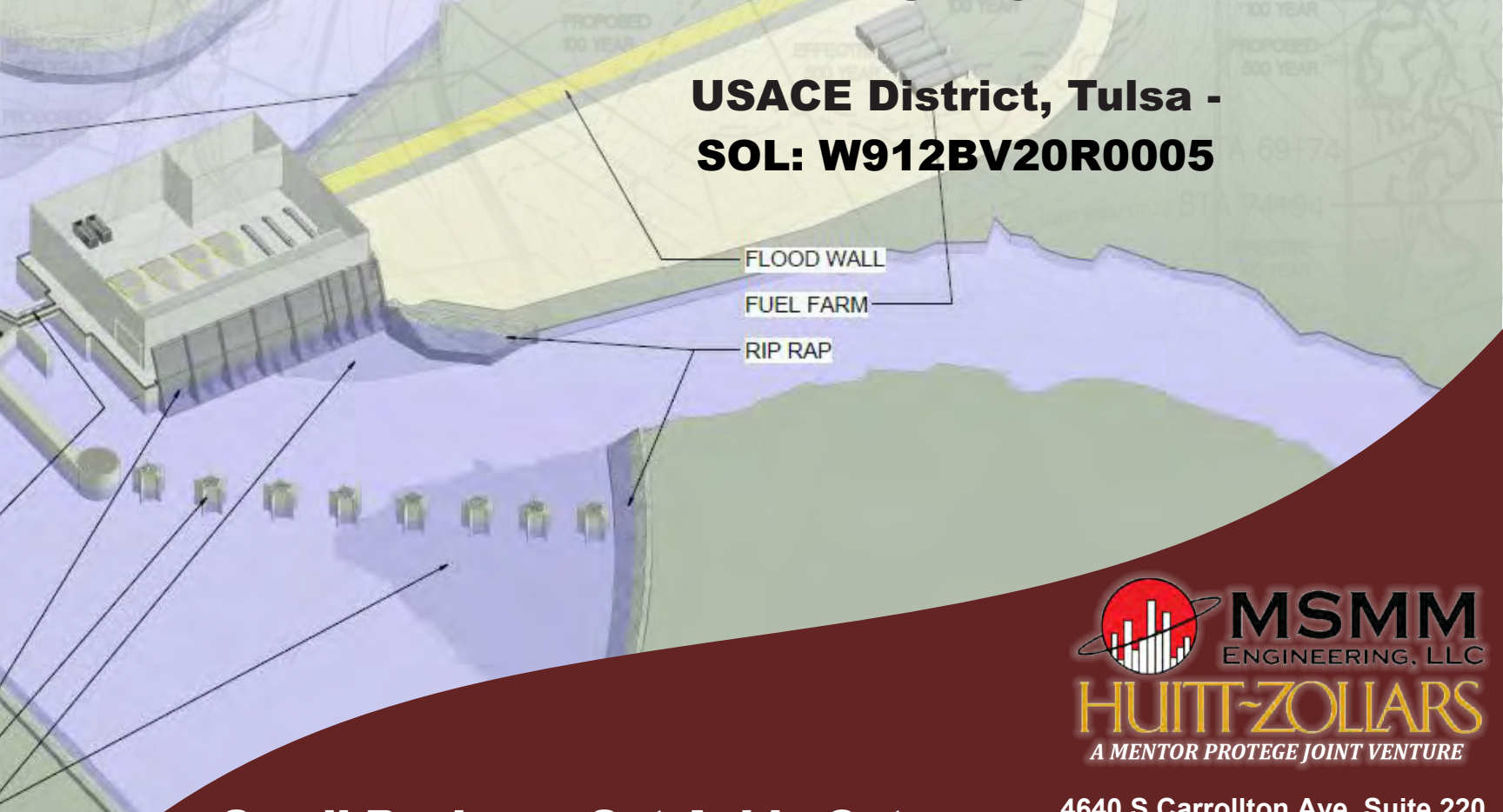
November 20 2019

Statement of Qualifications for

Indefinite Delivery Contract (IDC) A-E Services in Support of Tulsa District Military, Civil Works, and International and Interagency Services

USACE District, Tulsa -
SOL: W912BV20R0005



Small Business Set Aside Category

MSMM ENGINEERING, LLC
HUITT-ZOLLARS
A MENTOR PROTEGE JOINT VENTURE

4640 S Carrollton Ave, Suite 220
New Orleans, LA 70119

(504) 559-1897

Part I: A.-D.

ARCHITECT - ENGINEER QUALIFICATIONS

PART I - CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION *(City and State)*

Indefinite Delivery Contract (IDC) A-E Services In Support of Tulsa District (SWT) Military, Civil Works, and International and Interagency Services, USACE Tulsa District

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER
October 21, 2019	W912BV20R0005 – SMALL BUSINESS SET ASIDE CATEGORY

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Manish Mardia, PE, Program Manager

5. NAME OF FIRM

MSMM Huitt-Zollars A Joint Venture

6. TELEPHONE NUMBER	7. FAX NUMBER	8. EMAIL ADDRESS
504-559-1897	N/A	mmardia@msmmeng.com

C. PROPOSED TEAM

(Complete this section for the prime contractor and all key subcontractors.)

	(Check) PRIME	J-V PARTNER	SUBCON-TRACTOR	9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
a.	X			MSMM Huitt-Zollars A Joint Venture DUNS #117073814 ☐ CHECK IF BRANCH OFFICE	4640 Carrollton Avenue Suite 220 New Orleans, LA 70119	Program Management, Project Management, Architecture, Mechanical Engineering, Electrical Engineering, Civil Engineering, Structural Engineering, Cost Estimating, Surveying, Quality Management
b.		X		MSMM Engineering, LLC DUNS #969989370 ☐ CHECK IF BRANCH OFFICE	4640 Carrollton Avenue Suite 220 New Orleans, LA 70119	
c.		X		MSMM Engineering, LLC DUNS #969989370 ☒ CHECK IF BRANCH OFFICE	13850 Gulf Freeway Suite 202A Houston, TX 77034	
d.		X		Huitt-Zollars, Inc. DUNS #080747660 ☐ CHECK IF BRANCH OFFICE	1717 McKinney Avenue Suite 1400 Dallas, TX 75202	
e.		X		Huitt-Zollars, Inc. DUNS #156399560 ☒ CHECK IF BRANCH OFFICE	500 W. 7th Street Suite 300 Fort Worth, TX 76102	
f.		X		Huitt-Zollars, Inc. DUNS #879473999 ☒ CHECK IF BRANCH OFFICE	10350 Richmond Ave Suite 300 Houston, TX 77042	
g.			X	Michael Baker International, Inc. DUNS #956772347 ☐ CHECK IF BRANCH OFFICE	100 Airside Drive Moon Township, PA 15108	Geotechnical Engineering
h.			X	Michael Baker International, Inc. DUNS #182698449 ☒ CHECK IF BRANCH OFFICE	2929 North Central Avenue Suite 800 Phoenix, AZ 85012	Architecture
i.			X	Michael Baker International, Inc. DUNS #044679335 ☒ CHECK IF BRANCH OFFICE	7090 South Union Park Avenue Suite 500 Midvale, UT 84047	Mechanical Engineering, Electrical Engineering, Fire Protection Engineering, Structural Engineering, Quality Management
j.			X	Michael Baker International, Inc. DUNS #073022944 ☒ CHECK IF BRANCH OFFICE	3601 Eisenhower Avenue Suite 600 Alexandria, VA 22304	Cost Estimating

k.			X	Moye I.T. Consulting, LLC DUNS #142453351 ☐ CHECK IF BRANCH OFFICE	1255 Corporate Drive Suite 100 Irving, TX 75038	Fire Protection Engineering
l.			X	Roca Engineering, Inc. DUNS # 03-186-8776 ☐ CHECK IF BRANCH OFFICE	3200 NW 38th St Oklahoma City, OK 73112	Geotechnical Engineering
m.			X	Apex Cost Consultants, Inc. dba EudaCorp DUNS #962019159 ☐ CHECK IF BRANCH OFFICE	707 West Vickery Boulevard Suite 102A Fort Worth, TX 76104	Cost Estimating
n.			X	Aerial Data Service, Inc. DUNS #06-454-7060 ☐ CHECK IF BRANCH OFFICE	2448 E 81st Street Suite 5000 Tulsa, OK 74137	Surveying
o.			X	Engineered With Layton DUNS # 808153378 ☐ CHECK IF BRANCH OFFICE	1490 S Price Road Suite 215 Chandler AZ, 85286	Civil Engineering, Electrical Engineering
p.			X	Goode Associates, Inc. DUNS #962019159 ☐ CHECK IF BRANCH OFFICE	8145 Greenhollow Lane Dallas, TX 75240	Value Engineering

D. ORGANIZATIONAL CHART OF PROPOSED TEAM

☒ *(Attached)*

LEGEND

MSMM Huitt-Zollars A Joint Venture - MHZ
Michael Baker International, Inc.- MBI
Moye I.T. Consulting, LLC - MC
Roca Engineering, Inc. - RE
Aerial Data Service, Inc. - ADS
EudaCorp - EC
Engineered With Layton - EWL
Goode Associates - GA

JOINT VENTURE
MANAGEMENT COMMITTEE

PROGRAM MANAGER
Manish Mardia, PE (MHZ)

QUALITY MANAGERS
Larry Rogers, PE (MHZ)

PROJECT MANAGERS
Joshua Carson (MHZ)
Jim Fullmer, PE, LEED AP (MHZ)
Joe Wells, RA, RID (MHZ)

PRIMARY DISCIPLINES

Architecture William Hoelscher, RA, LEED AP (MHZ) Eugene Valentine RA, GGP (MHZ) Pawel Paszczuk, RA, LEED AP (MBI)	Fire Protection Engineering Kevin Spangler, PE (MBI) Daniel LeClair, PE (MC)	Geotechnical Engineering Don Green, PE (MBI) Victor Pozadas, PE (RE)
Mechanical Engineering Sergey Aleksanyan, PE, LEED AP (MHZ) Jeff Wilson PE, LEED AP (MHZ) Joseph Fong, PE (MBI)	Civil Engineering Michael DeLeon, PE (MHZ) Scott Chehardy, PE (MHZ) Jim Wilson, PE, LEED AP (MHZ)	Cost Estimating Don Daigle, CVS, CPE (MHZ) Chris Conrad, CVS, EIT (MBI) Maria Gatela, CCP (EC)
Electrical Engineering Scott Parma, PE, LEED AP (MHZ) Richard Dickerson, PE, RCCD, LEED AP (MHZ) Harry Hawney, PE (MHZ)	Structural Engineering William Wallace, PE SECB (MHZ) Robert Yokum, PE (MHZ) Gavin Fitzsimmons, PE, SE (MBI)	Land Surveying Mitch Pillar, RPLS (MHZ) Bill Webb, RPLS (ADS)

SECONDARY DISCIPLINES

Hydro Power	Environmental (MBI)
Hydraulic Steel Structures	VA Specialist (EWL)
Value Engineering (GA)	

E. Resumes

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
MANISH MARDIA, PE	PROGRAM MANAGER	28	9

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – NEW ORLEANS, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Civil Engineering MS, Civil Engineering	Professional Engineer: LA, MS

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Mr. Mardia is a professional engineer with 28 years of experience designing and managing major projects for USACE. As the principal of MSMM, Mr. Mardia has successfully executed over 60 task orders related to flood risk reduction and drainage. His design experience spans earthen levee and floodwall evaluation, inspection and design, pump station evaluation and design, and preparation of engineering reports related to stabilization, improvement of levees, canals and floodwalls. Mr. Mardia will serve as the Program Manager for any tasks assigned under this solicitation, and will be the main point of contact for USACE.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Granger Lake Management Office Design – Granger, TX

(2) YEAR COMPLETED: PROF. SERVICES 2019; CONSTRUCTION 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

MSMM recently completed the preparation of final construction bid documents for the improvements of lake facilities in Granger, Texas. Final design was completed in September of 2019 and the project is currently in construction. During the design process, Mr. Mardia served as the program manager for the MSMM design team. He oversaw the development of plans from the design charette through 100% bid ready plan development. Mr. Mardia worked with the quality manager to ensure a product that met all Federal codes and regulations. Cost: $3M

Role: Program Manager

b

(1) TITLE AND LOCATION *(City and State)*: Cow Bayou Drainage Pump Station Complex Design, Orange County, TX – USACE New Orleans District

(2) YEAR COMPLETED: PROF. SERVICES 2020; CONSTRUCTION 2022

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

MSMM has been tasked with providing the civil and structural design for the Cow Bayou Complex, a component of the Sabine Pass to Galveston Bay, Orange coastal storm risk management project. This 8,000 CFS pump station is under preliminary design. The current task order MSMM has received is for the completion of preliminary design, and the preliminary design is currently 80% complete. The concept design is inclusive of initial civil and structural plans, BIM modeling, cost estimating, and the development of project plans in Microstation 3D. Mr. Mardia is the Program Manager for the MSMM engineering tasks associated with this project. He stays in constant contact with the USACE point of contact and ensures that all deliverables and due-outs have been handled in a timely manner. He also participates in all PDT meetings. Mr. Mardia is coordinating the cost estimating portion of the project with the USACE engineering and management teams, to ensure government acceptance of the initial MII estimate and framework for the CCL for the project. Following the development of the CCL, an additional task order will be issued for the completion of design. Cost: $250M

Role: Program Manager

c

(1) TITLE AND LOCATION *(City and State)*: Dallas Floodway Extension Phase II Recreation and Access Design, Dallas, Texas – USACE Fort Worth District

(2) YEAR COMPLETED: PROF. SERVICES 2019; CONSTRUCTION 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

This project consists of the design of approximately 2 miles of concrete trails, a large bridge crossing the Trinity River, two bridges crossing secondary waterways, a raised wooded boardwalk to reduce maintenance events in higher prone flooding areas, bird watching platforms, parking lots and multiple gates and pipe rail fences. This project is being designed through a collaborative effort that involves the City of Dallas and the USACE Fort Worth District. Mr. Mardia is the program manager for the MSMM tasks associated with this task order. He oversees the design process and works with the quality manager to ensure that the design submittals are completed in compliance with all engineering regulations. He has also been responsible for developing the Coast Guard permit for the large bridge crossing the Trinity River. He worked with the H&H modeler to identify the flood stages, bridge elevations and the design of the piers for the bridge. Cost: $5M

Role: Program Manager

(1) TITLE AND LOCATION *(City and State)*

Design of Jefferson Parish Floodwalls, Jefferson Parish, Louisiana – USACE New Orleans District

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2012	2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

d Following Hurricane Katrina, MSMM was instrumental in providing design phase and construction phase services for the implementation of over 3 miles of floodwalls along the western perimeter of the Hurricane Storm Damage Risk Reduction System (HSDRRS) in Jefferson Parish. Specifically, our engineering team was responsible for the design of the Western Return Wall. Mr. Mardia was the program manager for these services and was instrumental in delivering final construction bid documents to USACE. He worked with multiple stakeholders, Federal and state agencies, and the New Orleans International Airport to execute the successful implementation of the floodwall below Interstate 10. This included the oversight of detailed hydraulic modeling, the implementation of unbalanced load design criteria, and extensive coordination with LADOTD. Additionally, Mr. Mardia was responsible for coordinating with construction contractors to find a viable construction solution for driving piles, given the low overhead clearance beneath the interstate. Cost: $120M
Role: Program Manager

(1) TITLE AND LOCATION *(City and State)*

IDIQ for A-E Services in Support of SWD – USACE Ft. Worth District

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
ONGOING	N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

e In 2016, MSMM was awarded a small business IDIQ contract (W9126-16-D-0017) from the USACE Ft. Worth District. This IDIQ covers A-E design for all projects associated with their Civil Works program. In three years, MSMM has exhausted the capacity on this contract. Mr. Mardia manages and coordinates all tasks and deliverables including design reviews, design submittals, communication with USACE project management staff, coordination of design activities with subcontractors, and the development of internal project schedules to reduce risk to the government. Task order assignments have included: site design, roadway and bridge, floodwall and pump station design and the completion of value engineering studies. Cost: $7M
Role: Program Manager

(1) TITLE AND LOCATION *(City and State)*

IDIQ for General Design Support Services and Multidisciplinary Planning – USACE New Orleans District

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2013	N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

f MSMM was part of a J-V awarded a Hurricane Protection Office contract following Hurricane Katrina. This J-V executed over 80 task orders for MVN. Project assignments were all related to disaster response through the HPO office. Mr. Mardia managed and coordinated tasks and work production for all engineering deliverables completed. He was responsible for management of the JV, as the team designed flood walls, levees, roadways, and performed drainage pump station, lock and dam evaluation and inspection. Mr. Mardia managed the development of concept plans, final design, cost estimates and development of final construction bid documents. Cost: $60M
Role: Program Manager

(1) TITLE AND LOCATION *(City and State)*

Algiers East and West Levee Improvement Design, New Orleans, LA – USACE New Orleans District

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2011	2012

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

g Through USACE MVN, MSMM was tasked with developing alternatives for the Algiers East and West Levee Improvements following Hurricane Katrina. This project involved evaluating three design alternatives and selecting the preferred alternative. MSMM moved forward with the selection of the earthen levee enlargement, reinforced with geotextile fabric and a landside shift. Mr. Mardia was instrumental in working with USACE and several stakeholders to identify the challenges and risk in the early phases of design. Mr. Mardia worked through several schedule constraints and established a design quality management plan that he followed for successful delivery of this levee design project, which was provided within the 8-month designated schedule. Cost: $56M
Role: Program Manager

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
LARRY ROGERS, PE	QUALITY MANAGER	44	11

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – FORT WORTH, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

BS, Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Professional Engineer: TX

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Larry has extensive experience in design, construction, and program and project management. Larry spent more than 32 years with USACE, serving in successively more responsible positions and finishing as the Chief of Engineering and Construction Division with SWF. He has been involved in the design and construction of many Corps projects throughout Texas, New Mexico, Louisiana, Oklahoma, and Arkansas. Larry is very knowledgeable of DoD and USACE criteria including anti-terrorism/force protection. As managing principal for the firm's Fort Worth office, responsible for our Federal market, Larry has been involved with literally every USACE project we have performed in the last 11 years

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Repair/Renovate Dormitories 10070 and 10075 – Lackland AFB, San Antonio, TX

(2) YEAR COMPLETED: PROF. SERVICES 2013; CONSTRUCTION 2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Design Build contract for renovation, repair and alternation of aging AF dorms. Interior improvements were focused on waste reduction and recovered materials by limiting demolition and re-purposing of materials and spaces. Upgrades to the HVAC, electrical and utilities focused on energy efficiency. Size: 72K SF | Cost: $11.9M
Role: Civil Engineer

b

(1) TITLE AND LOCATION *(City and State)*: Maneuver Systems Sustainment Center, Phase 3, Main Building – Red River Army Depot, Texarkana, TX

(2) YEAR COMPLETED: PROF. SERVICES 2013; CONSTRUCTION 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The Maneuver Systems Sustainment Center (MSSC) is a new facility that achieves consolidation of multiple functions into a single facility. The functions served by the facility include disassembly, rebuild, metal finishing, body repair, painting and preparation of present and future tactical vehicles, including their major components and control systems. The MSSC is one of only three such army depots in the nation. Size: 233K SF | Cost: $39M
Role: Project Manager

c

(1) TITLE AND LOCATION *(City and State)*: Renovation of Historic Building B5676 and Hangar B6426 – Barksdale AFB, LA

(2) YEAR COMPLETED: PROF. SERVICES 2015; CONSTRUCTION 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Revised floor plan layouts were developed for B5676 to meet the program and user needs. New HVAC, Electrical, Fire Alarm/Mass Notification and Fire Suppression system we designed to meet ASHRAE 90.1. B6426 Hangar 4 was renovated in place with the building occupied and operational thru out. The existing kitchen and day room were relocated from the ground floor to the second to make room for two additional Apparatus bays increasing capacity from 4 to 6 vehicles. B6426 Hangar 3 was gutted with selective demolition and asbestos abatement. All MEP systems were removed to leave a clean slate for future renovation. Size: 50K SF | Cost: $7.7M
Role: Principal-in-Charge

d

(1) TITLE AND LOCATION *(City and State)*: CCAD Hangar 8 Renovation DB RFP – Corpus Christi Army Depot, TX

(2) YEAR COMPLETED: PROF. SERVICES 2018; CONSTRUCTION ONGOING

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Hangar 8 serves as part of the rotary wing rebuild activities at CCAD. Our team prepared a design-build RFP for the renovation and repair to one of the major maintenance bays of the 1.2M square foot facility. This complex project includes a major overhaul of the systems and facility layout of approximately 70K square feet. The project includes upgrades to comply applicable codes, UFCs and standards for all electrical, structural, fire suppression, HVAC, concrete floor repairs. Services included a charrette to gather the user's specific requirements, validate the 1391 and prepare a ENG Form 3086. The team then prepared a design-build RFP, performed a structural evaluation and participated in the value engineering study with an independent design team. The design team continued support through the bidding phase with responses to RFIs and pre-proposal conference presentations. The design-build RFP was prepared in accordance with the AEIM and was submitted at each design phased with MII cost estimates. The project originally had a CCL of $12.1 M; however, after the charrette an ENG 3086 was complete, the project was reprogramed for $20M. Size: 68K SF | Cost: $20M
Role: Principal-in-Charge

e

(1) TITLE AND LOCATION *(City and State)*

Electrical/UPS System Upgrades, Lake Whitney Hydropower Facility – Clifton, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2015	2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Our design team first conducted a site investigation to evaluate affected areas of the project, including the control room, motor generator/UPS room, battery room, and cable chase. A design charrette was then held with the onsite technical personnel at the hydropower facility to define the scope of work for the electrical systems upgrade task order. Close contact with these onsite personnel was maintained throughout the process, gaining valuable input from the end users. Cost: $3M

Role: Principal-in-Charge

f

(1) TITLE AND LOCATION *(City and State)*

Corpus Christi Border Patrol Station Design-Build RFP – Corpus Christi, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2010	2013

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The Corpus Christi BPS station was developed as a co-located facility for 120 agents and followed current Border Patrol Design Guidelines, OFO, and security guidelines. The 30-acre site also includes a VMF, storage warehouse, fuel station, vehicle wash, 4 dog kennels, GOV and POV vehicle parking; impound lot, security setbacks, detention ponds and a future helipad. Achieved LEED Silver.

Size: 34K | Cost: $24.5M

Role: Principal-in-Charge

g

(1) TITLE AND LOCATION *(City and State)*

Mohawk Road Construction – Fort Hood, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2017	2018

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Our Team prepared two design-bid-build construction documents, USGS in SpecsIntact and one design-build RFP (with CWEs in MII) for approximately one mile of roadway and drainage improvements from Clarke Road to Cobra Drive. The designs for this $7M construction project included a 25ft wide HMA section for tactical traffic. Drainage improvements include new concrete box culverts, providing new permanent erosion control protection for drainage channels, and replacing existing driveway culverts with new reinforced concrete pipes. The project features include new aggregate shoulders, hot mix asphalt driveways, guardrails, concrete headwalls, striping and signage. HZ provided all civil engineering and drainage design. Cost: $7.2M

Role: Project Manager

h

(1) TITLE AND LOCATION *(City and State)*

Renovations of the 1st Cavalry Headquarters – Fort Hood, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2018	2019

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The project was a $48M renovation of a 130K SF Army Division Headquarters and Command Operations Facility including renovations of all administrative/office, an Operations Center (OC), Network Operations Center (NOC) and Sensitive Compartmented Information Facility (SCIF) served by an exterior Tactical SCI Vehicle Area (TSVA), including a Special Technical Operations (STO) Facility. Design of temporary swing space was also required. HZ provided full design construction documents and specifications (SpecsIntact) for the civil, structural, mechanical, electrical, telecom, plumbing and landscape disciplines. The site included increased parking improvements while still meeting AT/FP and ABA. The new mechanical systems were designed to exceed ASHRAE 90.1 by greater than 20%. Operationally critical areas of the facility were provided with redundant HVAC and the entire facility is served by a back-up generator in the event of a primary electrical failure. Size:135K SF | Cost: $46M

Role: Principal-in-Charge

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
JOSHUA CARSON	PROJECT MANAGER	13	6

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – NEW ORLEANS, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

MS, Environmental Science and Policy

BS, Biology

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Mr. Carson is a former USACE project manager who was responsible for managing projects across all business lines, inclusive of navigation, environmental restoration, military design, IIS and flood risk management. Mr. Carson is tasked with developing schedules, managing budgets and working with client reps to ensure schedule compliance, identify risk, adhere to the design quality management plan and developing scheduling solutions for projects with multiple stakeholders/authorities having jurisdiction.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Granger Lake Management Office Design – Granger, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2019 — CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

MSMM recently completed the preparation of final construction bid documents for the improvements of lake facilities in Granger, Texas. Final design was completed in September of 2019 and the project is currently in construction. Cost: $3M
Role: Project Manager

b

(1) TITLE AND LOCATION *(City and State)*: Cow Bayou Drainage Pump Station Complex Design, Orange County, Texas – USACE New Orleans District

(2) YEAR COMPLETED — PROF. SERVICES: 2020 — CONSTRUCTION: 2022

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

MSMM has been tasked with providing the civil and structural design for the Cow Bayou Complex, a component of the Sabine Pass to Galveston Bay, Orange project. This 8,000 CFS drainage pump station is currently under design via USACE MVN. Mr. Carson is the lead project manager for the project, he is the liaison between the A-E design team and the USACE design team. He is also responsible for ensuring compliance with the DQCP and for all managing all design deliverables. Cost: $250M
Role: Lead Project Manager

c

(1) TITLE AND LOCATION *(City and State)*: Dallas Floodway Extension Phase II Recreation and Access Design, Dallas, Texas – USACE Fort Worth District

(2) YEAR COMPLETED — PROF. SERVICES: 2019 — CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

This project consists of the design of approximately 2 miles of concrete trails, a large bridge crossing the Trinity River, two bridges crossing secondary waterways, a raised wooded boardwalk to reduce maintenance events in higher prone flooding areas, bird watching platforms, parking lots and multiple gates and pipe rail fences. This project is being designed through a collaborative effort that involves the City of Dallas and the USACE Fort Worth District. Cost: $5M
Role: Lead Project Manager

d

(1) TITLE AND LOCATION *(City and State)*: Design of Jefferson Parish Floodwalls, Jefferson Parish, Louisiana – USACE New Orleans District

(2) YEAR COMPLETED — PROF. SERVICES: 2012 — CONSTRUCTION: 2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Following Hurricane Katrina, MSMM was instrumental in providing design phase and construction phase services for the implementation of over 3 miles of floodwalls along the western perimeter of the Hurricane Storm Damage Risk Reduction System (HSDRRS) in Jefferson Parish. Specifically, our engineering team was responsible for the design of the Western Return Wall. Mr. Mardia was the program manager for these services and was instrumental in delivering final construction bid documents to USACE. He worked with multiple stakeholders, Federal and state agencies, and the New Orleans International Airport to execute the successful implementation of the floodwall below Interstate 10. This included the oversight of detailed hydraulic modeling, the implementation of unbalanced load design criteria, and extensive coordination with LADOTD. Additionally, Mr. Mardia was responsible for coordinating with construction contractors to find a viable construction solution for driving piles, given the low overhead clearance beneath the interstate. Cost: $120M
Role: Project Manager

e

(1) TITLE AND LOCATION *(City and State)*

Timber Creek Recreational and Site Access Design, Austin TX – USACE Ft. Worth District

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2019	2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

MSMM is in the final stages of design for a horizontal design project for USACE SWF in Travis County, Texas. The Timber Creek project consists of re-designing flood mitigation components for public use. Cost: $45M

Role: Project Manager

f

(1) TITLE AND LOCATION *(City and State)*

277K Levee Raise and Delta Pump Station Renovation Design-Build, Dallas TX – USACE Fort Worth District

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
ONGOING	2021

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

MSMM has been tasked by the USACE Ft. Worth District to develop design-build RFP's for the Dallas Floodway 277K Levee Raise with 4:1 side slopes, and 277K conveyance levee raise. Additionally, the Delta Pump Station renovations consist of a new electrical building and site improvements. Mr. Carson is the project manager for the project. He is responsible for overseeing the development of the design-build packages, and the DDR. He is also responsible for managing the HTRW evaluation, the geotechnical boring plan, and the value engineering study. Cost: $320M

Role: Project Manager

g

(1) TITLE AND LOCATION *(City and State)*

Texas City & Vicinity Hurricane Flood Protection Project, I-Wall to T-Wall Conversion, Texas City, TX – USACE Galveston District

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
ONGOING	2021

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

MSMM Engineering was recently contracted by the USACE Galveston District to provide engineering and design services for the replacement of approximately 700 linear feet of existing I-Wall with a new T-wall structure. Mr. Carson is the project manager and point of contact for MSMM. He works with the management staff from USACE and the non-Federal sponsor City of Galveston to administer all contractual obligations required of MSMM. Size: 700 LF | Cost: $22M

Role: Project Manager

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
JIM FULLMER, PE, LEED AP	PROJECT MANAGER	36	28

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – FORT WORTH, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Civil Engineering	Professional Engineer: TX LEED Accredited Professional

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

As Project Manager, Jim will provide leadership to the design team and assure that proper personnel and resources are allocated to provide completed design packages in accordance with specific design deliverable parameters. Jim's work experience includes participation as a project manager and structural engineer. His federal sector project experience includes commercial-style low-rise and industrial warehouse type structures, manufacturing facilities, bridges, retaining walls and specialized canopy and parking structures. He has an extensive familiarly with the governing building codes, design standards and project requirements for military construction projects.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Repair/Renovate Dormitories 10070 and 10075 – Lackland AFB, San Antonio, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2013 — CONSTRUCTION: 2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Design Build contract for renovation, repair and alternation of aging AF dorms. Interior improvements were focused on waste reduction and recovered materials by limiting demolition and re-purposing of materials and spaces. Upgrades to the HVAC, electrical and utilities focused on energy efficiency. Size: 72K SF | Cost: $11.9M
Role: Project Manager

b

(1) TITLE AND LOCATION *(City and State)*: Maneuver Systems Sustainment Center, Phase 3, Main Building – Red River Army Depot, Texarkana, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2013 — CONSTRUCTION: 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The Maneuver Systems Sustainment Center (MSSC) is a new facility that achieves consolidation of multiple functions into a single facility. The functions served by the facility include disassembly, rebuild, metal finishing, body repair, painting and preparation of present and future tactical vehicles, including their major components and control systems. The MSSC is one of only three such army depots in the nation. Size: 233K SF | Cost: $39M
Role: Lead Structural Engineer

c

(1) TITLE AND LOCATION *(City and State)*: Dynamic Components Repair Facility – Corpus Christi Army Depot, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2016 — CONSTRUCTION: 2017

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Full design and CM of new heavy industrial helicopter rebuild facility for NAVFAC SE. Designed with expansion in mind as this is phase 1 of 9. All future phases were planned and programmed with flexibility. Designed to achieve LEED Silver. Size: 142K SF | Cost: $32M
Role: Structural Engineer

d

(1) TITLE AND LOCATION *(City and State)*: Bureau of Engraving and Printing Facility Expansion – Fort Worth, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2018 — CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The $150M project will expand the BEP production facility by 250,000 SF and the administration area by 50,000 SF with an additional 70,000 SF of renovation. The facility will be upgraded to meet BEP and IBC standards for HVAC, Electrical, Lighting, Communication, Security Systems, and Plumbing. Site improvements include a new access control point, parking and redundant utility connections. Our team provided full design architecture and engineering services for the administration building and site improvements. The administration facility was designed in phases to allow temporary relocation of the 250 personnel working in the admin space. All new facilities were designed to meet all current ASHRAE 90.1 and EISA 439, LEED principles were followed but not registered.
Size: 370K SF | Cost: $150M
Role: Project Manager

(1) TITLE AND LOCATION *(City and State)*

Fort Hood Whole Barracks Complex – Fort Hood, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2010	2011

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

e As Design Project Manager, Fullmer was responsible for this design/build project for the construction of Unaccompanied Enlisted Personnel Housing and company Operations Facilities. This project was the first at Fort Hood designed and constructed to qualify as LEED Silver Certifiable. The complex includes two three-story UEPH barracks buildings (53,706 square feet each) and two Company Operations Facilities (59,471 square feet each). The facilities accommodate 324 soldiers in 162 living units designed to house two soldiers per living unit. Each living unit has a private bedroom and closet, and a shared bathroom and kitchenette.
Size: 225K SF | Cost: $42M
Role: Project Manager

(1) TITLE AND LOCATION *(City and State)*

Renovations of the 1st Cavalry Headquarters – Fort Hood, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2018	2019

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

a The project was a $48M renovation of a 130K SF Army Division Headquarters and Command Operations Facility including renovations of all administrative/office, an Operations Center (OC), Network Operations Center (NOC) and Sensitive Compartmented Information Facility (SCIF) served by an exterior Tactical SCI Vehicle Area (TSVA), including a Special Technical Operations (STO) Facility. Design of temporary swing space was also required. HZ provided full design construction documents and specifications (SpecsIntact) for the civil, structural, mechanical, electrical, telecom, plumbing and landscape disciplines. The site included increased parking improvements while still meeting AT/FP and ABA. The new mechanical systems were designed to exceed ASHRAE 90.1 by greater than 20%. Operationally critical areas of the facility were provided with redundant HVAC and the entire facility is served by a back-up generator in the event of a primary electrical failure. Size:135K SF | Cost: $46M
Role: Project Manager

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
JOE WELLS, RA, RID	PROJECT MANAGER	32	11

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – FORT WORTH, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

B. Arch.

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Registered Architect: TX, NM, AR

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

As an Architect, Joe has developed a specialization in vertical military design projects. He has both Air Force and Army design experience and extensive Air Force Condition Assessment experience. Wells has experience with complex building types and coordination of multi-discipline teams. He has an excellent understanding of the UFCs, IBC and TMs as the related to all types of facility and site design. He as assisted USACE in construction phase services of his designs. Joe provided architectural design for the RRAD Dynamometer Design project and was responsible for programming and RFP development of the ECIP project at Fort Bliss under projects listed in section F.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Maneuver Systems Sustainment Center, Phase 3, Main Building – Red River Army Depot, Texarkana, TX

(2) YEAR COMPLETED: PROF. SERVICES 2013 | CONSTRUCTION 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The Maneuver Systems Sustainment Center (MSSC) is a new facility that achieves consolidation of multiple functions into a single facility. The functions served by the facility include disassembly, rebuild, metal finishing, body repair, painting and preparation of present and future tactical vehicles, including their major components and control systems. The MSSC is one of only three such army depots in the nation. Size: 233K SF | Cost: $39M
Role: Quality Control Manager

b

(1) TITLE AND LOCATION *(City and State)*: Renovation of Historic Building B5676 and Hangar B6426 – Barksdale AFB, LA

(2) YEAR COMPLETED: PROF. SERVICES 2015 | CONSTRUCTION 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Revised floor plan layouts were developed for B5676 to meet the program and user needs. New HVAC, Electrical, Fire Alarm/Mass Notification and Fire Suppression system we designed to meet ASHRAE 90.1. B6426 Hangar 4 was renovated in place with the building occupied and operational thru out. The existing kitchen and day room were relocated from the ground floor to the second to make room for two additional Apparatus bays increasing capacity from 4 to 6 vehicles. B6426 Hangar 3 was gutted with selective demolition and asbestos abatement. All MEP systems were removed to leave a clean slate for future renovation. Size: 50K SF | Cost: $7.7M
Role: Project Manager

c

(1) TITLE AND LOCATION *(City and State)*: CCAD Hangar 8 Renovation DB RFP – Corpus Christi Army Depot, TX

(2) YEAR COMPLETED: PROF. SERVICES 2018 | CONSTRUCTION ONGOING

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Hangar 8 serves as part of the rotary wing rebuild activities at CCAD. Our team prepared a design-build RFP for the renovation and repair to one of the major maintenance bays of the 1.2M square foot facility. This complex project includes a major overhaul of the systems and facility layout of approximately 70K square feet. The project includes upgrades to comply applicable codes, UFCs and standards for all electrical, structural, fire suppression, HVAC, concrete floor repairs. Services included a charrette to gather the user's specific requirements, validate the 1391 and prepare a ENG Form 3086. The team then prepared a design-build RFP, performed a structural evaluation and participated in the value engineering study with an independent design team. The design team continued support through the bidding phase with responses to RFIs and pre-proposal conference presentations. The design-build RFP was prepared in accordance with the AEIM and was submitted at each design phased with MII cost estimates. The project originally had a CCL of $12.1 M; however, after the charrette an ENG 3086 was complete, the project was reprogramed for $20M. Size: 68K SF | Cost: $20M
Role: Project Manager

d

(1) TITLE AND LOCATION *(City and State)*: Dynamic Components Repair Facility – Corpus Christi Army Depot, TX

(2) YEAR COMPLETED: PROF. SERVICES 2016 | CONSTRUCTION 2017

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Full design and CM of new heavy industrial helicopter rebuild facility for NAVFAC SE. Designed with expansion in mind as this is phase 1 of 9. All future phases were planned and programmed with flexibility. Designed to achieve LEED Silver. Size: 142K SF | Cost: $32M
Role: Architect

e

(1) TITLE AND LOCATION *(City and State)*

Medical Education and Training Campus, Fort Sam Houston – San Antonio, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2012	2013

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Our team assisted in the preparation of all planning, site design and over 20 DB RFPs for the $2.5B BRAC expansion at Ft. Sam Houston, Randolph AFB and Lackland AFB specifically related to the METC program. The Team provided architectural RFP Development Support, MEP, structural, civil and landscape support. Cost: $2.5B

Role: Architect

f

(1) TITLE AND LOCATION *(City and State)*

USDA Fruit Fly Rearing and Release Facility (FFRRF), Moore Air Base – Edinburg, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2020	2022

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

This facility will support the USDA Agriculture and Plant Health Inspection Service (APHIS) Preventive Release Program with the goal of rearing 400 million sterile fruit flies per week. The project also includes extensive process engineering support for the diet processing, sorting, dying, and larvae seeding procedures and operations. Fourteen robotic machines are planned to assist production and reduce manual procedures to minimize the handling of as much as 60 tons of physical inventory per week. In addition to the industrial process engineering, the design team is providing civil, structural, mechanical, fire protection, and electrical engineering as well as architectural design. The contract also includes design, construction and warranty phase building commissioning services. Site design includes a new raw water service line to the existing water treatment plant that requires about 1.25-miles of pipeline from the base water supply reservoir, parking for 200 vehicles, two primary storm water detention ponds, and a utility services access road. Size: 75K SF | Cost: $58M

Role: Architect

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
WILLIAM "BILL" HOELSCHER, AIA, LEED AP	ARCHITECT	34	18

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – FORT WORTH, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BA, Arts	Registered Architect: TX, WA
Master of Architecture	LEED Accredited Professional

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

William Hoelscher has experience providing complete architectural and space planning services to dozens of clients for one-time and multiple-unit projects of varying types and sizes. His work has included restaurants, offices, retail outlets, industrial facilities, and residences. His experience also includes providing design for Corps of Engineer and Department of Homeland Security projects.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Repair/Renovate Dormitories 10070 and 10075 – Lackland AFB, San Antonio, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2013 — CONSTRUCTION: 2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Design Build contract for renovation, repair and alternation of aging AF dorms. Interior improvements were focused on waste reduction and recovered materials by limiting demolition and re-purposing of materials and spaces. Upgrades to the HVAC, electrical and utilities focused on energy efficiency. Size: 72K SF | Cost:$11.9M
Role: Architect

b

(1) TITLE AND LOCATION *(City and State)*: Maneuver Systems Sustainment Center, Phase 3, Main Building – Red River Army Depot, Texarkana, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2013 — CONSTRUCTION: 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The Maneuver Systems Sustainment Center (MSSC) is a new facility that achieves consolidation of multiple functions into a single facility. The functions served by the facility include disassembly, rebuild, metal finishing, body repair, painting and preparation of present and future tactical vehicles, including their major components and control systems. The MSSC is one of only three such army depots in the nation. Size: 233K SF | Cost: $39M
Role: Architect

c

(1) TITLE AND LOCATION *(City and State)*: Renovation of Historic Building B5676 and Hangar B6426 – Barksdale AFB, LA

(2) YEAR COMPLETED — PROF. SERVICES: 2015 — CONSTRUCTION: 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Revised floor plan layouts were developed for B5676 to meet the program and user needs. New HVAC, Electrical, Fire Alarm/Mass Notification and Fire Suppression system we designed to meet ASHRAE 90.1. B6426 Hangar 4 was renovated in place with the building occupied and operational thru out. The existing kitchen and day room were relocated from the ground floor to the second to make room for two additional Apparatus bays increasing capacity from 4 to 6 vehicles. B6426 Hangar 3 was gutted with selective demolition and asbestos abatement. All MEP systems were removed to leave a clean slate for future renovation. Size: 50K SF | Cost: $7.7M
Role: Architect

d

(1) TITLE AND LOCATION *(City and State)*: CCAD Hangar 8 Renovation DB RFP – Corpus Christi Army Depot, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2018 — CONSTRUCTION: ONGOING

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Hangar 8 serves as part of the rotary wing rebuild activities at CCAD. Our team prepared a design-build RFP for the renovation and repair to one of the major maintenance bays of the 1.2M square foot facility. This complex project includes a major overhaul of the systems and facility layout of approximately 70K square feet. The project includes upgrades to comply applicable codes, UFCs and standards for all electrical, structural, fire suppression, HVAC, concrete floor repairs. Services included a charrette to gather the user's specific requirements, validate the 1391 and prepare a ENG Form 3086. The team then prepared a design-build RFP, performed a structural evaluation and participated in the value engineering study with an independent design team. The design team continued support through the bidding phase with responses to RFIs and pre-proposal conference presentations. The design-build RFP was prepared in accordance with the AEIM and was submitted at each design phased with MII cost estimates. The project originally had a CCL of $12.1 M; however, after the charrette an ENG 3086 was complete, the project was reprogramed for $20M. Size: 68K SF | Cost: $20M
Role: Architect

(1) TITLE AND LOCATION *(City and State)*

Renovations of the 1st Cavalry Headquarters – Fort Hood, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2018	2019

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

e

The project was a $48M renovation of a 130K SF Army Division Headquarters and Command Operations Facility including renovations of all administrative/office, an Operations Center (OC), Network Operations Center (NOC) and Sensitive Compartmented Information Facility (SCIF) served by an exterior Tactical SCI Vehicle Area (TSVA), including a Special Technical Operations (STO) Facility. Design of temporary swing space was also required. HZ provided full design construction documents and specifications (SpecsIntact) for the civil, structural, mechanical, electrical, telecom, plumbing and landscape disciplines. The site included increased parking improvements while still meeting AT/FP and ABA. The new mechanical systems were designed to exceed ASHRAE 90.1 by greater than 20%. Operationally critical areas of the facility were provided with redundant HVAC and the entire facility is served by a back-up generator in the event of a primary electrical failure. Size:135K SF | Cost: $46M

Role: Architect

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
EUGENE "GENE" VALENTINE RA, GGP	ARCHITECT	42	2

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – FORT WORTH, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Masters Certificate in Construction Management BA, Architecture	Registered Architect: AR, AZ, LA, NM, NC, OK, TX Green Globes Professional

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Gene Valentine is a registered architect with more than 40 years of experience in architecture, real estate, and construction. His experience includes project roles as principal, project manager, quality control manager, design, architectural programmer, real estate pro-forma analysis, and pre-construction services. Mr. Valentine's experience includes military, non-military federal, healthcare, education, aviation, commercial, recreation, and industrial clientele. Representative projects include military housing, operations centers, vehicle maintenance facilities, warehouses, mission-critical data centers, commercial retail facilities, healthcare facilities, parking structures, and education facilities. He has considerable experience with design-bid-build, design-build, and CM at Risk construction delivery methods.

19. RELEVANT PROJECTS

a
(1) TITLE AND LOCATION *(City and State)*: Fuel Cell and Corrosion Control Hangar – Cannon Air Force Base, NM
(2) YEAR COMPLETED — PROF. SERVICES: 2013 — CONSTRUCTION: 2013
(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☐ Check if project performed with current firm

Architecture, engineering and construction phase services were provided for a new $32.8M, 89,000 square-feet hangar complex consisting of a 57,674 square-feet corrosion control hangar, a 32,087 square-feet fuel cell hangar, an aircraft taxiway, and aircraft parking aprons. Each of the hangar facilities were designed to achieve a LEED Silver Rating. Size: 89K SF | Cost: $32.8M
Role: Architect

b
(1) TITLE AND LOCATION *(City and State)*: Border Fence Replacement and Levee Modification System FY2017 Design – TX, NM, and CA
(2) YEAR COMPLETED — PROF. SERVICES: 2018 — CONSTRUCTION: 2019
(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☐ Check if project performed with current firm

Specification Writer/Technical Writer. Developed and coordinated production of technical and bidding procurement specifications for civil, structural infrastructure project task orders for projects on the south U.S. border. Conducted research and technical writing for supporting documentation of projects and task orders. Projects included service roadways, levees, fence and gate construction, hydrology structures, and radio service towers. Cost: $336M
Role: Specification Writer/Technical Writer

c
(1) TITLE AND LOCATION *(City and State)*: Bureau of Engraving and Printing Facility Expansion – Fort Worth, TX
(2) YEAR COMPLETED — PROF. SERVICES: 2018 — CONSTRUCTION: 2020
(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The $150M project will expand the BEP production facility by 250,000 SF and the administration area by 50,000 SF with an additional 70,000 SF of renovation. The facility will be upgraded to meet BEP and IBC standards for HVAC, Electrical, Lighting, Communication, Security Systems, and Plumbing. Site improvements include a new access control point, parking and redundant utility connections. Our firm provided full design architecture and engineering services for the administration building and site improvements. The administration facility was designed in phases to allow temporary relocation of the 250 personnel working in the admin space. All new facilities were designed to meet all current ASHRAE 90.1 and EISA 439, LEED principles were followed but not registered. Size: 370K SF | Cost: $150M
Role: Architect

d
(1) TITLE AND LOCATION *(City and State)*: Systems Integration F-35 Hangar 40/42 Additions & Aircraft Maintenance Unit, Hill Air Force Base, UT
(2) YEAR COMPLETED — PROF. SERVICES: 2017 — CONSTRUCTION: 2018
(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☐ Check if project performed with current firm

Services included Designer of Record for the design-build construction of two new hangar spaces, an attached Aircraft Maintenance Unit (AMU) area, and applicable support spaces for the F-35 aircraft deployment at Hill Air Force Base, with a total area of 59,616 square feet. Design services included architecture, interior design, energy modeling, civil, structural, mechanical, electrical, plumbing, telecommunications and fire protection engineering. Project phases included charrette, 60%, 90%, and 100% (IFC). Project was designed to meet LEED Silver certification level. Design-Build delivery.
Role: Architect

e

(1) TITLE AND LOCATION *(City and State)*

USDA Fruit Fly Rearing and Release Facility (FFRRF), Moore Air Base – Edinburg, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2020	2022

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

This facility will support the USDA Agriculture and Plant Health Inspection Service (APHIS) Preventive Release Program with the goal of rearing 400 million sterile fruit flies per week. The project also includes extensive process engineering support for the diet processing, sorting, dying, and larvae seeding procedures and operations. Fourteen robotic machines are planned to assist production and reduce manual procedures to minimize the handling of as much as 60 tons of physical inventory per week. In addition to the industrial process engineering, the design team is providing civil, structural, mechanical, fire protection, and electrical engineering as well as architectural design. The contract also includes design, construction and warranty phase building commissioning services. Site design includes a new raw water service line to the existing water treatment plant that requires about 1.25-miles of pipeline from the base water supply reservoir, parking for 200 vehicles, two primary storm water detention ponds, and a utility services access road. Size: 75K SF | Cost: $58M
Role: Architect

f

(1) TITLE AND LOCATION *(City and State)*

Special Operations Forces (SOF) Battalion Complex-Phase 5, Fort Campbell, KY

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2013	2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☐ Check if project performed with current firm

Service included administration through construction and close-out for the 119,900-square-foot, design-build Special Operations Forces Battalion Operations Complex. Design services included site and grading design; architecture; structural engineering; mechanical and electrical design; telecommunications, security system, and fire alarm system design; antiterrorism and force protection design; building information modeling; interior design; and sustainable design. Design-Build delivery.
Role: Architect

Michael Baker INTERNATIONAL

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
PAWEL PASZCZUK, RA, LEED AP	ARCHITECT	20	10

15. FIRM NAME AND LOCATION *(City And State)*

MICHAEL BAKER INTERNATIONAL – PHOENIX, AZ

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B. Arch.	Registered Architect: AZ, AK, CT, GA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Mr. Paszczuk's experience ranges from schematic design to construction administration as well as the management of CAD production teams on projects ranging from 6,000 to over 500,000-SF. He has experience incorporating sustainable design practices in vertical facility designs. Mr. Paszczuk has a talent for analyzing problems, developing and simplifying procedures, and finding innovative solutions.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: B301 UAS Formal Training Unit Aircraft Maintenance Hangar Renovation – Holloman AFB, NM

(2) YEAR COMPLETED — PROF. SERVICES: 2013 | CONSTRUCTION: 2013

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Re-purposing of and additions/alterations to an existing hangar for use in connection with training in connection with Unmanned Aircraft Systems. The building, originally constructed in the 1940's, is an historic structure and previously used as a temporary location for the MQ-1 and MQ-9 maintenance hangar. The project included 50,988 SF of renovation and a 6,000 SF addition. The main hangar area accommodates the aircraft and maintenance functions, including engine shop, parts storage and supply rooms, secured storage. Personnel spaces include offices, restrooms, a mass training and briefing room, conference rooms and other support areas. Size: 57K SF | Cost: $10.6M
Role: Lead Architect

b

(1) TITLE AND LOCATION *(City and State)*: Dormitory Building 2424 Renovation – Edwards Air Force Base, CA

(2) YEAR COMPLETED — PROF. SERVICES: 2016 | CONSTRUCTION: N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Architect. Responsible for architectural design and overall design coordination. Our firm was the designer of record for the design-build delivery of a renovated 30,000 square-feet dorm facility to house 56 airmen. The renovated building provides an upgraded space with new, low-maintenance finishes; energy-efficient electrical, mechanical, and plumbing systems; and a modern fire protection system, all to ensure the comfort and safety of the occupants. Size: 30K SF | Cost: $600K (Fee)
Role: Architect

c

(1) TITLE AND LOCATION *(City and State)*: Border Patrol Facilities Design Standards – U.S. Border States

(2) YEAR COMPLETED — PROF. SERVICES: 2014 | CONSTRUCTION: N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project included the updating and development of new facility design standards to meet the operational requirements for evolving U.S. Border Patrol national mission. Facility types included border stations, checkpoints, sector headquarters, forward operating bases, and other related facilities. Deliverables included baseline design requirements, data sheets, standard layouts, and a record of analysis for each category of border patrol facilities, on both northern and southern borders and for all affected jurisdictions in which DHS/CBP operates.
Role: Lead Architect

d

(1) TITLE AND LOCATION *(City and State)*: Systems Integration F-35 Hangar 40/42 Additions & Aircraft Maintenance Unit – Hill Air Force Base, UT

(2) YEAR COMPLETED — PROF. SERVICES: 2019 | CONSTRUCTION: 2019

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Our firm was the designer of record for the design-build Virtual Warfare Center Operations Facility at Nellis AFB, is the hub for connecting, controlling, and integrating multiple simulator types at Nellis AFB as well as geographically separated simulators. The VWC-N Ops Center will house multiple simulators to include F-15C, F-15E, AWACS, man-in-the-loop Adversary Air, Tactical Command & Control (C2), potential additional F-35 and F-22 sims, and follow-on potential for Navy sims (F-18, E-2D, AEGIS), bomber sims, Remotely Piloted Aircraft (RPA) sims, as well as Cyber and Space simulator workstations. Size: 59K SF | Cost: $20M
Role: Project Architect

(1) TITLE AND LOCATION *(City and State)*

FY18 Virtual Warfare Center Operations Facility – Nellis Air Force Base, NV

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2020	2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

e Our firm was the designer of record for the design-build Virtual Warfare Center Operations Facility at Nellis AFB, is the hub for connecting, controlling, and integrating multiple simulator types at Nellis AFB as well as geographically separated simulators. The VWC-N Ops Center will house multiple simulators to include F-15C, F-15E, AWACS, man-in-the-loop Adversary Air, Tactical Command & Control (C2), potential additional F-35 and F-22 sims, and follow-on potential for Navy sims (F-18, E-2D, AEGIS), bomber sims, Remotely Piloted Aircraft (RPA) sims, as well as Cyber and Space simulator workstations. Cost: $978K

Role: Project Manager

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
SERGEY ALEKSANYAN, PE, LEED AP	MECHANICAL ENGINEER	47	23

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – FORT WORTH, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

MS, Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Professional Engineer: TX
LEED Accredited Professional

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

During his 23 years with Huitt-Zollars, Sergey Aleksanyan has been responsible for designing and developing heating, ventilating, and air conditioning (HVAC) systems for various governmental, educational, commercial and residential buildings. He has performed project quality control, prepared proposals for design-build projects, provided construction administration, and supervised junior engineers employed by the mechanical department.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION *(City and State)*

Repair/Renovate Dormitories 10070 and 10075 – Lackland AFB, San Antonio, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2013 — CONSTRUCTION: 2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

a Design Build contract for renovation, repair and alternation of aging AF dorms. Interior improvements were focused on waste reduction and recovered materials by limiting demolition and re-purposing of materials and spaces. Upgrades to the HVAC, electrical and utilities focused on energy efficiency. Size: 72K SF | Cost: $11.9M
Role: Mechanical Engineer

(1) TITLE AND LOCATION *(City and State)*

Maneuver Systems Sustainment Center, Phase 3, Main Building – Red River Army Depot, Texarkana, Texas

(2) YEAR COMPLETED — PROF. SERVICES: 2013 — CONSTRUCTION: 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

b The Maneuver Systems Sustainment Center (MSSC) is a new facility that achieves consolidation of multiple functions into a single facility. The functions served by the facility include disassembly, rebuild, metal finishing, body repair, painting and preparation of present and future tactical vehicles, including their major components and control systems. The MSSC is one of only three such army depots in the nation. Size: 233K SF | Cost: $39M
Role: Senior Mechanical Engineer

(1) TITLE AND LOCATION *(City and State)*

Renovation of Historic Building B5676 and Hangar B6426 – Barksdale AFB, LA

(2) YEAR COMPLETED — PROF. SERVICES: 2015 — CONSTRUCTION: 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

c Revised floor plan layouts were developed for B5676 to meet the program and user needs. New HVAC, Electrical, Fire Alarm/Mass Notification and Fire Suppression system we designed to meet ASHRAE 90.1. B6426 Hangar 4 was renovated in place with the building occupied and operational thru out. The existing kitchen and day room were relocated from the ground floor to the second to make room for two additional Apparatus bays increasing capacity from 4 to 6 vehicles. B6426 Hangar 3 was gutted with selective demolition and asbestos abatement. All MEP systems were removed to leave a clean slate for future renovation. Size: 50K SF | Cost: $7.7M
Role: Mechanical Engineer

(1) TITLE AND LOCATION *(City and State)*

CADD Hangar 8 Renovation DB RFP – Corpus Christi Army Depot, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2018 — CONSTRUCTION: ONGOING

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

d Hangar 8 serves as part of the rotary wing rebuild activities at CCAD. Our team prepared a design-build RFP for the renovation and repair to one of the major maintenance bays of the 1.2M square foot facility. This complex project includes a major overhaul of the systems and facility layout of approximately 70K square feet. The project includes upgrades to comply applicable codes, UFCs and standards for all electrical, structural, fire suppression, HVAC, concrete floor repairs. Services included a charrette to gather the user's specific requirements, validate the 1391 and prepare a ENG Form 3086. The team then prepared a design-build RFP, performed a structural evaluation and participated in the value engineering study with an independent design team. The design team continued support through the bidding phase with responses to RFIs and pre-proposal conference presentations. The design-build RFP was prepared in accordance with the AEIM and was submitted at each design phased with MII cost estimates. The project originally had a CCL of $12.1 M; however, after the charrette an ENG 3086 was complete, the project was reprogramed for $20M. Size: 68K SF | Cost: $20M
Role: Lead Mechanical Engineer

e

(1) TITLE AND LOCATION *(City and State)*

Renovations of the 1st Cavalry Headquarters – Fort Hood, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2018	2019

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The project was a $48M renovation of a 130K SF Army Division Headquarters and Command Operations Facility including renovations of all administrative/office, an Operations Center (OC), Network Operations Center (NOC) and Sensitive Compartmented Information Facility (SCIF) served by an exterior Tactical SCI Vehicle Area (TSVA), including a Special Technical Operations (STO) Facility. Design of temporary swing space was also required. HZ provided full design construction documents and specifications (SpecsIntact) for the civil, structural, mechanical, electrical, telecom, plumbing and landscape disciplines. The site included increased parking improvements while still meeting AT/FP and ABA. The new mechanical systems were designed to exceed ASHRAE 90.1 by greater than 20%. Operationally critical areas of the facility were provided with redundant HVAC and the entire facility is served by a back-up generator in the event of a primary electrical failure. Size:135K SF | Cost: $46M

Role: Mechanical Engineer

f

(1) TITLE AND LOCATION *(City and State)*

Nuclear Regulatory Commission Buildout Design & Construction Oversight

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2009	2012

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Included inspection of all work performed by the general contractor and all subcontractors in order to verify conformity with the requirements of the construction contract; Reviewing and documenting the Quality Control testing program; Assisting the Contracting Officer in the administration of changes to the construction contract; Monitoring and documenting of the construction submittal process and the construction RFI process to ensure adherence to the project schedule and mitigating potential delays to the project; Providing a comprehensive “time lapse” record of construction of every wall of every room in the building; Providing photographic “as-builts” of utilities in the walls before the walls were closed; Verifying accuracy of the contractor’s record drawings; Conducting Labor Standards Interviews to ensure compliance with federal regulations regarding payroll practices; and Conducting final inspections, creating punch lists, monitoring corrective work and closing out the project. Size: 184K SF | Cost: $8M

Role: Mechanical Engineer

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
JEFF WILSON, PE, LEED AP	MECHANICAL ENGINEER	15	15

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – FORT WORTH, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

BS, Architecture
BS, Mechanical Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Professional Engineer: TX, CA, LA, MD

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Jeff Wilson has served as senior mechanical engineer on several projects including private and Federal agency assignments. His experience has included new construction and facility renovations. His experience includes preparing engineering analyses and studies including energy conservation/reduction, and performing detailed HVAC design requirements and load simulations for commercial and industrial complexes. Wilson has extensive experience in Building Information Modeling. He has designed all projects that he has worked on since 2011 in BIM (Revit) software. This has allowed better coordination for both new and existing projects with tight construction tolerances resulting in reduced construction RFIs and change orders.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Repair/Renovate Dormitories 10070 and 10075 – Lackland AFB, San Antonio, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2013 — CONSTRUCTION: 2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Design Build contract for renovation, repair and alternation of aging AF dorms. Interior improvements were focused on waste reduction and recovered materials by limiting demolition and re-purposing of materials and spaces. Upgrades to the HVAC, electrical and utilities focused on energy efficiency. Size: 72K SF | Cost: $11.9M
Role: Lead Mechanical Engineer

b

(1) TITLE AND LOCATION *(City and State)*: Maneuver Systems Sustainment Center, Phase 3, Main Building – Red River Army Depot, Texarkana, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2013 — CONSTRUCTION: 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The Maneuver Systems Sustainment Center (MSSC) is a new facility that achieves consolidation of multiple functions into a single facility. The functions served by the facility include disassembly, rebuild, metal finishing, body repair, painting and preparation of present and future tactical vehicles, including their major components and control systems. The MSSC is one of only three such army depots in the nation. Size: 233K SF | Cost: $39M
Role: Lead Mechanical Engineer

c

(1) TITLE AND LOCATION *(City and State)*: Renovate B5676 and Hangar B6426 – Barksdale AFB, LA

(2) YEAR COMPLETED — PROF. SERVICES: 2015 — CONSTRUCTION: 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Revised floor plan layouts were developed for B5676 to meet the program and user needs. New HVAC, Electrical, Fire Alarm/Mass Notification and Fire Suppression system we designed to meet ASHRAE 90.1. B6426 Hangar 4 was renovated in place with the building occupied and operational thru out. The existing kitchen and day room were relocated from the ground floor to the second to make room for two additional Apparatus bays increasing capacity from 4 to 6 vehicles. B6426 Hangar 3 was gutted with selective demolition and asbestos abatement. All MEP systems were removed to leave a clean slate for future renovation. Size: 50K SF | Cost: $7.7M
Role: Lead Mechanical Engineer

d

(1) TITLE AND LOCATION *(City and State)*: Dallas Floodway Extension Phase II Recreation and Access Design, Dallas, TX – USACE Fort Worth District

(2) YEAR COMPLETED — PROF. SERVICES: 2019 — CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

This project consists of the design of approximately 2 miles of concrete trails, a large bridge crossing the Trinity River, two bridges crossing secondary waterways, a raised wooded boardwalk to reduce maintenance events in higher prone flooding areas, bird watching platforms, parking lots and multiple gates and pipe rail fences. This project is being designed through a collaborative effort that involves the City of Dallas and the USACE Fort Worth District. Cost: $5M
Role: Mechanical Engineering Quality Control

(1) TITLE AND LOCATION *(City and State)*

CCAD Hangar 8 DB RFP – Corpus Christi Army Depot, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2018	ONGOING

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

e

Hangar 8 serves as part of the rotary wing rebuild activities at CCAD. Our team prepared a design-build RFP for the renovation and repair to one of the major maintenance bays of the 1.2M square foot facility. This complex project includes a major overhaul of the systems and facility layout of approximately 70K square feet. The project includes upgrades to comply applicable codes, UFCs and standards for all electrical, structural, fire suppression, HVAC, concrete floor repairs. Services included a charrette to gather the user's specific requirements, validate the 1391 and prepare a ENG Form 3086. The team then prepared a design-build RFP, performed a structural evaluation and participated in the value engineering study with an independent design team. The design team continued support through the bidding phase with responses to RFIs and pre-proposal conference presentations. The design-build RFP was prepared in accordance with the AEIM and was submitted at each design phased with MII cost estimates. The project originally had a CCL of $12.1 M; however, after the charrette an ENG 3086 was complete, the project was reprogramed for $20M. Size: 68K SF | Cost: $20M

Role: Mechanical Engineer

(1) TITLE AND LOCATION *(City and State)*

Renovations of 1st Cavalry Headquarters – Fort Hood, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2018	2019

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

f

The project was a $48M renovation of a 130K SF Army Division Headquarters and Command Operations Facility including renovations of all administrative/office, an Operations Center (OC), Network Operations Center (NOC) and Sensitive Compartmented Information Facility (SCIF) served by an exterior Tactical SCI Vehicle Area (TSVA), including a Special Technical Operations (STO) Facility. Design of temporary swing space was also required. HZ provided full design construction documents and specifications (SpecsIntact) for the civil, structural, mechanical, electrical, telecom, plumbing and landscape disciplines. The site included increased parking improvements while still meeting AT/FP and ABA. The new mechanical systems were designed to exceed ASHRAE 90.1 by greater than 20%. Operationally critical areas of the facility were provided with redundant HVAC and the entire facility is served by a back-up generator in the event of a primary electrical failure. Size:135K SF | Cost: $46M

Role: Lead Mechanical Engineer

Michael Baker INTERNATIONAL

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
JOSEPH FONG, PE	MECHANICAL ENGINEER	25	8

15. FIRM NAME AND LOCATION *(City And State)*

MICHAEL BAKER INTERNATIONAL – MIDVALE, UT

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Mechanical Engineering	Professional Engineer: CA, UT, TX, AZ, FL, MO, NV, SC, AK

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Mr. Fong is an experienced engineer in a variety of mechanical engineering projects. He has been involved with client interactions, proposed engineering system decisions, provided mechanical design calculations and project specifications, coordination with other trades, and preparation of bid documents.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: B301 UAS Formal Training Unit Aircraft Maintenance Hangar Renovation – Holloman AFB, NM

(2) YEAR COMPLETED — PROF. SERVICES: 2013 — CONSTRUCTION: 2013

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Provided HVAC design for the $10.65M design-build renovation of an (UAS FTU) AMU for the MZ-1 Predator and MQ-9 Reaper. This building is considered historically significant, so extra effort was required during design to provide the new architectural layouts, HVAC, plumbing, electrical and fire protection systems necessary to provide and upgraded functional space for the end users without compromising the important features that give the building its distinctive historical character. Mechanical designs included an HVAC system to serve both the existing building and the new addition, consisting of a single air-cooled chiller along with a primary-variable pumping system, tow boilers, and new air-handling units. Cost: $10.6M

Role: Mechanical Engineer

b

(1) TITLE AND LOCATION *(City and State)*: Systems Integration F-35 Hangar 40/42 Additions & Aircraft Maintenance Unit – Hill Air Force Base, Utah

(2) YEAR COMPLETED — PROF. SERVICES: 2019 — CONSTRUCTION: 2019

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Our team provided design for design build (DB) construction of two new hangar spaces, an attached aircraft maintenance unit area, and applicable support spaces for F-35 aircraft deployment for a total area of 59,616-square-feet. Included architecture, energy modeling, construction administration; conceptual, preliminary, final, telecommunications, and interior design; and civil, structural, mechanical, electrical, plumbing, and fire protection engineering. The project includes two 16,500 square foot hangar bays each of which will accommodate three F-35s, 5,000 SF support and storage area measuring two stories in height with a 1,300 square foot storage mezzanine will be in the space between the two hangar bays. The 20,700 SF AMU area will occupy the entire south side of the facility, with a single-story portion on the west end and a two-story portion on the east. Size: 60K SF | Cost: $20M

Role: Mechanical Engineer

c

(1) TITLE AND LOCATION *(City and State)*: San Diego Veterans Administration Medical Center, Fourth Floor Renovation – San Diego, CA

(2) YEAR COMPLETED — PROF. SERVICES: 2015 — CONSTRUCTION: 2015

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Provided HVAC and medical gas design which involved adding two new air-handler units located in the interstitial space. Michael Baker provided full service architectural and engineering design for the complete renovation and build-out of the fourth floor of the San Diego Veterans Administration Medical Campus. Size: 300K SF | Cost: $470K (Fee)

Role: Mechanical Engineer

d

(1) TITLE AND LOCATION *(City and State)*: Value Engineering (VE) Study, Customs and Border Protection (CBP) Checkpoint – Falfurrias, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2014 — CONSTRUCTION: N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Responsible for a VE study of the HVAC systems and plumbing for a large vehicle checkpoint station. Michael Baker conducted a formal VE analysis of the 35% completion construction documents package for the new CBP checkpoint to be located at Falfurrias, Texas. The checkpoint includes the primary and secondary checkpoint buildings, short stay kennel, communications tower; vehicle inspection areas, impound lot, and parking areas. The review included supporting facilities of utilities infrastructure, including electrical service distribution and plumbing utility requirements. Cost: $52K (Fee)

Role: Mechanical Engineer

(1) TITLE AND LOCATION *(City and State)*

MQ-9 Operations & Command Center and Ground Control Station Operations Facility – Creech Air Force Base, NV

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2019	N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

e

Our team was the designer for the design-build request for proposal (D-B RFP) acquisition document, and project design-construction cost estimate (CE) for the MQ-9 Culture and Process Improvement Program (CPIP) Operations & Command Center to support the MQ-9 Squadron and an MQ-9 Ground Control Station Operations Facility in support of Remotely Piloted Aircraft (RPA). Both buildings are approximately 33,000 sf and are sited adjacent to each other on a 3.2-acre parcel that is within the controlled area required for this mission, adjacent to an existing MQ-9 RPA Operations and Maintenance facility located at Creech AFB, NV. Cost: $1M (Fee)
Role: Mechanical Engineer

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
SCOTT PARMA, PE, LEED AP	ELECTRICAL ENGINEER	37	15

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – FORT WORTH, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

BS, Electrical Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Professional Engineer: TX
LEED Accredited Professional

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Scott Parma's engineering experience includes power distribution, electrical systems analysis, system planning, electrical system design, and construction administration. He has completed a wide array of facilities projects in the utility, transportation, municipal, infrastructure, and commercial sectors of construction. His main expertise is in medium-and low-voltage power systems design and analysis. He also has experience in lighting, telecommunications, and fire alarm system design.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Maneuver Systems Sustainment Center, Phase 3, Main Building – Red River Army Depot, Texarkana, TX

(2) YEAR COMPLETED: PROF. SERVICES 2013 | CONSTRUCTION 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The Maneuver Systems Sustainment Center (MSSC) is a new facility that achieves consolidation of multiple functions into a single facility. The functions served by the facility include disassembly, rebuild, metal finishing, body repair, painting and preparation of present and future tactical vehicles, including their major components and control systems. The MSSC is one of only three such army depots in the nation. Size: 233K SF | Cost: $39M
Role: Lead Electrical Engineer

b

(1) TITLE AND LOCATION *(City and State)*: Renovation of Historic Building B5676 and Hangar B6426 – Barksdale AFB, LA

(2) YEAR COMPLETED: PROF. SERVICES 2015 | CONSTRUCTION 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Revised floor plan layouts were developed for B5676 to meet the program and user needs. New HVAC, Electrical, Fire Alarm/Mass Notification and Fire Suppression system we designed to meet ASHRAE 90.1. B6426 Hangar 4 was renovated in place with the building occupied and operational thru out. The existing kitchen and day room were relocated from the ground floor to the second to make room for two additional Apparatus bays increasing capacity from 4 to 6 vehicles. B6426 Hangar 3 was gutted with selective demolition and asbestos abatement. All MEP systems were removed to leave a clean slate for future renovation. Size: 50K SF | Cost: $7.7M
Role: Lead Electrical Engineer

c

(1) TITLE AND LOCATION *(City and State)*: Dallas Floodway Extension Phase II Recreation and Access Design, Dallas, Texas – USACE Fort Worth District

(2) YEAR COMPLETED: PROF. SERVICES 2019 | CONSTRUCTION 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

This project consists of the design of approximately 2 miles of concrete trails, a large bridge crossing the Trinity River, two bridges crossing secondary waterways, a raised wooded boardwalk to reduce maintenance events in higher prone flooding areas, bird watching platforms, parking lots and multiple gates and pipe rail fences. This project is being designed through a collaborative effort that involves the City of Dallas and the USACE Fort Worth District. Cost: $5M
Role: Electrical Quality Control

d

(1) TITLE AND LOCATION *(City and State)*: CCAD Hangar 8 Renovation DB RFP – Corpus Christi Army Depot, TX

(2) YEAR COMPLETED: PROF. SERVICES 2018 | CONSTRUCTION ONGOING

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Hangar 8 serves as part of the rotary wing rebuild activities at CCAD. Our team prepared a design-build RFP for the renovation and repair to one of the major maintenance bays of the 1.2M square foot facility. This complex project includes a major overhaul of the systems and facility layout of approximately 70K square feet. The project includes upgrades to comply applicable codes, UFCs and standards for all electrical, structural, fire suppression, HVAC, concrete floor repairs. Services included a charrette to gather the user's specific requirements, validate the 1391 and prepare a ENG Form 3086. The team then prepared a design-build RFP, performed a structural evaluation and participated in the value engineering study with an independent design team. The design team continued support through the bidding phase with responses to RFIs and pre-proposal conference presentations. The design-build RFP was prepared in accordance with the AEIM and was submitted at each design phased with MII cost estimates. The project originally had a CCL of $12.1 M; however, after the charrette an ENG 3086 was complete, the project was reprogramed for $20M. Size: 68K SF | Cost: $20M
Role: Lead Electrical Engineer

e

(1) TITLE AND LOCATION *(City and State)*

Electrical/UPS System Upgrades, Lake Whitney Hydropower Facility – Clifton, TX

(2) YEAR COMPLETED
PROF. SERVICES: 2015
CONSTRUCTION: 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Our design team first conducted a site investigation to evaluate affected areas of the project, including the control room, motor generator/UPS room, battery room, and cable chase. A design charrette was then held with the onsite technical personnel at the hydropower facility to define the scope of work for the electrical systems upgrade task order. Close contact with these onsite personnel was maintained throughout the process, gaining valuable input from the end users. Cost: $3M

Role: Electrical Engineer

f

(1) TITLE AND LOCATION *(City and State)*

Bureau of Engraving and Printing Facility Expansion – Fort Worth, TX

(2) YEAR COMPLETED
PROF. SERVICES: 2018
CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

The $150M project will expand the BEP production facility by 250,000 SF and the administration area by 50,000 SF with an additional 70,000 SF of renovation. The facility will be upgraded to meet BEP and IBC standards for HVAC, Electrical, Lighting, Communication, Security Systems, and Plumbing. Site improvements include a new access control point, parking and redundant utility connections. The design team provided full design architecture and engineering services for the administration building and site improvements. The administration facility was designed in phases to allow temporary relocation of the 250 personnel working in the admin space. All new facilities were designed to meet all current ASHRAE 90.1 and EISA 439, LEED principles were followed but not registered. Size: 370K SF | Cost: $150M

Role: Electrical Engineer

g

(1) TITLE AND LOCATION *(City and State)*

Corpus Christi Border Patrol Station Design-Build RFP – Corpus Christi, TX

(2) YEAR COMPLETED
PROF. SERVICES: 2010
CONSTRUCTION: 2013

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

The Corpus Christi BPS station was developed as a co-located facility for 120 agents and followed current Border Patrol Design Guidelines, OFO, and security guidelines. The 30-acre site also includes a VMF, storage warehouse, fuel station, vehicle wash, 4 dog kennels, GOV and POV vehicle parking; impound lot, security setbacks, detention ponds and a future helipad. Achieved LEED Silver.

Size: 34K | Cost: $24.5M

Role: Electrical Distribution Design

h

(1) TITLE AND LOCATION *(City and State)*

Renovations of the 1st Cavalry Headquarters – Fort Hood, TX

(2) YEAR COMPLETED
PROF. SERVICES: 2018
CONSTRUCTION: 2019

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

The project was a $48M renovation of a 130K SF Army Division Headquarters and Command Operations Facility including renovations of all administrative/office, an Operations Center (OC), Network Operations Center (NOC) and Sensitive Compartmented Information Facility (SCIF) served by an exterior Tactical SCI Vehicle Area (TSVA), including a Special Technical Operations (STO) Facility. Design of temporary swing space was also required. HZ provided full design construction documents and specifications (SpecsIntact) for the civil, structural, mechanical, electrical, telecom, plumbing and landscape disciplines. The site included increased parking improvements while still meeting AT/FP and ABA. The new mechanical systems were designed to exceed ASHRAE 90.1 by greater than 20%. Operationally critical areas of the facility were provided with redundant HVAC and the entire facility is served by a back-up generator in the event of a primary electrical failure. Size:135K SF | Cost: $46M

Role: Lead Electrical Engineer

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
RICHARD DICKERSON, PE, RCDD, LEED AP	ELECTRICAL ENGINEER	41	15

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – FORT WORTH, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

N/A

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Professional Engineer: TX, CO, MS, OK, AZ, WA, CA
Registered Communications Distribution Designer (RCDD)
LEED Accredited Professional

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Richard has experience in the design and development of communication systems for many types of facilities including for USACE and other Federal agency assignments. He is experienced in the design of small to large and complex medium and low voltage electrical distribution systems, communication systems, security and closed circuit television systems, and fire alarm systems for a vary array of federal agencies. He has experience in testing and commissioning of communications systems for mission critical facilities.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Repair/Renovate Dormitories 10070 and 10075 – Lackland AFB, San Antonio, TX

(2) YEAR COMPLETED: PROF. SERVICES 2013 | CONSTRUCTION 2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Design Build contract for renovation, repair and alternation of aging AF dorms. Interior improvements were focused on waste reduction and recovered materials by limiting demolition and re-purposing of materials and spaces. Upgrades to the HVAC, electrical and utilities focused on energy efficiency. Size: 72K SF | Cost: $11.9M
Role: Lead Electrical Engineer

b

(1) TITLE AND LOCATION *(City and State)*: Maneuver Systems Sustainment Center, Phase 3, Main Building – Red River Army Depot, Texarkana, TX

(2) YEAR COMPLETED: PROF. SERVICES 2013 | CONSTRUCTION 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The Maneuver Systems Sustainment Center (MSSC) is a new facility that achieves consolidation of multiple functions into a single facility. The functions served by the facility include disassembly, rebuild, metal finishing, body repair, painting and preparation of present and future tactical vehicles, including their major components and control systems. The MSSC is one of only three such army depots in the nation. Size: 233K SF | Cost: $39M
Role: Registered Communications Distribution Designer

c

(1) TITLE AND LOCATION *(City and State)*: Dallas Floodway Extension Phase II Recreation and Access Design, Dallas, TX – USACE Fort Worth District

(2) YEAR COMPLETED: PROF. SERVICES 2019 | CONSTRUCTION 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

This project consists of the design of approximately 2 miles of concrete trails, a large bridge crossing the Trinity River, two bridges crossing secondary waterways, a raised wooded boardwalk to reduce maintenance events in higher prone flooding areas, bird watching platforms, parking lots and multiple gates and pipe rail fences. This project is being designed through a collaborative effort that involves the City of Dallas and the USACE Fort Worth District. Cost: $5M
Role: Electrical Engineering Quality Control

d

(1) TITLE AND LOCATION *(City and State)*: CCAD Hangar 8 DB RFP – Corpus Christi Army Depot, TX

(2) YEAR COMPLETED: PROF. SERVICES 2018 | CONSTRUCTION ONGOING

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Hangar 8 serves as part of the rotary wing rebuild activities at CCAD. Our team prepared a design-build RFP for the renovation and repair to one of the major maintenance bays of the 1.2M square foot facility. This complex project includes a major overhaul of the systems and facility layout of approximately 70K square feet. The project includes upgrades to comply applicable codes, UFCs and standards for all electrical, structural, fire suppression, HVAC, concrete floor repairs. Services included a charrette to gather the user's specific requirements, validate the 1391 and prepare a ENG Form 3086. The team then prepared a design-build RFP, performed a structural evaluation and participated in the value engineering study with an independent design team. The design team continued support through the bidding phase with responses to RFIs and pre-proposal conference presentations. The design-build RFP was prepared in accordance with the AEIM and was submitted at each design phased with MII cost estimates. The project originally had a CCL of $12.1 M; however, after the charrette an ENG 3086 was complete, the project was reprogramed for $20M. Size: 68K SF | Cost: $20M
Role: Electrical Engineer

e

(1) TITLE AND LOCATION *(City and State)*

Bureau of Engraving and Printing Facility Expansion – Fort Worth, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2018	2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

The $150M project will expand the BEP production facility by 250,000 SF and the administration area by 50,000 SF with an additional 70,000 SF of renovation. The facility will be upgraded to meet BEP and IBC standards for HVAC, Electrical, Lighting, Communication, Security Systems, and Plumbing. Site improvements include a new access control point, parking and redundant utility connections. Our firm provided full design architecture and engineering services for the administration building and site improvements. The administration facility was designed in phases to allow temporary relocation of the 250 personnel working in the admin space. All new facilities were designed to meet all current ASHRAE 90.1 and EISA 439, LEED principles were followed but not registered. Size: 370K SF | Cost: $150M

Role: Electrical Engineer

f

(1) TITLE AND LOCATION *(City and State)*

Renovations of 1st Cavalry Headquarters – Fort Hood, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2018	2019

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

The project was a $48M renovation of a 130K SF Army Division Headquarters and Command Operations Facility including renovations of all administrative/office, an Operations Center (OC), Network Operations Center (NOC) and Sensitive Compartmented Information Facility (SCIF) served by an exterior Tactical SCI Vehicle Area (TSVA), including a Special Technical Operations (STO) Facility. Design of temporary swing space was also required. HZ provided full design construction documents and specifications (SpecsIntact) for the civil, structural, mechanical, electrical, telecom, plumbing and landscape disciplines. The site included increased parking improvements while still meeting AT/FP and ABA. The new mechanical systems were designed to exceed ASHRAE 90.1 by greater than 20%. Operationally critical areas of the facility were provided with redundant HVAC and the entire facility is served by a back-up generator in the event of a primary electrical failure. Size: 135K SF | Cost: $46M

Role: Electrical Engineer

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
HARRY HAWNEY, PE	ELECTRICAL ENGINEER	42	9

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – HOUSTON, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.Eng., Electronics Engineering	Professional Engineering: LA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Mr. Hawney's 40 years of power and electrical engineering experience includes site lighting, drainage pump stations, roadways, airports, power plants, water treatment and wastewater treatment facilities, and electrical and generator layouts for new facilities.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Section 219 Environmental Infrastructure, Hillaryville Wastewater Treatment Plant, Ascension Parish, LA – USACE New Orleans District

(2) YEAR COMPLETED: PROF. SERVICES: ONGOING; CONSTRUCTION: 2021

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Through the federal 219 program and USACE MVN, MSMM is providing design, cost estimating and preparation of final construction bid documents in USACE standards, for the design of a 1,800 million gallon per day (average daily flow) wastewater treatment plant (WWTP) to increase treatment capacity and facilitate regionalization of Hillaryville and surrounding service area. Mr. Hawney is the lead electrical engineer for the project. He is responsible for providing the electrical schedules, site plans, aeration electrical plan, admin building power and lighting plan, operation control power plan, and MCC on 1 line diagrams. Cost: $3.9M

Role: Lead Electrical Engineer

b

(1) TITLE AND LOCATION *(City and State)*: Timber Creek Recreational and Site Access Design, Austin TX – USACE Ft. Worth District

(2) YEAR COMPLETED: PROF. SERVICES: 2019; CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

MSMM is in the final stages of design for a horizontal design project for USACE SWF in Travis County, Texas. The Timber Creek project consists of re-designing flood mitigation components for public use. Mr. Hawney was the lead electrical engineer, he was responsible for establishing a new meter at the main roadway, running underground conduit to a new power pole and transformer (hung above the 50-year floodplain), and running power to the restroom facility and grinder station. Mr. Hawney was also responsible for providing site lighting. Cost: $45M

Role: Lead Electrical Engineer

c

(1) TITLE AND LOCATION *(City and State)*: Section 219 Environmental Infrastructure, Sewer Liftstation and Forcemain at the East Baton Rouge Landfill, Baton Rouge, LA – USACE New Orleans District

(2) YEAR COMPLETED: PROF. SERVICES: 2019; CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Through the Section 219 Environmental Infrastructure Program and USACE MVN, MSMM recently completed expedited design for 3,200 linear feet of 48" ductile iron forcemain and a new effluent pump station at the Baton Rouge landfill. Due to an emergency situation, plans and specs, cost estimates and the DDR were developed and approved within 6 months. Mr. Hawney was the lead electrical engineer for the project. He was responsible for design of the new electrical controls, the inclusion of a new generator, and design of site lighting. Cost: $3.2M

Role: Lead Electrical Engineer

d

(1) TITLE AND LOCATION *(City and State)*: Harahan Drainage Pump to the River, Jefferson Parish, LA – USACE New Orleans District

(2) YEAR COMPLETED: PROF. SERVICES: 2019; CONSTRUCTION: ONGOING

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

MSMM provided final design for this USACE MVN flood risk management project. Project elements included a 700 ft. suction canal, a 1,200 cfs pumping station, three 9,000 ft. long 84-inch diameter discharge pipes to the Mississippi River levee, the levee crossing design, and reinforced concrete discharge basin in the Mississippi River. Mr. Hawney provided design for the detailed electrical controls, provided electrical power design and set-up for the safe house and provided site lighting design. Cost: $135M

Role: Electrical Engineer

Michael Baker INTERNATIONAL

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
KEVIN SPANGLER, PE	FIRE PROTECTION ENGINEER	11	10

15. FIRM NAME AND LOCATION *(City And State)*

MICHAEL BAKER INTERNATIONAL – MIDVALE, UT

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
M.S., Fire Protection Engineering B.S., Agricultural and Biological Engineering	Professional Engineer: VA, PA, VA, NY, IL, ID, CT, SC MN, MS, NV, MD, TX, GA, MI, KS, OK, UT, NC, OH, FL

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Mr. Spangler has a degree in Fire Protection Engineering from an accredited university and has passed the NCEES fire protection engineering examination. He has experience with all applicable codes such as NFPA, with special emphasis on National Fire Protection Association (NFPA) 101 Life Safety. His experience encompasses sprinkler systems, fire alarm and mass notification systems, on-site fire water storage tank designs and foam concentrate fire protection systems (e.g. high & medium expansion foams).

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Fuel Cell and Corrosion Control Hangar – Cannon Air Force Base, NM

(2) YEAR COMPLETED — PROF. SERVICES: 2013 — CONSTRUCTION: 2013

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Responsible for the preparation of the fire alarm, fire protection, and life safety drawings for the Fuel Cell Hanger and reviewing drawings for the Corrosion Control Hanger. Architecture, engineering and construction phase services were provided for a new $32.8M, 89,000 square-feet hangar complex consisting of a 57,674 square-feet corrosion control hangar, a 32,087 square-feet fuel cell hangar, an aircraft taxiway, and aircraft parking aprons. Each of the hangar facilities were designed to achieve a LEED Silver Rating.
Size: 89K SF | Cost: $32.8M
Role: Fire Protection Engineer

b

(1) TITLE AND LOCATION *(City and State)*: B301 UAS Formal Training Unit Aircraft Maintenance Hangar Renovation – Holloman AFB, NM

(2) YEAR COMPLETED — PROF. SERVICES: 2013 — CONSTRUCTION: 2013

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Re-purposing of and additions/alterations to an existing hangar for use in connection with training in connection with Unmanned Aircraft Systems. The building, originally constructed in the 1940's, is an historic structure and previously used as a temporary location for the MQ-1 and MQ-9 maintenance hangar. The project included 50,988 SF of renovation and a 6,000 SF addition. The main hangar area accommodates the aircraft and maintenance functions, including engine shop, parts storage and supply rooms, secured storage. Personnel spaces include offices, restrooms, a mass training and briefing room, conference rooms and other support areas.
Size: 57K SF | Cost: $10.6M
Role: Lead Fire Protection Engineer

c

(1) TITLE AND LOCATION *(City and State)*: Border Patrol Facilities Design Standards – U.S. Border States

(2) YEAR COMPLETED — PROF. SERVICES: 2014 — CONSTRUCTION: N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Project included the updating and development of new facility design standards to meet the operational requirements for evolving U.S. Border Patrol national mission. Facility types included border stations, checkpoints, sector headquarters, forward operating bases, and other related facilities. Deliverables included baseline design requirements, data sheets, standard layouts, and a record of analysis for each category of border patrol facilities, on both northern and southern borders and for all affected jurisdictions in which DHS/CBP operates.
Role: Lead Fire Protection Engineer

d

(1) TITLE AND LOCATION *(City and State)*: FY18 Virtual Warfare Center Operations Facility – Nellis Air Force Base, NV

(2) YEAR COMPLETED — PROF. SERVICES: 2020 — CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Our firm was the designer of record for the design-build Virtual Warfare Center Operations Facility at Nellis Air Force Base, is the hub for connecting, controlling, and integrating multiple simulator types at Nellis AFB as well as geographically separated simulators. The VWC-N Ops Center will house multiple simulators to include F-15C, F-15E, AWACS, man-in-the-loop Adversary Air, Tactical Command & Control (C2), potential additional F-35 and F-22 sims, and follow-on potential for Navy sims (F-18, E-2D, AEGIS), bomber sims, Remotely Piloted Aircraft (RPA) sims, as well as Cyber and Space simulator workstations. Cost: $978K
Role: Fire Protection Engineer

(1) TITLE AND LOCATION *(City and State)*

Systems Integration F-35 Hangar 40/42 Additions & Aircraft Maintenance Unit – Hill Air Force Base, UT

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2019	2019

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

e

The team provided design for design build (DB) construction of two new hangar spaces, an attached aircraft maintenance unit area, and applicable support spaces for F-35 aircraft deployment for a total area of 59,616-square-feet. Included architecture, energy modeling, construction administration; conceptual, preliminary, final, telecommunications, and interior design; and civil, structural, mechanical, electrical, plumbing, and fire protection engineering. The project includes two 16,500 square foot hangar bays each of which will accommodate three F-35s, 5,000 SF support and storage area measuring two stories in height with a 1,300 square foot storage mezzanine will be in the space between the two hangar bays. The 20,700 SF AMU area will occupy the entire south side of the facility, with a single-story portion on the west end and a two-story portion on the east. Size: 59K SF | Cost: $20.3M

Role: Fire Protection Engineer

MOYE CONSULTING

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
DANIEL LECLAIR, PE	FIRE PROTECTION ENGINEER	34	8

15. FIRM NAME AND LOCATION *(City And State)*

MOYE CONSULTING – IRVING, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Mechanical Engineering	Professional Engineer: TX, Multiple Jurisdictions

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Society of Fire Protection Engineers; National Fire Protection Association

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Terminal D Dry Pipe Sprinkler System Repair, DFW International Airport – DFW Airport, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2018 — CONSTRUCTION: 2018

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Installation of a nitrogen generation and supply system. Size: 350K SF | Cost: $441K
Role: Fire Protection Engineer

b

(1) TITLE AND LOCATION *(City and State)*: PG A&B-Fire House Standpipe and FA Replacement, Dallas Love Field Airport – Dallas, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2019 — CONSTRUCTION: 2021

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Dallas Love Field sought services to replace the existing fire hose standpipe, and fire alarm systems in Parking Garages A & B. Moye Consulting assisted with this effort by providing technology consulting services. Systems include Fire Protection and Fire and Life Safety. Services include System Design, Stakeholder Interviews, Design Narrative, Design Criteria, Construction Documents, Survey and Documentation and Construction Phase Services.
Size: 2.16M SF | Cost: $1.5M
Role: Fire Protection Engineer

c

(1) TITLE AND LOCATION *(City and State)*: Admirals Club Expansion and Renovation, Terminal D, DFW International Airport – DFW Airport, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2017 — CONSTRUCTION: 2017

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Moye Consulting provided IT, public address/mass notification, audio/visual, automated access control systems, fire alarm and fire protection design services for the expansion and remodel of the Terminal D Admirals Club. Size: 33,500 SF | Cost: $1.2M
Role: Project Manager and Fire Protection Engineer

d

(1) TITLE AND LOCATION *(City and State)*: Fire Alarm Systems Replacement, Kraft Heinz Company – Champaign, IL

(2) YEAR COMPLETED — PROF. SERVICES: 2017 — CONSTRUCTION: 2017

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Existing conditions assessment of 1.2M-SF of commercial space and design of fire alarm systems replacement.
Size: 1.2M SF | Cost: $1.8M
Role: Project Manager and Fire Protection Engineer

e

(1) TITLE AND LOCATION *(City and State)*: American Airlines Hangars 1-4, Fire Alarm Upgrades, DFW International Airport – DFW Airport, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2017 — CONSTRUCTION: 2018

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The American Airlines hangar complex at Dallas/Fort Worth International Airport (DFW) consists of interconnected structures including Hangars 1-4, a Stores Warehouse, and Central Utility Building. Five fire alarm control systems provide fire detection, occupant notification, and equipment control functions in each building. The advanced age of the fire alarm control systems and their incompatibility with upgraded communicating equipment at the CMF made it necessary to replace the existing fire alarm systems.
Size: 870K SF | Cost: $2M
Role: Fire Protection Engineer

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
MICHAEL DE LEON, PE	CIVIL ENGINEER	22	14

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – DALLAS, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

BS, Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Professional Engineer: TX

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Michael has 22 years of experience in civil engineering design experience. With a focus on major infrastructure and civil site development, he has the ability to take programs from site planning, through design and to construction management. He understands USACE design requirements from his 8 years on the Fort Bliss Program having prepared civil infrastructure designs for $1.0B. Michael also has extensive experience in the design and management of a wide variety of hydrology and hydraulics projects. His experience encompasses roadway drainage analysis, bridge hydraulic studies, and permitting, managing, creation and utilizing GIS databases, storm water quality and stream channel analysis.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION *(City and State)*

Renovation of Historic Building B5676 and Hangar B6426 – Barksdale AFB, LA

(2) YEAR COMPLETED — PROF. SERVICES: 2015 — CONSTRUCTION: 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

a Revised floor plan layouts were developed for B5676 to meet the program and user needs. New HVAC, Electrical, Fire Alarm/Mass Notification and Fire Suppression system we designed to meet ASHRAE 90.1. B6426 Hangar 4 was renovated in place with the building occupied and operational thru out. The existing kitchen and day room were relocated from the ground floor to the second to make room for two additional Apparatus bays increasing capacity from 4 to 6 vehicles. B6426 Hangar 3 was gutted with selective demolition and asbestos abatement. All MEP systems were removed to leave a clean slate for future renovation. Size: 50K SF | Cost: $7.7M
Role: Civil Engineer

(1) TITLE AND LOCATION *(City and State)*

Dallas Floodway Extension Phase II Recreation and Access Design, Dallas, Texas – USACE Fort Worth District

(2) YEAR COMPLETED — PROF. SERVICES: 2019 — CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

b This project consists of the design of approximately 2 miles of concrete trails, a large bridge crossing the Trinity River, two bridges crossing secondary waterways, a raised wooded boardwalk to reduce maintenance events in higher prone flooding areas, bird watching platforms, parking lots and multiple gates and pipe rail fences. This project is being designed through a collaborative effort that involves the City of Dallas and the USACE Fort Worth District. Cost: $5M
Role: Civil Engineering Quality Control

(1) TITLE AND LOCATION *(City and State)*

CCAD Hangar 8 Renovation DB RFP – Corpus Christi Army Depot, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2018 — CONSTRUCTION: ONGOING

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

c Hangar 8 serves as part of the rotary wing rebuild activities at CCAD. Our team prepared a design-build RFP for the renovation and repair to one of the major maintenance bays of the 1.2M square foot facility. This complex project includes a major overhaul of the systems and facility layout of approximately 70K square feet. The project includes upgrades to comply applicable codes, UFCs and standards for all electrical, structural, fire suppression, HVAC, concrete floor repairs. Services included a charrette to gather the user's specific requirements, validate the 1391 and prepare a ENG Form 3086. The team then prepared a design-build RFP, performed a structural evaluation and participated in the value engineering study with an independent design team. The design team continued support through the bidding phase with responses to RFIs and pre-proposal conference presentations. The design-build RFP was prepared in accordance with the AEIM and was submitted at each design phased with MII cost estimates. The project originally had a CCL of $12.1 M; however, after the charrette an ENG 3086 was complete, the project was reprogramed for $20M. Size: 68K SF | Cost: $20M
Role: Civil Engineer

d

(1) TITLE AND LOCATION *(City and State)*
Margaret Hunt Hill (Woodall Rodgers) Bridge Over The Trinity River, TxDOT – Dallas, TX

(2) YEAR COMPLETED
PROF. SERVICES: 2012
CONSTRUCTION: 2012

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

The Margaret Hunt Hill Bridge is composed of two approach viaducts and a central cable-stayed main span. The total length is 1933 feet, comprised of a 440 –foot-long western viaduct, a 1203-foot, cable-stayed main span, and a 290-foot-long eastern viaduct. The approach viaducts consist of a series of precast prestressed U-beam spans with lengths between 70 to 115 feet. Size: 1933 ft bridge | Cost: $70M
Role: Civil Engineer

e

(1) TITLE AND LOCATION *(City and State)*
USDA Fruit Fly Rearing and Release Facility (FFRRF), Moore Air Base – Edinburg, TX

(2) YEAR COMPLETED
PROF. SERVICES: 2020
CONSTRUCTION: 2022

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

This facility will support the USDA Agriculture and Plant Health Inspection Service (APHIS) Preventive Release Program with the goal of rearing 400 million sterile fruit flies per week. The project also includes extensive process engineering support for the diet processing, sorting, dying, and larvae seeding procedures and operations. Fourteen robotic machines are planned to assist production and reduce manual procedures to minimize the handling of as much as 60 tons of physical inventory per week. In addition to the industrial process engineering, the design team is providing civil, structural, mechanical, fire protection, and electrical engineering as well as architectural design. The contract also includes design, construction and warranty phase building commissioning services. Site design includes a new raw water service line to the existing water treatment plant that requires about 1.25-miles of pipeline from the base water supply reservoir, parking for 200 vehicles, two primary storm water detention ponds, and a utility services access road. Size: 75K SF | Cost: $58M
Role: Civil Engineer

f

(1) TITLE AND LOCATION *(City and State)*
Bureau of Engraving and Printing Facility Expansion – Fort Worth, TX

(2) YEAR COMPLETED
PROF. SERVICES: 2018
CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

The $150M project will expand the BEP production facility by 250,000 SF and the administration area by 50,000 SF with an additional 70,000 SF of renovation. The facility will be upgraded to meet BEP and IBC standards for HVAC, Electrical, Lighting, Communication, Security Systems, and Plumbing. Site improvements include a new access control point, parking and redundant utility connections. The design team provided full design architecture and engineering services for the administration building and site improvements. The administration facility was designed in phases to allow temporary relocation of the 250 personnel working in the admin space. All new facilities were designed to meet all current ASHRAE 90.1 and EISA 439, LEED principles were followed but not registered.
Size: 370K SF | Cost: $150M
Role: Lead Civil Engineer

g

(1) TITLE AND LOCATION *(City and State)*
Combat Aviation Brigade Airfield Design and Title II (Construction Management Services), Biggs Army Airfield – Fort Bliss, TX

(2) YEAR COMPLETED
PROF. SERVICES: 2011
CONSTRUCTION: 2011

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

The Title II Services include supervision and inspection of construction, construction quality assurance and oversight of airfield pavements construction on this $44M project. The project included 250 acres of airfield apron pavement; 378,000 sq.-yds. of concrete pavement; 400,000 cubic yards of excavation; 25,000 linear feet of storm drain; new apron and taxiway lighting. Size: 378K SF | Cost: $44M
Role: Civil Engineer

h

(1) TITLE AND LOCATION *(City and State)*
William Beaumont Replacement Hospital, Infrastructure Design – Fort Bliss, TX

(2) YEAR COMPLETED
PROF. SERVICES: 2013
CONSTRUCTION: ONGOING

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Provided civil engineering and site design for the 1.13M SF world class medical center. Coordinated infrastructure requirements and design for the hospital buildings, central utility plant and other support facilities. Access control points and surface parking lots for 4000 spaces were designed. New 1.5MG water storage and 4 miles of offsite sewer with lift stations support the site.
Size: 300 Acres | Cost: $85M
Role: Project Manager and Lead Civil Engineer

i

(1) TITLE AND LOCATION *(City and State)*
Site Design & Utility Feeds for Industrial Complex – Fort Bliss, TX

(2) YEAR COMPLETED
PROF. SERVICES: 2012
CONSTRUCTION: 2013

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Master planning, programming and design of a 250 acre complex to house industrial-type facilities in support of the Bliss expansion program. Coordination with various stakeholders to accommodate office, warehouse and light industrial development. Distribution warehouse uses and isolation of commercial tractor-trailer traffic from military access dictated roadway design and traffic circulation. The site includes new roadways, utility networks, drainage and an electrical substation. Size: 250 Acres | Cost: $19M
Role: Lead Civil Engineer

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
SCOTT CHEHARDY, PE	CIVIL ENGINEER	24	9

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – HOUSTON, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

BS, Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Professional Engineer: LA, IN

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Mr. Chehardy started his career providing design of levee roads and bike paths on USACE projects in the greater New Orleans area. Over the past 6 years, Mr. Chehardy has provided the civil design for levees, walls, floodwalls and pump stations for multiple USACE Civil Works projects. He is proficient in providing design in Microstation and has a long history of providing Specifications in SpecsIntact.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Cow Bayou Drainage Pump Station Complex Design, Orange County, Texas – USACE New Orleans District

(2) YEAR COMPLETED: PROF. SERVICES 2020; CONSTRUCTION 2022

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

MSMM has been tasked with providing the civil and structural design for the Cow Bayou Complex, a component of the Sabine Pass to Galveston Bay, Orange project. This 8,000 CFS drainage pump station is currently under design via USACE MVN. Mr. Chehardy is the engineering lead for the project. He is the main POC for USACE, coordinates the MSMM engineering team, and is providing all civil site design and dredge design for the project. Cost: $250M

Role: Lead Civil Engineer

b

(1) TITLE AND LOCATION *(City and State)*: Design of Jefferson Parish Floodwall – Western Return Wall, Jefferson Parish, LA – USACE New Orleans District

(2) YEAR COMPLETED: PROF. SERVICES 2012; CONSTRUCTION 2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Following Hurricane Katrina, MSMM was instrumental in providing design phase and construction phase services for the implementation of over 3 miles of floodwalls along the western perimeter of the Hurricane Storm Damage Risk Reduction System (HSDRRS) in the greater New Orleans area. Mr. Chehardy was tasked with working with the FAA and SLPA-E to provide fencing and access road design that met their regulations. He worked with the FAA from the design charrette through final construction and provided all of the fencing design for the project. Likewise, he designed the access roadways and turn-arounds for routine patrol and inspection purposes. Cost: $120M

Role: Lead Civil Engineer

c

(1) TITLE AND LOCATION *(City and State)*: Harahan Drainage Pump to the River, Harahan, LA – USACE New Orleans District

(2) YEAR COMPLETED: PROF. SERVICES 2014; CONSTRUCTION 2017

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

MSMM provided full engineering design for the USACE MVN for this important drainage pump station project. Project elements included a 700 ft. suction canal, a 1,200 cfs pumping station, three 9,000 ft. long 84-inch diameter discharge pipes to the Mississippi River levee, the levee crossing design, reinforced concrete and discharge basin in the Mississippi River. Mr. Chehardy prepared the final design and provided construction services for three phases which covered the discharge basin, levee crossing and 22,000-feet of 84" pipe.

Cost: $135M

Role: Lead Civil Engineer

d

(1) TITLE AND LOCATION *(City and State)*: Section 219 Environmental Infrastructure, Hillaryville Wastewater Treatment Plant, Ascension Parish, LA – USACE New Orleans District

(2) YEAR COMPLETED: PROF. SERVICES ONGOING; CONSTRUCTION 2021

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Through the federal 219 program and USACE MVN, MSMM is providing design, cost estimating and preparation of final construction bid documents in USACE standards, for the design of a 1,800 million gallon per day (average daily flow) wastewater treatment plant (WWTP) to increase treatment capacity and facilitate regionalization of Hillaryville and surrounding service area. Mr. Chehardy is the lead Civil Engineer for the project, he is responsible for providing the overall paving and grading for the site, site access details, drainage design, joint layout plans and providing the fencing plan. He is also responsible for the connection details to the forcemain. Cost: $18M

Role: Lead Civil Engineer

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
JIM WILSON, PE, LEED AP	CIVIL ENGINEER	31	9

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – NEW ORLEANS, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

BS, Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Professional Engineer: TX, LA, MI, FL

LEED Accredited Professional

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Mr. Wilson is a senior civil/drainage/levee engineer with over 30+ years of civil engineering experience. He is the designer of record for 10 recent USACE vertical infrastructure projects and has an extensive engineering portfolio covering the design of levees, walls, canals and subsurface drainage structures. Mr. Wilson is fully versed in the USACE design process and is currently designing multiple USACE projects in Texas and Louisiana.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Dallas Floodway Extension Phase II Design, Dallas, TX – USACE Ft. Worth District

(2) YEAR COMPLETED: PROF. SERVICES 2019; CONSTRUCTION 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

MSMM is in the final design stages for this critical project that consists of multiple miles of concrete trails and roadway, the design of 3 bridges, including a large crossing of the Trinity River, multiple recreational elements, and an elevated boardwalk. Mr. Wilson was the lead Civil Engineer and designer of record for the project. He was responsible for developing the Civil Design Plans and bid ready documents. He has also provided detailed design of the elevated boardwalk feature, and identified design changes that have saved almost $2M to the government. Cost: $5M

Role: Lead Civil Engineer

b

(1) TITLE AND LOCATION *(City and State)*: Texas City & Vicinity Hurricane Flood Protection Project, I-Wall to T-Wall Conversion, Texas City, TX – USACE Galveston District

(2) YEAR COMPLETED: PROF. SERVICES ONGOING; CONSTRUCTION 2021

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

MSMM Engineering was recently contracted by the USACE Galveston District to provide engineering and design services for the replacement of approximately 700 linear feet of existing I-Wall with a new T-wall structure. Mr. Wilson is the lead civil engineer for the project. He is responsible for working with the structural engineer to identify the proper site for the floodwall, identify and relocate impacted facilities, identify the construction access and laydown areas, and work with the refinery to develop the front end specifications in SpecsIntact format. Cost: $22M

Role: Lead Civil Engineer

c

(1) TITLE AND LOCATION *(City and State)*: 277K Levee Raise and Delta Pump Station Renovation Design-Build, Dallas TX – USACE Ft. Worth District

(2) YEAR COMPLETED: PROF. SERVICES ONGOING; CONSTRUCTION 2021

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

MSMM has been tasked by the USACE Ft. Worth District to develop design-build RFP's for the Dallas Floodway 277K Levee Raise with 4:1 side slopes, and 277K conveyance levee raise. Additionally, the Delta Pump Station renovations consist of a new electrical building and site improvements. Mr. Wilson is the lead engineer responsible for the developing the design-build RFP's, identifying suitable borrow material, relocating structures within the floodway that will be impacted by the levee raise, and design of the access roadways. Cost: $320M

Role: Lead Engineer

d

(1) TITLE AND LOCATION *(City and State)*: Section 219 Environmental Infrastructure Program: Effluent Pump Station and Forcemain Design, Hillaryville, LA – USACE New Orleans District

(2) YEAR COMPLETED: PROF. SERVICES 2016; CONSTRUCTION 2017

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Through the USACE MVN, MSMM designed and permitted approximately 3,500 feet of 10" and 14" effluent forcemain and one 562 gpm effluent pump station to accommodate the upgrades to the Hillaryville Wastewater Treatment Plant. Mr. Wilson was the lead civil engineer for the project and provided all of the design for the pipe routing, site work, grading for the pump station, roadway crossing and levee crossing. Cost: $4.3M

Role: Lead Civil Engineer

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
WILLIAM WALLACE, PE, SECB	STRUCTURAL ENGINEER	40	8

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – FORT WORTH, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
MS, Civil Engineering	Professional Engineer: TX, FL, NM, OK, WA
BS, Civil Engineering	Structural Engineering Certification Board

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

William Wallace has been involved in the design of many highly complex structures for both the military and civil works construction programs of the Corps of Engineers. Projects have included buildings in seismic zones, dormitories, warehouses, maintenance facilities, religious education centers, border patrol stations, air traffic control towers, pallheliet storage facilities, and general office space. These structures utilized reinforced concrete, structural steel, concrete masonry units, timber, and light gage steel framing and roof deck. Other more highly complex structures were aircraft hangars and vehicle maintenance facilities utilized long span roof trusses. Wallace has also provided consultation services to Fort Worth District Corps of Engineers Office of Counsel on construction claims filed by various contractors. Complicated 3-dimensional computer analyses were required to model the effects of the construction sequence of the subject structure.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION *(City and State)*: Repair/Renovate Dormitories 10070 and 10075 – Lackland AFB, San Antonio, TX
(2) YEAR COMPLETED: PROF. SERVICES 2013 | CONSTRUCTION 2014
(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

a Design Build contract for renovation, repair and alternation of aging AF dorms. Interior improvements were focused on waste reduction and recovered materials by limiting demolition and re-purposing of materials and spaces. Upgrades to the HVAC, electrical and utilities focused on energy efficiency. Size: 72K SF | Cost: $11.9M
Role: Lead Structural Engineer

(1) TITLE AND LOCATION *(City and State)*: Maneuver Systems Sustainment Center, Phase 3, Main Building – Red River Army Depot, Texarkana, TX
(2) YEAR COMPLETED: PROF. SERVICES 2013 | CONSTRUCTION 2016
(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

b The Maneuver Systems Sustainment Center (MSSC) is a new facility that achieves consolidation of multiple functions into a single facility. The functions served by the facility include disassembly, rebuild, metal finishing, body repair, painting and preparation of present and future tactical vehicles, including their major components and control systems. The MSSC is one of only three such army depots in the nation. Size: 233K SF | Cost: $39M
Role: Structural Engineer

(1) TITLE AND LOCATION *(City and State)*: Renovation of Historic Building B5676 and Hangar B6426 – Barksdale AFB, LA
(2) YEAR COMPLETED: PROF. SERVICES 2015 | CONSTRUCTION 2016
(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

c Revised floor plan layouts were developed for B5676 to meet the program and user needs. New HVAC, Electrical, Fire Alarm/Mass Notification and Fire Suppression system we designed to meet ASHRAE 90.1. B6426 Hangar 4 was renovated in place with the building occupied and operational thru out. The existing kitchen and day room were relocated from the ground floor to the second to make room for two additional Apparatus bays increasing capacity from 4 to 6 vehicles. B6426 Hangar 3 was gutted with selective demolition and asbestos abatement. All MEP systems were removed to leave a clean slate for future renovation. Size: 50K SF | Cost: $7.7M
Role: Structural Engineer

(1) TITLE AND LOCATION *(City and State)*: Dallas Floodway Extension Phase II Recreation and Access Design, Dallas, Texas – USACE Fort Worth District
(2) YEAR COMPLETED: PROF. SERVICES 2019 | CONSTRUCTION 2020
(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

d This project consists of the design of approximately 2 miles of concrete trails, a large bridge crossing the Trinity River, two bridges crossing secondary waterways, a raised wooded boardwalk to reduce maintenance events in higher prone flooding areas, bird watching platforms, parking lots and multiple gates and pipe rail fences. This project is being designed through a collaborative effort that involves the City of Dallas and the USACE Fort Worth District. Cost: $5M
Role: Structural Quality Control

e

(1) TITLE AND LOCATION *(City and State)*

CCAD Hangar 8 Renovation DB RFP – Corpus Christi Army Depot, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2018	ONGOING

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Hangar 8 serves as part of the rotary wing rebuild activities at CCAD. Our team prepared a design-build RFP for the renovation and repair to one of the major maintenance bays of the 1.2M square foot facility. This complex project includes a major overhaul of the systems and facility layout of approximately 70K square feet. The project includes upgrades to comply applicable codes, UFCs and standards for all electrical, structural, fire suppression, HVAC, concrete floor repairs. Services included a charrette to gather the user's specific requirements, validate the 1391 and prepare a ENG Form 3086. The team then prepared a design-build RFP, performed a structural evaluation and participated in the value engineering study with an independent design team. The design team continued support through the bidding phase with responses to RFIs and pre-proposal conference presentations. The design-build RFP was prepared in accordance with the AEIM and was submitted at each design phased with MII cost estimates. The project originally had a CCL of $12.1 M; however, after the charrette an ENG 3086 was complete, the project was reprogramed for $20M. Size: 68K SF | Cost: $20M

Role: Lead Structural Engineer

f

(1) TITLE AND LOCATION *(City and State)*

Bureau of Engraving and Printing Facility Expansion – Fort Worth, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2018	2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The $150M project will expand the BEP production facility by 250,000 SF and the administration area by 50,000 SF with an additional 70,000 SF of renovation. The facility will be upgraded to meet BEP and IBC standards for HVAC, Electrical, Lighting, Communication, Security Systems, and Plumbing. Site improvements include a new access control point, parking and redundant utility connections. The design team provided full design architecture and engineering services for the administration building and site improvements. The administration facility was designed in phases to allow temporary relocation of the 250 personnel working in the admin space. All new facilities were designed to meet all current ASHRAE 90.1 and EISA 439, LEED principles were followed but not registered. Size: 370K SF | Cost: $150M

Role: Lead Structural Engineer

g

(1) TITLE AND LOCATION *(City and State)*

USDA Fruit Fly Rearing and Release Facility (FFRRF) – Moore Air Base, Edinburg, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2020	2022

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

This facility will support the USDA Agriculture and Plant Health Inspection Service (APHIS) Preventive Release Program with the goal of rearing 400 million sterile fruit flies per week. The project also includes extensive process engineering support for the diet processing, sorting, dying, and larvae seeding procedures and operations. Fourteen robotic machines are planned to assist production and reduce manual procedures to minimize the handling of as much as 60 tons of physical inventory per week. In addition to the industrial process engineering, the design team is providing civil, structural, mechanical, fire protection, and electrical engineering as well as architectural design. The contract also includes design, construction and warranty phase building commissioning services. Site design includes a new raw water service line to the existing water treatment plant that requires about 1.25-miles of pipeline from the base water supply reservoir, parking for 200 vehicles, two primary storm water detention ponds, and a utility services access road. Size: 75K SF | Cost: $58M

Role: Lead Structural Engineer

h

(1) TITLE AND LOCATION *(City and State)*

Renovations of the 1st Cavalry Headquarters – Fort Hood, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2018	2019

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

The project was a $48M renovation of a 130K SF Army Division Headquarters and Command Operations Facility including renovations of all administrative/office, an Operations Center (OC), Network Operations Center (NOC) and Sensitive Compartmented Information Facility (SCIF) served by an exterior Tactical SCI Vehicle Area (TSVA), including a Special Technical Operations (STO) Facility. Design of temporary swing space was also required. HZ provided full design construction documents and specifications (SpecsIntact) for the civil, structural, mechanical, electrical, telecom, plumbing and landscape disciplines. The site included increased parking improvements while still meeting AT/FP and ABA. The new mechanical systems were designed to exceed ASHRAE 90.1 by greater than 20%. Operationally critical areas of the facility were provided with redundant HVAC and the entire facility is served by a back-up generator in the event of a primary electrical failure. Size: 135K SF | Cost: $46M

Role: Lead Structural Engineer

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
ROBERT YOKUM, PE	STRUCTURAL ENGINEER	38	9

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – NEW ORLEANS, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

BS, Civil Engineering
MS, Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Professional Engineering: LA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Mr. Yokum, a former USACE New Orleans District Structural Engineer, has over 35 years of experience providing structural design for USACE projects. Mr. Yokum specializes in designing flood risk reduction measures and has designed levees, walls, locks, gates and drainage structures for his entire career. Mr. Yokum developed the unbalanced load criteria used by USACE for levee design.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Granger Lake Management Office Design – Granger, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2019 — CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

MSMM recently completed the preparation of final construction bid documents for the improvements of lake facilities in Granger, Texas. Final design was completed in September of 2019 and the project is currently in construction. Mr. Yokum was the lead structural engineer for the project. He worked with USACE geotechnical section to identify specific soils parameters and risk factors, which resulted in the foundation design of a reinforced ribbed concrete mat foundation. He also ran seismic load calculations and designed a safe room foundation independent from the rest of the facility. Cost: $3M

Role: Lead Structural Engineer

b

(1) TITLE AND LOCATION *(City and State)*: Cow Bayou Drainage Pump Station Complex Design, Orange County, TX – USACE New Orleans District

(2) YEAR COMPLETED — PROF. SERVICES: 2020 — CONSTRUCTION: 2022

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

MSMM has been tasked with providing the civil and structural design for the Cow Bayou Complex, a component of the Sabine Pass to Galveston Bay, Orange coastal storm risk management project. This 8,000 CFS pump station is under preliminary design. Mr. Yokum is providing the structural design, inclusive of the foundational design for the pump station and wing walls.

Size: Cost: $250M

Role: Structural Engineer

c

(1) TITLE AND LOCATION *(City and State)*: Design of Jefferson Parish Floodwalls, Jefferson Parish, Louisiana – USACE New Orleans District

(2) YEAR COMPLETED — PROF. SERVICES: 2012 — CONSTRUCTION: 2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Following Hurricane Katrina, MSMM was instrumental in providing design phase and construction phase services for the implementation of over 3 miles of floodwalls along the western perimeter of the Hurricane Storm Damage Risk Reduction System (HSDRRS) in Jefferson Parish. Specifically, our engineering team was responsible for the design of the Western Return Wall. Mr. Yokum was the lead structural engineer, designing 19,300 ft. of new floodwall monoliths, which were fit between the existing (smaller) floodwall & an adjacent canal. Mr. Yokum also provided construction administration for the batter pile installation, as the foundation had to be driven between existing foundation pilings. Mr. Yokum worked with the MSMM hydraulic engineering team for wave modeling that was required to fit the levee underneath the Interstate. His design included T-walls, monoliths, foundation, and small gate structures. Cost: $120M

Role: Lead Structural Engineer

d

(1) TITLE AND LOCATION *(City and State)*: Texas City & Vicinity Hurricane Flood Protection Project, I-Wall to T-Wall Conversion, Texas City, TX – USACE Galveston District

(2) YEAR COMPLETED — PROF. SERVICES: ONGOING — CONSTRUCTION: 2021

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

MSMM Engineering was recently contracted by the USACE Galveston District to provide engineering and design services for the replacement of approximately 700 linear feet of existing I-Wall with a new T-wall structure. Mr. Yokum is the lead structural engineer for the project and is responsible for designing the floodwall conversion from an I-Wall to a T-wall. Mr. Yokum is also responsible for designing a large swing gate for the project. Cost: $22M

Role: Lead Structural Engineer

Michael Baker INTERNATIONAL

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
GAVIN FITZSIMMONS, PE, SE	STRUCTURAL ENGINEER	19	11

15. FIRM NAME AND LOCATION *(City And State)*

MICHAEL BAKER INTERNATIONAL – MIDVALE, UT

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
MSCE, Civil Engineering BSCE, Civil Engineering	Professional Engineer: CA, NV, WA, ID, UT, AK, IL, TX, AZ, NM, OH, WY, HI, LA, FL, OR, CO, MD, MO, KS

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Mr. Fitzsimmons has a broad knowledge and experience in medical, educational, retail, residential, and retrofit projects. He has an expansive portfolio of new structural design and rehabilitation for transportation facilities including bridges, bus stations, maintenance facilities, rail yard buildings and stations, parking structures, aircraft hangars, truck inspection stops, temporary support structures, and other structural roadway aesthetic features.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Fuel Cell and Corrosion Control Hangar Design – Cannon AFB, Cannon, NM

(2) YEAR COMPLETED: PROF. SERVICES 2013; CONSTRUCTION 2013

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Responsible for performing all structural designs services for two new hangars. An integral part of the technical team which provided architectural, electrical, structural, and civil design for the facilities and associated site work. Design elements included utilities; storm drainage; plumbing; communications; electrical; force protection measures; paving; walks; curbs; parking; access roads; exterior lighting; site improvements; grading; and landscaping. The facilities were designed to achieve a LEED™ Silver Rating. Size: 89K SF | Cost: $32.8M

Role: Structural Engineer

b

(1) TITLE AND LOCATION *(City and State)*: B301 UAS Formal Training Unit Aircraft Maintenance Hangar Renovation – Holloman AFB, Albuquerque, NM

(2) YEAR COMPLETED: PROF. SERVICES 2013; CONSTRUCTION 2013

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Responsible for performing all structural designs services for renovation of a historical hangar. An integral part of the technical team which provided architectural, electrical, structural, and civil design for the facilities and associated site work. Design elements included utilities; storm drainage; plumbing; communications; electrical; force protection measures; paving; walks; curbs; parking; access roads; exterior lighting; site improvements; grading; and landscaping. Cost: $10.6M

Role: Structural Engineer

c

(1) TITLE AND LOCATION *(City and State)*: Dormitory Building 2424 Renovation – Edwards Air Force Base, CA

(2) YEAR COMPLETED: PROF. SERVICES 2016; CONSTRUCTION 2017

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Responsible for the conceptual approach and independent technical review of the structural design. Our firm was the designer of record for the design-build delivery of a renovated 30,000 square-foot dorm facility to house 56 airmen. The renovated building provides an upgraded space with new, low-maintenance finishes; energy-efficient electrical, mechanical, and plumbing systems; and a modern fire protection system, all to ensure the comfort and safety of the occupants. Size: 30K SF | Cost: $600K (Fee)

Role: Structural Engineer

d

(1) TITLE AND LOCATION *(City and State)*: Systems Integration F-35 Hangar 40/42 Additions & Aircraft Maintenance Unit – Hill Air Force Base, Utah

(2) YEAR COMPLETED: PROF. SERVICES 2019; CONSTRUCTION 2019

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE ☒ Check if project performed with current firm

Our team provided design for design build (DB) construction of two new hangar spaces, an attached aircraft maintenance unit area, and applicable support spaces for F-35 aircraft deployment for a total area of 59,616-square-feet. Included architecture, energy modeling, construction administration; conceptual, preliminary, final, telecommunications, and interior design; and civil, structural, mechanical, electrical, plumbing, and fire protection engineering. The project includes two 16,500 square foot hangar bays each of which will accommodate three F-35s, 5,000 SF support and storage area measuring two stories in height with a 1,300 square foot storage mezzanine will be in the space between the two hangar bays. The 20,700 SF AMU area will occupy the entire south side of the facility, with a single-story portion on the west end and a two-story portion on the east. Size: 59K SF | Cost: $20.3M

Role: Structural Engineer

(1) TITLE AND LOCATION *(City and State)*

San Diego Veterans Administration Medical Center, Fourth Floor Renovation – San Diego, CA

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2015	2015

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

e Responsible for and performed the structural independent technical review. The team provided full service architectural and engineering design for the complete renovation and build-out of the fourth floor of the San Diego Veterans Administration Medical Campus.
Cost: $470K (Fee)
Role: Structural Engineer

(1) TITLE AND LOCATION *(City and State)*

FY18 Virtual Warfare Center Operations Facility – Nellis Air Force Base, NV

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2014	2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

f Responsible for and performed the structural independent technical review. New 4,000 square-foot engine maintenance facility attached to the six-bay F-35A aircraft maintenance hangar and aircraft maintenance unit. Design submissions prepared for 100 percent pre-final and issue-for-construction levels. Autodesk® Revit® 2012 was used to perform BIM for coordination and interference. Construction phase services included reviewing contractor's submittals, request for information and as-built drawings. Cost: $978K (Fee)
Role: Senior Structural Engineer

(1) TITLE AND LOCATION *(City and State)*

F-35A Aircraft Engine Shop – Nellis Air Force Base, NV

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2014	2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

g Responsible for and performed the structural independent technical review. New 4,000 square-foot engine maintenance facility attached to the six-bay F-35A aircraft maintenance hangar and aircraft maintenance unit. Design submissions prepared for 100 percent pre-final and issue-for-construction levels. Autodesk® Revit® 2012 was used to perform BIM for coordination and interference. Construction phase services included reviewing contractor's submittals, request for information and as-built drawings. Size: 4K SF | Cost: $215K (Fee)
Role: Structural Engineer

Michael Baker INTERNATIONAL

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
DON GREEN, PE	GEOTECHNICAL ENGINEER	41	13

15. FIRM NAME AND LOCATION *(City And State)*

MICHAEL BAKER INTERNATIONAL – MOON TOWNSHIP, PA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

MS, Civil Engineering
BS, Civil Engineering

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Professional Engineer: PA

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

40+ years of experience in geotechnical engineering, foundation and retaining wall design, planning, laboratory and field investigations, preparation of plans and specifications, and project supervision and management. Has spent the majority of his career performing foundation engineering for structures both on land and over water.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: IDC for A-E Services for DHS and other Civil and Military Projects within the SWD Boundaries (Nationwide)

(2) YEAR COMPLETED: PROF. SERVICES 2009 | CONSTRUCTION 2015

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Responsible for technical reviews of geotechnical analysis, specifically stability. Performed foundations stabilization analysis in support of fencing construction along the U.S.-Mexico Border. Our firm provided all aspects of design and program management, and construction management for the CMAA award-winning CBP TI project at wide variety of sites. Cost: $40M | Role: Geotechnical Engineer

b

(1) TITLE AND LOCATION *(City and State)*: Fort Hood Tactical Equipment Maintenance Facility (TEMF) DB Complex – Killeen, TX

(2) YEAR COMPLETED: PROF. SERVICES 2012 | CONSTRUCTION 2012

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Responsible for completing a laterally loaded pile analysis for foundation design. Our firm is the designer of record for this complex, consisting of a 56,601-square-foot TEMF, an 8,400-square-foot organizational storage building, a 1,800- square-foot unmanned aerial vehicle storage facility, and ancillary structures. The TEMF was designed to meet LEED Silver certification. Size: 66K SF | Cost: $17.M
Role: Geotechnical Engineer

c

(1) TITLE AND LOCATION *(City and State)*: Unaccompanied Enlisted Personnel Housing and Company Operations Facilities – Fort Carson, CO

(2) YEAR COMPLETED: PROF. SERVICES 2010 | CONSTRUCTION N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Performed a technical review to recommend design alternatives to reduce heave potential for shallow foundations constructed on expansive soil. Our firm provided architectural services; structural, mechanical, and electrical engineering; plumbing; interior design, and landscape architecture for a new 62,925-square-foot, 168-bed unaccompanied enlisted personnel housing facility and a new 36,390-square-foot company operations facility. Size: 99K SF | Cost: $23M
Role: Geotechnical Engineer

d

(1) TITLE AND LOCATION *(City and State)*: C4ISR Under Ground (UG) Command Centers and Training Center – Amman, Jordan

(2) YEAR COMPLETED: PROF. SERVICES 2010 | CONSTRUCTION N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Performed in-country coordination to conduct geotechnical and mapping investigations at three UG command centers. Our firm provided surveying, topographic mapping, and geotechnical investigation services at three military bases in Jordan. The effort involved the mobilization of a two-man survey crew and two geotechnical engineers. The geotechnical investigation consisted of an office investigation, field reconnaissance, subsurface investigation, laboratory testing, geotechnical analysis, and preparation of geotechnical reports.
Cost: $1.4M (Fee)
Role: Geotechnical Engineer

e

(1) TITLE AND LOCATION *(City and State)*: Railroad Bridge Design, NRG Energy – Shelocta, PA

(2) YEAR COMPLETED: PROF. SERVICES 2009 | CONSTRUCTION 2010

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Responsible for geotechnical recommendations for design of deep foundations for a new railroad bridge and scale structures. Responsibilities included construction consultation. Our firm performed preliminary and final design as a subconsultant on a D-B project for the construction of a railroad bridge to serve a power plant in Shelocta. The bridge is a single- span structure that spans 70 feet (the clear distance between abutment faces) supported by reinforced concrete abutments on steel H-piles. Cost: $341K
Role: Geotechnical Engineer

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
VICTOR H. POZADAS, PE	GEOTECHNICAL ENGINEER	31	10

15. FIRM NAME AND LOCATION *(City And State)*

ROCA ENGINEERING – OKLAHOMA CITY, OK

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS Civil Engineering, Geotechnical	Professional Engineer: OK, CA, TX

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Victor has been part of diverse contracts in the USA and abroad with more than 25 years of experience, that includes challenging consulting projects such as highway and bridge design, construction, and maintenance, geotechnical investigation & analysis, construction / contract management, traffic safety design, traffic control and planning, environmental mitigation, claim mitigation and analysis, social impact and mitigation, quality engineering, CPM analysis, change orders, cost analysis, corruption control in contract management, procurement and technical audits, standard specifications, railroad feasibility studies, tunnel construction with tunnel boring machines and conventional tunneling, open channels, dams, and water resources.

19. RELEVANT PROJECTS

a
(1) TITLE AND LOCATION *(City and State)*: Streetcar Downtown – Oklahoma City, OK
(2) YEAR COMPLETED — PROF. SERVICES: 2018 — CONSTRUCTION:
(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The Oklahoma City Streetcar, also known as the MAPS 3 streetcar, is a streetcar system in Oklahoma City, Oklahoma, United States. The system serves the greater downtown Oklahoma City area using modern, low-floor streetcars. Size: 6 MI | Cost: $136M
Role: Geotechnical Engineer and QC/QA Manager

b
(1) TITLE AND LOCATION *(City and State)*: Tulsa International Airport Taxiway "J" South Reconstruction and Runway 8- 26
(2) YEAR COMPLETED — PROF. SERVICES: 2018 — CONSTRUCTION:
(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Removal and replacement of 18" +/- PCC pavement (approximately 25,000 square yards) and related pavement, grading, drainage, underdrain, airfield electrical, and pavement marking work; and the demolition of approximately 55,000 square yards of existing airfield pavement. Size: 55K Sq Yrds | Cost: $60M
Role: Geotechnical Engineer and QC/QA Manager

c
(1) TITLE AND LOCATION *(City and State)*: Vance Air Force Base Repairs, Taxiways and Runway
(2) YEAR COMPLETED — PROF. SERVICES: 2017 — CONSTRUCTION:
(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Construction of runway and taxiways located at Vance AFB in Enid Oklahoma. Cost: $50M
Role: Geotechnical Engineer and QC/QA Manager

d
(1) TITLE AND LOCATION *(City and State)*: Vance AFB Repair Inside Runway, Drainage and Taxiways
(2) YEAR COMPLETED — PROF. SERVICES: 2019 — CONSTRUCTION:
(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Repair and reconstruction of runway and taxiways located at Vance AFB in Enid Oklahoma. Cost: $50M
Role: Geotechnical Engineer and QC/QA Manager

e
(1) TITLE AND LOCATION *(City and State)*: Tinker AFB, Oklahoma Repair AWACS Apron Phase II
(2) YEAR COMPLETED — PROF. SERVICES: ONGOING — CONSTRUCTION:
(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Geotechnical Investigations and QC/QA for AWACS Aprons located at Tinker AFB in Oklahoma.
Cost: $50M
Role: Geotechnical Engineer and QC/QA Manager

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
DON DAIGLE, CVS, CPE	COST ESTIMATOR	34	3

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – HOUSTON, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
AAS, Mechanical Engineering	Certified Value Specialist
AAS, Electro-Mechanical Engineering	Certified Professional Estimator

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Mr. Daigle has a wide-range of experience in value engineering, cost estimating and cost management, life cycle cost analysis, scheduling, quality control techniques, and design construction cost reconciliation. He is a Certified Value Specialist and proficient in estimating using MCACES and PACES software. Mr. Daigle has provided M2 cost estimating for multiple USACE districts.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Cow Bayou Drainage Pump Station Complex Design, Orange County, Texas – USACE New Orleans District

(2) YEAR COMPLETED — PROF. SERVICES: 2020 — CONSTRUCTION: 2022

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

MSMM has been tasked with providing the civil and structural design for the Cow Bayou Complex, a component of the Sabine Pass to Galveston Bay, Orange project. This 8,000 CFS drainage pump station is currently under design via USACE MVN. Mr. Daigle is performing MCACES cost estimating for the project. He is currently working within the workbooks and through contractor contacts, to gain an understanding of regional pricing for major design features. Cost: $250M

Role: Cost Estimator

b

(1) TITLE AND LOCATION *(City and State)*: Dallas Floodway Extension Phase II Recreation and Access Design, Dallas, Texas – USACE Fort Worth District

(2) YEAR COMPLETED — PROF. SERVICES: 2019 — CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

This project consists of the design of approximately 2 miles of concrete trails, a large bridge crossing the Trinity River, two bridges crossing secondary waterways, a raised wooded boardwalk to reduce maintenance events in higher prone flooding areas, bird watching platforms, parking lots and multiple gates and pipe rail fences. This project is being designed through a collaborative effort that involves the City of Dallas and the USACE Fort Worth District. Mr. Daigle developed the conceptual estimate using PACES, and provided the remaining estimates utilizing MCACES. Cost: $5M

Role: Cost Estimator

c

(1) TITLE AND LOCATION *(City and State)*: Texas City & Vicinity Hurricane Flood Protection Project, I-Wall to T-Wall Conversion, Texas City, TX – USACE Galveston District

(2) YEAR COMPLETED — PROF. SERVICES: ONGOING — CONSTRUCTION: 2021

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

MSMM Engineering was recently contracted by the USACE Galveston District to provide engineering and design services for the replacement of approximately 700 linear feet of existing I-Wall with a new T-wall structure. Mr. Daigle is providing the cost estimating for the project using the MCACES cost estimating software. He will also be responsible for providing the life cycle cost analysis for the project and working with USACE Galveston for regional pricing. Cost: $32M

Role: Cost Estimator

d

(1) TITLE AND LOCATION *(City and State)*: Section 219 Environmental Infrastructure, Sewer Liftstation and Forcemain at the East Baton Rouge Landfill, Baton Rouge, LA – USACE New Orleans District

(2) YEAR COMPLETED — PROF. SERVICES: 2019 — CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Through the Section 219 Environmental Infrastructure Program and USACE MVN, MSMM recently completed expedited design for 3,200 linear feet of 48" ductile iron forcemain and a new effluent pump station at the Baton Rouge landfill. Due to an emergency situation, plans and specs, cost estimates and the DDR were developed and approved within 6 months. Mr. Daigle provided the cost estimating for the project. He provided an MCACES estimate with each design milestone submittal. Cost: $3.2M

Role: Cost Estimating

Michael Baker INTERNATIONAL

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
CHRIS CONRAD, CVS, EIT	COST ESTIMATOR	34	9

15. FIRM NAME AND LOCATION *(City And State)*

MICHAEL BAKER INTERNATIONAL – ALEXANDRIA, VA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BSCE, Structural	Certified Value Specialist Engineer-in-Training: CO

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Over 30 years of construction cost estimating, engineering, project management, and construction management experience with software applications MCACES/MII, PACES, and RS Means Costworks.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: New Dormitory Estimates – Altus Air Force Base, Altus, OK

(2) YEAR COMPLETED — PROF. SERVICES: 2019 | CONSTRUCTION: N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Responsible for providing oversight of the team performing cost estimating services for this project, providing accounting and financial oversight to support Oracle accounting functions such as forecasting project costs, completion status, client invoicing and payment, budgeting, and project setup. Our firm prepared an independent cost estimate based upon the final RFP submittal documents using MII software to prepare estimates for the dormitory project that includes two two-story buildings for 116 personnel. Cost: $855K (Fee)
Role: Certified Value Specialist

b

(1) TITLE AND LOCATION *(City and State)*: C2 Facility Construction Cost Estimates ARCYBER Command Headquarters – Fort Gordon, GA

(2) YEAR COMPLETED — PROF. SERVICES: 2016 | CONSTRUCTION: N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Responsible for developing cost estimates based upon design submission criteria. Provided quantity takeoff, unit pricing, indirect cost factor development, conceptual construction schedule, and execution analysis and cost report preparation, as well as submission. Also participated in client review and comment response resolution. Our firm provided cost estimating services for a 300,000-square-foot new construction project. Cost estimates were prepared using PACES and MII software. Size: 300K SF | Cost: $685K (Fee)
Role: Certified Value Specialist

c

(1) TITLE AND LOCATION *(City and State)*: A-E Design Services – Various, Middle East

(2) YEAR COMPLETED — PROF. SERVICES: 2009 | CONSTRUCTION: N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Responsible for providing administrative functions including oversight of the team performing cost estimating services for this project, providing accounting and financial oversight to support Oracle accounting functions such as forecasting project costs, completion status, client invoicing and payment, budgeting, and project setup. Also responsible for client communications, submissions, contract management, and project closeout. As a joint venture member, Our firm provided A-E services for a wide range of military projects throughout the Middle East under a four-year IDIQ agreement. Cost: $4.1M (Fee)
Role: Value Engineering Task Manager

d

(1) TITLE AND LOCATION *(City and State)*: Indefinite Delivery Contract – Various, CA, Naval Facilities Engineering Command (NAVFAC) SW

(2) YEAR COMPLETED — PROF. SERVICES: 2014 | CONSTRUCTION: N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Developed cost estimates for six task orders for various projects including a training center, road extension, water pump, water tank replacement and water supply line at installations throughout California. Cost: $163K (Fee)
Role: Certified Cost Estimator Lead

e

(1) TITLE AND LOCATION *(City and State)*: Building 4411 Feasibility Study – Fort Meade, MD

(2) YEAR COMPLETED — PROF. SERVICES: 2011 | CONSTRUCTION: 2013

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Under an IDIQ, prepared conceptual construction cost estimates, utilizing PACES estimating software for the site investigation and feasibility study report submitted in October 2011. The scope included the evaluation of the replacement of the 40,000-square-foot workspace facility to accommodate 85 personnel. He determined the repair & renewal to replacement ratio was .234 with construction costs at $3.5M and $15M respectively. Size: 40K SF | Cost: $440K (Fee)
Role: Lead Certified Cost Engineer

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
MARIA GATELA, CCP	COST ESTIMATOR	20	9

15. FIRM NAME AND LOCATION *(City And State)*

EUDACORP (APEX COST CONSULTANTS, INC.) – DALLAS, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

BS, Civil Engineering
Masters in BA

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Certified Cost Engineer (CCE)
Association for the Advancement of Cost Engineering International

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Maria brings experience in cost engineering and management for federal clients throughout the United States. She has a Cost Engineer Certification from AACE International, an internationally recognized professional organization encompassing specialties in cost estimating, project controls, planning and scheduling, and other related cost management disciplines. Maria is proficient in the use of MCASES MII software, as well as PACES, Success, Timberline, MS Project, Primavera and Excel.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Maneuver Systems Sustainment Center, Phase 3, Main Building - Red River Army Depot – Texarkana, TX

(2) YEAR COMPLETED: PROF. SERVICES 2013 | CONSTRUCTION 2016

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The Maneuver Systems Sustainment Center (MSSC) is a new facility that achieves consolidation of multiple functions into a single facility. The functions served by the facility include disassembly, rebuild, metal finishing, body repair, painting and preparation of present and future tactical vehicles, including their major components and control systems. The MSSC is one of only three such army depots in the nation. Size: 233K SF | Cost: $39M
Role: Cost Estimator

b

(1) TITLE AND LOCATION *(City and State)*: CCAD Hangar 8 DB RFP – Corpus Christi Army Depot, TX

(2) YEAR COMPLETED: PROF. SERVICES 2018 | CONSTRUCTION ONGOING

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Hangar 8 serves as part of the rotary wing rebuild activities at CCAD. Our team prepared a design-build RFP for the renovation and repair to one of the major maintenance bays of the 1.2M square foot facility. This complex project includes a major overhaul of the systems and facility layout of approximately 70K square feet. The project includes upgrades to comply applicable codes, UFCs and standards for all electrical, structural, fire suppression, HVAC, concrete floor repairs. Services included a charrette to gather the user's specific requirements, validate the 1391 and prepare a ENG Form 3086. The team then prepared a design-build RFP, performed a structural evaluation and participated in the value engineering study with an independent design team. The design team continued support through the bidding phase with responses to RFIs and pre-proposal conference presentations. The design-build RFP was prepared in accordance with the AEIM and was submitted at each design phased with MII cost estimates. The project was originally had a CCL of $12.1 M; however, after the charrette an ENG 3086 was complete, the project was reprogramed for $20M. Size: 68K SF | Cost: $20M
Role: Cost Estimator

c

(1) TITLE AND LOCATION *(City and State)*: Evaluation, Design and Alternative Repair of Tank Settlement Altus AFB Oklahoma

(2) YEAR COMPLETED: PROF. SERVICES 2018 | CONSTRUCTION N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Provided estimating in support of evaluating, designing, and repairing the tank settlement, annular ring, and other essential structural areas that governed all aspects of the foundation for Tank 464. A detailed investigation and examination, geo-technical survey, design drawings, specification, and cost estimates are to be provided, in order to conduct the necessary repairs.
Cost: $2.7M
Role: Lead Estimator

d

(1) TITLE AND LOCATION *(City and State)*: Bureau of Engraving and Printing Facility Expansion – Fort Worth, TX

(2) YEAR COMPLETED: PROF. SERVICES 2017-20 | CONSTRUCTION 2019-22

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The $190M project will expand the BEP production facility by 250,000 SF and the administration area by 50,000 SF with an additional 70,000 SF of renovation. Site improvements include a new access control point, parking and redundant utility connections. The administration facility was designed in phases to allow temporary relocation of the 250 personnel working in the admin space.
Size: 370K SF | Cost: $196M
Role: Senior Cost Estimator

MSMM·HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
MITCH PILLAR, RPLS	LAND SURVEYOR	36	32

15. FIRM NAME AND LOCATION *(City And State)*

MSMM HUITT-ZOLLARS A JOINT VENTURE – DALLAS, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*

N/A

17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*

Registered Professional Land Surveyor: TX

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Mitch has experience as Survey Party Chief, Field Coordinator, Project Manager, and Survey Manager for a multitude of projects. He has executed and supervised boundary, topographic, and control surveys; right-of-way mapping; interior and exterior improvement surveys; route surveys; and accident surveys for court litigations. He has supervised field crews and drafters, provided data research (including use of GIS mapping products and Internet sources), boundary analysis, and prepared legal descriptions. He has used GPS surveying methods extensively and has routinely applied Laser Scanning or "High Definition Surveying."

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: Repair/Renovate Dormitories 10070 and 10075 – Lackland AFB, San Antonio, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2013 — CONSTRUCTION: 2014

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Design Build contract for renovation, repair and alternation of aging AF dorms. Interior improvements were focused on waste reduction and recovered materials by limiting demolition and re-purposing of materials and spaces. Upgrades to the HVAC, electrical and utilities focused on energy efficiency. Size: 72K SF | Cost: $11.9M

Role: Land Surveyor

b

(1) TITLE AND LOCATION *(City and State)*: CCAD Hangar 8 Renovation DB RFP – Corpus Christi Army Depot, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2018 — CONSTRUCTION: ONGOING

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Hangar 8 serves as part of the rotary wing rebuild activities at CCAD. Our team prepared a design-build RFP for the renovation and repair to one of the major maintenance bays of the 1.2M square foot facility. This complex project includes a major overhaul of the systems and facility layout of approximately 70K square feet. The project includes upgrades to comply applicable codes, UFCs and standards for all electrical, structural, fire suppression, HVAC, concrete floor repairs. Services included a charrette to gather the user's specific requirements, validate the 1391 and prepare a ENG Form 3086. The team then prepared a design-build RFP, performed a structural evaluation and participated in the value engineering study with an independent design team. The design team continued support through the bidding phase with responses to RFIs and pre-proposal conference presentations. The design-build RFP was prepared in accordance with the AEIM and was submitted at each design phased with MII cost estimates. The project originally had a CCL of $12.1 M; however, after the charrette an ENG 3086 was complete, the project was reprogramed for $20M. Size: 68K SF | Cost: $20M

Role: Land Surveyor

c

(1) TITLE AND LOCATION *(City and State)*: Bureau of Engraving and Printing Facility Expansion – Fort Worth, TX

(2) YEAR COMPLETED — PROF. SERVICES: 2018 — CONSTRUCTION: 2020

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

The $150M project will expand the BEP production facility by 250,000 SF and the administration area by 50,000 SF with an additional 70,000 SF of renovation. The facility will be upgraded to meet BEP and IBC standards for HVAC, Electrical, Lighting, Communication, Security Systems, and Plumbing. Site improvements include a new access control point, parking and redundant utility connections. Our firm provided full design architecture and engineering services for the administration building and site improvements. The administration facility was designed in phases to allow temporary relocation of the 250 personnel working in the admin space. All new facilities were designed to meet all current ASHRAE 90.1 and EISA 439, LEED principles were followed but not registered.

Size: 370K SF | Cost: $150M

Role: Lead Registered Land Surveyor

d

(1) TITLE AND LOCATION *(City and State)*: TxDOT IH 35 Right-of-Way Mapping – Dallas TX

(2) YEAR COMPLETED — PROF. SERVICES: 2010 — CONSTRUCTION: N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE — ☒ Check if project performed with current firm

Our provided existing right-of-way surveying, right-of-way mapping of 125 parcels and horizontal and vertical control for aerial mapping for a thirty-mile section of IH 35E through Dallas and Denton Counties.

Role: Survey Manager

e

(1) TITLE AND LOCATION *(City and State)*

City of Allen Intersection Surveys – Collin County, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2013	2013

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Under contract with Collin County, our survey group provided field surveys and base map preparation for improvements to five major intersections within the City of Allen, Texas. This work consisted of establishing horizontal and vertical control, and providing design topographic surveys and location and detail of existing structures. The existing right-of-way was established and parcel plats, metes, and bounds descriptions were prepared for additional right of way acquisition.

Role: Survey Manager

f

(1) TITLE AND LOCATION *(City and State)*

TxDOT Pharr District Bridge Replacements – Multiple Locations

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2015	N/A

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Our firm is providing topographic survey and right of way surveys for eight bridge replacement projects in rural Brooks, Willacy, Cameron and Hidalgo, Counties. This work consisted of establishing horizontal and vertical control, roadway cross-sections, location and detail of existing structures and creek cross-sections. In addition, right of way mapping, parcel plats, meters and bounds descriptions were prepared for right of way and easement acquisition.

Role: Survey Manager

g

(1) TITLE AND LOCATION *(City and State)*

Renovations of the 1st Cavalry Headquarters – Fort Hood, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2018	2019

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

The project was a $48M renovation of a 130K SF Army Division Headquarters and Command Operations Facility including renovations of all administrative/office, an Operations Center (OC), Network Operations Center (NOC) and Sensitive Compartmented Information Facility (SCIF) served by an exterior Tactical SCI Vehicle Area (TSVA), including a Special Technical Operations (STO) Facility. Design of temporary swing space was also required. HZ provided full design construction documents and specifications (SpecsIntact) for the civil, structural, mechanical, electrical, telecom, plumbing and landscape disciplines. The site included increased parking improvements while still meeting AT/FP and ABA. The new mechanical systems were designed to exceed ASHRAE 90.1 by greater than 20%. Operationally critical areas of the facility were provided with redundant HVAC and the entire facility is served by a back-up generator in the event of a primary electrical failure. Size:135K SF | Cost: $46M

Role: Land Surveyor

h

(1) TITLE AND LOCATION *(City and State)*

Fort Hood Whole Barracks Complex – Fort Hood, TX

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2010	2011

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

Our team provided civil, structural, mechanical, electrical, plumbing, fire protection, communications and landscape architecture for the $42M project at Fort Hood. This project was the first at Fort Hood designed and constructed to qualify as LEED Silver Certifiable. The complex includes two three-story UEPH barracks buildings (53,706 square feet each) and two Company Operations Facilities (59,471 square feet each). The facilities accommodate 324 soldiers in 162 living units designed to house two soldiers per living unit. Each living unit has a private bedroom and closet, and a shared bathroom and kitchenette. Mitch provided surveying oversite with tasks including stablishing construction control monuments and benchmarks, field survey verification of contractor's grades and construction, survey of overhead electric line surveys for clearance confirmation, and emergency On-Call Surveys at contractor utility strikes.

Size: 225K SF | Cost: $42M

Role: Surveyor

E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT
(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE a. TOTAL	b. CURRENT FIRM
BILL WEBB, RPLS	LAND SURVEYOR	22	5

15. FIRM NAME AND LOCATION *(City And State)*

AERIAL DATA SERVICE, INC. – TULSA, OK

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Surveying Technology, A.A.S.	Registered Land Surveyor: OK Land Surveyor: AR

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*

Member: Arkansas Society of Professional Surveyors, Oklahoma Society of Land Surveyors

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION *(City and State)*

USACE, Tulsa District, Luther Road Topographic Survey – Harrah, OK

(2) YEAR COMPLETED — PROF. SERVICES: 2014 — CONSTRUCTION:

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

a Aerial Data Service, Inc. (ADS) developed mapping of field surveyed features, specifically defining existing topographic and planimetric features and utilities to support the government's study of erosion and streambank stabilization on the North Canadian River along Luther Road, approximately 2 miles west and ¼ mile north of Harrah, Oklahoma. Luther Road, and the bridge spanning the North Canadian River, are public facilities in jeopardy of failure should the meander of the river continue to erode its streambank and migrate eastward.
Cost: $24K (Fee)
Role: Chief Surveyor

(1) TITLE AND LOCATION *(City and State)*

Oklahoma Conservation Commission, Aerial & Bathymetric Surveys at Abandoned Mine Land Sites – Wagoner County, CAP Project #: ID18126-01

(2) YEAR COMPLETED — PROF. SERVICES: 2018 — CONSTRUCTION:

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

b ADS used GNSS methods to establish a horizontal and vertical geodetic control network comprised of twenty ground control/aerial targets (20 targets for Wagoner County site) as required for the aerial mapping of approximately 494 total acres at a 1" = 50' scale for planimetric data with 2' contours. Coordinates for horizontal points were referenced to the OK State Plane coordinate system. Vertical control was referenced to the NAVD88 datum. ADS provided two (2) control points per site, using a rebar and cap, for future use by the Oklahoma Conservation Commission. ADS utilized a Hydrolite Echosounder mounted on a watercraft to aid in obtaining measurements to the bottom of the strip pits. Cost: $49K (Fee)
Role: Chief Surveyor

(1) TITLE AND LOCATION *(City and State)*

Oklahoma Conservation Commission, 2015 Aerial Survey & Bathymetric Surveys at Abandoned Mine Land Sites – Rogers County, Oklahoma, Project #: OC16126, Work Authorization 01

(2) YEAR COMPLETED — PROF. SERVICES: 2015 — CONSTRUCTION:

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

c ADS used GNSS methods to establish a horizontal and vertical geodetic control network comprised of thirty ground control/aerial targets (30 targets for Rogers County site, as required for the aerial mapping of approximately 712 total acres at a 1" = 100 scale for planimetric data with 2' contours. Coordinates for horizontal control points were referenced to the OK State Plane coordinate system. Vertical control was referenced to the NAVD88 datum. ADS provided two (2) control points per site, using a rebar and cap, for future use by the Oklahoma Conservation Commission. Cost: $87K (Fee)
Role: Chief Surveyor

(1) TITLE AND LOCATION *(City and State)*

U.S. 81, Chickasha Bypass – Chickasha, OK

(2) YEAR COMPLETED — PROF. SERVICES: 2015 — CONSTRUCTION:

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

d ADS used GNSS methods to establish a horizontal and vertical geodetic control network for 1,943 acres in Chickasha, Oklahoma for the Chickasha Bypass project. ADS obtained color aerial photography at 1,500' AMT. Digital mapping was provided at a 1" = 100 scale. Digital terrain model data was collected for the determination of 2' contours. Coordinates for horizontal and vertical control points were referenced in the OK State Plane coordinate system. Vertical control was referenced to the NAVD88 datum. Cost: $129K (Fee)
Role: Chief Surveyor

(1) TITLE AND LOCATION *(City and State)*

GPS Control for the City of Tulsa Waterline Project – Tulsa, OK, Project No. GRA-12A119

(2) YEAR COMPLETED

PROF. SERVICES	CONSTRUCTION
2013	

(3) DESCRIPTION *(Brief scope, size, cost, etc.)* AND SPECIFIC ROLE

☒ Check if project performed with current firm

e

ADS located and reset existing control as necessary to support update mapping for approximately 60 miles from the City of Tulsa to the east end of Lake Eucha, and approximately 20 miles northeast from the City of Tulsa to the south end of Oologah Lake. ADS also established twenty-seven new "Permanent Survey Monuments", and tied the new monuments into the existing City of Tulsa geodetic control network using GPS methodology. Cost: $7K (Fee)

Role: Chief Surveyor

F. Example Projects

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **1**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Granger Lake Management Office Design *Granger, Texas*	2019	2020

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE Ft. Worth District (SWF)	Gail Hicks, PMP – Project Manager	(817) 886-1900

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

RELEVANCE TO THIS CONTRACT:

- Vertical Design
- New Facility Design
- Site Layout
- Design Charrettes
- Concept Design
- Cost Estimates using MII and PACES
- AutoCAD/MicroStation
- Executed for USACE in OK/TX/KS
- 100% Drawings and Specifications
- Design Quality Management Plan
- BIM (Revit of Bentley BIM)

The current office building that houses the Lake Management staff at Granger Lake has been in a state of disrepair for a number of years. In 2018, after multiple foundation settlement and mold issues, the lake staff had to move out of the current building permanently. They are currently housed in a GSA trailer office behind the existing building, until the new facility is opened. In late 2018, MSMM Engineering was tasked by the USACE Ft. Worth District to design a new office building to house the Granger Lake management staff, and to accommodate space for large public meetings and a large volunteer staff.

The Granger Lake Management Office design package completed by MSMM before the end of the Federal fiscal year in 2019 consists of the development of a construction package for the demolition of the existing 5,890 SF lake management facility located at 3100 Granger Dam Road, Granger, TX, and the design of a new facility across Granger Dam Road from the existing facility. The new facility will be one story and is designed for approximately 4,856 SF in gross area. The design of the new facility includes site development, new construction inclusive of all required services (i.e. electrical/mechanical/ fire protection/life safety/civil/structural/architecture). Design activities also included the design of landscaping, new paving, paving repairs, and force protection. The new facility will house offices for lake management staff, and a conference room to accommodate up to 60 people with tables and chairs. Site lighting was designed, along with parking for visitors and staff. Additionally, the fencing design required for the government vehicle and equipment compound behind the new office, was designing and included with the construction documents.

At the design charrette, requests were received to orient the facility to maximize views of Granger Lake, and to incorporate a lodge type feel to the facility lobby. These features were incorporated during the design charrette and given the budget limitations at Ft. Worth District within the Operations branch, other features of the building were scaled down to accommodate these requests. Additionally, future expansion areas were incorporated into the conceptual design, inclusive of a large area for a future maintenance building, and an addition to the government compound. Finally, water supply is a large issue in the area given the remote location of the facility. The design team worked extensively with the local water purveyor to access water supply data, and eventually it was determined that a large storage tank would be required for fire demand.

The estimated construction of the facility is currently $3M.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	MSMM Engineering, LLC	New Orleans, LA; Houston, TX	Prime, Architectural, Structural, Civil, Mechanical and Electrical Design, MII Cost Estimating
b	Huitt Zollars	Dallas, TX; Ft. Worth, TX	ITR

MSMM Engineering, LLC · Huitt-Zollars — A Mentor Protégé Joint Venture

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **2**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Repair/Renovate Dormitories 10070 and 10075 *Lackland AFB, TX*	2013	2014

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE, Fort Worth District	Norma Edwards	817-886-1602

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

RELEVANCE TO THIS CONTRACT:

- Vertical Design
- Building A
- Additions/Alterations
- Located on Military Installation
- Design Charrettes
- Executed for USACE in OK/TX/KS
- Concept Designs
- Dormitory/Barracks Project Example
- Planning and Schedule Management
- Design-Build RFP Implementation
- Cost Estimates using MII and PACES
- Facility Rehabilitation Design
- 100% Drawings and Specifications
- Design Quality Management Plan

General

This project consists of the repair and renovation of Dormitories 10070 and 10075 at Lackland AFB in San Antonio, TX. The dormitories were constructed in 1993 and subsequently operated with only sustainment level repairs and maintenance for almost thirty years. Due to the age and general condition of the dormitories, it became necessary to implement building repairs and renovate several safety systems in order for the buildings to become code compliant and to remove all mold-infested materials. Each dormitory houses 168 Navy MA School students. Each three-story dormitory contains approximately 36,000 SF. Construction is non-combustible, with interior dorm rooms and limited interior mechanical/electrical/storage rooms, connected by exterior egress balconies. The upper floors are served by three stairs (north, center, and south).

Scope of Services

As Architect-Engineer of Record for this design-build project, we provided 100% design construction documents in Revit and specifications in Specsintact for the architectural, civil, structural, mechanical, plumbing, electrical, and communication/IT/security (RCDD) systems. Design reviews were performed per the AEIM and recorded in Dr. Checks. In addition to design services H-Z provided submittal and shop drawing review and development of as-built drawings. Our team also coordinated with the commissioning agent on the mechanical systems.

Civil/Sitework Features

Site work included re-grading the full perimeter of both buildings, repair of walkways, new fire main piping, and protection of existing landscape during construction.

Architectural Features

Damaged masonry on the exterior walls was repaired and re-pointed. Other exterior features, such as sealants and backer rods at breezeways, plaster ceilings, lighting fixtures, carpeting and adhesives, stair treads, metal panels, and doors and frames, were evaluated and repaired or replaced as needed. As to interior living areas, the general scope of work included the demolition and reconstruction of guestroom ceilings and other spaces such as bathrooms and vanity areas, where new gyp board walls and interior metal framing studs were provided, along with replacement of doors and frames; all VCT flooring was replaced; and existing interior light fixtures, lockers, and ceiling fans were replaced. Existing roofing materials were removed and replaced with standing seam metal systems.

Structural System Features

Our team provided a licensed professional engineer to evaluate all existing structural trusses in order to verify their capacity to support all MEP equipment and fire sprinkler systems. The structural engineer also performed an assessment of the existing building slab foundations in order to determine the need for any corrective actions.

Mechanical/Plumbing/Fire Protection System Features

Primary heating and cooling for the dormitories is provided by an existing two-pipe manual-changeover hydronic system. The two-pipe system is distributed from an existing Chiller Energy Plant (CEP) and routed underground to each building. Air conditioning for each living unit is typically provided by an existing fan coil unit located in the unit's ceiling plenum and served by the two-pipe hydronic system. Supply air is distributed via ductwork from the fan coil unit to a wall-mounted supply air diffuser, and returned to the unit through a ceiling-mounted grille located at the underside of the fan coil unit. Mechanical system scope for this project included the removal and installation of new HVAC fan coil units; controls and above-ground chilled water CHW piping; addition of new dedicated outside air ventilation air handling units and exhaust fans; and removal and installation of new controls.

Plumbing system scope of work included the removal and installation of new plumbing fixtures and above-ground plumbing pipes; removal and installation of new domestic hot water heaters, DHW piping, controls and storage tanks.

In addition to the renovations, several Life Safety systems were installed including a fire alarm (FA) system, a mass notification system (MNS), and an NFP 13 FP sprinkler system.

Electrical System Features

Each building's electrical service is provided from an existing 150KVA 208/120 volt pad mounted transformer; the transformers were left in place for re-use with the renovated buildings but were provided with aesthetic screening and new metering. Electrical scope of work included replacement of electrical panels and circuits downstream of the incoming service transformer. Most existing devices and fixtures were replaced; however, some lighting and HVAC remained and required continuity of services. All new mechanical/plumbing equipment was provided with power.

Size: 72,000 SF
Cost: $11,931,800

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	Huitt-Zollars, Inc.	Houston, TX; Fort Worth, TX	Consultant, Architect-Engineer of record for architectural, civil, structural, mechanical, plumbing, electrical, communications/data/security systems (RCDD) engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **3**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Fuel Cell and Corrosion Control Hangar *Cannon Air Force Base, NM*	2013	2013

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
U.S. Army Corps of Engineers, Albuquerque District	Thomas Bueno	505-342-3244

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

RELEVANCE TO THIS CONTRACT:

- Vertical Design
- New Construction
- Administrative Facility
- Training Facility
- Design-Build
- Design Quality Management Plan
- Runways/Taxiways/Aprons
- Infrastructure: Road and/or Utilities
- Concept Designs
- Design Services
- Construction Phase Services
- AutoCAD/MicroStation
- BIM (Revit or Bentley BIM)
- 100% Drawings & Specifications
- Cost Estimates Using MII and Paces
- NIST Building Life Cycle Cost (BLCCA/Energy)

Our firm provided architectural and engineering design services for two new Special Operations Forces (SOF) Fuel Cell and Corrosion Control hangars. The two new SOF hangars support the United States Army Special Operations Command (USASOC) mission in the southwest. The independent facilities allow aircraft maintenance personnel to provide around-the-clock maintenance of MC- 130 aircrafts. The Fuel Cell Hangar is 31,707 gross square feet (GSF) and provides a state-of-the-art facility for aircraft fuel cell maintenance, accommodating a staff of approximately 90 persons. The Corrosion Control Hangar is 51,694 GSF and houses aircraft corrosion control and composite repair maintenance activities, accommodating a staff of approximately 120 persons. Each SOF hangar includes administrative, mechanical, and maintenance areas.

The team provided architectural, electrical, structural, and civil design for the facilities and associated site work. Design elements included required utilities; storm drainage; plumbing; communications; electrical; heating, ventilation and air conditioning (HVAC); fire protection; energy management control systems (EMCS); force protection measures; paving; sidewalks; curbs; parking; access roads; exterior lighting; site improvements; grading; and landscaping.

The team organized, led, and facilitated an on-site design charrette to lock-in site and building arrangements and floor plans. The team then prepared construction documents in two parts: Part I included site civil and foundation design; and Part II included architectural, interior, mechanical, electrical, plumbing (MEP), and fire protection design.

Electrical design elements included site lighting and photometrics; site utilities; one-line diagram, panel schedules, details, and load calculations; short circuit calculations and protective coordination; lightning protection and counterpoise grounding system; auxiliary power generation and inverter systems; public address system; HVAC equipment connections; and emergency and egress lighting.

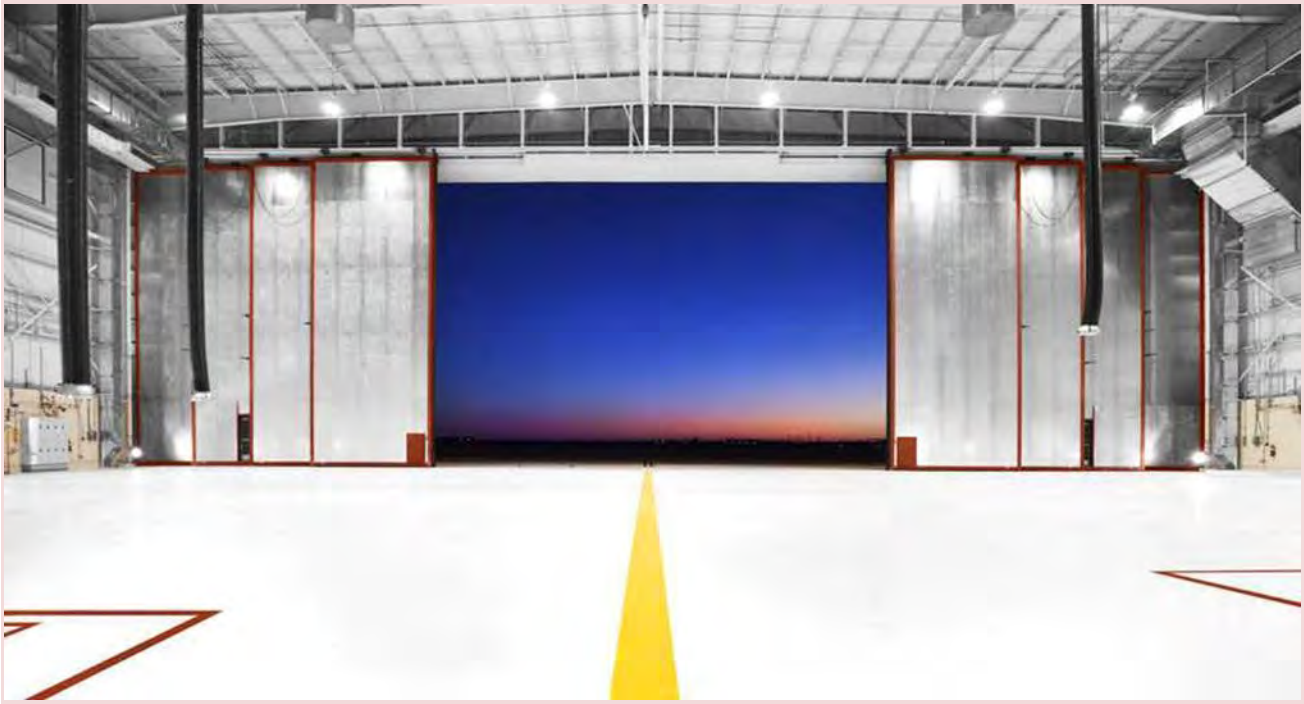
Mechanical and plumbing design included air handlers with variable air volume (VAV) boxes; high efficiency, air-cooled chillers and boilers; and specialized exhaust and ventilation systems.

Structural interior design included interior finishes color boards, interior signage plans, and exterior finishes. Comprehensive interior design included freestanding furniture plans, systems furniture plans, electrical and telecommunications plans, illustration sheets, window drapery plans, order data sheets, and

itemized furniture cost estimates.

The team prepared specifications using the SpecsIntact specification-writing program and provided submittals at the 60% and 100% design stages. During the post-design/construction phase of the project, we reviewed contractor submittals and up to 200 requests for information (RFI) following notice to proceed for construction.

The facilities were designed to achieve a LEED™ Silver Rating per U.S. Green Building Council (USGBC). The team provided LEED accredited professional throughout the design phase and provided documentation and backup data of LEED credits pertaining to all items within the civil, landscape, and MEP scope of services. The goals for improving the sustainability of the facilities include: using resources efficiently and minimizing raw material resource consumption during the construction process and throughout the life of the facility; maximizing resource reuse, while maintaining financial stewardship; moving away from fossil fuels toward renewable energy sources; creating a healthy and productive work environment for all who use the facilities; building facilities of long-term value; and protecting and, where appropriate, restoring the natural environment.



25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	Michael Baker International, Inc.	Midvale, UT; Phoenix, AZ; Moon Township, PA	Prime, Architect-Engineer of record for architectural, civil, structural, mechanical, plumbing, electrical, communications/data/security systems (RCDD) engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER
	4

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Maneuver Systems Sustainment Center (MSSC) *Red River Army Depot, Texarkana, TX*	2013	2016

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE Fort Worth District	Lynn Ray (now with SWD) Kip Browning (RRAD)	469-487-7064 903-334-3232

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

RELEVANCE TO THIS CONTRACT:

- Vertical design
- Design charrettes
- Located on military installation
- Concept designs
- Executed for USACE in OK/TX/KS
- Planning and schedule management
- Vehicle/equipment maintenance
- Cost estimates using MII and PACES
- New construction
- 100% drawings and specifications
- Design quality management plan

General

This project is offered as a prime example of our team's experience in delivering the integrated design of a large, complex, multi-phase DoD vehicle/equipment maintenance facility. The project was designed for USACE Fort Worth District to DoD standards for a DoD using agency (TACOM). The facility itself involved significant planning for materials movement both within and outside the Maneuver Systems Sustainment Center (MSSC) complex, as well as critical climate and air quality control elements to support the industrial processes taking place in the building. In order to create the program and conceptual design for the complex, our approach was to "shrink-wrap" the building around the processes, which we determined through a series of design charrettes with the users and systematic layout planning studies.

The MSCC is a new facility that achieves consolidation of multiple functions into a seven building complex, totaling approximately 400,000 SF on approximately 15 acres of new site development. Total cost of the program was $92 million (including approximately $35 million in process equipment cost). The project described herein, and set forth under the contract number and task order in block 21 above, is for the Main Building (Phase 3—see Project Phasing below). The MSSC is designed to be the premier tactical wheeled vehicle repair center in the U.S. Army, in support of the Red River Army Depot Center for Technical Excellence operated by the joint services. Specifically, the facility must accommodate five major groups, including three commodity lines and two support services, as follows: (1) Heavy Tactical Vehicles, including HEMTT (Heavy Expanded Mobility Tactical Truck) Recapitalization Line, 5-Ton Truck Inspect and Repair, and 25-Ton Mobile Crane; (2) Light Technical Vehicles, including HMMWV (High Mobility Multi-purpose Wheeled Vehicle) Recapitalization Line, HMMV Inspect and Repair, 4/6/10 thousand pound forklifts and trailers; (3) Engineering Commodity, including SEE (Small Emplacement Excavator) Recapitalization Line; (4) Secondary Systems, including component rebuild for reciprocating engines, transmissions and transfer cases; (5) Paint/Prep, including cleaning operations (water blast, steam clean, sand/bead blast, chemical dip, electroplate, power washer and soda blast) and vehicle and component paint.

The functions served by the facility include disassembly, rebuild, overhaul, remanufacture, recapitalization, technology system insertion, metal finishing, body repair, painting and preparation of present and future tactical vehicles, including their major components and control systems. Operational flexibility was a prime objective in the facility, which saw an increase in just a single commodity line from 30 rebuilds per year to 100 per month. Our scope of work included not only typical planning, programming, A-E design, and construction phase services, but also process flow analysis incorporating Lean Technology, selection and specification of highly specialized process-related equipment, and sustainable design. Future mission flexibility was a critical element of all planning and programming.

Scope of Services

As project designer, we hosted numerous design charrettes and interviews, developed multiple alternative concept designs, and finalized the ultimate floor plan layout by coordinating with users and stakeholders. As Architect-Engineer of Record, we provided 100% design construction documents in Revit and specifications in Specsintact for the architectural, civil, structural, mechanical, plumbing, electrical, and communication/IT/security (RCDD) systems. Design reviews were performed per the AEIM and recorded in Dr. Checks. Construction phase services were provided for all phases of the project under a separate task order.

Project Phasing:

The MSSC complex is divided into five major structures: Main Building A, in which major component rebuilding and remanufacturing activities take place; Paint/Body Shop Building B; Blast/Clean Facility Building D and connecting canopy, Building C; Receiving and Disassembly Building E. The project was initially master planned to be constructed in three major phases: Phase 1—Building E Receiving and Disassembly; Phase 2—Buildings B, C, and D; and Phase 3—Main Building A. The Molten Salt Bath and Dynamometer functions were originally conceived to be integral parts of Main Building A. Due to operational considerations and funding limitation, they were redesigned to be separate buildings. The Molten Salt Bath was designed to be attached to the north end of Main Building A. The Dynamometer function was added to existing Building 373. Each one of these five phases of the project was developed as a separate design-bid-build package and constructed under separate contracts. The project described herein, designed under the contract number and task order set forth in block 21 above, is for Phase 3, Main Building.

Material Handling

Efficient operation of the facility depends on extensive movement of materials from station to station in the process. Bridge crane coverage was afforded for all except for two bays in Main Building A, which were used for floor storage and WIP collection. Main Building A was designed with a common crane girder supported by haunches on building columns. The cranes themselves were two level, with a top running 20-ton capacity crane and two underhung 5-ton cranes. Utility feeds (including 480 volt, 120 volts, low voltage controls, water, gas, flue exhaust, and compressed air) to the equipment were closely coordinated at the columns to allow unhampered crane coverage of the working bays.

Waste Management

Because of the highly industrialized process functions taking place within the facility, waste management was a key design issue. Components being processed are comprised of aluminum, aluminum armor, steel, steel armor, stainless steel, and magnesium, which are all heavy metal substances that require a separate collection system transferred to a Government Furnished industrial waste pre-treatment plant at the installation. Equipment pits were lined for containment of contaminant spills and equipped with automatic wash down systems that drained to the industrial waste collection system. Dip tanks for chemical cleaning were designed with dedicated supply and exhaust systems. A separate vehicle exhaust system with CO monitors was installed in Main Building A so that vehicles could be run inside the building. Spot ventilation was provided at welding stations.

Energy Efficiency

An energy study and comparison to ASHRAE 90 baseline identified energy reduction features incorporated into the design that helped meet energy goals outlined in UFC 3-400-01, EPAct, and LEED Silver certification requirements. The energy model prepared by our mechanical engineers focused on potential efficiencies in the large motors and HVAC loads. A special heat rejection cooling water loop was designed in connection with the engine and transmission dynamometer equipment. Another element of the plan was the use of two-layer concrete tilt-up walls that were cast on-site and separated by a layer of foam insulation. The use of day lighting throughout all areas helped reduce energy consumption from lighting loads.

Size: 233,000SF (Building A only)
Construction Cost: $39,000,000 (Building A only)

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	Huitt-Zollars, Inc.	Fort Worth, TX	Prime, Designer and Architect-Engineer of record for architectural, civil, structural, mechanical, plumbing, electrical, communications/data/security systems (RCDD) engineering, surveying

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **5**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Renovation of Historic Building B5676 and Hangar B6426 *Barksdale AFB, LA*	2015	2016

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
NAVFAC Southeast Division	Jim Ritchie	904-542-2797

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

RELEVANCE TO THIS CONTRACT:

- Vertical design
- Building additions/alterations
- Located on active military installation
- Concept designs
- Administrative offices
- 100% drawings and specifications
- Aircraft hangar renovation
- Planning and schedule management
- Historic building/SHPO review
- Cost estimates using MII and PACES
- Design/build RFP implementation
- Design quality management plan
- Facility rehabilitation design
- Haz Mat abatement
- Construction phase services/record documents

General

The two buildings involved in this project were both built circa 1931, Building 5676 as a Fire Station and Guard House and Building 6426 as a two-bay Aircraft Hangar, with Hangar 3 to the south and Hangar 4 to the north separated by a two-story pylon in between. Both buildings had been renovated and re-purposed over the years and at the start of the project Building 5676 was vacant, Building 6426-Hangar 4 housed the current Fire Station #1 and Building 6426-Hangar 3 was vacant. The goal of this project was to restore the old fire station (Building 5676) for occupancy by the Fire Chief and his administrative staff and renovate and upgrade in place the Hangar 4 Fire Station to meet current standards. Building 6426-Hangar 3 was to be gutted by selective demolition to allow for future renovation.

Scope of Services

Our team served as designer of record for all architectural and engineering design under a design-build contract with JAMCO Venture, the general contractor. Scope included site/civil engineering for both buildings, extension of new sanitary sewer service to the buildings, providing new domestic and fire water services, and miscellaneous paving repairs and drive extensions.

Building 5676

After selective demolition and asbestos abatement, new AT/FP compliant windows were installed in all openings, and the existing masonry perimeter walls were framed with continuous spray-foam insulation to form an air barrier and meet minimum code required R-values. Revised floor plan layouts were developed to meet the program and user needs. The buildings received new electrical transformers with primary and secondary service, new lighting, new telecommunication system backbone and distribution, new HVAC systems throughout, new plumbing fixtures and piping, new fire alarm and mass notification system, and a new fire suppression system.

Building 6426—Hangar 4

The two-story Fire Station #1 functions were renovated in place with the building occupied and operational throughout. The building contractor made on-site temporary arrangements for kitchen and restroom facilities. The existing kitchen and day room were relocated from the ground floor to the second floor to make room for two additional apparatus bays increasing capacity from 4 to 6 vehicles. While the existing sleeping quarters were untouched, the restrooms, weight room, aerobics room, classroom and associated office spaces were completely reworked with new finishes, doors, lighting, power, data-comm, HVAC, fire alarm and mass notification, and fire suppression throughout the building. A new FAVERS (Fire Apparatus Vehicle Exhaust Removal System) was designed and installed for all bays and a new integrated Fire Fighter Alert System was also provided.

Building 6426—Hangar 3

The two-story space was gutted with selective demolition and asbestos abatement. All walls, ceiling, lighting, power, plumbing and HVAC were removed to leave a clean slate for future reuse as a Squad Operations center for the 11th Bomber Squadron. (Note: The adaptive reuse design for the new Squad Ops facility in this building was also designed by our team, but under a separate contract.)

Historic Preservation Issues

Both of the affected buildings in this project are located in what is known as the Barksdale Field Historic District, which was recognized as a national historic district by the U.S., Department of the Interior National Park Service and listed on the National Register of Historic Places in 1992. All designs were developed in coordination with the Base Cultural Resources Officer and reviewed and approved by the SHPO under the Section 106 process. Building 5676, originally constructed as a Fire Station/Guardhouse (brigade), was designated a "contributing structure" of the Historic District at that time. Extensive exterior renovations were required due to updating windows and doors to meet AT/FP blast resistant design requirements. Mitigation efforts including all new exterior elements, including louvers, were ultimately deemed by the SHPO to be "period correct" in visual conformance to the original wood doors, with color matching the existing color scheme of the buildings.

Size: 50,000 SF
Cost: $7.7 million

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	Huitt-Zollars, Inc.	Fort Worth, TX	Consultant, Architect-Engineer of record for architectural, interior design, civil, structural, mechanical, plumbing, electrical, fire protection, communications/data/security systems (RCDD) engineering. Cost estimating services were also provided.

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **6**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Cow Bayou Drainage Pump Station Complex Design *Orange, TX*	2020	2022

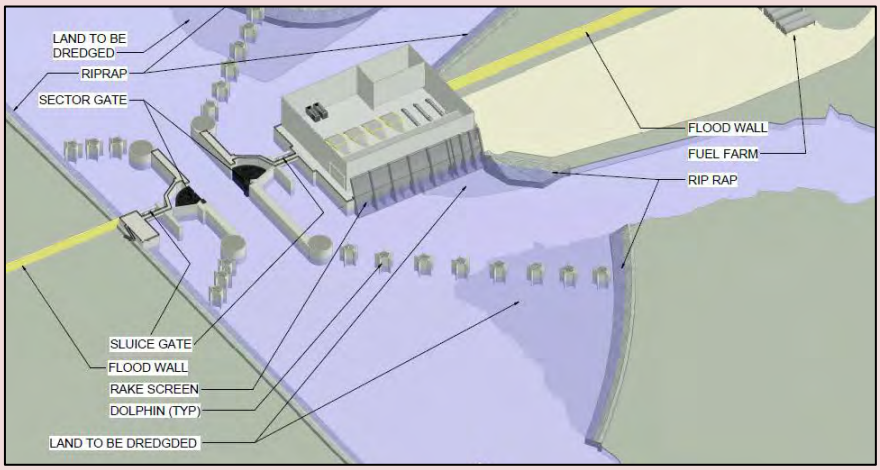
23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE New Orleans District	Charlie Brandstetter, Design Manager	504-862-2501

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

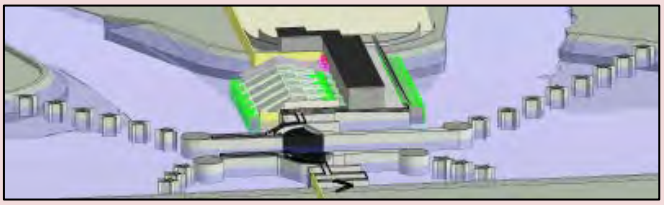
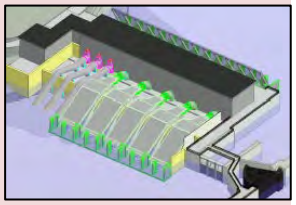
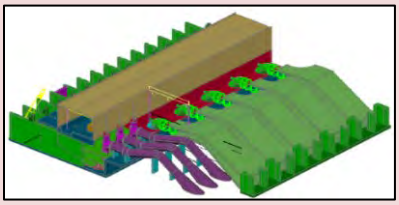
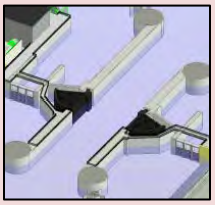
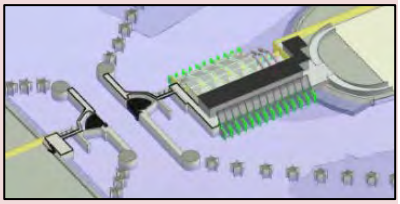
RELEVANCE TO THIS CONTRACT:

- Horizontal Design
- Vertical Design
- Executed for USACE in OK/TX/KS
- Concept Design
- BIM (Revit or Bentley BIM)
- AutoCAD/Microstation
- Planning and Schedule Management
- Cost Estimating using MII and PACES
- Flood Risk Management
- Hurricane/Storm Damage Risk Reduction Projects
- Floodgates
- Floodwalls
- Hydraulic Structures
- Marine Structures
- Levees
- Pumping Stations
- Design Quality Management Plan
- Navigation Structures
- New Construction
- Drainage Canals and Structures
- Buildings



MSMM is currently designing a 8,190 cfs pumping station as part of the Sabine to Galveston Cow Bayou Complex project. The Cow Bayou Complex includes levee tie-ins, floodwalls, sluice gate structures and a sector gate for navigational traffic. The pump station consists of five 1,365 cfs horizontal, vacuum primed pumps having 126" suction side and 115" discharge side and formed concrete intake; and three 455 cfs vertical self-priming pumps with 84" discharge piping.

The project is a joint engineering effort between the New Orleans District, Galveston District and MSMM. MSMM's responsibilities include structural design, architectural, civil site work, geotechnical, MII cost estimating, CAD drafting and project management. A unique feature of this project design is that the New Orleans District is providing the mechanical and electrical design while MSMM is responsible for coordinating the mechanical and electrical design with the civil, structural and geotechnical engineering design. Other project features being designed by MSMM include dolphin structures, pump station safe house, fuel farm and access roads. MSMM is currently designing the project in Microstation 3D, as well as Revitt BIM 3D modeling. Preliminary design work has consisted of extensive geotechnical testing to determine soil suitability, preliminary estimates of dredging based on navigational traffic loads in the Cow Bayou area, and structural calculations to determine the required height of the T-walls, and navigational structures. Preliminary architectural work has also been initiated to design the safe house that will be attached to the main pump station building. The existing task order scope calls for the completion of 30% design. The DDR, MCACES cost estimate and detailed calculations are complete, and the BIM model is updated on a weekly basis. Cost: $1.2 million professional services

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	MSMM Engineering, LLC	New Orleans, LA	Prime, Civil & Structural Design, Architectural

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **7**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Dallas Floodway Extension, Phase II Recreation and Access Design *Dallas, TX*	2019	2020

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE Ft. Worth District	Sharon Leheny, Project Manager	817-886-1563

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

RELEVANCE TO THIS CONTRACT:

- Vertical Design
- H&H Modeling for Bridge Design (HEC-RAS)
- Executed for USACE in OK/TX/KS
- Concept Design
- Bridge Design
- Roadway Design
- Site Layout
- 100% Drawings and Specifications
- Design Charrette
- Preparing Cost Estimates using MII and PACES
- Design Quality Management Plan

MSMM Engineering is currently designing various roadway and bridge features for the United States Army Corps of Engineers (USACE) Ft. Worth District in south Dallas. The Dallas Floodway extension project consists of various access routes, walking/vehicular trails, and bridges. The project provides recreational access to a chain of wetlands designed to provide unimpeded overflow for floodwater along the west side of the Trinity River from the Dallas Floodway to Loop 122. The project area is bounded to the north by the AT&SF Bridge and to the south by I-20. MSMM has provided the 90% design package to USACE, which consists of the plans and specifications, DDR, ECIFP, MII cost estimate, DQCP and an updated HEC-RAS model. The package also consists of a geotechnical report, a certified ITR and full structural calculations for the bridges.

The plans and specifications consist of the design for three (3) bridge crossings, one over the Elam Creek (60 feet), one over Cedar Creek (60 feet) and a larger crossing over the Trinity River (150 feet). Additionally, the design package consists of over 2 miles of 12-ft wide multi-use roadway (trail) for vehicular/walking trail, the inclusion of pipe rail fences and gates to prevent after-hour access, and the design of bird watching platforms over the wetlands. The team has performed H&H modeling of the Trinity River to help aid in the bridge design process. The key design features of trails/roadways and bridges are being provided to connect two isolated neighborhoods and provide school aged kids a more direct route to get to school. All roadway/bridges consist of a single lane and are designed to contain the load of school buses/emergency vehicles.

Through the design process and working with the non-Federal sponsor, the team identified that manufactured bridges were available for use on the project. These bridges were inspected by the structural engineering team and deemed to be in sufficient condition to be re-used for the project. Though the length of one of the bridges caused some concern, the engineering team was able to design one of the crossings around the length of the bridge and re-use it. This design decision saved the project over a million dollars. Additionally, an elevated boardwalk was requested and the boardwalk was designed to vary between a pre-cast system and an at-grade system, this design change resulted in the elimination of support beams and the savings of another $250,000 to the government. The project is currently well within the CCL and construction is expected to begin in the 1st quarter of 2020. Cost: $345K - Fee

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	MSMM Engineering, LLC	New Orleans, LA	Prime, Roadway/Bridge Design, H&H Modeling, DDR, MII Cost Estimating
b	Huitt-Zollars	Dallas, TX; Ft. Worth, TX	ITR

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT
(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **8**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
CCAD Hangar 8 Renovation DB RFP *Corpus Christi Army Depot, Texas*	2017	2019

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE, Fort Worth District	Norma Edwards	817-886-1602

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

RELEVANCE TO THIS CONTRACT:

- Design-Build RFP
- Facility rehabilitation design
- Executed for USACE in OK/TX/KS
- Building additions/alterations
- Located on active military installation
- Design charrettes
- Vertical design
- Concept Designs
- Aircraft hangar renovation
- Planning and schedule management
- Site Investigations/Surveys
- Value Engineering/LCCA
- Planning and Engineering
- Cost estimates using MII and PACES
- Construction Phase Services
- Design quality management plan
- HazMat Abatement

General

Corpus Christi Army Depot, which occupies approximately 154 acres on the premises of Corpus Christi Naval Air Station, was originally developed to serve the growing Army inventory of rotary wing aircraft. Today, it provides helicopter maintenance, repair, recapitalization, and overhaul capability to all the U.S. military services, as well as several foreign governments. It is the largest helicopter repair facility in the world, with over 2.2 million square feet of industrial space. The main location where these functions are performed is known as Building 8, which is a 1.2 million square foot facility of shops, parts storage, and administrative facilities. In 2008 a master plan was developed by our design team under a separate task order for the redevelopment and modernization of the entire Building 8 complex. However, due to the timing and availability of funding for the facility, a complex phasing plan was developed which included nine phases of construction sequenced so as to allow for a fully functional operation at any time during program implementation.

Hangar 8 is a part of Building 8 and comprises a 74,000 SF portion of that facility. Under this task order, we developed an RFP for the design/build of a complete renovation of Hangar 8. Extensive renovation was required in order to meet local, state, and national building codes, as well as to include support facility requirements for an aviation depot level of repair and overhaul of rotary wing aircraft. In addition, our objective was to isolate utility services, particularly electrical service, for Hangar 8 and the area north of Hangar 8 from the area south of Hangar 8, which is planned for future demolition. Other aspects of the work included roof replacement, façade repair/replacement, hazardous material abatement and repainting of the structure and walls. A final goal of the project was to repair existing columns and truss members where analysis showed they needed strengthening.

Scope of Services

In addition to responsibility for design of all disciplines required for the work, we conducted an existing conditions survey to assess existing building systems, identify any existing code violations, and update or supplement record drawings of the facility; prepared an environmental report (asbestos/lead/HTRW); performed a charrette to gather the user's specific requirements, validate the 1391 and prepare an ENG Form 3086; participated in a VE study by an independent team; provided cost estimates (MII); and continued support through the bidding phase with responses to RFI's and pre-proposal presentations.

The physical scope of work for the project included the following: roof replacement; repair and strengthening of existing columns and truss members; isolation of utility services; abatement of all lead-based paint; renovation of high bay maintenance area and repair of the exterior bay aluminum siding, ells, and metal flashing; replacement

of roof access ladders; slip-resistant coating; repair and upgrade of the electrical distribution, communication, compressed air distribution, fire alarm and mass notification, fire suppression and fire pump, and heating control systems.

Unique Design Features

- Facility layout coordinated with existing automated guided vehicles (AGV's), with guide buttons embedded in perimeter floor areas; floor guidance magnet locations in shop floor areas were covered with new epoxy coating, necessitating the installation of new tabs exposing magnet locations
- Flexibility of shop floor and equipment layout and services was key because of frequent changes in mission and fleet that require reconfiguration of production equipment
- Construction sequencing plan was required due to the fact that certain areas of the existing facility were to remain operational
- Security provisions between renovated areas and non-renovated areas included electronic card readers and new electronic door hardware
- It was determined that the west façade had a historically significant appearance that had to be maintained with copper wall panels and curved copper roof; the existing stucco portion of the west elevation door pockets also had to be maintained with new stucco
- Because of the planned removal of the southern portion of the existing Building 8, the southern face of Hangar 8 would be exposed in the future to a new, higher level of wind loading; therefore, Hangar 8 was analyzed for full wind exposure and potentially overstressed members of the existing structure identified for strengthening
- All new Hangar 8 HVAC equipment was integrated with the existing Building Automation System (BAS) located approximately 275' away within the northernmost section of Building 8
- Entirely new 480/277V electrical service was provided from a new pad-mounted transformer and an emergency generator was provided for the fire pump, emergency power panel, and high-bay emergency lighting
- Sustainable features included the use of zero ozone depletion refrigerants, high efficiency motors, construction waste management, recycled content, regional materials, carbon dioxide monitoring, low VOC coatings, and use of low-emitting materials

Size: 68,000 SF
Construction Cost: $20,000,000

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	Huitt-Zollars, Inc.	Fort Worth, TX	Prime, A-E responsible for design of all disciplines in connection with development with a Design/Building RFP

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **9**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Design of Jefferson Parish Floodwalls *New Orleans, LA*	2012	2014

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE New Orleans District	Durund Elzey, Deputy District Project Manager for Program Management Branch	(504) 862-1674

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

RELEVANCE TO THIS CONTRACT:

- Infrastructure Design
- Hydraulic Steel
- Horizontal Design
- Value Engineering
- Structural Design
- AutoCAD/Microstation
- Soil Borings/Testing
- Floodwalls
- Flood Risk Management
- Hurricane/Storm Damage Risk Reduction Project
- H&H Modeling (HEC-RAS)
- Pile Group Analysis
- HTRW Investigations

Following the devastation caused by Hurricane Katrina in the greater New Orleans area, MSMM Engineering was tasked by the USACE New Orleans District with providing bid ready plans and specifications for the improvement/replacement of several (Civil Works) flood risk reduction features in Jefferson Parish, LA. The MSMM staff furnished all services for the preparation of plans and specifications (P&S), engineering and design (E&D), development of Design Documentation Reports (DDR), as well as cost estimating utilizing PII for all elements of the project inclusive of H&H modeling, civil, structural, geotechnical, mechanical and electrical design for, multiple swing gates used for turn-arounds and access to secure personnel , hurricane protection walls, subsurface flood-risk design and the development of perimeter roads.

The professional services required included field investigations, surveys, soil borings, lab testing, quality and compliance verification with the P&S detailing geotechnical, structural and civil systems. The design of the project's components involved Geotechnical Analysis (Seepage Analysis, Stability Analysis using Method of Planes and Spencer's Method, Settlement Analysis, etc., on Levees, Dikes & Berms), Structural Analysis (T & I - walls, Cut-off Walls), Civil Design Analysis and Hydraulic Analysis (Mongoose Modeling for Wave Overtopping of I-10 flood wall, Rainfall Run-off, Drainage calculations and Wave Loading). Additionally complete design was included for a new drainage pump station with a SCADA remote sensoring feature that ties into Jefferson Parish's overall drainage system, fencing design in compliance with FAA standards, creative construction methods to allow for driving of sheet pile with limited overhead capacity, and the development of unbalanced load criteria which was used as the main design criteria for the entire levee system constructed in the greater New Orleans area. This design criteria developed under this project is now being used across USACE for projects with unique soil conditions and particularly when one side of the project is land and the other is water/swamp.

Specific Project Components:

The following wall and gate components were designed by MSMM:

Kenner West Return Wall (18,300 ft. and 22 ft. high): This segment consists of various T-wall and I-wall monoliths with a levee tie-in sheet pile to the south and a Re-curve walll tie-in to the north.

West Esplanade Ave.: New pedestrian access gate (Sector gate) within the T-wall monolith at the end of West Esplanade Avenue within the City of Kenner.

Re-curve Floodwall in Northwest Kenner (850 ft.): This segment in Northwest Kenner consists of I-wall monoliths, wave buffers and a vehicular gate.

Floodwall & Gate at Williams B lvd Boat Launch: The Williams Blvd wall segment consists of an I-wall, T-wall and vehicular roller gate monoliths.

Challenges Overcome In Accordance with the Design Quality Management Plan:

One of the biggest challenges on this job was the concern about the unbalanced load (water on one side/land on the other), the impact from sustained wind and surge load uplifting Interstate-10 panels, and the need to fit a wall below the Interstate with only 15 feet of clearance. MSMM engineering staff worked in compliance with the Design Quality Management Plan to get ahead of the concern and find a construction alternative of splicing the sheet pile on site to drive them -110 feet given the overhead clearances.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	MSMM Engineering, LLC	New Orleans, LA	Prime, Civil & Structural Design, DDR, Plans & Specs, MCACES Cost Estimating

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT

(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)

20. EXAMPLE PROJECT KEY NUMBER: **10**

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Electrical/UPS System Upgrades *Lake Whitney Hydropower Facility, Clifton, Texas*	2015	2016

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE Fort Worth District	Eddie Lippe	254-622-3332

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT *(Include scope, size, and cost)*

RELEVANCE TO THIS CONTRACT:

- Infrastructure—Hydropower
- Facility rehabilitation design
- Executed for USACE in OK/TX/KS
- Building additions/alterations
- Site Investigations/Surveys
- Design charrettes
- Environmental/HazMat Mediation
- Concept Designs
- Value Engineering/LCCA
- Planning and schedule management
- Planning and Engineering
- 100% Plans and Specifications
- Construction Phase Services
- Cost estimates using MII and PACES
- Design quality management plan

General

Lake Whitney was constructed by the U.S. Army Corps of Engineers in 1951, with the objectives of flood control, water conservation, and the production of hydroelectric power. To that end, the hydropower facility for the dam was constructed in 1953, and has been in continuous operation since. S.E. Huey Co. was tasked with surveying the existing power plant facility at the dam and making electrical and fire protection upgrades to the power plant. Our team was retained to do the technical design.

The project was executed under two task orders, both undertaken by our design team. The first involved the design and development of contract documents for a battery charging, conditioning and AC in version system upgrade (UPS) of the electrical components in the power plant. This is the task order that is the subject of this project description. The second task order involved the design and development of a contract documents package for the replacement and upgrade of the existing CO2 fire suppression system.

Scope of Services

Our design team first conducted a site investigation to evaluate affected areas of the project, including the control room, motor generator/UPS room, battery room, and cable chase. A design charrette was then held with the onsite technical personnel at the hydropower facility to define the scope of work for the electrical systems upgrade task order. Close contact with these onsite personnel was maintained throughout the process, gaining valuable input from the end users.

Electrical System Upgrade Features

Two 480-volt VAC-125 VDC motor-generators that provide DC station service power were replaced with solid-state power supplies. The new system featured digital controls, maintenance bypass and status display. Automatic transfer was provided in the event of failure of either source. The existing 125 V battery bank was reused with the new power supplies, which also serve as the battery charger. The DC distribution panel was replaced with a new DC breaker panel featuring bolt-on breakers for ease of maintenance. Ten spare breakers were provided in the new panel. A new 52 VDC-208/120 VAC UPS was installed to provide the preferred AC power. The new inverter is solid-state with digital controls, maintenance bypass and status display. The existing 52 VDC battery bank was reused with the new UPS. A new 208/120 VAC panelboard for distribution of preferred AC power was also provided.

System alarms and status were interfaced to the control room SCADA system. Interface modules use MODBUS protocol. Asbestos materials and lead paint were identified in the cable trays in the cable tunnel, as well as in other areas affected by the project, during the site investigation and mediation/disposal measures recommended prior to construction of the project.

Size: N/A
Cost: $3,000,000

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	Huitt-Zollars, Inc.	Fort Worth, TX	Consultant, Engineer of Record, responsible for all electrical system design under a sub-contract to our Small Business partner firm, S.E. Huey

G. Key Personnel Matrix

G. KEY PERSONNEL IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Manish Mardia, PE *MSMM Huitt-Zollars a Joint Venture – New Orleans, LA*	Program Manager	X					X	X		X	
Larry Rogers, PE *MSMM Huitt-Zollars a Joint Venture – Fort Worth, TX*	Program Manager	X	X		X	X		X	X		X
Joshua Carson *MSMM Huitt-Zollars a Joint Venture – New Orleans, LA*	Project Manager	X					X	X		X	
Jim Fullmer, PE, LEED AP *MSMM Huitt-Zollars a Joint Venture – Fort Worth, TX*	Project Manager	X	X		X			X			
Joe Wells, RA, RID *MSMM Huitt-Zollars a Joint Venture – Fort Worth, TX*	Project Manager				X	X			X		
William Hoelscher, RA, LEED AP *MSMM Huitt-Zollars a Joint Venture – Fort Worth, TX*	Architect	X	X		X	X			X		
Eugene Valentine, RA, GGP *MSMM Huitt-Zollars a Joint Venture – Fort Worth, TX*	Architect			X							
Pawel Paszczuk, RA, LEED AP *Michael Baker International – Phoenix, AZ*	Architect										
Sergey Aleksanyan, PE, LEED AP *MSMM Huitt-Zollars a Joint Venture – Fort Worth, TX*	Mechanical Engineer	X	X		X	X			X		
Jeff Wilson, PE, LEED AP *MSMM Huitt-Zollars a Joint Venture – Fort Worth, TX*	Mechanical Engineer		X		X	X		X	X		
Joseph Fong, PE *Michael Baker International – Midvale, UT*	Mechanical Engineer										
Scott Parma, PE, LEED AP *MSMM Huitt-Zollars a Joint Venture – Fort Worth, TX*	Electrical Engineer	X			X	X		X	X		X
Richard Dickerson, PE, RCDD, LEED AP *MSMM Huitt-Zollars a Joint Venture – Fort Worth, TX*	Electrical Engineer		X		X				X		
Harry Hawney, PE *MSMM Huitt-Zollars a Joint Venture – Houston, TX*	Electrical Engineer	X					X				
Kevin Spangler, PE *Michael Baker International – Midvale, UT*	Fire Protection Engineer			X							
Daniel LeClair, PE *Moye Consulting – Irving, TX*	Fire Protection Engineer										

29. EXAMPLE PROJECTS KEY

NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO.	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1	Granger Lake Management Office Design, Granger, TX	6	Cow Bayou Drainage Pump Station Complex, Orange, TX
2	Repair/Renovate Dormitories 10070 and 10075, Lackland AFB, TX	7	Dallas Floodway Extension, Phase II Recreation and Access Design, Dallas, TX
3	Fuel Cell and Corrosion Control Hangar, Cannon Air Force Base, NM	8	CCAD Hangar 8 Renovation DB RFP, Corpus Christi Army Depot, TX
4	Maneuver Systems Sustainment Center (MSSC), Red River Army Depot, Texarkana, TX	9	Design of Jefferson Parish Floodwalls, New Orleans, LA
5	Renovation of Historic Building B5676 and Hangar B6426, Barksdale AFB, LA	10	Electrical/UPS System Upgrades, Lake Whitney Hydropower Facility, Clifton, Texas

G. KEY PERSONNEL IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Michael De Leon, PE *MSMM Huitt-Zollars a Joint Venture – Dallas, TX*	Civil Engineer					X		X	X		
Scott Chehardy, PE *MSMM Huitt-Zollars a Joint Venture – Houston, TX*	Civil Engineer						X			X	
Jim Wilson, PE, LEED AP *MSMM Huitt-Zollars a Joint Venture – New Orleans, LA*	Civil Engineer							X			
William Wallace, PE, SECB *MSMM Huitt-Zollars a Joint Venture – Fort Worth, TX*	Structural Engineer	X	X		X	X		X			
Robert Yokum, PE *MSMM Huitt-Zollars a Joint Venture – New Orleans, LA*	Structural Engineer	X					X			X	
Gavin Fitzsimmons, PE, SE *Michael Baker International – Midvale, UT*	Structural Engineer			X							
Don Green, PE *Michael Baker International – Moon Township, PA*	Geotechnical Engineer										
Victor Pozadas, PE *Roca Engineering – Oklahoma City, OK*	Geotechnical Engineer										
Don Daigle, CVS, CPE *MSMM Huitt-Zollars a Joint Venture – Houston, TX*	Cost Estimator	X					X	X		X	
Chris Conrad, CVS, EIT *Michael Baker International – Alexandria, VA*	Cost Estimator										
Maria Gatela, CCP *Eudacorp (Apex Cost Consultants, Inc.) – Dallas, TX*	Cost Estimator				X				X		
Mitch Pillar, RPLS *MSMM Huitt-Zollars A Joint Venture – Fort Worth, TX*	Land Surveyor			X					X		
Bill Webb, RPLS *Aerial Data Service, Inc. – Tulsa, OK*	Land Surveyor										

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H. Additional Information

INTRODUCTION

The Joint Venture Team of MSMM Engineering, LLC and Huitt-Zollars (MSMM/HZ) will serve as prime design firm on this assignment. This is not a new partnership. Our JV was formed with the specific intention of better serving USACE, which is the largest client of each JV partner. Both partner firms are trusted advisors to the Corps of Engineers, having dedicated a substantial portion of our respective practices to serving USACE for decades. As a result of our individual successes in advancing the USACE mission across SWD, and our dedication to future USACE design programs, we have established MSMM/HZ, and are ready to focus on your next challenges, as represented by the extremely varied work to be executed under this new contract, and we offer you the following advantages:

- ✓ 8+ years of continuous service to DoD through IDC/IDIQ contracts. As mentioned, USACE is the largest client of both JV partner firms' individual practices, and the IDC/IDIQ contracting methodology has been the primary means by which we have delivered our services. In the last 8 years, our JV team members have held a total of 14 such contracts as prime A-E, totaling over $465 million in capacity. There has not been a moment during this period in which we have not been executing multiple, simultaneous task orders.
- ✓ Unparalleled track record with major USACE programs. We have been primarily responsible for two of the most critical programs recently undertaken by USACE: the redevelopment of the hurricane protection system in New Orleans following Hurricane Katrina, and the $4.8 billion Ft. Bliss expansion, the last piece of which—the new Ft. Bliss Replacement Hospital—is just now coming on line.
- ✓ Successful execution of extremely disparate variety of projects anticipated by Tulsa District. Our team members currently hold IDIQ contracts across each business line requested in this solicitation. MSMM currently holds a civil works contract at Ft. Worth District, while Huitt-Zollars currently holds a ECSO contract for IIS work at Ft. Worth District, and maintains active military construction IDIQ's at SWF as well. Our J-V partners have completed literally hundreds of task orders in the last 5 years, designing an incredibly diverse portfolio of facilities from aircraft hangars and airfields for the Air Force, to depot level equipment maintenance for the Army, barracks, data centers, laboratories, and so much more. With civil works, we have designed dams and levees, flood risk reduction features such as pump stations and levees, and large bridges. Our infrastructure experience extends to major hydroelectric projects as well. There is nothing that you can put in front of us that we have not already accomplished for USACE, with the Southwest Division.
- ✓ We are offering our most experienced manager of USACE projects as your Program Manager. Our Program Manager, Manish Mardia, had managed over 100 USACE Civil Works Task Orders between New Orleans, Galveston and Ft. Worth Districts. In proposing Manish as the Program Manager, we are providing our most valued USACE asset to lead our design teams.

MSMM-HZ USACE Testimonial

Dallas Floodway Extension

"MSMM Engineering continuously and repeatedly meets and beats schedule, even with the delay in schedule due to weather (act of God). The firm adjusts and continues to adjust to circumstances out of their control."
– Kolawole Anifowoshe – Design Manager USACE Ft. Worth District.

AFRL, Kirtland AFB

"AFRL has utilized Huitt-Zollars in multiple capacities, as RFP A/E development team Lead and as the Lead Designers of Design Build Teams Huitt-Zollars takes the time to get to know your agency more than any other team I have worked with in my 10 years of experience at AFRL. Their integrity, their attention to detail and their due diligence sets them above the rest."
– Bradley A. Reick, DR03, (GS-14) Senior Facility Engineer, Architect, USAF/AFRL/ RVOI, Kirtland AFB

MSSC Red River Army Depot

"H-Z provided outstanding service to the support of construction for this critical facility at RRAD. They were always willing to go the extra mile to assist in getting the project complete and ready to use."
– Lynn Ray, SWF Program Manager

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Introduction

The matrix below compares our Section F projects the Project Information and Selection Criteria A provided in the solicitation. As you will see, the JV members possess the capabilities and experience in most of the solicitation requirements in our F projects, however we have experience in ALL criteria throughout the team.

	Section F Projects									
Solicitation Requirements	Granger Lake Management Office Design	Repair/Renovate Dormitories 10070 and 10075, Lackland AFB	Fuel Cell and Corrosion Control Hangar, Cannon AFB	Maneuver Systems Sustainment Center (MSSC), Red River Army	Renovation of Historic Building B5676 and Hangar B6426, Barksdale AFB	Cow Bayou Drainage Pump Station Complex	Dallas Floodway Extension, Phase II Recreation and Access Design	Hangar 8 Renovation, Corpus Christi Army Depot	Design of Jefferson Parish Floodwalls	Electrical/UPS System Upgrades, Lake Whitney Hydropower Facility
2. Project Information										
program management	X					X	X		X	
data management	X	X	X	X	X	X	X	X	X	X
project programming and planning	X			X	X	X	X	X	X	X
feasibility and concept studies	X	X	X	X	X	X	X	X	X	X
space utilization	X	X		X	X			X	X	
design concepts/standards	X	X	X	X	X	X	X	X	X	X
research	X	X	X	X	X	X	X	X	X	X
analysis	X	X	X	X	X	X	X	X	X	X
engineering	X	X	X	X	X	X	X	X	X	X
design	X	X	X	X	X	X	X	X	X	X
design/build RFP								X		
engineering during construction		X	X	X	X					X
design of new construction, vertical and horizontal	X		X	X		X	X			
alteration of facilities	X	X	X		X			X	X	X
maintenance and repair of real property	X	X	X					X	X	X
pre-design site assessment	X			X		X	X	X		
topographic and boundary surveys	X		X	X		X	X		X	
geotechnical investigation and reports	X			X		X	X		X	
environmental investigations studies and reports	X			X			X	X	X	
hazardous materials testing and abatement and monitoring	X			X			X	X	X	
historical and cultural resource investigations							X			
seismic studies	X		X							
cost estimates	X	X	X	X		X	X	X	X	X
value engineering		X		X		X		X	X	X
design reviews	X	X	X	X		X	X	X	X	X
life cycle costing	X	X	X	X		X	X	X	X	X
CAD	X	X	X	X		X	X	X	X	X
GIS	X	X	X	X		X	X	X	X	X
BIM	X	X	X	X		X		X		X
3. Selection Criteria a. Demonstrated Specialized Experience and Technical Competence										
new facility design	X			X		X	X			
facility rehabilitation design		X	X		X			X	X	
Administrative offices	X				X					
dormitory projects		X								
aircraft and squadron support facilities			X		X					
medical facilities										
aircraft hangars			X							
vehicle and equipment maintenance facilities	X			X				X		
building additions/alterations	X	X	X		X			X		
VA										
NNSA										
DHS-CBP facilities										
and research and development facilities										
hydraulic modeling						X	X		X	
site layout	X			X		X	X		X	
road design	X			X		X	X		X	
developing design-build RFPs								X		
hydraulic steel structures						X	X		X	
bridges							X			
hydropower facilities										X
design charrettes	X			X	X	X	X	X	X	X
concept design	X			X	X	X	X	X	X	X
planning and scheduling management	X		X	X		X	X	X	X	
cost estimates using MII and PACES	X	X	X	X	X	X	X	X	X	X
drawings and specification	X	X	X	X	X	X	X		X	X
design quality management plan	X	X	X	X	X	X	X	X	X	X

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Vertical Design

The MSMM/Huitt-Zollars Mentor Protégé, JV has broad experience in developing plans, specifications and construction cost estimates for vertical design projects including new facility design and facility rehabilitation design. In additional to the projects in Section F, the following is an additional list of project in which our team has prepared plans following DoD's UFCs, specifications utilizing USGS in SpecsIntact and construction cost estimates in MII:

Administrative offices:

Bureau of Engraving & Printing Administrative Expansion, Fort Worth, TX $200M
Nuclear Regulatory Commission Buildout, Arlington, TX $8M
TRADOC Headquarters & Band Facility, Fort Eustis, VA $96.6M
Sustainment Center of Excellence Headquarters Building, Fort Lee, VA $50M

Dormitories, barracks:

BRAC Combat Officer Bachelor Housing, Naval Air Station Pensacola, FL $23M
Renovation of Dormitories 10070 and 10075, Lackland Air Force Base, TX $11.9M
Warrior in Transition, Fort Sam Houston, TX $51M
Fort Lee Lodge, Fort Lee, VA $86M
Unaccompanied Enlisted Personnel Dormitory, Thule Air Base, Greenland $13.6M
Billeting NCO Academy, Fort McCoy, WI $12M
AIT Barracks Complex, Fort Huachuca, Sierra Vista, AZ $20M
WT Barracks Complex, Fort Sill, OK $50M

Airfield pavements and support facilities:

BAK 12/14 Aircraft Arresting System (AAS) Biggs Army Airfield, Ft Bliss, TX $2.7M
Bldg 5376 Renovations & Conversion to Squadron Ops, Barksdale AFB, LA, $7.5M
FY18 Virtual Warfare Center Operations Facility, Nellis AFB, NV, $20M

Aircraft hangars:

Hangar 8 Renovation, Corpus Christi Army Depot, TX $21M
P-160 Indoor Aircraft Wash Rack, NAS Whidbey Island, WA $8.5M
Unmanned Aerial Systems (UAS) Hangar Complex, Fort Campbell, KY $40.4M
Three-Bay Aircraft Maintenance Hangar, Bagram Airfield, Afghanistan $54M

Vehicle and equipment maintenance facilities:

Dynamic Component Repair Facility, Corpus Christi Army Depot, TX $35M
Maneuver Systems Sustainment Center, Red River Army Depot, TX $85M
Helicopter Maintenance Facility, NAS North Island, Coronado, CA $67M
Aviation Hangar Maintenance Facilities Camp Bastion, Afghanistan $39M

Medical facilities:

1st Cavalry Headquarters Addition and Renovation, Fort Hood, TX $45M
Repair Warehouse for LRS/CE Consolidation (B4845), Barksdale AFB, LA $7.1M

NMCA/DOE:

Bakersfield National Cemetery Master Plan and Phase 1 Design, Arvin, CA $15.5M
Fort Stanton Cemetery Master Plan and Phase 1 Design, Fort Stanton, NM $5.1M
Las Vegas Medical Center, Las Vegas, NV $365M
San Diego Community Living Center Renovation, San Diego, CA $32M

DHS CBP facilities:

Cask Shipping and Receiving Facility for Spent Nuclear Fuel, DOE, INL, ID $40M
Advanced Test Reactor Complex Common Support Building, DOE, INL, ID $8M
Dynamic Equation of State, Los Alamos, NM $4.6M
VTR, Los Alamos, NM $1.5M

Research and development facilities:

Wellton Border Patrol Station, Wellton, AZ, $25M
Five Land Ports of Entry, Northern Border, Various Locations, $27.5M
Oroville Border Patrol Station, WA $28M
Bonners Ferry Border Patrol Station, ID $29M
Swanton Sector Border Patrol C2 Facility, VT $24M

Laboratories:

USDA APHIS Fruit Fly Rearing, Ecolosion and Release Lab, Edinburgh, TX $45M
Weir SPM Pump Test R&D Facility, Dallas, TX $15M
TSA K9 Environmental Lab Facility, JBSA, San Antonio, TX $4M

"A Marine Corps F/A-18D Hornet from VMFA(AW)-225 stationed at MCAS Miramar, California recently declared an emergency while making a refueling stop at Biggs Army Airfield. A total hydraulic failure had left the fighter without critical braking and steering systems and forced the use of a tail hook landing. The F/A 18 successfully hooked the wire on the BAK 12/14 system at the north end of the runway resulting in a safe landing with no crew casualties or damage to the aircraft.
It's great to know that the projects you build really do make a real world difference and in this case, may have saved the lives of two pilots and a $70 million aircraft. A big thanks goes out to the Huitt-Zollars team for all their help with this project." - Phil Barrick, PMP, USACE, Ft. Worth District, Bliss Account Manager (11/13/2017)

CBP Vehicle Maintenance Facility, Wellton BPS, AZ

Fort Lee Army Lodge, Fort Lee, VA

VA Bakersfield National Cemetery, CA

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Horizontal Design

Our JV has performed significant horizontal design in the southwest division for USACE within the Southwest Division in the last 10 years. With our experience in civil works in Texas and Louisiana and the $4.8B Fort Bliss expansion program in which we completed over $1.0B in horizontal facilities and, we prepared over 150 design-bid-build construction contract documents that included hydraulic modeling, site layout and roadway design. On the Fort Bliss expansion program, our horizontal designs included:

- 80 Miles New Roadways
- POV & GOV Parking for over 15,000 vehicles
- 94 Miles Waterlines
- 62 Miles Gas Lines
- 71 Miles Strom Drains
- 54 Miles Sanitary Sewers
- 59 Miles Comm Duct Bank
- 54 Miles Electrical Duct Banks
- 60 Acres Airfield Apron Paving

Hydrology & Hydraulics:

White Sands Missile Range Master Drainage Study, WSMR, NM $715K fee
Fort Bliss Main Cantonment Drainage Study & XP SWMM Modeling, TX $422K fee
Fort Sam Houston Drainage Master Plans, San Antonio, TX $330K fee
Recertification of 21 miles of Flood Control Levee Systems, TX City, TX $633K fee
Santa Ana River Reach 9 Design, Phases 2A/2B, Orange Co, CA $ 1.5M fee
CBP LRD Sector 120 miles of Floodplain Hydraulic Modeling, TX $1.3M fee
Willow Springs Phase I & 2 Floodplain Studies and Modeling, AZ $438K fee
Cypress Creek Watershed Study and Modeling, TX $378K fee
Pahrump Valley PMR FEMA's FAN program, AZ $645K fee
Tempe 2D Study Analysis & Modeling, AZ $468K fee

Site Design:

BAK 12/14 Aircraft Arresting System (AAS) Biggs Army Airfield, Ft Bliss, TX $2.7M
Division Headquarters Infrastructure, Fort Bliss, TX 8.2M
U.S. Army Reserve Center, Jonesboro, AR, $18.5M
Industrial Complex Site & Infrastructure, Fort Bliss, TX $11.6M
Combined Arms Collective Training Facility, Fort Chaffee, AR, $28M
US Army Reserve Center, Brownsville, TX $22.7M
US Army Reserve Center, Round Rock, TX $20.8M
CBP Multiple Remote Video Surveillance Tower Sites, SWD/SPD AOR, $34M

Roadway design:

Mohawk Road Reconstruction, Fort Hood, TX, $7.1M
Airfield Access Roads, Fort Bliss, TX $2.8M
CBP Patrol Road Designs SWD/SPD AOR, $76M
CBP Tactical Infrastructure Designs Standards SWD/SPD AOR, $1.6M fee
Combined Arms Firing Range Complex Roads, Fort Chaffee, AR, $18M

Drainage & Reconstruction of Mohawk Road at North Fort Hood: Preparation of two design-bid-build construction documents, USGS in SpecsIntact and one design-build RFP (with CWEs in MII) for approximately one mile of road and 5 separate areas with flood control and erosion protection improvements. The road designs included a 25ft wide HMA section for tactical traffic. Hydrologic and hydraulic modeling was completed in HEC-HMS and HEC-RAS for the existing and proposed condition analysis. The models were developed by updating previous HEC-1 and HEC-2 model data with the new development including roads, buildings, parking areas and drainage structures. The models confirmed the erosion and flooding conditions observed in the field, which included overtopping of roads, highly erosive velocities, and flooded parking and structures. Drainage improvements include new concrete box culverts, providing new permanent erosion control protection, streambank stabilization, new headwalls, widening of channels, replacing existing driveway culverts with new reinforced concrete pipes and development of storm water best management practices and maintenance recommendations. Final design and construction contract documents were prepared in MicroStation to AEC CADD Standards. Cost estimates were prepared in MII. The construction cost limitation was $7.1M for the 3 design packages.

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Design-Build RFPs

Our team has extensive experience in writing Design-Build RFP's. On the Fort Bliss $4.8 B program, we worked with 5 USACE Districts responsible for the Product Lines with 7 different districts including the Tulsa District (responsible for maintenance facilities). We helped to achieve consistencies among all the districts RFP's. These efforts include QC reviews of draft RFP's, maintenance of installation-specific standards, and instruction in the use of USACE-HQ's Model RFP Template and the RFP Wizard online tool. In total, we assisted the program with over 30 D-B RFP's utilizing the RFP Wizard. Here are a few other examples of a DHS, DoD and Civil Works D-B RFPs developed by our team:

Kingsville and Corpus Christi Brownsville Border Patrol Station Design-Build RFP

Our team prepared Design/Build RFP for these two stations for the Galveston District Corps of Engineers and Department of Homeland Security. The package includes detailed floor plan and elevations, typical furniture layouts, and color boards to meet the clients desire to control the building layout and architectural design scheme. Total construction cost was $54M.

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Design-Build RFPs, con't

From the ACASS Rating "Exceptional"
"The A-E firm performed perfectly under an extremely challenging schedule pf less than 6 weeks. They stood and delivered a complete RFP within two weeks and supported is superbly during the advertisement."
– Ms. Debra Castens, USACE, Fort Worth District

We prepared a Design Build RFP including bridging drawings and specifications. Army South relocated to JBSA taking over the whole building and as a result, significant data infrastructure improvements were required as well as some general reconfiguration of spaces. The project was completed in August 2010 in time to allow the District to successfully bid and award before losing expiring yearend funds.

Headquarters Army South (JBSA Bldg 1000) Design-Build RFP

Emergency Repairs to Gulf Coast Jetties & the Texas City Dike

With only a 4-month design schedule, our team performed assessment, survey and design analysis of the existing structures, prepared preliminary design, bridging documents and a design/build RFP for the damaged portions of the jetties and the erosion at the east end of the Galveston Seawall. We prepared a Design Document Report (DDR) in accordance with ER 1110-2-1150, Appendix D for the Draft Final and Final submittals. MII Cost Estimates were prepared and a Value Engineering Study was conducted. Due to the short time, we suggested Over-the-Shoulder Review and a BCOE Review with SWG in person. Our personnel participated on the Source Selection Evaluation Board as a technical representative. After selection, J/HZ participated in Technical Reviews of the DB contractors design and provided construction phase services. We received an overall "Exceptional" ACASS rating from SWG.

Rio Grande Valley Tactical Infrastructure Section 7, 8, 9, & 10 Supporting USACE on the Border Infrastructure Program Management Office, our team developed a total of 4 design-build RFPs that covers over 80 miles of US Border Patrol Tactical Infrastructure and technology including 18-ft-tall and 30-ft-tall steel bollard fence, 150-foot-wide enforcement zone including vegetation removal, detection technology, enforcement zone lighting, video surveillance and all weather roads parallel to the border barrier system. All four projects are located in Rio Grande Valley (RGV), with segments generally extending from Falcon Reservoir to the Gulf of Mexico. The design and completed construction of the border barrier system which includes levee wall had to be approved and certified for the FEMA national database for flood prevention, USACE, International Boundaries and Water Commission (IBWC) and other technical reviews happened concurrently with team reviews.

Afghan National Army, Kabul, Afghanistan

Supporting USACE on the Afghan National Security Forces Infrastructure Program, our team quickly developed the scope of work, specifications, and project management procedures to allow the general contractor maximum efficiency during the design/build process. We preformed planning, design and RFP development for a new 15-building, $22 million industrial and vehicle maintenance campus, including billeting, a DFAC, HQ and classrooms, latrines, support facilities, access control points, maintenance facilities and shops, fueling, utilities and site improvements on a 150-acre site for 1.033 troops. Our team had less than 10 weeks to prepare the site plans, facility bridging documents and technical specifications in order to meet the end of year deadline for contract award. We received an overall "Exceptional" ACASS rating from SWF.

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Infrastructure Projects

Our team has the expertise to support the District with design of infrastructure projects. We have included two specialty subconsultants to supplement our in house capabilities in hydraulic steel structure and hydropower facilities. We have included two key projects in Section F that highlights our design capabilities with complex bridges and hydropower facility retrofits. In addition, the list below expands on our team's experience:

Hydraulic steel structures:

Addicks and Barker Reservoir Floodgate Repairs, Houston, TX $5.8M
Headgate Structure and Dam Rehabilitation, Columbia Canal, Columbia, SC $83M
IHNC Lock Replacement, New Orleans, LA $30M
New Orleans Outfall Canal Permanent Pump Stations, New Orleans, LA $65M
Company Canal Sector Gate, New Orleans, LA $27M
CBP Nogales-Morley Gate Drainage Tunnels, AZ, $1.2M
Olmsted Dam, Olmsted, KY $79M
Red River Lock and Dam Replacement #4, Shreveport, LA $30M

Barker Reservoir Floodgate, TX

MSMM · HUITT-ZOLLARS ENGINEERING, LLC A MENTOR PROTÉGÉ JOINT VENTURE

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Infrastructure Projects, con't

US 54 Tactical Overpass, Orogrande, NM, $7.5M
Del Rio Sector 247 ft Border Patrol Bridge, El Indio, TX $1.5M
El Paso Sector three (3) international canal bridges, El Paso, TX $2.1M
IBCT Loop 375 Bridge, Fort Bliss, TX $6.9M

Lake Whitney Hydroelectric UPS Upgrades, TX $3M
Lake Whitney Fire Protection Upgrades, TX $1.6M
Arc Flash Upgrades at Hydropower Facilities, Multiple Locations, TX, $2.1M

Hydropower facilities

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Design Charrettes


Rendering of CCAD Master Plan

Our project shown in the matrix on page H-2 exhibit some of our experience with performing design charrettes. In addition, our team provided ***planning and design*** of over 4500 acres and $4.8 billion in new faculties for the Fort Bliss Expansion program from 2006 to 2014. The Fort Bliss expansion program included planning, design charrettes, ATFP, landscape design, site surveys and extensive site development. Our team held numerous charrettes with both Fort Bliss and White Sands to develop master plans for multiple areas including a series of 16 Area Development Guides. These ADG's served as the guidelines for facility aesthetics, architectural environment and sustainability. We worked closely with USACE to develop and refine the DD1391s during the planning stages as needs or standards changed. Additionally we prepared a master plan for the Corpus Christi Army Depot (CCAD) Building 8 Complex Replacement. The plan required extensive site design for a phased approach to the $330M, 1.3M sq-ft replacement of the facility. We have successfully performed over 65 IDC/IDIQ contracts for the DoD for facilities and utility infrastructure improvements from coast-to-coast and border-to-border. Our team also supported USACE in the development of the WIZARD, a template application to standardize and expedite RFP preparation. This application delivers key benefits by promoting standardization, ensuring quality, reducing costs, expediting production of RFP documents, and ultimately limiting modifications.

Design Charrettes are a significant strength of this team. In addition to 30+ charrettes provided on the Ft Bliss Program, we regularly organize and facilitate charrettes on our USACE projects. In addition, every Border Patrol Station our team members designed is initiated with a design charrette. In the past 7 years our team members has lead design charrettes on various Air Force, DHS-CBP and other federal projects on over 50 projects. Our team provides master planning service to IMCOM installations worldwide.

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Concept Designs

Our JV team develops concept level designs as part of each project's charrette phase to give the stakeholders a better understanding of what the scope of work encompasses. These concept designs can show multiple layouts on a site for the various components of a project, bubble diagrams of a facility to show adjacencies, and multiple facility layouts to help stakeholders determine a path forward. These are then used to help the team move forward with buy-in from all those involved with minimal surprises when the review packages are submitted. Beyond the basic 2D layouts to help determine the broad strokes of a project before the detailed design begins, our team has used 3D models to assist the project design team in determining the looks of various finishes and exterior components prior to finalizing a design and to determine the best views for a final rendering suitable for framing.

During the execution of a USACE project conducted at Creech AFB Concept Charette Document (CCD) for Facilities 64, 1052, and Royal Air Force (RAF), our subconsultant, Michael Baker, was challenged to provide a viable and executable Course of Action (COA) that could be designed and constructed in time to meet a target deadline. Solutions were required that could be executed immediately and within MILCON budget

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Concept Designs, con't

constraints. Concept designs and cost estimates were developed with BCE, military programmers, communication/IT personnel, and end users of the facilities to meet all needs. Various master planning tools were used to address the regulatory codes, AT/FP requirements, complete energy audits, and assess utilities. A COA was developed that enabled the mission to be met and design and construction to be accomplished by the target deadline within the funding limitation.

DTRA CCD & Concept Design

Our team developed a CCD and DD1391 for a single large consolidated facility for the Defense Threat Reduction Agency Kirtland AFB headquarters. The purpose analyze three options for updating and expansion of the DTRA facilities: (1) renovation of existing buildings; (2) construction of a new building in the old housing area; and (3) construction of a new building near the existing DTRA School. Space programming and concept floor plans were developed for all three options. Space plans and concept were also developed for other DTRA buildings that would serve as temporary swing space while the compound buildings were renovated. Phasing plans were developed to depict the movement of staff and the construction, with the objective that all construction would be done outside the DTRA security fence on unoccupied buildings.

Cost estimates were developed for all three options along with a list of pros and cons for each option. Option (3) was eventually selected by the Corps and its customer. The team then developed detailed site plan, floor plans, design narrative, and renderings of the selected scheme. The selected scheme comprises a new three-story, 65,653 square foot, energy efficient; mission critical Controlled Access Open Storage building, adequate for a total resident staff of approximately 250. Total construction cost is estimated to be $33.2M.

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Planning And Scheduling Management

Our JV team's experience and competence to effectively plan the work of multiple task orders and sub-tasks as well as manage project schedules is demonstrated by our record for delivering projects on time. We can easily absorb any level of work into our current backlog without negatively influencing project schedules or performance. This adaptability allows our Program and Project Managers to efficiently manage fast track and phased design services while maintaining readiness should criteria or schedule changes arise. Decades of designing military, IIS and civil works projects, engaging in field operations with end users, assessing site conditions, and providing construction phase services have equipped our Project Managers and Discipline Leads with the knowledge of how to adequately scope a project and how to mitigate schedule risks. For instance, we know the importance of managing critical path items such as geotechnical and survey data collection which often requires a quick start after task order award in order to meet the design timelines.

On the Fort Bliss program, we assisted USACE with planning and programmatic scheduling. Working with USACE, we produced site infrastructure packages for the MATOC infrastructure contractor to prepare the building sites for design-build building contractors. The design-build RFPs were prepared with specific language and visual aids to identify the limits of the design-build contractors site responsibility which was significantly less than a traditional single building project. This allowed the design-build contractor to focus his time on just the building construction. Design of horizontal elements such as hardstand, paving for both private and Government vehicles, and landscaping was completed with design bid build packages, while building construction was ongoing. Our teams schedulers and site designers worked together to develop detailed construction durations and timeline activity schedules in Primavera to include in the RFP. These schedules defined the design-build contractors' limits and time frames in which his building parcels would be available. This information was used to help orchestrate the construction timing between the buildings, infrastructure contractor and follow-on landscape and paving contractors. Most important, this detailed site scheduling allowed the critical paving and landscape contractors to conduct their work in time for the Troop Ready schedule dates.

Consistent On-time Delivery We are proud of our record for effectively planning and managing schedule for our many IDCs with USCAE. Below are commendations on our JV team members performance regarding schedule compliance:

Corpus Christi Army Depot Hangar 8 Renovations, TX *HZ team were proactive in pushing the schedule with the customer and USACE in all issues related to design reviews and review conferences. [Their Project Manager] was instrumental in identifying road blocks that would impact the major milestones, (i.e. the creation of Division 00 and 01 specs) for the review package… was always willing to meet with our internal team to brief the project and worked well with our cost estimators and contract specialist. As a result, we were able to meet the customer's expectations.*
- Norma Edwards, USACE SWF, Program Manager

Fort Bliss Expansion Program, TX *Without the support from each of you on the Infrastructure Portion of work, the first Battalion Set could not have been accomplished. Without sitework, utilities, roadways, real estate actions, etc. the buildings could not have even been completed on time or even got to this point. Just think when we started 1 3/4 years ago with the Infrastructure Contracts, we didn't even have the infrastructure completed designs when we awarded contracts and to get to this point for Troop Ready Buildings, is a great accomplishment that each of you should be very proud of. Great Job and I am thankful and much appreciative for a great team we have for this work. Please pass on to all of your folks that were part of this*
- Michael Bormann, USACE SWF, Program Manager

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Preparing Cost Estimates Using MII and PACES

Our approach to accurate cost estimates includes early active involvement by our cost estimating specialists in the initial project stages - from schematic and charrette facilitation to design development, construction documents, and value engineering. Our JV cost estimator and our estimating professionals from our subconsultants are experts with decades of experience in the use of MII software and preparing estimates in accordance with published USACE cost engineering principles and documentation as appropriate to the level of design for completion. We have a cost estimator within the JV as well as additional cost engineers within our subs. Our teams cost professionals provide cost estimating, cost management consulting, scheduling, value engineering, and risk management for every discipline listed in the solicitation. They hold years of experience with numerous certifications, including Certified Cost Professional (CCP), Certified Estimating Professional (CEP), Certified Professional Estimator (CPE), Certified Value Specialist (CVS), Earned Value Professional (EVP, and Planning and Scheduling Professional (PSP).

Cost Estimating Libraries and Software

Our subconsultant, Michael Baker International has extensive experience with estimating within SWD. Numerous MII cost estimating libraries for typical building components and utilities infrastructure, including specialized security and communications systems, mechanical and electrical equipment, local building materials, security fencing, low water crossings, approach road grading, debris removal, vegetation control, and earthwork have been created by our cost estimating specialists. These libraries have been used to provide quick response along with accurate estimates, and were a time-saving component of the USACE, Fort Worth District PF 225/VF 300 fence construction where an additional 31 project segments were prepared since the last contract consisting of $400 million in estimated costs. Additionally, we use a variety of programs, tools, and software to successfully execute all cost engineering requirements – our professionals are experienced and trained in more than 53 platforms, including but not limited to MCACES MII, PACES, Microsoft Primavera, and Crystal Ball. Using these programs delivers comprehensive project cost services and controls to monitor throughout all phases of the project's development and construction.

Proactive Cost Estimating

Recently, JV partner, MSMM, was tasked by USACE with design for three projects. The projects included a levee system, a force main and a pump station; all designed separately, inclusive of separate plans, specs, design analysis and construction cost estimates. Following the 65% design and MII estimate submittal, USACE requested MSMM combine the three projects into one construction contract after MSMMs Cost Estimator, D. Daigle identified that bidding the project as three separate packages created a high overall project cost which exceeded the construction cost limitation. Being proactive, D. visited the site and met with local construction contractors about impacts of performing the project as one design package. He reworked the MII estimates into one package and worked with USACE cost estimating branch to fine-tune the multipliers and subcontract markups based on his research. D. worked with the MSMM design team to develop several value engineering solutions to the combined package to help reduce the overall project cost. Following production of the combined package, the gap of available cost was reduced significantly, and MSMM further reduced the cost by recommending the appropriate construction contractor pool versus the use of an 8(a) sole source contractor. The USACE infrastructure project was constructed within the budget established by Mr. Daigle.

Our JV team has successfully performed highly detailed and accurate construction cost estimates using MII software for billions of dollars in construction costs for DOD, Department of State, and DHS, including over $1.5 billion in awarded contracts in support of facilities and horizontal infrastructure for USACE, Fort Worth District. Our team includes certified cost estimators experienced in using *M-II, MCACES, SUCCESS, and PACES*; market condition analysts; and risk assessment/mitigation specialists. These specialists are both in the joint venture as well as our subconsultants. Our approach to accurate cost estimates includes early active involvement by our estimating specialists – from concept and charrette to design and construction documents. Our lead cost estimator, D. Daigle has nearly 25 years preparing cost estimates predominately for DoD projects. Regardless if the JV prepares MII estimates or utilizes our subconsultants from Michael Baker or EudaCorp, Mr. Daile will review all estimates for consistency. Michael Baker and EudaCorp maintain an extensive cost estimating library for typical DoD, Civil Works and CBP/DHS facilities, infrastructure and building components including security and communications system, mechanical and electrical equipment. These libraries have been used to provide time-saving responses along with accurate estimates for numerous USACE projects.

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Drawings and Specifications

Our JV team remains up-to-date on the latest AutoCAD and Bentley MicroStation software to produce construction drawings and the latest version of the SpecsIntact software to produce project specifications. Our team offers over 1800 expert users in AutoCAD and Bentley MicroStation products to design and develop construction drawings. In addition, the JV team boast 281 experienced

Our Team members prepared over 130 full DBB construction bid packages with over 17,200 drawings on the Fort Bliss Expansion Program utilizing AutoCAD and SpecIntact from 2006 through 2014.

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Drawings and Specifications, con't

Revit users to handle any architectural consulting assignments. We currently use the 2019 AutoCAD/Civil 3D and Bentley Power InRoads V8i SS4 versions of these programs and upgrade to new versions every three years. The JV team offers in-house CAD training for updates and special features to ensure staff is on the forefront of new technology. In recent years, our JV successfully prepared thousands of full design and DB plan sheets for USACE programs.

SELECTION CRITERIA: a. Demonstrated Specialized Experience and Technical Competence – Providing Quality Designs Consistent With The Firms Design Quality Management Plan

Our team is proud of our reputation with USACE and the high-quality work products we have developed for your customers. Quality control is embedded within every stage of a project and starts during project planning, refer to our discussion on our QMP in Selection Criteria h. Our JV has provided USACE with high quality deliverables on the many partners IDIQ/IDCs and have consistently developed design Quality Management Plans (QMPs) for these efforts. Our QMP meet the requirements as defined for quality control in ER 1110-1-12, Quality Management. Our QMP address how we will produce our deliverables and the steps that will be taken to control quality. We are accustomed to working with the districts "in-house" technical personnel on resolving project criteria and participating in the government review process in Dr. Checks. We understand the process for comment tracking and resolution as well as annotation and review of government comments at each stage of design.

For example on our recent quality management plan implementation, Huitt-Zollars is providing quality management and Independent Technical Review of the design packages for a project designed by JV partner MSMM. We have focused our review on compliance with Federal regulations and Unified Facility Criteria specifically related to USACE project execution. The comments have been relayed to our engineering team, and we have met to go over the plans and discuss the comments. This work has been completed in compliance with the original DQMP plans established for the Timber Creek and Granger Lake projects. In addition, MSMM is currently integrated into subconsultants Michael Baker International team on a Border Infrastructure task as an independent reviewer to perform Independent Technical Reviews on three on-going design build RFPs. Each of the RFPs covers a total of approximately 60 miles of bollard fence, patrol roads, lights, towers, and drainage features within a 150' border patrol enforcement zone in Rio Grande Valley Sector.

SELECTION CRITERIA: b. Professional Qualifications

As can be seen in our response to the Selection Criteria A requirements in the foregoing materials, project experience is one of the strengths of our team. However, just as important to the success of the program is the quality of our people, and we believe that we offer the advantage of consistent quality of proposed personnel across the board.

The first key to success related to personnel qualifications is the background and experience of the management team, in this case comprising the Program Manager, Manish Mardia. Mr. Mardia managed his first IDC contract with a joint venture of four small business firms following Hurricane Katrina. Under his leadership, MSMM has continued to grow and has won IDC contracts with Fort Worth District (SWD Division), as well the New Orleans District. Mr. Mardia has continued in his role as program manager for these IDCs.

PROGRAM MANAGER

Manish Mardia will serve as the single point of contact between the team and the client and be responsible for meeting all contractual obligations of the prime and all sub-consultants. Mr. Mardia will also have responsibility for task order oversight, resource allocation between tasks and participating firms, and development of the quality control program.

In a similar role for the last ten years as a Program Manager on major IDIQs, Manish Mardia will have primary responsibility for administrative and contractual duties, task order oversight, and resource allocation; and will be the primary point-of-contact for this contract. He will ensure that the most highly qualified Project Managers and Project Delivery Teams are placed on each task order by balancing these factors as guides for selection:

- ✓ Technical qualifications, expertise, and past performance doing the requested type of work
- ✓ Specialized planning, design, or engineering services that may be required

SELECTION CRITERIA: b. Professional Qualifications, con't

- ✓ Specific customer knowledge and relationships regarding the site and the work
- ✓ Same teams on same types of projects
- ✓ Familiarity with the project location
- ✓ Geographic proximity to the project site
- ✓ Capacity and availability to perform the work based on the required schedule

Mr. Mardia's recent past is of particular interest in evaluating his professional qualifications for his role as Program Manager and his extensive experience in major infrastructure programs. Following the massive damage Hurricane Katrina, Mr. Mardia put together a joint venture entirely composed of small business entities to respond to the New Orleans District's need for a design consultant to assist with its hurricane recovery program and critical infrastructure assessment and design. Under the resulting IDIQ awarded to his team, over 60 task orders were executed in three years. Services included planning and design for repair and replacement of multiple miles of existing horizontal infrastructure, floodwall and levee systems.

Previous Performance Record—Program Manager Mardia

Jefferson Parish Floodwalls

"Mr. Manish Mardia has been a tremendous asset to our organization. He helps us fulfill our mission by providing access to high quality skill sets and rapidly adapting to changing conditions. He establishes and maintains good relationships with all parties and has outstanding customer service. I welcome the opportunity to continue working with Mr. Mardia."

-Mr. Christopher J. Kelly, P.E., USACE Risk Management Center, July 2012.

To support Mr. Mardia in the management of this IDC, we have assigned a Quality Control Manager and three project managers. All four of these individuals have an extensive DOD background, have managed large-scale USACE projects, and currently manage projects within the SWD. A snapshot of our management team follows:

QUALITY MANAGER:

Larry Rogers is the previous USACE Fort Worth District Chief of E&C with expert experience in quality design, review of project materials and compliance with engineering regulations and UFGS. Mr. Rogers has extensive USACE experience across multiple business lines, inclusive of horizontal and vertical design, providing excellent service for multiple agency partners and stakeholders. In this role, all design submittals will be reviewed by Mr. Rogers prior to submission to USACE.

PROJECT MANAGERS:

Josh Carson will not only lead individual task orders personally but will also be responsible to the Program Manager for oversight of the other task order managers. This role will require that he conduct regular progress review meetings to evaluate conformance to plan (schedule, cost, labor hour budgets, % complete, etc.) in connection with the various ongoing task orders. Mr. Carson is well suited for this role, as he is one of our most experienced managers of infrastructures projects in the firm. Mr. Carson worked as an in-house project manager at USACE MVN for 5 years and he knows USACE processes, regulations, personnel and programs. Mr. Carson will be assigned the management of Civil Works task orders for this assignment.

Jim Fullmer is a project manager with over 36 years of experience. Jim is an expert in managing military and IIS projects for USACE and has an extensive familiarity with governing building codes, design standards, and project requirements. Jim's extensive management experience in USACE programs, specifically for military projects, provides a valuable resource for the program manager to depend on when assigning a team responsible for providing a quality design. As a civil engineer, Mr. Fullmer approaches project management as if he is designing the project, and strictly follows the design quality control plan for the project.

Joe Wells is a certified architect with a specialization in vertical military design projects. He possesses extensive knowledge of the UFCs, IBC and TM's as they relate to all types of facility and site design. Mr. Wells has also provided management, design and construction phase services for various USACE projects, thus giving him the full knowledge of the steps required to complete a project in compliance with all Federal regulations. For this IDC, Mr. Wells' management experience and knowledge of the required design and construction phase services will be instrumental in the successful completion of military projects.

As a sign of the priority we place on this assignment, we are proposing an extremely experienced design team of technical experts to support our management team. All proposed key discipline leaders have at least 11 years' experience; in fact, the average level of experience among the key proposed team members listed in the table above is almost 29 years per person. In addition, each person proposed has extensive DOD experience, has functioned in their proposed role on DOD assignments, and has been employed by their present firm an average of over 11 years. Most of our key personnel have advanced degrees, training to meet the requirements, and have completed engineering work for SWD. Please refer to the summary table above for a review of the overall qualifications of this team compared to the personnel needs emphasized in your solicitation.

SELECTION CRITERIA: b. Professional Qualifications, con't

Personnel/Role	Education	Registration	Total Experience			Experience Related to Scope of Work		
			Employed by Prime	Yrs. With Firm	Total Years	DoD Exp.	Sec. F. Exp.	Exp. In Proposed Role
Manish Mardia / Lead Program Manager	M.S., B.S.	PE	✓	9	27	✓	✓	✓
Larry Rogers/ Quality Control	B.S.	PE	✓	11	44	✓	✓	✓
Joshua Carson/Project Manager	M.S., B.S.		✓	6	13	✓	✓	✓
Jim Fullmer/Project Manager	B.S.	PE, LEED AP	✓	28	36	✓	✓	✓
Joe Wells/Project Manager	B.A.	RA, RID	✓	11	32	✓	✓	✓
William Hoelscher/Architect	M.A., B.A.	AIA, LEED AP	✓	18	34	✓	✓	✓
Eugene Valentine/Architect	MC, B.A.	RA, GGP	✓	2	42	✓	✓	✓
Pawel Paszczuk/Architect	B.S.	RA, LEED AP		10	20	✓		✓
Sergey Aleksanyan/Mechanical Engineer	M.S.	PE, LEED AP	✓	23	47	✓	✓	✓
Joseph Fong/Mechanical Engineer	B.S.	PE		8	25	✓		✓
Jeff Wilson/Mechanical Engineer	B.S. B.A.	PE, LEED AP	✓	15	15	✓	✓	✓
Scott Parma/Electrical Engineer	B.S.	PE, LEED AP	✓	15	37	✓	✓	✓
Harry Hawney/Electrical Engineer	B.E.	PE	✓	8	34	✓	✓	✓
Richard Dickerson/Electrical Engineer		PE, RCDD, LEED AP	✓	15	41	✓	✓	✓
Kevin Spangler/Fire Protection Engineer	M.S., B.S.	PE		10	11	✓	✓	✓
Daniel LeClair/Fire Protection Engineer	BS	PE		8	34			✓
Michael De Leon/Civil Engineer	BS	PE	✓	14	22	✓	✓	✓
Scott Chehardy/Civil Engineer	BS	PE	✓	9	24	✓	✓	✓
Jim Wilson/Civil Engineer	BS	PE, LEED AP	✓	9	31	✓	✓	✓
William Wallace/Structural Engineer	M.S., B.S.	PE, SECB	✓	8	40	✓	✓	✓
Bob Yokum/Structural Engineer	M.S., B.S.	PE	✓	9	38	✓	✓	✓
Gavin Fitzsimmons/Structural Engineer	M.S., B.S.	PE/SE		11	19	✓	✓	✓
Don Green/Geotechnical Engineer	M.S., B.S.	PE				✓		✓
Victor Pozadas/Geotechnical Engineer	B.S.	PE		10	31	✓		✓
Don Daigle/Cost Estimator	AAS	CVS, CPE	✓	3	34	✓	✓	✓
Chris Conrad/Cost Estimator	B.S.	CVS, EIT		9	34	✓		✓
Maria Gatela/Cost Estimator	MBA, B.S.	CCP		9	20	✓		✓
Mitch Pillar/Land Surveyor		RPLS	✓	32	36	✓	✓	✓
Bill Webb/Land Surveyor	AAS	RPLS		5	22	✓		✓

Of course, we realize that the key discipline leaders are primarily responsible for program level quality control and oversight of task orders. In addition to these individuals, another advantage that we provide is that we are able to draw on a geographically diverse, resource-rich bench of "reach back" capabilities, as outlined in the following section. In just the major disciplines, that we anticipate will be involved in the task orders issued under this contract, our team features a total of over 4,000 professionals available for assignment. But, its not about the total number of personnel you have, but the quality of the individuals you assign to the task.

SELECTION CRITERIA: c. Past Performance

The MSMM-HZ Joint Venture has a deep history of providing USACE with AE services under IDC and IDIQ contracts. This includes a previous joint-venture led by MSMM to support USACE's Hurricane Protection Office in New Orleans for reconstruction and renovation of existing horizontal infrastructure following Hurricane Katrina, the Huitt-Zollars led Fort Bliss program, and current IDC/IDIQ contracts both firms hold within SWD to cover civil works, military construction and IIS. Our Team has a deep history of providing Federal customers with excellent AE Services, and we are pleased to relay, that we have earned a combined ACASS rating for this of more than 80% Exceptional with the remainder being Very Good or Satisfactory

SELECTION CRITERIA: c. Past Performance, con't

MSMMs performance with the Hurricane Protection Office

"The US Army Corps of Engineers would like to take this time to extend both our gratitude and appreciation to your firm for its contribution towards design and construction of the Greater New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS). The commitment of your firm's leadership and design team was integral to our success in delivering a world class system with functional capability for the 2011 Hurricane Season."

-Mr. Mark Wingate, P.E., DPM, USACE New Orleans District

Huitt-Zollars Performance for the Fort Bliss Program

"We asked our LDE partners to handle site development, site design, site integration and staff augmentation. We needed a strong team member in those areas to deliver a program of this magnitude. This was a huge program from the beginning and has now grown from a $2 billion to $4.4 billion program. The team has great chemistry and has grown along with program. Everyone has stepped up and delivered."

- Steve Wright, Account Manager, USACE Fort Worth District, Fort Bliss Expansion Program

The MSMM/HZ Team is committed to delivering cost efficient, on schedule and high-quality work for this IDIQ. In total, our team Zollars has a combined 364 "Exceptional" and "Very Good" ACASS performance rating on Federal IDIQ contracts. This proven history will provide USACE SWT with assurance of high quality and low risk performance on all anticipated types of work for this contract. The two firms making up the MSMM/HZ JV believe in providing quality professional services with utmost responsiveness. This has garnered many accolades and repeat calls for service from clients. We have an enviable performance history, especially USACE Districts across MVD and SWD. Our outstanding record is a result of our demonstrated ability to control project costs, provide high quality technical products, and meet project schedules for many concurrent government contracts. This is apparent in Federal client Letters of Recommendation we have received, such as the adjacent letter from Mr. Durund Elzey, the current Assistant DPM at the New Orleans District:

Included under a separate tab labeled "Appendix: Additional Supporting Material", are additional PPQ's that cover additional Federal design projects completed by the team These additional PPQ's demonstrate the high-level of confidence Federal clients have with the performance of the Team on multi-disciplinary design assignments. Additionally, below is a table summarizing the CPARS rating received on the projects identified in Section F.

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, NEW ORLEANS DISTRICT
7400 LEAKE AVENUE
NEW ORLEANS, LOUISIANA 70118

REPLY TO ATTENTION OF

DEC 0 1 2016

Programs and Project Management Division
Projects and Restoration Branch

MSMM Engineering, LLC
4640 South Carrollton Avenue, Suite 220
New Orleans, Louisiana 70119

To Whom It May Concern:

This letter is written to commend the exceptional past performance history of MSMM Engineering, LLC (MSMM). MSMM has been a vital asset to the U.S. Army Corps of Engineers, New Orleans District (MVN), Projects and Restoration Branch. The professionalism, responsiveness, and quality performance has positioned MVN to complete a wide range of many challenging and mission critical projects throughout various stages of the Civil Works process. Given their consistent and effective delivery of assigned task, MSMM is one of the top performing small business Architect-Engineering firms within MVN.

MSMM leadership and staff are customer oriented and driven to succeed irrespective of the task. MSMM consistently completes all assignments within the allotted schedule and budget. They have supported the development and delivery of projects across various MVN programs that includes but is not limited to the Flood Risk Management, Environmental Infrastructure, Planning Assistance to States, Floodplain Management Services, and Continuing Authorities Programs. In addition, their design expertise with levees, floodwalls, water and sewer pump stations has supported the development of sound engineering solutions.

I certainly recommend utilizing this firm to support future needs within Civil Works. Please feel free to contact me at, (504) 862-1674 if additional information is required concerning work performed by MSMM for MVN.

Thanks,

Durund F. Elzey
Senior Project Manager
Projects and Restoration Branch

SELECTION CRITERIA: c. Past Performance, con't

	Project	Contract Number:	Task Order Number:	CPARS Rating:	Overall Rating:	POC:	Contact Number:
Project in F	Granger Lake Management Office Design	W9126G16D0017	W9126G18F0322	✓	Very Good	Gail Hicks	(817) 886-1900
	Repair/Renovate Dormitories 10070 and 10075, Lackland AFB	W9126G-09-D-0034	TO 0015	·		Norma Edwards	(817) 886-1602
	Fuel Cell and Corrosion Control Hangar, Cannon AFB	W912PP10C0015	N/A	·	PPQ Included	Thomas Bueno	(505) 342-3244
	Maneuver Systems Sustainment Center (MSSC), Red River Army Depot	W9126G11D0004	TO 0003	✓	Very Good	Lynn Ray	(469) 487-7064
	Renovation of Historic Building B5676 and Hangar B6426, Barksdale AFB	N69450-08-1294	TO 0003	·		Jim Ritchie	(904)-542-2797
	Cow Bayou Drainage Pump Station Complex	W9126G16D0017	W912P819F0215	·		Charlie Brandstetter	(504) 862-2501
	Dallas Floodway Extension, Phase II Recreation and Access Design	W9126G16D0017	W9126G18F0286	✓	Very Good	Sharon Leheny	(817) 886-1563
	Hangar 8 Renovation, Corpus Christi Army Depot	W9126G15D0017	TO 0003	✓	Exceptional	Norma Edwards	(817) 886-1602
	Design of Jefferson Parish Floodwalls	W912P808D0002	TO 0006, Modification 01	✓	Exceptional	Durund Elzey	(504) 862-1674
	Electrical/UPS System Upgrades, Lake Whitney Hydropower Facility	W9126G11D0004	TO 0012	·		Eddie Lippe	(254)-622-3332

SELECTION CRITERIA: d. Capacity

The MSMM/HZ joint venture is a proven small business with the ability to execute multiple task orders at one time. As individual firms MSMM and Huitt-Zollars currently execute multiple concurrent individual task orders in excess of $1M. These task orders consist of horizontal and vertical engineering design and program/project management services across multiple USACE Districts. Additionally, our team has a stable of highly qualified professionals to pull from when task order demands are high.

The table to the right identifies the resources we have to pull from for this pursuit:

Ability to Initiate, Manage, and Complete Multiple Concurrent Task Orders

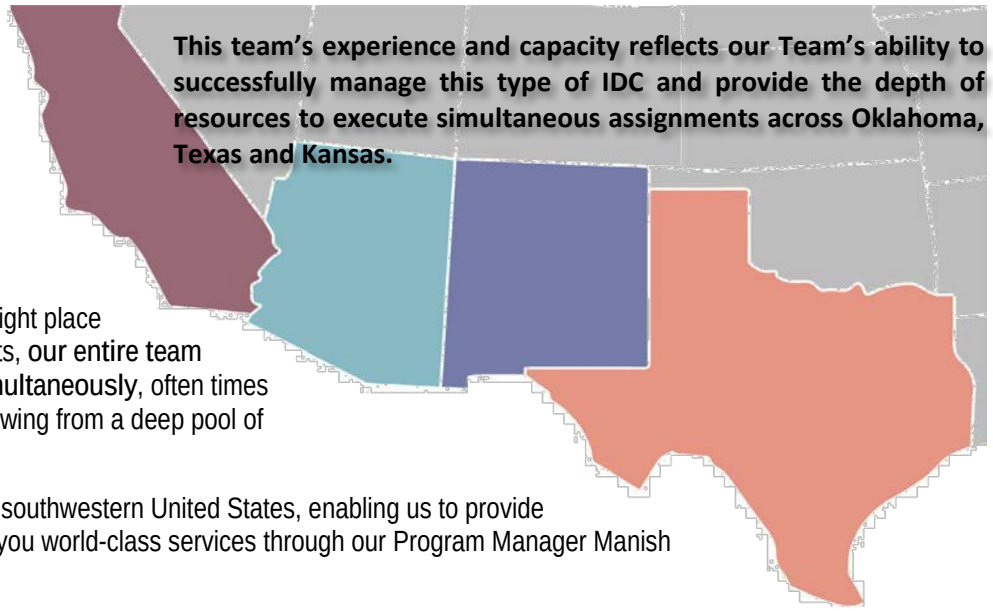
Our Team has extensive experience managing multiple, concurrent task orders in geographically dispersed locations for IDCs requiring multidisciplinary teams. We have collaborated with over 30 federal agencies on IDCs providing similar services. Due to the diverse nature anticipated for this scope of work, our team develops task order specific management plans that forecast scheduled tasks with the necessary staff resources to maximize personnel utilization and reduce costs.

TEAM CAPACITY	
Project Managers:	78
Civil Engineers:	97
Cost Estimators:	20
Environmental Engineers:	4
Architects:	37
Structural Engineers:	48
Electrical Engineers:	11
Land Surveyors:	37
Geotechnical Engineers:	11
Certified Value Specialists:	3
GIS Specialists:	75
Mechanical Engineers:	21
Landscape Architects:	8
Construction Managers/Inspectors:	694
CADD Technicians:	74

SELECTION CRITERIA: d. Capacity, con't

Under similar AE IDC contracts, our team routinely executes multiple task orders simultaneously, often times in separate locations across thousands of miles, drawing from a deep pool of technical staff resources, such as:

- ✓ Nationwide A-E Services IDC (USACE, Fort Worth District) – Executed 9 task orders in less than 2 years on our most recent USACE, Fort Worth District IDC for horizontal and infrastructure projects with an averages fees over $800K. Four of the nine task orders have overlapped while providing multi-disciplined services.
- ✓ Nationwide A-E Services for DHS (USACE, Fort Worth District) – Executed over 60 task orders on our most recent USACE, Fort Worth District IDC. This involved multiple and simultaneous projects, including three particular assignments that overlapped for a two-year time-frame and team members in various nationwide offices
- ✓ DHS IDIQ for General Miscellaneous Architectural/ Engineering Services –Completed over 350 task orders for five USCG Civil Engineering Units and two USACE Districts, executing full A-E design teams for as many as six facility designs
- ✓ Fort Bliss Expansion Program (USACE, Fort Worth District)– At the peak of the $4.8B Expansion Program, prepared 130 design-bid-build horizontal infrastructure construction packages and preformed over 285 task orders in 7-years (2006-2013) amounting to the construction of over $1B in military infrastructure. Our team managed and completed more than 25 horizontal design Task Orders concurrently by ramping up with dozens of civil design teams within the first 6 months of the contract.



A Focused Staffing Approach

Our strategic team composition will help ensure that USACE has the required service capabilities in the right place at the right time. Under similar AE IDC/IDIQ contracts, our entire team routinely executes three or more task orders simultaneously, often times in separate locations across thousands of miles, drawing from a deep pool of technical staff resources.

Our entire Team has multiple offices throughout the southwestern United States, enabling us to provide on-site capabilities, while at the same time, provide you world-class services through our Program Manager Manish Mardia and the entire team.

SELECTION CRITERIA: e. Knowledge of the Locality

Our JV team has extensive knowledge of the installations administered by the USACE, Tulsa District, as well as the prevailing design conditions throughout the SWD. We have addressed climatic concerns within our designs, including persistent winds and extreme thermal swings of East Texas, humid design conditions and hurricane force resistance along the Gulf Coast, and seismic conditions of north Texas and Oklahoma.

Architecture

When designing new buildings or structures—or modifying existing ones— our JV team pays particular attention to the local architectural context of the installation and to the particular area within the installation where the new work occurs. While Army COS have established architectural vernacular for most facilities, experience has taught us that each installation has its specific design guidelines and nuances that it prefers.

The JV team is equally experienced with projects involving the Facilities Sustainment Restoration Modernization (SRM) program. We have completed work at more than 45 installations involving SRM type building systems replacement; weatherization/roofing replacement; accessibility upgrades; structural system upgrades; and incorporation of sustainable/energy conserving materials and systems

Codes/Regulations

The JV design team is familiar and knowledgeable of the codes and regulations governing design of federal facilities in the SWD. All facilities completed for USACE have followed the family of codes of the International Code Council [IBC, IMC, IPC, IFC, IEC]; NFPA (including 101 LSC);

SELECTION CRITERIA: e. Knowledge of the Locality, con't

ADA & ABA; as well as the Energy Policy Act of 2005 and the LEED principles of USGBC. Projects comply with Unified Facilities Criteria as well as applicable Engineering Technical Letters/Bulletins. The JV team also complies with design regulations of each state in which the project is located and thus are familiar with those governing codes, including those administered by the State Fire Marshal, Department of State Health Sciences, State Energy Conservation office, State Historic Preservation Office, and Accessibility regulations, if applicable.

Soils Conditions

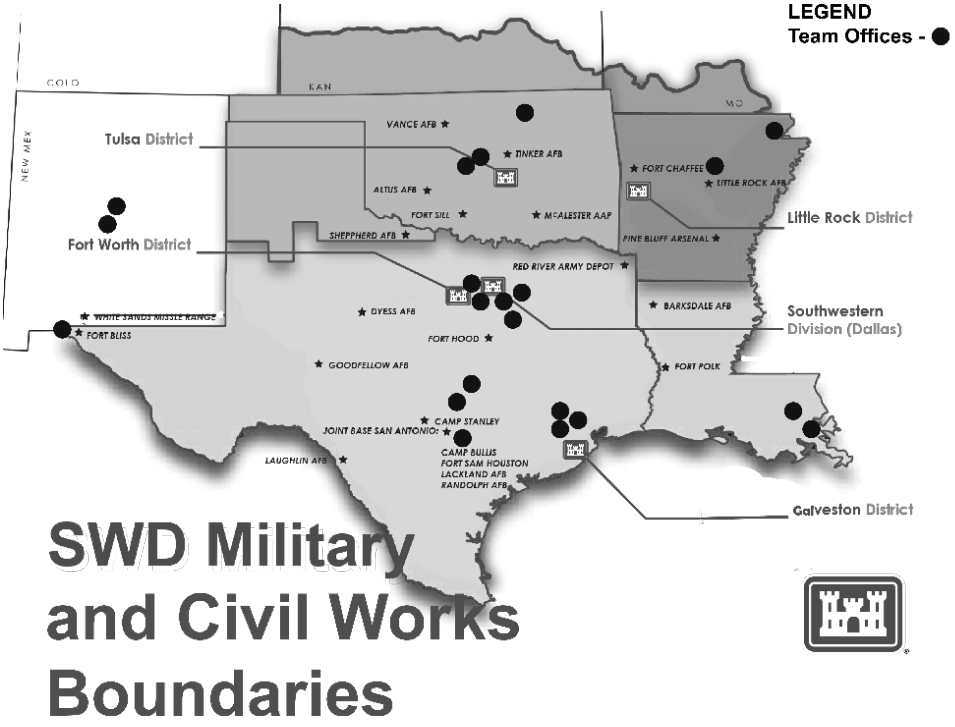
The challenges presented by poor soils for foundations are well known to the JV team. We are experienced with designing projects to accommodate the varying geomorphic provinces of the areas with the SWD.

Seismic Conditions

Structural design and design modification to structures utilizes collapse protection strategy for lateral forces resistance in accordance with IBC Chapter 16 and in particular, Section 1613, Earthquake Loads. These designs are governed by seismic ground motion response values established in the code, USGS maps, and per ASCE 7 Minimum Design Loads for Buildings.

This ensures not only geographic reach throughout the entire SWD, but also brings the BEST TECHNICAL RESOURCES WITH THE RIGHT EXPERTISE FOR YOUR MISSION. We have also invested in staff to serve as "Centers of Excellence" (COE) with the necessary skills in key locations within the AOR, requiring us to be well versed in design compliance with Federal, state, and local laws, codes and regulations.

The *team has 21 offices inside the Tulsa District and Southwest Division AOR* and have the ability to quick-start and mobilize to any project site, guaranteeing that our team can meet the demands of the challenging SWT mission while providing cost and time savings to project timelines. The map shows our team's offices throughout the Southwestern U.S., allowing us to respond immediately to SWT's mission needs. With multiple locations throughout the region, our team is strategically positioned with more than adequate number of licensed and certified personnel, to perform work for multiple task orders simultaneously.



SELECTION CRITERIA: f. Volume of DoD Contract Awards

As MSMM/HZ is a newly formed Joint-Venture, we have not received any DOD contract awards to date.

SELECTION CRITERIA: g. Small Business Participation Plan

The SB participation plan is shown on the next page and is put forward on this contract as a commitment to subcontract to other setaside small business in addition to the participation anticipated by this small business joint venture.

SELECTION CRITERIA: g. Small Business Participation Plan, con't

SMALL BUSINESS PARTICIPATION PLAN FORM								
A. Check applicable size and categories fro the PRIME offeror only.								
✓	Small Business							
B. Total combined percentage of work to be performed by both large and small businesses.								
	Total % planned for Large Business			8%				
	Total % planned for Small Business			92%				
	TOTAL			100%				
C. Total % and/or dollars of participation to be performed by each type of subcategory small business.								
		Fee Subcontracted	Large Business $	SB	SDB	WOSB	HUB-Zone	SDVOSB
MSMM/Huitt-Zollars, JV	SB	$4,760		$4,760				
Moye I.T. Consulting, LLC	SB, SDB, WOSB	$150		$150	$150	$150		
EudaCorp	SB, SDE, HUBZone	$60		$60	$60		$60	
Roca Engineering	SB	$100		$100				
Goode Associates	WOSB, HUBZone	$150		$150	$150	$150	$150	
ADS	SB, HUBZone	$100		$100			$100	
EWL	SB, SDVOSB	$180		$180				$180
Michael Baker	LB	$500	$500					
	Total Subcontracted $	$6,000	$0	$5,500	$360	$300	$310	$180
	Percentage of Subcontracted $		0.0%	91.7%	6.0%	5.0%	5.2%	3.0%
$ are in Thousands, Assumed Contract Value of $6M								
	SWT Goal	% of Subcontracted Amount	Total $ Amount	% of Contract Value				
Large Business		2.0%	$500	8.3%				
Small Business	8%	91.7%	$5,500	91.7%				
SDB	5%	6.0%	$360	6.0%				
WOSB	5%	5.0%	$300	5.0%				
HUBZone	3%	5.2%	$310	5.2%				
SDVOSB	3%	3.0%	$180	3.0%				
	Contract Value	$6,000						
	Small Business	$5,500	91.7%					
	Large Business	$500	8.3%					
D. Principle services to be perfomred by Small Businesses								
Moye I.T. Consulting, LLC	Fire Protection, IT							
EudaCorp	Cost Estimating							
Roca Engineering	Geotechnical Engineering							
Goode Associates	Value Engineering							
ADS	Surveying							
EWL	Electrical Engineering							
Michael Baker	Full Service Design, Cost Estimating							
E. Commitment to use small businesses								
Our commitment to providing opportunities to our small business partners is unwavering. Proving that our small business partners are experts in their field, ***we plan to adopt a minimum goal of 8.0% of the total estimated contract*** effort to our sub- contracting team members.								

SELECTION CRITERIA: h. Quality Management Plan

It is the policy of the Joint Venture partner firms, both Mentor HZ and Protégé MSMM, to develop an overall, project-specific Quality Management Plan (QMP) for each IDC contract—and within each contract, for each individual task order. In our day-to-day practice, we use an established and documented blend of checks and procedures to maintain quality and assure coordination within our multi-disciplined organization. Items covered in our QMP's include budget restrictions, scheduling restrictions, code and government authority restrictions, submittal requirements, review requirements, deliverables, small business requirements, CADD/drafting requirements, specifications, design standards and standard details.

The QMP is individualized for each project/task order, which begins with a complete and thorough Work Plan incorporating all participating offices and sub-consultants' efforts. The Work Plan is developed, distributed, and accepted by all parties prior to the beginning of any project. The individualized plan will describe measures established to assure that design requirements are properly translated into the design contract documents and that the controls are in place for the preparation, review, approval issue and revision of project documents. Important elements of the plan are as follows:

- ✓ Personnel interfaces and communications plans will be established for all participants including subconsultants.
- ✓ A plan for Data Management for each project is developed. A project central filing system will be determined and maintained, to include web-based SharePoint systems to allow subconsultants to work in a virtual team.
- ✓ Submittal requirements for each formal deliverable under the contract/task order.
- ✓ Similar to a USACE Program or Project Management Plan (PgMP or PMP), our Program Manager will develop a Project Work Plan, the typical elements of which are as follows:
    - o Description of the project and its individual feature
    - o Statement of project goals, objectives and standards
    - o Functional requirements of project components
    - o Controlling conditions such as codes, laws, zoning, master plan requirements and environmental restrictions
    - o Delineation of how the work is to be performed; costs, schedule, manpower requirements and subcontractor/consultant requirements
    - o Delineation of methods of communication and documentation between team members and the clien
    - o Project Quality Control Plan specific to the project, including review schedule

Reference and explain the Section D Org Chart with a narrative identifying the roles and responsibilities of the proposed team:

Please refer to our Organization Chart in Section D. The JV's Program Manager will direct the work under this IDC and be the single point of contact between the Tulsa District and our design team. Manish Mardia, our proposed Program Manager, has recently managed an IDC with New Orleans District dedicated to repairing damage caused by Hurrican Katrina that involved over 60 task orders executed in just three years, and is invested with the authority to speak for the entire Joint Venture team, including our sub-consultants. Oversight will be provided by our JV Management Committee, which meets regularly to discuss JV issues and will be available to assist with resourcing and prioritization of assignments as necessary. Reporting to Program Manager Mardia will be our Project Managers (Carson, Fullmer, and Wells), who will be assigned by Mardia to represent the team in connection with each individual task order, to coordinate the technical aspects of the work, and to deliver our work products in accordance with the Work Plan for the task order and our Quality Management Plan for the contract. Assisting in this regard will be our Quality Manager (Rogers), who will independently audit the work products and documentation of our quality processes to confirm that each team is following the requirements that the Joint Venture management team has established. Arrayed under each Project Manager will be a multi-discipline technical team staffed in accordance with the Scope of Work negotiated with the Corps for each task order. We have generally configured the proposed team in a three-deep organization in order to facilitate the execution of multiple, simultaneous task orders under this IDC.

Clearly identify lines of communication and subcontractor management:

Our Program Manager will be responsible for developing, as a part of the overall contract Work Plan, a communication plan that defines how our project data will be managed, what the lines of communication are, and how we must document communications between the team and the Corps

SELECTION CRITERIA: h. Quality Management Plan, con't

and its users as well as between the disparate members of the project team, including sub-consultants. This Work Plan and its elements such as the communications plan and quality plan will be disseminated at the project kick-off meeting and made a part of each participating firm's contract/task order for the work. Once the master contracts are executed and the program Work Plan established, communications for each task order will be managed by the Project Manager assigned by Program Manager Mardia. An important part of our plan for communicating with the team members, including all sub-consultants, will be regular team meetings, hosted by the Project Manager, who will distribute minutes and action items assigned to each participant in a timely fashion.

Indicate the estimated percentage involvement of each firm on the proposed team:

Please refer to the summary of anticipated participation of each firm provided as a part of the Small Business Participation Form. It is difficult to estimate with any precision what the percentage of each firm will be before we know the scope of each task order. However, the Mentor-Protégé Joint Venture will serve as Prime and expects to self-perform __% of the contract, subcontract a total of approximately __% of the overall contract to various small business enterprises, and another __ of total contract to our single large business sub-consultant, Michael Baker International.

I. AUTHORIZED REPRESENTATIVE The foregoing is a statement of facts.	
31. SIGNATURE	32. DATE
	11/20/19
33. NAME AND TITLE	
Manish Mardia, PE, Program Manager	

Past Performance

Past Performance Questionnaire

NAVFAC/USACE PAST PERFORMANCE QUESTIONNAIRE (Form PPQ-0)

CONTRACT INFORMATION (Contractor to complete Blocks 1-4)

1. Contractor Information

Firm Name: Michael Baker International
CAGE Code: 028J5
Address: 2929 N. Central Avenue, Suite 800, Phoenix, AZ 85012
DUNs Number: 182698449
Phone Number: 602.279.1234
Email Address: bpreston@mbakerintl.com
Point of Contact: Bruce Preston
Contact Phone Number: 602.798.7515

2. Work Performed as: ☐ Prime Contractor ☒ Sub Contractor ☐ Joint Venture ☐ Other (Explain)
Percent of project work performed: 100%
If subcontractor, who was the prime (Name/Phone #): Hensel Phelps Construction Co., Greg Heinrich, 480.383.8480

3. Contract Information

Contract Number: W912PP-10-C-0015
Delivery/Task Order Number (if applicable):
Contract Type: ☒ Firm Fixed Price ☐ Cost Reimbursement ☐ Other (Please specify):
Contract Title: Design-Build Special Operations Forces Fuel Cell and Corrosion Control Hangars
Contract Location: Cannon AFB, Curry County,

Award Date (mm/dd/yy): 04/09/2010
Contract Completion Date (mm/dd/yy): 06/15/2011 (Design); 11/23/2012 (Construction)
Actual Completion Date (mm/dd/yy): 07/11/2012 (Design); 04/17/2013 (Construction)
Explain Differences: Project schedule was extended due to several Owner generated modifications to the site design (adding aircraft apron and box culvert), miscellaneous interior modifications, adding pole mounted site lighting, and other miscellaneous site work modifications.

Original Contract Price (Award Amount): $1,630,138 (Design); $32,766,000 (Construction)
Final Contract Price (*to include all modifications, if applicable*): $1,642,928 (Design); $39,142,701 (Construction)
Explain Differences: Several Owner generated modifications to the site design (adding aircraft apron and box culvert), miscellaneous interior modifications, adding pole mounted site lighting, and other miscellaneous site work modifications

4. Project Description:

Complexity of Work ☒ High ☐ Med ☐ Routine
How is this project relevant to project of submission? (*Please provide details such as similar equipment, requirements, conditions, etc.*) The project included design and construction of a 32,087 SF fuel cell hangar, a 57,674 SF corrosion control hangar, a site utility storage structure, and associated site work. Relevancy includes new construction; covered storage area construction, aircraft parking paving; POV parking and roadway; PEMB construction; electrical service duct bank to substation; new electrical switchgear and vault at the electric substation; congested site conditions; LEED Silver certification design, and AT/FP security design. The project included concrete foundations, steel superstructure high-bay design, motorized hangar doors, heating and explosion-proof equipment, fire suppression systems and alarms, paint storage, air filtration systems, and protected storage for paint, chemical cleaning agents, painting equipment, and tool storage.

CLIENT INFORMATION (Client to complete Blocks 5-8)

5. Client Information

Name: Thomas J. Bueno, USACE Albuquerque District
Title: Project Manager
Phone Number: 505.342.3244
Email Address: Thomas.j.bueno@usace.army.mil

6. Describe the client's role in the project: Project Manager responsible for contract execution

7. Date Questionnaire was completed (mm/dd/yy): 12 DEC 18

8. Client's Signature: Thomas J. Bueno

NOTE: NAVFAC REQUESTS THAT THE CLIENT COMPLETES THIS QUESTIONNAIRE AND SUBMITS DIRECTLY BACK TO THE OFFEROR. THE OFFEROR WILL SUBMIT THE COMPLETED QUESTIONNAIRE TO NAVFAC WITH THEIR PROPOSAL, AND MAY DUPLICATE THIS QUESTIONNAIRE FOR FUTURE SUBMISSION ON NAVFAC SOLICITATIONS. CLIENTS ARE HIGHLY ENCOURAGED TO SUBMIT QUESTIONNAIRES DIRECTLY TO THE OFFEROR. HOWEVER, QUESTIONNAIRES MAY BE SUBMITTED DIRECTLY TO NAVFAC. PLEASE CONTACT THE OFFEROR FOR NAVFAC POC INFORMATION. THE GOVERNMENT RESERVES THE RIGHT TO VERIFY ANY AND ALL INFORMATION ON THIS FORM.

ADJECTIVE RATINGS AND DEFINITIONS TO BE USED TO BEST REFLECT YOUR EVALUATION OF THE CONTRACTOR'S PERFORMANCE

RATING	DEFINITION	NOTE
(E) Exceptional	Performance meets contractual requirements and exceeds many to the Government/Owner's benefit. The contractual performance of the element or sub-element being assessed was accomplished with few minor problems for which corrective actions taken by the contractor was highly effective.	An Exceptional rating is appropriate when the Contractor successfully performed multiple significant events that were of benefit to the Government/Owner. A singular benefit, however, could be of such magnitude that it alone constitutes an Exceptional rating. Also, there should have been NO significant weaknesses identified.
(VG) Very Good	Performance meets contractual requirements and exceeds some to the Government's/Owner's benefit. The contractual performance of the element or sub-element being assessed was accomplished with some minor problems for which corrective actions taken by the contractor were effective.	A Very Good rating is appropriate when the Contractor successfully performed a significant event that was a benefit to the Government/Owner. There should have been no significant weaknesses identified.
(S) Satisfactory	Performance meets minimum contractual requirements. The contractual performance of the element or sub-element contains some minor problems for which corrective actions taken by the contractor appear or were satisfactory.	A Satisfactory rating is appropriate when there were only minor problems, or major problems that the contractor recovered from without impact to the contract. There should have been NO significant weaknesses identified. Per DOD policy, a fundamental principle of assigning ratings is that contractors will not be assessed a rating lower than Satisfactory solely for not performing beyond the requirements of the contract.
(M) Marginal	Performance does not meet some contractual requirements. The contractual performance of the element or sub-element being assessed reflects a serious problem for which the contractor has not yet identified corrective actions. The contractor's proposed actions appear only marginally effective or were not fully implemented.	A Marginal is appropriate when a significant event occurred that the contractor had trouble overcoming which impacted the Government/Owner.
(U) Unsatisfactory	Performance does not meet most contractual requirements and recovery is not likely in a timely manner. The contractual performance of the element or sub-element contains serious problem(s) for which the contractor's corrective actions appear or were ineffective.	An Unsatisfactory rating is appropriate when multiple significant events occurred that the contractor had trouble overcoming and which impacted the Government/Owner. A singular problem, however, could be of such serious magnitude that it alone constitutes an unsatisfactory rating.
(N) Not Applicable	No information or did not apply to your contract	Rating will be neither positive nor negative.

Contractor Information (Firm Name): Michael Baker International

Client Information (Name): Thomas Bueno

TO BE COMPLETED BY CLIENT

PLEASE CIRCLE THE ADJECTIVE RATING WHICH BEST REFLECTS YOUR EVALUATION OF THE CONTRACTOR'S PERFORMANCE.

1. QUALITY:						
a) Quality of technical data/report preparation efforts	E	(VG)	S	M	U	N
b) Ability to meet quality standards specified for technical performance	E	(VG)	S	M	U	N
c) Timeliness/effectiveness of contract problem resolution without extensive customer guidance	(E)	VG	S	M	U	N
d) Adequacy/effectiveness of quality control program and adherence to contract quality assurance requirements (without adverse effect on performance)	E	(VG)	S	M	U	N
2. SCHEDULE/TIMELINESS OF PERFORMANCE:						
a) Compliance with contract delivery/completion schedules including any significant intermediate milestones. *(If liquidated damages were assessed or the schedule was not met, please address below)*	(E)	VG	S	M	U	N
b) Rate the contractor's use of available resources to accomplish tasks identified in the contract	(E)	VG	S	M	U	N
3. CUSTOMER SATISFACTION:						
a) To what extent were the end users satisfied with the project?	E	VG	(S)	M	U	N
b) Contractor was reasonable and cooperative in dealing with your staff (including the ability to successfully resolve disagreements/disputes; responsiveness to administrative reports, businesslike and communication)	E	(VG)	S	M	U	N
c) To what extent was the contractor cooperative, businesslike, and concerned with the interests of the customer?	(E)	VG	S	M	U	N
d) Overall customer satisfaction	E	(VG)	S	M	U	N
4. MANAGEMENT/ PERSONNEL/LABOR						
a) Effectiveness of on-site management, including management of subcontractors, suppliers, materials, and/or labor force?	E	VG	S	M	U	(N)
b) Ability to hire, apply, and retain a qualified workforce to this effort	E	(VG)	S	M	U	N
c) Government Property Control	E	VG	S	M	U	(N)
d) Knowledge/expertise demonstrated by contractor personnel	E	(VG)	S	M	U	N
e) Utilization of Small Business concerns	E	VG	S	M	U	(N)
f) Ability to simultaneously manage multiple projects with multiple disciplines	E	VG	S	M	U	(N)
g) Ability to assimilate and incorporate changes in requirements and/or priority, including planning, execution and response to Government changes	E	(VG)	S	M	U	N
h) Effectiveness of overall management (including ability to effectively lead, manage and control the program)	E	(VG)	S	M	U	N
5. COST/FINANCIAL MANAGEMENT						
a) Ability to meet the terms and conditions within the contractually agreed price(s)?	(E)	VG	S	M	U	N

Contractor Information (Firm Name): Michael Baker International

Client Information (Name): Thomas Bueno

b) Contractor proposed innovative alternative methods/processes that reduced cost, improved maintainability or other factors that benefited the client	(E) VG S M U N
c) If this is/was a Government cost type contract, please rate the Contractor's timeliness and accuracy in submitting monthly invoices with appropriate back-up documentation, monthly status reports/budget variance reports, compliance with established budgets and avoidance of significant and/or unexplained variances (under runs or overruns)	DESIGN BUILD E VG S M U (N)
d) Is the Contractor's accounting system adequate for management and tracking of costs? *If no, please explain in Remarks section.*	Yes No DESIGN BUILD
e) If this is/was a Government contract, has/was this contract been partially or completely terminated for default or convenience or are there any pending terminations? *Indicate if show cause or cure notices were issued, or any default action in comment section below.*	Yes (No)
f) Have there been any indications that the contractor has had any financial problems? *If yes, please explain below.*	Yes (No)
6. SAFETY/SECURITY	
a) To what extent was the contractor able to maintain an environment of safety, adhere to its approved safety plan, and respond to safety issues? (Includes: following the users rules, regulations, and requirements regarding housekeeping, safety, correction of noted deficiencies, etc.)	E VG S M U (N)
b) Contractor complied with all security requirements for the project and personnel security requirements.	(E) VG S M U N
7. GENERAL	
a) Ability to successfully respond to emergency and/or surge situations (including notifying COR, PM or Contracting Officer in a timely manner regarding urgent contractual issues).	E VG S M U (N)
b) Compliance with contractual terms/provisions *(explain if specific issues)*	E (VG) S M U N
c) Would you hire or work with this firm again? *(If no, please explain below)*	(Yes) No
d) In summary, provide an overall rating for the work performed by this contractor.	E (VG) S M U N

Please provide responses to the questions above (*if applicable*) and/or additional remarks. Furthermore, please provide a brief narrative addressing specific strengths, weaknesses, deficiencies, or other comments which may assist our office in evaluating performance risk *(please attach additional*

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CONTRACTOR PERFORMANCE ASSESSMENT REPORT (CPAR)

INCOMPLETE-RATED **Architect-Engineer**

Name/Address of Contractor:

Company Name: JACOBS/HUITT-ZOLLARS A JOINT VENTURE

Division Name:

Street Address: 777 MAIN STREET

City: FORT WORTH

State/Province: TX Zip Code: 761025304

Country: USA

CAGE Code:

DUNS Number: 615369514

PSC: C211 NAICS Code: 541330

Evaluation Type: Final

Contract Percent Complete: 100

Period of Performance Being Assessed: 07/17/2017 - 07/26/2017

Contract Number: W9126G15D0017 0003 **Business Sector & Sub-Sector:** Architect-Engineer

Contracting Office: W076 ENDIST FT WORTH **Contracting Officer:** LINDA EADIE **Phone Number:** 817.886.1085

Location of Work:

Project is located at Corpus Christi Army Depot. Design will be completed in A-E offices in downtown Fort Worth.

Award Date: 07/27/2016 **Effective Date:** 07/26/2016

Completion Date: 07/26/2017 **Estimated/Actual Completion Date:** 07/26/2017

Total Dollar Value: $544,874 **Current Contract Dollar Value:** $544,874

Complexity: Medium **Termination Type:** None

Competition Type: Full and Open Competition **Contract Type:** Firm Fixed Price

Key Subcontractors and Effort Performed:

DUNS:

Effort:

DUNS:

Effort:

DUNS:

Effort:

Project Number: 090016

Project Title:

Restore and Modernize Hangar 8.

Contract Effort Description:

Design Build RFP to renovate hangar to meet local, state, and national building codes to include support facility requirements for an Aviation Depot level of repair, and overhaul of Department of Defense rotary wing aircraft. Removal of lead based paint and asbestos. Scope will include preparation of RFP, design submittals, pre-award activities, and preparation of plans and specs.

Small Business Subcontracting:

Does this contract include a subcontracting plan? No

Date of last Individual Subcontracting Report (ISR) / Summary Subcontracting Report (SSR): N/A

Evaluation Areas	Past Rating	Rating
Quality:	Exceptional	Exceptional

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Schedule:	Very Good	Exceptional
Cost Control:	Exceptional	Exceptional
Management:	Exceptional	Exceptional
Small Business Subcontracting:	Very Good	N/A
Regulatory Compliance:	N/A	N/A
Other Areas:		
(1) GPR SURVEY:		Satisfactory
(2) :		N/A
(3) :		N/A

Variance (Contract to Date):

Current Cost Variance (%): Variance at Completion (%):

Current Schedule Variance (%):

Assessing Official Comments:

QUALITY: HZ was thoroughly engaged in RFP preparation. They conducted multiple site visits for all major disciplines to identify all requirements for proposed contractors. HZ team documented all renovations scope by photos and identified locations on drawings which assisted our customer and government team in detailing the extent of the work. Team attended the pre-proposal conference and prepared a presentation for the contractors so that they could understand the construction scope. HZ cost estimator consultant notified the government early on that the PA was too low and explained that PA should be increased to accommodate for all the scope included in the project. AS a result, CCAD modified the 1391 and bids received were in line with new cost estimate.

SCHEDULE: HZ team were proactive in pushing the schedule with the customer and USACE in all issues related to design reviews and review conferences. Dave Kiel was instrumental in identifying road blocks that would impact the major milestones, (i.e. the creation of Division 00 and 01 specs) for the review package. Dave was always willing to meet with our internal team to brief the project and worked well with our cost estimators and contract specialist. As a result, we were able to meet the customer's expectations.

COST CONTROL: Cost estimator identified the discrepancy of the cost included in the 1391 vs. the estimated cost at the initial charrette. The cost estimator was meticulous in his findings and encouraged the customer to update the 1391 to reflect current and actual costs for the work. The cost estimate was doubled compared to the 1391. Had they not identified this early, the project could not have been awarded.

MANAGEMENT: From the Program Manager to the Project Manager and everyone on the team, HZ is a big proponent of customer care. The management of the project was spot on. During several occasions, USACE needed information to answer a question either from the contractors or the customer, the HZ team would always respond immediately by text, email, or phone call. Even while traveling on business on another project. Because of the time constraints between a bidder inquiry question and the response, this helped us tremendously in meeting the solicitation requirements.

OTHER AREAS: Knowing what we know now and the results achieved by having a GPR survey, the government spent more money on the GPR survey than the cost the contractor submitted to fix the voids underneath the slab. We may have to rethink this in the future. We still look at the results now and can't make a clear judgement on the findings of the survey.

ADDITIONAL/OTHER: Great firm to work with overall. Very cordial negotiations, all team members are highly qualified in design and project management. Very positive experience and look forward to another project with HZ and their team.

RECOMMENDATION:

Given what I know today about the contractor's ability to perform in accordance with this contract or order's most significant requirements, I would recommend them for similar requirements in the future.

Name and Title of Assessing Official:

Name: NORMA EDWARDS

Title: Program Manager

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Organization: U.S. Army Corps of Engineers
Phone Number: 817.886.1602 Email Address: norma.g.edwards@usace.army.mil
Date: 05/03/2018

Contractor Comments:

Name and Title of Contractor Representative:
Name:
Title:
Phone Number: Email Address:
Date:

Review by Reviewing Official:

Name and Title of Reviewing Official:
Name:
Title:
Organization:
Phone Number: Email Address:
Date:

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PERFORMANCE EVALUATION INCOMPLETE-REVIEWED	ARCHITECT-ENGINEER

DUNS Number: 156399560

1. A-E Contract Number: W912BV09D2008

2. Construction Contract Number: W9126G09C0050

3. Type of Evaluation:

a. Phase of Completion: Final 100 %

b. Completion: Construction

c. Terminated For: None

4. Project Number: W9126G09C0050

5. Delivery Order No.: DY01

6. Name and Address of A-E Contractor:
HUITT - ZOLLARS, INC.
500 W 7TH ST STE 300
FORT WORTH, TX 76102
US

7a. Project Title and Location: Title II RRAD MSSC Phase 1

7b. Description of Project: Construction Phase Services for RRAD, Phase 1

8. Name, Address and Phone Number of Office Responsible for:

a. Selection of A-E Contractor: Jimmy Baggett
Phone: 8178861653

b. Negotiation/Award of A-E Contract: XU W076 ENDIST FT WORTH
Phone:

c. Administration of A-E Contract: SWF
Phone:

d. Administration of Construction Contract: Eastern Area Office
Phone:

9. A-E Contract Data:

a. Type of Work:

b. Type of Contract: Firm Fixed Price

c. Project Complexity: Routine

d.(1) Contract or Task Order Initial Fee: $125,428

d.(2) Contract or Task Order Modifications: No. Amount:

d.(3) Contract or Task Order Total Fee: $125,428

e. Contract or Task Order Award Date: 02/17/2010

f. Negotiated Contract or Task Order Completion Date: 02/17/2010

g. Actual Contract or Task Order Completion Date: 07/15/2011

10. Construction Contract Data:

a.(1) Authorized Construction Cost: $8,779,839

a.(2) A-E Estimate for Bid Items Awarded:

a.(3) Award Amount: $8,779,839

b. Data at Time of Construction Completion: Completion Date: 07/15/2011

	Number	Total Cost
b.(1) Construction Modifications		
b.(2) Construction Modifications Arising from Design Deficiencies		

11. A-E Liability: None

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FOR OFFICIAL USE ONLY / SOURCE SELECTION INFORMATION - SEE FAR 2.101 AND 3.104

12. Overall Rating: Very Good

13. Recommended for Future Contracts? Yes

14a. Name, Title and Office of Rating Official:
Name: LYNN RAY
Title: PROGRAM MANAGER
Organization: USACE
Telephone Number: 817-886-1372
Fax Number:
Email: lynn.ray@usace.army.mil
Date: 10/11/2011

15a. Name, Title and Office of Reviewing Official:
Name:
Title:
Organization:
Telephone Number:
Fax Number:
Email:
Date:

16. Quality of A-E Services by Discipline		
a. Disciplines	**Design/Services**	**Construction**
Architectural	Not Applicable	Exceptional
Structural	Not Applicable	Very Good
Civil	Not Applicable	Exceptional
Mechanical	Not Applicable	Very Good
Electrical	Not Applicable	Exceptional
Fire Protection	Not Applicable	Not Applicable
Surveying, Mapping, & Geospatial Information Svcs.	Not Applicable	Not Applicable
Cost Estimating	Not Applicable	Satisfactory
Value Engineering	Not Applicable	Not Applicable
Environmental Engineering	Not Applicable	Satisfactory
Geotechnical Engineering	Not Applicable	Not Applicable
Master Planning	Not Applicable	Not Applicable
Hydrology	Not Applicable	Not Applicable
Chemical Engineering	Not Applicable	Not Applicable
Geology	Not Applicable	Not Applicable
Chemistry	Not Applicable	Not Applicable
Risk Assessment	Not Applicable	Not Applicable
Safety/Occupational Health	Not Applicable	Not Applicable
Hydrographic Surveying	Not Applicable	Not Applicable
	Not Applicable	Not Applicable
	Not Applicable	Not Applicable
	Not Applicable	Not Applicable

16b. Discipline, Name and Address of Key Consultants		
Name	**Address**	**Discipline**
SE Huey		

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17. Design Phase or Engineering Services	
Attributes	**Ratings**
Thoroughness of Site Investigation/Field Analysis	Not Applicable
Quality Control Procedures and Execution	Not Applicable
Plans/Specs Accurate and Coordinated	Not Applicable
Plans Clear and Detailed Sufficiently	Not Applicable
Management and Adherence to Schedules	Not Applicable
Meeting Cost Limitations	Not Applicable
Suitability of Design or Study Results	Not Applicable
Solution Environmentally Suitable	Not Applicable
Cooperativeness and Responsiveness	Not Applicable
Quality of Briefing and Presentations	Not Applicable
Innovative Approaches/Technologies	Not Applicable
Implementation of Sm. Business Subcontracting Plan	Not Applicable
	Not Applicable
	Not Applicable
	Not Applicable
18. How Many 100% Final Resubmittals Were Required Because of Poor A-E Performance?	

19. Construction Phase	
Attributes	**Ratings**
Plans Clear and Detailed Sufficiently	Not Applicable
Drawings Reflect True Conditions	Not Applicable
Plans/Specs Accurate and Coordinated	Not Applicable
Design Constructability	Not Applicable
Cooperativeness and Responsiveness	Exceptional
Timeliness and Quality of Processing Submittals	Very Good
Product & Equipment Selections Readily Available	Not Applicable
Timeliness of Answers to Design Questions	Very Good
Field Consultation and Investigations	Exceptional
Quality of Construction Support Services	Very Good
	Not Applicable
	Not Applicable
	Not Applicable

20. Remarks

Small Business Utilization

Does this contract include a subcontracting plan? N/A

Date of last Individual Subcontracting Report (ISR) / Summary Subcontracting Report (SSR): N/A

Rating Official Remarks: AE provided very good service for construction surveillance, submittal reviews, and response to field questions on design and in work issues. Very responsive to the field and to the customers requirement.

Contractor Remarks: Successful results such as those achieved on this project are made possible by excellent

relationships and effective communications across the entire team. The government staff involved in this project did an outstanding job and we are pleased to have been a part of this project.

CONCURRENCE: I concur with this evaluation.
Contractor Name: LARRY ROGERS
Title: VICE PRESIDENT
Telephone Number: 817-335-3000
Email: lrogers@huitt-zollars.com
Date: 10/27/2011

NAVFAC/USACE PAST PERFORMANCE QUESTIONNAIRE (Form PPQ-0)

CONTRACT INFORMATION (Contractor to complete Blocks 1-4)

1. Contractor Information

Firm Name: MSMM Engineering, LLC
CAGE Code: 6SKR5
Address: 4640 South Carrollton Avenue, Suite 220, New Orleans, LA 70119
DUNs Number: 969989370
Phone Number: 504-570-6098
Email Address: mmardia@msmmeng.com
Point of Contact: Manish Mardia
Contact Phone Number: 504-559-1897

2. Work Performed as: ☐ Prime Contractor ☒ Sub Contractor ☐ Joint Venture ☐ Other (Explain)
Percent of project work performed: 100%
If subcontractor, who was the prime (Name/Phone #): Jesco Environmental & Geotechnical Services, Inc.

3. Contract Information

Contract Number: W912P8-15-D-0022
Delivery/Task Order Number (if applicable):
Contract Type: ☒ Firm Fixed Price ☐ Cost Reimbursement ☐ Other (Please specify):
Contract Title: Section 219 Environmental Infrastructure Planning, Evaluation, Mapping and Design
Contract Location: Ascension Parish, Louisiana

Award Date (mm/dd/yy): 09/10/15
Contract Completion Date (mm/dd/yy): 09/30/16
Actual Completion Date (mm/dd/yy): 08/24/16
Explain Differences: The schedule was shortened by a month once design started, to allow the constacting branch extra time to award a construction contract before the end of the Federal fiscal year.
Original Contract Price (Award Amount): $339,284
Final Contract Price (*to include all modifications, if applicable*): $339,284
Explain Differences: N/A

4. Project Description:

Complexity of Work ☐ High ☒ Med ☐ Routine
How is this project relevant to project of submission? (*Please provide details such as similar equipment, requirements, conditions, etc.*) These projects were completed within the Section 219 Environmental Infrastructure program and show relevance to the Border Infrastructure program due to the nature of construction. For this project, MSMM designed sewer pump station and forcemain. The 4,068 feet of discharge pipe travels beneath two state highways and over the Mississippi River Levee before discharging into the Mississippi River. MSMM had to redesign the river levee and levee access road to account for this new utility crossing.

CLIENT INFORMATION (Client to complete Blocks 5-8)

5. Client Information

Name: Nick Sims - USACE New Orleans District (MVN)
Title: Project Manager
Phone Number: 504-862-2128
Email Address: christopher.n.sims@usace.army.mil

6. Describe the client's role in the project:

As the project manager for the project, I worked with the Non-Federal sponsor (NFS) and A-E design firm to ensure the project met the requirements of the 219 program. I ran PDT meetings and design reviews and executed a project PPA.

7. Date Questionnaire was completed (mm/dd/yy)**:** 05/03/2019

8. Client's Signature: Nick Sims Type text here

NOTE: NAVFAC/USACE requests that the client completes this questionnaire and submits directly back to the offeror. The offeror will submit the completed questionnaire to USACE with their proposal, and may duplicate this questionnaire for future submission on USACE solicitations. Clients are highly encouraged to submit questionnaires directly to the offeror. However, questionnaires may be submitted directly to USACE. Please contact the offeror for USACE POC information. The Government reserves the right to verify any and all information on this form.

NAVFAC / USACE Past Performance Questionnaire (PPQ)

Form PPQ -0 (9/30/11)

TO BE COMPLETED BY CLIENT

PLEASE CIRCLE THE ADJECTIVE RATING WHICH BEST REFLECTS YOUR EVALUATION OF THE CONTRACTOR'S PERFORMANCE.

1. QUALITY:	
a) Quality of technical data/report preparation efforts	E VG S M U N
b) Ability to meet quality standards specified for technical performance	E VG S M U N
c) Timeliness/effectiveness of contract problem resolution without extensive customer guidance	E VG S M U N
d) Adequacy/effectiveness of quality control program and adherence to contract quality assurance requirements (without adverse effect on performance)	E VG S M U N
2. SCHEDULE/TIMELINESS OF PERFORMANCE:	
a) Compliance with contract delivery/completion schedules including any significant intermediate milestones. *(If liquidated damages were assessed or the schedule was not met, please address below)*	E VG S M U N
b) Rate the contractor's use of available resources to accomplish tasks identified in the contract	E VG S M U N
3. CUSTOMER SATISFACTION:	
a) To what extent were the end users satisfied with the project?	E VG S M U N
b) Contractor was reasonable and cooperative in dealing with your staff (including the ability to successfully resolve disagreements/disputes; responsiveness to administrative reports, businesslike and communication)	E VG S M U N
c) To what extent was the contractor cooperative, businesslike, and concerned with the interests of the customer?	E VG S M U N
d) Overall customer satisfaction	E VG S M U N
4. MANAGEMENT/ PERSONNEL/LABOR	
a) Effectiveness of on-site management, including management of subcontractors, suppliers, materials, and/or labor force?	E VG S M U N
b) Ability to hire, apply, and retain a qualified workforce to this effort	E VG S M U N
c) Government Property Control	E VG S M U N
d) Knowledge/expertise demonstrated by contractor personnel	E VG S M U N
e) Utilization of Small Business concerns	E VG S M U N
f) Ability to simultaneously manage multiple projects with multiple disciplines	E VG S M U N
g) Ability to assimilate and incorporate changes in requirements and/or priority, including planning, execution and response to Government changes	E VG S M U N
h) Effectiveness of overall management (including ability to effectively lead, manage and control the program)	E VG S M U N
5. COST/FINANCIAL MANAGEMENT	
a) Ability to meet the terms and conditions within the contractually agreed price(s)?	E VG S M U N

b) Contractor proposed innovative alternative methods/processes that reduced cost, improved maintainability or other factors that benefited the client	E **VG** S M U N
c) If this is/was a Government cost type contract, please rate the Contractor's timeliness and accuracy in submitting monthly invoices with appropriate back-up documentation, monthly status reports/budget variance reports, compliance with established budgets and avoidance of significant and/or unexplained variances (under runs or overruns)	**E** VG S M U N
d) Is the Contractor's accounting system adequate for management and tracking of costs? *If no, please explain in Remarks section.*	**Yes** No
e) If this is/was a Government contract, has/was this contract been partially or completely terminated for default or convenience or are there any pending terminations? *Indicate if show cause or cure notices were issued, or any default action in comment section below.*	Yes **No**
f) Have there been any indications that the contractor has had any financial problems? *If yes, please explain below.*	Yes **No**
6. SAFETY/SECURITY	
a) To what extent was the contractor able to maintain an environment of safety, adhere to its approved safety plan, and respond to safety issues? (Includes: following the users rules, regulations, and requirements regarding housekeeping, safety, correction of noted deficiencies, etc.)	**E** VG S M U N
b) Contractor complied with all security requirements for the project and personnel security requirements.	**E** VG S M U N
7. GENERAL	
a) Ability to successfully respond to emergency and/or surge situations (including notifying COR, PM or Contracting Officer in a timely manner regarding urgent contractual issues).	**E** VG S M U N
b) Compliance with contractual terms/provisions *(explain if specific issues)*	E **VG** S M U N
c) Would you hire or work with this firm again? *(If no, please explain below)*	**Yes** No
d) In summary, provide an overall rating for the work performed by this contractor.	**E** VG S M U N

Please provide responses to the questions above (*if applicable*) and/or additional remarks. Furthermore, please provide a brief narrative addressing specific strengths, weaknesses, deficiencies, or other comments which may assist our office in evaluating performance risk *(please attach additional pages if necessary)*:

Firm is very proffessional and exhibited excellent technical capabilities. All communication was clear and concise, which lead to any issue being addressed before they evolved into a bigger problem. Very pleased with every aspect of the services provided. Wold reccomend working with firm in the future.

Part II

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: **W912BV20R0005**

PART II - GENERAL QUALIFICATIONS
(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME: MSMM Huitt-Zollars A Joint Venture	3. YEAR ESTABLISHED: **2019** / 4. DUNS NUMBER: **117073814**
2b. STREET: 4640 S Carrollton Ave Ste 220	5. OWNERSHIP
2c. CITY: New Orleans / 2d. STATE: LA / 2e. ZIP CODE: 70119	a. TYPE: **Joint Venture**
6a. POINT OF CONTACT NAME AND TITLE: **Manish Mardia, Joint Venture Chairman**	b. SMALL BUSINESS STATUS: **Small Business**
6b. TELEPHONE NUMBER: 504-559-1897 / 6c. E-MAIL ADDRESS: mmardia@msmmeng.com	7. NAME OF FIRM *(If block 2a is a branch office)*
8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED / 8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
	NOTE: The Joint Venture does not have employees, it is a legal entity. Locations listed for JV personnel in section E resumes are the individuals respective firm's office location.		
	Total		

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	1
b. Non-Federal Work	1
c. Total Work	1

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1.	Less Than $100,000	6.	$2 million to less than $5 million
2.	$100,000 to less than $250,000	7.	$5 million to less than $10 million
3.	$250,000 to less than $500,000	8.	$10 million to less than $25 million
4.	$500,000 to less than $1 million	9.	$25 million to less than $50 million
5.	$1 million to less than $2 million	10.	$50 million or greater

12. AUTHORIZED REPRESENTATIVE - The foregoing is a statement of facts.

a. SIGNATURE 

b. DATE: **July 24, 2019**

c. NAME AND TITLE: **Manish Mardia, Joint Venture Chairman**

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*): W912BV20R0005

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (*Or Branch Office*) NAME: MSMM Engineering, LLC		3. YEAR ESTABLISHED: 2011	4. UNIQUE ENTITY IDENTIFIER: 969989370
2b. STREET: 4640 South Carrollton Avenue, Suite 220		5. OWNERSHIP	
2c. CITY: New Orleans	2d. STATE: LA / 2e. ZIP CODE: 70119	a. TYPE: Limited Liability Corporation	
6a. POINT OF CONTACT NAME AND TITLE: Manish Mardia, P.E., President/Owner		b. SMALL BUSINESS STATUS: Small Business	
6b. TELEPHONE NUMBER: 504-559-1897	6c. EMAIL ADDRESS: mmardia@msmmeng.com	7. NAME OF FIRM *(If block 2a is a branch office)*	

8. FORMER NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE / 10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH	a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
12	Civil Engineer	3	2	C07	Coastal Engineering	2
21	Electrical Engineer	1	1	C13	Computer Facilities; Computer Service	2
23	Environmental Engineer	2	1	C15	Construction Management	3
57	Structural Engineer	2	1	D01	Dams (Concrete; Arch)	1
42	Foundation/Geotechnical Engineer	1		D02	Dams; Dikes; Levees	2
24	Environmental Scientist	1	1	E03	Electrical Studies and Design	1
32	Hydraulic Engineer	1	1	L06	Lighting (Exteriors; Streets; Memorials Athletic Fields)	1
18	Cost Engineer / Estimator	1		P06	Planning (Site, Installation and Project)	4
08	CADD Technician	4	3	R11	Rivers; Canals: Waterways; Flood Control	4
06	Architect	1	1	S09	Structural Design; Special Structures	2
48	Project Manager	2	2	S13	Storm Water Handling & Facilities	3
61	Value Engineer	1	1	W02	Water Resources; Hydrology Ground Water	2
15	Inspector	3	3	W03	Water Supply; Treatment and Distribution	3
02	Administrative	2	1			
	Total	25	18			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown at right)

a. Federal Work	5
b. Non-Federal Work	5
c. Total Work	6

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE	b. DATE
	March 18, 2019

c. NAME AND TITLE: Manish Mardia, P.E., President/Owner

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*): W912BV20R0005

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (*Or Branch Office*) NAME: MSMM Engineering, LLC (Houston Texas Office)	3. YEAR ESTABLISHED: 2011
	4. UNIQUE ENTITY IDENTIFIER: 071392535
2b. STREET: 13850 Gulf Freeway Suite 202A	5. OWNERSHIP
2c. CITY: Houston / 2d. STATE: Tx / 2e. ZIP CODE: 77034	a. TYPE: Limited Liability Corporation
6a. POINT OF CONTACT NAME AND TITLE: Manish Mardia, P.E., President/Owner	b. SMALL BUSINESS STATUS: Small Business
6b. TELEPHONE NUMBER: 504-559-1897 / 6c. EMAIL ADDRESS: mmardia@msmmeng.com	7. NAME OF FIRM *(If block 2a is a branch office)*: MSMM Engineering, LLC

8. FORMER NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH	a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
12	Civil Engineer	3	1	C07	Coastal Engineering	2
21	Electrical Engineer	1		C13	Computer Facilities; Computer Service	2
23	Environmental Engineer	2	1	C15	Construction Management	3
57	Structural Engineer	2	1	D01	Dams (Concrete; Arch)	1
42	Foundation/Geotechnical Engineer	1	1	D02	Dams; Dikes; Levees	2
24	Environmental Scientist	1		E03	Electrical Studies and Design	1
32	Hydraulic Engineer	1		L06	Lighting (Exteriors; Streets; Memorials Athletic Fields)	1
18	Cost Engineer / Estimator	1	1	P06	Planning (Site, Installation and Project)	4
08	CADD Technician	4	1	R11	Rivers; Canals: Waterways; Flood Control	4
06	Architect	1		S09	Structural Design; Special Structures	2
48	Project Manager	2		S13	Storm Water Handling & Facilities	3
61	Value Engineer	2		W02	Water Resources; Hydrology Ground Water	2
15	Inspector	3		W03	Water Supply; Treatment and Distribution	3
02	Administrative	2	1			
	Total	25	7			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS *(Insert revenue index number shown at right)*	
a. Federal Work	5
b. Non-Federal Work	5
c. Total Work	6

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE: 	b. DATE: March 18, 2019
c. NAME AND TITLE: Manish Mardia, P.E., President/Owner	

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: W912BV20R0005

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (*or Branch Office*) NAME	**Huitt-Zollars, Inc.**
2b. STREET	**1717 McKinney Avenue, Suite 1400**
2c. CITY	**Dallas**
2d. STATE	**Texas**
2e. ZIP CODE	**75202-1236**
3. YEAR ESTABLISHED	**1975**
4. UNIQUE ENTITY IDENTIFIER	**080747660**
5. OWNERSHIP	
a. TYPE	**Corporation**
b. SMALL BUSINESS STATUS	**Large Business**
6a. POINT OF CONTACT NAME AND TITLE	**Robert J. McDermott, PE, President**
6b. TELEPHONE NUMBER	**214-871-3311**
6c. E-MAIL ADDRESS	**mcdermott@huitt-zollars.com**
7. NAME OF FIRM *(If Block 2a is a Branch Office)*	**N/A**

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	c. Number of Employees (2) BRANCH
02	Administrative	75	35
06	Architect	109	6
08	CADD Technician	48	9
12	Civil Engineer	156	32
15	Construction Inspector	9	5
16	Construction Manager	13	6
21	Electrical Engineer	7	
23	Environmental Engineer	2	2
25	Fire Protection Engineer	1	
37	Interior Designer	4	
38	Land Surveyor	63	16
39	Landscape Architect	8	6
42	Mechanical Engineer	13	3
47	Planner: Urban/Regional	2	
57	Structural Engineer	18	8
60	Transportation Engineer	15	13
62	Water Resource Engineer	2	
	Other Employees		
	Total	545	141

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
A06	Airports; Terminals and Hangars; Freight Handling	1
B02	Bridges	7
C15	Construction Management	6
C16	Construction Surveying	6
D04	Design-Build – Preparation of RFPs	4
G01	Garages; Vehicles Maintenance Facilities; Parking Decks	6
H04	Heating; Ventilating; Air Conditioning	6
H07	Highways; Streets; Airfield Paving; Parking Lots	8
H11	Housing (Residential, Multi-Family; Apartments)	3
I06	Irrigation; Drainage	6
L02	Land Surveying	7
L03	Landscape Architecture	6
P06	Planning (Site, Installation and Project)	7
R04	Recreation Facilities (Parks, Marinas, Etc.)	4
S04	Sewage Collection, Treatment and Disposal	7
S10	Surveying; Platting; Mapping; Flood Plain Studies	6
S11	Sustainable Design	6
S13	Storm Water Handling and Facilities	5
T04	Topographic Surveying and Mapping	5

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	6
b. Non-Federal Work	8
c. Total Work	8

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE

b. DATE: January 14, 2019

c. NAME AND TITLE: **Monica Kent, PE, LEED AP, Senior Vice President**

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: W912BV20R0005

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (*or Branch Office*) NAME: **Huitt-Zollars, Inc.**	3. YEAR ESTABLISHED: **1975**
	4. UNIQUE ENTITY IDENTIFIER: **156399560**
2b. STREET: **500 W. 7th Street, Suite 300**	5. OWNERSHIP
	a. TYPE: **Corporation**
2c. CITY: **Fort Worth** / 2d. STATE: **Texas** / 2e. ZIP CODE: **76102-4728**	b. SMALL BUSINESS STATUS: **Large Business**
6a. POINT OF CONTACT NAME AND TITLE: **Larry O. Rogers, PE, Vice President**	7. NAME OF FIRM *(If Block 2a is a Branch Office)*: **Huitt-Zollars, Inc.**
6b. TELEPHONE NUMBER: **817-335-3000** / 6c. E-MAIL ADDRESS: **lrogers@huitt-zollars.com**	

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	c. Number of Employees (2) BRANCH
02	Administrative	75	5
06	Architect	109	11
08	CADD Technician	48	3
12	Civil Engineer	156	10
15	Construction Inspector	9	
16	Construction Manager	13	1
21	Electrical Engineer	7	6
23	Environmental Engineer	2	
25	Fire Protection Engineer	1	1
37	Interior Designer	4	
38	Land Surveyor	63	
39	Landscape Architect	8	
42	Mechanical Engineer	13	8
47	Planner: Urban/Regional	2	1
57	Structural Engineer	18	5
60	Transportation Engineer	15	
62	Water Resource Engineer	2	
	Other Employees		
	Total	545	51

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
A09	Anti-Terrorism/Force Protection	4
B01	Barracks; Dormitories	4
C15	Construction Management	2
D04	Design-Build Preparation RFP's	3
D07	Dining Halls; Clubs; Restaurants	2
E02	Educational Facilities; Classrooms	2
E05	Elevators; Escalators; People-Movers	1
E07	Energy Conservation; New Energy Sources	5
F03	Fire Protection	4
G01	Garages; Vehicle Maintenance Facilities; Parking	5
H07	Highways; Streets; Airfield Paving; Parking	4
H11	Housing (Residential, Multi-Family; Apartments; Condominiums)	3
I01	Industrial Buildings; Manufacturing Plants	5
I05	Interior Design; Space Planning	2
I06	Irrigation; drainage	
J01	Judicial and Courtroom Facilities	4
M05	Military Design Standards	3
O01	Office Buildings; Industrial Parks	5
P08	Prisons & Correctional Facilities	2
R06	Rehabilitation (Buildings; Structures; Fac's)	5
S11	Sustainable Design	6
W01	Warehouses & Depots	5

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	6
b. Non-Federal Work	5
c. Total Work	7

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE: 

b. DATE: January 14, 2019

c. NAME AND TITLE: **Monica Kent, PE, LEED AP, Senior Vice President**

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: W912BV20R0005

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (*or Branch Office*) NAME	**Huitt-Zollars, Inc.**
2b. STREET	**10350 Richmond Ave., Suite 300**
2c. CITY	**Houston**
2d. STATE	**Texas**
2e. ZIP CODE	**77042-4248**
3. YEAR ESTABLISHED	**1975**
4. UNIQUE ENTITY IDENTIFIER	**879473999**
5. OWNERSHIP	
a. TYPE	**Corporation**
b. SMALL BUSINESS STATUS	**Large Business**
6a. POINT OF CONTACT NAME AND TITLE	**Gregory R. Wine, PE, LEED AP, Vice President**
6b. TELEPHONE NUMBER	**281-496-0066**
6c. E-MAIL ADDRESS	**gwine@huitt-zollars.com**
7. NAME OF FIRM *(If Block 2a is a Branch Office)*	**Huitt-Zollars, Inc.**

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	c. Number of Employees (2) BRANCH
02	Administrative	75	5
06	Architect	109	2
08	CADD Technician	48	5
12	Civil Engineer	156	20
15	Construction Inspector	9	4
16	Construction Manager	13	3
21	Electrical Engineer	7	1
23	Environmental Engineer	2	
25	Fire Protection Engineer	1	
37	Interior Designer	4	
38	Land Surveyor	63	7
39	Landscape Architect	8	
42	Mechanical Engineer	13	1
47	Planner: Urban/Regional	2	1
57	Structural Engineer	18	
60	Transportation Engineer	15	
62	Water Resource Engineer	2	
	Other Employees		
	Total	545	49

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
B01	Barracks; Dormitories	2
C15	Construction Management	5
D04	Design-Build – Prep RFPs	4
E02	Educational Facilities; Classrooms	4
G01	Garages; Vehicles Maintenance Facilities; Parking Decks	4
H01	Harbors; Jetties, Piers, Ship Terminal Facilities	3
H07	Highways; Streets; Airfield Paving; Parking Lots	6
I05	Interior Design; Space Planning	2
O01	Office Buildings, Industrial Parks	3
R03	Railroad; Rapid Transit	7
R04	Recreation Facilities (Parks, Marinas, Etc.)	5
R06	Rehabilitation (Buildings; Structures; Facilities)	6
R11	Rivers; Canals; Waterways; Flood Control	6
S04	Sewage Collection; Treatment and Disposal	5
S10	Surveying; Platting; Mapping; Flood Plain Studies	5
S11	Sustainable Design	4
S13	Storm Water Handling and Facilities	4
T03	Traffic and Transportation Engineering	3
T04	Topographic Surveying and Mapping	5

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	1
b. Non-Federal Work	7
c. Total Work	7

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE

b. DATE: January 14, 2019

c. NAME AND TITLE: **Monica Kent, PE, LEED AP, Senior Vice President**

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: W912BV20R0005

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. UNIQUE ENTITY IDENTIFIER
Michael Baker International, Inc. (formerly Michael Baker Jr., Inc.) (CAGE CODE 0KCH7)	2015	956772347

2b. STREET	5. OWNERSHIP
Airside Business Park, 100 Airside Drive	a. TYPE: Limited Liability Company

2c. CITY	2d. STATE	2e. ZIP CODE	b. SMALL BUSINESS STATUS
Moon Township	PA	15108	No

6a. POINT OF CONTACT NAME AND TITLE	7. NAME OF FIRM *(If Block 2a is a Branch Office)*
Kenton P. Zinn, P.E., S.E., Regional Director	Michael Baker International, LLC

6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS
312-575-3926	kzinn@mbakerintl.com

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER
Michael Baker Jr., Inc.	1987	956772347

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	(2) BRANCH
02	Administrative	768	205
05	Archaeologist	27	27
06	Architect	35	10
12	Civil Engineer	439	41
15	Construction Inspector	277	48
16	Construction Manager	119	15
27	Foundation/Geotechnical Engineer	15	9
29	GIS Specialist	136	33
30	Geologist	15	9
37	Interior Designer	8	8
42	Mechanical Engineer	17	7
48	Project Manager	66	18
57	Structural Engineer	141	26
58	Technician/Analyst	63	15
60	Transportation Engineer	126	12
	Designer/CADD Technician	186	40
	Engineering Technician	480	59
	Environmental Scientist/Specialist	92	14
	Planner	182	21
	Survey Technician	58	11
	Other Employees	238	33
	Total	3488	661

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
A02	Aerial Photography; Airborne Data & Imagery	3
A05	Airports; Navaids; Airport Lighting; Fueling	6
B02	Bridges	8
C15	Construction Management	7
D01	Dams (Concrete; Arch)	1
D02	Dams (Earth; Rock); Dikes; Levees	4
E01	Ecological & Archeological Investigations	6
G04	GIS: Development, Analysis, & Data Collection	4
H07	Highways; Streets; Airfield Paving; Parking Lots	6
M01	Mapping Location/Addressing Systems	3
M05	Military Design Standards	8
M06	Mining and Mineralogy	4
P04	Pipelines (Cross-country--Liquid & Gas)	4
P06	Planning (Site, Installation and Project)	6
S05	Soils & Geologic Studies; Foundations	4
T01	Telephone Systems (Rural; Mobile; Intercom)	4
T03	Traffic & Transportation Engineering	4
T04	Topographic Surveying and Mapping	6
	Bridge Inspection	3
	Buildings	8

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	9
b. Non-Federal Work	10
c. Total Work	10

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE	b. DATE
Kenton P. Zinn	7/1/2019

c. NAME AND TITLE

Kenton P. Zinn, P.E., S.E., Regional Director

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: W912BV20R0005

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME: Michael Baker International, Inc. (formerly Michael Baker Jr., Inc.) (CAGE CODE 028J5)

3. YEAR ESTABLISHED: 2015

4. UNIQUE ENTITY IDENTIFIER: 182698449

2b. STREET: 2929 N. Central Avenue, Suite 800, Phoenix Plaza Tower II

2c. CITY: Phoenix

2d. STATE: AZ

2e. ZIP CODE: 85012

5. OWNERSHIP

a. TYPE: Limited Liability Company

b. SMALL BUSINESS STATUS: No

6a. POINT OF CONTACT NAME AND TITLE: Craig A. Wenger, P.E., Office Executive

6b. TELEPHONE NUMBER: 602-798-7517

6c. E-MAIL ADDRESS: cwenger@mbakerintl.com

7. NAME OF FIRM *(If Block 2a is a Branch Office)*: Michael Baker International, LLC

8a. FORMER FIRM NAME(S) *(If any)*: Michael Baker Jr., Inc.

8b. YEAR ESTABLISHED: 1984

8c. UNIQUE ENTITY IDENTIFIER: 182698449

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	(2) BRANCH
02	Administrative	768	18
06	Architect	35	2
12	Civil Engineer	439	8
16	Construction Manager	119	2
29	GIS Specialist	136	1
38	Land Surveyor	24	2
48	Project Manager	66	2
60	Transportation Engineer	126	1
62	Water Resources Engineer	31	1
	Architectural Technician	24	3
	Designer/CADD Technician	186	6
	Engineering Technician	480	13
	Environmental Scientist/Specialist	92	2
	Planner	182	6
	Survey Technician	58	1
	Other Employees	722	0
	Total	3488	68

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
B01	Barracks; Dormitories	5
C10	Commercial Building; (low rise); Shopping Ctrs	5
H11	Housing (Residential, Multifamily, Apts, Condos)	3
P04	Pipelines (Cross-country--Liquid & Gas)	3
P05	Planning (Community Regional Areawide State)	4
S10	Surveying Platting Mapping Flood Plain Studies	3
T03	Traffic & Transportation Engineering	6
W03	Water Supply; Treatment and Distribution	4
	Civil Engineering	6

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	7
b. Non-Federal Work	7
c. Total Work	8

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE

b. DATE: 7/1/2019

c. NAME AND TITLE

Craig A. Wenger, P.E., Office Executive

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: W912BV20R0005

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. UNIQUE ENTITY IDENTIFIER
Michael Baker International, Inc. (formerly Michael Baker Jr., Inc.) (CAGE CODE 3BNH6)	2015	044679335

2b. STREET	5. OWNERSHIP
7090 South Union Park Avenue, Suite 500	a. TYPE: Limited Liability Company

2c. CITY	2d. STATE	2e. ZIP CODE	b. SMALL BUSINESS STATUS
Midvale	UT	84047	No

6a. POINT OF CONTACT NAME AND TITLE	7. NAME OF FIRM *(If Block 2a is a Branch Office)*
Michael S. Arens, P.E., S.E., Office Executive	Michael Baker International, LLC

6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS
801-352-5981	marens@mbakerintl.com

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER
Michael Baker Jr., Inc.	1998	044679335

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	(2) BRANCH
02	Administrative	768	14
06	Architect	35	2
12	Civil Engineer	439	15
15	Construction Inspector	277	1
21	Electrical Engineer	14	3
29	GIS Specialist	136	2
42	Mechanical Engineer	17	2
48	Project Manager	66	1
57	Structural Engineer	141	6
60	Transportation Engineer	126	4
62	Water Resources Engineer	31	1
	Designer/CADD Technician	186	5
	Engineering Technician	480	17
	Other Employees	772	0
	Total	3488	73

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
B01	Barracks; Dormitories	4
B02	Bridges	6
C18	Cost Estimating; Cost Engineering and Analysis	1
E03	Electrical Studies and Design	3
F03	Fire Protection	1
G01	Garages; Vehicle Maint Facilities; Parking Decks	1
H07	Highways; Streets; Airfield Paving; Parking Lots	7
H10	Hotels; Motels	1
I01	Industrial Buildings; Manufacturing Plants	1
L06	Lighting-Exteriors/Street/Memorials/Fields etc.	1
P07	Plumbing & Pipe Design	3
R03	Railroad and Rapid Transit	2
S09	Structural Design; Special Structures	1
S13	Stormwater Handling & Facilities	1
T03	Traffic & Transportation Engineering	2
W02	Water Resources; Hydrology; Ground Water	2

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	5
b. Non-Federal Work	8
c. Total Work	8

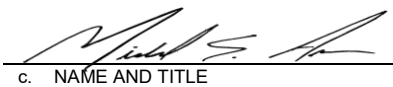
PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE



b. DATE: 7/1/2019

c. NAME AND TITLE

Michael S. Arens, P.E., S.E., Office Executive

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: W912BV20R0005

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME: Michael Baker International, Inc. (formerly Michael Baker Jr., Inc.) (CAGE CODE 0F6Z8)	3. YEAR ESTABLISHED: 2015
	4. UNIQUE ENTITY IDENTIFIER: 073022944
2b. STREET: 3601 Eisenhower Avenue	5. OWNERSHIP
	a. TYPE: Limited Liability Company
2c. CITY: Alexandria; 2d. STATE: VA; 2e. ZIP CODE: 22304	b. SMALL BUSINESS STATUS: No
6a. POINT OF CONTACT NAME AND TITLE: George K. Guszcza, Office Executive	7. NAME OF FIRM *(If Block 2a is a Branch Office)*: Michael Baker International, LLC
6b. TELEPHONE NUMBER: 703-317-6215; 6c. E-MAIL ADDRESS: George.Guszcza@mbakerintl.com	
8a. FORMER FIRM NAME(S) *(If any)*: Michael Baker Jr., Inc.	8b. YEAR ESTABLISHED: 1985; 8c. UNIQUE ENTITY IDENTIFIER: 073022944

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	(2) BRANCH
02	Administrative	768	54
06	Architect	35	2
12	Civil Engineer	439	7
16	Construction Manager	119	2
18	Cost Engineer/Estimator	24	14
29	GIS Specialist	136	22
34	Hydrologist	4	1
39	Landscape Architect	7	2
48	Project Manager	66	13
54	Security Specialist	3	1
57	Structural Engineer	141	1
58	Technician/Analyst	63	8
62	Water Resources Engineer	31	1
	Architectural Technician	24	3
	Designer/CADD Technician	186	1
	Emergency Management Specialist	10	4
	Engineering Technician	480	11
	Environmental Scientist/Specialist	92	4
	Planner	182	12
	Research Specialist	4	3
	Other Employees	674	1
	Total	3488	167

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
B02	Bridges	1
C07	Coastal Engineering	6
C15	Construction Management	2
C18	Cost Estimating; Cost Engineering and Analysis	6
G01	Garages; Vehicle Maint Facilities; Parking Decks	4
G04	GIS: Development, Analysis, & Data Collection	6
I05	Interior Design; Space Planning	2
P05	Planning (Community Regional Areawide State)	6
P06	Planning (Site, Installation and Project)	3
R03	Railroad and Rapid Transit	4
S10	Surveying Platting Mapping Flood Plain Studies	7
S13	Stormwater Handling & Facilities	5
	Buildings	4
	Federal Planning	7

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

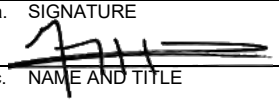
a. Federal Work	9
b. Non-Federal Work	6
c. Total Work	9

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 

b. DATE: 7/1/2019

c. NAME AND TITLE

George K. Guszcza, Office Executive

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: W912BV20R0005

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (*or Branch Office*) NAME	Moye I.T. Consulting, LLC
2b. STREET	1255 Corporate Drive, Suite 100
2c. CITY	Irving
2d. STATE	TX
2e. ZIP CODE	75038
3. YEAR ESTABLISHED	2002
4. UNIQUE ENTITY IDENTIFIER	142453351
5. OWNERSHIP a. TYPE	Limited Liability Company
b. SMALL BUSINESS STATUS	Self Certified Small Business 541330; 541310; 541512
6a. POINT OF CONTACT NAME AND TITLE	Jan Moye, PMP - Founding Principal
6b. TELEPHONE NUMBER	972-887-5555
6c. E-MAIL ADDRESS	jmoye@moyeconsulting.com
7. NAME OF FIRM *(If Block 2a is a Branch Office)*	

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	c. Number of Employees (2) BRANCH
02	Administrative/Intern	4.5	
06	Architect	1	
08	CADD Technician	3	
13	Communications Designer	10	3
21	Electrical Engineer	1	
25	Fire Protection Engineer	2	
48	Project Manager	11	1
54	Security Specialist	2	
14	Computer Programmer	1	1
29	Geographic Information System	.5	
	Other Employees		
	Total	36	5

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
A06	Airports	7
C11	Community Facilities	1
D07	Dining Halls; Clubs, Restaurants	1
E02	Educational Facilities; Classrooms	2
F02	Field Houses; Gyms; Stadiums	2
F03	Fire Protection	1
G01	Garages	3
H09	Hospitals & Medical Facilities	1
H10	Hotels; Motels	1
I01	Industrial Buildings	1
L04	Libraries; Museums; Galleries	1
O01	Office Buildings	3
P11	Postal Facilities	1
P13	Public Safety Facilities	1
R03	Railroad; Rapid Transit	1
S02	Security Systems	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

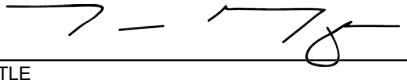
a. Federal Work	1
b. Non-Federal Work	7
c. Total Work	7

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE 

b. DATE: 11/06/19

c. NAME AND TITLE: Jan Moye, PMP - Founding Principal

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: W912BV20R0005

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM *(or Branch Office)* NAME: Roca Engineering, Inc.	3. YEAR ESTABLISHED: 2001
	4. UNIQUE ENTITY IDENTIFIER: 03-186-8776
2b. STREET: 3200 NW 38th St.	5. OWNERSHIP
	a. TYPE: Corporation
2c. CITY: Oklahoma City	2d. STATE: OK
	2e. ZIP CODE: 73112
	b. SMALL BUSINESS STATUS: Yes
6a. POINT OF CONTACT NAME AND TITLE: Victor Pozadas PE, President	7. NAME OF FIRM *(If Block 2a is a Branch Office)*
6b. TELEPHONE NUMBER: 405-684-8920	6c. E-MAIL ADDRESS: vpozadas@rocaengineering.com

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	(2) BRANCH
02	Administrative	3	
06	Architect		
08	CADD Technician		
12	Civil Engineer	2	
15	Construction Inspector		
16	Construction Manager		
21	Electrical Engineer		
23	Environmental Engineer		
25	Fire Protection Engineer		
27	Geotechnical Engineer	2	
38	Land Surveyor		
39	Landscape Architect		
42	Mechanical Engineer		
47	Planner: Urban/Regional		
57	Structural Engineer		
60	Transportation Engineer		
62	Water Resource Engineer		
	Other Employees	6	
	Total	13	

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
A06	Airports; Terminals and Hangars; Freight Handling	3
CO2	Cemeteries *(Planning & Relocation)*	B1
C11	Community Facilities	1
E02	Educational Facilities; Classrooms	2
G01	Garages; Vehicle Maintenance Facilities; Parking Decks	2
H09	Hospital & Medical Facilities	3
I05	Interior Design; Space Planning	
JO1	Judicial and Courtroom Facilities	
LO4	Libraries; Museum; Galleries	1
O01	Office Buildings; Industrial Parks	3
P13	Public Safety Facilities	1
R06	Rehabilitation (Buildings; Structures; Facilities)	1
R12	Roofing	
S11	Sustainable Design	
W01	Warehouses & Depots	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

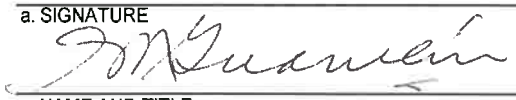
a. Federal Work	3
b. Non-Federal Work	3
c. Total Work	4

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE: 

b. DATE: 11/12/2019

c. NAME AND TITLE: Martha Guzman / Vice-President

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: **W912BV20R0005**

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. DUNS NUMBER
Apex Cost Consultants, Inc. dba EudaCorp	1997	962019159

2b. STREET	2d. STATE	2e. ZIP CODE
707 West Vickery Boulevard, Suite 102A		
Fort Worth	TX	76104

5. OWNERSHIP

a. TYPE: Corporation

b. SMALL BUSINESS STATUS: MBE, DBE, SDB, HUB (Texas)

6a. POINT OF CONTACT NAME AND TITLE	6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS
Claude Eudaric, Principal	682-235-5143	ceudaric@eudacorp.com

7. NAME OF FIRM *(If block 2a is a branch office)*

8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED	8c. DUNS NUMBER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
18	Cost Engineer/Estimator	5	
48	Project Manager/VMA	1	
18	Cost Engineer/Estimator Consultants (1)		
61	Certified Value Specialist (CVS) Consultant (1)		
53	Scheduler Consultant (1)		
	Other Employees		
	Total	6	

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
A06	Airports; Terminals	4
B01	Barracks, Dormitories	3
C06	Churches	3
C13	Computer Facilities	1
C15	Construction Management	1
C18	Cost Estimating	5
E02	Educational Facilities	3
H07	Highways	2
H08	Historical preservation	1
H09	Hospitals & medical facilities	3
P08	Prisons	2
P13	Public Safety Facilities	3
R06	Rehabilitation	3
R08	Research Facilities	4
S02	Security Systems	2
V01	Value Analysis; Life-Cycle Costing	2

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	4
b. Non-Federal Work	2
c. Total Work	5

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE: Claude Eudaric

b. DATE: November 18, 2019

c. NAME AND TITLE: Claude Eudaric, Principal

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: W912BV20R0005

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. UNIQUE ENTITY IDENTIFIER
Aerial Data Service, Inc.	1973	06-454-7060

2b. STREET	5. OWNERSHIP
2448 E. 81st Street, Suite 5000	a. TYPE

2c. CITY	2d. STATE	2e. ZIP CODE	
Tulsa	OK	74137	Corporation (Woman-Owned)
			Small Business – HUBZone

6a. POINT OF CONTACT NAME AND TITLE	7. NAME OF FIRM *(If block 2a is a branch office)*
Doug Ward, Executive Vice President	N/A

6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS
(918) 622-4144	dward@aerialdata.com

8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER
Aerial Data Service	1964	06-454-7060

9. EMPLOYEES BY DISCIPLINE

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH	a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
02	Administrative	7		A02	Aerial Photography; Airborne Data & Imagery	4
08	CADD Technician	1		C01	Cartography	4
09	Cartographer	1		D05	Digital Elevation and Terrain Model Development	4
29	Geographic Info Systems	17		D06	Digital Orthophotography	3
38	Land Surveyor	1		G03	Geodetic Surveying: Ground & Airborne	3
46	Photogrammetrist	2		G04	GIS Services: Development, Analysis and Data Collection	5
49	Remote Sensing Specialist	1		G05	Geospatial Data Conversion	2
58	Technician/Analyst	1		P03	Photogrammetry	5
	Pilot	1		T04	Topo Survey and Mapping	5
	Aerotriangulation Specialist	1				
	Orthophoto Specialist	1				
	Stereoplotter Operator	4				
	Other Employees					
	Total	38				

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

a. Federal Work	4
b. Non-Federal Work	6
c. Total Work	6

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less Than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE	b. DATE
Doug Ward	11/06/19

c. NAME AND TITLE

Doug Ward, Executive Vice President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(if any)*: W912BV20R0005

PART II – GENERAL QUALIFICATIONS

(if a firm has branch offices, complete for each specific branch office seeking work.)

2A. FIRM (OR BRANCH OFFICE) NAME: Engineered With Layton		3. YEAR ESTABLISHED: 2007	4. DUNS NUMBER: 808153378
2b. STREET: 1490 S. Price Road, Suite 215			5. OWNERSHIP
2c. CITY: Chandler	2d. STATE: Arizona	2e. ZIP CODE: 85286	a. TYPE: Sole Proprietor
6a. POINT OF CONTACT NAME AND TITLE: N. Emery Layton, Principal-in-Charge			B. SMALL BUSINESS STATUS: 541330-Y / 541620-Y / 541340-Y
6b. TELEPHONE NUMBER: 480-244-3355	6c. E-MAIL ADDRESS: emery@engwlayton.com		7. NAME OF FIRM *(if block 2a is a branch office)*: Engineered With Layton
8a. FORMER FIRM NAME(S) (IF ANY)		8b. YEAR ESTABLISHED	8c. DUNS NUMBER

9. Employees by Discipline

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	1	
06	Architect		1
08	CADD Technician	1	
12	Civil Engineer; Water Resources Engineer	1	
10	Chemical Engineer	1	
23	Environmental Engineer; Sanitary Engineer	1	
36	Industrial Hygienist	1	
38	Land Surveyor	1	
16	Construction Mgr	1	
57	Structural Engineer	1	
58	Technician; Aerial Photographer	1	
	TOTAL	10	1

10. Profile of Firm's Experience And Annual Average Revenue for Last 5 Years

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
C08	Codes/Standards/Ordinances	1
C15	Construction Management	1
E03	Electrical Studies & Design	1
C18	Cost Estimating; Cost Engineering & Analysis; Forecasting	1
D06	Digital Orthophotography	1
E03	Electrical Studies & Design	1
E09	Environmental Impact Studies & Assess	1
E11	Environmental Planning	1
H09	Hospitals & Medical Facilities	3
H10	Hotels/Motels	1
I01	Industrial Buildings/Manufacturing	1
I03	Industrial Waste Treatment	1
I06	Irrigation/Drainage	1
P04	Pipelines	1
P06	Planning	1
S04	Sewage Collection/Treatment	1
S10	Surveying; Platting; Mapping; Flood	1
S13	Storm Water Handling & Facilities	1
T02	Testing & Inspection Services	1
W02	Water Resources; Hydrology; Groundwater	1
W03	Water Supply/Treatment	3
C02	Cemeteries (Planning & Relocation)	2

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown below)

a. Federal Work	3
b. Non-Federal Work	4
c. Total Work	5

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

A. SIGNATURE: 

B. DATE: 7 Nov 2019

C. NAME AND TITLE: N. Emery Layton, Principal-in-Charge

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: W912BV20R0005

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. DUNS NUMBER
Goode Associates, Inc.	2003	117745351

2b. STREET	2d. STATE	2e. ZIP CODE
8145 Greenhollow Lane		
Dallas	TX	75240

5. OWNERSHIP

a. TYPE: S-Corporation

b. SMALL BUSINESS STATUS: **MWBE, HUBZone, EDWOSB, HUB**

6a. POINT OF CONTACT NAME AND TITLE	6b. TELEPHONE NUMBER	6c. E-MAIL ADDRESS
Ms. L.M. Goode, President	**(972) 814-4634**	**lmg@goodemwbe.com**

7. NAME OF FIRM *(If block 2a is a branch office)*

8a. FORMER FIRM NAME(S) *(If any)*	8b. YR. ESTABLISHED	8c. DUNS NUMBER
CPF & Associates Program and Construction Management Services, Inc		

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
61	Value Engineer (VMA)	1	
61	Value Engineer (CVS) Consultant	1	
48	Project Manager	1	
	Other Employees		
	Total	3	

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
C15	Construction Management	1
V01	Value Analysis; Life-Cycle Costing	1

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown at right)

a. Federal Work	1
b. Non-Federal Work	1
c. Total Work	1

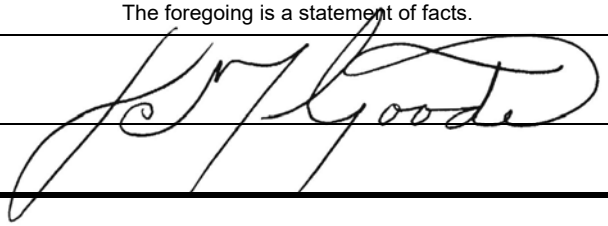
PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

b. SIGNATURE



b. DATE: January 1, 2019

c. NAME AND TITLE: Ms. L.M. Goode, President

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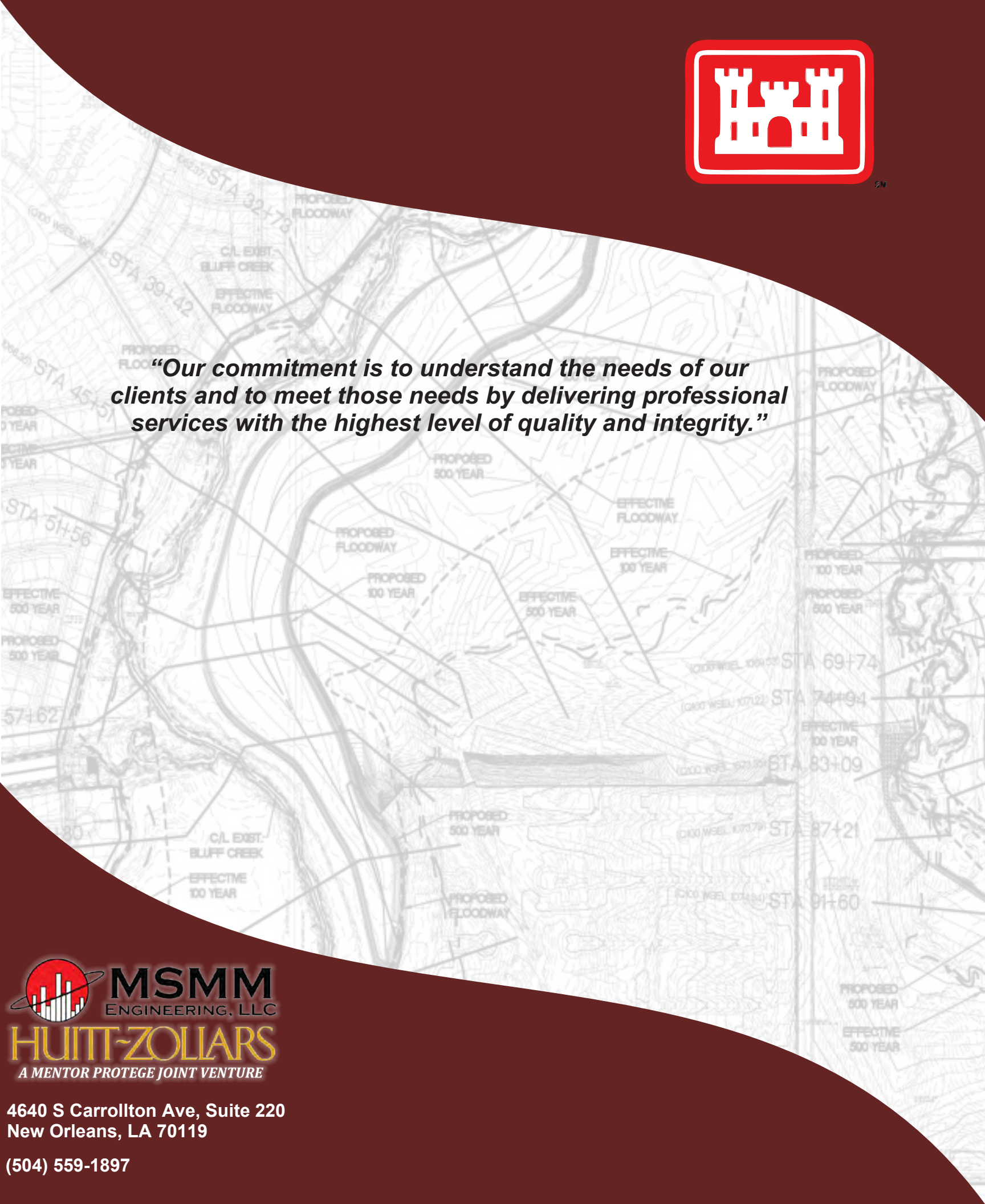
MANDATORY USE DATE OF FORM 5/1/2004



"Our commitment is to understand the needs of our clients and to meet those needs by delivering professional services with the highest level of quality and integrity."

MSMM ENGINEERING, LLC

HUITT-ZOLLARS

A MENTOR PROTEGE JOINT VENTURE

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New Orleans, LA 70119

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