

MATOC IDC for Multi-Discipline A/E Services to Primarily Support DLA Nationwide Clients of ECSO

Solicitation Number: W9126G-20-R-0005

Date: January 7, 2022

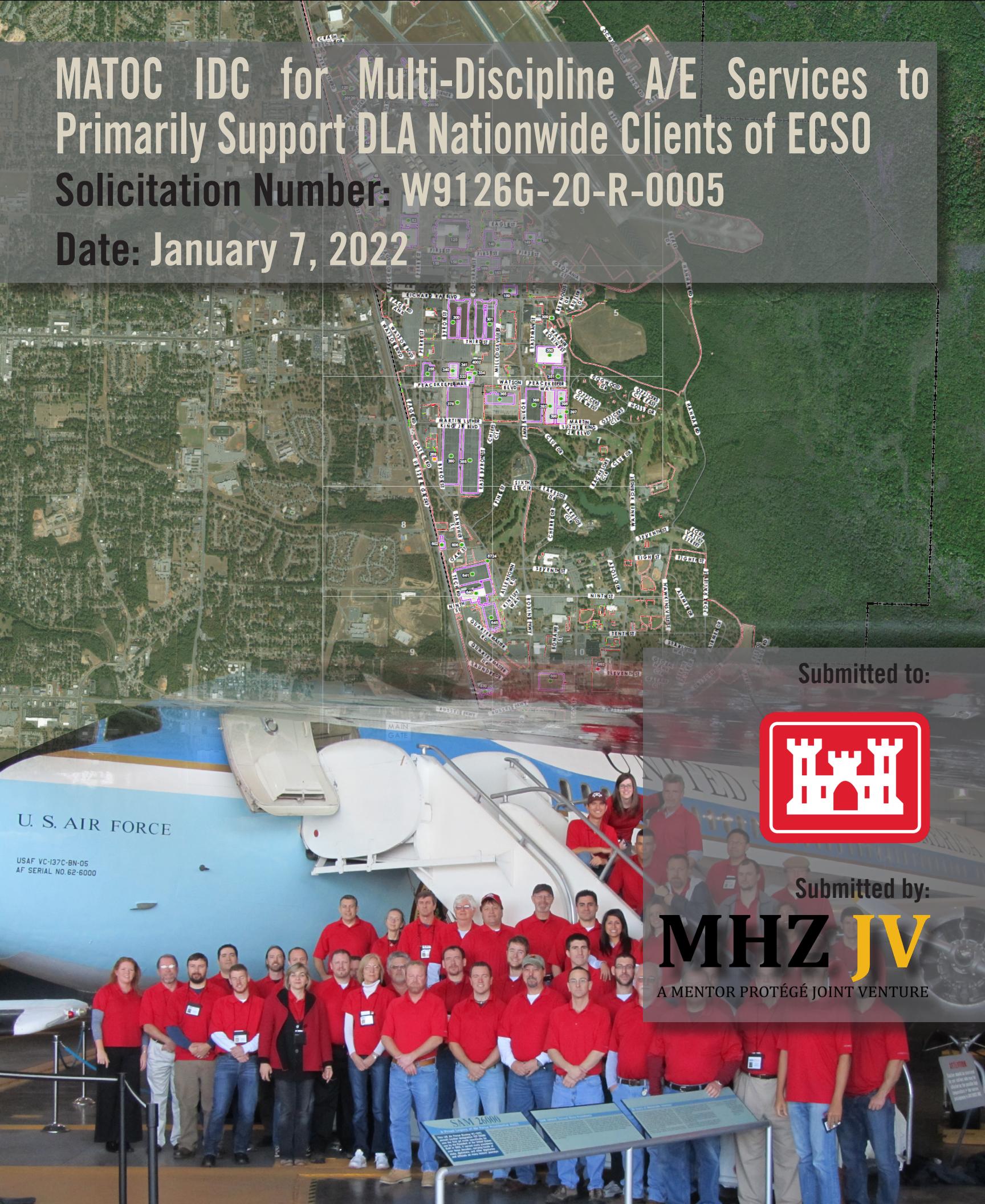
Submitted to:



Submitted by:

MHZ JV

A MENTOR PROTÉGÉ JOINT VENTURE





PART I, SECTIONS A - D

**A. CONTRACT INFORMATION**1. TITLE AND LOCATION (*City and State*)

MATOC IDC for Multi-Discipline A/E Services to Primarily Support DLA Nationwide Clients of ECSO

2. PUBLIC NOTICE DATE

Nov 04, 2021

3. SOLICITATION OR PROJECT NUMBER

W912620R0005

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE

Monica Kent, PE – Senior Vice President, Joint Venture Board

5. NAME OF FIRM

MSMM Huitt-Zollars A Joint Venture

6. TELEPHONE NUMBER

(214) 577-3131

7. FAX NUMBER

(214) 871-0757

8. EMAIL ADDRESS

mkent@Huitt-Zollars.com

C. PROPOSED TEAM (*Complete this section for the prime contractor and all key subcontractors.*)

			(Check)	9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
	PRIME	J-V PARTNER	SUBCONTRACTOR			
a	✓			MSMM Huitt-Zollars A Joint Venture DUNS #117073814 <input type="checkbox"/> CHECK IF BRANCH OFFICE	4640 Carrollton Avenue Suite 220 New Orleans, LA 70119	
b		✓		MSMM Engineering, LLC DUNS #969989370 <input type="checkbox"/> CHECK IF BRANCH OFFICE	4640 Carrollton Avenue Suite 220 New Orleans, LA 70119	
c		✓		MSMM Engineering, LLC DUNS #071392535 <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	13850 Gulf Freeway Suite 202A Houston, TX 77034	
d		✓		Huitt-Zollars, Inc. DUNS #156399560 <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	500 W. 7th Street Suite 300 Fort Worth, TX 76102	Program Management, Project Management, Architecture, Civil Engineering, Structural Engineering, Mechanical Engineering, Electrical Engineering, Cost Engineering
e		✓		Huitt-Zollars, Inc. DUNS #080747660 <input type="checkbox"/> CHECK IF BRANCH OFFICE	5430 LBJ Freeway Suite 1500 Dallas, TX 75240	
f		✓		Huitt-Zollars, Inc. DUNS #879473999 <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	10350 Richmond Avenue Suite 300 Houston, TX 77042	
g		✓		Huitt-Zollars, Inc. DUNS #195075171 <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	111 N. Magnolia Avenue Suite 1600 Orlando, FL 32801	
h		✓		Huitt-Zollars, Inc. DUNS #117790537 <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	2051 Jamieson Avenue Suite 502 Alexandria, VA 22314	
i		✓		Michael Baker International, Inc. DUNS #956772347 <input type="checkbox"/> CHECK IF BRANCH OFFICE	100 Airside Drive Moon Township, PA 15108	Cost Engineering, Fire Protection Engineering, Multi-Discipline Support
j		✓		HDR DUNS #06-866-8805 <input type="checkbox"/> CHECK IF BRANCH OFFICE	1917 S 67 th Street Omaha, NE 68106	Structural Engineering, Fire Protection Engineering, Quality Control/Data Management
k		✓		HDR DUNS #78471-6339 <input checked="" type="checkbox"/> CHECK IF BRANCH OFFICE	5555 Tech Center Drive Suite 310 Colorado Springs, CO 80919	

LEGEND

MSMM/Huitt-Zollars Joint Venture - MHZ JV

Michael Baker International - MBI

HDR - HDR

**PROGRAM MANAGER**

Monica Kent, PE, LEED AP (MHZ JV)

PROJECT MANAGER

Joe Wells, RA (MHZ JV)

Nicholas Young, PE (MHZ JV)

TECHNICAL DISCIPLINES**ARCHITECT**Bill Hoelscher, AIA, LEED AP (MHZ JV)
Rob Ruth, RA, LEED AP (MHZ JV)**MECHANICAL ENGINEER**William Krasner, PE (MHZ JV)
Jaime Espinosa, PE, LEED AP BD+C (MHZ JV)**FIRE PROTECTION ENGINEER**Kevin Spangler, FPE (MBI)
Zach Sachsenmaier, PE, FPE, LEED AP BD+C (HDR)**CIVIL ENGINEER**Michael De Leon, PE (MHZ JV)
Jim Wilson, PE, LEED AP (MHZ JV)**ELECTRICAL ENGINEER**Scott Parma, PE, LEED AP (MHZ JV)
Leonard Carthon, PE, RA, LEED AP (MHZ JV)**STRUCTURAL ENGINEER**William Wallace, PE, SECB, NCEES, MLSE (MHZ JV)
Wesley Jacobs, PE (HDR)**COST ENGINEER**Don Daigle, CVS, CPE (MHZ JV)
Christopher Conrad, CCP (MBI)

PART I,
SECTION E

PART I, SECTION E

2331

**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. WITH CURRENT FIRM
Monica Kent, PE, LEED AP	Program Manager	25	16

15. FIRM NAME AND LOCATION (City And State)

MHZ JV – Dallas, TX

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
1996, BS, Civil Engineering, University of Wyoming	Professional Engineer: TX

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

Monica has led multiple program and project teams in the execution of multi-faceted, complex assignments, specifically for the USACE SWF. She worked on the Fort Bliss Program through 2013, then, managed her team's efforts for the Air Force Sustainable Infrastructure Assessment (BUILDER) Program through 2015. Since, she has managed the four DLA BUILDER Facility Condition Assessment task orders for DLA at DSSC Columbus & Wright Patterson AFB, Tinker AFB, Warner Robins AFB, DSSC Richmond & NAVSUP Philadelphia (currently ongoing). She has also been responsible for numerous other DoD, DHS and other ECSO customer design bid build and design build RFP development task orders.

19. RELEVANT PROJECTS

a.	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	
	Facility Condition Assessments for Defense Logistics Agency, Tinker Air Force Base, OK	2020	N/A
a.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: These FCAs were accomplished utilizing the BUILDER along with BRED data entry in the field via tablets. To facilitate the collection and location of assessment data, the teams produced measured two-line floor plans, using AutoCAD, of each building. 53 buildings and 3.1M SF were input into BRED during the two week field assessment. Cost: \$1.33M (fee) Role: Program Manager	<input type="checkbox"/> Check if project performed with current firm	
b.	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
b.	Facility Condition Assessments for Defense Logistics Agency, Defense Supply Center Columbus & Wright-Patterson Air Force Base, OH	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
b.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: This task order provided all services required to perform FCAs for DLA. These FCAs were accomplished utilizing the BUILDER and BRED on tablets in the field. Assessed 75 buildings amounting to 3.67M SF. Also collected real property data and condition of 140 site assets across the 75 acre installation in Columbus. Cost: \$1.56M (fee) Role: Program Manager	2018	N/A
c.	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
c.	Facility Condition Assessments for Defense Logistics Agency, Warner Robins Air Force Base, GA	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
c.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: FCA for 3.3M SF of facilities including 47 buildings. The work was accomplished utilizing the BUILDER utilizing BRED for field entry on tablets. To facilitate the collection and location of assessment data, the six four-man teams produced measure two-line floor plans of each building to be assessed, where Government-furnished plans did not exist. Cost: \$1.37M (fee) Role: Program Manager	2019	N/A
d.	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
d.	AFCEC Sustainable Infrastructure Assessment Program, Multiple Locations	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
d.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Project consisted of Facility Condition Assessments and Real Property Installed Equipment data entry in CERL's BUILDER program, ASHRAE Level 2 energy audit, space utilization surveys in the Air Force GIS-based S-file, and a real property inventory audit for Hill AFB, Whiteman AFB, Wright Patterson AFB, and nine Air Force Reserve and Air National Guard bases nationwide. This project was performed for the Air Force to allow for long-term capital planning. The survey included research of the existing systems including technical analysis of existing MEP systems and photographic archiving of existing physical plant systems. This research and analysis included examination of all building systems to determine if alternative/more efficient energy measures could be taken to improve the facility as well as to provide a long-term economic payback. Cost: \$11.2M (fee) Role: Program Manager	2015	N/A
e.	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
e.	Facility Condition Assessments for Defense Logistics Agency, Mid Atlantic Region (DSC Richmond VA, Naval Supply Philadelphia PA, Tobyhanna and Letterkenny Army Depot, PA)	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
e.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: BUILDER facility condition assessments for DLA at four installations including a fence to fence assessment at Defense Supply Center Richmond. The assessments include 4 man teams providing comprehensive assessment and data collection over a 2 week period in BRED and three separate site visits scheduled over the 400 day POP. Cost: \$2.2M (fee) Role: Program Manager	ONGOING	N/A

**E. RESUMES OF KEY PERSONNEL PROPOSED FOR THIS CONTRACT**

(COMPLETE ONE SECTION E FOR EACH KEY PERSON.)

12. NAME Joe Wells, RA	13. ROLE IN THIS CONTRACT Project Manager	14. YEARS EXPERIENCE a. TOTAL b. WITH CURRENT FIRM 34 14	
15. FIRM NAME AND LOCATION (<i>City And State</i>) MHZ JV – Fort Worth, TX			
16. EDUCATION (<i>Degree And Specialization</i>) 1986, B. Arch., Texas Tech University		17. CURRENT PROFESSIONAL REGISTRATION (<i>STATE AND DISCIPLINE</i>) Registered Architect	
18. OTHER PROFESSIONAL QUALIFICATIONS (<i>Publications, Organizations, Training, Awards, Etc.</i>) Joe Wells is one of our most experienced Project Managers having been directly responsible for the development of over 50 design-build RFPs utilizing the RFP Wizard on nearly 100 task orders from 2006-2013 associated with the \$4.8B Fort Bliss Expansion Program. He has both Air Force and Army design experience. He has performed all site and logistics coordination efforts for all of the DLA FCA tasks completed by our team.			
19. RELEVANT PROJECTS			
(1) TITLE AND LOCATION (<i>City and State</i>) Facility Condition Assessments for Defense Logistics Agency, Mid Atlantic Region (DSC Richmond VA, Naval Supply Philadelphia PA, Tobyhanna and Letterkenny Army Depot, PA)		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (<i>if applicable</i>) ONGOING N/A	
a.	(3) DESCRIPTION (<i>Brief scope, size, cost, etc.</i>) AND SPECIFIC ROLE Scope: BUILDER facility condition assessments for DLA at four installations including a fence to fence assessment at Defense Supply Center Richmond. The assessments include 4 man teams providing comprehensive assessment and data collection over a 2 week period in BRED and three separate site visits scheduled over the 400 day POP. Cost: \$2.2M (fee) Role: Project Manager responsible for site coordination and onsite communications with the DLA and USACE personnel.		<input type="checkbox"/> Check if project performed with current firm
(1) TITLE AND LOCATION (<i>City and State</i>) Facility Condition Assessments for Defense Logistics Agency, Tinker Air Force Base, OK		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (<i>if applicable</i>) 2020 N/A	
b.	(3) DESCRIPTION (<i>Brief scope, size, cost, etc.</i>) AND SPECIFIC ROLE Scope: These FCAs were accomplished utilizing the BUILDER along with BRED data entry in the field via tablets. To facilitate the collection and location of assessment data, the teams produced measured two-line floor plans, using AutoCAD, of each building. 53 buildings and 3.1M SF were input into BRED during the two week field assessment. Cost: \$1.33M (fee) Role: Project Manager responsible for site coordination.		<input type="checkbox"/> Check if project performed with current firm
(1) TITLE AND LOCATION (<i>City and State</i>) Facility Condition Assessments for Defense Logistics Agency, Defense Supply Center Columbus & Wright-Patterson Air Force Base, OH		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (<i>if applicable</i>) 2018 N/A	
c.	(3) DESCRIPTION (<i>Brief scope, size, cost, etc.</i>) AND SPECIFIC ROLE Scope: This task order provided all services required to perform FCAs for DLA. These FCAs were accomplished utilizing the BUILDER and BRED on tablets in the field. Assessed 75 buildings amounting to 3.67M SF. Also collected real property data and condition of 140 site assets across the 75 acre installation in Columbus. Cost: \$1.56M (fee) Role: Project Manager responsible for site coordination and communications with DLA on building access.		<input type="checkbox"/> Check if project performed with current firm
(1) TITLE AND LOCATION (<i>City and State</i>) Facility Condition Assessments for Defense Logistics Agency, Warner Robins Air Force Base, GA		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (<i>if applicable</i>) 2019 N/A	
d.	(3) DESCRIPTION (<i>Brief scope, size, cost, etc.</i>) AND SPECIFIC ROLE Scope: FCA for 3.3M SF of facilities including 47 buildings. The work was accomplished utilizing the BUILDER utilizing BRED for field entry on tablets. To facilitate the collection and location of assessment data, the six four-man teams produced measure two-line floor plans of each building to be assessed, where Government-furnished plans did not exist. Cost: \$1.37M (fee) Role: Project Manager responsible for the coordination of the site visit with DLA and building managers.		<input type="checkbox"/> Check if project performed with current firm
(1) TITLE AND LOCATION (<i>City and State</i>) AFCEC Sustainable Infrastructure Assessment Program, Multiple Locations		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (<i>if applicable</i>) 2015 N/A	
e.	(3) DESCRIPTION (<i>Brief scope, size, cost, etc.</i>) AND SPECIFIC ROLE Scope: Project consisted of Facility Condition Assessments and Real Property Installed Equipment data entry in CERL's BUILDER program, ASHRAE Level 2 energy audit, space utilization surveys in the Air Force GIS-based S-file, and a real property inventory audit for Hill AFB, Whiteman AFB, Wright Patterson AFB, and nine Air Force Reserve and Air National Guard bases nationwide. This project was performed for the Air Force to allow for long-term capital planning. The survey included research of the existing systems including technical analysis of existing MEP systems and photographic archiving of existing physical plant systems. This research and analysis included examination of all building systems to determine if alternative/more efficient energy measures could be taken to improve the facility as well as to provide a long-term economic payback. Cost: \$11.2M (fee) Role: Project Manager responsible site coordination and team logistics for access to buildings.		<input type="checkbox"/> Check if project performed with current firm

**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. WITH CURRENT FIRM
Nicholas Young, PE	Project Manager	10	4

15. FIRM NAME AND LOCATION (*City And State*)**MHZ JV. – Alexandria, VA**16. EDUCATION (*Degree And Specialization*)

2015, BS, Mechanical Engineering, University of Texas at Austin

17. CURRENT PROFESSIONAL REGISTRATION (*State And Discipline*)

Professional Engineer: TX, MD, DC

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

Nick Young is an experienced project manager having worked on many design and assessment projects for public, private, and federal clients. He currently serves as project manager for the Bureau of Engraving and Printing for the Eastern Currency Facility in Washington, DC and has been the team's Project Manager for DLA assessments responsible for overseeing logistics, quality control and BUILDER training.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (<i>City and State</i>)		(2) YEAR COMPLETED	
Facility Condition Assessments for Defense Logistics Agency, Tinker Air Force Base, OK		PROFESSIONAL SERVICES	CONSTRUCTION (<i>if applicable</i>)
a. Scope: These FCAs were accomplished utilizing the BUILDER along with BRED data entry in the field via tablets. To facilitate the collection and location of assessment data, the teams produced measured two-line floor plans, using AutoCAD, of each building. 53 buildings and 3.1M SF were input into BRED during the two week field assessment. Cost: \$1.33M (fee) Role: Project Manager responsible for the daily team assignments, logistics, team scheduling and training.		2020	N/A
(1) TITLE AND LOCATION (<i>City and State</i>)		(2) YEAR COMPLETED	
Facility Condition Assessments for Defense Logistics Agency, Mid Atlantic Region (DSC Richmond VA, Naval Supply Philadelphia PA, Tobyhanna and Letterkenny Army Depot, PA)		PROFESSIONAL SERVICES	CONSTRUCTION (<i>if applicable</i>)
b. Scope: BUILDER facility condition assessments for DLA at four installations including a fence to fence assessment at Defense Supply Center Richmond. The assessments include 4 man teams providing comprehensive assessment and data collection over a 2 week period in BRED and three separate site visits scheduled over the 400 day POP. Cost: \$2.2M (fee) Role: Project Manager		ONGOING	N/A
(1) TITLE AND LOCATION (<i>City and State</i>)		(2) YEAR COMPLETED	
Facility Condition Assessments for Defense Logistics Agency, Warner Robins Air Force Base, GA		PROFESSIONAL SERVICES	CONSTRUCTION (<i>if applicable</i>)
c. Scope: FCA for 3.3M SF of facilities including 47 buildings. The work was accomplished utilizing the BUILDER utilizing BRED for field entry on tablets. To facilitate the collection and location of assessment data, the six four-man teams produced measure two-line floor plans of each building to be assessed, where Government-furnished plans did not exist. Additionally, this task order required the assessment team to produce as-built floor plans of all spaces assessed, document all found-on-site assets, and report all safety hazards to the client. Cost: \$1.37M (fee) Role: Project Manager responsible for oversight of the quality control program, BUILDER orientation and training, team scheduling and assignments.		2019	N/A
(1) TITLE AND LOCATION (<i>City and State</i>)		(2) YEAR COMPLETED	
Facility Condition Assessments for Defense Logistics Agency, Columbus, OH		PROFESSIONAL SERVICES	CONSTRUCTION (<i>if applicable</i>)
d. Scope: This task order provided all services required to perform FCAs for DLA. These FCAs were accomplished utilizing the BUILDER and BRED on tablets in the field. Assessed 75 buildings amounting to 3.67M SF. Also collected real property data and condition of 140 site assets across the 75 acre installation in Columbus. Cost: \$1.56M (fee) Role: Lead Mechanical Assessor and Assistant Project Manager responsible for BUILDER training and oversight of onsite quality control.		2018	N/A
(1) TITLE AND LOCATION (<i>City and State</i>)		(2) YEAR COMPLETED	
Bureau of Engraving and Printing Eastern Currency Facility – Beltsville, MD		PROFESSIONAL SERVICES	CONSTRUCTION (<i>if applicable</i>)
e. Scope: Design for USACE/NAB the construction of a new 850,000 sq. ft. to 1,000,000 sq. ft. facility that will support all manufacturing needs for the BEP east coast currency production operations. Most administrative functions from the Main and Annex Buildings in Washington, D.C., and the warehouse function in Landover, MD will also be transitioned to the new facility. Cost: \$950M (construction) Role: MEP Project Manager		ONGOING	2025 (EST)

**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. WITH CURRENT FIRM
Bill Hoelscher, AIA, LEED AP	Architect	33	21

15. FIRM NAME AND LOCATION (City And State)

MHZ JV – Fort Worth, TX

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
1988, MA, Architecture, University of Texas Arlington 1984, BA, Arts, University of Dallas	Registered Architect: TX, WA LEED Accredited Professional

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

Bill has experience providing complete project management, architectural design, and space planning services. His experience includes many major Military task orders focusing on vertical construction projects from charrette through construction. He has developed numerous RFPs for USACE projects. Bill has experience providing programming for USACE Army & Air Force projects. He draws from the user's view and experiences to develop operational relationships. He takes the extra time in coordination to ensure constructability and operability between all disciplines and plans for future operations to ensure systems are accessible and maintainable in the future.

19. RELEVANT PROJECTS

a.	(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Tinker Air Force Base, OK	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: These FCAs were accomplished utilizing the BUILDER along with BRED data entry in the field via tablets. To facilitate the collection and location of assessment data, the teams produced measured two-line floor plans, using AutoCAD, of each building. 53 buildings and 3.1M SF were input into BRED during the two week field assessment. Cost: \$1.33M (fee) Role: Lead Architect responsible for oversight of interior and exterior architect assessors.	<input checked="" type="checkbox"/> Check if project performed with current firm	N/A
b.	(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Defense Supply Center Columbus & Wright-Patterson Air Force Base, OH	(2) YEAR COMPLETED	
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: This task order provided all services required to perform FCAs for DLA. These FCAs were accomplished utilizing the BUILDER and BRED on tablets in the field. Assessed 75 buildings amounting to 3.67M SF. Also collected real property data and condition of 140 site assets across the 75 acre installation in Columbus. Cost: \$1.56M (fee) Role: Lead Architect provided quality review of interior and exterior architectural assessment data.	PROFESSIONAL SERVICES 2018	CONSTRUCTION (if applicable) N/A
c.	(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Warner Robins Air Force Base, GA	(2) YEAR COMPLETED	
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: FCA for 3.3M SF of facilities including 47 buildings. The work was accomplished utilizing the BUILDER utilizing BRED for field entry on tablets. To facilitate the collection and location of assessment data, the six four-man teams produced measure two-line floor plans of each building to be assessed, where Government-furnished plans did not exist. Cost: \$1.37M (fee) Role: Lead Architect overseeing the training and data collection tasks for interior and exterior assessments.	PROFESSIONAL SERVICES 2019	CONSTRUCTION (if applicable) N/A
d.	(1) TITLE AND LOCATION (City and State) AFCEC Sustainable Infrastructure Assessment Program, Multiple Locations	(2) YEAR COMPLETED	
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Project consisted of Facility Condition Assessments and Real Property Installed Equipment data entry in CERL's BUILDER program, ASHRAE Level 2 energy audit, space utilization surveys in the Air Force GIS-based S-file, and a real property inventory audit for Hill AFB, Whiteman AFB, Wright Patterson AFB, and nine Air Force Reserve and Air National Guard bases nationwide. This project was performed for the Air Force to allow for long-term capital planning. The survey included research of the existing systems including technical analysis of existing MEP systems and photographic archiving of existing physical plant systems. This research and analysis included examination of all building systems to determine if alternative/more efficient energy measures could be taken to improve the facility as well as to provide a long-term economic payback. Cost: \$11.2M (fee) Role: Lead Architect	PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) N/A
e.	(1) TITLE AND LOCATION (City and State) CCAD Hangar 8 Renovation DB RFP – Corpus Christi Army Depot, TX	(2) YEAR COMPLETED	
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: 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 with 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. Cost: \$20M Role: Lead Architect	PROFESSIONAL SERVICES 2018	CONSTRUCTION (if applicable) 2021



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

12. NAME Rob Ruth, RA, LEED AP	13. ROLE IN THIS CONTRACT Architect	14. YEARS EXPERIENCE a. TOTAL 40 b. WITH CURRENT FIRM 15	
15. FIRM NAME AND LOCATION (City And State) MHZ JV – Orlando, FL		16. EDUCATION (DEGREE AND SPECIALIZATION) B. Arch, North Dakota University	
		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Registered Architect: FL LEED Accredited Professional	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, Etc.) Mr. Ruth has worked in the field of Architecture for 40 years. Since joining in 2006, Mr. Ruth worked extensively on architectural design projects in all sectors. He has also more recently worked on various facility condition assessments for DLA. Mr. Ruth is responsible to ensure the buildings are compliant with building code.			
19. RELEVANT PROJECTS			
(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Tinker Air Force Base, OK	(2) YEAR COMPLETED		
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	
a. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: These FCAs were accomplished utilizing the BUILDER along with BRED data entry in the field via tablets. To facilitate the collection and location of assessment data, the teams produced measured two-line floor plans, using AutoCAD, of each building. 53 buildings and 3.1M SF were input into BRED during the two week field assessment. Cost: \$1.33M (fee) Role: Architect responsible for interior assessments	<input type="checkbox"/> Check if project performed with current firm		
(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Defense Supply Center Columbus & Wright-Patterson Air Force Base, OH	(2) YEAR COMPLETED		
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	
b. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: This task order provided all services required to perform FCAs for DLA. These FCAs were accomplished utilizing the BUILDER and BRED on tablets in the field. Assessed 75 buildings amounting to 3.67M SF. Also collected real property data and condition of 140 site assets across the 75 acre installation in Columbus. Cost: \$1.56M (fee) Role: Architect responsible for interior assessments	<input type="checkbox"/> Check if project performed with current firm		
(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Warner Robins Air Force Base, GA	(2) YEAR COMPLETED		
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	
c. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: FCA for 3.3M SF of facilities including 47 buildings. The work was accomplished utilizing the BUILDER utilizing BRED for field entry on tablets. To facilitate the collection and location of assessment data, the six four-man teams produced measure two-line floor plans of each building to be assessed, where Government-furnished plans did not exist. Cost: \$1.37M (fee) Role: Architect responsible for exterior assessments	<input type="checkbox"/> Check if project performed with current firm		
(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Mid Atlantic Region (DSC Richmond VA, Naval Supply Philadelphia PA, Tobyhanna and Letterkenny Army Depot, PA)	(2) YEAR COMPLETED		
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	
d. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: BUILDER facility condition assessments for DLA at four installations including a fence to fence assessment at Defense Supply Center Richmond. The assessments include 4 man teams providing comprehensive assessment and data collection over a 2 week period in BRED and three separate site visits scheduled over the 400 day POP. Cost: \$2.2M (fee) Cost: \$1.1M Role: Architect responsible for interior assessments	<input type="checkbox"/> Check if project performed with current firm		
(1) TITLE AND LOCATION (City and State) Border Patrol Facility Condition Assessment – Arizona and California	(2) YEAR COMPLETED		
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)	
e. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Performed a full-service facility condition assessment of several border patrol facilities in California and Arizona. Analyzed, and summarized the condition of each Facility (BU) and its respective systems. This included the determination of the Present Replacement Value (PRV), and the Facility Condition Index (FCI) of each facility. Cost: \$ 979K (Fee) Role: Architect Assessor	<input type="checkbox"/> Check if project performed with current firm		

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

12. NAME Michael De Leon, PE	13. ROLE IN THIS CONTRACT Civil Engineer	14. YEARS EXPERIENCE a. TOTAL b. WITH CURRENT FIRM 24 15	
15. FIRM NAME AND LOCATION (City And State) MHZ JV – Dallas, TX			
16. EDUCATION (DEGREE AND SPECIALIZATION) 1998, BS, Civil Engineering, Texas A&M University	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Engineer: TX		
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, Etc.) Michael has over 20 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.			
19. RELEVANT PROJECTS			
(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Mid Atlantic Region (DSC Richmond VA, Naval Supply Philadelphia PA, Tobyhanna and Letterkenny Army Depot, PA)		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) ONGOING N/A	
a.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: BUILDER facility condition assessments for DLA at four installations including a fence to fence assessment at Defense Supply Center Richmond. The assessments include 4 man teams providing comprehensive assessment and data collection over a 2 week period in BRED and three separate site visits scheduled over the 400 day POP. Cost: \$2.2M (fee) Role: Lead Civil Engineer providing assessment and data collection of all site and infrastructure assets.		
(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Defense Supply Center Columbus & Wright-Patterson Air Force Base, OH		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) 2018 N/A	
b.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: This task order provided all services required to perform FCAs for DLA. These FCAs were accomplished utilizing the BUILDER and BRED on tablets in the field. Assessed 75 buildings amounting to 3.67M SF. Also collected real property data and condition of 140 site assets across the 75 acre installation in Columbus. Cost: \$1.56M (fee) Role: Lead Civil Engineer providing assessment and data collection of all site and infrastructure assets.		
(1) TITLE AND LOCATION (City and State) Fort Bliss Replacement Hospital Infrastructure		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) 2013 2019	
c.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: 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 300 AC site. Cost: \$85M (construction) Role: Lead Civil Engineer		
(1) TITLE AND LOCATION (City and State) AFCEC Sustainable Infrastructure Assessment Program, Multiple Locations		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) 2015 N/A	
d.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Project consisted of Facility Condition Assessments and Real Property Installed Equipment data entry in CERL's BUILDER program, ASHRAE Level 2 energy audit, space utilization surveys in the Air Force GIS-based S-file, and a real property inventory audit for Hill AFB, Whiteman AFB, Wright Patterson AFB, and nine Air Force Reserve and Air National Guard bases nationwide. This project was performed for the Air Force to allow for long-term capital planning. The survey included research of the existing systems including technical analysis of existing MEP systems and photographic archiving of existing physical plant systems. This research and analysis included examination of all building systems to determine if alternative/more efficient energy measures could be taken to improve the facility as well as to provide a long-term economic payback. Cost: \$11.2M (fee) Role: Lead Civil Engineer/Civil Engineer Assessor		
(1) TITLE AND LOCATION (City and State) Border Patrol Facility Condition Assessment – Arizona and California		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) 2017 N/A	
e.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Performed a full-service facility condition assessment of several border patrol facilities in California and Arizona. Analyzed, and summarized the condition of each Facility (BU) and its respective systems. This included the determination of the Present Replacement Value (PRV), and the Facility Condition Index (FCI) of each facility. Cost: \$ 979K (Fee) Role: Civil Site Assessor		

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

12. NAME Jim Wilson, PE, LEED AP	13. ROLE IN THIS CONTRACT Civil Engineer	14. YEARS EXPERIENCE a. TOTAL b. WITH CURRENT FIRM 33 9	
15. FIRM NAME AND LOCATION (City And State) MHZ JV – New Orleans, LA			
16. EDUCATION (DEGREE AND SPECIALIZATION) 1988, BS, Civil Engineering, Michigan Technological University	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 Engineer with an extensive design portfolio consisting of USACE design projects across the USACE SWD footprint. He has over 30 years of civil engineering experience and has been the designer of record for all recent task orders completed for the Ft. Worth District. Mr. Wilson has civil works and military design experience inclusive of recent and relevant military design for the Tulsa and Albuquerque Districts. Mr. Wilson also has extensive construction phase experience, inclusive of engineering during construction, response to RFI's, input during the Design-Build bidding process, and review and approval of shop drawings.			
19. RELEVANT PROJECTS			
(1) TITLE AND LOCATION (City and State) New Science & Technology On-orbit Research Mission Operations Center (STORM), Kirtland AFB, Albuquerque, NM – USACE Albuquerque District		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) ONGOING 2023	
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Development of a planning charrette report, Design-Build RFP, and solicitation support for a 3,800 SF addition and the upgrade of approximately 4,800 square feet of existing space within Building 592 at Kirtland Air Force Base. The project will require a new HVAC system and the evaluation and replacement design of the fire suppression system, site utilities and existing parking infrastructure. Mr. Wilson is the lead civil engineer for the project. He is responsible for developing the civil site changes associated with the building addition, developing the Design-Build RFP civil scope, and providing civil site design input for the planning charrette. Mr. Wilson is also responsible for working with the cost estimation team to establish the required civil quantities and expected unit prices. Cost: \$4.4M Fee: \$450K Role: Lead Civil Engineer			
(1) TITLE AND LOCATION (City and State) Systems Integration Laboratory (SIL) for Long-Range Standoff (LRSO) Renovation, Tinker AFB, Oklahoma City, OK – USACE Tulsa District		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) ONGOING 2023	
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Development of the complete design and preparation of construction documents (plans, specs, life cycle cost analysis and design analysis for a 7,800 SF interior renovation of a high bay space within the current perimeter of Building 3220 at Tinker Air Force Base, to function as a LRSO missile testing lab. The two-high bay spaces are being converted to a missile testing lab and will include a conference room, communications room, and entry security vestibule. Mr. Wilson is the lead civil engineer for the project, he is responsible for providing ramp design and ramp access (interior and exterior), the placement and design of a natural gas line, and the establishment of the utility yard associated with the conversion of a lean-to area to interior laboratory space. Cost: \$3.4M Fee: \$400K Role: Lead Civil Engineer			
(1) TITLE AND LOCATION (City and State) Replacement of Granger Lake Office Building, Granger, TX – USACE Ft. Worth District		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) 2019 2022	
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Development of a design-bid-build package (plans and specs) for the creation of a new Lake office management building and the demolition of the existing facilities. Design services included civil, structural, electrical, and mechanical engineering, as well as architectural and landscape architectural design. Mr. Wilson was the lead civil engineer for the project. He established the site design, designed the septic field, government parking lot, fencing, force protection, and set the drainage elevations inclusive of drainage outlets and new drainage infrastructure. Cost: \$3.2M Fee: \$358K Role: Lead Civil Engineer			
(1) TITLE AND LOCATION (City and State) Ascension Parish Environmental Infrastructure Sewer Treatment Plant Design, Hillaryville, LA – USACE New Orleans District		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) ONGOING 2024	
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Development of a design-bid-build package (plans and specs) for the creation of a 1.8 million gallon per day wastewater treatment plant as part of the Federal Section 219 Environmental Infrastructure program. Services consisted of detailed civil/structural/mechanical/electrical/architectural/geotechnical analyses, cost estimating, and value engineering. Mr. Wilson was the lead civil engineer for the project. He was responsible for establishing the site layout and is currently designing the drainage features associated with the site conversion. He has also worked with the architect to appropriately place the site buildings. Cost: \$21.5M Fee: \$1.5M Role: Lead Civil 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. WITH CURRENT FIRM
William Wallace, PE, SECB, NCEES, MLSE	Structural Engineer	42	11

15. FIRM NAME AND LOCATION (City And State)

MHZ JV – Fort Worth, TX

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
1982, MS, Civil Engineering (Structures), University of Texas at Arlington	Professional Engineer: TX, NM, OK, FL, WA
1978, BS, Civil Engineering, University of Texas at Arlington	Structural Engineering Certification Board Certified

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

Prior to joining the firm William spent 23 years with USACE Fort Worth District, achieving the title of Chief Structural Engineer for the district; in 2010 he left the Corps and joined USDA's Soils Conservation Survey as Senior Structural Engineer, in which role he gained a national level of experience, designing projects in all 50 states, including all "high" seismic zone areas such as Hawaii and California. 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.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
FAA Southwest Region Headquarters Program of Requirements (POR) – Fort Worth, TX	2015	2019
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
a. Scope: Structural Engineering services for the development of programming documents for a new 357,000-square-foot Headquarters facility. The POR contains functional design criteria, space plans, adjacencies, stacking diagrams, typical or special room vignettes, and building security requirements necessary to develop building floor plans. Additional criteria were developed to describe site requirements such as parking, secured parking, a helipad, and connections to local utilities. Cost: \$120M (Construction) Role: Structural Engineer		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Border Patrol Facility Condition Assessment – Arizona and California	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
	2017	N/A
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
b. Scope: Performed a full-service facility condition assessment of several border patrol facilities in California and Arizona. Analyzed, and summarized the condition of each Facility (BU) and its respective systems. This included the determination of the Present Replacement Value (PRV), and the Facility Condition Index (FCI) of each facility. Cost: \$ 979K (Fee) Role: Lead Structural Engineer		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Repair and Renovation Projects, Fort Bliss, Texas	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
	2013	2014
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
c. Scope: Feasibility assessment of a historic hangar and structural assessment of 24 historic wood framed warehouses was conducted. Exterior and interior architectural and HVAC improvements were designed for the hangar. Inspected every primary structural member of each of the 24 buildings' frames, identifying cracks, checks, and other damage. Based on these findings, members were de-rated and frame analyses performed to determine each warehouse's structural capacity. SRM Design-build RFPs and cost estimates were prepared. Cost: \$4.2M (Construction) Role: Lead Structural Engineer		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Fort Bliss Warehouse Assessments, Fort Bliss, TX	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
	2011	2011
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
d. Scope: William Wallace headed up the structural team to perform a condition assessment of 24 historic wood-framed warehouses at Fort Bliss. Using man-lifts, Wallace's team of structural engineers inspected every primary structural member of each of the 24 buildings' frames, identifying cracks, checks, and other damage. Based on these findings, members were de-rated and frame analyses performed to determine each warehouse's structural capacity. Cost: \$995K (fee) Role: Lead Structural Engineer		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Renovations of the 1st Cavalry Headquarters – Fort Hood, TX	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
	2018	2019
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
e. Scope: 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. HZ provided full design construction documents and specifications (SpecsIntact) for the civil, structural, mechanical, electrical, telecom, plumbing and landscape disciplines. Cost: \$48M Role: Lead Structural 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. WITH CURRENT FIRM
Wesley Jacobs, PE	Structural Engineer	23	6

15. FIRM NAME AND LOCATION (City and State)

HDR – Omaha, NE

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
1988, BS, Civil Engineering, Louisiana State University	Professional Engineer: TX

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

Wesley has more than 20 years of experience in the engineering field. He has demonstrated expertise in several aspects of civil and structural design/inspection, including dams, spillways, bridges (high-level river crossings; movable bridges; overpasses; rail bridges with common elements such as complex geometry; precast prestressed concrete (PPC) girder; steel plate girder; curved steel plate girder; pier design/protection; cofferdams; column and pile bent design), sign structures, urban/rural roadway/drainage design, levees, retaining walls, floodwalls, sector gates, miter gates, closure gates (highway/rail), culverts, and force mains. Wesley has extensive BUILDER project delivery experience in all project stages and has served as lead civil BUILDER assessor on more than 16M SF of CONUS space for the Marine Reserve Command during the past four years. He has completed all seven CERL BUILDER learning modules and BUILDER Remote Entry Database and BUILDER Custom Reports demonstration videos. Additionally, he has completed Assessor Calibration Training.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State) AMC BUILDER SMS Implementation Tobihanna Army Depot, PA, and Joint Systems Manufacturing Center (JSMC), Lima, OH	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
a.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: HDR supported AMC to implement FCAs using BUILDER SMS. The system's capability to store real property building information and detailed system inventory was used to identify building components and their key life-cycle attributes such as age, material type, and capacity. Assessments of 6.1M SF at Tobihanna Army Depot and 1.6M SF at JSMC were conducted in accordance with the requirements of this TO. The objective of this project was to provide technical assistance to AMC in identifying, planning, and prioritizing work requirements and developing short- and long-term work plans to utilize the BUILDER application. Cost: \$1.25M (fee) Role: Structural Engineer	2019	N/A
	(1) TITLE AND LOCATION (City and State) USACE Galveston, Feasibility Study and Design – Galveston, TX	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: This project is providing surveys, investigations, comprehensive planning, technical analysis, modeling, engineering, design, construction phase services, and any necessary project and technical requirements that support the design and implementation of the project features. Wesley is providing engineering design through detailed plans, specifications, design/build request for proposal packages, design analysis/design documentation report preparation, and value engineering for the Freeport levee system improvements and ecosystem restoration. Cost: \$2M (fee) Role: Structural Engineer	ONGOING	N/A
	(1) TITLE AND LOCATION (City and State) BUILDER SMS Implementation, North Dakota Army National Guard, Phases I & II – Bismarck, ND	(2) YEAR COMPLETED	
c.		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: This project Conducted BUILDER FCAs on 14 building systems across the client's inventory. Wesley performed BUILDER FCAs of civil/structural elements, including taking photographs and noting observations of conditions. Cost: \$968K. Role: Structural Assessor	2020	N/A
	(1) TITLE AND LOCATION (City and State) San Joaquin Area Flood Control Agency (SJAFC), Smith Canal – Floodwall and Closure Structure – Stockton, CA	(2) YEAR COMPLETED	
d.		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: This floodwall was designed to USACE standards and will withstand static hydraulic, hydrodynamic, vessel collision, and seismic loading conditions (including liquefaction). HDR's design is providing a 200-year level of protection. Wesley was responsible for the structural design of the 1,000-foot (ft)-long by 21-ft tall floodwall comprised of a dual-arched steel sheet pile/earthen-filled structure with diaphragms, as well as a 50-ft-by-21-ft steel miter gate. Cost: \$1.7M (fee) Role: Structural Engineer	2018	N/A
	(1) TITLE AND LOCATION (City and State) USACE Kansas City, Mission Planning Cell – McConnell AFB, KS	(2) YEAR COMPLETED	
e.		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: This project provided USARC with technical assistance in physically inventorying and assessing the condition of 9.8M SF of real property buildings to implement FCAs using BUILDER SMS. Cost: \$2.3M. Role: Wesley served as a structural assessor and performed visual inspections of various components to determine their condition. Cost: \$595K (fee) Role:	2018	2019

**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. WITH CURRENT FIRM
William Krasner, PE	Mechanical Engineer	19	9

15. FIRM NAME AND LOCATION (City And State)

MHZ JV – Houston, TX

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
2011, MS, Engineering Management, University of Texas at Austin 1999, BS, Mechanical Engineering, Rice University	Professional Engineer: TX, LA, NM

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

Mr. Krasner provides design for plumbing, process piping, steam systems, fueling, irrigation, pumping stations, lift stations, well/hydro-pneumatic tank water systems and site utility systems. He has also been responsible for designing and developing pump stations, lift station and other site/civil works projects for various governmental, educational, commercial and residential buildings. He has performed energy analyses and energy audits, prepared condition assessments for various types of facilities, and coordinated mechanical, electrical, and plumbing design teams for major projects.

19. RELEVANT PROJECTS

a.	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	Facility Condition Assessments for Defense Logistics Agency, Tinker Air Force Base, OK	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
b.	Scope: These FCAs were accomplished utilizing the BUILDER along with BRED data entry in the field via tablets. To facilitate the collection and location of assessment data, the teams produced measured two-line floor plans, using AutoCAD, of each building. 53 buildings and 3.1M SF were input into BRED during the two week field assessment. Cost: \$1.33M (fee) Role: Lead Mechanical Engineer	(2) YEAR COMPLETED	
	(1) TITLE AND LOCATION (City and State)	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
c.	Facility Condition Assessments for Defense Logistics Agency, Defense Supply Center Columbus & Wright-Patterson Air Force Base, OH	2018	N/A
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
d.	Scope: This task order provided all services required to perform FCAs for DLA. These FCAs were accomplished utilizing the BUILDER and BRED on tablets in the field. Assessed 75 buildings amounting to 3.67M SF. Also collected real property data and condition of 140 site assets across the 75 acre installation in Columbus. Cost: \$1.56M (fee) Role: Lead Mechanical Engineer	(2) YEAR COMPLETED	
	(1) TITLE AND LOCATION (City and State)	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
e.	Facility Condition Assessments for Defense Logistics Agency, Warner Robins Air Force Base, GA	2019	N/A
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
d.	Scope: FCA for 3.3M SF of facilities including 47 buildings. The work was accomplished utilizing the BUILDER utilizing BRED for field entry on tablets. To facilitate the collection and location of assessment data, the six four-man teams produced measure two-line floor plans of each building to be assessed, where Government-furnished plans did not exist. Cost: \$1.37M (fee) Role: Lead Mechanical Engineer	(2) YEAR COMPLETED	
	(1) TITLE AND LOCATION (City and State)	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
e.	AFCEC Sustainable Infrastructure Assessment Program, Multiple Locations	2015	N/A
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
e.	Scope: Project consisted of Facility Condition Assessments and Real Property Installed Equipment data entry in CERL's BUILDER program, ASHRAE Level 2 energy audit, space utilization surveys in the Air Force GIS-based S-file, and a real property inventory audit for Hill AFB, Whiteman AFB, Wright Patterson AFB, and nine Air Force Reserve and Air National Guard bases nationwide. This project was performed for the Air Force to allow for long-term capital planning. The survey included research of the existing systems including technical analysis of existing MEP systems and photographic archiving of existing physical plant systems. This research and analysis included examination of all building systems to determine if alternative/more efficient energy measures could be taken to improve the facility as well as to provide a long-term economic payback. Cost: \$11.2M (fee) Role: Lead Mechanical Engineer	(2) YEAR COMPLETED	
	(1) TITLE AND LOCATION (City and State)	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
e.	Facility Condition Assessment for 9900 Brookhollow Building – Houston, TX	2015	N/A
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
e.	Scope: Our team was tasked with conducting a comprehensive facility condition assessment of 9900 Brookhollow building and determining the total probable costs to rectify existing deficiencies in the building and developing a maintenance renewal forecast. This was accomplished by first conducting a thorough, visual survey of the building's systems to identify existing deficiencies, code issues and remaining useful life expectancies and to perform a structural analysis of the building to identify structural deficiencies. Based on the results of the survey, structural analysis and the renewal forecast, recommendations along with respective probable project costs were made to repair, renovate or replace the building. Cost: \$40K (fee) Role: Mechanical Engineer	(2) YEAR COMPLETED	

**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. WITH CURRENT FIRM
Jaime Espinosa, PE, LEED AP BD+C	Mechanical Engineer	17	17

15. FIRM NAME AND LOCATION (City And State)

MHZ JV – Fort Worth, TX

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
2004, BS, Mechanical Engineering, University of Texas at San Antonio	Professional Engineer: TX LEED Accredited Professional

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

Espinosa has over 15 years of experience in practicing mechanical engineering. His experience includes design for new construction and renovations for federal buildings, educational, industrial, and commercial facilities. Espinosa is also experienced with construction administration, whether it is as a design professional or as an on-site field representative. His HVAC experience includes designing around hydronic four-pipe system with chillers and cooling towers, ground-source heat pumps, packaged rooftop systems, computer room systems and other HVAC systems. Espinosa has provided mechanical design efforts for many projects located in Texas, Oklahoma, New Mexico and other states and is knowledgeable of the various Codes and Standards.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Facility Condition Assessments for Defense Logistics Agency, Tinker Air Force Base, OK	2020	N/A
a. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: These FCAs were accomplished utilizing the BUILDER along with BRED data entry in the field via tablets. To facilitate the collection and location of assessment data, the teams produced measured two-line floor plans, using AutoCAD, of each building. 53 buildings and 3.1M SF were input into BRED during the two week field assessment. Cost: \$1.33M (fee) Role: Mechanical Engineer Assessor	<input type="checkbox"/> Check if project performed with current firm	
(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Defense Supply Center Columbus & Wright-Patterson Air Force Base, OH	(2) YEAR COMPLETED PROFESSIONAL SERVICES 2018	CONSTRUCTION (if applicable) N/A
b. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: This task order provided all services required to perform FCAs for DLA. These FCAs were accomplished utilizing the BUILDER and BRED on tablets in the field. Assessed 75 buildings amounting to 3.67M SF. Also collected real property data and condition of 140 site assets across the 75 acre installation in Columbus. Cost: \$1.56M (fee) Role: Mechanical Engineer Assessor	<input type="checkbox"/> Check if project performed with current firm	
(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Warner Robins Air Force Base, GA	(2) YEAR COMPLETED PROFESSIONAL SERVICES 2019	CONSTRUCTION (if applicable) N/A
c. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: FCA for 3.3M SF of facilities including 47 buildings. The work was accomplished utilizing the BUILDER utilizing BRED for field entry on tablets. To facilitate the collection and location of assessment data, the six four-man teams produced measure two-line floor plans of each building to be assessed, where Government-furnished plans did not exist. Cost: \$1.37M (fee) Role: Mechanical Engineer Assessor	<input type="checkbox"/> Check if project performed with current firm	
(1) TITLE AND LOCATION (City and State) AFCEC Sustainable Infrastructure Assessment Program, Multiple Locations	(2) YEAR COMPLETED PROFESSIONAL SERVICES 2015	CONSTRUCTION (if applicable) N/A
d. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Project consisted of Facility Condition Assessments and Real Property Installed Equipment data entry in CERL's BUILDER program, ASHRAE Level 2 energy audit, space utilization surveys in the Air Force GIS-based S-file, and a real property inventory audit for Hill AFB, Whiteman AFB, Wright Patterson AFB, and nine Air Force Reserve and Air National Guard bases nationwide. This project was performed for the Air Force to allow for long-term capital planning. The survey included research of the existing systems including technical analysis of existing MEP systems and photographic archiving of existing physical plant systems. This research and analysis included examination of all building systems to determine if alternative/more efficient energy measures could be taken to improve the facility as well as to provide a long-term economic payback. Cost: \$11.2M (fee) Role: Mechanical Engineer Assessor	<input type="checkbox"/> Check if project performed with current firm	
(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Mid Atlantic Region (DSC Richmond VA, Naval Supply Philadelphia PA, Tobyhanna and Letterkenny Army Depot, PA)	(2) YEAR COMPLETED PROFESSIONAL SERVICES ONGOING	CONSTRUCTION (if applicable) NA
e. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: BUILDER facility condition assessments for DLA at four installations including a fence to fence assessment at Defense Supply Center Richmond. The assessments include 4 man teams providing comprehensive assessment and data collection over a 2 week period in BRED and three separate site visits scheduled over the 400 day POP. Cost: \$2.2M (fee) Role: Mechanical Engineer	<input type="checkbox"/> Check if project performed with current firm	

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

12. NAME Scott Parma, PE, LEED AP	13. ROLE IN THIS CONTRACT Electrical Engineer	14. YEARS EXPERIENCE a. TOTAL 40 b. WITH CURRENT FIRM 17	
15. FIRM NAME AND LOCATION (City And State) MHZ JV – Fort Worth, TX			
16. EDUCATION (DEGREE AND SPECIALIZATION) 1981, BS, Electrical Engineering, Texas A&M University	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 condition assessment experience includes electrical systems, low voltage systems, fire alarm, security systems, and lighting and emergency power generation. He also has an expertise in high voltage design and planning. He has completed a wide variety of projects in the utility, transportation, and vertical construction markets for both private and Government clients.			
19. RELEVANT PROJECTS			
(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Tinker Air Force Base, OK		(2) YEAR COMPLETED PROFESSIONAL SERVICES 2020 CONSTRUCTION (if applicable) N/A	
a.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: These FCAs were accomplished utilizing the BUILDER along with BRED data entry in the field via tablets. To facilitate the collection and location of assessment data, the teams produced measured two-line floor plans, using AutoCAD, of each building. 53 buildings and 3.1M SF were input into BRED during the two week field assessment. Cost: \$1.33M (fee) Role: Lead Electrical Engineer	<input type="checkbox"/> Check if project performed with current firm	
b.	(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Defense Supply Center Columbus & Wright-Patterson Air Force Base, OH	(2) YEAR COMPLETED PROFESSIONAL SERVICES 2018 CONSTRUCTION (if applicable) N/A	
b.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: This task order provided all services required to perform FCAs for DLA. These FCAs were accomplished utilizing the BUILDER and BRED on tablets in the field. Assessed 75 buildings amounting to 3.67M SF. Also collected real property data and condition of 140 site assets across the 75 acre installation in Columbus. Cost: \$1.56M (fee) Role: Lead Electrical Engineer	<input type="checkbox"/> Check if project performed with current firm	
c.	(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Warner Robins Air Force Base, GA	(2) YEAR COMPLETED PROFESSIONAL SERVICES 2019 CONSTRUCTION (if applicable) N/A	
c.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: FCA for 3.3M SF of facilities including 47 buildings. The work was accomplished utilizing the BUILDER utilizing BRED for field entry on tablets. To facilitate the collection and location of assessment data, the six four-man teams produced measure two-line floor plans of each building to be assessed, where Government-furnished plans did not exist. Cost: \$1.37M (fee) Role: Lead Electrical Engineer	<input type="checkbox"/> Check if project performed with current firm	
d.	(1) TITLE AND LOCATION (City and State) AFCEC Sustainable Infrastructure Assessment Program, Multiple Locations	(2) YEAR COMPLETED PROFESSIONAL SERVICES 2015 CONSTRUCTION (if applicable) N/A	
d.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Project consisted of Facility Condition Assessments and Real Property Installed Equipment data entry in CERL's BUILDER program, ASHRAE Level 2 energy audit, space utilization surveys in the Air Force GIS-based S-file, and a real property inventory audit for Hill AFB, Whiteman AFB, Wright Patterson AFB, and nine Air Force Reserve and Air National Guard bases nationwide. This project was performed for the Air Force to allow for long-term capital planning. The survey included research of the existing systems including technical analysis of existing MEP systems and photographic archiving of existing physical plant systems. This research and analysis included examination of all building systems to determine if alternative/more efficient energy measures could be taken to improve the facility as well as to provide a long-term economic payback. Cost: \$11.2M (fee) Role: Lead Electrical Engineer	<input type="checkbox"/> Check if project performed with current firm	
e.	(1) TITLE AND LOCATION (City and State) Border Patrol Facility Condition Assessment – Arizona and California	(2) YEAR COMPLETED PROFESSIONAL SERVICES 2017 CONSTRUCTION (if applicable) N/A	
e.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Performed a full-service facility condition assessment of several border patrol facilities in California and Arizona. Analyzed, and summarized the condition of each Facility (BU) and its respective systems. This included the determination of the Present Replacement Value (PRV), and the Facility Condition Index (FCI) of each facility. Responsible for all Low Voltage, Electrical Systems and Lighting. Cost: \$ 979K (Fee) Role: Electrical Site Assessor	<input type="checkbox"/> Check if project performed with current firm	

**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. WITH CURRENT FIRM
Leonard Carthon, PE, RA, LEED AP	Electrical Engineer	47	17

15. FIRM NAME AND LOCATION (City And State)

MHZ JV – Houston, TX

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
1976, Bachelor of Architecture, Auburn University	Professional Engineer: TX
1975, BS, Building Construction, Auburn University	LEED Accredited Professional
1969, BS, Electrical Engineering, Auburn University	

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

Leonard's experience includes military master planning, facilities planning, facility condition assessment, architecture, and electrical engineering. He has also prepared or assisted in the preparation of energy studies, economic analyses, compliance studies, and feasibility studies.

19. RELEVANT PROJECTS

	(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
		PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
a.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: These FCAs were accomplished utilizing the BUILDER along with BRED data entry in the field via tablets. To facilitate the collection and location of assessment data, the teams produced measured two-line floor plans, using AutoCAD, of each building. 53 buildings and 3.1M SF were input into BRED during the two week field assessment. Cost: \$1.33M (fee) Role: Electrical Engineer Assessor	<input checked="" type="checkbox"/> Check if project performed with current firm	N/A
b.	(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Defense Supply Center Columbus & Wright-Patterson Air Force Base, OH	(2) YEAR COMPLETED 2018	PROFESSIONAL SERVICES CONSTRUCTION (if applicable) N/A
c.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: This task order provided all services required to perform FCAs for DLA. These FCAs were accomplished utilizing the BUILDER and BRED on tablets in the field. Assessed 75 buildings amounting to 3.67M SF. Also collected real property data and condition of 140 site assets across the 75 acre installation in Columbus. Cost: \$1.56M (fee) Role: Electrical Engineer Assessor	<input checked="" type="checkbox"/> Check if project performed with current firm	N/A
d.	(1) TITLE AND LOCATION (City and State) Facility Condition Assessments for Defense Logistics Agency, Warner Robins Air Force Base, GA	(2) YEAR COMPLETED 2019	PROFESSIONAL SERVICES CONSTRUCTION (if applicable) N/A
e.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: FCA for 3.3M SF of facilities including 47 buildings. The work was accomplished utilizing the BUILDER utilizing BRED for field entry on tablets. To facilitate the collection and location of assessment data, the six four-man teams produced measure two-line floor plans of each building to be assessed, where Government-furnished plans did not exist. Cost: \$1.37M (fee) Role: Electrical Engineer Assessor	<input checked="" type="checkbox"/> Check if project performed with current firm	N/A
	(1) TITLE AND LOCATION (City and State) AFCEC Sustainable Infrastructure Assessment Program, Multiple Locations	(2) YEAR COMPLETED 2015	PROFESSIONAL SERVICES CONSTRUCTION (if applicable) N/A
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Project consisted of Facility Condition Assessments and Real Property Installed Equipment data entry in CERL's BUILDER program, ASHRAE Level 2 energy audit, space utilization surveys in the Air Force GIS-based S-file, and a real property inventory audit for Hill AFB, Whiteman AFB, Wright Patterson AFB, and nine Air Force Reserve and Air National Guard bases nationwide. This project was performed for the Air Force to allow for long-term capital planning. The survey included research of the existing systems including technical analysis of existing MEP systems and photographic archiving of existing physical plant systems. This research and analysis included examination of all building systems to determine if alternative/more efficient energy measures could be taken to improve the facility as well as to provide a long-term economic payback. Cost: \$11.2M (fee) Role: Electrical Engineer Assessor	<input checked="" type="checkbox"/> Check if project performed with current firm	N/A
	(1) TITLE AND LOCATION (City and State) Condition Assessment of 7 Facilities, Defense Information Systems Agency (DISA) – USACE, Mobile District	(2) YEAR COMPLETED 2011	PROFESSIONAL SERVICES CONSTRUCTION (if applicable) N/A
	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Assessment and study of seven DISA sites to aid DISA in determining the current status of sites in terms of operational and maintenance capabilities and, through the FCA program, allowing DISA to track and project facility maintenance requirements and determine necessary budgeting to maintain and improve the designated facilities. Cost: \$305K (fee) Role: Architect and Electrical Engineer Assessor	<input checked="" type="checkbox"/> Check if project performed with current firm	N/A

**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. WITH CURRENT FIRM
Don Daigle, CVS, CPE	Cost Estimator	37	5

15. FIRM NAME AND LOCATION (City And State)

MHZ JV – Houston, TX

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
1984, AAS, Mechanical Engineering	Certified Professional Specialist (CVS): #201203044
1982, AAS, Electro-Mechanical Engineering	Certified Professional Estimator (CPE) #1.4-0009821-1214

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 is proficient in estimating using MCACES and PACES software. Mr. Daigle has provided cost estimating for multiple USACE districts including all task orders performed for the Fort Worth District. Prior to his professional cost-estimating career, he owned a vertical construction company responsible for commercial and government facilities. Due to this career path, Mr. Daigle is an excellent reference for the design, assessment and cost estimation for the rehabilitation and construction of government facilities.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
New Science & Technology On-orbit Research Mission Operations Center (STORM), Kirtland AFB, Albuquerque, NM	ONGOING	2023
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
a. Scope: Development of a planning charrette report, Design-Build RFP, and solicitation support for a 3,800 SF addition and the upgrade of approximately 4,800 square feet of existing space within Building 592 at Kirtland Air Force Base. The project will require a new HVAC system and the evaluation and replacement design of the fire suppression system, site utilities and existing parking infrastructure. Mr. Daigle participated in the design charrette meeting and developed parametric costs based on the design details discussed. A Level 3 cost estimate was developed and provided with the charrette report. He will also be responsible for providing detailed construction cost estimating using MCACES for the final and corrected final submittals, and for completing the cost line items for the Revised DD 1391. Cost: \$4.4M Fee: \$450K Role: Cost Estimator		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Systems Integration Laboratory (SIL) for Long-Range Standoff (LRSO) Renovation, Tinker AFB, Oklahoma City, OK	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
b. Scope: Development of the complete design and preparation of construction documents (plans, specs, life cycle cost analysis and design analysis for a 7,800 SF interior renovation of a high bay space within the current perimeter of Building 3220 at Tinker Air Force Base, to function as a LRSO missile testing lab. The two-high bay spaces are being converted to a missile testing lab and will include a conference room, communications room, and entry security vestibule. Mr. Daigle is responsible for the development of several cost iterations, inclusive of a parametric cost estimate, development of cost for the planning charrette report, detailed MCACES construction estimates, and will prepare the life cycle cost analysis and updated DD 1391. Cost: \$3.4M Fee: \$400K Role: Cost Estimator		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Replacement of Granger Lake Office Building, Granger, TX – USACE Ft. Worth District	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
c. Scope: Development of a design-bid-build package (plans and specs) for the creation of a new Lake office management building and the demolition of the existing facilities. Design services included civil, structural, electrical, and mechanical engineering, as well as architectural and landscape architectural design. Mr. Daigle was the lead cost estimator for the project. He participated in the design charrette meeting and produced a parametric cost estimate at the conclusion of the design charrette. He also completed detailed MCACES estimates for each of the design submittals. Cost: \$3.2M Fee: \$358K Role: Cost Estimator		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
Cow Bayou Drainage Pump Station Complex Design, Orange Texas – USACE New Orleans District	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input checked="" type="checkbox"/> Check if project performed with current firm	
d. Scope: Development of a 35% design package (plans, specs, DDR) for a new 8,000 cfs drainage pump station complex consisting of multiple flood risk management reduction measures such as a pump station, safe house, floodwalls, and sector gate. Architectural design was provided for the pump house associated with the station. This facility requires restrooms, dormitory housing, and dining hall facilities. Mr. Daigle performed MCACES cost estimating for the project. He worked extensively within the workbooks and through contractor contacts, to gain an understanding of regional pricing for major design features of the project, and relayed quotes and information to USACE for determination of future task orders and project path forward (i.e., design-build or design-bid-build). Cost: \$325M (construction) Fee: \$1.3M Role: Cost Estimator		

**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. WITH CURRENT FIRM
Christopher Conrad, CCP	Cost Engineer	36	11

15. FIRM NAME AND LOCATION (City And State)

Michael Baker International – Alexandria, VA

16. EDUCATION (DEGREE AND SPECIALIZATION)

1989, BS, Civil Engineering, University of Colorado

17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)

Certified Cost Professional, CCP, Worldwide, 2019 3337

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

EIT, 1989, 36579., Association for the Advancement of Cost Engineering International (AACEI) Member

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
New Dormitory Estimates, Altus Air Force Base, Oklahoma, USACE Tulsa District	2017	2018
a. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Provided administrative functions including oversight of the Michael Baker International 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. Michael Baker prepared an independent cost estimate based upon the final RFP submittal documents. Michael Baker used the latest version of MII software to prepare estimates for the dormitory project that includes two two-story buildings for 116 personnel. Cost: \$563,475 (Fee) Role: Senior Cost Estimator		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Fort Gordon AIT Barracks, Savannah, Georgia, USACE Savannah District	2013	2014
b. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Provided administrative functions including oversight of the Michael Baker International 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. Cost: \$460K (Fee) Role: Senior Cost Estimator		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
KC-46A Depot Fuel Maintenance Hangar, Tinker Air Force Base, Oklahoma, USACE Tulsa District	2018	2019
c. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Provided administrative functions including oversight of the Michael Baker International 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. Michael Baker provided a complete, ready-to-advertise, design-build independent cost estimate for the KC-46A Depot Fuel Maintenance Hangar, pavements, POL Line and ADAL alert area fuel yard, and industrial waste line. Cost: \$680K (Fee) Role: Senior Cost Estimator		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Storm Outfall and Bulkhead Condition Assessment and Repair Designs, Naval Station Newport, Middletown, Rhode Island, NAVFAC Mid-Atlantic	2019	2020
d. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Provided administrative functions including oversight of the Michael Baker International 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. Michael Baker inspected, surveyed, and designed repairs for six stormwater system outfalls and five bulkheads at Coddington Cove area located at Naval Station Newport. The project included development of a basis of design report, a 35-percent design package, and a final design package. Cost: \$460K (Fee) Role: Senior Cost Estimator		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
Integrated Air Missile Defense Bid Packages and Site Plans, Qatar, USACE Middle East District	2018	2019
e. (3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Managed QTO and parametric based cost estimating using TRACES MII software covering all Uniformat II WBS codes for the DBB delivery of 228,634 SF of seven IAMD sites, including 48 prototype building types and 300+ facilities for the Qatari Emiri Air Defense Forces (QEADF) in Qatar. Leading the Baker/AECOM Joint Venture, Michael Baker served as both program manager and architectural and engineering designer of record for the design-bid-build and design-build delivery of seven Integrated Air Missile Defense sites, including 52 prototype building types and more than 300 total facilities, for the Qatari Emiri Air Defense Forces. Cost: \$1.3M (Fee) Role: Senior Cost Estimator		

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

12. NAME Kevin Spangler, FPE	13. ROLE IN THIS CONTRACT Fire Protection Engineer	14. YEARS EXPERIENCE a. TOTAL b. WITH CURRENT FIRM 13 12	
15. FIRM NAME AND LOCATION (City And State) Michael Baker International, Inc. – Moon Township, PA			
16. EDUCATION (DEGREE AND SPECIALIZATION) 2008, MS, Fire Protection Engineering, University of Maryland 2006, BS, Agricultural and Biological Engineering, Pennsylvania State University		17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE) Professional Engineer: CA, DC, PA, TX, LA, IL, MS, NC, OH, CT, MN, NV, SC, NY, ID, GA, VA, MI, FL, OK, UT, KS	
18. OTHER PROFESSIONAL QUALIFICATIONS (Publications, Organizations, Training, Awards, Etc.) Mr. Spangler is a registered fire protection engineer experienced with fire protection and detection systems. Responsibilities include provision of design services and performance of independent technical quality reviews for fire protection designs including sprinklers and fire alarms, and review of life safety analysis. Project types include Department of Energy and Department of Defense facilities such as laboratories, fuel cell and corrosion control hangars, shipping and receiving facilities, storage facilities and warehouses, administrative and office buildings, training centers, vehicle maintenance facilities, and hotel, dormitories, and barracks.			
19. RELEVANT PROJECTS			
(1) TITLE AND LOCATION (City and State) Warriors in Transition Barracks Design – Fort Hood, TX		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) 2012 2012	
a.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Responsible for fire protection design including sprinklers, fire alarm and mass notification systems to meet the requirements of the RFP, UFC and NFPA codes. Performed life safety analysis for complete compliance with NFPA 101, IBC and the UFC criteria. Michael Baker provided architecture and engineering services for the apartment-style WT barracks comprised of 180 living units that can house up to 320 soldiers. Michael Baker designed the barracks building and an outdoor courtyard used for passive recreation and vehicular parking. Cost: \$2.5M (fee); Construction: \$40.9M Role: Fire Protection Engineer		
b.	(1) TITLE AND LOCATION (City and State) Equipment Concentration Site Warehouse Design – Fort Hunter Liggett, CA		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) 2012 2012
b.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Responsible for the design of fire protection systems including sprinkler system, fire alarm, and mass notification system. Performed site fire flow test of existing water supply. Michael Baker provided design services for a 92,855 SF equipment concentration site (ECS) warehouse. Cost: \$1M (fee); Construction: \$13.7M Role: Fire Protection Engineer		
c.	(1) TITLE AND LOCATION (City and State) Warriors in Transition Barracks Design – Fort Polk, LA		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) 2013 2013
c.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Reviewed life safety drawings and analysis performed by others. Michael Baker provided design services for the contractor leading the design-build for a Warriors in Transition (WT) Barracks and site work project. The barracks is a three-story, 67,480 SF facility that will house 112 soldiers in 56 dwelling units. Cost: \$1.1M (fee); Construction: \$17.3M Role: Fire Protection Engineer		
d.	(1) TITLE AND LOCATION (City and State) Historic Marine Barracks Washington Building 8 Renovation Design-Build RFP – Marine Barracks Washington, Washington, D.C.		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) 2016 2016
d.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Responsible for the fire sprinkler, fire alarm and life safety analysis for the renovated historic building. Performed the fire hydrant flow tests on site for determining water flow, and reviewed final shop drawings from the contractor. Michael Baker provided design, engineering, and historic preservation services for the renovation of Building 8, a 47,000 SF historic structure. Cost: \$2.3M (fee); Construction: \$21M Role: Fire Engineer Protection		
e.	(1) TITLE AND LOCATION (City and State) Dormitory Building Renovation – Joint Base McGuire-Dix-Lakehurst, NJ		(2) YEAR COMPLETED PROFESSIONAL SERVICES CONSTRUCTION (if applicable) 2018 N/A
e.	(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE Scope: Performed an internal technical review of the submittal drawings, including the life safety, fire alarm, and fire protection documents. Michael Baker provided architectural and engineering for the renovation of existing floor plans on all floors to provide private sleeping rooms with private baths and closet. This project was not constructed, it was put on hold after the design was completed. Cost: \$575K (fee) Role: Fire Protection 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. WITH CURRENT FIRM
Zach Sachsenmaier, PE, FPE, LEED AP BD+C	Fire Protection Engineer	18	16

15. FIRM NAME AND LOCATION (City and State)

HDR – Omaha, NE

16. EDUCATION (DEGREE AND SPECIALIZATION)	17. CURRENT PROFESSIONAL REGISTRATION (STATE AND DISCIPLINE)
2002, BS, Mechanical Engineering, University of Iowa	Professional Engineer – Fire Protection: NE LEED AP Building Design + Construction

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

Zach has extensive experience working on federal projects as the Fire Protection Engineer of record. He is an expert in building codes, including the UFC, IBC, IFC, and NFPA 101 Life Safety Code, other NFPA Standards, FM Standards, ABA Accessibility Standard facilities, energy code, green building, and other codes/standards. He has a strong foundation in life safety systems, building rated construction systems, automatic sprinkler systems, alternative automatic fire extinguishing system, fire alarm and detection systems, and mass notification systems. His role includes building code analysis, life safety code analysis, design of automatic detection and suppression systems, water supply analysis, and a multi-discipline review of the entire project, which verifies the entire design is code compliant. Training: HDR Project Management.

19. RELEVANT PROJECTS

(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
AMC BUILDER SMS Implementation Tobihanna Army Depot, PA, and Joint Systems Manufacturing Center (JSMC), Lima, OH	2019	N/A
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
a. Scope: HDR supported AMC to implement FCAs using BUILDER SMS. The system's capability to store real property building information and detailed system inventory was used to identify building components and their key life-cycle attributes such as age, material type, and capacity. Assessments of 6.1M SF at Tobihanna Army Depot and 1.6M SF at JSMC were conducted in accordance with the requirements of this TO. The objective of this project was to provide technical assistance to AMC in identifying, planning, and prioritizing work requirements and developing short- and long-term work plans to utilize the BUILDER application. Cost: \$1.25M (fee) Role: Fire Protection Engineer		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
California Air National Guard, Squadron Operations and Air Terminal Facility – Moffett Federal Airfield, CA	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2019	ONGOING	
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
b. Scope: This project provided professional services in support of the CAANG MFA Facility Exchange Agreement (FEA). HDR's scope included an on-site programmatic charrette, design development including on-site design review conferences, a signed and sealed design, and engineering services during construction (ESDC). Zach was the Lead Fire Protection and Life Safety Engineer responsible for developing the code and life safety compliance and fire protection requirements as outlined in UFC 3-605-01 Chapter 9. Cost: \$1.3M. Role: Lead Fire Protection and Life Safety Engineer		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
USACE Kansas City, Water Treatment Plant – Lake City Army Ammunition Plant, MO	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2019	ONGOING	
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
c. Scope: The purpose of this project was to build upon the previous study and provide engineering services to conduct a complete invasive site survey of Building 16, in its current condition. Zach developed the code, life safety, fire protection, and fire alarm and mass notification system including design plans and specifications. Cost: \$2.6M. Role: Lead Fire Protection and Life Safety Engineer		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
USACE Kansas City, Mission Planning Cell – McConnell AFB, KS	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2018	2019	
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
d. Scope: This project consisted of an Open Storage Area, and new SCIF for personnel affiliated with the KC-46 program to efficiently perform their mission. The design compiled with all UFC and ICD 705 requirements. Zach was responsible for the fire protection design and life safety requirements for the renovation of a 12,773 SF Squad Operations building to provide secure space for a KC-46 Mission Planning Cell. Cost: \$595K. Role: Lead Fire Protection and Life Safety Engineer		
(1) TITLE AND LOCATION (City and State)	(2) YEAR COMPLETED	
USACE Louisville, Foreign Materiel Exploitation Laboratory – Wright Patterson AFB, OH	PROFESSIONAL SERVICES	CONSTRUCTION (if applicable)
2018	2019	
(3) DESCRIPTION (Brief scope, size, cost, etc.) AND SPECIFIC ROLE	<input type="checkbox"/> Check if project performed with current firm	
e. Scope: This project provided a planning charrette through final design and construction documents on this 58,480 SF secure laboratory facility which will nearly triple the size of the existing facility and double its lab space, enabling the National Air and Space Intelligence Center (NASIC) to consolidate its operations and take on more projects. Zach identified the appropriate UFCs, ICC codes, and NFPA standards, and developed the code compliance approach and design requirements for this \$30M, 58,480 SF secure facility. Cost: \$3.0M. Role: Lead Fire Protection Engineer		

PART I,
SECTION F

PART I, SECTION F



**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.)

21. TITLE AND LOCATION (City and State)

Facility Condition Assessments for Defense Logistics AgencyDefense Supply Center Columbus (DSCC), OH and Wright-Patterson AFB, Dayton, OH
Contract Number W9126G-15-D-0017 Task Order W9126G18F0187

20. EXAMPLE PROJECT KEY NUMBER

1

22. YEAR COMPLETED

PROFESSIONAL SERVICES

CONSTRUCTION (If applicable)

2018

N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER

USACE Fort Worth District

b. POINT OF CONTACT NAME

Ronnie Price

c. POINT OF CONTACT TELEPHONE NUMBER

817-886-1466

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

A comprehensive survey of DLA facilities worldwide has been executed by USACE to evaluate existing systems from foundation to roof to determine what needed to be repaired or replaced. The resulting reports, in turn, were used as the basis for decisions on capital allocation for contracts needed to keep the DLA facilities operational. As a member of a joint venture team, we served as project manager and provided A-E services to the Fort Worth District in connection with four task orders for BUILDER assessments for Defense Logistics Agency (DLA) at multiple installations: (1) Defense Supply Center Columbus (DSCC) and Wright-Patterson AFB, OH; (2) Warner-Robins AFB, GA; (3) Tinker AFB, OK; and (4) Mid Atlantic Region which included: Defense Supply Center Richmond, Naval Support Activity Philadelphia, Tobyhanna Army Depot and Letterkenny Army Depot (Task Order 4 is still ongoing). On each of these task orders, we provided the Program Manager, Project Manager, Site Coordinator, and Logistics Coordinator, as well as 50% of the field survey teams and design support in the office for production of deliverables. *This project description is applicable to the Defense Supply Center Columbus and Wright-Patterson AFB task order.*

Our team provided a fence to fence facility condition assessment and real property inventory survey of the DSCC which included 3.59M square feet assessed in BUILDER. As with many of our FCA projects, one of the key challenges was staffing and logistics. On this task order approximately 90% of the total facilities to be surveyed (75 buildings; 140 site assets; 3.67 million SF) was required, for which **6 field teams and 24 total assessors were onsite over a period of 14 days**. The purpose of the assessment was to evaluate existing systems from foundation to roof to determine what needed to be repaired or replaced. The BUILDER assessment data was then utilized by USACE as the basis for decisions on capital allocation for future work packages needed to keep the DLA facilities operational.

In addition to buildings and structures, our team was tasked with evaluating linear assets such as fencing, parking, roadways, exterior lighting, bollards, and other miscellaneous exterior site elements. The Site Team, met with the Real Property Office (RPO) to confirm the asset list and existing GIS KMZ map file for cross reference. The Site Team utilized the asset list and map file to assess and locate all assets in a grid approach across the installation. The team takes pictures and assign conditions to the assets real-time. After each day, the team reconciled the asset list and base maps for items missed and worked directly with the RPO to confirm the findings. The historical BUILDER data was reviewed against the new data and is either updated or replaced with a new record. As new items are identified, they are considered "found-on-site" (FOS) and are incorporated into the asset list. The Site Team worked with the RPO to develop or assign asset identification numbers and tags to the FOS for incorporation into the real property database. After the site visit, the team updated the GIS KMZ file with the asset field data to confirm and/or update the location of items, and locate linear and individual assets in the GIS database including polygons for locations of extent of pavement and ground coverings. The site team prepared the final asset list, updated BRED and KMZ files for all site data.

This project had a very quick ramp-up time, with **only one week allocated from receipt of signed task order to on-site activities**. This required extensive high-touch communications with SWF and DLA representatives as well as with individual building managers of affected facilities to coordinate a successful onsite assessment.

Size: 75 buildings and 140 site assets; 3,671,898 SF

Total Fee: \$1,557,628

Offeror's % of Work: 50.9%

Our Team	JV Partner
\$792,832	\$764,795

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a Huitt-Zollars, Inc.	Dallas, Texas; Fort Worth, Texas	Project Management, Site Coordination, Field Assessments, A-E Services

**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.)

21. TITLE AND LOCATION (City and State)	22. YEAR COMPLETED	23. PROJECT OWNER'S INFORMATION
PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)	
Facility Condition Assessments for Defense Logistics Agency Warner-Robins Air Force Base, GA Contract Number W9126G-15-D-0017 Task Order W9126G19F0087	2019	N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE Fort Worth District	Ronnie Price	817-886-1466

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

A comprehensive survey of DLA facilities worldwide has been executed by USACE to evaluate existing systems from foundation to roof to determine what needed to be repaired or replaced. The resulting reports, in turn, were used as the basis for decisions on capital allocation for contracts needed to keep the DLA facilities operational. As a member of a joint venture team, we served as project manager and provided A-E services to the Fort Worth District in connection with four task order for BUILDER assessments for Defense Logistics Agency (DLA) at multiple installations: (1) Defense Supply Center Columbus (DSCC) and Wright-Patterson AFB, OH; (2) Warner-Robins AFB, GA; (3) Tinker AFB, OK; and (4) Mid Atlantic Region which included: Defense Supply Center Richmond, Naval Support Activity Philadelphia, Tobyhanna Army Depot and Letterkenny Army Depot; this task order is still ongoing. On each of these task orders, we provided the Program Manager, Project Manager, Site Coordinator, and Logistics Coordinator, as well as 50% of the field survey teams and design support in the office for production of deliverables. *This project description is applicable to the Warner-Robins AFB task order.*

Project Relevancies:

- ✓ Supported SWF/ECSO DLA Program
- ✓ FCA Using BUILDER SMS
- ✓ Detailed Planning and Schedule Management
- ✓ Developed Quality Management Plan

As with many of our FCA projects, one of the key challenges of this assignment was staffing and logistics. An evaluation was made by our Project Manager and Site Coordinator as to anticipated survey productivity levels and coverage, taking into consideration the size, complexity, and location of the buildings. Coordination was required with three DLA operational entities at Robins—DLA Distribution; DLA Disposition; and DLA Aviation. The size of the assessment area (**47 buildings and approximately 3.3 million total SF**) and the schedule for completion of the surveys (**14 days in the field**) required a complement of 25 field staff/assessors for this assignment. In addition to buildings and structures, our team was tasked with evaluating linear assets such as fencing, parking, roadways, exterior lighting, bollards, and other miscellaneous exterior site elements. Many of the DLA facilities were located on the flight line. The work products and documentation for the FCA were accomplished utilizing the **BUILDER Sustainment Management System (SMS)**, which uses web-based software that allows data entry in the field via computer tablet with internet access.

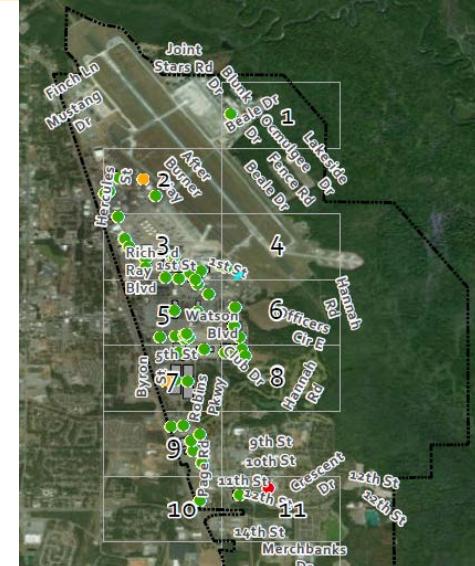
Total period of overall performance was **200 calendar days** from task order award date. This project had a very quick ramp-up time, with **only one week allocated from receipt of signed task order to on-site activities**. This required extensive pre-site visit communications with the Fort Worth District and DLA representatives as well as with individual building managers of affected facilities. To facilitate the collection and location of assessment data, the team produced measured two-line floor plans of each building to be assessed, using the latest version of AutoCAD where government-furnished plans did not exist.

Size: 47 buildings; 3,301,193 SF

Total Fee: \$1,369,563

Offeror's % of Work: 51.9%

Our Team	JV Partner
\$711,861	\$657,702





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.)

21. TITLE AND LOCATION (City and State)	22. YEAR COMPLETED
Facility Condition Assessments for Defense Logistics Agency Tinker Air Force Base, OK Contract Number W9126G-15-D-0017 Task Order W9126G18F0172	PROFESSIONAL SERVICES 2020 CONSTRUCTION (If applicable) N/A

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE Fort Worth District	Ronnie Price	817-886-1466

24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)

A comprehensive survey of DLA facilities worldwide has been executed by USACE to evaluate existing systems from foundation to roof to determine what needed to be repaired or replaced. The resulting reports, in turn, were used as the basis for decisions on capital allocation for contracts needed to keep the DLA facilities operational. As a member of a joint venture team, we served as project manager and provided A-E services to the Fort Worth District in connection with four task orders for BUILDER assessments for Defense Logistics Agency (DLA) at multiple installations: (1) Defense Supply Center Columbus (DSCC) and Wright-Patterson AFB, OH; (2) Warner-Robins AFB, GA; (3) Tinker AFB, OK; and (4) Mid Atlantic Region which included: Defense Supply Center Richmond, Naval Support Activity Philadelphia, Tobyhanna Army Depot and Letterkenny Army Depot; this task order is still ongoing. On each of these task orders, we provided the Program Manager, Project Manager, Site Coordinator, and Logistics Coordinator, as well as 50% of the field survey teams and design support in the office for production of deliverables. **This project description is applicable to the Tinker AFB task order.**

Total period of overall performance was **220 calendar days from task order award date**. This project had a very quick ramp-up time, with **only two weeks allocated from receipt of signed task order to on-site activities**. This required a compressed and comprehensive pre-site visit communication protocol with USACE and DLA representatives to verify the asset list, collect the As-Built drawings, identify security concerns and coordinate the site visit assessment schedule. In addition, we performed an intensive internal assessor orientation to ensure the field assessment teams were familiar with the DLA business rules for BUILDER. Once onsite, we performed a calibration assessment. During the calibration assessment, the teams are broken out into the four primary disciplines: interior architecture, exterior/roof, electrical and mechanical. Working with the QC personnel, each discipline group aligns their assessment ratings, comments and sectioning by completing a mock assessment of the same building. This activity helps to reduce QC issues once the teams leave the field and calibrates the team for consistency utilizing the DLA business rules and DLA Assessment Guidance for FCAs and Installation Support.

The size of the assessment area (**53 buildings and approximately 3.1 million total SF**) and the **schedule for completion of the surveys (14 days)** required a complement of 25 field staff/assessors and technical professionals for this assignment. In addition to buildings and structures, our team was tasked with evaluating linear assets such as fencing, parking, roadways, exterior lighting, bollards, and other miscellaneous exterior site elements. The work products and documentation for the FCA were accomplished **utilizing BUILDER** with the teams utilizing BRED on the field on tablets.

As with many of our FCA projects, one of the key challenges of this assignment was staffing and logistics. An evaluation was made by our Project Manager and Site Coordinator as to anticipated survey productivity levels and coverage, taking into consideration the size, complexity, and location of the buildings. Coordination was required with three DLA operational entities at Tinker—DLA Distribution; DLA Disposition; and DLA Aviation.

Size: 53 buildings; 3,105,000 SF

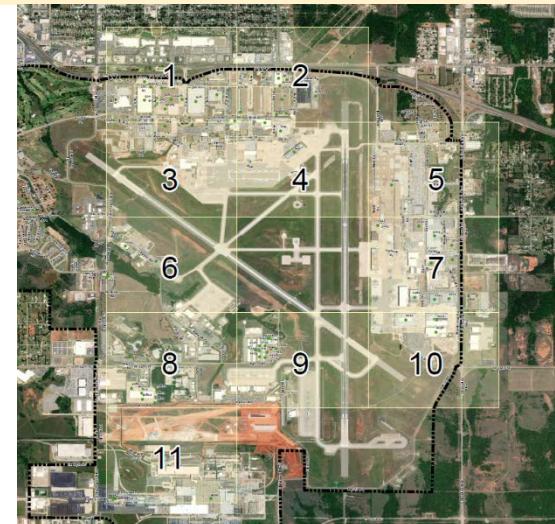
Total Fee: \$1,330,365

Offeror's % of Work: 50.4%

Our Team	JV Partner
\$670,311	\$660,054

Project Relevancies:

- ✓ Supported SWF/ECSO DLA Program
- ✓ FCA Using BUILDER SMS
- ✓ Detailed Planning and Schedule Management
- ✓ Developed Quality Management Plan



Lessons Learned: Security Protocols

A lesson learned was in connection with security protocols for access to certain facilities. We learned after arriving at the installation that our base security passes would not suffice for picture-taking privileges. At Tinker only DLA personnel were allowed to take photos and all such images had to be vetted by security before we could release them for use in BUILDER. Ultimately DLA was required on short notice to furnish two escorts per team to take pictures and we were able to finish ahead of schedule. It is always wise to build in some open time at the end of the schedule to account for this kind of unexpected delay.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

(1) FIRM NAME	(2) FIRM LOCATION (City and State)	(3) ROLE
a Huitt-Zollars, Inc.	Dallas, Texas; Fort Worth, Texas	Project Management, Site Coordination, Field Assessments, A-E Services

**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.)*

21. TITLE AND LOCATION (City and State)

AFCEC Sustainable Infrastructure Assessment Program

Multiple Locations

Contract Number W9126G11D0016 Task Order 0009

20. EXAMPLE PROJECT KEY NUMBER

4

21. TITLE AND LOCATION (City and State)	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION (If applicable)
AFCEC Sustainable Infrastructure Assessment Program Multiple Locations Contract Number W9126G11D0016 Task Order 0009	2015	N/A

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)*

As the Program Manager and lead firm in a joint venture, we provided over 50% of the services required for this project. All key technical disciplines were involved, including architecture, fire protection engineering, mechanical engineering, structural engineering, electrical engineering, communications systems design, and civil engineering.

The project represents a major Air Force Asset Management project. The Air Force, in a response to several Federal initiatives to reduce energy consumption, embarked on a massive capital asset management program in order to collect needed data about their expansive portfolio of facilities. The Air Force Civil Engineering Center (AFCEC) partnered with the United States Army Corps of Engineers (USACE) Southwestern Division, Fort Worth (SWF) to administer the Sustainable Infrastructure Assessment (SIA) Program at 68 Air Force bases worldwide. The intent of the program was to collect the necessary information to support decision making for capital investment programs, financial management, and prioritization of sustainment funds and to comply with US Air Force audits.

We provided survey, assessments, and investigations services for the SIA program at 11 Air Force installations. The team executed 6 major assessments on a combined 33.3 million square feet of facilities. These assessments included:

- Facility Condition Assessment (FCA) using BUILDER – 18 million square feet
- Real Property Installed Equipment Inventory (RPIE) in BUILDER – 18 million sq. ft.
- GIS Space Utilization Surveys entered into S-File – 13 million sq. ft.
- ASHRAE Level II Energy Audits (EAII) – 16 million sq. ft.
- High Performance Sustainable Building Checklists (HPSB) – 16 million sq. ft.
- Real Property Inventories (RPI) – over 7000 ACES-RP assets inventoried

Assessments were performed at Hill Air Force Base, UT; Wright-Patterson Air Force Base, OH; and Whiteman AFB, MO; March ARB, CA; Volk Field ANGB, WI; Grissom ARB, IN; Otis ANGB, MA; Westover ARB, MA; Homestead ARB, FL; Dobbins ARB, GA; McEntire JNGB, SC and Selfridge ANGB, MI.

To accomplish the aggressive program schedule, up to 75 architects and engineers were deployed to the installation for as many as 4 weeks at a time. The team worked through major schedule and security constraints to complete their daily survey tasks. The FCA and RPIE teams, inputting directly into the BUILDER Remote Entry Database (BRED) focused on the condition and inventory of the major architectural and mechanical, electrical and plumbing components, including roofs, windows, air handlers, chillers, pumps, lighting and low voltage electrical panels. The EAII and HPSB teams evaluated similar building components to identify potential energy and water saving projects. These potential work packages were then analyzed for a beneficial life cycle cost analysis. The Space teams collected as-built data about the facility, verifying each rooms dimension as well as collecting the space use data including the number of occupants and room classifications. This information was then compiled into a graphical geographic information system (GIS) geodatabase. The RPI teams conducted field verification of all facilities listed on the HAF 7115 (buildings, support structures and utilities) using the installation map and placing eyes on the assets.

Total Fee: \$11,522,077
Offeror's % of Work: 54.2%

Our Team	JV Partner	Subs
\$6,242,677	\$5,244,823	\$34,577

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; Dallas, TX; Houston, TX	Program Management, Project Management, Site Coordination, Field Assessments, A-E Services

Project Relevancies:

- ✓ Supported SWF/ECSO/Infrastructure Assessment Branch
- ✓ Survey of DLA Facilities
- ✓ FCA Using BUILDER SMS
- ✓ Detailed Planning and Schedule Management

**DLA Scope at Hill Air Force Base**

During the 28-day field survey, our team was denied access to buildings under DLA control, amounting to 2M SF. To compensate for the scope reduction, we added equivalent number of buildings not in the original scope of work but to which we were able to obtain access. At the out-brief on our last day on site, and at the request of Colonel Kolbe, the BCO, we arranged for teams to stay over an extra day to survey a representative portion of the DLA space. DLA scope of work included space survey for the entirety of Bldg. 1160 (305K SF) and Facility Condition Assessment on Bldg. 845 and 849

USACE Official Remarks (Interim ACASS)

"Monica Kent has provided excellent oversight and leadership during the execution of the data collection and report preparation. Her communications skills are paramount in coordinating with the AF POC's at the installations. Their teams are very organized and team oriented. They are eager to work with the Air Force, AFCEC and USACE teams. Kudos to Joe Wells for his organization and communications skills with all the facility managers."



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.)

21. TITLE AND LOCATION (City and State) AMC BUILDER SMS Implementation <i>Tobyhanna Army Depot, PA, and Joint Systems Manufacturing Center (JSMC), Lima, OH</i> Contract Number W9127816D0063 Task Order W9127817F0214	22. YEAR COMPLETED PROFESSIONAL SERVICES 2019	CONSTRUCTION (If applicable) N/A
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23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER USACE Mobile/AMC	b. POINT OF CONTACT NAME Brian Peck	c. POINT OF CONTACT TELEPHONE NUMBER 251.690.2750
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24. BRIEF DESCRIPTION OF PROJECT AND RELEVANCE TO THIS CONTRACT (Include scope, size, and cost)
HDR successfully executed over 7.7M SF of BUILDER SMS assessments at Tobyhanna Army Depot and JSMC. HDR developed work packages prepared into auditable DD Forms 1391 for projects at three mission critical facilities and provided comprehensive BUILDER assessments for projecting future budget and repair or replacement project requirements.

HDR supported AMC to implement FCAs using BUILDER SMS. The system's capability to store real property building information and detailed system inventory was used to identify building components and their key life-cycle attributes such as age, material type, and capacity. Assessments of 6.1M SF at Tobyhanna Army Depot and 1.6M SF at JSMC were conducted in accordance with the requirements of this TO. The objective of this project was to provide technical assistance to AMC in identifying, planning, and prioritizing work requirements and developing short- and long-term work plans to utilize the BUILDER application.

Project Relevancies:

- ✓ Assessed 2.0M+ SF
- ✓ Onsite and Offsite Technical Expertise
- ✓ Direct Access to BUILDER Database
- ✓ Multimedia BUILDER Products and Reports
- ✓ Work Packages/DD1391 Development
- ✓ Use of QC Engine
- ✓ Planning/schedule
- ✓ Cost estimating
- ✓ QM plan

Additionally, HDR provided work packages with complete and auditable DD Forms 1391s for the top three mission critical facilities that required recapitalization and completed a functional quality work environment (QWE) assessment of those facilities in coordination with AMC QWE subject matter experts (SMEs) at both installations.

HDR performed visual inspections of various components to determine an objective and repeatable CI measure, which relates to the general physical health of the asset. A total of 219 buildings were assessed to determine current condition and estimated remaining service life for all building elements in 14 ASTM UNIFORMAT system components, including foundation, superstructure, basement construction, exterior enclosure, roofing, interior finishes, mechanical, plumbing, fire protection, electrical, and other equipment systems. Each component was given an assessment rating, and distressed components with a rating less than Green minus (G-) were documented with photographs and narrative descriptions. The final assessments provided an overall performance rating for all the building assets and their key components.



Size: 3 buildings; 7.7M SF
Total Fee: \$1,662,665.94
Offeror's % of Work: 75.3%

HDR	Subs
\$1,252,020.46	\$410,645.48

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

a (1) FIRM NAME HDR	(2) FIRM LOCATION (City and State) Colorado Springs, CO; Omaha, NE	(3) ROLE Prime
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PART I,
SECTION G

PART I, SECTION G





G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

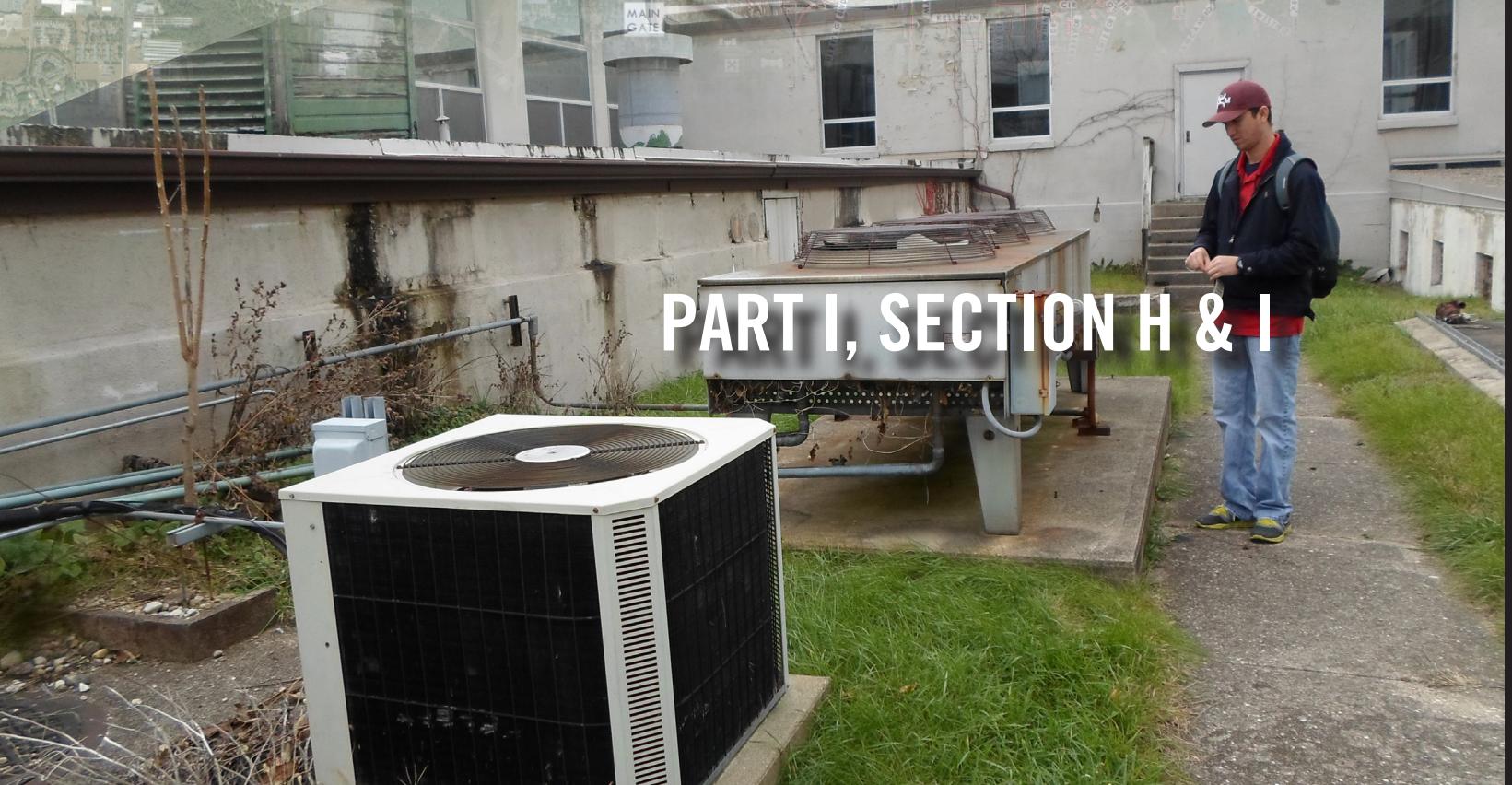
KEY PERSONNEL	26 NAMES OF KEY PERSONNEL	27 ROLE IN THIS CONTRACT	28 EXAMPLE PROJECTS LISTED IN SECTION F				
			1	2	3	4	5
	Monica Kent, PE, LEED AP (MHZ JV)	Program Manager	X	X	X	X	
	Joe Wells, RA (MHZ JV)	Project Manager	X	X	X	X	
	Nicholas Young, PE (MHZ JV)	Project Manager	X	X	X		
	Bill Hoelscher, AIA, LEED AP (MHZ JV)	Architect	X	X	X	X	
	Rob Ruth, RA, LEED AP (MHZ JV)	Architect	X	X	X		
	Michael De Leon, PE (MHZ JV)	Civil Engineer	X	X	X	X	
	Jim Wilson, PE, LEED AP (MHZ JV)	Civil Engineer					
	William Wallace, PE, SECB (MHZ JV)	Structural Engineer					
	Wesley Jacobs, PE (HDR)	Structural Engineer					X
	William Krasner, PE (MHZ JV)	Mechanical Engineer	X	X	X	X	
	Jaime Espinosa, PE, LEED AP BD+C (MHZ JV)	Mechanical Engineer	X	X	X	X	
	Scott Parma, PE, LEED AP (MHZ JV)	Electrical Engineer	X	X	X	X	
	Leonard Carthon, PE, RA, LEED AP (MHZ JV)	Electrical Engineer	X	X	X	X	
	Don Daigle, CVS, CPE (MHZ JV)	Cost Engineer					
	Christopher Conrad, CCP (MBI)	Cost Engineer					
	Kevin Spangler, PE (MBI)	Fire Protection Engineer					
	Zach Sachsenmaier, PE, FPE, LEED AP BD+C (HDR)	Fire Protection Engineer					X

29 EXAMPLE PROJECTS KEY

NO	TITLE OF EXAMPLE PROJECT
1	Facility Condition Assessments for Defense Logistics Agency, Tinker Air Force Base, OK
2	Facility Condition Assessments for Defense Logistics Agency, Wright-Patterson Air Force Base, OH
3	Facility Condition Assessments for Defense Logistics Agency, Robins Air Force Base, GA
4	AFCEC Sustainable Infrastructure Assessment Program, Multiple Locations
5	AMC BUILDER SMS Implementation, Tobyhanna Army Depot, PA, and Joint Systems Manufacturing Center (JSMC), Lima, OH

PART I,
SECTION H & I

PART I, SECTION H & I



**H. ADDITIONAL INFORMATION**

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

INTRODUCTION

The Offeror in this SF330 document, and the Prime A-E for your assignment, will be MSMM Huitt-Zollars, A Joint Venture (MHZ). We are certified by the Small Business Administration as an approved Mentor-Protégé small business enterprise. The two partner firms comprising our Joint Venture are MSMM Engineering, LLC, headquartered in New Orleans, LA (with a Texas office), and Huitt-Zollars, Inc., headquartered in Dallas, TX (with 20 offices in 9 states nationally), both of whom are full-service design firms specializing in military construction projects. This Joint Venture was formed to serve USACE in the areas of military and civil works design and construction, and USACE is the largest single client of both firms individually. In addition, we have experience working together as a team on multiple task orders for USACE Fort Worth District and have recently been awarded IDIQ contracts as team members with both USACE Tulsa and Albuquerque Districts as well as AFCEC and the California National Guard.

Together, we believe that we are a perfect match for this assignment because we offer:



UNRIValed LEVEL OF EXPERIENCE WITH USACE FORT WORTH DISTRICT as demonstrated with multiple recent IDIQ contracts for Facility Condition Assessments, RFP development and delivery of plans and specifications for both ECSO/IIS and military projects. You already know us, and we know you—very well.



DEEP INVOLVEMENT WITH THE DLA CONDITION ASSESSMENT PROGRAM UNDER SWF ECSO/IIS, WITH BUILDER FCA ASSIGNMENTS SPANNING OVER 18.5 M SQUARE FEET IN FIVE STATES, including installations in OK, OH, GA, VA, and PA. Our team is extremely familiar with key DLA issues such as their DLA BUILDER Component Catalog, Assessment Guidance for DLA FCAs, security, scheduling, and coordination of access to restricted facilities.



IN-PLACE PROCESSES AND TRAINED STAFF FOR REAL PROPERTY INVENTORY AND FACILITY CONDITION ASSESSMENT WORK USING BUILDER, expediting our ability to quickly place field survey teams in remote locations for extended periods of time, if necessary. We know how to solve the complex logistical issues related to this type of work.



UNIQUE INSIGHT INTO DLA FACILITY OPERATIONS THROUGH OUR SUB-CONSULTANT, HDR. HDR, who will provide quality control, data management and technical support to our JV prime team, has nearly 20 years of experience with DLA, having executed 200 task orders involving DLA since 2005 totaling over \$175 M. HDR has worked for every Major Subordinate Command within DLA. HDR is also an industry leader in the use of BUILDER SMS for facility condition assessment work for USACE and other agencies.



TEAM LED BY OUR MOST SENIOR PROGRAM MANAGER, MONICA KENT, who has been involved in all our SWF assignments since the highly successful Fort Bliss Expansion Program, including our participation in the SWF's Sustainable Infrastructure Assessment program for AFCEC, our FCAs for DHS/CBP and all of our related DLA work since then. Monica will be joined by two of our most experienced condition assessment Project Managers, Joe Wells and Nick Young. Monica has served with Joe and Nick in their respective proposed roles on all of the MHZ Section F projects.

Our Joint Venture offers a simple team organization featuring our most experienced staff. In addition, we are supplementing the prime team's resources with two sub-consultant firms that are also well known by SWF, HDR and Michael Baker International, both of which are ENR top 100 practices. With thousands of technical staff and dozens of offices nationwide, both of these firms will extend the ability of the Joint Venture to field large teams for multiple, simultaneous task orders when called for and to achieve a national reach to any site utilizing highly qualified staff.

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HDR will provide structural and fire protection engineering, as well as quality control and data management assistance to our team and technical support in all building disciplines and bench strength for field assessments. HDR is one of the foremost experts in the nation on facility condition assessment using BUILDER. The JV team members have worked on many major assignments with HDR for both federal and transportation assignments throughout the US.



Michael Baker International will provide cost and fire protection services and technical support in all building disciplines as well as bench strength for field assessments. MBI has worked directly for SWF ECSO continuously since the group's formation. The MHZ JV team members are working together on 5 additional IDIQ contracts with MBI.

Please refer to our response to (d) FACTOR 4—Past Performance below for a summary of our organizational approach and an estimate of the participation percentage of each of the proposed firms on our team.

(a) FACTOR 1 - SPECIALIZED EXPERIENCE AND TECHNICAL COMPETENCE***(1) Recent experience with real property inventory and facility condition assessments***

Our team has continuously supported DoD customers with facility asset management resulting in capital program development for 15 years. We have extensive experience with DoD's BUILDER Sustainment Management System (SMS). Over the last 10 years we have performed over 80 M square feet of facility condition assessment utilizing the BUILDER asset management system in support of installation needs for both life cycle analysis and short- and long-range work plans for facility management. In addition to condition assessments, we have performed real property inventory of equipment that involved barcoding linked into the BUILDER database for 40 M square feet of Air Force facilities. In addition to the projects shown in Section F we have recently provided services on similar assignments, as follows:

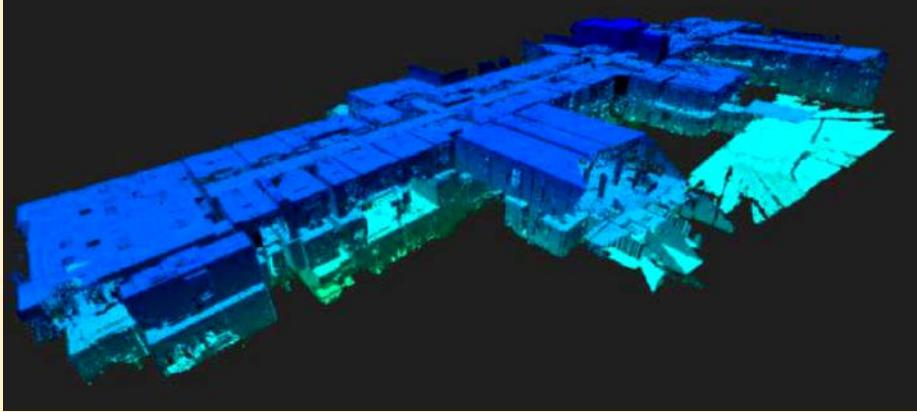
- **DLA CONDITION ASSESSMENTS, MULTIPLE MID-ATLANTIC SITES**—Our team is engaged in this facility condition assessment assignment using BUILDER at three sites under a task order with Fort Worth District. Two of the affected sites, the Defense Supply Center, Richmond, VA, and the Naval Supply Center, Philadelphia, PA are complete, with a third site at Letterkenny, PA, still to be executed. All of the work thus far has been executed under COVID protocols, with limited on-site resources available, which required additional planning/scheduling of DLA staff. The team was not allowed to meet on-site. At Richmond eight assessment teams were used to complete the field survey work in two weeks on more than 5 million SF. In Philadelphia, two assessment teams were used on a total of less than 1 million SF. Total schedule elapsed time is 365 calendar days for Richmond and 270 calendar days for Philadelphia and Letterkenny.
- **CONDITION ASSESSMENTS FOR DODEA IN JAPAN**—Our team provided assessors to perform FCA in BUILDER for DoDEA Pacific in Japan. The team performed data collection and condition assessment at 10 schools located at three installations across the country during a three week trip. The sites visited included MCAS Iwakuni, Misawa Air Force Base, and Yokota Air Force Base. The teams performed condition assessment on the site, structural, roof, interior and exterior, and MEP systems on over 750K SF of DoDEA facilities in Japan. This data was collected in BRED and input into BUILDER once the assessors returned.
- **CONDITION ASSESSMENTS OF CUSTOMS AND BORDER PROTECTION (CBP) FACILITIES, SOUTHERN BORDER**—Under a task order performed for SWF ECSO, we surveyed approximately 1.1 M SF of CBP facilities at multiple sites in the Yuma sector of Arizona and the El Centro sector of California, along the southwestern U.S.-Mexico border. The period of performance was 150 days. The logistics of this assignment were challenging because of the remote locations involved. A real property inventory was provided, along with a detailed FCA report, a current deficiency list with work-item costs, and a 10-year projected and prioritized deficiency list with work-item costs.
- **CONDITION ASSESSMENTS FOR THE DEFENSE INFORMATION SYSTEMS AGENCY (DISA), USACE, MULTIPLE LOCATIONS** - This project called for facility condition assessments at eleven DISA sites located throughout the United States including the four primary computing sites for DISA in the Western Hemisphere in PA, AL, OK, and UT. They are known as SMCs, System Management Centers. The survey and analysis were intended to aid DISA Facility Management in determining the current status of sites in terms of operational and maintenance capabilities and allow DISA to track and project facility maintenance requirements and determine necessary budgeting to maintain and improve the designated facilities. Analysis included investigation of security measures at each site (security cameras, guards, and key card/code access), as well as the condition of structural, architectural, electrical, and mechanical components. Life safety issues were also an important element. Sites included DISA facilities in Mechanicsburg, PA; Montgomery, AL; Oklahoma City, OK; and Ogden, UT, Chambersburg, PA; Dayton, OH, Columbus, OH, St. Louis, MO, San Antonio, TX, Warner Robins, GA; and Pearl Harbor, HI.

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Texas Department of Transportation (TxDOT) Statewide Facilities Survey

Our team is providing TxDOT with a comprehensive database of virtual reality capture images and Level of Development (LOD) 200 BIM models for their use in facility management and as a basis of design for future space planning and renovation projects. Current occupied assets surveyed by the MHZ team included approximately **4.2 million SF of space in nearly 400 individual facilities**. The survey focused on the state District Headquarters, Area Engineer facilities and several state headquarters facilities in order to create accurate and detailed Revit BIM models of the visible as-built conditions at each facilities.



Our prime JV team will be supplemented by HDR, a recognized industry leader in connection with real property inventories and facility condition assessments using BUILDER. HDR will provide quality control and data management services to our team. **HDR has assessed over 317 M SF to date (280.2 M SF CONUS and 37.1 M SF OCONUS)** and has completed fees of over \$210 M in BUILDER assessments at hundreds of locations. They are a trusted partner to both USACE and IMCOM in cradle-to-grave BUILDER SMS implementation. Their early participation in pilot assessments at Joint Base Lewis-McChord led to the development of the Army BUILDER Inventory and Assessment Manual in 2017 (updated in 2019) to include lessons learned and improvements to the BUILDER catalog. A representative sample of a few of HDR's relevant DLA assignments is provided below:

- **ENGINEERING, PLANNING AND GIS SUPPORT, MULTIPLE DLA LOCATIONS**—Comprehensive GIS, master planning and engineering to support the planning and analysis of assets and effective asset management, facility utilization, space and mission requirements at multiple DLA warehouse sites. The goal of the project was to develop a long-range infrastructure plan and preparation of master plans. Project involved BUILDER/Roofer and Paver datasets and multimedia BUILDER products and reports.
- **FACILITY CONDITION ASSESSMENT/DESIGN, DLA BUILDING 8 WAREHOUSE, TOBYHANNA, PA**—Multi-phased facility condition assessment to identify deficiencies at a 241,242 SF DLA general purpose warehouse with high-rack storage, an administrative annex, and raised loading docks. Based on the results of the detailed FCA, HDR developed A-E work packages and design of approximately \$20 M in renovations to the facility.
- **FACILITY CONDITION ASSESSMENT/DESIGN, DLA BUILDING 60, RICHMOND, VA**—Based on the results of a detailed FCA, HDR developed A-E work packages and design of approximately \$8.7 M of renovations to this 187,491 SF Distribution Center.
- **FACILITY CONDITION ASSESSMENT/DESIGN, DLA BUILDING 463 WAREHOUSE, PORTSMOUTH, VA**—Based on the results of a detailed FCA, HDR developed A-E work packages and design of approximately \$5.1 M of repairs and upgrades to this 114,000 SF DLA warehouse.
- **FACILITY CONDITION ASSESSMENT/DESIGN, DLA BUILDING 499 WAREHOUSE, RED RIVER, TX**—Following an initial facility condition assessment of the electrical system, HDR developed A-E work packages and design of approximately \$3.03 M of renovations to this 680,739 SF warehouse.
- **FACILITY CONDITION ASSESSMENT/DESIGN, DLA BUILDING W-131, NORFOLK, VA**—Following detailed FCA, HDR developed A-E work packages and design of approximately \$1.2 M of renovations to this 50,000 SF Equipment Maintenance Shop.

(2) Development of A-E Work Packages

The entire JV team has had extensive experience in the development of A-E work packages for construction, whether full design or design/build RFPs. In addition to the projects highlighted in the previous section as requiring both FCA and development of A-E work packages, MHZ has also had extensive experience in writing Design/Build RFPs using RFP Wizard for small projects. On the Fort Bliss \$4.8 B program we worked with 7 USACE Districts responsible for the 350+ buildings that were constructed via design build delivery. We helped to achieve consistencies among all the districts' RFPs. These efforts include development of RFPs and bridging documents, maintenance of IDC-specific standard RFPs, and instruction in the use of USACE-HQ's Model RFP Template and the RFP Wizard online tool. In total, we assisted the Districts with over 50 D-B RFPs utilizing the RFP Wizard.

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Headquarters Army South, JBSA Bldg 1000, Design-Build RFP

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 DB RFP for the renovation project was completed in just two weeks, just in time to allow the District to successfully bid and award before losing expiring year end funds.

From the AE Performance Rating "Exceptional"

"The A-E firm performed perfectly under an extremely challenging schedule of less than 6 weeks. They stood and delivered a complete RFP within two weeks and supported us superbly during the advertisement."

– Ms. Debra Castens, USACE, Fort Worth District



Designs Using DoD AT/FP Guidelines—Our team is well versed in preparing designs for DoD facilities that meet Antiterrorism and Blast Protection requirements outlined in UFC 4-010-01. We traditionally consider the elements essential to this requirement as part of our project planning, programming, and design criteria development. We have worked with installation personnel to define the Design Basis Threat and appropriate building classifications. In addition, we have studied facilities for Blast Analysis utilizing the Blastx program to determine the impacts of blast loads and progressive collapse. We have used this approach to determine what features were needed for the façade and structural framing members to achieve a level of protection required by the UFC's depending on perimeter security requirements.

Bldg 981 ATFP Blast Mitigation, Kirtland AFB, NM

To bring Building 981 (the Mobility Processing Center) up to the ATFP standards based on UFC 4-010-01 and UFC 4-010-02, the team considered traffic control features to provide perimeter control to meet the standoff requirements, updates to the building enclosure and other site modification. The team provided site analysis, building structural analysis, a concept study of multiple alternatives, construction drawings as well as construction phase services for the selected alternative. Based on the building classification, site analysis of the existing conditions and budget constraints, the team developed plans, specifications, design analysis and a MII Cost Estimate for the installation of new swing arm gate barriers to provide controlled access to the building. The new swing arm required modification to the site and utilities along with new electrical controls and communications system.



Designs Using IBC and UFC Codes—We are proposing a JV team in which the two prime firms and the two sub-consultants are national practices, specializing in the design of projects for USACE and other military clients. Our entire team, as illustrated in our Section E resumes, has had extensive history providing design for DoD customers across the country and are extremely familiar with all standards, codes, and design guidelines that apply to military facilities.

Designs Using LEED Certification Criteria—Our team uses an integrated design process to optimize delivery of defined sustainability and environmental goals both during the construction process and throughout the life of the facility. We emphasize the use of sustainable technologies and systems that not only save energy and reduce landfill waste, but also are practical, maintainable and have the highest return on investment for our clients. Our team follows the guidelines provided in the Whole Building Design Guide (WBDG) to create a successful high-performance building. The WBDG provides concepts and criteria for energy reduction, sustainable design, cost effective systems, construction waste management, building envelope design, physical and psychological comfort, building function and operations, and predictive maintenance. Our team traditionally provides designs that meet the UFC 1-200-02, High Performance, and Sustainable Building Requirements. We have been implementing UFC 1-200-02 since it was first issued in 2013 as well as sustainable designs following ASHRAE 189.1 to ensure the components of a new facility or renovation are sustainable and compliant with the military customers goals.

Total LEED projects completed by the JV Partners



Certified: 42 | Silver: 65 | Gold: 43 | Platinum: 3

Our team's personnel are well versed in energy management and modeling and are experts in applying the ASHRAE 189.1 as well as its replacement, IgCC (International Green Construction Code. For example, our designs incorporate mechanical systems, building envelope, and lighting controls that have been selected based on energy model calculations for energy efficiency and life-cycle cost to provide adequate return on investment. We have designed on-site energy generation systems such as photovoltaic arrays. Typical water saving strategies include designing low-flow plumbing fixtures to reduce water usage and developing

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landscaping designs suitable to the region to eliminate the need for irrigation. We have the expertise to design other water saving strategies such as grey water reclamation systems or rainwater harvesting, when life cycle cost or operation and maintenance requirements make these less desirable.

Our team includes over 150 LEED Accredited Professionals. We have even provided LEED Project Management Services on the \$4.8B Ft Bliss Expansion Program, which required coordination with the military and the Design/Build Contractors. We provided a dedicated sustainability validation team responsible for review of documentation produced by the design/build teams to confirm they would be considered eligible for LEED Silver Certification. We assisted with tracking each design/build project on the nearly 150 projects registered online and in various stages of completion.

(3) Planning and Scheduling Management

As noted throughout our discussion of relevant Section F projects in this submittal, special planning and schedule management issues are extremely important to the success of an FCA assignment, both in meeting overall delivery schedules and in connection with on-site survey activities, which present unique logistical challenges in themselves. They require a priority be placed on advance planning, particularly of the on-site field survey activities, as well as on the implementation of a high-touch communications throughout the task order. These priorities are reflected in our Quality Management plan for BUILER FCA tasks, as discussed under item (6) below.

First, as to overall schedule, a Work Plan is produced that corresponds to the Task Order period of performance received from USACE. Particular emphasis is placed on the day-by-day scheduling of the field survey activities because of the unavoidable inconvenience they place on installation operational personnel. Our Project Manager and Site Coordinator analyze the area of coverage, number of assets to be surveyed, size and density of occupancy within surveyed facilities, etc. to arrive at a daily burn rate and a total number of assessment teams (and their make-up) needed to accomplish the work in the allowable time period. For instance, for our FCA at the Defense Supply Service Center (DSSC) in Columbus, OH (Section F, Project #1), which had to cover 75 buildings; 140 site assets, and approximately 3.67 million SF in 14 days, we determined that we would need 6 field teams and 24 total assessors and staffed the field team accordingly. Reference is made to the table presented under FACTOR 5 – CAPACITY TO ACOMPLISH THE WORK, summarizing representative projects, their total schedule days and the actual days of completion. Our team has achieved a perfect level of schedule compliance, from Kick-Off Meeting to Final Trip Report, in all of our BUILER FCA assessment task orders.

Second, as to advance planning, our Work Plan must reflect special considerations that will tend to vary from site to site, including:

- environmental requirements (such as the presence of hazardous materials such as asbestos, lead-based paint, and PCB's),
- safety protocols (ensuring compliance with OSHA, NFPA, and DLA's own standards),
- other unique considerations such as security protocols at the installation and arrangement of escorts for certain high-security facilities
- permits to use cameras or other visual image-capture devices (such as scanners) which can delay survey crews from meeting their daily assessment goals if arrangements have not been made in advance.

Timely access to individual buildings and property being surveyed, including keys for secured facilities, is critical to staying on schedule in the field. We have also learned that it is often wise to build in to the schedule some open time at the end of the survey period in order to account for this kind of unexpected delay. We have had experience with the logistical issues related to accommodating as many as 100 assessors over a period of as many as four weeks which adds another complexity to issues related to availability of hotels, meeting spaces, and rental cars. Hotel rooms, off-site conference/work spaces, rental cars, meals, etc. must be planned well in advance to assure that appropriate accommodations are available when required.

Third, as to communications, we have learned that the more dialogue that is held before the field activities the better, not just with USACE and DLA management staff but installation officials including DPW/CE Wings and local facility managers. A formal Communications Plan is developed, with typical elements including

- the deliverable reports required by the task order;
- daily team meetings with Site Coordinator in the mornings prior to dispatch to receive assignments and coverage goals for each team for the day;
- team debriefs at the end of the assessor teams' field day to review progress and report any problems encountered;
- progress reports required for each team, each day.

In particular, we believe a presite visit planning meeting at the installation is very valuable to the success of the assessment. This gives the Project Manager and Site Coordinator a chance to verify the building list of facilities to be surveyed and to review available site data, identify challenges with roof access or other building access, and review the building as-built drawings and plan accordingly (including the need for the assessment team to develop floor plans).

(4) Preparing Cost Estimates Using MII and PACES

Project success requires accurate construction cost estimating. MHZ, and our in-house cost estimating staff, understands how to prepare highly detailed and accurate cost estimates using MII software. Our USACE IDC experience includes preparing current working estimates at each design submittal, which is based on the current stage of design. Final estimates are prepared based on the CLIN schedule in which the project is to be advertised. Our cost estimators use their professional judgment, historical data, experience and market research to determine fair and reasonable costs of equipment, material, labor, area cost factors and other expenses related to the construction. Along with our cost estimates, we always provide backup cost data, bid estimates received from vendors, and explanations of assumptions made to populate the estimate.



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We have experience in preparing estimates in accordance with USACE instructions, regulations, and manuals for cost estimates as contained in ER 1110-2-1302, and TM 5-800-4 and in compliance with EFARS 36.2. Our estimators develop costs using the latest standards and resources including the Tri-Services Automated Cost Estimating System, MII, the MII Cost Book databases, commercial cost book databases, PAX newsletters, Davis-Bacon wage as minimum values, commercially available reports, and local site specific sources.

Traditionally, our construction cost estimates for planning and budgeting purposes for projects in the 0 - 15% stages are prepared utilizing the parametric software, PACES, we then work with USACE in summarizing the costs in the PCCost software for planning and budgeting purposes. Even at this early stage, we research the area cost factors, adjustments and scrutinize the contingencies to ensure the project receives adequate funding. As part of our approach to develop accurate cost estimates, our team will involve the cost estimators in the initial project stages - from schematic and charrette facilitation to design development, construction documents, and value engineering.

Our Lead Cost Estimator, Mr. Daigle has over 30 years of experience and has prepared cost estimates on all our USACE IDCs including the current task orders for Fort Worth District. Mr. Daigle is a Certified Professional Estimator and Certified Value Specialist. He has spent his career providing cost engineering for major military and civil works construction projects. Mr. Daigle started his career managing a construction firm and relied on his construction estimates to make a profit. He established his cost expertise by fine-tuning estimates and building a working database. As Lead Cost Estimator, Mr. Daigle continues to think about cost estimating from a construction point of view and has extensive training in MCACES cost estimates for government clients. Mr. Daigle received his 2nd generation MCACES certified training from the USACE recognized MII expert, Ms. Janice Folkers at Michael Baker International. Mr. Daigle has provided MII and PACES cost estimates for projects ranging in size from under \$1M to projects larger than \$100M. He will be supported by sub-consultant *Michael Baker's* Cost Engineer, Chris Conrad who is an expert with nearly a decade of use in MII software and over 30 years of preparing cost estimates.

Proactive Cost Estimating

Recently, MSMM was tasked by USACE with design for three projects within the Infrastructure program in East Baton Rouge Parish. The three 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 MSMM's Cost Estimator, Mr. Daigle identified that bidding the project as three separate packages created a higher overall project cost which exceeded the construction cost limitation. Being proactive, Mr. Daigle 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. Mr. Daigle 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.

(5) Preparing Drawings and Specification

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 designs and electronic files comply with A/E/C CADD Standards for all elements such as layers (or levels), line weights, style, and colors. As part of our quality and communications plan, we will develop a program-specific CADD compliance manual that incorporates the A/E/C CADD Standards and specific electronic file sharing process for remotely located design team members. This document is shared with our entire design Team and sub-consultants, and reviewed at the project initiation stage for each project.

We understand that electronic data and CADD is critical to the design process and consistency in these files is imperative. We follow the **WBDG A/E/C/ CADD Standards** for all drawing file elements and naming conventions. All CADD files are geo-referenced in appropriate survey datum for the project. The construction contract plans and specifications, award CD, and all amendments that generate drawing or specification changes issued during bidding are consolidated and a final conformed set of plans and specifications are produced for construction award.

We have also produced GIS deliverables for USACE that follow the data standards such as Spatial Data Standard for Facilities, Infrastructure and Environment (SDSIE) for all the geospatial database structures and attributes developed. In addition, the JV team boasts over 200 experienced 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.

With over **500** AutoCAD and MicroStation users our JV team has prepared thousands of full design and DB plan sheets in AutoCAD for the Fort Bliss Expansion Program. We prepared **135** full design bid build construction packages with over **17,200** AutoCAD drawings. All of these projects followed the A/E/C Standards, the SWD AEIM and/or the CADD requirements per WBDG.



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(6) Experience in Providing Quality Designs Consistent with the Firm's Design Quality Management Plan

QUALITY MANAGEMENT PLAN

A big part of our success is our approach to Quality Management. We are ISO-9001 compliant, with a published corporate quality policy and procedures manual, compliance of which is regularly audited by an independent source within the firm.

General Approach—It is the policy of both Joint Venture partner firms to develop an overall project-specific Quality Management Plan (QMP) for each IDIQ/IDC contract—and within each contract, a quality program 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, CAD/BIM drafting standards, specifications, design standards and standard details.

The QMP is individualized for each 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 sub-consultants.
- 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 sub-consultants to work in a virtual team arrangement.
- 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:

Description of the project, its individual features and the overall scope of work
Statement of project goals, objectives and standards
Functional requirements of project components
Controlling conditions such as codes, laws, zoning, master plan requirements and environmental restrictions
Delineation of how the work is to be performed, costs, schedule, manpower requirements and sub-consultant requirements and scopes of work
Delineation of methods of communication and documentation between team members and the client and user
Project Quality Control Plan specific to the project, including review schedule

QUALITY MANAGEMENT APPROACH FOR BUILDER FCA ASSIGNMENTS

As mentioned in the foregoing introductory materials, one of the unique benefits that the MHZ team provides to USACE and DLA on this assignment is the inclusion of one of the foremost BUILDER FCA specialists in the country—as well as one of the most trusted DLA advisors, HDR. HDR will be responsible for independent FCA Quality Control and Data Management functions on the JV team. Their record of accomplishment is included throughout this document, and their approach to Quality Control begins with their QC Manager, Duane Hodgens. Duane's plan for Quality Control on this contract is provided below.

Facility Condition Assessment Approach — For RPI/FCA, the first step in the process starts with the creation of the assessment teams and planning the site visit. It is important to establish balanced teams with experienced team leads to guide the team throughout the assessment process. The teams are then given the tools, technology, and training needed to complete a successful assessment. Simultaneously the data management process begins, as the team members are equipped with the most up to date BRED files for the installation. There are typically five different versions of the BRED files within the project process: Initial Export, Field, QC, Draft, and Final.

Field Calibration Exercise — Once the assessment team is on site the most important quality exercise takes place. During every assessment, a calibration exercise is completed prior to any assessment. All teams assess the same building and immediately turn over their BRED file for review by the QC Manager. Not only is the calibration exercise vital for the quality of the assessments, it creates a dialogue between assessment teams that narrows the range of subjectivity between assessors. After the calibration exercise is completed, the teams begin working through their assigned assessments with the QC Team on-site for any necessary discussions or field verification.

Duane Hodgens, PE, LEED AP BD+C
Quality Control Manager



Duane will lead the MHZ JV's BUILDER quality control (QC) program. HDR's proven QC system ensures high quality products and deliverables and confirms compliance with our quality processes and procedures. Duane developed HDR's "QC Engine" tool, which brings a high level of consistency and accuracy for all assessments. He led the development of the mechanical system section for two client-specific BUILDER manuals and, as the QC Manager, verifies the accuracy, consistency, and completeness of BUILDER data and products.



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QC Process — Our clearly defined BUILDER FCA process leverages the HDR QC Engine, ensuring accurate field data collection and integration into the BUILDER database. More than 60 automated data checks align to user's BUILDER Guidance, and customer-specific requirements include cross-reference of related systems to validate that all systems and components have been assessed. Our QC process begins prior to field surveys and extends through all final quality assurance (QA) reviews and comment resolution. The QC process for a typical assessment period is described below and repeated for the project's duration.

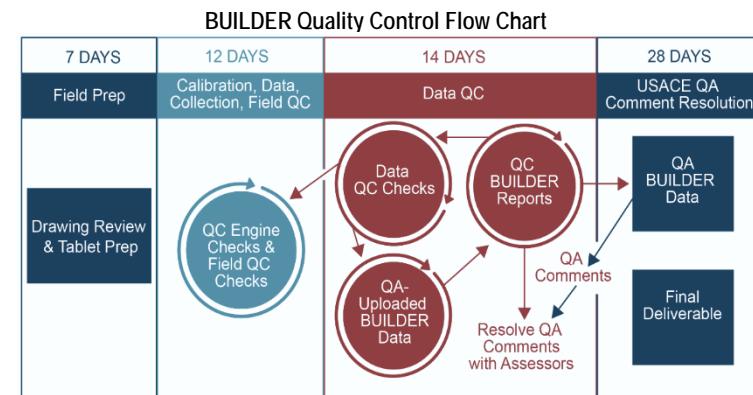
STEP 1 – FIELD PREPARATION

Drawings are reviewed and tablets are loaded with the user's DLA BUILDER Component Catalog and Assessment Guidance, HDR QC Engine, BlueBeam Revu software, and BRED files.

STEPS 2 AND 3 – CALIBRATION, DATA COLLECTION, AND FIELD QC

HDR's QC Engine is utilized throughout the data-collection phase of the assessment. Inspectors also perform a series of building-system-specific QC self-checks prior to leaving each building.

Field QC performs data checks between teams and answers questions to ensure compliance with the DLA BUILDER Assessment Guidance.



STEP 4 – BACK OFFICE DATA QC

Once inspectors perform self-QC on their data, the field QC Manager combines all BRED files and reviews data for all teams.

The QC Manager performs data QC checks for each team's data and assigns corrections to be made by each assessor.

The QC Manager runs QC backchecks of comments, uploads BRED files to the CERL website, and performs final QC on a consolidated BRED file containing all data for the trip prior to submission to the Government.

USACE representatives are notified to review the uploaded BUILDER data and reports.

STEP 5 – USACE QA COMMENT RESOLUTION

Once QA comments are received in Dr. Checks, the Team reviews the comments and provides responses to the USACE team and DLA representatives.

A QA comment resolution call is conducted with the USACE team and DLA representatives.

The QC Team incorporates any changes warranted in the BUILDER data pursuant to the comment resolution call.

STEP 6 – FINALIZE

The QC Team backchecks the online data to verify incorporation of requested changes.

The QC Team conducts an internal coordination call to convey USACE/QA guidance and lessons learned.

Data is accepted for use by DLA or others to generate work packages or continue deferred maintenance protocols of their facilities portfolio using the BUILDER data.

EXPLANATION OF ORGANIZATION CHART (SECTION D), ROLES AND RESPONSIBILITIES OF THE PROPOSED TEAM

Please refer to our Organization Chart in Section D. In our philosophy, the most important single influence that we can have on the success of a project is the capability of the overall project manager, or in this case Program Manager. Monica Kent, a senior principal and JV Board member who also has served in the proposed role on all of our most significant BUILDER RPI/FCA assignments. Monica will direct the work under this contract and be the single point of contact between SWF and the team. She is vested 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 the Program Manager will be our Project Managers, Joe Wells and Nick Young, who will be assigned by Monica to represent the team in connection with the leadership of individual task orders, to coordinate the technical aspects of the work, prepare schedule and assessment guidance, 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, Duane Hodgens of HDR (not a required position in the solicitation and therefore not shown in Section D), 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 staff in accordance with the Scope of Work negotiated with USACE for each task order. In accordance with the terms of your solicitation for this contract, we have generally configured the proposed team in a two-deep organization in order to facilitate the execution of multiple, simultaneous task orders when required (see related discussion under FACTOR 3 – Capacity to Accomplish the Work, above).

**H. ADDITIONAL INFORMATION**

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

LINES OF COMMUNICATION AND SUB-CONSULTANT MANAGEMENT

Our Program Manager will be responsible for developing, [as a part of the overall contract], a 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 USACE and your customers 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 Kent. 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.

ESTIMATED PERCENTAGE PARTICIPATION OF INVOLVEMENT OF EACH FIRM ON THE PROPOSED TEAM

Anticipated participation levels for this contract are as follows: Joint Venture – 70%; HDR – 20%; Michael Baker International – 10%.

(b) FACTOR 2 - PROFESSIONAL QUALIFICATIONS

As a sign of the priority we place on this assignment, we are proposing an extremely experienced design and assessment team of technical experts in real property inventory and facility condition assessment. All proposed key discipline leaders have at least 10 years' experience; in fact, the average level of experience among the 17 proposed team members is 25 years of experience per person. Each person proposed has extensive DoD experience, and most of the team has the specific experience of having completed DLA condition assessment work for SWF/ECSO in the last seven years, has functioned in their proposed role on similar assignments, and has been employed by their present firm for an average of 11 years. Please refer to the summary table below for a review of the overall qualifications of this team compared to the personnel needs emphasized in your solicitation.

Personnel Role	Education	Reg.	Training/ Certifications	Year's Experience	Years w/ Firm	Related Experience			
						SWF	ECSO/ IIS	DLA	RPI/ FCAs
Monica Kent Program Manager	BS	PE	LEED AP	25	16	✓	✓	✓	✓
Joe Wells Project Manager	B. Arch.	RA		34	14	✓	✓	✓	✓
Nicholas Young Project Manager	BS	PE		10	4	✓	✓	✓	✓
Bill Hoelscher Architect	MA, BA	RA	LEED AP	33	21	✓	✓	✓	✓
Rob Ruth Architect	B. Arch	RA	LEED AP	40	15	✓	✓	✓	✓
Michael De Leon Civil Engineer	BS	PE		24	15	✓	✓	✓	✓
Jim Wilson Civil Engineer	BS	PE	LEED AP	33	9	✓			
William Wallace Structural Engineer	MS, BS	PE	SECB, NCEES, MLSE	42	11	✓	✓	✓	✓
Wesley Jacobs, PE Structural Engineer	BS	PE		23	6	✓	✓	✓	✓
William Krasner Mechanical Engineer	MS, BS	PE		19	9	✓	✓	✓	✓
Jaime Espinosa Mechanical Engineer	BS	PE	LEED AP	17	17	✓	✓	✓	✓
Scott Parma Electrical Engineer	BS	PE	LEED AP	40	17	✓	✓	✓	✓
Leonard Carthon Electrical Engineer	B. Arch, BS	PE, RA	LEED AP	47	17	✓	✓	✓	✓
Don Daigle Cost Engineer	AAS, AAS		CVS, CPE	37	5	✓			
Christopher Conrad Cost Engineer			CCP	36	11	✓	✓		✓
Kevin Spangler, PE Fire Protection Engineer	MS, BS	PE		13	12	✓	✓		✓
Zach Sachsenmaier Fire Protection Engineer	BS	PE, FPE	LEED AP	18	16	✓	✓	✓	✓

Of course, we realize that the key discipline leaders must be supplemented by support personnel in all technical categories. 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 under our discussion of Criteria (c) Capacity to Accomplish Work and (e) Knowledge of Locality. The total capacity of our team included is over 14,000 professionals for this assignment (see table under Capacity for number of team professional staff in required key disciplines).

**H. ADDITIONAL INFORMATION**

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

(c) FACTOR 3 – CAPACITY TO ACCOMPLISH WORK

Each of the Joint Venture partner firms has been responsible for multi-year IDIQ contracts with multiple task order assignments for significant military, IIS, and civil works construction programs. In many cases, multiple task orders under these IDIQ's have been executed simultaneously. Our Joint Venture has been selected as part of a pool of A-E's for the AFCEC A-E Next, Pool 2 (Facilities), with a total pool capacity of \$2 B, as well as for a new IDIQ for Tulsa District for Military, Civil Works and IIS projects with a \$24 M pool capacity. MSMM currently holds IDIQ's with Fort Worth District (\$7.5 M capacity), New Orleans District (\$11 M capacity), and has recently performed designs for multiple task orders at Galveston District (\$5 M total fees).

In the last ten years, Huitt-Zollars has held, either as prime A-E or as a partner in a joint venture, literally dozens of IDIQ contracts with capacities from \$12 million to \$99 million. Major programs served under these contracts include the \$4.8 B Fort Bliss Expansion program, the ongoing multi-billion dollar southern Border Infrastructure Program, and the Sustainable Infrastructure Assessment (SIA) program for AFCEC. As featured in Section F, the SIA program alone was an \$11.5 million task order for BUILDER FCA carried out at multiple military installations sites nationally. For the Fort Bliss Expansion program we prepared over 130 design-build construction packages and completed 285 task orders in 7 years. MSMM currently holds two prime IDIQ contracts with USACE totaling over \$20 M in capacity. Major projects under these contracts include the \$40 M Texas City I-wall repair, the \$220 M Cow Bayou Drainage Pumping Station and the development of Design-Build RFPs for over 22 miles of levee along the Dallas Floodway. Additionally, MSMM is also performing extensive program and project management oversight for USACE for program/projects that were funded under the Bi-Partisan Budget Act (BBBA) of 2018.

Our joint venture has proven to be efficient and comfortable handling concurrent task orders over a large geographic area such as that covered by this contract. Our JV team members combine for approximately 600 personnel located in 22 offices in 9 states, from east coast to west, and the partner firms are currently executing USACE task orders in California, Arizona, New Mexico, Texas, Louisiana, Utah and Maryland. Joined by our two subconsultants, HDR and Michael Baker International, we provide you with a total team of over 14,000. This provides you with office coverage across every state in the nation and team resources located in every region of the country.

Each JV partner has recently executed more than three (3) task orders at a time for SWF. MSMM has had the experience in the last two years of executing four concurrent task orders for SWF on its Civil Works Small Business contract, with three of the four task orders exceeding \$1 M in fee. Similarly, Huitt-Zollars currently has three open task orders under IDIQ's with SWF, as well as additional task orders with San Francisco District, Tulsa District, and Baltimore District. Each of the mentioned HZ task orders exceeds \$300 K in fee.

See below for specific examples of our recent work that demonstrate our ability to perform multiple task orders as well as the ability to meet schedules or adjust schedules based on the customers' needs for some of our recent projects with SWF.

Team Capacity		
DISCIPLINE	PRIME	SUBCONSULTANTS
Project Manager	59	873
Architect	91	729
Civil Engineer	162	1160
Structural Engineer	19	376
Mechanical Engineer	24	270
Electrical Engineer	17	322
Cost Engineer	1	20
Fire Protection Engineer	2	7

Task Order	Fee	Original Schedule (# of Days)	Actual Schedule (# of Days)	2018				2019			
				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Granger Lake Management Office Building Design	\$350K	390 Days	430 Days ⁽¹⁾								
DLA FCA Tinker AFB	\$1.33M	200 Days	197 Days								
DLA FCA Warner Robins AFB	\$1.37M	200 Days	240 Days ⁽²⁾								
HVAC Assessment, El Paso ICE Facility	\$180K	100 Days	98 Days								

Notes:

(1): The project schedule and task order period of performance was extended by the government as the customer changed the design requirements at the 35% submittal which required the team to reprogram the building and develop a new project budget.

(2): The task order period of performance was extended due to prolonged feedback by the government in Dr. Checks. Once the Dr. Checks comments were received by the team, the final BUILDER data was uploaded within 2 weeks.

**H. ADDITIONAL INFORMATION**

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

(d) FACTOR 4 – PAST PERFORMANCE

Our team has a deep history of providing federal customers with A-E services under IDIQ/IDC contracts. Both of the Joint Venture partner firms and our key sub-consultant (HDR and Michael Baker International) firms have a significant base of providing A-E services to military agency clients and on military construction projects. This includes the joint venture led by MSMM to support USACE's Hurricane Protection Office in New Orleans for reconstruction and renovation of existing horizontal infrastructure after the Hurricane Katrina event. On this high visibility, schedule-driven \$60 M IDC program, the MSMM team performed over 60 task orders.

Under MSMM's direction the team's performance was recognized by USACE with combined performance ratings over all tasks of 75% Exceptional with the

remainder being Very Good or Satisfactory. In addition, Huitt-Zollars has combined 329 Exceptional and Very Good ACASS performance ratings on military agency task orders. We hope that this record of proven high quality and low risk performance on a diverse list of work will instill confidence in our ability to meet or exceed your expectations on this assignment. **None of our team members has any rating less than Satisfactory.**

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, DPM, USACE New Orleans District

Performance on Design Build RFP Packages

"The AE was very thorough in gathering all requirements to include in the RFP package. AE was very flexible. AE provided advise and suggestions that were acceptable by the team and incorporated into the RFP. AE had the correct technical disciplines engaged that allowed for a good biddable document." F-35A Hanger and A-10 AMU Design-Build RFP, Nellis Air Force Base, NV

- Mr. Steve Stoner, Project Manager, USACE Sacramento District

Performance related to Schedules on RFP Work Packages

HZ team were proactive in pushing the schedule with the customer and USACE in all issues related to design reviews and review conferences. HZ 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. HZ 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.

- Ms. Norma Edwards, Project Manager, USACE Fort Worth District

(e) FACTOR 5 - KNOWLEDGE OF LOCALITY

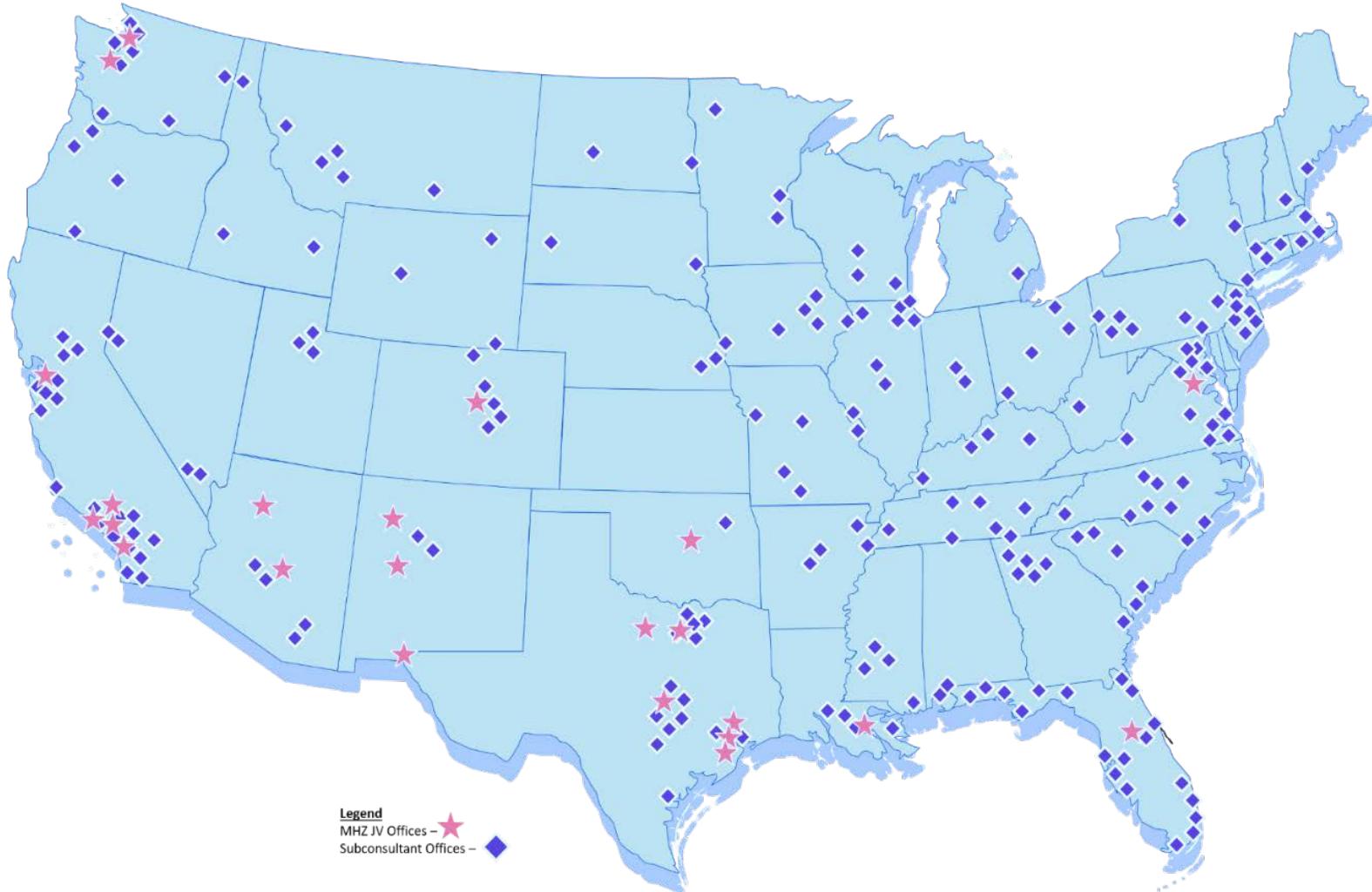
Our team is organized to achieve total maximum geographic diversity for projects anywhere in the United States or its territories. The Joint Venture team and our two major sub-consultants have worked in every state in the country and have executed work in several of the territories, including the U.S. Virgin Islands, Guam, and Northern Marianas. As mentioned in the Introduction to this Section H, a major part of the practice of each of our firms is IDIQ's dedicated to military construction projects; as a result, we have a combined team experience at over 80 currently operational military installations in the U.S. and territories, including virtually every region and command in the services. The nearby map shows where our offices are located and how many total projects we have executed in each state and territory.

Our team has extensive experience working on DLA projects throughout the US. HDR has over 20 years of experience with DLA, having executed 200 task orders involving DLA since 2005 totaling over \$175 M. HDR has worked for every Major Subordinate Command within DLA. Our JV team member, Huitt-Zollars has led four major task orders with USACE SWF for BUILDER FCAs on DLA facilities totaling 18.5 M square feet on Army, Navy, Air Force and DLA Defense Supply Centers in five states. We are very familiar with the DLA Facility Condition Assessments and Installation Support Guidance as we are currently using the October 2020 version for our DLA assessments. In addition, we have been utilizing the DLA BUILDER Component Catalog for inventory sectioning and design life. We are also very familiar with the GIS database and KMZ file creations utilized for the site and Real Property data packages for the DLA-owned site assessments.

We also have experience in addressing site-specific challenges with coordinating applicable federal, state and local codes in all regions of the country, including but not limited to such considerations as building within FEMA defined flood lines, areas with high water table elevations, seismic design in areas near fault lines and related hazards (e.g., liquefaction or lateral spreading), sound attenuation for buildings near airfields, geo-hazards and unsuitable site conditions across different environments and changing climates, including coastal erosion, contaminated sites, and geothermal settlement. In other words, our team has been assembled specifically to respond to any project of yours, in any region, at any time during the course of this contact.

H. ADDITIONAL INFORMATION

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

**(f) FACTOR 6 - VOLUME OF DOD CONTRACT AWARDS**

Below is the table of awards for the JV as well as MSMM. Huitt-Zollars does not have any individual prime awards within the last 12 months.

Project Name	Agency	Contract	Amount	Date
MHZ				
Minimum Guarantee	USACE Tulsa District	W9126BV20D0027	\$2500	October 2020
MSMM				
East Baton Rouge Flood Risk Management PM Service	USACE New Orleans District	W912P821F0182	\$492,226.25	July 2021

**H. ADDITIONAL INFORMATION**

30. PROVIDE ANY ADDITIONAL INFORMATION REQUESTED BY THE AGENCY. ATTACH ADDITIONAL SHEETS AS NEEDED.

(g) FACTOR 7 – GEOGRAPHIC PROXIMITY

Please refer to the map provided under Factor 5 above, which shows the locations of all JV and sub-consultant team office. Our Joint Venture is a national practice and our team has worked in every state of the union. A summary of the 259 team office locations by state, is provided in the table:

# of Offices in Each State			
<u>Alabama</u> 4	<u>Alaska</u> 3	<u>Arizona</u> 6	<u>Arkansas</u> 4
<u>California</u> 33	<u>Colorado</u> 7	<u>Connecticut</u> 2	<u>Florida</u> 17
<u>Georgia</u> 4	<u>Hawaii</u> 2	<u>Idaho</u> 3	<u>Illinois</u> 6
<u>Indiana</u> 3	<u>Iowa</u> 5	<u>Kentucky</u> 4	<u>Louisiana</u> 7
<u>Maine</u> 1	<u>Maryland</u> 3	<u>Massachusetts</u> 2	<u>Michigan</u> 3
<u>Minnesota</u> 3	<u>Mississippi</u> 3	<u>Missouri</u> 5	<u>Montana</u> 5
<u>Nebraska</u> 2	<u>Nevada</u> 4	<u>New Hampshire</u> 1	<u>New Jersey</u> 5
<u>New Mexico</u> 3	<u>New York</u> 6	<u>North Carolina</u> 8	<u>North Dakota</u> 2
<u>Ohio</u> 7	<u>Oklahoma</u> 2	<u>Oregon</u> 4	<u>Pennsylvania</u> 11
<u>Rhode Island</u> 2	<u>South Carolina</u> 7	<u>South Dakota</u> 2	<u>Tennessee</u> 5
<u>Texas</u> 21	<u>Utah</u> 4	<u>Virginia</u> 11	<u>Washington</u> 11
<u>West Virginia</u> 2	<u>Wisconsin</u> 3	<u>Wyoming</u> 1	

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

31. SIGNATURE

32. DATE

January 7, 2022

33. NAME AND TITLE

Monica Kent, PE, LEED AP - JV Board Member



PART II

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*)
W9126G-20-R-0005

PART II - GENERAL QUALIFICATIONS

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	
			a. TYPE Joint Venture	
2c. CITY New Orleans			b. SMALL BUSINESS STATUS Small Business	
6a. POINT OF CONTACT NAME AND TITLE Manish Mardia, Joint Venture Chairman			7. NAME OF FIRM (<i>If block 2a is a branch office</i>)	
6b. TELEPHONE NUMBER 504-559-1897		6c. E-MAIL ADDRESS mmardia@mssmmeng.com		
8a. FORMER FIRM NAME(S) (<i>If any</i>)			8b. YR. ESTABLISHED	8c. DUNS NUMBER

9 EMPLOYEES BY DISCIPLINE

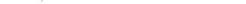
10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

SERVICES REVENUES OF FIRM FOR LAST 3 YEARS <i>(Insert revenue index number shown at right)</i>		PROFESSIONAL SERVICES REVENUE INDEX		
	1	1. Less Than \$100,000	6.	\$2 million to less than \$5 million
	1	2. \$100,000 to less than \$250,000	7.	\$5 million to less than \$10 million
a. Federal Work	1	3. \$250,000 to less than \$500,000	8.	\$10 million to less than \$25 million
b. Non-Federal Work	1	4. \$500,000 to less than \$1 million	9.	\$25 million to less than \$50 million
c. Total Work	1	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 April , 2021

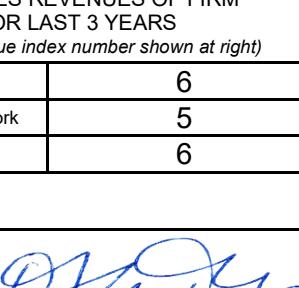
c. NAME AND TITLE

John Doe

b. DATE

c. NAME AND TITLE

Manish Mardia, Joint Venture Chairman

ARCHITECT-ENGINEER QUALIFICATIONS				1. SOLICITATION NUMBER (If any) W9126G-20-R-0005		
PART II – GENERAL QUALIFICATIONS <i>(If a firm has branch offices, complete for each specific branch office seeking work)</i>						
2a. FIRM (Or Branch Office) NAME MSMM Engineering, LLC CAGE Code: 6SKR5				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		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
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 <i>(Insert revenue index number shown at right)</i>		PROFESSIONAL SERVICES REVENUE INDEX NUMBER				
a. Federal Work	6	1. Less than \$100,000				
b. Non-Federal Work	5	2. \$100,000 to less than \$250,000				
c. Total Work	6	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 <i>The foregoing is a statement of facts.</i>						
a. SIGNATURE 					b. DATE March 31, 2021	
c. NAME AND TITLE Manish Mardia, P.E., President/Owner						

ARCHITECT-ENGINEER QUALIFICATIONS					1. SOLICITATION NUMBER (If any) W9126G-20-R-0005		
PART II – GENERAL QUALIFICATIONS <i>(If a firm has branch offices, complete for each specific branch office seeking work)</i>							
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 CAGE Code: 8DSX1					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		a. Profile Code	b. Experience	c. Revenue Index Number (see below)	
		(1) FIRM	(2) BRANCH				
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	1		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 <i>(Insert revenue index number shown at right)</i>		PROFESSIONAL SERVICES REVENUE INDEX NUMBER					
		1. Less than \$100,000	6. \$2 million to less than \$5 million				
a. Federal Work		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				
b. Non-Federal Work		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 <i>The foregoing is a statement of facts.</i>							
a. SIGNATURE						b. DATE	March 31, 2021
c. NAME AND TITLE Manish Mardia, P.E., President/Owner							

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

W9126G-20-R-0005

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 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

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Function Code	b. Discipline	c. Number of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	68	4	A09	Anti-Terrorism/Force Protection	4
06	Architect	90	11	B01	Barracks; Dormitories	4
08	CADD Technician	46	6	C15	Construction Management	2
12	Civil Engineer	159	7	D04	Design-Build Preparation RFP's	3
15	Construction Inspector	4		D07	Dining Halls; Clubs; Restaurants	2
16	Construction Manager	10	1	E02	Educational Facilities; Classrooms	2
21	Electrical Engineer	16	10	E05	Elevators; Escalators; People-Movers	1
23	Environmental Engineer	2		E07	Energy Conservation; New Energy Sources	5
25	Fire Protection Engineer	2	1	F03	Fire Protection	4
37	Interior Designer	6		G01	Garages; Vehicle Maintenance Facilities; Parking	5
38	Land Surveyor	57		H07	Highways; Streets; Airfield Paving; Parking	4
39	Landscape Architect	6		H11	Housing (Residential, Multi-Family; Apartments; Condominiums)	3
42	Mechanical Engineer	24	14	I01	Industrial Buildings; Manufacturing Plants	5
47	Planner: Urban/Regional	4		I05	Interior Design; Space Planning	2
57	Structural Engineer	17	4	I06	Irrigation; drainage	
60	Transportation Engineer	15		J01	Judicial and Courtroom Facilities	4
62	Water Resource Engineer	12		M05	Military Design Standards	3
				O01	Office Buildings; Industrial Parks	5
				P08	Prisons & Correctional Facilities	2
				R06	Rehabilitation (Buildings; Structures; Fac's)	5
	Other Employees			S11	Sustainable Design	6
Total		538	58	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

7/06/2021

c. NAME AND TITLE

Monica Kent, PE, LEED AP, Senior Vice President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

W9126G-20-R-0005

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 080747660
2b. STREET 5430 LBJ Freeway, Suite 1500				5. OWNERSHIP	
2c. CITY Dallas		2d. STATE Texas	2e. ZIP CODE 75240	a. TYPE Corporation	b. SMALL BUSINESS STATUS Large Business
6a. POINT OF CONTACT NAME AND TITLE Robert J. McDermott, PE, President				7. NAME OF FIRM (If Block 2a is a Branch Office) N/A	
6b. TELEPHONE NUMBER 214-871-3311		6c. E-MAIL ADDRESS mcdermott@huitt-zollars.com			
8a. FORMER FIRM 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. Number of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	68	37	A06	Airports; Terminals and Hangars; Freight Handling	1
06	Architect	90	4	B02	Bridges	7
08	CADD Technician	46	11	C15	Construction Management	6
12	Civil Engineer	159	33	C16	Construction Surveying	6
15	Construction Inspector	4		D04	Design-Build – Preparation of RFPs	4
16	Construction Manager	10	1	G01	Garages; Vehicles Maintenance Facilities; Parking Decks	6
21	Electrical Engineer	16		H04	Heating; Ventilating; Air Conditioning	6
23	Environmental Engineer	2	1	H07	Highways; Streets; Airfield Paving; Parking Lots	8
25	Fire Protection Engineer	2		H11	Housing (Residential, Multi-Family; Apartments)	3
37	Interior Designer	6	1	I06	Irrigation; Drainage	6
38	Land Surveyor	57	16	L02	Land Surveying	7
39	Landscape Architect	6	6	L03	Landscape Architecture	6
42	Mechanical Engineer	24	1	P06	Planning (Site, Installation and Project)	7
47	Planner: Urban/Regional	4		R04	Recreation Facilities (Parks, Marinas, Etc.)	4
57	Structural Engineer	17	7	S04	Sewage Collection, Treatment and Disposal	7
60	Transportation Engineer	15	9	S10	Surveying; Platting; Mapping; Flood Plain Studies	6
62	Water Resource Engineer	12	7	S11	Sustainable Design	6
				S13	Storm Water Handling and Facilities	5
	Other Employees			T04	Topographic Surveying and Mapping	5
Total		538	134			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS		PROFESSIONAL SERVICES REVENUE INDEX NUMBER
a. Federal Work	6	1. Less than \$100,000
b. Non-Federal Work	8	2. \$100,000 to less than \$250,000
c. Total Work	8	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

7/06/2021

c. NAME AND TITLE

Monica Kent, PE, LEED AP, Senior Vice President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

W9126G-20-R-0005

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 879473999
2b. STREET 10350 Richmond Ave., Suite 300			5. OWNERSHIP Corporation	
2c. CITY Houston		2d. STATE Texas	2e. ZIP CODE 77042-4248	b. SMALL BUSINESS STATUS Large Business
6a. POINT OF CONTACT NAME AND TITLE Gregory R. Wine, PE, LEED AP, Vice President			7. NAME OF FIRM (If Block 2a is a Branch Office) Huitt-Zollars, Inc.	
6b. TELEPHONE NUMBER 281-496-0066		6c. E-MAIL ADDRESS gwine@huitt-zollars.com		
8a. FORMER FIRM 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. Number of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	68	5	B01	Barracks; Dormitories	2
06	Architect	90	2	C15	Construction Management	5
08	CADD Technician	46	4	D04	Design-Build – Prep RFPs	4
12	Civil Engineer	159	25	E02	Educational Facilities; Classrooms	4
15	Construction Inspector	4	1	G01	Garages; Vehicles Maintenance Facilities; Parking Decks	4
16	Construction Manager	10	5	H01	Harbors; Jetties, Piers, Ship Terminal Facilities	3
21	Electrical Engineer	16	1	H07	Highways; Streets; Airfield Paving; Parking Lots	6
23	Environmental Engineer	2		I05	Interior Design; Space Planning	2
25	Fire Protection Engineer	2		O01	Office Buildings, Industrial Parks	3
37	Interior Designer	6	1	R03	Railroad; Rapid Transit	7
38	Land Surveyor	57	4	R04	Recreation Facilities (Parks, Marinas, Etc.)	5
39	Landscape Architect	6		R06	Rehabilitation (Buildings; Structures; Facilities)	6
42	Mechanical Engineer	24	2	R11	Rivers; Canals; Waterways; Flood Control	6
47	Planner: Urban/Regional	4		S04	Sewage Collection; Treatment and Disposal	5
57	Structural Engineer	17		S10	Surveying; Platting; Mapping; Flood Plain Studies	5
60	Transportation Engineer	15		S11	Sustainable Design	4
62	Water Resource Engineer	12	1	S13	Storm Water Handling and Facilities	4
				T03	Traffic and Transportation Engineering	3
	Other Employees			T04	Topographic Surveying and Mapping	5
Total		538	51			

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

7/06/2021

c. NAME AND TITLE

Monica Kent, PE, LEED AP, Senior Vice President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

W9126G-20-R-0005

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 195075171
2b. STREET 111 N. Magnolia Ave., Suite 1600			5. OWNERSHIP	
2c. CITY Orlando		2d. STATE Florida	2e. ZIP CODE 32801-2367	a. TYPE Corporation
6a. POINT OF CONTACT NAME AND TITLE James Pope, Vice President			b. SMALL BUSINESS STATUS Large Business	
6b. TELEPHONE NUMBER 407-839-0414		6c. E-MAIL ADDRESS jpope@huitt-zollars.com		7. NAME OF FIRM (If Block 2a is a Branch Office) Huitt-Zollars, Inc.

8a. FORMER FIRM NAME(S) (If any) Morris Architects, Inc.			8b. YEAR ESTABLISHED 1938	8c. UNIQUE ENTITY IDENTIFIER 969626654
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9. EMPLOYEES BY DISCIPLINE

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Function Code	b. Discipline	c. Number of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	68	3	E02	Educational Facilities; Classrooms	2
06	Architect	90	15	G01	Garages; Vehicle Maintenance Facilities; Parking Decks	2
08	CADD Technician	46		H09	Hospital & Medical Facilities	1
12	Civil Engineer	159		I05	Interior Design; Space Planning	3
15	Construction Inspector	4		O01	Office Buildings; Industrial Parks	1
16	Construction Manager	10		R06	Rehabilitation (Buildings; Structures;	5
21	Electrical Engineer	16		S11	Sustainable Design	3
23	Environmental Engineer	2		R04	Recreation Facilities (Parks, Marinas, etc.)	6
25	Fire Protection Engineer	2				
37	Interior Designer	6				
38	Land Surveyor	57				
39	Landscape Architect	6				
42	Mechanical Engineer	24				
47	Planner: Urban/Regional	4				
57	Structural Engineer	17				
60	Transportation Engineer	15				
62	Water Resource Engineer	12				
	Other Employees					
	Total	538	18			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

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

7/06/2021

c. NAME AND TITLE

Monica Kent, PE, LEED AP, Senior Vice President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)

W9126G-20-R-0005

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 117790537
2b. STREET 2051 Jamieson Avenue, Suite 502			5. OWNERSHIP	
2c. CITY Alexandria		2d. STATE Virginia	2e. ZIP CODE 22314	a. TYPE Corporation
6a. POINT OF CONTACT NAME AND TITLE Jim Wink, Vice President			b. SMALL BUSINESS STATUS Large Business	
6b. TELEPHONE NUMBER 571-559-4050		6c. E-MAIL ADDRESS jwink@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

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Function Code	b. Discipline	c. Number of Employees		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) FIRM	(2) BRANCH			
02	Administrative	68		B02	Bridges	3
06	Architect	90		G01	Garages; Vehicle Maintenance Facilities; Parking Decks	4
08	CADD Technician	46		G02	Gas Systems (Propane, Natural, Etc.)	2
12	Civil Engineer	159	1	H04	Heating; Ventilating; Air	3
15	Construction Inspector	4		H11	Housing (Residential, Multi-Family; Apartments; Condominiums)	2
16	Construction Manager	10		I01	Industrial Buildings; Manufacturing Plants	4
21	Electrical Engineer	16	5	L02	Land Surveying	3
23	Environmental Engineer	2		L03	Landscape Architecture	5
25	Fire Protection Engineer	2	1	P06	Planning (Site, Installation, & Project)	1
37	Interior Designer	6		P07	Plumbing & Piping Design	2
38	Land Surveyor	57		R06	Rehabilitation (Buildings; Structures; Facilities)	2
39	Landscape Architect	6		S05	Soils & Geologic Studies; Foundations	2
42	Mechanical Engineer	24	6	S09	Structural Design; Special Structures	1
47	Planner: Urban/Regional	4		S11	Sustainable Design	3
57	Structural Engineer	17		S13	Storm Water Handling & Facilities	2
60	Transportation Engineer	15		U03	Utilities (gas & steam)	2
62	Water Resource Engineer	12		W01	Warehouses & Depots	3
	Other Employees					
	Total	538	13			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS

(Insert revenue index number shown at right)

- | | | | |
|---------------------|---|---|---|
| a. Federal Work | 1 | 1. Less than \$100,000 | 6. \$2 million to less than \$5 million |
| b. Non-Federal Work | 6 | 2. \$100,000 to less than \$250,000 | 7. \$5 million to less than \$10 million |
| c. Total Work | 6 | 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

7/06/2021

c. NAME AND TITLE

Monica Kent, PE, LEED AP, Senior Vice President

ARCHITECT – ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any)
W9126G-20-R-0005

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. (CAGE CODE 0KCH7)			3. YEAR ESTABLISHED 2015	4. UNIQUE ENTITY IDENTIFIER 956772347
2b. STREET Airside Business Park, 100 Airside Drive			5. OWNERSHIP Limited Liability Company	
2c. CITY Moon Township		2d. STATE PA	2e. ZIP CODE 15108	b. SMALL BUSINESS STATUS No
6a. POINT OF CONTACT NAME AND TITLE Beth J. Larkin, P.E., Office Executive			7. NAME OF FIRM (If Block 2a is a Branch Office) Michael Baker International, LLC	
6b. TELEPHONE NUMBER 412-269-2062		6c. E-MAIL ADDRESS Beth.Larkin@mbakerintl.com		8a. FORMER FIRM NAME(S) (If any) Michael Baker Jr., Inc.
			8b. YEAR ESTABLISHED 1987	8c. UNIQUE ENTITY IDENTIFIER 956772347

9. EMPLOYEES BY DISCIPLINE

10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM 625	c. Number of Employees (1) FIRM 191	a. Profile Code	b. Experience	c. Revenue Index Number (see below)
02	Administrative	625	191	A02	Aerial Photography; Airborne Data and Imagery	3
05	Archaeologist	25	16	A05	Airports; Navaids; Airport Lighting; Fueling	6
06	Architect	51	13	B02	Bridges	8
12	Civil Engineer	488	49	C15	Construction Management	7
15	Construction Inspector	248	54	D01	Dams (Concrete; Arch)	1
16	Construction Manager	113	20	D02	Dams (Earth; Rock); Dikes; Levees	4
27	Foundation/Geotechnical Engineer	16	9	E01	Ecological & Archeological Investigations	6
29	GIS Specialist	120	35	G04	GIS: Development, Analysis, & Data Collection	4
30	Geologist	13	11	H07	Highways; Streets; Airfield Paving; Parking Lots	6
37	Interior Designer	10	9	M01	Mapping Location/Addressing Systems	3
42	Mechanical Engineer	29	9	M05	Military Design Standards	8
48	Project Manager	65	11	M06	Mining and Mineralogy	4
57	Structural Engineer	143	24	P04	Pipelines (Cross-country–Liquid & Gas)	4
58	Technician/Analyst	75	18	P06	Planning (Site, Installation and Project)	6
60	Transportation Engineer	144	13	S05	Soils & Geologic Studies; Foundations	4
	Designer/CADD Technician	190	46	T01	Telephone Systems (Rural; Mobile; Intercom)	4
	Engineering Technician	501	71	T03	Traffic & Transportation Engineering	4
	Environmental Scientist/Specialist	106	12	T04	Topographic Surveying and Mapping	6
	Planner	191	24		Bridge Inspection	3
	Survey Technician	49	7		Buildings	8
	Other Employees	277	35			
	Total	3479	677			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS
(Insert revenue index number shown at right)

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 |

a. Federal Work	9
b. Non-Federal Work	10
c. Total Work	10

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE

c. NAME AND TITLE

Beth J. Larkin, P.E., Office Executive

b. DATE

7/1/2021

ARCHITECT-ENGINEER QUALIFICATIONS				1. SOLICITATION NUMBER (If any) W9126G20R0005		
PART II – GENERAL QUALIFICATIONS (If a firm has branch offices, complete for each specific branch office seeking work.)						
2a. FIRM (or branch office) NAME HDR				3. YEAR ESTABLISHED 1917	4. UNIQUE ENTITY IDENTIFIER 06-866-8805 (HDR, Inc.)	
2b. STREET 1917 S 67th Street				5. OWNERSHIP a. TYPE Private Corporation		
2c. CITY Omaha		2d. STATE NE	2e. ZIP CODE 68106	b. SMALL BUSINESS STATUS Large Business		
6a. POINT OF CONTACT NAME AND TITLE Matt Tondl, Area Manager						
6b. TELEPHONE NUMBER 402.399.1070		6c. E-MAIL ADDRESS Matt.Tondl@hdrinc.com				
8a. FORMER FIRM NAME(S) (if any) Henningson, Durham & Richardson, Inc. 1951 Henningson Engineering Company, Inc. 1930 Henningson Engineering Company 1917				8b. YR. ESTABLISHED 1985	8c. UNIQUE ENTITY IDENTIFIER 06-866-8805	
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		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) Firm	(2) Branch			
01	Acoustical Engineer	82		A04	Air Pollution Control	1
02	Administrative	905		A06	Airports; Terminals & Hangars; Freight Handling	9
04	Aeronautical Engineer	2		B02	Bridges	10
05	Archeologist	14		C15	Construction Management	10
06	Architect	678		D01	Dams; (Concrete; Arch)	6
07	Biologist	60		D02	Dams; (Earth; Rock); Dikes; Levees	10
08	CADD Technician	681		E09	Enviro. Impact Studies, Assessments, or Statements	8
10	Chemical Engineer	17		E12	Environmental Remediation	10
12	Civil Engineer	672		H07	Highways; Streets; Airfield Paving; Parking Lots	10
13	Communications Engineer	5		I01	Industrial Buildings; Manufacturing Plants	2
15	Construction Inspector	340		P06	Planning (Site, Installation, and Project)	9
16	Construction Manager	181		P12	Power Generation, Transmission, Distribution	10
17	Corrosion Engineer	1		R03	Railroad: Rapid Transit	10
18	Cost Engineer/Estimator	20		R11	Rivers: Canals; Waterways; Flood Control	5
19	Ecologist	4		S04	Sewage Collection; Treatment and Disposal	9
20	Economist	42		S07	Solid Wastes; Incineration; Landfill	7
21	Electrical Engineer	322		S10	Surveying; Platting; Mapping; Flood Plain Studies	5
22	Electronics Engineer	2		S13	Storm Water Handling & Facilities	8
23	Environmental Engineer	59		T02	Testing & Inspection Services	5
24	Environmental Scientist	264		T03	Traffic & Transportation Engineering	10
25	Fire Protection Engineer	7		W02	Water Supply; Treatment and Distribution	8
27	Foundation/Geotechnical Engineer	59		W03	Water Resources; Hydrology; Ground Water	10
29	GIS Specialist	116				
30	Geologist	32				
32	Hydraulic Engineer	9				
34	Hydrologist	22				
36	Industrial Hygienist	3				
37	Interior Designer	76				
38	Land Surveyor	23				
39	Landscape Architect	37				
42	Mechanical Engineer	241				
46	Photogrammerist	1				
47	Planner: Urban/Regional	258				

48	Project Manager	873				
51	Safety/Occupational Health Engineer	15				
52	Sanitary Engineer	263				
54	Security Specialist	17				
55	Soils Engineer	35				
56	Specifications Writer	9				
57	Structural Engineer	233				
58	Technician/Analyst	1,526				
60	Transportation Engineer	1,036				
61	Value Engineer	3				
62	Water Resources Engineer	258				
990	Reproduction Experts (Other)	3				
991	Railroad Experts (Other)	76				
992	Public Relations (Other)	509				
995	Realty Specialists (Other)	142				
996	Management Scientists (Other)	77				
997	Heating, Ventilation, Air Conditioning Experts (Other)	4				
998	Intern Architects (Other)	102				
999	Quality Manager (Other)	21				
	Other Employees	0				
	Total	10,437				

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (insert revenue index number shown at right)

a. Federal Work	10
b. Non-Federal Work	10
c. Total Work	10

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

8/2/2021

c. NAME AND TITLE

Eric Keen, CEO

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ARCHITECT-ENGINEER QUALIFICATIONS		1. SOLICITATION NUMBER (if any) W9126G20R0005
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PART II – GENERAL QUALIFICATIONS (IF A FIRM HAS BRANCH OFFICES, COMPLETE FOR EACH SPECIFIC BRANCH OFFICE SEEKING WORK.)						
2a. FIRM (or branch office) NAME HDR		3. YEAR ESTABLISHED 1957	4. UNIQUE ENTITY IDENTIFIER 78-471-6339 (Engineering)			
2b. STREET 5555 Tech Center Drive Suite 310		5. OWNERSHIP a. TYPE Private Corporation				
2c. CITY Colorado Springs		2d. STATE CO	2e. ZIP CODE 80919			
6a. POINT OF CONTACT NAME AND TITLE Joseph Schwarz, Managing Principal		b. SMALL BUSINESS STATUS Large Business				
6b. TELEPHONE NUMBER 719.272.8800		7. NAME OF FIRM (if block 2a is a branch office) The branch office identified in Block 2(a-e) includes personnel from one or more of our operating companies which are wholly owned subsidiaries of HDR, Inc. Collectively we bring resources of more than 10,000 multi-disciplinary professionals together as one seamless entity. Henningson, Durham & Richardson, Inc. 1951 Henningson Engineering Company, Inc. 1930 Henningson Engineering Company 1917				
8a. FORMER FIRM NAME(S) (if any)		8b. YR. ESTABLISHED 1985	8c. UNIQUE ENTITY IDENTIFIER 06-866-8805			
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		a. Profile Code	b. Experience	c. Revenue Index Number (see below)
		(1) Firm	(2) Branch			
02	Administrative	905	5	A04	Air Pollution Control	1
08	CADD Technician	681	5	A06	Airports; Terminals & Hangars; Freight Handling	9
12	Civil Engineer	672	4	B02	Bridges	10
15	Construction Inspector	340	1	C15	Construction Management	10
29	GIS Specialist	116	10	D01	Dams; (Concrete; Arch)	6
39	Landscape Architect	37	1	D02	Dams; (Earth; Rock); Dikes; Levees	10
47	Planner: Urban/Regional	258	20	E09	Enviro. Impact Studies, Assessments, or Statements	8
54	Security Specialist	17	1	E12	Environmental Remediation	10
58	Technician/Analyst	1,526	7	H07	Highways: Streets; Airfield Paving; Parking Lots	10
60	Transportation Engineer	1,036	6	I01	Industrial Buildings; Manufacturing Plants	2
62	Water Resources Engineer	258	2	P06	Planning (Site, Installation, and Project)	9
992	Public Relations (Other)	509	6	P12	Power Generation, Transmission, Distribution	10
995	Realty Specialists (Other)	142	1	R03	Railroad: Rapid Transit	10
996	Management Scientists (Other)	77	1	R11	Rivers: Canals; Waterways; Flood Control	5
999	Quality Manager (Other)	21	1	S04	Sewage Collection; Treatment and Disposal	9
				S07	Solid Wastes; Incineration; Landfill	7
				S10	Surveying; Platting; Mapping; Flood Plain Studies	5
				S13	Storm Water Handling & Facilities	8
				T02	Testing & Inspection Services	5
				T03	Traffic & Transportation Engineering	10
				W02	Water Supply; Treatment and Distribution	8
				W03	Water Resources; Hydrology; Ground Water	10
	Other Employees	3,842				
	Total	10,437	71			
11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (insert revenue index number shown at right)		PROFESSIONAL SERVICES REVENUE INDEX NUMBER				
a. Federal Work	9		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			
b. Non-Federal Work	10		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			
c. Total Work	10					
12. AUTHORIZED REPRESENTATIVE The foregoing is a statement of facts.						
a. SIGNATURE				b. DATE 8/2/2021		
c. NAME AND TITLE	Eric Keen, CEO					



MHZ JV

A MENTOR PROTÉGÉ JOINT VENTURE

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