of M&S's approach include planning and communication. These are both imperative at the beginning of any project. However, these features must be consistently applied throughout the entirety of all project assignments to deliver successful projects.

M&S uses the assignment of a project as our internal kickoff to implement both important management tools. Our first effort is to begin internal planning on how to execute the assigned project. We do this by organizing our internal project team as well as key teammates, our sub-consultants. Preparation for the initial scoping meeting with the County is done by educating ourselves to the extent possible about the assignment and prepare questions to be asked of our client. Our primary task at



this meeting is to give our full attention and hear the County's needs for the project.

Scoping, budgeting, and schedule assessment is then done by the M&S team to evaluate the needs to deliver the project in a cost efficient and quality manner. Communication with the County at this stage, particularly if there are unusual aspects to the project or issues that could cause significant delay or schedule duration, is imperative. Making the client aware of such potential issues at this stage sets a project up for success.

Additionally, establishing the primary contact for M&S, our project manager, Jerod Mott, PE, and the County's Project Manager is essential. Defining the desired means of obtaining information by the County is also important.

M&S then executes the project in a fashion that features regular communication and updates regarding project progress to the County's PM. We will track project, schedule, and budget progress. As described before, planning is taking place continually, ensuring project resources are available to execute the work in an effective manner. M&S will meet with the County on a defined regular basis to report project progress. Key issues requiring County input or decisions will be communicated thoroughly and quickly to maintain project schedule. Deliverables will be prepared in a complete, easily reviewable, and consistent format.

This process will be maintained and repeated throughout the delivery of the project. We work diligently to provide the County's staff the support and information needed to make project related decisions internal to the County. This management approach and implementation of these key tools, planning and communication, reliably delivers successful projects to M&S clients. Our goal on any project assignment is to do exactly that for Burnet County.

CAPABILITY TO PERFORM THE WORK FOR THE DURATION OF THE CONTRACT

Once committed, M&S Engineering Team key personnel will work on Burnet County assignments, unless we experience a significant personnel issue such as long-term illness or an employment separation from the firm. In the event an M&S team member can no longer perform tasks for Burnet County, the key staff person will be replaced by a comparable member of the M&S Engineering Team. Our Team has considerable resources and depth of talent enabling us to replace any key person with another staff member with comparable qualifications and experience. Our Project Manager will facilitate a meeting between the outgoing and incoming key staff member to discuss current and future project activities to ensure the transition is accomplished without any interruptions in the project workflow.

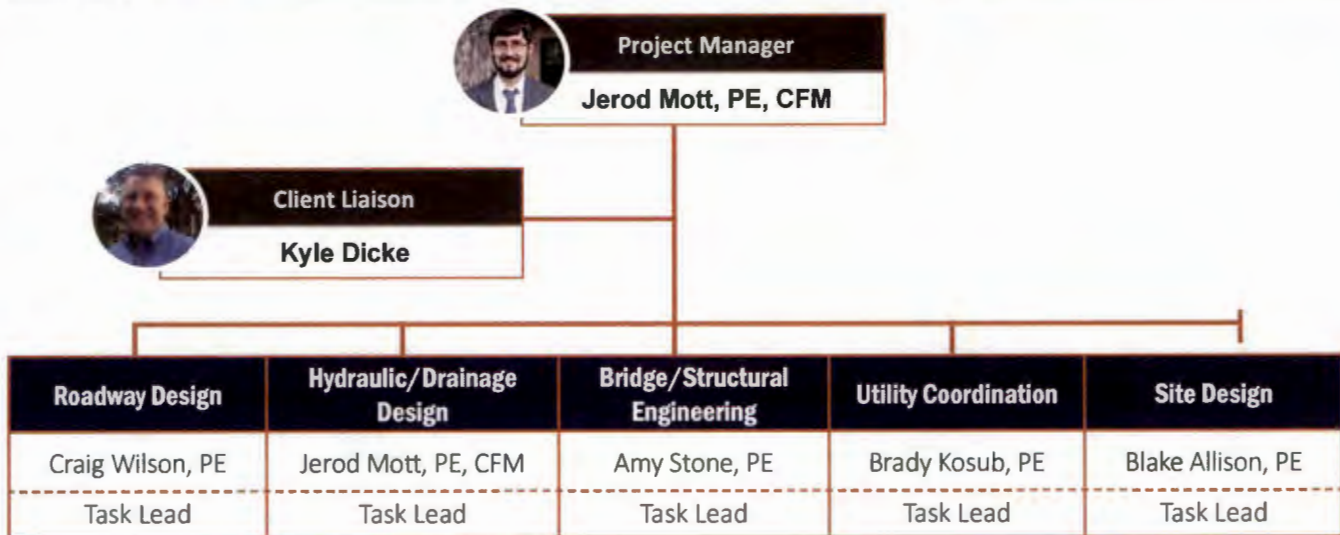
REFERENCES

M&S ENGINEERING		ROCK ENGINEERING AND TESTING LABORATORY	
GUADALUPE COUNTY Kyle Kutcher County Judge (830) 303-8857 Kyle.Kutscher@co.guadalupe.tx.us	CITY OF LEANDER Wayne Watts, PE City Engineer (512) 528-2702 w.watts@leandertx.gov	LMD ARCHITECTS Lorraine Dailey, AIA President (830) 980-7006 ldailey@lmd-architects.com	BEXAR COUNTY PUBLIC WORKS DEPT. David Wegmann, PE Engineering Services Manager (210) 335-3816 dwegmann@bexar.org
TARROWS LAND STAFF		COX MCLAIN ENVIRONMENTAL CONSULTING, INC.	
CITY OF PFLUGERVILLE Patricia Davis, MSCE, PE City Engineer (512) 990-6342 patriciad@pflugervilletx.gov	CITY OF BASTROP Trey Job Assistant City Manager (512) 332-8800 tjob@cityofbastrop.org	CITY OF AUSTIN Matt McCaw Water Quality Protection Lands Biologist (512) 350-0634	BRIDGEFARMER & ASSOCIATES, INC. Lisa Deitemeyer Project Manager (972) 231-8800
AC GROUP, LLC		SHERWOOD SURVEYING AND S.U.E.	
BEXAR COUNTY PUBLIC WORKS DEPT. David Wegmann, PE Engineering Services Manager (210) 335-3816 dwegmann@bexar.org	UNINTECH CONSULTING ENGINEERS Joseph Zhu, PE Project Manager (210) 641-6003 jzhu@unitech.com	CITY OF FLORESVILLE Henrietta Turner City Manager (830) 393-3105 citymanager@floresvilletx.gov	PEDERNALES ELECTRIC COOPERATIVE Larry Kuebel Facilities & Real Estate Manager (830) 868-6058 larry.kuebel@peci.com



EXTENT OF PRINCIPAL INVOLVEMENT

When an assignment emerges, Jerod Mott, PE, CFM, our Team's Project / Contract Manager will respond to Burnet County. Based on the County's needs, he will identify a Task Lead and assemble a team specifically for the project. Mr. Mott will collaborate with the Task Lead to draft and negotiate a task order for the assignment based on the scope of work. Throughout the duration of the assignment, he will monitor progress and provide guidance and oversight to ensure the project is delivered on-time and to Burnet County's satisfaction.

NAMES OF KEY MEMBERS WHO WILL BE PERFORMING THE WORK ON THESE PROJECTS AND THEIR RESPONSIBILITIES.**ENGINEERING/DESIGN SUPPORT**

Subsurface Utility Engineering	Geotechnical Services	ROW/ Land Acquisitions	Street Lighting MEP / Facilities
Sherwood Surveying and S.U.E. Richard Morgan	Rock Engineering and Testing Laboratory Kyle Hammond, PE	7Arrows Land Staff Nikki Costanza	M&S Engineering Trey Sims, PE
Construction/Storm Water / Plan Review Services	Land Surveying/SUE	Environmental Services/ Regulatory Agency Coordination	Transportation/Traffic Engineering /TIA
M&S Engineering Blake Allison, PE	Sherwood Surveying and S.U.E. Rick Goodwin, RPLS	Cox McLain Environmental Consulting, Inc. Jeff Allen Megan Lind	AC Group, LLC Rene Arredondo, PE

QUALIFICATIONS AND RELEVANT INDIVIDUAL EXPERIENCE, INCLUDING SUB-CONSULTANTS.

CRAIG WILSON, PE – Roadway Design | TX PE #94710 | Masters Civil Engineering, University of Texas-Arlington; BA Mathematical Sciences, Texas A&M University: Mr. Wilson is a Civil Engineer with over 23 years of experience in the design and management of municipal/agency public works projects. Craig thrives at the challenge of pulling all aspects of a project together to make it successful. Mr. Wilson will serve as Roadway Design Engineer.



- **Hickory Hill Drive Reconstruction – City of Kirby:** Mr. Wilson served as Project Manager for the preparation of the plans, specifications, and estimates for this CDBG funded street reconstruction. The 1,400 linear feet paving project required major cross slope adjustments to match existing driveways to avoid additional ROW acquisition. Sidewalks were added to the street cross section including an improved road base. Extensive grading was necessary to avoid ponding.
- **Street Maintenance Projects – Cities of Floresville, Hill Country Village, and Kirby:** Mr. Wilson served as Project Manager for the preparation of the Street Maintenance Program each city. He finalized the list of streets to be included, and recommended reconstruction and rehabilitation methods of improvement appropriate to the evaluated condition of each street. He is currently managing the design effort for all Street Bond Projects in the City of Kirby.
- **FM 2642 – Hunt County:** Mr. Wilson was Project Manager and Roadway Lead Engineer for the upgrades of 2.5 miles of 2-lane asphalt rural section roadway to a 6-lane divided concrete arterial street through Royse City (1 mile) and a 4-lane asphalt street for the remaining length. Mr. Wilson performed schematic design of the roadway layout, setting profile grade, and establishing drainage crossings. This project required coordination with TxDOT and multiple cities and included extensive public outreach.
- **FM 2551 – Collin County:** Mr. Wilson was Assistant Project Manager and Roadway Lead Engineer for the upgrades of 3.4 miles of 2-lane asphalt rural section roadway to a 6-lane divided concrete arterial street. The design consisted of setting grades to tie in with multiple cross streets and driveways. Strict grade control was necessary during the design process to avoid possible relocation of an existing 84-inch water line within the newly acquired ROW. The roadway passed through three cities and was surrounded by residential neighborhoods. Parallel storm drainage systems were incorporated in the design to improve the construction phasing for the project. This project required coordination with TxDOT and multiple cities and included extensive public outreach.
- **Ledgestone Lane – City of Midlothian, TX:** Mr. Wilson was Project Manager and Lead Engineer for the design of two segments of 4-lane divided roadway with a total length of 1.5 miles. The design included two creek crossings (box culvert and precast arch span), four underground storm drainage system, surface drainage, 12-inch waterline, signage, pavement markings, and ROW document preparation.



AMY STONE, PE – Bridge/Structural Engineering | TX PE #91049 | Master in Civil Engineering Structural Engineering Specialty, University of Houston; BS in Civil Engineering, Texas A&M University: Ms.

Stone is a licensed Professional Engineer registered in the state of Texas with more than 20 years of experience as a structural engineer. She specializes in providing multi-faceted design and assessment services to clients. Ms. Stone's experience spans all phases of projects from recognizing and assessing need, to design, to construction phase, to close out. She has provided proposals, reports, recommendations, and estimates as work products during these phases.

- Upper Woodlawn Drainage Improvements – City of San Antonio
- Bulverde Road at Elm Waterhole – City of San Antonio
- Pearce Lane WWTP – Jack Harrison Structural Design
- Randolph Field ISD Transportation and Maintenance Building – Universal City
- Retaining Wall – City of New Braunfels
- ADA Ramp- City of New Braunfels
- Bear Creek Pass Low Water Crossing Improvements – Hays County



BRADY KOSUB, PE – Utility Coordination | TX PE #105051 | BS Civil Engineering, University of Texas-San Antonio; BA Mathematical Sciences, Baylor University:

Mr. Kosub has over fifteen years of design experience including both rural and municipal water distribution planning and design, permitting, project and program management, and contract administration. His experience also includes management of the M&S utility group. Brady has been serving municipal utility companies and water supply companies since 2004, providing him with a broad base of experience and ability to interact with management teams of municipalities and utilities of varying sizes. Brady's primary roles on the M&S team will be to ensure contract staffing and resources needs are met, perform project QA/QC reviews, and fill the role of the Client Manager when needed.

- 5-Year CIP (TWDB Funded) – Crystal Clear SUD
 - Windmill-Boeder Transmission Main Route Analysis
 - Meyers Ranch 12" Main Extension
 - FM 621 12" Water Main Extension
- AMI Corix Water Utilities (TWDB Funded)
- Singing Hills Lift Station #1 – DJL Ventures
- Alves Lane Utility Relocations – NBU
- USDA Funded Water System Improvements – City of Floresville





BLAKE ALLISON, PE - Site Design/Construction/Stormwater/Plan Review | TX PE #131240 | BS Hydrology and BS in Environmental Engineering, Tarleton State University: Mr. Allison works primarily as

a civil project engineer focusing on residential and commercial developments. Tasks under his supervision are comprised of site grading, utility design (water, sewer, and stormwater), environmental coordination with TCEQ, and plat submittals and processing. His project resume includes work in a variety of locations from the Houston Metro area, to San Antonio, and Austin. Mr. Allison will serve as Site Design Engineer of Record (EOR).

- Gruene River Resort – City of New Braunfels
- UTSA AST – City of San Antonio
- Caliber Collision – City of San Antonio
- EMS Station – Blanco County ESD#2
- Fire Stations – Bexar County ESD#3
- Downtown Revitalization Program – City of Natalia



TREY SIMS, PE - Street Lighting/MEP/Facilities | TX PE #120127 | BS in Mechanical Engineering University of Texas at San Antonio:

Mr. Sims has over 12 years of experience in all aspects of Mechanical, Electrical and Plumbing (M.E.P.) engineering and design. Mr. Sims is the Department Manager and is responsible for the oversight of all M.E.P. projects. He also functions as project manager and discipline leader on various projects and has supported the design and construction of numerous roadway and bridge lighting projects. Mr. Sims' project experience spans all phases of project development from conception to completion.

- PEC Northwest Operations Center – Marble Falls, TX
- Streetlight Design and Construction – City of Leander
- San Antonio Street Bridge Lighting – City of New Braunfels
- Crystal Falls Lighting – City of Leander
- Landa Street Bridge Light Improvements – City of New Braunfels
- New Braunfels Downtown Christmas Light – City of New Braunfels



JEFF ALLEN - Environmental Services/Regulatory Agency Coordination | PWSC #2726 | BS in Forestry, Stephen F. Austin State University; M. Ag. Rangeland Ecology and Mgmt., Texas A&M University: Mr. Allen is a

forester and rangeland ecologist with more than 25 years of field experience whose education and professional skills are focused on multi-disciplinary environmental projects. Mr. Allen's experience in forestry, range science, and wildlife habitat management contributes to wildlife and vegetation surveys, habitat assessments, and range management studies. His previous work experience includes planning and conducting several baseline vegetation inventories, wildlife population, surveys and habitat assessments. Mr. Allen's recent work has included project management, wetland delineation, Clean Water Act Section 404 permitting, wildlife habitat assessment, endangered species presence/absence surveys, and vegetation mapping.

- Water Quality Protection Land Surveys – City of Austin
- State Loop 88 Segment 3 – City of San Antonio
- Programmatic Categorical Exclusion (PCE) for US 281 – Burnet County (Kimley-Horn)
- IH 10 at Scenic Loop – HDR
- SH 127 at the Frio River, Concan – Uvalde County, TX
- LCRA 2010 and 2011 Golden-cheeked Warbler Surveys; 2011 Black-capped Vireo Surveys – Burnet & Travis Counties
- Alves Lane Improvements – New Braunfels, TX



RENE ARREDONDO, PE, PTOE - Transportation/Traffic Engineering/TIA

| TX PE #91678; PTOE #1586 | BS in Mechanical Engineering Technology, Texas A&M University; BS in Civil Engineering, University of Texas at San Antonio: Mr. Arredondo has 20

years of experience with traffic operations, transportation planning, access management, incident management, and traffic data collection. His traffic operations experience includes traffic signal design, traffic signal timing, highway and arterial capacity analysis, traffic impact analysis, traffic calming studies, freeway operations analysis, speed zone studies (including school reduced speed zones), travel time studies, and traffic simulation modeling. Mr. Arredondo has conducted traffic operations and transportation planning studies for the Corpus Christi, El Paso, Laredo, Pharr, and San Antonio TxDOT Districts.

- On-Call Traffic Engineering Contract – City of San Antonio
- Theo-Malone Corridor Improvements – City of San Antonio 2012 Bond Program (LNV)
- Traffic Impact Analysis – City of San Antonio
- Traffic Signal Design – City of San Antonio (LAN)





NIKKI COSTANZA - ROW/Easement Acquisitions | TREC LICENSE # 470669 | University of Mary Hardin Baylor, Business:

Mrs. Costanza, a Managing Partner of 7Arrows Land Staff, has been a licensed real estate professional since 1999. Nicole is experienced in project management, right of way and easement acquisition, public involvement, curative title research, encroachments, mediation, condemnation, and permitting. She has overseen the closing of several thousand transactions in the last twelve years while managing multiple projects simultaneously. During the past five years, Nicole has focused her efforts on the management, coordination, and acquisition of land and land rights for City of Pflugerville, City of Bastrop, City of Denton, City of Cedar Hill, City of Keller, and Trinity River Authority.

- Right of Entry (ROE), Appraisal Coordination, Negotiations – City of Bastrop
- ROE, Appraisal Coordination, Negotiations – City of Pflugerville
- Utility Relocations, Right of Way (ROW), Land Acquisition, Appraisal Coordination, Negotiations – City of Keller
- ROE, Appraisal Coordination, Negotiations – Trinity River Authority



ARNIE HAMMOCK, PE - Geotechnical | TEXAS PE #84448 | BS in Mining Engineering, Texas A&M University:

Mr. Hammock has over 33 years of experience providing Geotechnical Engineering and Construction Materials Testing. He plans and oversees Geotechnical Engineering and Construction Materials Testing services in Central Texas and prepares reports along with reviews and evaluation. Mr. Hammock has considerable experience in the design and testing of foundation systems, instrumentation to monitor soil movement and evaluate ground modification programs, and investigations of structures that have failed as a result of foundation or soil instability. Mr. Hammock's experience and management has been essential to the successful completion of projects for clients such as the City of Round Rock, the City of San Marcos, City of Austin, the General Services Commission, US Army Corps of Engineers, and the Bridge Division of TxDOT.

- Intermodal Transportation Center – City of Round Rock
- Post Road Widening and Reconstruction – City of San Marcos
- Ralph Wilson Youth Club – Temple, TX
- Statewide Drilling Services – Bridge Division of TxDOT, Austin



RICK GOODWIN, RPLS - Land Surveyor | TX RPLS #4069 | BA in Cartography/Photogrammetry, Texas State University:

Mr. Goodwin will be responsible for all surveying needed to support the M&S Engineering Team. Under the direction of our project manager, he will establish horizontal and vertical control and provide route, design and construction surveying. Mr. Goodwin will also prepare any plats and field notes required for land acquisition.

- Alves Lane Improvements Project (QL A-D) – City of New Braunfels
- Olympia Parkway – City of Selma
- Marble Falls Topo Survey- Pedernales Electric Cooperative
- Tor Lane Reconstruction Project – City of Seguin
- Rudeloff Road Reconstruction Project – City of Seguin



RICHARD MORGAN - Subsurface Utility Engineering | BS in Medical Science, University of Glasgow:

Mr. Morgan has seven years of experience in subsurface utility engineering (S.U.E.), coordinating with projects across a wide range of engineering disciplines from inception to completion. As the Subsurface Utility Engineering manager, Mr. Morgan coordinates with clients, taking the time to understand each client's preferences and making recommendations in order to provide a clear scope of work and project schedule that fits the client's needs. Mr. Morgan manages schedules and personnel, obtains utility record information from utility companies, and processes GPS field data to produce CAD drawings and deliverables. Mr. Morgan has worked on S.U.E. projects for the design of roadways, storm drains, sanitary sewers, utility duct banks, high voltage transmission lines, wind farms, and land development, including the projects listed below.

- Alves Lane Improvements Project (QL A-D) – City of New Braunfels
- Rivery Boulevard TIA Improvements (QL B-D) – City of Georgetown
- Traffic Signal at Medusa & Olympia Pkwy – City of Selma
- East Street Improvements- City of Leander
- Marble Falls High School (QL B-D)- Kimley-Horn



PROJECT MANAGER'S EXPERIENCE WITH SIMILAR PROJECTS AND INTERDISCIPLINARY TEAMS.



JEROD MOTT, PE, CFM – Project Manager | TEXAS PE #113132 | BS in Mechanical Engineering Michigan Technological University: Mr. Mott has more than 12

years of engineering experience providing engineering services and completing multi-discipline projects for cities and other Texas public sector clients. He is recognized for completing projects on time and within budget. Having also served as a municipal engineer and collaborated with many public agencies and private entities, he possesses extensive knowledge and skill in cooperating with project partners and various stakeholders to achieve objectives and get things done. Mr. Mott has completed numerous successful assignments including design for roadway reconstruction and capacity improvements through developed areas and associated activities including utility relocation plans, stormwater permits, maintenance of traffic plans, and traffic engineering applications. He is skilled at drainage, detention/water quality facilities, and utilities. He is experienced with ancillary services including survey, S.U.E., structures, public involvement, ADA/TDLR compliance, environmental documentation, geotechnical, ROW acquisition, bid/construction services, and coordination with federal agencies such as TECQ, TxDOT, and FEMA, and their corresponding requirements. Mr. Mott will provide guidance and oversight during the development of the scope of work, fee, and schedule to assure our approach is appropriate and that we have the resources to perform successfully. Throughout the duration of the assignment, he will monitor and gauge progress and solicit input to ensure Burnet County is satisfied with our performance.

- **City Engineering Services Contracts:** Mr. Mott is currently the Project/Contract Manager for providing city engineering services to the Cities of Selma, Hondo, Jourdanton, Floresville, Natalia, Hill Country Village, Sandy Oaks, Luling, Somerset, Spring Branch, and La Vernia. He has managed numerous assignments and task orders from On-Call contracts for these cities and many others in the San Antonio – Austin area. In this role, he oversees a wide range of tasks using our expertise, skill and experience. Mr. Mott interacts with the Cities every working day, providing consultation and assisting them in addressing and resolving the engineering related issues at hand.
- **General Engineering Services – City of Hondo:** Mr. Mott supports the rapid development within the city by providing guidance on unified development code

updates as well as providing plat and plan reviews. Mr. Mott provided engineering support for new sidewalks as part of a Safe Routes to School Grant.

- **Ventura Blvd Reconstruction – City of Selma:** Mr. Mott was Drainage Engineer for PS&E for street reconstruction of multiple local and collector roadways in an older residential area of town. The project included multiple culvert crossings, storm sewer, and drainage channel improvements. The project also included multi-phase traffic control plan to maintain access to all areas of subdivision during construction. Jerod prepared PS&E of roadways, reconstruction of multiple driveways, drainage, waterline reconstruction, wastewater adjustments, and site grading. The estimated construction cost was \$1.8M.
- **Alves Lane Improvements – City of New Braunfels:** Mr. Mott was Drainage Engineer for the PS&E on the 1.8 miles of roadway to improve capacity between SH 46 and Barbarossa Lane. He completed hydrologic analysis and design for storm sewer systems and culvert crossings using rational method, SCS Method, PondPack modeling, and AutoDesk Storm and Sanitary Analysis. Neighborhood channel improvements were done through HEC-RAS. Mr. Mott provided detailed design options for meeting water quality requirements and city regulations of one of the project's storm sewer segments using TCEQ methods and Storm and Sanitary Analysis. The estimated construction cost was \$8.5M.
- **East Street Roadway Improvements – City of Leander:** Mr. Mott was Drainage Support for the PS&E for the extension from FM 2243 to Hero Way. He performed modeling of storm sewer, connected underground water quality BMPs, and integrated HEC-RAS modeling of the proposed bridge at Brushy Creek with a model prepared for Upper Brushy Creek WCID. The estimated construction cost was \$3.2M.
- **Geronimo Creek Flood Study – Guadalupe Country:** Mr. Mott was Drainage Support for the H&H analysis of an existing creek and Alligator Creek sub-shed (totaling 69 square miles), road crossings, and impacts to adjacent structures, funded by TWDB. He assisted in generating detailed modeling for both creeks utilizing existing FIS models, confirmed basins using GIS databases to support updating of hydrologic data using HEC-HMS, and conducted a hydraulic analysis using HEC-RAS modeling of improvements to alleviate flooding. Mr. Mott also assisted with cost-benefit analyses and prioritization recommendations for public meeting presentations.



PROJECT MANAGEMENT - The core of M&S Engineering's project management approach involves preparing well thought out work plans, effectively communicating them to the project team and partners, implementing the work plan with resolve, and adapting to situations needed to achieve the County's goals. Our project manager is responsible for leading the project team and providing the direction and supervision, while working with Burnet County and other agencies to successfully complete an assignment.

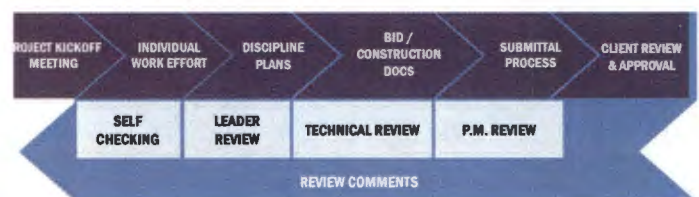
Kick-off Meeting - Upon authorization to proceed, our project manager (PM) will hold a project kickoff meeting with key team staff to transmit the proposed work plan (PWP) and review the scope of work, schedule, and budget. We discuss the critical tasks necessary to prepare and provide the ultimate deliverables. The responsibilities of team members are also discussed, creating a clear understanding of how tasks are inter-related and what must be done together to achieve success on the project.

Project Controls - Our PM will establish the project controls necessary to ensure the project scope of work is completed according to expectations, the deliverables meet all criteria, and the work is performed in accordance with the established schedule, budget, and quality expectations. This is accomplished through an internal weekly review of project activities of the staff and team sub-consultants and determining progress in relation to the planned schedule. Engineering design is a dynamic working environment; therefore, teams must be flexible and adapt. If something unexpected occurs, corrective action is immediately taken, and the team resources are applied where necessary. When issues arise, action items are assigned to the appropriate staff members and follow up techniques used ensure issues are dealt with promptly. This approach reduces the risk of falling behind schedule, going over budget, or failing to meet quality expectations.

Schedule Monitoring - At least once a month during a project, and every two weeks on shorter duration assignments, actual progress will be compared to the baseline schedule to identify any differences. If the actual vs. planned schedule shows potential project delays, corrective action and adjustments to the workflow are made to get the project back on schedule. M&S Engineering uses this fundamental process to ensure our work is completed in a timely manner and on schedule.

Budget Monitoring - As the design progresses on a project, we will prepare cost estimate at critical design milestones and use this information to see if we are within budget. Our cost estimating methodology includes accurate quantity estimation, use of accurate regional unit cost databases, and skillful application of contingencies that results in reliable cost estimates. Frequent comparisons between the budget and project costs enable us to identify potential cost overruns and adjust accordingly.

Quality Assurance/Quality Control (QA/QC) - Producing quality bid and construction documents requires a seamless integration of several engineering disciplines that involves use of a "tried and true" process. Our QA/QC process involves a time-tested methodology of checking and reviews to ensure the deliverables are complete, correct, and meet or exceed our client's requirements and expectations. As individual team staff members produce work, they are required to check their own work. As individual work effort becomes integrated into disciplines (roadway, drainage, water, sewer, utilities, etc.), their work is checked and reviewed by the discipline leader to ensure work is correct and is properly integrated with other disciplines. As the plans come together to form bid and construction documents, independent technical reviews are conducted by professionals with the appropriate expertise but are not part of the day to day production team. Because these reviewers have no prior project knowledge or history, they operate objectively and without bias.



Finally, the Project Manager reviews the substantially complete submittals to ensure they meet all requirements and expectations prior to transmitting the deliverables to the Client. The Project Manager has the authority and responsibility to hold the submittal until all quality related comments have been addressed appropriately. This ensures the client receives deliverables that meet their needs and expectations and eliminates client frustration dealing with incomplete or poorly prepared documents. Review comments are generated at every step of the QA/QC process. These comments are assigned



to the appropriate team staff member for resolution. Each comment is tracked using Bluebeam Revu software until it has been resolved or otherwise mitigated.

Project Communication - M&S Engineering believes that good communication and subsequent understanding are vital to successful execution of any project. By communicating frequently with Burnet County staff, other consultants, sub-consultants, vendors, constructors, and field staff, our personnel can define scope and quickly identify potential issues or hang-ups. M&S Engineering's proximity to Burnet County makes it possible to have a face to face meeting, even when called on short notice. As an alternative, M&S is able to setup (in a few minutes if so required) online meetings via GoToMeeting. M&S has a policy where employees cell phones are always on, and that requires employees to return calls the same day they are received. It is our proactive communication approach and in depth understanding of what is required for civil engineering projects that ensures that these types of projects are completed successfully.

We strategically align our team members with the corresponding staff within Burnet County in what we call the communication ladder. Under this process, project managers are frequently communicating with corresponding project managers. Likewise, technical staff is in constant contact with their peers within Burnet County, as are other members of the team. M&S project managers and lead engineers are in discussions daily with design staff regarding project progress.

M&S stresses the importance of being very good listeners and we take the time to ask questions and fully understand your wants, needs, and expectations. In doing so, we expect to meet the true needs of our clients on every project. Using the knowledge gained through communications, we will develop various technical concepts, methodologies, and alternatives that meet your goals. The pros and cons of each topic will be carefully considered and presented in ways that are clearly understood in order to facilitate prudent decision making throughout the project.

Progress Submittals – M&S Engineering is a strong proponent of our clients having access to and ownership of copies and electronic versions of all the work performed on Burnet County's projects. We commit to providing the County with any and all work products and deliverables in print and/or electronic format without limitation.

SCOPE OF SERVICES OFFERED TO BURNET COUNTY

Roadway - M&S Engineering has extensive experience in designing roadways, including new alignments and reconstruction of local streets, collectors, arterials, and TxDOT facilities. We have also completed pedestrian and bicycle facilities associated with these roadways, as well as dedicated trail systems, AASHTO compliant bike routes, and safe routes to school projects. M&S's capabilities in designing these roadways includes the ability to provide the County the design of the inter-related infrastructure, such as drainage, water, and wastewater facilities. We are also experienced in the design of single, multi-span and complex bridges, intersection layouts, traffic signals, street lighting, and related design aspects (pavement design, signage, markings, etc.) to deliver Burnet County full PS&E services for any roadway, pedestrian, and bicycle project. M&S's experience also includes coordination and working with project right-of-way acquisition needs. Our team can develop and prepare grant funding applications for different types of State and Federal funds. We are also certified in Local Government Project Procedures and experienced in these services to obtain full funding of anticipated project reimbursements.

Traffic – AC Group, a sub-consultant to M&S Engineering, will provide all traffic related services including corridor planning, traffic modeling, signal system design and control, optimization, corridor and system operational analyses, and traffic impact and warrant studies.

Drainage – The conveyance of storm water is always an important and integral component of any roadway project. M&S Engineering has the capability to provide any drainage related service to Burnet County that may be required on any project. This includes master planning, concept development, feasibility studies, hydrology/hydraulic studies, design, bidding and construction management for storm sewers, detention/retention facilities, open channels, bridges, culverts, and SW3P. Our expertise includes hydrologic and hydraulic (H&H) modeling of entire watersheds covering multiple counties using tools such as HEC-HMS, HEC-RAS and HEC-GeoRAS, to project specific analyses to support the project improvements. The firm's H&H skills include rainfall runoff determination, reservoir and channel routing of complex watersheds, design of storm sewers, culverts, water quality facilities, detention/retention ponds, dams and reservoirs, floodplain analysis, channel modifications, and CLOMR/LOMR processing. In addition to those mentioned above, M&S's H&H staff are also experts in multiple modeling and design tools including Rational Method, NRCS TR-55, PondPack, Storm and Sanitary Analysis, ArcGIS, HY8, and others.



Roadway Technical Support – Roadway projects require considerable technical support and production such as surveying, CAD, subsurface utility engineering (S.U.E.), bidding phase services, construction administration/management, utility coordination, geotechnical, pavement design, and schedule development/review. The M&S Engineering team possesses all the capabilities needed to provide this technical support on any roadway project. This same capability will be used to support the design and production of any water/wastewater facilities and park projects assigned to M&S Engineering by Burnet County.

Project Cost Estimating - M&S Engineering has the capability to provide project cost estimating at nearly any phase of a project, including concept, pre-design, and design. We can provide project cost estimates for our project and those prepared by in-house staff or other consultants.

Facilities - The M&S Engineering Team has the capability to develop sites for future County facilities. We have experience conducting property needs assessments for any county facilities, identifying potential sites, conducting due diligence, preparing environmental assessments, assisting in site selection, surveying, platting, zoning, site planning and site design (grading, paving, drainage, ADA, utilities, etc.), and providing construction management.

M&S Engineering also has considerable capability and experience with mechanical-electrical-plumbing (MEP) engineering and structural design for new county facilities and renovating/retrofitting existing buildings, including design of acoustical systems. Our project experience includes county and municipal facilities, fire stations, office buildings, maintenance buildings, animal shelters, restrooms, parks, and lighting, to name a few. Our teaming partner, Cox McLain Environmental Consultants, will provide environmental services for all project assignments.

Property Acquisition - Our team partner, 7 Arrows Land Staff, will provide all services related to property acquisition. These services include project management, property research, title curing, appraisals, appraisal reviews, negotiations, and condemnation support.

Engineering Studies - The M&S Engineering team has all capabilities necessary to prepare Traffic Impact Studies and review TIA's prepared by others. We also have a Certified Flood Plain Manager who is an expert in reviewing and conducting flood studies. M&S Engineering also has engineers who are experts with erosion and stream bank stabilization. We are experts at assisting counties to properly manage, maintain, and regulate floodplains within their applicable limits.



UNDERSTANDING OF REQUESTED SERVICES AND LOCAL AREA

M&S Engineering maintains offices at five locations throughout the State of Texas. Our home office is located in Spring Branch, Texas, near the intersection of US Hwy. 281 and State Hwy. 46. This office houses our administrative staff, survey and S.U.E. groups, as well as the bulk of our electric engineering operations. Our civil engineering services are provided from offices in New Braunfels and Georgetown, both of which are easily accessible to Burnet County. Our other offices are in The Woodlands, north of Houston, and in Midland, in the heart of the Permian Basin. These offices exclusively serve our electrical engineering clients.

FAMILIARITY WITH BURNET COUNTY: Burnet County is in Central Texas, northwest of Austin, on the edge of the Texas hill country. The county has a total area of approximately 1,021 square miles and approximately 479 miles (958 lane miles) of certified county roads. Three of the Lower Colorado River Authority's Highland Lakes – Buchanan, Inks, and LBJ – serve as the county's western border, with two additional LCRA lakes – Marble Falls and Travis – located in the southern part of the county.

Because of Burnet County's proximity to the greater Austin/Travis County area, the greater San Antonio/Bexar County area, and the I-35 corridor, a tremendous availability to construction contracting should be available. Construction materials and supplies are readily and conveniently available in the nearby areas as well. More than 20 geologic units have been identified in Burnet County. Approximately 26% of the area is covered in undivided Paluxy Sand and Glen Rose Limestone. Another 21% is covered in Walnut Clay, with approximately 11% covered in Glen Rose Limestone exclusively. Various formations of limestone, granite, sand, shale, sandstone, and gneiss cover the remainder of the county.

The primary electric utility provider for Burnet County is Pedernales Electric Cooperative. M&S Engineering has a lengthy and strong relationship with PEC, serving as its incumbent electrical engineering firm. M&S has provided design and support to PEC for the construction or upgrade of distribution power lines, relocation of power lines due to TxDOT project mandates, and design and construction management of PEC's substation projects.

Major incorporated cities in the county include Burnet, the county seat, Marble Falls, Bertram and Granite Shoals. The county includes several unincorporated communities

such as Briggs, Naruna, Spicewood, and Oatmeal. Four major highways serve Burnet County, including US Hwy. 281 (a major north-south corridor) and US Hwy. 183 in the northwestern portion of the county. State Hwy. 29 bisects the county from east to west and is a connector from the Georgetown/I-35 corridor area, through Burnet County, onto Llano and Mason. State Hwy. 71 crosses the southernmost part Burnet County, south of the Colorado River and the LCRA Highland Lakes.

Three public school districts serve Burnet County, Marble Falls ISD, Burnet CISD, and Lampasas ISD. Texas Tech University and Central Texas College each offer higher education opportunities at their satellite campuses in the county. Burnet County is geographically positioned such that it offers convenient access to additional higher education opportunities at Temple Junior College and satellite campuses for Texas A&M University and Texas State University, both located in Round Rock.

Burnet County is known for its outdoor recreation opportunities along the Highland Lakes, its many state parks, national wildlife area, and is a hunter's paradise.

These features have contributed to the significant population growth of Burnet County, specifically in and around the areas of the City of Marble Falls, the City of Burnet, the City of Granite Shoals, and the City of Bertram. Since the early 1970s, the County's population has roughly quadrupled, creating growing pains for the County and significantly taxing the County's infrastructure.

UNDERSTANDING OF THE REQUESTED SERVICES: Burnet County's Request for Proposal #20-4090-02 clearly outlined a General Work Statement with the consulting firm's objective to assist the County with the design and construction of a variety of projects as the need arises. Eight areas of emphasis were listed to include right of way and topographic surveying services, design schematics, geotechnical services, environmental services, utility location services, roadway projects, bridge projects, and general public works projects such as drainage improvements and planning projects. M&S Engineering and its team of subconsultants possess a tremendous amount of experience and expertise in each of these areas. The M&S team has performed similar projects in the Central Texas counties of Comal, Guadalupe, Hays, and Williamson, making us very familiar and well versed in methodologies and procedures required to ensure these projects are completed successfully.



Burnet County has subdivision regulations which provide standards for roadway design, platting, flood damage prevention, on-site sewage facilities, and manufactured homes. Generally, roadway design standards are provided by the county or otherwise follow TxDOT specifications. Additional regulations apply to subdivisions located with the LCRA on-site sewage facility zone. Water quality management regulations apply to areas within LCRA's Highland Lakes Watershed as described in the Highland Lakes Watershed Ordinance.

In addition to the general work statement provided, Burnet County RFQ #20-4090-02 listed 31 items deemed "Consultant's Responsibilities". The scope of work to be performed by the consultant and the consultant's team for various projects may include engineering services relating to the planning, preliminary engineering, design engineering, and construction engineering of the projects. It is understood that a detailed scope of work will be provided by the County for each specific project.



ACCESSIBILITY AND RESPONSIVENESS

We try to operate as if we are in your office, just down the hall. We drop what we are doing and take phone calls.



COMMUNICATION

We ask questions and listen. We respond clearly and in a concise manner so there is no confusion.



UNDERSTANDING YOUR WORK ENVIRONMENT

It is our job to learn the nuances of each client and adapt to get things done. We adapt to you, not the other way around.



ECONOMICAL

We take pride in delivering "do what makes sense" solutions that get the job done within the available budget.



APPROACHABLE RELATIONSHIPS

Candid communication results in clarity and understanding, and serves to make working relationships more enjoyable.



SCHEDULES

We treat schedules as if they were "etched in stone".



QUALITY

We want our clients to be as proud of our work as we are.

