Indefinite Delivery/Indefinite Quantity (IDIQ) A-E Contract for Environmental Infrastructure Design and other related services within the boundaries of the Mississippi Valley Division (MVD); New Orleans, LA

Solicitation Number W912P824R0023

MSMM ENGINEERING, LLC

And Associated Team

April 16, 2024

April 16, 2024

U.S. Army Corps of Engineers
New Orleans District, CEMVN-CT
Melissa A. Vaughn,
Room 172,
7400 Leake Avenue,
New Orleans, LA 70118-3651

Subject: Indefinite Delivery/Indefinite Quantity (IDIQ) A-E Contract for Environmental Infrastructure Design and other related services within the boundaries of the Mississippi Valley Division (MVD); New Orleans, LA
SOLICITATION NUMBER: W912P824R0023

Dear Selection Committee,

It is our pleasure to respond to the above subject Solicitation. Accordingly, enclosed herewith please find a completed Standard Form 330 Parts I and II for your consideration.

MSMM Engineering, LLC (MSMM) is one of the most trusted Small Business Full-Service A-E design firms in the South for the design and implementation of environmental infrastructure projects. During our short company history, we have completed over 100 environmental, planning, value engineering, EDC, feasibility reports, civil works, and military engineering design task orders for multiple United States Army Corps of Engineers (USACE) Districts (New Orleans, Galveston, Fort Worth, Tulsa, and Louisville).

The MSMM team has a rich history in delivering the USACE, New Orleans District (MVN) Environmental Infrastructure Program, also known as Section 219 of the 1992 Water Resources Development Act (WRDA). Since 2013, MSMM has been the primary partner with the New Orleans District through the delivery of 24 Environmental Infrastructure projects. The Environmental Infrastructure Program authorizes the Corps to assist non-Federal interests in carrying out water and wastewater related environmental infrastructure and resource protection and development projects. Through our partnership with USACE on this program, MSMM has led the administration of critically important water and wastewater related projects to benefit communities in South Louisiana. Additionally, MSMM has gained an innate knowledge of how MVN can support local communities for water and wastewater needs based upon its experience and direct coordination between MVN and multiple parishes including Ascension, East Baton Rouge, Livingston, Iberia, New Orleans and other southern LA communities seeking authority in accordance with Section 219 of WRDA 92. As a result, MSMM has become the primary contract partner with MVN for this program and has participated in nearly every facet of the program from letter reports, to PPAs and other agreements, to planning, design and completing 2 construction projects and initiated a 3rd with a recent ribbon cutting ceremony. Our dedication and commitment to the MVN Environmental Infrastructure Program can be evidenced by the table below, which displays MVN Environmental Infrastructure Program task orders from 2014-2023.

Contract Number	Task Order Number	Contract/Task Order Name	Task Order Date of Order
W912P8-16D0007	W912P8-18F0258	Ascension and Livingston Parish Environmental Infrastructure, and East Baton Rouge Flood Control Program Management Support Services/ Ascension Parish (Effluent Forcemain & PS, Hillaryville Regional WWTP)/ Livingston Parish (Inventory of Water, Sewer, and Drainage Infrastructure and Master Plan Development) Program Management Support to USACE, MVN	2018 Sep 20
W912P8-16D0006	W912P8-18F0260	East Baton Rouge and Iberia Environmental Infrastructure, Inner Harbor Navigation Canal Project Management Support, & Engineering Design and Research Center Coastal Structure Guidance	2018 Sep 20
W912P8-16D0006	W912P8-18F0053	Ascension Parish Environmental Infrastructure Hillaryville Treatment Plant	2017 Dec 01
W912P8-16D0006	W912P8-17F0087	City of Baton Rouge/Parish of East Baton Rouge Environmental Infrastructure Septic Collector Systems Alternative Analysis	2017 Dec 28
W912P8-19D0011	W912P8-21F0146	Ascension Parish Environmental Infrastructure Assessment of Water Meter Upgrades to the Existing Water Distribution System	2021 Aug 10
W912P8-23D0002	W912P8-23F0113	Project Management Support for the USACE, MVN Ascension and Livingston Parish Environmental Infrastructure	2023 Aug 04
W912P8-10D0010	0010	Ascension Parish Environmental Infrastructure and Program Management Support to the USACE, MVN	2014 Jun 01
W912P8-19D0011	W912P8-19F0247	City of Baton Rouge/East Baton Rouge Parish Environmental Infrastructure Oxidation Pond Analysis	2019 Sep 18
W912P8-19D0011	W912P8-19F0250	Ascension Parish Environmental Infrastructure Hillaryville Treatment Plant Evaluation	2019 Sep 20
W912P8-19D0011	W912P8-20F0150	Ascension Parish Environmental Infrastructure	2020 Jul 21
W912P8-11D0022	0005	Ascension Parish Water System Planning and Environmental Infrastructure/Continuing Authorities Program Management Support	2015 Sep 05
W912P8-20D0007	W912P8-23F0159	City of Walker Sewer Improvements Environmental Infrastructure Project, Livingston Parish	2023 Sep 27
W912P8-14D0036	0005	City of Baton Rouge/Parish of East Baton Rouge Environmental Infrastructure System Analysis and City of New Orleans Parcel Identification	2016 Jul 14
W912EE-13D0003	CZ03	East Baton Rouge Environmental Infrastructure – Sewer Sanitary Overflow Assistance	2017 Aug 26
W912P8-10D0059	0017	Ascension Parish Environmental Infrastructure and Program Management Support, Pump Station Development, and Additional System Analysis for Water Demand and Chlorination System in Ascension Parish	2015 May 05
W912P8-10D0059	0019	Environmental Infrastructure and Planning Assistance to States Program Management Support - Ascension Parish, Livingston Parish, City of Kenner	2015 Jun 15

Contract Number	Task Order Number	Contract/Task Order Name	Task Order Date of Order
W91278-12D0050	CZ01	Environmental Support for the Environmental Infrastructure Program and Environmental Compliance of Project Partnership Agreements	2016 Sep 28
W912P8-16D0006	W912P8-17F0087	City of Baton Rouge/Parish of East Baton Rouge Environmental Infrastructure System Assessment, Analysis and Alternatives Identification for Non-SSO Stations and Project Management Tasks for Mississippi River Levees	2017 Aug 29
W912P8-20D0007	W912P8-22F0165	Preparation of Plans and Specifications For Serene Acres Sewer Improvements Environmental Infrastructure Project, Livingston, Parish	2022 Aug 30
W912P8-09D0011	0018	Ascension Parish Environmental Infrastructure	2014 Jun 09
W912P8-16D0007	W912P8-18F0191	Special Investigations, Comite River Diversion, Ascension Parish 219, and Mississippi River Levee Support to the USACE, MVN	2018 Aug 02
W912P8-20D0007	W912P8-22F0166	Preparation of Plans and Specifications For EBR Leachate/ Wastewater Holding Tank, Pumps and Piping, East Baton Rouge Parish, Louisiana	2022 Aug 31
W912P8-15D0022	0004	City of Baton Rouge/Parish of East Baton Rouge System Analysis, Current Condition Evaluation and Rehabilitation Recommendation for Four (4) Existing Non-SSO Program Sewer Pump Stations	2015 Oct 08
W912P8-16D0006	W912P8-18F0052	Septic collector systems alternative analysis	2018 Jan 03

The experience shown above can significantly support the New Orleans District as well as the Mississippi Valley Division (MVD) as a whole. Our team's record of quick execution and in-depth professional know-how has led to a long line of exceptional CPARS ratings for our Environmental Infrastructure work. This exceptional satisfaction rating is likely a result of MSMM's unique understanding of how Environmental Infrastructure projects fulfill the Corps' mission to assist parishes in critical ongoing water and wastewater efforts. We understand that the successful delivery and construction of these projects is the first step to a meaningful and resilient community, and it is our shared mission to provide all possible professional avenues to achieve such resiliency and sustainability. This passion, especially in the hands of our highly experienced team, has supported the New Orleans District in delivering a successful Environmental Infrastructure program.

We have long proven our ability to perform work on several large task orders simultaneously, as we are currently doing on our A-E Services prime contracts for multiple districts. The bottom line is that the breadth and depth of our experience, ability, and capability provide the New Orleans District and MVD with a capable and proven small business that stands ready to meet the mission of providing excellent design solutions for upcoming Environmental Infrastructure design challenges.

Additionally, we have added the best combination of mission knowledge, full-service capabilities, previous experience, proven track record, and solid working relationships through subconsultants N-Y Associates, Inc., Principal Engineering, Inc., IMC Consulting Engineers, Inc., Eustis Engineering, LLC, Tetra Tech, Inc., Stantec Consulting Services Inc., CDM Smith Federal Programs Corporation, Corrpro Companies, Inc., Coast & Harbor Engineering, Inc., Lowe Engineers, and Chustz Surveying, LLC. This powerhouse team, comprised of 11 teaming partners in addition to MSMM, referred to as Team MSMM, has joined forces for one simple reason: to assist USACE in providing robust design solutions to the nation. We know our team can achieve this goal because of the following:

- **Program knowledge:** MSMM understands first-hand how MVN can support local communities for water and wastewater needs. We draw our experience from our water and wastewater/Section 219 or WRDA 92 services and communications/ coordination between MVN and many of the parishes located within the MVN area of responsibility. Furthermore, our team understands the challenges and needs of MVD as well as MVN, has extensive horizontal design experience within MVN, and is trusted to provide excellent quality design services.
- **Proven small business:** MSMM has a proven track record of performing design for large IDIQ's and has the backing of small and large businesses through our 11 teaming partners that also have a proven track record working across the USACE enterprise.
- **Experience of Team MSMM:** We draw our experience from completing over 3000 task orders for USACE with over 2000 task orders across MVD including completing assignments in MVN, MVK, MVM, MVR, MVS and MVP. These assignments span from planning, to design, to construction management with extensive support in geotechnical and topographical investigations.
- **Deep Resources:** In addition to receiving a proven team, MVN is receiving a team with deep resources and subject matter experts in every discipline requested. Team MSMM has provided extensive environmental infrastructure design for every type of project listed in the solicitation.
- **Local presence:** MSMM's main office is located within the Mississippi Valley Division, New Orleans District. Backed by a large presence of small and large businesses with hands on experience in both MVD and MVN, our ability to meet the challenges of the region, an appreciation of non-Federal sponsor's needs, and the ability to deliver the needs and expectations of MVD and MVN are unparalleled.

In conclusion, the MSMM small business team has a proven track record of performing every service requested in this solicitation. This team's specialized Environmental Infrastructure design experience and technical competence are unparalleled when evaluating design experience within the program, within USACE, and within the contract footprint of MVD. We are firmly committed to providing the necessary resources to meet all scheduling demands and to deliver the engineering services needed to make this a successful mission.

Please feel free to contact us at 504-559-1897 if you require any additional information.

Sincerely,

Manish Mardia, P.E.
President

Enclosures

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SF330, PART I, SECTIONS A-I

ARCHITECT-ENGINEER QUALIFICATIONS

PART I – CONTRACT-SPECIFIC QUALIFICATIONS

A. CONTRACT INFORMATION

1. TITLE AND LOCATION (CITY AND STATE)

Indefinite Delivery/Indefinite Quantity (IDIQ) A-E Contract for Environmental Infrastructure Design and other related services within the boundaries of the Mississippi Valley Division (MVD); New Orleans, LA

2. PUBLIC NOTICE DATE	3. SOLICITATION OR PROJECT NUMBER
February 16, 2024	**W912P824R0023**

B. ARCHITECT-ENGINEER POINT OF CONTACT

4. NAME AND TITLE **Manish Mardia, P.E., President, EIN 45-2655374**

5. NAME OF FIRM **MSMM Engineering, L.L.C., UEI: NYLUL4Q5GYF6**

6. TELEPHONE NUMBER	7. FAX NUMBER	8. E-MAIL ADDRESS
(504) 559-1897	**(800) 335-8034**	**mmardia@msmmeng.com**

C. PROPOSED TEAM

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

	(Check) Prime	J-V	Sub	9. FIRM NAME	10. ADDRESS	11. ROLE IN THIS CONTRACT
a.	√			MSMM Engineering, LLC [ ] CHECK IF BRANCH OFFICE	4640 S. Carrollton Ave. Suite 220 New Orleans, LA 70119 UEI: NYLUL4Q5GYF6	**Small Business** Full-Service Engineering, Water/Wastewater Design, Investigations, Modeling, Data Collection, Civil, Structural, Environmental Engineering, Civil Works and Water Resources Planning Studies, Construction Management, Hydraulics and Hydrology, Cost Estimating, Engineering During Construction, P&S, Project Management, CAD MicroStation, BIM, CIM, GIS
b.	√			MSMM Engineering, LLC [√] CHECK IF BRANCH OFFICE	13850 Gulf Freeway, Suite 202A Houston, TX 77034 UEI: JVL4KTEBNRX9	**Small Business** Civil Engineering, CAD MicroStation, Project Management
c.			√	NY Associates, Inc. Engineers • Architects • Planners Program & Project Managers [ ] CHECK IF BRANCH OFFICE	2750 Lake Villa Dr. Metairie, LA 70002 UEI: F8LWMASG7AL1	**Small Business** Civil, Structural and Hydraulic Engineering and Architecture
d.			√	Principal Engineering [ ] CHECK IF BRANCH OFFICE	1011 N. Causeway Blvd., Suite 19 Mandeville, LA 70471 UEI: KKMXN5FVNCM9	**SDVOSB** Structural, Civil, Hydraulic, Electrical, Mechanical, and Fire Protection Engineering
e.			√	IMC Consulting Engineers Inc. [ ] CHECK IF BRANCH OFFICE	2714 Independence St. Metairie, LA 70006 UEI: GNTNET9H4Y85	**Small Business** MEP Engineering Design

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	Sub			
f.			√	EUSTIS ENGINEERING L.L.C. SINCE 1946 [ ] CHECK IF BRANCH OFFICE	3011 28th Street Metairie, LA 70002 UEI: R83MG9NLTMS4	**Small Business** Geotechnical Engineer
g.			√	TETRA TECH [√] CHECK IF BRANCH OFFICE	748 Main Street, Suite B Baton Rouge, LA 70802 UEI: QL4JXK7UV9K1	Structural, Electrical, Mechanical, Hydraulic, Geotechnical, GIS/Drafting, Hydrological, Planning Studies
h.			√	TETRA TECH [√] CHECK IF BRANCH OFFICE	201 E. Pine Street, Suite 1000 Orlando, FL 32801 UEI: W4QXA872KKH3	Civil, Environmental, Structural, Electrical, Chemical, Mechanical, GIS/Drafting, Transportation, Hydrological, Survey Architect, Geology, Environmental Science, Project Management
i.			√	Stantec [√] CHECK IF BRANCH OFFICE	1200 Brickyard Lane Suite 400 Baton Rouge, LA 70802 UEI: JK98RMLS5HJ8	Civil Engineering
j.			√	Stantec [√] CHECK IF BRANCH OFFICE	777 S Harbour Island Blvd Suite 600 Tampa, FL 33602 UEI: RR7KJAM4G4Z3	Mechanical Engineering
k.			√	Stantec [√] CHECK IF BRANCH OFFICE	410 17th Street Suite 1400 Denver, CO 80202 UEI: HAKDPJ5Q18X5	Environmental Engineering
l.			√	Stantec [√] CHECK IF BRANCH OFFICE	300 Primera Boulevard Suite 300 Lake Mary, FL 32746 UEI: G385LEAJBJK9	3-D Modeling CAD/BIM/CIM
m.			√	CDM Smith [√] CHECK IF BRANCH OFFICE	1515 Poydras Street Suite 1130 New Orleans, LA 70112 UEI: DHS5ZJSFCSH9	Project Management, Civil, Environmental Engineering, Hydrologist, Architect

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	Sub			
n.			√	CDM Smith [√] CHECK IF BRANCH OFFICE	12400 Coit Road Suite 400 Dallas, TX 75251 UEI: DHS5ZJSFCSH9	Structural, Civil, Geotechnical, Hydraulic, Mechanical, Electrical, Environmental, Corrosion, Cost Engineering, Hydrologist, Geologist, CAD/BIM Technician
o.			√	CDM Smith [√] CHECK IF BRANCH OFFICE	1808 Aston Avenue Suite 240 Carlsbad, CA 92008 UEI: DHS5ZJSFCSH9	Environmental, Structural, Civil, Hydraulic, Corrosion, Cost Engineering, CAD/BIM Technician
p.			√	corrpro an AEGION company [√] CHECK IF BRANCH OFFICE	6445 Marindustry Drive San Diego, CA 92121 UEI: JNKVMSMG57J6	Corrosion Engineering
q.			√	COAST & HARBOR ENGINEERING [ ] CHECK IF BRANCH OFFICE	5710 Penny Creek Austin, TX 78759 UEI: S1BXXBQFUMS8	**Small Business** Hydraulic Engineering
r.			√	LOWE ENGINEERS [√] CHECK IF BRANCH OFFICE	1011 North Causeway Boulevard, Ste 34 Mandeville, LA 70471 UEI: DNK9YCGKFH76	**Small Business** Survey
s.			√	LOWE ENGINEERS [√] CHECK IF BRANCH OFFICE	104 Speedpro Lane Scott, LA 70583 UEI: YWDYTLXFB211	**Small Business** Survey
t.			√	LOWE ENGINEERS [ ] CHECK IF BRANCH OFFICE	990 Hammond Dr. Ste 900 Atlanta, GA 30328 UEI: XWS9YF1NVNR8	**Small Business** Survey
u.			√	CSI CHUSTZ SURVEYING a division of GIS Engineering [ ] CHECK IF BRANCH OFFICE	211 Richy St. New Roads, LA 70760 UEI: QWXJLZNY6F21	Surveying and Engineering

U.S. Army Corps of Engineers

D. ORGANIZATIONAL CHART OF PROPOSED TEAM

PROGRAM MANAGER
*M. Mardia, PE(MSMM)

PROJECT MANAGER
*S. Chehardy, PE(MSMM)
*M. Harden, PE(MSMM)
*H. DiFranco, PE(PEI)
J. Wilson, PE, LEED®AP(MSMM)
S. Seiler, PE(MSMM)
C. Mills, PE(MSMM)
L. Walker, PE(MSMM)
F. Nicoladis, PE(NY)
M. Nicoladis, EI, MBA(NY)
D. Socha, PE, PMP(STN)
I. Pjetrovic, PE, PMP(CDM)

STRUCTURAL ENGINEER
*B. Yokum, PE(MSMM)
*R. Kalvakaalva, PE, CVS(MSMM)
A. Tareh, MS, SE(MSMM)
J. Simmons, PE(NY)
S. Fall, PE(NY)
J. Burkett, PE, SE(TT)
J. Costello, PE(TT)
G. Katzenberger, PE, SE(TT)
B. Twitchell, PE(TT)
S. Saiedi, PhD, PEng(TT)
C. Willcox, PE, SE(TT)
B. Zahawi, SE, PE(STN)
E. Coon, PE(STN)
J. Trowbridge, PE(STN)
E. Bjorklund, PE(CDM)

CIVIL ENGINEER
*J. Wilson, PE, LEED®AP(MSMM)
*J. Wilson, PE(MSMM)
*S. Seiler, PE(MSMM)
S. Chehardy, PE(MSMM)
C. Mills, PE(MSMM)
J. Simmons, PE(NY)
C. Nicoladis, PE(NY)
F. Mortali, PE(NY)
A. Monnot, PE(PEI)
M. Hough, PE(TT)
A. Baines, PE(TT)
J. Sapia, PE(STN)
B. Zahawi, SE, PE(STN)
K. Broome, PE, PMP(STN)
L. Pass, PE(STN)

GEOTECHNICAL ENGINEER
*J. Hance, PE(EUS)
*M. Woodward, PE(TT)
J. Williams, PE(EUS)
B. Cody, PE(EUS)
C. Held, PE(EUS)
T. Richards, PE(EUS)
G. Andersen, ScD PE(CDM)

HYDRAULIC ENGINEER
*C. Mills, PE(MSMM)
*J. Watts, PE, CFM, D.WRE, ENV SP(CDM)
C. Soileau, PE(MSMM)
C. Nicoladis, PE(NY)
F. Mortali, PE(NY)
C. Held, PE(EUS)
B. Keenan, PE(TT)
R. Holcombe, PE, QSD(TT)
S. Stone, PE(CDM)
M. Schmidt, PE, BCEE, D.WRE(CDM)
J. Carter, PE, BC.CE(CHE)
A. Agarwal, PE(CHE)
C. Harter, PE(CHE)

COST ENGINEER
*D. Daigle, CVS, CPE(MSMM)
*I. Pace, PE, SE, CCP(TT)
C. McDuff(MSMM)
S. Vose, CCP(TT)
M. Schlebusch, PE, PMP(CDM)

ELECTRICAL ENGINEER
*I. Pjetrovic, PE, PMP(CDM)
*P. Vlosich, PE(IMC)
R. Nichols, PE(IMC)
J. Seignoret(TT)
A. Reantaso, PE(TT)
A. Barnes(TT)
B. Buchanan, PE(STN)
M. Armenta, PE, RCDD, LEED®AP(STN)

MECHANICAL ENGINEER
*D. Socha, PE, PMP(STN)
*E. Higbee, III, PE(IMC)
M. Sutherland, PE, CEM, LEED AP BD+C(TT)
E. Flickinger, PE(TT)
C. Grompe, PE(TT)
S. Burdett, PE, CPD(CDM)
C. Frizzell, PhD, PE(CDM)

CORROSION ENGINEER
*S. Shumaker, PE, BCEE(CDM)
*T. Johnston, PE(COR)

ENVIRONMENTAL ENGINEER
*M. Tittlebaum, Ph.D, PE(MSMM)
*A. Umble, PhD, PE, BCEE, F.WEF(STN)
M. Mardia, PE(MSMM)
L. Walker, PE(MSMM)
S. Nolan, PE, PMP(STN)
J. Addison, PE, NGICP(CDM)

ARCHITECT
*S. Finegan, AIA(MSMM)
*M. Buisson, Jr., AIA, NCARB, LEED AP(NY)

HYDROLOGIST
*R. Cashe, PE, CDT, LEED AP(TT)
K. Neff, PE(STN)

GEOLOGIST
*N. Quick, PG(EUS)
*C. Drake, PG, CPG(TT)

MICROSTATION CAD TECHNICIAN
*E. Curson(MSMM)
B. Le(MSMM)
D. Voss, NICET(NY)
N. Jackson(NY)
C. LeMay(NY)
K. Hartmann(IMC)
L. Nguyen(TT)
J. Evans, PE(TT)
L. Lienhop(STN)
E. Gardiner, LSI(CSI)

BUILDING INFORMATION MODELER (BIM)
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*W. Vogel(STN)
E. Curson(MSMM)
J. Evans, PE(TT)
J. Huang, PhD, AIA, NCARB LEED AP(STN)

CIVIL INFORMATION MODELER (CIM)
*B. Le(MSMM)
*W. Vogel(STN)
E. Curson(MSMM)
N. Jackson(NY)
J. Evans, PE(TT)

GIS (Mapping and Analysis)
*C. LeMay(NY)
E. Curson(MSMM)
B. Le(MSMM)
A. Montalvo(TT)
J. Chustz, PLS(CSI)

GIS ANALYST
*A. Montalvo(TT)
E. Curson(MSMM)
C. LeMay(NY)
T. Rink, GISP(STN)

LANDSCAPE ARCHITECT
*B. Lighter, PLA(MSMM)
H. Conn, PLA(TT)
A. Seek, RLA(STN)
S. Niedergeses, RLA (STN)

LAND SURVEYOR
*J. Bonneau, PLS(LOWE)
*J. Chustz, PLS(CSI)
R. Chapman, PLS(LOWE)
C. Woods, PLS(CSI)

TOPOGRAPHIC SURVEYOR
*L. Dupont(CSI)
R. Bellendorf, CST 1(LOWE)
J. Canova(LOWE)
R. Fernandez(LOWE)
B. Conner(CSI)

HYDROGRAPHIC SURVEYOR
*J. Daniel, PLS(LOWE)
D. Speight(LOWE)
L. Evans, LSIT(LOWE)
C. Villemarette(CSI)
J. Phillips, CST(CSI)
M. Voinche, CST(CSI)

GPS SURVEYOR
*T. Odom(CSI)
J. Combs, GISP(LOWE)
L. Dischler(LOWE)
B. Hall(LOWE)
C. Lee(CSI)

VALUE ENGINEER
R. Kalvakaalva, PE, CVS(MSMM)

TEAM MEMBERS

MSMM Engineering, LLC.(MSMM)
N-Y Associates, Inc.(NY)
Principal Engineering, Inc.(PEI)
IMC Consulting Engineers, Inc.(IMC)
Eustis Engineering, LLC(EUS)
Tetra Tech, Inc.(TT)
Stantec Consulting Services Inc.(STN)
CDM Smith Federal Programs Corporation(CDM)
Corrpro Companies, Inc.(COR)
Coast & Harbor Engineering, Inc.(CHE)
Lowe Engineers(LOWE)
Chustz Surveying, LLC(CSI)

KEY

*** Resume Included for Role in Section E**

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
Manish Mardia, PE	**Program Manager**	**30**	**13**

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

MSMM Engineering, LLC – New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Civil Engineering, University of Jodhpur, 1990 MS, Civil Engineering, Louisiana State University,1994	Professional Engineer (1999): LA (28482), MS (18522)

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

Mr. Mardia is the president and program manager of MSMM Engineering, LLC, and a Professional Engineer with over 30 years of experience designing and managing water resource projects. Mr. Mardia has executed 24 task orders for the New Orleans District Environmental Infrastructure Program projects and approximately 70 flood risk reduction and drainage projects. His design expertise involves earthen levee and floodwall evaluation, inspection and design, drainage pump station evaluation and design, and preparation of engineering reports related to environmental infrastructure projects, drainage evaluation projects, water and wastewater projects, and the evaluation of existing facilities and infrastructure.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ascension Parish Environmental Infrastructure Wastewater Treatment Plant Design, Hillaryville, LA	**2022**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 1) As part of the New Orleans District Environmental Infrastructure Program, MSMM developed a design-bid-build package (plans and specs) for the creation of a 1.8 million gallon per day wastewater treatment plant. Services consisted of civil/structural/mechanical/electrical engineering, cost estimating using MCACES, and a full USACE review process. Mr. Mardia oversaw the delivery of the project and provided QA/QC during the internal and USACE review process. **Cost:** $21.5M, **Fee:** $880k, **Role:** Program Manager

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Baton Rouge Parish Wastewater Treatment Collection System 5 MG Ground Storage Tank and Pump Station, Baton Rouge, LA	**ONGOING**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 2) As part of the New Orleans District Environmental Infrastructure Program, MSMM provided the engineering design of two piles supported above-ground 5 million gallons (MG) prestressed concrete storage tanks, a 14,000 gpm sewer pump station, and a CMU control building. The existing pump station will be connected to the new pump station with a 42" diameter pipe and overflow chamber with automatic slide gates to control when flows will be diverted. Mr. Mardia oversees the execution of the project and provides QA/QC during the internal and USACE review process. **Cost:** NA **Fee:** $1.5M **Role:** Program Manager

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Hillaryville Pump Station and Effluent Discharge Force Main, Hillaryville, LA	**2016**	**2017**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 3) As part of the New Orleans District Environmental Infrastructure Program, MSMM completed full engineering design services for this Ascension Parish project. Work involved the design and construction of a sewerage project that consisted of a 562 gpm sewerage pump station and 4,068 feet of discharge pipe that travels underneath two (2) state highways and over the Mississippi River Levee before discharging into the Mississippi River. Mr. Mardia oversaw the delivery of the project and provided QA/QC during the internal and USACE review process. **Cost:** $2M, **Fee:** $283k, **Role:** Program Manager

19. RELEVANT PROJECTS (CONTINUED FOR MANISH MARDIA, PE – PROGRAM MANAGER)

d

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

PUA & ACUD#1 Drinking Water Infrastructure Improvements, Water Meter Replacement, Hillaryville, LA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2024	**ONGOING**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 4) As part of the New Orleans District Environmental Infrastructure Program, 100% bid-ready plans and specifications were developed for the removal and replacement of approximately 3,500 water meters of various sizes and the installation of four fixed location data collection devices to be mounted on water towers and utility poles located in the project area. Mr. Mardia oversaw the delivery of the project and provided QA/QC during the internal and USACE review process.
Cost: $6M, **Fee:** $915k, **Role:** Program Manager

e

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

East Baton Rouge Parish North Landfill Leachate Pond Abandonment, Pump Station, and Forcemain, Baton Rouge, LA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
ONGOING	**ONGOING**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 5) As part of the New Orleans District Environmental Infrastructure Program, this project was developed to eliminate the lagoon treatment and discharge to a local stream. This would reduce negative environmental impact by pumping lecheate landfill instead to a new forcemain that tied into the parish's sanitary sewer treatment facilities. Mr. Mardia oversees the execution of the project and provides QA/QC during the internal and USACE review process.
Cost: $2.7M, **Fee:** $455k, **Role:** Program Manager

f

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

Cow Bayou Drainage Pump Station Complex, Orange, TX

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2020	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 6) Our team developed a 35% design package (plans, specs, and DDR) for a new 8,190 cfs drainage pump station and complex consisting of a pump station building, safe house, floodwalls, and sector gate. Main responsibilities consisted of site layout, architectural, civil, structural, and cost engineering. The task order was to provide a 35% level of design with anticipation of changing the project to a Design-Build RFP. Mr. Mardia oversaw the delivery of the project and provided QA/QC during the internal and USACE review process.
Cost: $325M, **Fee:** $1.3M, **Role:** Program Manager

g

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

East Baton Rouge Parish Rehabilitation of Multiple Sanitary Sewer Overflow (SSO) Pump Stations, Baton Rouge, LA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2024	**TDB**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 7) As part of the New Orleans District Environmental Infrastructure Program, MSMM was tasked to upgrade multiple sewer pump stations. MSMM was responsible for mechanical, site civil, electrical, and structural engineering design to provide 100% bid ready plans and specifications. Mr. Mardia oversaw the delivery of the project and provided QA/QC during the internal and USACE review process. **Cost:** TBD, **Fee:** $433k, **Role:** Program Manager

h

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

New Orleans International Airport (MSY) Drainage Pump Station, Kenner, LA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2017	**2018**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 9) MSMM completed design and EDC services for a 600 cfs stormwater drainage pump station and for all landside drainage as part of constructing a new airport terminal. The project involved working under an extremely compressed schedule, while successfully delivering a true multi-disciplinary effort spanning civil, structural, electrical, mechanical, and environmental engineering, hydraulic modeling, architectural services, cost estimating, environmental permitting, drafting, and agency coordination. Mr. Mardia oversaw the delivery of the project and provided QA/QC during the internal review process. **Cost:** $25M, **Fee:** $2.7M, **Role:** Program Manager

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
Scott Chehardy, PE	**Project Manager**	**29**	**8**

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

MSMM Engineering, LLC – New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Civil Engineering, Southwestern Louisiana University, 1994	Professional Engineer/Civil (1999): LA (28532), IN (11700829)

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

Mr. Chehardy has a deep understanding of the USACE Environmental Infrastructure design process, having managed and executed multiple Environmental Infrastructure task orders. Mr. Chehardy is proficient with navigating USACE reviews utilizing DrChecks, has a long history of executing projects that require ATR/DQC and BCOES reviews, and is extremely proficient in developing USACE specifications utilizing SpecsIntact. Mr. Chehardy's recent experience includes finalizing the design-build RFP package for the Delta Pump Station project and leading the development of plans & specifications for the Ascension and Baton Rouge Parish Environmental Infrastructure projects.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ascension Parish Environmental Infrastructure Wastewater Treatment Plant Design, Hillaryville, LA	**2022**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 1) As part of the New Orleans District Environmental Infrastructure Program, MSMM developed a design-bid-build package (plans and specs) for the creation of a 1.8 million gallon per day wastewater treatment plant. Services consisted of civil/structural/mechanical/electrical engineering, cost estimating using MCACES, and a full USACE review process. Mr. Chehardy is the lead civil engineer for delivery of the design-bid-build package. He managed a multi-disciplinary team that provided full plans and specifications using CAD MicroStation and Specsintact and a detailed MII cost estimate to USACE. **Cost:** $21.5M **Fee:** $880K **Role:** Project Manager and Civil Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Baton Rouge Parish Wastewater Treatment Collection System 5 MG Ground Storage Tank and Pump Station, Baton Rouge, LA	**ONGOING**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 2) As part of the New Orleans District Environmental Infrastructure Program, MSMM provided the engineering design of two piles supported above-ground 5 million gallons (MG) prestressed concrete storage tanks, a 14,000 gpm sewer pump station, and a CMU control building. The existing pump station will be connected to the new pump station with a 42" diameter pipe and overflow chamber with automatic slide gates to control when flows will be diverted. Mr. Chehardy is the lead civil engineer for delivery of the design-bid-build package. **Cost:** NA, **Fee:** $1.5M, **Role:** Project Manager and Civil Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Cow Bayou Drainage Pump Station Complex, Orange, TX	**2020**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 6) Our team developed a 35% design package (plans, specs, and DDR) for a new 8,190 cfs drainage pump station and complex consisting of a pump station building, safe house, floodwalls, and sector gate. Main responsibilities consisted of site layout, architectural, civil, structural, and cost engineering. The task order was to provide a 35% level of design with anticipation of changing the project to a Design-Build RFP. Mr. Chehardy was the lead civil engineer for this project. **Cost:** $325M, **Fee:** $1.3M, **Role:** Project Manager and Civil Engineer

19. RELEVANT PROJECTS (CONTINUED FOR SCOTT CHEHARDY, PE – CIVIL ENGINEER)

d

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

East Baton Rouge Parish Rehabilitation of Multiple Sanitary Sewer Overflow (SSO) Pump Stations, Baton Rouge, LA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2024	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 7) As part of the New Orleans District Environmental Infrastructure Program, MSMM was tasked to upgrade multiple sewer pump stations. MSMM was responsible for mechanical, site civil, electrical, and structural engineering design to provide 100% bid ready plans and specifications. Mr. Chehardy is the project manager and lead civil engineer on this project. **Cost:** TBD, **Fee:** $433k, **Role:** Project Manager and Civil Engineer

e

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

City of Walker Sewer Improvements Environmental Infrastructure Project - Livingston Parish, LA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
ONGOING	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 8) As part of the New Orleans District Environmental Infrastructure Program MSMM is performing AE design services for the second phase of the City of Walker's Environmental Infrastructure's sewer system improvement project. Responsibilities included project management, detailed engineering and design, MCACES cost estimating, right-of-way (ROW) maps, surveying, geotechnical soil borings and analyses, and construction support services. Mr. Chehardy is the lead civil engineer for this project. **Cost:** TBD, **Fee:** $647k, **Role:** Project Manager and Civil Engineer

f

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

New Orleans International Airport (MSY) Drainage Pump Station, Kenner, LA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2017	**2018**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 9) MSMM completed design and EDC services for a 600 cfs stormwater drainage pump station and for all landside drainage as part of constructing a new airport terminal. The project involved working under an extremely compressed schedule, while successfully delivering a true multi-disciplinary effort spanning civil, structural, electrical, mechanical, and environmental engineering, hydraulic modeling, architectural services, cost estimating, environmental permitting, drafting, and agency coordination. Mr. Chehardy was the project manager for this project. **Cost:** $25M, **Fee:** $2.7M, **Role:** Project Manager

g

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

Texas City and Vicinity Hurricane Flood Protection Project – I-Wall to T-Wall Conversion, Texas City, Texas

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2020	**TBD**

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

Scope: Design for this project consisted of replacing the I-wall with a T-wall, replacing a swing gate, as well as access points through the wall. MSMM was responsible for evaluation of existing features, along with preparation of detailed engineering and design (E&D), a Design Document Report (DDR), plans and specifications, Engineering Considerations and Instructions to Field Personnel (ECIFP), and a Value Engineering Study (VE). Mr. Chehardy is the lead civil engineer for this project. **Cost:** $15M **Fee:** $1.8M **Role:** Project Manager and Civil Engineer

h

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

Harahan Drainage Pump to the River, Jefferson Parish, LA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2015	**2017**

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

Scope: MSMM's goal in this project was to create a strategically placed drainage system that would effectively rid the parish of its backwater flooding problem through designing a new pump station that would pump runoff into the nearby Mississippi River. Mr. Chehardy was the lead civil engineer for this project. **Cost:** $60M **Fee:** $1.8M **Role:** Project Manager and 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
Michael R. Harden, PE	**Project Manager**	**49**	**8**

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

MSMM Engineering, LLC – New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Civil Engineering, Mississippi State University, 1974	Professional Engineer (1979): MS (7596)

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

Mr. Harden is a professional engineer with over 40 years of experience as a project manager and consultant for MVN Civil Works projects. He previously served as Deputy Chief for USACE, Mississippi Valley Division, where he also acted as Senior Policy Compliance Advisor. On top of this, Mr. Harden was the nationally recognized technical expert for project and study cost-sharing agreements and Army cost-sharing policies and procedures while at USACE. During his time in this role, Mr. Harden reviewed Project Partnership Agreements (PPA's) and Letter Reports for USACE headquarters (HQUSACE) and various USACE divisions and districts. For the last eight years, Mr. Harden has been a project manager for multiple environmental infrastructure projects, providing expertise on all required PPAs and reviewing Letter Reports. Mr. Harden's other responsibilities have included cost-sharing agreements with sponsors, feasibility cost-sharing agreements, MMUs, design agreements, and model agreements.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ascension Parish Environmental Infrastructure Wastewater Treatment Plant Design, Hillaryville, LA	**2022**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 1) As part of the New Orleans District Environmental Infrastructure Program, MSMM developed a design-bid-build package (plans and specs) for the creation of a 1.8 million gallon per day wastewater treatment plant. Services consisted of civil/structural/mechanical/electrical engineering, cost estimating using MCACES, and a full USACE review process. Mr. Harden's responsibilities included development of the Letter Report for PPA's, QA/QC procedures for process improvements, project management, compliance/reporting. **Cost:** $21.5M, **Fee:** $880k, **Role:** Project Manager Support

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Baton Rouge Parish Wastewater Treatment Collection System 5 MG Ground Storage Tank and Pump Station, Baton Rouge, LA	**ONGOING**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 2) As part of the New Orleans District Environmental Infrastructure Program, MSMM provided the engineering design of two piles supported above-ground 5 million gallons (MG) prestressed concrete storage tanks, a 14,000 gpm sewer pump station, and a CMU control building. The existing pump station will be connected to the new pump station with a 42" diameter pipe and overflow chamber with automatic slide gates to control when flows will be diverted. Mr. Harden's responsibilities include development of model Project Partnership Agreements (PPAs), evaluation of process improvements for agreements. **Cost:** NA, **Fee:** $1.5M, **Role:** Project Manager

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
City of Walker Sewer Improvements Environmental Infrastructure Project, Livingston Parish, LA	**ONGOING**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 8) As part of the New Orleans District Environmental Infrastructure Program MSMM is performing AE design services for the second phase of the City of Walker's Environmental Infrastructure's sewer system improvement project. Responsibilities included project management, detailed engineering and design, MCACES cost estimating, right-of-way (ROW) maps, surveying, geotechnical soil borings and analyses, and construction support services. Mr. Harden's responsibilities include project management, and preparation/review of the Letter Report for Project Partnership Agreement between USACE and the City of Walker. **Cost:** TBD, **Fee:** $647k, **Role:** Project Manager Support

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
Henry I. DiFranco, Jr., MBA, PE	**Project Manager**	**32**	**19**

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

PRINCIPAL Engineering, Inc., Mandeville, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Bachelor of Science in Civil Engineering, 1991 Master of Business Administration, 1998	Louisiana, Civil #27448 | Texas, Civil #106982 Mississippi, Civil #25234 | Florida, Civil #71950

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

Mr. DiFranco held positions as a local public works & utilities director and consulting engineer over his 32-year career. Mr. DiFranco is also a 31-year veteran of the US Military, holding Engineer Officer positions in the U.S. Army and U.S. Air Force. In these positions, he oversaw the design and construction of numerous Gov't infrastructure and facilities. Furthermore, Mr. DiFranco is the former Chairman of the St. Tammany, Levee, Drainage and Conservation District (Governor Appointed; 2014 – Present), where he was instrumental in the planning, scope writing, and implementation for the development of a Coastal Master Plan for St. Tammany Parish. He is a member of ASCE, SAME and APWA.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Mid-Barataria Sediment Diversion (BA-153), LA CPRA, Belle Chasse, Louisiana	**2022**	**TBD**

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

Scope: The scope of the project is to divert and convey about 75,000 cfs sediment-laden water from the Mississippi River to the Barataria Basin to promote delta-building in the subsiding coastal marsh. The major features of the project include about 200 ft wide and 25 ft deep gated intake on the west bank of the river, about 2-mile-long, 25 ft deep conveyance channel, an outfall transition feature, a state highway, and a railroad bridge crossing. Mr. DiFranco managed the project scoping, design planning, design quality review, construction document, specification and bid form quality assurance and overall contract/client management. He helped develop criteria to govern the alternative screening & selection, design, and detailing of armoring on the MRLs, headworks, and channel. **Cost:** $1B, **Role:** Project Manager

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Airline Park Blvd. Drainage Pump Station, Jefferson Parish Government, Louisiana	**2019**	**2019**

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

Scope: Mr. DiFranco managed the project scoping, design planning, design quality review, construction document, specification and bid form quality assurance and overall contract/client management. The project includes the construction of a new drainage pump station at Airline Park and West Metairie Canal. He analyzed area hydrology and performed hydraulic calculations to establish/verify proposed subsurface pipe sizes and to design a 45 CFS drainage pump station. **Cost:** $3.0, **Role:** Project Manager

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Charles East Bank Master Drainage Plan; St. Charles Parish Government, Louisiana	**2022**	**2022**

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

Scope: Mr. DiFranco was the Project Manager and Principal Engineer for this H&H Modeling project. The result of the modeling efforts identified $200M in recommended improvements including drainage pump stations conveyance and detention improvements. **Role:** Project Manager and Principal 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
Bob Yokum, PE	**Structural Engineer**	**49**	**11**

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

MSMM Engineering, LLC – New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
MS, Civil Engineering, Tulane University, 1980 BS, Civil Engineering, University of New Orleans, 1975	Professional Engineer (1984) First Year Registered, LA, (21422)

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

Mr. Yokum, a former USACE New Orleans District Structural Engineer, has over 40 years of experience providing structural design for Federal projects. Mr. Yokum specializes in designing flood risk reduction measures and has designed levees, flood walls, locks, gates, and drainage structures. Mr. Yokum developed the unbalanced load criteria used by USACE for all levee design projects. These criteria set the guiding design calculations for designing heavy structural projects that have water on one side and land on the other.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ascension Parish Environmental Infrastructure Wastewater Treatment Plant Design, Hillaryville, LA	**2022**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 1) As part of the New Orleans District Environmental Infrastructure Program, MSMM developed a design-bid-build package (plans and specs) for the creation of a 1.8 million gallon per day wastewater treatment plant. Services consisted of civil/structural/mechanical/electrical engineering, cost estimating using MCACES, and a full USACE review process. Mr. Yokum was the lead structural engineer for the project and was responsible for designing reinforced concrete structures for all process units, pump stations, and slabs on grade. Additional structural design elements completed were the CMU electrical/control buildings and pile design for all structures and buildings while utilizing the results of the Geotechnical analysis to develop his design. **Cost:** $21.5M **Fee:** $880k **Role:** Structural Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Baton Rouge Parish Wastewater Treatment Collection System 5 MG Ground Storage Tank and Pump Station, Baton Rouge, LA	**ONGOING**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 2) As part of the New Orleans District Environmental Infrastructure Program, MSMM provided the engineering design of two piles supported above-ground 5 million gallons (MG) prestressed concrete storage tanks, a 14,000 gpm sewer pump station, and a CMU control building. The existing pump station will be connected to the new pump station with a 42" diameter pipe and overflow chamber with automatic slide gates to control when flows will be diverted. Mr. Yokum's main responsibilities consist of structural design elements and analyses including two large control valve junction boxes, pump station, and a control building that will house the electrical control systems. Mr. Yokum is the project's lead structural engineer.
Cost: NA **Fee:** $1.5M **Role:** Structural Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Cow Bayou Drainage Pump Station Complex Design, Orange, TX	**2020**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 6) Our team developed a 35% design package (plans, specs, and DDR) for a new 8,190 cfs drainage pump station and complex consisting of a pump station building, safe house, floodwalls, and sector gate. Main responsibilities consisted of site layout, architectural, civil, structural, and cost engineering. The task order was to provide a 35% level of design with anticipation of changing the project to a Design-Build RFP. Mr. Yokum was the lead structural engineer for the project. He designed the foundation for the pump station, hydraulic gates, floodwall, pump station safe house, and fuel yard. He developed detailed calculations for these design components, which were reviewed and approved by USACE. **Cost:** $325M **Fee:** $1.3M **Role:** 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
Ramesh Kalvakaalva, PE, CVS	**Structural Engineer**	**30**	**13**

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

MSMM Engineering, LLC – New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
PhD Candidate, Civil Engineering, Louisiana State University (1999) MS, Civil Engineering; Louisiana State University (1995) BS, Civil Engineering; NIT, Trichy, India (1991)	Professional Engineer/Civil (1997): LA (28219), MS (14876) FL (67030), AL 27347), GA (26993), TN (106893), NC (031348), SC (24777), AZ (43451, MI (2843452) SAVE® Certified CVS (Worldwide) (2010) CVS License (201110500)

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

Mr. Kalvakaalva is a Structural Engineer with over 25 years of providing Structural Design solutions to USACE and other Federal agencies. He was instrumental in the data evaluation, planning, analysis, and design of several HSDRRS projects following Hurricane Katrina, inclusive of flood protection measures such as pump stations, levees, floodwalls, drainage inlets, and coastal erosion features. More recently, Mr. Kalvakaalva has provided structural engineering solutions for box culverts, design-build levee raise projects, and bridges and elevated structures. Mr. Kalvakaalva is also a Save International Registered CVS and has led more than 20 USACE value engineering studies in the last five years.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Baton Rouge Parish Rehabilitation of Multiple Sanitary Sewer Overflow (SSO) Pump Stations, Baton Rouge, LA	**2024**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 7) As part of the New Orleans District Environmental Infrastructure Program, MSMM was tasked to upgrade multiple sewer pump stations. MSMM was responsible for mechanical, site civil, electrical, and structural engineering design to provide 100% bid ready plans and specifications. Mr. Kalvakaalva was the lead structural engineer and was responsible for designing reinforced concrete structures for all pump stations, base slabs, and slabs on grade. **Cost:** TBD, **Fee:** $433k, **Role:** Structural Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
New Orleans International Airport (MSY) Drainage Pump Station, Kenner, LA	**2017**	**2018**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 9) MSMM completed design and EDC services for a 600 cfs stormwater drainage pump station and for all landside drainage as part of constructing a new airport terminal. The project involved working under an extremely compressed schedule, while successfully delivering a true multi-disciplinary effort spanning civil, structural, electrical, mechanical, and environmental engineering, hydraulic modeling, architectural services, cost estimating, environmental permitting, drafting, and agency coordination. Mr. Kalvakaalva was the lead structural engineer and was responsible for designing reinforced concrete pump station structure, pile supported pipe supports, headwalls, sheet pile discharge structure, and slabs on grade. **Cost:** $25M, **Fee:** $2.7M, **Role:** Structural Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Lapalco Bridge over Harvey Canal Design Project, Harvey, LA	**ONGOING**	**TBD**

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

Scope: This bridge design project involved the reconfiguration of an existing four-lane bridge into a bridge containing three eastbound lanes with a new independent three lane westbound bridge. MSMM provided schematic design, preliminary design, final design, and load ratings. Mr. Kalvakaalva is the lead structural engineer and was responsible for completing the load rating on the existing bridge and for designing the structural components for the bridge expansion. He's developing detailed calculations for these components. **Cost:** TBD **Fee:** $1.11M, **Role:** 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
Jim Wilson, PE, LEED AP	**Civil Engineer**	**36**	**10**

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

MSMM Engineering, LLC - New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Civil Engineering, Michigan Technological University, 1988	Professional Engineer/Civil (1993): TX (128376), LA (35456), MI (38800), FL (85114) LEED Accredited Professional 2008

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

Mr. Wilson is a senior civil engineer with 36 years of civil design experience. He is the designer of record for all the civil works designs that MSMM has completed in Texas. Mr. Wilson is fully versed in the USACE civil works and water resources design process and is intimately familiar with the application of UFC 3-201-01 and following USACE CAD/BIM standards. He also provides construction phase services inclusive of engineering during construction (EDC).

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Hillaryville Pump Station and Effluent Discharge Force Main, Hillaryville, LA	**2016**	**2017**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 3) As part of the New Orleans District Environmental Infrastructure Program, MSMM completed full engineering design services for this Ascension Parish project. Work involved the design and construction of a sewerage project that consisted of a 562 gpm sewerage pump station and 4,068 feet of discharge pipe that travels underneath two (2) state highways and over the Mississippi River Levee before discharging into the Mississippi River. Mr. Wilson was the engineer of record for the project.
Cost: $2M, **Fee:** $283k, **Role:** Engineer of Record, Civil Engineer, Project Manager

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
PUA & ACUD#1 Drinking Water Infrastructure Improvements, Water Meter Replacement, Hillaryville, LA	**2024**	**ONGOING**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 4) As part of the New Orleans District Environmental Infrastructure Program, 100% bid-ready plans and specifications were developed for the removal and replacement of approximately 3,500 water meters of various sizes and the installation of four fixed location data collection devices to be mounted on water towers and utility poles located in the project area. Mr. Wilson is the Project Manager and lead Civil Engineer on the project.
Cost: $6M, **Fee:** $915k, **Role:** Project Manager, Civil Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Baton Rouge Parish North Landfill Leachate Pond Abandonment, Pump Station, and Forcemain, Baton Rouge, LA	**ONGOING**	**ONGOING**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 5) As part of the New Orleans District Environmental Infrastructure Program, this project was developed to eliminate the lagoon treatment and discharge to a local stream. This would reduce negative environmental impact by pumping lecheate landfill instead to a new forcemain that tied into the parish's sanitary sewer treatment facilities. Mr. Wilson is the Project Manager and lead Civil Engineer on the project.
Cost: $2.7M, **Fee:** $455k, **Role:** Project Manager, Civil Engineer

19. RELEVANT PROJECTS (CONTINUED FOR JIM WILSON, PE, LEED AP – CIVIL ENGINEER)

d

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

City of Walker Sewer Improvements Environmental Infrastructure Project - Livingston Parish, LA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
ONGOING	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 8) As part of the New Orleans District Environmental Infrastructure Program MSMM is performing AE design services for the second phase of the City of Walker's Environmental Infrastructure's sewer system improvement project. Responsibilities included project management, detailed engineering and design, MCACES cost estimating, right-of-way (ROW) maps, surveying, geotechnical soil borings and analyses, and construction support services. Mr. Wilson is a civil engineer who is working on this project, helping deliver plans and specs. **Cost:** TBD, **Fee:** $647k, **Role:** Civil Engineer

e

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

New Orleans International Airport (MSY) Drainage Pump Station, Kenner, LA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2017	**2018**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 9) MSMM completed design and EDC services for a 600 cfs stormwater drainage pump station and for all landside drainage as part of constructing a new airport terminal. The project involved working under an extremely compressed schedule, while successfully delivering a true multi-disciplinary effort spanning civil, structural, electrical, mechanical, and environmental engineering, hydraulic modeling, architectural services, cost estimating, environmental permitting, drafting, and agency coordination. Mr. Wilson was the lead civil engineer and designer of record for the project. He provided all the civil site work design and provided engineering support during the advertisement (EDA), engineering support during construction (EDC), and provided periodic inspection reports of the construction progress. **Cost:** $25M, **Fee:** $2.7M, **Role:** Engineer of Record, Civil Engineer

f

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

Lapalco Bridge over Harvey Canal Design Project, Harvey, LA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
ONGOING	**TBD**

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

Scope: This bridge design project involves the reconfiguration of an existing four-lane bridge into a bridge containing three eastbound lanes with a new independent three lane westbound bridge. MSMM is providing schematic design, preliminary design, final design, and load ratings. Mr. Wilson is the Lead Civil Engineer for this project. **Cost:** TBD **Fee:** $1.11M **Role:** Project Manager, Civil Engineer

g

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

River Road Aquatic Ecosystem Restoration – San Antonio, TX

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
ONGOING	**TDB**

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

Scope: MSMM was contracted by USACE/San Antonio River Authority to provide 100% Design-Bid-Build for this large-scale project, which focuses on recreational usability as well as ecosystem restoration. MSMM's responsibilities include H&H analysis, stream restoration, landscape architecture, civil and structural design, cost estimating and value engineering. Mr. Wilson is the Project Manager and Lead Civil Engineer for the project. **Cost:** $8.3M (Estimated) **Fee:** $1.48M **Role:** Project Manager, Civil Engineer

h

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

Aubry Street CDBG 10-year Storm Drainage Improvement and Roadway Construction, New Orleans, LA

(2) YEAR COMPLETED

PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
2017	**2017**

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

Scope: MSMM performed 100% design for the reconstruction of this 4-block street. In preparation for the nearby Jazz Festival, this drainage and reconstruction project had to be designed and constructed within a tight 1-year time frame. It earned an excellent design rating from the City of New Orleans upon completion. Mr. Wilson was the Engineer of Record for this project. **Cost:** $2M **Fee:** $308K, **Role:** Engineer of Record

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
Jeff Wilson, PE	**Civil Engineer**	**35**	**1**

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

MSMM Engineering, LLC – New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Civil Engineering, University of New Orleans (1998) Old Dominion University, Coastal Engineering Certificate (2014)	Professional Engineer: LA (16581), MS (31566)

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

Mr. Wilson brings 27 years of experience designing and managing land and marine infrastructure projects to this project. These projects covered a wide spectrum of work from roadway improvements to hydraulic studies and the design of commercial and residential sites. In addition to a design background in roadways, drainage, and utilities, Mr. Wilson has experience with marine construction. He was employed as a diving professional for over 12 years, with experience in the offshore Oil and Gas industry. Mr. Wilson is an active member of the American Society for Civil Engineers (ASCE) and the American Concrete Institute (ACI). He is proficient in EPA SWMM, HEC-RAS, Arcview GIS Software, and the LADOTD Hydraulics software.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Baton Rouge Parish Wastewater Treatment Collection System 5 MG Ground Storage Tank and Pump Station, Baton Rouge, LA	**ONGOING**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 2) As part of the New Orleans District Environmental Infrastructure Program, MSMM provided the engineering design of two piles supported above-ground 5 million gallons (MG) prestressed concrete storage tanks, a 14,000 gpm sewer pump station, and a CMU control building. The existing pump station will be connected to the new pump station with a 42" diameter pipe and overflow chamber with automatic slide gates to control when flows will be diverted. Mr. Wilson is his civil engineering expertise for preparing 95% of the plans and specifications for the project. **Cost:** NA **Fee:** $1.5M **Role:** Civil Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Port of New Orleans Hydraulic and Hydrologic Drainage Evaluation	**2023**	**NA**

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

Scope: The overall scope of this project involved H&H model setup and calibration, proposing high level development drainage improvements, and development of a preliminary drainage report. Mr. Wilson was the project manager on this project. His contribution included liaison with the prime consultant and preparing a drainage study for the Owners using information from historical records. He also assisted in preparing the drainage model and evaluation. **Cost:** NA **Fee:** $560k **Role:** Civil Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Freret Group A - Design and Construction Management of Roadway, Drainage and Water Improvements/Restoration, New Orleans, LA	**2020**	**2021**

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

Scope: The project consisted of water and drainage repairs and improvements, followed by the rebuilding of streets in the area bounded by Napoleon Ave., Jefferson Ave., Claiborne Ave., and Lasalle St. It involved overlay, complete road reconstruction, and the repair or upgrading of water and drain lines. This was for approximately a 36-block area, where about 1/3 of streets were repaired or replaced. As the designer and construction administrator with Kyle Associates, LLC, Mr. Wilson was responsible for creating the design concept and detailed plans for the project in addition to overseeing the construction phase to ensure the design was accurately executed. **Cost:** $6M **Fee:** NA **Role:** 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
Stuart Seiler, PE	**Civil Engineer**	**8**	**1**

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

MSMM Engineering, LLC – New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S. Civil Engineering, Louisiana State University	PE 45472 (Louisiana & Civil-Transportation)

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

Mr. Seiler is a licensed civil engineer with 8 years of experience working in both the public and private sector. His experience spans a variety of design & construction administration projects, including structural, general utility, roadway, water, sewer, and civil facilities. He has worked heavily on transportation and infrastructure improvements, in projects dedicated to reducing traffic congestion, designing multimodal facilities, conducting traffic impact analysis, developing traffic signals, designing roadway signage & striping plans, producing necessary traffic control device plans. Mr. Seiler has experience designing urban and rural roadways, drainage systems, potable water infrastructure, pump/lift stations, and sewer infrastructure throughout the state of Louisiana.

19. RELEVANT PROJECTS

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Baton Rouge Parish Wastewater Treatment Collection System 5 MG Ground Storage Tank and Pump Station, Baton Rouge, LA	**ONGOING**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 2) As part of the New Orleans District Environmental Infrastructure Program, MSMM provided the engineering design of two piles supported above-ground 5 million gallons (MG) prestressed concrete storage tanks, a 14,000 gpm sewer pump station, and a CMU control building. The existing pump station will be connected to the new pump station with a 42" diameter pipe and overflow chamber with automatic slide gates to control when flows will be diverted. Mr. Seiler's responsibilities included pump station design and sizing of gravity sewer piping and forcemains. **Cost:** NA **Fee:** $1.5M **Role:** Supplemental Civil Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
USACE Silver Jackets, Stormwater Watershed Management Study, Jefferson Parish, LA	**2021**	**NA**

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

Scope: The purpose of this project was to provide an assessment of how flood stages will be affected by projected changes in future rain and sea-level conditions and to recommend strategies for mitigating increased flood loss damages. Mr. Seiler performed the hydraulic modeling utilizing the EPA SWMM model to determine the existing and future conditions on over 50 percent of the Parish inside the levees for the 10-year, 25-year, and 100-year storm events.
Cost: NA **Fee:** $350k **Role:** Supplemental Hydraulic and Civil Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Little Woods (RR100) Neighborhood FEMA Recovery Roads Repair, New Orleans, LA	**2024**	**NA**

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

Scope: Mr. Seiler was the Project Manager for the +200 block RR100 Little Woods FEMA Recovery Program project. General design features included mill and overlay, complete roadway replacement, ADA compliant ramps at intersections, traffic engineering for intersections, and design of new sub-surface utilities inclusive of drainage, sewer, and water infrastructure. Mr. Seiler was also responsible for coordinating with Entergy, Cox, and AT&T to mitigate utility conflicts.
Cost: $22.5M **Fee:** $1.9M **Role:** Project Manager

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
James J. Hance, PE	**Geotechnical Engineer**	**24**	**20**

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

Eustis Engineering L.L.C. – Metairie, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
MBA, Business Administration, Tulane University, 2011 MS, Civil Engineering, University of Texas at Austin, 2003 BS Civil Engineering, Bucknell University, 1998	Professional Civil Engineer (2004): LA (31270), TX (106663), MS (20596)

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

Mr. Hance joined the staff of Eustis Engineering 20 years ago (August 2003). During his tenure at Eustis Engineering, he has been involved in a multitude of projects for various government agencies as well as private sector clients. Mr. Hance manages geotechnical services associated with commercial, industrial, environmental, and civil works projects. The primary focus of his career has been on flood protection and coastal restoration projects in Louisiana. He has worked extensively on Federal and non-Federal projects since the days following Hurricane Katrina. He has even been cited by the USACE in their Hurricane Storm Damage Risk Reduction System with regard to his early analyses on evaluating settlement induced bending moments in steel piles supporting floodwalls (T-walls).

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
State of Louisiana - Mid-Barataria Sediment Diversion Project, Plaquemines and Jefferson Parishes, LA	**ONGOING**	**NA**

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

Scope: Mr. Hance is the project manager as well as the lead geotechnical engineer for the field exploration, laboratory testing, and geotechnical design for this project. Mr. Hance has worked consistently with CPRA since December 2017. Because of the scale and complexity of this landmark, a $1.3 billion project for CPRA, Mr. Hance has been co-located with CPRA, their program manager, and many design firms to move this design project forward. He has overseen Eustis Engineering's massive field program comprising 162 borings (3 and 5-in. diameter) and 98 CPTs for the three exploration phases (15%, 30%, and 60%). Beyond the field program, the lab program had many thousands of undrained and drained shear strengths, consolidation, DSS, Atterberg limit, sieve, and moisture content tests. Mr. Hance has participated in a semi-quantitative risk assessment and many design meetings. All aspects of geotechnical engineering analyses and design have been brought to bear on this project including pile capacity curves, time settlement projections with lift schedules, soil pressures, bank stability analysis, stability analysis for channels and excavations, down drag and settlement analysis, numerical modeling and wave equation analysis. The 60% design phase was completed in the fall of 2021. The 100% design will be complete by year end 2022 with an early works construction package in mid-2023. Mr. Hance will continue in his role as project manager and lead geotechnical engineer into the construction phase.
Cost: (Eustis' Fee) **Fee:** $5M, **Role:** Project Manager and Lead Geotechnical Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Terrebonne Levee & Conservation District - Falgout Canal Hurricane Protection Project, Terrebonne Parish, LA	**2019**	**ONGOING**

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

Scope: Eustis Engineering developed geotechnical recommendations and analyses to support the design of flood protection at Falgout Canal in Terrebonne Parish, Louisiana. Flood protection consisted of a 195-ft swinging barge floodgate in Falgout Canal and braced walls extending from the floodgate and tie-in to an earthen levee alignment on the northern and southern sides of Falgout Canal. Mr. Hance directed and performed quality control design review of lateral load-deflection analyses of pipe piles planned to support the floodgate structure and adjoining walls. In addition, Mr. Hance reviewed geotechnical evaluations of structures (i.e., swing gates, barge gates, and floodwalls) and levee tie-ins for various projects. He performed a bearing capacity analysis, stability analysis using Spencer's method, and provided seepage and dewatering analysis as part of the Geotechnical appendix.
Cost (Eustis' Fee): $727K) **Role:** Geotechnical Engineer

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

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Mark Woodward, PE	**Geotechnical Engineer**	**42**	**6**

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

Tetra Tech, Inc. – Baton Rouge, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
MS, Risk Management Notre Dame of Maryland University, 2019 ME, Civil Engineering, Tulane University 1986 BS. Civil Engineering, Tulane University, 1982	Professional Engineer/Civil (1991): LA (24206), AR (21601), MS (29797), TX (133042), AL (38100-E)

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

Mr. Woodward served as geotechnical engineer for 36 years in the geotechnical branch of USACE New Orleans District, retiring as the deputy chief of the geotechnical branch and Dam and Levee Safety Program Manager. He was responsible for managing all departments in the branch including engineering, drilling, soils laboratory, dredge material testing, concrete testing, and administration. Mr. Woodward has considerable experience designing and managing flood control projects on the Mississippi River, Atchafalaya Basin and Storm Surge Levees in Southeast Louisiana and Texas, as well as mitigation and coastal projects in Louisiana. These projects included design of earthen levees, hydraulic structures, floodwalls, ground improvement, deep excavations, relief wells, wick drains, dewatering systems, seepage and stability berms, preloads, reinforced levees and marsh creation for mitigation, coastal restoration and protection, and beneficial use of dredge material in marsh and coastal environments with field investigations requiring use of specialized marine and marsh drilling equipment.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Mid-Breton Sediment Diversion, Plaquemines Parish, LA	**ONGOING**	**NA**

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

Scope: Mr. Woodward serves as the Geotechnical Engineer of Record for CPRA's Mid-Breton Sediment Diversion Project which will reconnect the Mississippi River to the deteriorating deltaic wetlands in the Breton Sound Basin. This project includes a control structure in the mainline levee along the Mississippi River and an associated river inlet channel, a conveyance channel across the protected landside area, and a back structure through the existing hurricane surge protection levee. **Cost:** $799M **Fee:** $2M **Role:** Senior Geotechnical Engineer.

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Levee Safety Program, New Orleans, LA	**2018**	**NA**

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

Scope: Mr. Woodward served as the USACE New Orleans District Levee Safety Program Manager for over four years, responsible for Levee Evaluation Reports for Levee Certifications and the National Flood Insurance Program, Levee Inspection Reports on over 1300 miles of levee on an annual basis, Risk Assessments and Communication for all levees in the district's jurisdiction; Was also responsible for final Section 408 permitting approval to ensure that construction activities do not increase risk or diminish function of levees and do not cause harm to the public. Teamed with flood risk management, led potential failure mode analysis, participated in probable failure mode analysis (PFMA), prepared event trees, oversaw and performed review of Risk Analysis (RA) reports for other Districts. **Cost:** $20M **Fee:** N/A **Role:** Levee Safety Program Manager

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
HSDRRS, New Orleans Metro Area, LA	**2018**	**NA**

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

Scope: Mr. Woodward provided Senior Consistency Review for Geotechnical work product performed by A/E firms and other Corps Districts for the entire Hurricane Storm Surge Risk Reduction System. He was also responsible for the geotechnical design of 15 miles of HSDDRS from Bayou Segnette to Harvey Canal. Included use of numerical modeling programs like Plaxis and Flac using various constitutive clay and sand models as well as Slope/W. **Cost:** $14B **Fee:** N/A **Role:** Supervisory Geotechnical Engineer

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

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Chris Mills, PE	**Hydraulic Engineer**	**5**	**5**

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

MSMM Engineering, LLC – New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Civil Engineering, Louisiana State University, 2019	Professional Engineer, Civil (2023): LA (47987)

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

Mr. Mills is a civil and hydraulic professional engineer with MSMM where he performs a wide variety of design and hydraulic evaluations for public works projects in Orleans and Jefferson Parish. Mr. Mills also performs various field services, inclusive of collecting survey data, manhole location data, GIS data, and provides construction administration services for various construction projects.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ascension Parish Environmental Infrastructure Wastewater Treatment Plant Design, Hillaryville, LA	**2022**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 1) As part of the New Orleans District Environmental Infrastructure Program, MSMM developed a design-bid-build package (plans and specs) for the creation of a 1.8 million gallon per day wastewater treatment plant. Services consisted of civil/structural/mechanical/electrical engineering, cost estimating using MCACES, and a full USACE review process. Mr. Mills was responsible for site civil design. **Cost:** $21.5M, **Fee:** $880k, **Role:** Civil Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Kenner Drainage Master Plan Development – Kenner, LA	**ONGOING**	**NA**

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

Scope: MSMM was responsible for updating the Kenner Drainage Master Plan through a combination of hydraulic modeling and alternatives analysis. Services involved characterizing the drainage system via field inspections and Hydraulic Modeling. MSMM personnel were previously involved in developing drainage planning documents, inclusive of the City of Kenner Drainage Master Plan completed in April 2010. Mr. Mills performed the hydraulic modeling using the Storm Water Management Model (SWMM) and provided field data collection services on the current project, collecting survey data for drainage inlets, manholes, and street elevations. He also helped develop GIS graphics for the main report and was ultimately responsible for finalizing the report and submitting it to the client. **Cost:** TBD **Fee:** $90k **Role:** Hydraulic Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
River Road Aquatic Ecosystem Restoration – San Antonio, TX	**ONGOING**	**TBD**

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

Scope: MSMM was contracted by USACE/San Antonio River Authority to provide 100% Design-Bid-Build for this large-scale project, which focuses on recreational usability as well as ecosystem restoration. MSMM's responsibilities include H&H analysis, stream restoration, landscape architecture, civil and structural design, cost estimating and value engineering. Mr. Mills is responsible for preparing the H&H model by analyzing the existing drainage conditions, researching, and obtaining rainfall data for the area. **Cost:** $3M **Fee:** $548k **Role:** Hydraulic 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
Jessica Watts, PE, CFM, D. WRE, ENV SP	**Hydraulic Engineer**	**22**	**18**

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

CDM Smith – New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
MS, Environmental and Water Resource Engineering, University of Texas, 2006 BS, Civil Engineering, Christian Brothers University, 1996	Professional Engineer/ Civil: LA (13480), AR (12625), MS (17930), TX (0035317)

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

Ms. Watts is a civil and hydraulic engineer with over 20 years of experience specializing in planning, modeling, and design of stormwater management, green infrastructure, and civil/site development. Jessica's experience encompasses a wide range of other civil and water resources projects for highway work/roadway design, federal design includes, USACE, Navy, and FEMA Hazard Mitigation Grant Program (HMGP), shoreline stabilization, and resiliency projects including serving as Task Force Leader for New Orleans Infrastructure Assessment after Hurricane Katrina disaster. **Certifications:** Certified Floodplain Manager, Louisiana; Envision Certified Sustainability Professional. **Awards:** Diplomate, Water Resources Engineer, American Academy of Water Resources Engineers

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Broadmoor Flood Risk Management Design and Green Infrastructure, New Orleans, LA	**2021**	**2024**

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

Scope: Lead hydraulic engineer for this $50M (construction) project, which includes an approach to reduce flooding and mitigate hazards from the high intensity, short duration rainfall in New Orleans. Led the H&H modeling to balance green and gray infrastructure. Upgrades in her design included conveyance and implementation to green infrastructure; upgrades to stormwater drainage conveyance infrastructure; and smaller-scale, distributed improvements. Provided the design of green infrastructure and flood risk management and reduction measures. Engaged with stakeholders due to the high-level of visibility of work. This project is currently in the construction document phase.
Cost: $50M **A/E Fee:** $2M **Role:** Hydraulic Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
New Orleans Redevelopment Authority (NORA), Pontilly Stormwater Hazard Mitigation Grant Program (HMGP), New Orleans, LA	**2021**	**2023**

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

Scope: Lead hydraulic engineer for an HMGP grant to reduce the stormwater flooding impacts in the neighborhoods of Pontchartrain Park and Gentilly Woods known as "Pontilly." Ms. Watts was responsible for the overall technical scope, modeling, design, BCA development, and project management activities to design stormwater best management practice (BMP) solutions that provide $13.5M in flood mitigation throughout the Pontilly Study Area over the course of 50 years. The design solution includes: re-purposing post-Katrina un-restored residential lots and other existing green spaces into urban pocket parks with stormwater detention and wetlands, pervious pavement, urban bio-swales, street basins, and widening of the existing Dwyer Canal and incorporating overland flow from areas with topographic impediments to standard drainage design. **Cost:** $12M **A/E Fee:** $1.5M **Role:** Hydraulic Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Coastal Protection and Restoration Authority, Jean Lafitte & Vicinity Drainage Upgrades, Lafitte, LA	**2016**	**N/A**

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

Scope: Ms. Watts led and managed the deliverable of the design, bid, and construction administration for 400 linear feet of improvements to existing drainage canals and structures and open canals. Deliverables include determining the level of service/capacity of the existing system, calculation of the required level of service for a ten-year storm conveyance, coordination with the client to determine specific existing drainage problems, and drainage analysis. **A/E Fee:** $38K **Role:** Hydraulic 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
Don Daigle, CVS, CPE	**Cost Engineer**	**45**	**6**

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

MSMM Engineering – New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
AAS, Mechanical Engineering, 1984 AAS, Electro-Mechanical Engineering, 1982	Certified Value Specialist (CVS): #201203044 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 providing value engineering, cost estimating and cost management, life cycle cost analysis, scheduling, quality control techniques, and design construction cost reconciliation for USACE Civil Works projects. He is a Certified Value Specialist and proficient in estimating using MCACES and PACES software. Mr. Daigle has provided MII cost estimating for multiple USACE districts including all recent Civil Works design task orders completed by MSMM. He also has experience providing detailed cost estimating for the Air Force on several projects.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ascension Parish Environmental Infrastructure Wastewater Treatment Plant Design, Hillaryville, LA	**2022**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F8, Project Number 1) 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 civil/structural/mechanical/electrical engineering, cost estimating using MCACES, and a full USACE review process. Mr. Daigle provided the detailed cost estimating for the project. He was tasked with producing cost estimates in MCACES (MII) for each of the design submittals. He was also tasked with responding to DrChecks comments related to the estimate and participated in design review meetings. Additionally, he was responsible for identifying features to reduce project costs and identifying bid options. **Cost:** $21.5M **Fee:** $880k **Role:** Cost Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Cow Bayou Drainage Pump Station Complex Design – Orange, TX	**2020**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 6) Our team developed a 35% design package (plans, specs, and DDR) for a new 8,190 cfs drainage pump station and complex consisting of a pump station building, safe house, floodwalls, and sector gate. Main responsibilities consisted of site layout, architectural, civil, structural, and cost engineering. The task order was to provide a 35% level of design with anticipation of changing the project to a Design-Build RFP. Mr. Daigle performed very preliminary 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 the design team as they prepared design submittals. The design team also coordinated project features with him as they developed the design. **Cost:** $325M **Fee:** $1.3M **Role:** Cost Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Design-Build RFP Development: 277K Levee Raise and Delta Pump Station – Dallas, TX	**2021**	**TBD**

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

Scope: Development of two design-build RFP packages for flood risk reduction measures along the Dallas Floodway, consisting of the 277K levee raise and Delta Pump Station replacement. Other services consisted of cost estimating, value engineering, design, drafting and planning for demolition of existing facilities, and Civil/Structural/Mechanical/Electrical/ Architectural engineering analyses and design. Mr. Daigle led the development of two stand-alone cost estimates (design-build packages bid separately). He developed detailed MCACES cost estimates to a 35% level for both the levee raise and pump station replacement projects. **Cost:** $35M **Fee:** $1.4M **Role:** Cost Engineer

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

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Ike Pace, PE, SE, CCP	**Cost Engineer**	**24**	**24**

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

Tetra Tech, Inc. – Baton Rouge, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS Civil Engineering	BS Civil Engineering Professional Engineer: CA, UT, WA; Structural Engineer: UT

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

Ike Pace has provided cost engineering and scheduling for numerous USACE flood risk management and ecosystem restoration projects, and has valuable experience with MCACES MII, Microsoft Project, and Crystal Ball, including cost estimates and schedule risk analyses on virtually all types of civil works projects. He has supported conceptual alternative analysis, feasibility, engineering and design, and final P&S projects for use as the independent government estimate when comparing contractor construction bids. He is a Certified Cost Professional through the Association for the Advancement of Cost Engineering (AACE International).

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
USACE Savannah Harbor Expansion Project Design of Environmental Mitigation Features, USACE Savannah District | Augusta, GA	**2019**	**2020**

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

Scope: Provided MCACES MII cost estimate and QC for the detailed cost engineering appendix. Cost estimate was completed using the USACE Civil Works Breakdown Structure and within guidance of ER 1110-2-1302, "Civil Works Cost Estimating." The project will mitigate for increased salinity concentrations in the upper reaches of the Savannah River Estuary as a result of deepening of the Savannah Harbor. This work supports design of the diversion structure at McCoy's Cut. Design features include construction of steel sheet pile retaining wall and return, placement of mooring dolphins, and placement of armor stone. **Cost:** Unavailable **Fee:** $3.2M **Role:** Cost Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
USACE Springfield Mill Race Section 206 Aquatic Ecosystem Restoration, USACE Portland District, | Springfield, OR	**2012**	**2012**

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

Scope: Provided QA/QC of the MCACES MII cost estimate and the cost engineering report. Design features included clearing and grubbing; excavation; timber, steel, and pavement demolition; culvert installation; rock placement; boardwalk and bituminous asphalt trails; and vegetative plantings. **Cost:** $9M **Fee:** $485K **Role:** Cost Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
USACE LA River Ecosystem Restoration Feasibility Study, USACE Los Angeles District | Los Angeles, CA	**2015**	**NA**

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

Scope: Provided review and quality control of detailed MCACES MII cost estimates, abbreviated risk analysis, and cost engineering appendix. This work was in support of the feasibility study along the Los Angeles River. The project design features included earthwork, demolition of some existing facilities, concrete channels and retaining walls, levees, roadways, bio-filtration swales, storm drain improvements, and revegetation. **Cost:** Unavailable **Fee:** $622K **Role:** Cost Engineer

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

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Indira Pjetrovic, PE, PMP	**Electrical Engineer**	**28**	**26**

15. FIRM NAME AND LOCATION *(City And State)*
CDM Smith – Dallas, TX

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Electrical Engineering, University of Banja Luka, 1993	Professional Engineer/ Electrical: TX (99239), LA (0034245), MS (20328), NM (20469), KS, IA (20767), MO (2012006301), AR (14919), OK, WY (13279), MI (6201067070)

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*
Ms. Pjetrovic has 25 years of electrical engineering experience specializing in electrical power distribution and system designs for a variety of water and wastewater treatment facilities and associated infrastructure, including pump and lift stations. She is also a proven project manager and task leader who has successfully delivered a wide array of engineering studies and designs, cost estimates, and construction services for both public and private clients. Certifications: Project Management Professional (PMP)

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
USACE Fort Worth, Fort Worth Central City Flood Risk Management, Fort Worth, TX	**2019**	**2024 (est.)**

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

Scope: Performed technical review and quality check of electrical design that included power distribution and site lighting. Assisted with preliminary electrical design for isolation gate structures including power distribution to gates and gate hoists. **Cost:** $1.3B **A/E Fee:** $11M **Role:** Electrical Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
NAVFAC Southeast, Naval Air Station (NAS) Design-Build Water System Improvements, Joint Reserve Base (JRB) at Belle Chasse, New Orleans, LA	**2018**	**2019**

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

Scope: Leads design team to prepare the electrical design for replacement of the existing 15kV switchgear and integration into the existing power distribution system via pad-mounted switches. Coordinated relocation of the utility service to the new switchgear relocation. Coordinated a construction sequencing plan to minimize power outages during construction. Provided technical review of the electrical design. Prepared acquisition and general project specifications. **Cost:** $25.1M **A/E Fee:** $1.5M **Role:** Electrical Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
City of Houston, Northeast Water Purification Plant Expansion (NEWPP), Houston, TX	**2019**	**2025 (est.)**

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

Scope: Ms. Pjetrovic provided technical review and quality control of the electrical design of Houston's expansion of NEWPP from 80 MGD to 400 MGD—the nation's largest progressive design-build water treatment project. Her review included the design of the new raw water facility, including intake, pumping and conveyance to withdraw raw water from Lake Houston and delivery about 1.5 miles away to the expanded NEWPP. The design considered the water treatment campus layout and embedded infrastructure to allow the overall facility to be expanded to its ultimate capacity of 560 MGD, while remaining in compliance with subsidence district rules for conversion from groundwater to surface water supply. **Cost:** $25M **A/E Fee:** $174M **Role:** Electrical Engineer

d

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Tarrant Regional Water District, Integrated Pipeline (IPL) Joint Booster Pump Stations, Fort Worth, TX	**2015**	**2020**

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

Scope: Prepared electrical design standards during the conceptual design phase. Lead electrical engineer during the conceptual and final design phase, which included a 150-mile-long raw water pipeline, several intakes, and booster pump stations. Lead electrical engineer and engineer of record for the JB3 booster pump station that includes eight horizontal split case pumps driven by 5000 HP, 4000V motors, and variable frequency drives. Prepared design drawings and specifications for medium- and low-voltage power distribution systems, controls, lighting, and grounding systems. Provided engineering services during construction. **Cost:** $58M **A/E Fee:** $6.4M **Role:** Electrical 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
Paul S. Vlosich, PE	**Electrical Engineer**	**30**	**23**

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

IMC Consulting Engineers, Inc. – Metairie, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Electrical Engineering, University of New Orleans,1994	Professional Engineer/Electrical (2004): LA (31006), MI (17893)

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

Paul has completed anti-terrorism training for the U.S. Army Corps of Engineers and is well-versed in the use of Specs-In-Tact and the Projnet System (DrChecks). He has served on multiple USACE inspection teams and has Electrical and Instrumentation / Control System design experience specific to pump stations, gate structures, and flood control structures.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
U.S. Army Corps of Engineers – Charenton Flood Gate Replacement, Charenton, LA	**2022**	**2024 (EST)**

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

Scope: Project Manager for the design of power, lighting, instrumentation, and ventilation systems associated with a new sector gate. **Cost:** $10M **Fee:** $245K **Role:** Electrical Engineer and IMC Project Mgr.

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
U.S. Army Corps of Engineers – Periodic Inspection Programs, New Orleans, LA	**2008-2019**	**N/A**

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

Scope: From 2008-2013, electrical facilities inspection of floodgates, locks, diversion facilities, and pump stations. From 2013-2019, electrical facilities inspection of East and West Bank levees' Hurricane & Storm Damage Risk Reduction Systems to include floodgates, locks, diversion facilities, and pump stations.
Cost: N/A Fee: $500K **Role:** Electrical Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Marvin Braud Drainage Pump Station – Enhanced Flood Protection, Ascension Parish, LA	**2021**	

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

Scope: Designed and specified the electrical power and control systems associated with new pump discharge positive closure sluice gates. Design also included electrical relocations north of the pump station for construction of a new flood wall. **Cost:** $10M (Est) **Fee:** $30K (Est) **Role:** Electrical Engineer

d

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Kenner Wastewater Treatment Plant No. 3 – Generator Banking, Kenner, LA	**2017**	**2018**

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

Scope: Designed, specified, and administered construction for power and control systems necessary for paralleling three existing and two new generator sets to establish a 3.4 mega-watt standby power plant for the entire sewer treatment plant.
Cost: $3.4M (Est) **Fee:** $180K (Est) **Role:** Electrical Engineer and IMC Project Manager

e

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Rehabilitation of Sewer Lift Stations D4-7 (Market & Sauve) and F-7-13 (Neyrey and Veterans), Jefferson Parish, LA	**2023 – IN DESIGN**	**2024**

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

Scope: Currently designing and specifying electrical power and Supervisory Control and Data Acquisition systems for the rehabilitation of sewer lift stations. Design will include power and controls for multiplex sewer lift stations with automated level instrumentation and pump controls with communication back the to parish via SCADA system. **Cost:** $21.8M **Fee:** $89K (Est) **Role:** Electrical 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
David Socha, PE, PMP	**Mechanical Engineer**	**28**	**13**

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

Stantec Consulting Services Inc. – Tampa, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
MBA, Universidad del Desarrollo, 2004 BS, Chemical Engineering, Universidad de Concepcion, 1995	Professional Engineer/Civil: Professional Engineer: FL (#PE73821), KY (#36861), MD (#52850), LA (#PE.0042864 *pending renewal)*; Project Management Professional (PMP) (#1490638), Project Management Institute

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

Mr. Socha has experience in process mechanical engineering design, operations management, process optimization, and project management in water and wastewater treatment facilities as well as mid-stream oil and gas, among other industries. Close to three decades of experience performing process mechanical designs for treatment facilities, including process simulation, process safety management, and design engineering management. As part of his routine design work, he leads both process mechanical and multidisciplinary teams in tasks such as data analysis, calculations, technical writing, value engineering, and hydraulic simulations, production of drawings and specifications, and construction and record drawings sets. Experience involves performing quality control and client reviews and supporting EDA/EDC.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Bank Water Treatment Plant (EBWTP) Expansion, Jefferson Parish, LA	**2026 (est.)**	**2028 (est.)**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 10) Responsible for all process mechanical technical and interdisciplinary design management for all aspects of this new 40-mgd surface water treatment facility expansion. Key activities included hydraulic evaluations and equipment selection for the new facility, as well as improvement identification to existing equipment, to satisfy new operating conditions and limitations in available footprint and budget. Addressed challenges of installing a new plant in an existing facility, including multiple footprint restrictions for new construction and limited access for existing equipment modifications, all of which were managed through collaborative interdisciplinary work and presenting options and recommendations for the client's decision. **Cost:** $120M **Fee:** $8M **Role:** Lead Mechanical Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Piscataway Bio-Energy Project, Accokeek, MD	**2022**	**2024 (est.)**

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

Scope: Scope: Led process mechanical design activities associated with construction of a new Bioenergy plant located inside an existing WWTP that is intended to process biosolids from five WWTPs and was designed to treat biosolids using thermal hydrolysis to maximize recovery of biogas through anaerobic digestion. Biosolids are treated to commercial natural gas standards and commercialized to capture federal credits for renewable fuel (natural gas) production. Responsible for developing calculations that supported equipment specifications preparation, including sludge dewatering, sludge and cake conveyance, biogas treatment, steam generation, and plant water disinfection. Developed EDC standard operating procedures and submittal reviews. **Cost:** $271M (est.) **Fee:** $22.3M **Role:** Lead Process Mechanical Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Reclaimed Water Expansion Project, Tampa Bay, FL	**2018**	**2018**

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

Scope: Managed team in designing a new 2-mgd reclaimed water pump station and two pipelines to convey reclaimed water to TECO's Polk Power Station Reclaimed WTP. Design services included preparation of a biddable package, permitting support, and EDC. Pump station design included installation of new turbine pumps along with a new prefabricated electrical building. The new pipelines design included the installation of PVC and HDPE pipe with routing in congested residential areas, highways, rural terrains, and HDDs through phosphatic clay. Scope also included the bidding and procurement of the construction services and all main equipment. **Fee:** $1.8M **Role:** Process Mechanical Engineer/Technical Lead

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
Eugene F "Chip", III, PE	**Mechanical Engineer**	**34**	**24**

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

IMC Consulting Engineers, Inc. – Metairie, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Mechanical Engineering, Louisiana State University, 1990	Professional Engineer/Mechanical (1995): LA (26162), MI (16909), FL (82499), TX (130341)

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

Chip participated in the U.S. Army Corps of Engineers East and West Bank Levee Inspection Program. He handled the mechanical inspections of equipment in numerous USACE structures and has produced reports providing assessment of equipment as to physical and operational conditions of the equipment.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
U.S. Army Corps of Engineers – Levee Inspection Program, New Orleans, LA	**2019**	**N/A**

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

Scope: Chip was responsible for inspecting, observing, and reporting on the mechanical systems including all pumps, engines, motors, fuel systems, ventilation, compressed air systems, vacuum pumps, backflow prevention and any other mechanical systems within the pump stations. The project deliverables included a report on the system conditions and recommendations on addressing any noted deficiencies. The project spanned approximately one year and provided valuable insight into the advantages and disadvantages of the various pump station types.
Cost: N/A **Fee:** $100K **Role:** Mechanical Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
U.S. Army Corps of Engineers – Stormproofing Sewerage & Water Board of New Orleans Pumping Stations, New Orleans, LA	**2008**	**2014**

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

Scope: Supervised all mechanical design of stormproofing measures under a U.S. Army Corps of Engineers IDIQ contract associated with hydraulic structures which included 17 drainage pumping stations in New Orleans. Systems included design for all ventilation systems, diesel engine combustion air systems, installation of sump pumps, fuel oil storage/transfer pumping/piping and engine cooling water systems to support diesel engine generators.
Cost: $35M **Fee: $**2M **Role:** Mechanical Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Parish Line Pump Station, Jefferson Parish, LA	**2016**	**2019**

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

Scope: Chip supervised and acted as the professional of record for this project which was an expansion of the existing pump station located at the Parish Line Canal. The hydraulic structure design included four new pumps, a new 12,000-gallon diesel fuel yard, new domestic water service modifications, new domestic water booster pumps, new raw water pumps, new compressed air system to start the diesel driven drainage pump, new fuel distribution to serve the new and future diesel engines, and new diesel engine exhaust system.
Cost: $8M **Fee: $**95K **Role:** Mechanical 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
Stephen Shumaker, PE, BCEE	**Corrosion Engineer**	**32**	**21**

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

CDM Smith – Carlsbad, CA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Structural Engineering, University of California, 1988	Professional Engineer (Civil): CA, NM, OK

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

Mr. Shumaker has more than 30 years of experience in planning, design and construction support services for water, wastewater and civil engineering projects. His experience includes responsibility for a variety of large diameter pipeline, tank, pump station, and utility designs, in addition to the preparation of numerous studies and technical reports. His technical expertise is widely utilized as a senior technical reviewer on numerous projects, and he has served on several Value Engineering committees. Mr. Shumaker provides extensive knowledge in pipeline and utility design, water and wastewater master planning, hydraulic system analysis, and structural analysis of pipelines. His pipeline expertise includes structural analysis, thrust restraint, hydraulics, and corrosion of buried pipelines. He has special expertise in thrust restraint systems and requirements, and he is the chair of the national ASCE task committee on Thrust Restraint Design of Buried Pipelines. Awards: Board Certified Environmental Engineering, American Academy of Environmental Engineers and Scientists

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Los Angeles County Department of Public Works, Reclaimed Water Pipelines and Pump Station, Palmdale, CA	**2016**	**N/A**

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

Scope: Mr. Shumaker was the lead pipeline engineer for the design of approximately 9 miles of 16-inch through 30-inch welded steel pipelines. Mr. Shumaker was responsible for the development of the preliminary design, including alignment, material selection, and sizing confirmation. He coordinated with the client's management team efforts in coordination of surveying, utilities research, and potholing, and led the design team's efforts including geotechnical investigations, corrosion analysis, all design calculations, preparation of final plans and specifications, and traffic control plans. He provided technical expertise for the civil design of the associated 150 hp reclaimed water pump station, expandable to 1,000 hp. **A/E Fee:** $650K **Role:** Corrosion Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
48-inch Flume Replacement Pipeline, San Diego, CA	**2016**	**2017**

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

Scope: For Helix Water District's award-winning 48-inch flume replacement pipeline project, Mr. Shumaker performed preliminary and final engineering, engineering services during construction, and project management for this 3,300-ft steel pipeline. Mr. Shumaker's design team was responsible for all aspects of the project including survey, geotechnical, traffic, and corrosion protection design. His team prepared a detailed alignment study for re-placement of the existing 42-inch concrete cylinder pipe, including consideration of a wide variety of impacts to the public including traffic, business disruption, and service interruption. Mr. Shumaker was able to save the district considerable expense by determining that the crossing of the Los Coches creek could be accomplished by utilizing the existing steel pipe suspended from the bridge, which was assessed and determined adequate for the project's design conditions. During construction, he coordinated review of all shop drawings and requests for information, as well as managing the in-plant pipe fabrication inspection and field geotechnical and pipeline installation inspection services. **Cost:** $3M **A/E Fee:** $600K **Role:** Corrosion 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
Trey Johnston, PE	**Corrosion Engineer**	**16**	**16**

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

Corrpro – San Diego, CA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BE, Mechanical Engineering, Louisiana State University, 2006	Professional Engineer: Civil (2016), LA (41291), TX (132456), GA (43494), AL (37658)

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

Mr. Johnston has over 15 years of experience in the Corrosion Engineering industry. Since starting with Corrpro in 2007, Mr. Johnston has participated in increasingly complex projects and realized increasing levels of responsibility. Areas of expertise include corrosion engineering and cathodic protection design for complex facilities, marine and flood protection structures, and municipal water systems.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*: **USACE New Orleans, Pump Closures and Canals Project (PCCP)**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2022** — CONSTRUCTION *(if applicable)*: **2022**

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

Scope: Consulted to the USACE New Orleans District Construction and Engineering branch for the development of corrosion control for driven steel sheet piles intended to protect pump stations from Lake Pontchartrain storm surge. Specific activities included research of corrosion rates for prediction of sheet pile service life, cathodic protection calculation review, detailed drawings, and engineering specification development and review. **Cost:** $615M Fee: $105K **Role:** Corrosion Engineer

b

(1) TITLE AND LOCATION *(City and State)*: **SLFPA-W West Closure Complex, Harvey Canal, Bayou Segnette**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **ONGOING** — CONSTRUCTION *(if applicable)*: **2024**

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

Scope: Mr. Johnston is currently developing construction documents to rehabilitate the corrosion protection including coatings and cathodic protection on this important flood risk management and hurricane and storm damage risk reduction project. **Cost:** $150M **Fee:** $105K **Role:** Corrosion Engineer

c

(1) TITLE AND LOCATION *(City and State)*: **Valero St. Charles Refinery Dock 6 Expansion Project, St. Charles Parish, LA**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2011** — CONSTRUCTION *(if applicable)*: **2012**

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

Scope: Oversight and quality assurance for design and turnkey installation of new impressed current system associated with major dock expansion project. The Cathodic Protection system included primary protection by mixed metal-oxide anode strings installed within custom perforated chutes directly connected to steel round piles beneath the waterline via custom clamping system. Anodes were energized by 3 explosion-proof rectifiers and 6 junction boxes. **Cost:** $3M, **Fee:** $180K **Role:** Corrosion Engineer

d

(1) TITLE AND LOCATION *(City and State)*: **Morganza to the Gulf of Mexico Project, Morganza, LA**

(2) YEAR COMPLETED — PROFESSIONAL SERVICES: **2015** — CONSTRUCTION *(if applicable)*: **2017**

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

Scope: Project management for EPC of sacrificial anode CP systems at 8 floodgates in Terrebonne Parish. Multiple corrosion zones and structure types utilized several anode material configurations and deployment methods on land and in water. Mr. Johnson led the field investigation and data evaluation for the anode material classifications. **Cost:** $16M **Fee:** $200K **Role:** Corrosion 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
Marty Tittlebaum, PH. D, PE	**Environmental Engineer**	**47**	**9**

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

MSMM Engineering, LLC – New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BE, Civil Engineering, University of Louisville, 1971 ME, Civil Engineering, University of Louisville, 1972 Ph.D., Environmental Engineering, University of Louisville, 1979	Professional Engineer: Civil & Environmental (1980), KY (9563) & LA (28532)

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

Dr. Marty Tittlebaum previously served as the Edward G. Schlieder Chair for Urban Waste Management and Research, as well as the lead professor of Civil and Environmental Engineering at Louisiana State University. Dr. Tittlebaum is a leading engineering expert in water and wastewater treatment and reuse, water quality analysis management planning, solid waste disposal, and hazard toxic radioactive waste (HTRW) investigations, identification, and disposal. Dr. Tittlebaum serves as MSMM's Principal Quality Control Engineer, and he reviews all design products, flood mitigation planning, TMDL development, BMP implementation and evaluation, and resiliency analysis in addition to HTRW field investigations.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ascension Parish Environmental Infrastructure Wastewater Treatment Plant Design, Hillaryville, LA	**2022**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F8, Project Number 1) 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 civil/structural/mechanical/electrical engineering, cost estimating using MCACES, and a full USACE review process. Dr. Tittlebaum oversaw the design process and developed the wastewater treatment processes, water quality analysis, and provided HTRW research for the chosen site. He also served as the quality control manager, reviewing engineering submittal products that were provided to USACE. **Cost:** $21.5M Fee: $880k **Role:** Environmental Engineer, QC

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Baton Rouge Parish North Landfill Leachate Pond Abandonment, Pump Station, and Forcemain, Baton Rouge, LA	**ONGOING**	**ONGOING**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 5) This project was developed as part of the Federal Section 219 Environmental Infrastructure program to eliminate the lagoon treatment and discharge to a local stream, opting to reduce negative environmental impact by pumping lecheate landfill instead to a new forcemain that tied into the parish's sanitary sewer treatment facilities. Dr. Tittlebaum is providing the water quality analysis and the quality control design for the project. He is tasked with reviewing all design products before they were submitted to USACE.
Cost: $2.7M **Fee:** $455k **Role:** Environmental Engineer, QC

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
New Orleans International Airport (MSY) Drainage Pump Station, Kenner, LA	**2017**	**2018**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 9) MSMM completed design and EDC services for a 600 cfs stormwater drainage pump station and for all landside drainage as part of constructing a new airport terminal. The project involved working under an extremely compressed schedule, while successfully delivering a true multi-disciplinary effort spanning various engineering disciplines, hydraulic modeling, architectural services, cost estimating, environmental permitting, drafting, and agency coordination. Dr. Tittlebaum provided the quality control design for the project. He reviewed all design submittals for accuracy/consistency and provided design comments to our engineering team prior to design submissions to the airport and the FAA. **Cost:** $25M **Fee:** $2.7M **Role:** Environmental Engineer, QC

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
Arthur Umble, PhD, PE, BCEE, F.WEF	**Environmental Engineer**	**33**	**13**

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

Stantec Consulting Services Inc. – Denver, CO

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
PhD, Civil Engineering, University of Notre Dame, 1997 BS, Civil Engineering, Kansas State University, 1982	Professional Engineer/Civil: CA (#46289) Fellow – Water Environment Federation (WEF) Board Certified Environmental Engineer (BCEE)

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

Dr. Umble is an internationally recognized expert in advanced wastewater treatment, bringing over three decades of experience focused on solving complex wastewater treatment challenges. He has been involved in major wastewater programs and projects worth over $1.5M and led the analysis and process design of more than 30 wastewater treatment plants. Dr. Umble provides technical analysis and review support to design teams focused on nutrient removal, process optimization, wet weather flow management and treatment, tertiary and advanced treatment, solids processing and disposal, and disinfection. He is an expert in environmental policy related to water quality standards and treatment technology and leverages this knowledge to facilitate frameworks for stakeholder coalitions. Dr. Umble served three terms on the Water Research Foundation Research Advisory Council and former member of the editorial board for the Water Environment Research journal. He has served as Utility Director for a medium-sized municipality, Adjunct Professor of Civil Engineering at the University of Notre Dame, authored six peer-reviewed publications (including WEF's 3rd Edition Manual of Practice Activated Sludge & Nutrient Removal chapter and 5th Edition Manual of Practice Nutrient Removal chapter), and presented at over 130 conferences worldwide.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Fort Johnson (formerly Polk) Wastewater Treatment Plant, Fort Johnson, LA	**2013**	**2015**

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

Scope: Dr. Umble provided quality assurance for the process design to support nitrogen removal upgrade at Fort Johnson's North and South WWTPs which applied A2/O process configuration to achieve ammonia and total nitrogen limits for upgraded activated sludge processes. His high-level experience and knowledge of nutrient removal processes and key inputs on retrofit options enabled a cost-effective implementation. **Cost:** $66.9M **Fee:** $2.9M **Role:** Environmental Engineer

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Process Facility Plan, Metro Water Recovery, Denver, CO	**2018**	**N/A**

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

Scope: Dr. Umble provided technical oversight and QA/QC for the planning and alternatives development and evaluations for the Facility Plan for the Metro Wastewater Treatment Facility (230 MGD). This included regulatory frameworks, flow and load data analyses for planning projections, criticality of level of service analysis for each process component, and the framework development for deciphering priorities for facility retrofits and upgrades, new facilities, technology scans, and applications analyses to support a risk-based decision-making management framework for the utility through year 2040.
Fee: $2.3M **Role:** Environmental Engineer

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Wastewater Treatment Plant Upgrade, Fremont, OH	**2012**	**2014**

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

Scope: Dr. Umble directed the process analysis and design team in evaluating the effective treatment capacity of a replacement plant for the existing 6 MGD average annual daily flow conventional activated sludge plant, including treating a wet weather peak of 24 MGD. The evaluation, using detailed process simulations, analyzed different BNR process alternatives ranging from IFAS to MBR to extended air systems, with a final process selection of A2/O for design. Dr. Umble provided QA/QC for the process design for the full plant upgrade. **Cost:** $63M **Fee:** $5.3M **Role:** Environmental 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
Steve Finegan, AIA	**Architect**	**34**	**5**

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

MSMM Engineering, LLC – New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
MS, Architecture, Tulane University, 1984 BS, Architecture, Tulane University, 1980	Architect (1987): TX (25434), LA (3898), TN (106064), MS (2873), AL (5101)

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

Mr. Finegan is a licensed architect with extensive recent Federal experience (USACE and the Air Force) providing architectural design services for new construction government office buildings, stand-alone facilities, drainage pump station safe houses and pump buildings, sewer treatment plants, and military facilities including labs, barracks, and munitions facilities. Additionally, Mr. Finegan has extensive experience providing construction phase services, including leading construction progress meetings, responding to contractor RFI's, reviewing and approving pay requests, and providing design during construction.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Baton Rouge Parish Wastewater Treatment Collection System 5 MG Ground Storage Tank and Pump Station, Baton Rouge, LA	**ONGOING**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 2) As part of the New Orleans District Environmental Infrastructure Program, MSMM provided the engineering design of two piles supported above-ground 5 million gallons (MG) prestressed concrete storage tanks, a 14,000 gpm sewer pump station, and a CMU control building. The existing pump station will be connected to the new pump station with a 42" diameter pipe and overflow chamber with automatic slide gates to control when flows will be diverted. Mr. Finegan is designing the 3,200 square foot stand-alone administration building (new construction) and all internal features (offices, lab, kitchen, bathrooms, warehouse, etc.) He is also helping develop the project specifications using Specs Intact. **Cost:** NA **Fee:** $1.5M **Role:** Architect

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Cow Bayou Drainage Pump Station Complex Design – Orange County, TX	**2020**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 6) Our team developed a 35% design package (plans, specs, and DDR) for a new 8,190 cfs drainage pump station and complex consisting of a pump station building, safe house, floodwalls, and sector gate. Main responsibilities consisted of site layout, architectural, civil, structural, and cost engineering. The task order was to provide a 35% level of design with anticipation of changing the project to a Design-Build RFP. Mr. Finegan provided the architectural design for the drainage pump station safe house. His design included all facilities required for the safe house, inclusive of restrooms, dormitory housing, and dining hall facilities. To develop the drawings, he followed USACE CADBIM policies and standards. **Cost:** $325M **Fee:** $1.3M **Role:** Lead Architect

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Replacement of Granger Lake Office Building, Granger TX	**2019**	**2022**

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

Scope: Development of a design-bid-build package (plans and specs) for the creation of a new Lake office management building and demolition of the existing facilities. Design services included civil, structural, electrical, and mechanical engineering, as well as architectural and landscape architectural design. Mr. Finegan was the lead architectural designer for the project. He worked with USACE, and the Lake Management staff to develop a government office facility that met their needs and complied with the budget constraints. Mr. Finnegan developed the detailed design drawings in compliance with all UFC's and EM's and developed the project specifications in Specs Intact. He provided a detailed architectural design for the facility, inclusive of architectural treatments.

Cost: $3.2M **Fee:** $358K **Role:** Architect of Record and Architectural Team Leader

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
Michael Buisson, Jr., AIA, NCARB, LEED AP	**Architecture**	**33**	**8**

15. FIRM NAME AND LOCATION *(City And State)*
N-Y Associates, Inc. - Metairie, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Bachelor of Architecture, Louisiana State University, 1991	Professional Architect (1991): LA (4617), MS (5209), TX (27217)

18. OTHER PROFESSIONAL QUALIFICATIONS *(Publications, Organizations, Training, Awards, Etc.)*
Organizations: American Institute of Architects; International Code Council; NCARB Certified; LEED Accredited Professional

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*
Harvey Volunteer Fire Department Maintenance Building Harvey, LA

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2025**
CONSTRUCTION *(if applicable)*: **2025**

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

A new 8,000 SF pre-engineered metal maintenance building consisting of three (3) double-ended maintenance bays for fire truck services and repairs. **Cost:** $3.5 million **Role:** Project Manager/Architect

b

(1) TITLE AND LOCATION *(City and State)*
JPSB Mildred Harris Site: Transportation Complex; Jefferson Parish, LA

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2025**
CONSTRUCTION *(if applicable)*: **2025**

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

A new 11,700 SF bus maintenance building including six (6) maintenance bays, a conference room, ten (10) offices; and a bus yard for 120 buses. **Cost:** $3.25 million **Role:** Project Manager/Architect

c

(1) TITLE AND LOCATION *(City and State)*
Fire Station No. 18; Jefferson Parish, LA

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2023**
CONSTRUCTION *(if applicable)*: **N/A**

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

A new 11,000 SF fire station which will include a two bay apparatus room, fire gear locker area, storage area, day room, radio/computer room, kitchen, captain's quarters, dormitory, shower & toilet facilities, and mechanical space. Scope also includes site access & traffic control.
Cost: $6 million **Role:** Project Manager/Architect

d

(1) TITLE AND LOCATION *(City and State)*
Marrero Wastewater Treatment Plant Administration Building and Safe House; Marrero, LA

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2022**
CONSTRUCTION *(if applicable)*: **2022**

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

This 5,400 SF facility includes a lobby, 3 offices, an operations room, a lab, a training room with storage, a break room, locker rooms, toilet rooms, electrical rooms, mechanical rooms, and a storage room. 2,056 SF of this facility was designed as a safe room per FEMA 361 criteria to allow for sheltering in place of West Bank Sewerage Dept. personnel during storm events. **Cost:** $2.4 million **Role:** Project Manager/Architect

e

(1) TITLE AND LOCATION *(City and State)*
Sewerage and Water Board of New Orleans Resiliency Complex; New Orleans, LA

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2020**
CONSTRUCTION *(if applicable)*: **N/A**

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

A Programming, Evaluation, and Design of a Resiliency Complex for the Sewerage & Water Board of New Orleans which will house the Engineering, Environmental, Emergency Operations and Information Technology Departments. The project includes renovating the existing Head House Building for use as a Safe House with renovations and structural modifications to meet the FEMA P-361 criteria for wind speeds up to 190 mph; A new "Infill Building" between the existing Head House and Engineering Complex designed to meet FEMA P-361 criteria for wind speeds up to 190 mph; and Hardening of the adjacent Engineering Complex (windows, doors and roof) to meet current IBC wind speeds up to 150 mph.
Cost: $25 million **Role:** Project Manager/Architect

f

(1) TITLE AND LOCATION *(City and State)*
New 1st District Station for the Jefferson Parish Sheriff's Office; Jefferson Parish, LA

(2) YEAR COMPLETED
PROFESSIONAL SERVICES: **2019**
CONSTRUCTION *(if applicable)*: **2019**

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

This 18,500 SF facility includes the new 9,250 SF 1st District Office elevated one story above grade; and a 9,250 SF first floor including retail space & storage for the Sheriff's Office. The 1st District Office will include offices, a meeting room, and typical support spaces (reception area, break room, toilet rooms, mechanical and electrical rooms, elevator & stairs). **Cost:** $6 million **Role:** Project Manager/Architect

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
Roderick Cashe, PE, CDT, LEED AP	**Hydrologist**	**35**	**31**

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

Tetra Tech – Orlanda, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
B.S., Civil Engineering, University of Florida (1987)	Professional Engineer: Florida, No. 45169; National; Construction Documents Technologist (CDT); LEED AP; FDEP Qualified Stormwater Management Inspector, No. 5366

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

Mr. Cashe has an extensive background in implementing hydraulic and hydrologic modeling for regional and local infrastructure, preliminary design reports, design, permitting, bid support, and construction administration. He has managed and served as lead technical professional for dozens of stormwater master plans and served as engineer of record for multiple city-wide hydrologic and hydraulic models using AdICPR using 1 and 2D platforms and InfoSWWM.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Cypress Street Flood Improvement Design/Build Project, City of Tampa, FL	**2019**	**ONGOING**

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

Scope: Comprehensive surveying and engineering design services for the construction of a substantial two-mile long conveyance system consisting of rectangular box culverts ranging in size for 10'x5' to dual 8'x8' downstream. Tetra Tech prepared a 2D XP-SMMM modeling of this 550-acre watershed to analyze the flow and size the conveyance system for this tidally influenced system. The complexity of designing this system was impacted by the requirement to construct the conveyance system along the center of public right-of-way with the presence of an existing 24-inch gravity sewer system, which had to be relocated while being kept in service. **Cost:** $34.5M **Fee:** $1.4M **Role:** Hydrologist

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Brickell Drive Regional Surface Water Treatment Facility (RSWTF), City of Deltona, FL	**2017**	**2019**

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

Scope: Provided engineering design, permitting, bid support, construction administration, and water quality monitoring support for this regional surface water treatment facility receiving flow from a 288-acre basin. The improvements involve restoration of the historic wetland system with an earthen baffle to redirect flows into the wetland. This will facilitate the reduction of Total Nitrogen and Total Phosphorous loads into the St. John's River (Lake Monroe). Professional services also included preparation of a Quality Assurance Project Plan, monitoring, and reporting services. **Cost:** $40M **Fee:** $2.7M **Role:** Hydrologist

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Water Quality Projects to Denitrify Surface Waters, Brevard County, FL	**2017**	**2020**

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

Scope: Professional engineering services for the removal of nutrients from surface water discharges into the Indian River Lagoon (IRL). Services on this project included planning to develop alternative projects to provide denitrifying measures to surface water flows into the IRL. In the central and northern regions of the IRL, record-setting algal blooms caused the loss of over 40,000 acres of seagrass, and the deaths of manatees, bottlenose dolphins, and pelicans. Planned and designed two pilot water quality improvement projects which involved retrofit improvements in two canal systems. A baffle system, approximately 100 feet in length, was installed in one canal to assimilate a small plug reactor to induce the removal of nutrients. The other canal was improved with the construction of a two-foot thick layer of biological activated media along approximately 150 FT of the canal bottom. **Cost:** $150K **Fee:** $35K **Role:** Hydrologist

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
Nathan A. Quick, PG	**Geologist**	**8**	**3**

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

Eustis Engineering L.L.C. – Metairie, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Master of Science / Geology Bachelor of Science / Geology	Louisiana / Professional Geoscientist (1287) Texas / Professional Geoscientist (15230)

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

Mr. Quick worked two geophysics internships in Texas and, upon graduating with his Master of Science in Geology, spent three years as a senior staff geologist for a consulting and geophysical engineering firm in Baton Rouge, Louisiana. He currently serves an important role as a Project Geologist in Eustis Engineering's Baton Rouge office. As a registered geologist and practitioner, he has developed a strong understanding of the local geology of Louisiana. Certifications: OSHA 40-hour HAZWOPER; OSHA 10-hour Construction Safety; TWIC Card

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
USACE - Claiborne Island Seepage Remediation (2021) Project, Subsurface Geophysical Investigation, Processing, and Interpretation, Ascension Parish, Louisiana (24729)	**2022**	**NA**

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

Scope: Eustis Engineering performed electrical resistivity tomography (ERT) to address potential seepage issues within the subject levee. This subsurface investigation was performed in accordance with standard ASTM practices for geophysical work. It comprised seven roll-along surveys using a SuperStingTM R8 Wi-Fi with Tablet Controller, including 84 electrodes with 4.92 feet (1.5 meters) of spacing. Mr. Quick was the project geologist for this investigation. His responsibilities included designing the geophysical survey, gathering the ERT data in the field, and processing and interpreting the results of the geophysical data. **Fee:** $20,200 **Role:** Geologist

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
USACE New Orleans District – Permanent Canal Closures and Pumps, Along 17th Street and London Avenue Outfall Canals, At or Near Lake Pontchartrain, Orleans and Jefferson Parishes, Louisiana (25038.00, .01)	**2023**	**2023**

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

Scope: Eustis Engineering facilitated microbacterial sampling and laboratory testing for the permanent canal closures and pumps (PCCP) along 17th Street and London Avenue outfall canals in Orleans and Jefferson Parishes, Louisiana. The scope of the exploration included the sampling of five locations within two PCCP stations, 17th Street and London Avenue. At each location, six samples were collected for their independent analysis. The report prepared by Eustis Engineering attempts to estimate the potential root causes, including the corrosion of rebar, of the microbial accumulation based on the analytical results. Eustis Engineering was then tasked with performing vibration monitoring during installation of temporary pumps at London Avenue Canal. Following completion of daily vibration monitoring, Eustis Engineering reviewed these data and issued a letter transmitting the results. Mr. Quick coordinated this project with the USACE as Eustis Engineering's professional geologist. **Fee:** $24,700 **Role:** Geologist

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
Chuck Drake, PG, CPG	**Geologist**	**42**	**34**

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

Tetra Tech, Inc. – Orlanda, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BS, Geology, University of Florida (1982)	Professional Geologist: Florida, No. 37; AIPG, Certified Professional Geologist, No. 11179

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

Mr. Drake is a professional geologist with a focus on well and wellfield design and permitting, wetland hydrology, and implementation of new water supply projects. Mr. Drake is a qualified expert witness in hydrogeology, well construction, groundwater flow, and solute transport modeling, water use permitting, and water resource planning. Mr. Drake has over 40 years of experience in groundwater resource testing and evaluation for all aspects of water supply and aquifer recharge projects in the utility industry.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Water Use Permitting Assistance, Toho Water Authority, FL	**ONGOING**	**NA**

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

Scope: Cypress Lake Wellfield Water Use Permitting Assistance; modification of main water use permit to include acquisition of Poinciana and O&S systems, including groundwater flow modeling and impact analyses; meetings with the South Florida Water Management District on required modeling and evaluation of impact analyses. Permitted allocation over 75.0 MGD.
Cost: NA **Fee:** $54K **Role:** Geologist

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Shell Creek Water Treatment Plant Reverse Osmosis Addition, City of Punta Gorda, FL	**2017**	**2017**

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

Scope: The project includes the final design of a brackish reverse osmosis (RO) treatment facility to provide low total dissolved solids (TDS) permeate for blending with TDS treated surface water containing seasonally elevated TDS. Mr. Drake worked with City management and the mayor and some council members in the funding effort. He was also responsible for meeting with the District regulatory staff to discuss water use permitting issues, and from that, develop an exploratory well testing program to collect sufficient data to design the wellfield to produce approximately 4.0 MGD of raw water, groundwater quality data for Tetra Tech engineers to design the reverse osmosis water treatment plant, and to construct a numerical groundwater flow model using DWRM3 to obtain a water use permit. **Cost:** $29.2M **Fee:** $3.7M **Role:** Geologist

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Winson Water Treatment Plant Well Rehabilitations, City of North Miami, FL	**2017**	**2017**

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

Scope: Hydrogeologist involved in the review of project specifications prepared by another consulting firm prior to bidding for selection of drilling/well rehabilitation contractor. Project includes well evaluation, rehabilitation, testing, and technical reporting for six Biscayne aquifer wells and included upgrades to well heads, vertical turbine pumps, and piping. **Cost:** $25M **Fee:** $537K **Role:** Geologist

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
Eric Curson	**CAD/Microstation Drafter**	**22**	**7**

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

MSMM Engineering, LLC - New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Associates: Southeastern College of Technology Some Classes: Purdue University	

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

Mr. Curson is a CAD manager at MSMM, and he is extremely familiar with providing project drawings in the Bentley MicroStation V8i (Version 8.11) drafting system. He has extensive Federal project experience encompassing a variety of USACE business lines inclusive of civil works projects, and he is familiar with providing all sheets in A/E/C/ Standard, and in compliance with USACE GIS Standards. In addition to Micro-station, Mr. Curson is familiar with using a variety of CADD platforms such as Bentley's OpenRoads Connect and OpenBuildings, ESRI ArcGIS, BIM, and AutoCad Civil 3D.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Baton Rouge Parish Wastewater Treatment Collection System 5 MG Ground Storage Tank and Pump Station, Baton Rouge, LA	**ONGOING**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 2) As part of the New Orleans District Environmental Infrastructure Program, MSMM provided the engineering design of two piles supported above-ground 5 million gallons (MG) prestressed concrete storage tanks, a 14,000 gpm sewer pump station, and a CMU control building. The existing pump station will be connected to the new pump station with a 42" diameter pipe and overflow chamber with automatic slide gates to control when flows will be diverted. Mr. Curson is providing the drafting and CAD drawings for the project.
Cost: NA **Fee:** $1.5M **Role:** CAD/Microstation Drafter

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
New Orleans International Airport (MSY) Drainage Pump Station, Kenner, LA	**2017**	**2018**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 9) MSMM completed design and EDC services for a 600 cfs stormwater drainage pump station and for all landside drainage as part of constructing a new airport terminal. The project involved working under an extremely compressed schedule, while successfully delivering a true multi-disciplinary effort spanning civil, structural, electrical, mechanical, and environmental engineering, hydraulic modeling, architectural services, cost estimating, environmental permitting, drafting, and agency coordination. Mr. Curson provided the drafting and CAD drawings for the project. **Cost:** $25M **Fee:** $2.7M Role: CAD/Microstation Drafter

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Texas City I-Wall to T-Wall Conversion Design, Texas City, TX	**2020**	**TBD**

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

Scope: Development of a design-bid-build package (plans and specs) for approximately a mile of failed Federal floodwall conversion from an I-Wall to a T-wall on an active chemical refinery. Services rendered consist of Architectural, Civil and Geotechnical Engineering, and MCACES cost estimating. Mr. Curson was responsible for developing the project plans using CAD/Microstation Design Guidelines. He provided all of the drafting for the project, and provided the CAD drawings to USACE with the bid documents.
Cost: $15M **Fee:** $1.8M **Role:** CAD/Microstation Drafter

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
Binh Le	**BIM/CIM**	**43**	**1**

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

MSMM Engineering, LLC - New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Bachelor's in Architecture, University of Saigon (1979)	

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

Mr. Le is a Senior AutoCad Technician and BIM/CIM Modeler who has spent 43 years specializing in highway projects, architectural projects, and structural projects. His relevant expertise includes floodwalls and levees, pump stations, sewer treatment plants, drainage plans, and landscaping details. He has worked on major local interstate, bridge, renovation, and flood protection projects and has extensive experience in AUTOCAD major, REVIT, Autodesk BIM, Twinmotion, and MicroStation.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Ascension Parish Environmental Infrastructure Wastewater Treatment Plant Design, Hillaryville, LA	**2022**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 1) As part of the New Orleans District Environmental Infrastructure Program, MSMM developed a design-bid-build package (plans and specs) for the creation of a 1.8 million gallon per day wastewater treatment plant. Services consisted of civil/structural/mechanical/electrical engineering, cost estimating using MCACES, and a full USACE review process. Mr. Le is the BIM/CIM, using REVIT and Twinmotion (3D Model) software for the project.
Cost: $21.5M **Fee:** $880k **Role:** BIM/CIM

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Baton Rouge Parish Wastewater Treatment Collection System 5 MG Ground Storage Tank and Pump Station, Baton Rouge, LA	**ONGOING**	**TBD**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 2) As part of the New Orleans District Environmental Infrastructure Program, MSMM provided the engineering design of two piles supported above-ground 5 million gallons (MG) prestressed concrete storage tanks, a 14,000 gpm sewer pump station, and a CMU control building. The existing pump station will be connected to the new pump station with a 42" diameter pipe and overflow chamber with automatic slide gates to control when flows will be diverted. Mr. Le is the BIM/CIM for the project, creating models for storage tanks, 14,000 gpm sewer pump station, and CMU control building using Autodesk BIM software.
Cost: NA, **Fee:** $1.5M, **Role:** BIM/CIM

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
River Road Aquatic Ecosystem Restoration – San Antonio, TX	**ONGOING**	**TBD**

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

Scope: MSMM was contracted by USACE/San Antonio River Authority to provide 100% Design-Bid-Build of this large-scale project, which focused on recreational usability as well as ecosystem restoration. MSMM's responsibilities included H&H analysis, stream restoration, landscape architecture, civil and structural design, cost estimating, and value engineering. Mr. Le is the BIM/CIM for the project, creating models for bird watching platforms, water features, and Fishing Piers using Autodesk BIM software.
Cost: $8.3M (Estimated) **Fee:** $1.48M **Role:** BIM/CIM

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 Vogel	**BIM/CIM**	**47**	**42**

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

Stantec Consulting Services Inc. – Lake Mary, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
AS, Civil Engineering	N/A

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

Mr. Vogel is responsible for developing BIM/CIM execution strategy, standards, training, and processes. He has more than four decades in digital design, asset management, and water and wastewater plant and infrastructure facilities construction—including the development of 3-D/BIM/CIM design standards and digital twins using intelligent modeling technology for advanced water treatment facilities involving aeration, membrane biological reactor (MBR), membrane filtration (MF), reverse osmosis (RO), ultraviolet light (UV) disinfection, and other process technologies. His strong connections with industry-leading software providers Bentley and AutoDesk enable him to create a flexible architecture for data migration, future-proofing the technology and tools selected. He is currently engaged with Bentley Systems in the development and deployment of PlantSite to enhance capabilities with virtual plant design and data management. Mr. Vogel has overseen BIM operations for over 50 projects involving virtual design and construction and builds strategies into his BIM execution plans to track and manage changes.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Bank Water Treatment Plant (EBWTP) Expansion, Jefferson Parish, LA	**2026 (est.)**	**2028 (est.)**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 10) Responsible for process mechanical design and coordination with all disciplines, permitting, and client coordination for the 40-mgd conventional WTP expansion. CIM was applied to provide conceptual and detailed design of the EBWTP and other on-site facilities in a 3D model to allow the team to evaluate the effectiveness of various components and automatically calculate quantities for cost estimates. Projects being completed as part of this expansion include a new P4 facility, raw water intake improvements, the P3 facility rehabilitation, and a new bacteriological and chemistry laboratory. **Cost:** $120M **Fee:** $8M **Role:** 3-D CAD/BIM/CIM/Design Lead

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Advanced Wastewater Treatment Facility, City of Cape Coral, FL	**2018**	**N/A**

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

Scope: Led the BIM design for a 68-ML/d submerged membrane reuse facility. Managed the workforce utilizing 3D/BIM applications for design, design review, and approved permitted facility. All disciplines were coordinated through a federated model of each facility that included headworks, a set of aeration basins, the MBR facility, and an operations/administration building. The model was used for extensive design reviews and was imperative in optimizing the plant layout within a constrained site. The plant was designed as 400 constructible level of development modules, including dissolved air flotation unit, activated carbon filter, ceramic membranes, and solids handling. **Cost:** $60M (est.) **Fee:** $8M **Role:** BIM Manager

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
San Fernando Basin Groundwater Remediation Project, Los Angeles, CA	**2023**	**N/A**

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

Scope: Managed the BIM design for a $580M progressive-design-build project involving the design of two advanced groundwater treatment facilities and well collector piping. The project included detailed planning, design, permitting, procurement, construction, and commissioning for well connections, purge facilities, strainers, UV/AOP facilities, GAC contractors, waste disposal, and chemical systems. Mr. Vogel's involvement began during preliminary and continued through construction with key responsibilities, including BIM set-up, standards development, BIM system integration with both the design and the contractor's estimating and scheduling systems, and creation of the digital twin. Design innovations resulted in significant cost savings estimated at $32M. **Cost:** $580M **Fee:** $31.9M **Role:** BIM Manager/Design Lead

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
Chris LeMay, CADD/GIS	**GIS (Mapping)**	**24**	**4**

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

N-Y Associates, Inc. - Metairie, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Associate Degree, Computer Aided Drafting, Southeast College of Technology, 1999	N/A

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

Training: ESRI ArcGIS, AutoCAD Civil 3D, Bentley MicroStation and Revit 2020

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
USACE: Comite River Diversion Project: US Highway 61 Bridges; East Baton Rouge Parish, LA	**2023**	**2023**

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

New northbound and southbound highway bridges for the US Highway 61 crossing, a new railway bridge and shoofly, completion of accompanying bypass road, all required pile load tests for the bridges, a portion of the diversion project discharge channel, the relocation of Barnett Road, and all required area drainage. **Cost:** $50 million **Role**: GIS (Mapping and Analysis)

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Carney Road Realignment and New Bridge; East Baton Rouge Parish, LA	**2023**	**2025**

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

The realignment of approx. 1 mile of Carney Road and a new 3-span bridge crossing Bayou Baton Rouge including two, 11' travel lanes and 8' shoulders/bicycle lanes meeting East Baton Rouge's Complete Streets requirement. **Cost:** $6 million **Role:** GIS (Mapping and Analysis)

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
West Shore Lake Pontchartrain, WSLP-109, Levees and Floodwalls; St. John the Baptist Parish, LA	**2023**	**2026**

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

5405 LF of new levees, 354 LF of T-wall crossing over nine (9) pipelines, transition floodwalls tying the T-wall into the levee section, multiple T-wall monoliths up to 11' high designed to current HSDRRS criteria; and a multi-culvert crossing of the interior drainage canal at the access road.
Cost: $35 million **Role:** GIS (Mapping and Analysis)

d

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
New Wastewater Treatment Plant for the St. Bernard Port, Harbor & Terminal District; St. Bernard Parish, LA	**2022**	**2022**

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

A new 20,000 GPD package wastewater treatment plant which includes a pre-fabricated steel treatment plant on a pile supported foundation, electrical service and controls, re-routing the pump station force main to the new plant, effluent gravity line to a small pond, chlorine gas feed to the treatment plant and site work.
Cost: $500,000 **Role:** GIS (Mapping and Analysis)

e

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Improvements to Duncan Canal and West Esplanade Avenue; Kenner, LA	**2022**	**2022**

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

Preliminary and Final Design of a 38'w x 13'h double barrel, 3000 CFS, 340 LF reinforced concrete box culvert which replaced the existing bridges in the Duncan Canal at its intersection with Canal No. 2 at West Esplanade Avenue. N-Y also designed a 160 LF, 14'w x 8'h double barrel reinforced concrete box culvert in Canal No. 2. The project also included the reconstruction of approximately 700 LF of eastbound and westbound W. Esplanade Avenue. **Cost:** $15 million **Role:** GIS (Mapping and Analysis)

f

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Rehabilitation and Upgrade of Twelve (12) Wastewater Lift Stations for the St. Bernard Port, Harbor and Terminal District; St. Bernard Parish, LA	**2017**	**2017**

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

The rehab and upgrade of 12 wastewater lift stations to Ten States Standards and mitigation of future flooding of electric motors & controls. The project includes demolishing an existing sewage treatment plant and pumping the sewage via a new force main to another sewage pump station for transfer to the sewage treatment plant. **Cost:** $1.5 million **Role**: GIS (Mapping and Analysis)

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
Alex Montalvo	**GIS Analyst**	**28**	**21**

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

Tetra Tech, Inc – Orlando, FL

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
AA, University of Florida, 1995	NASSCO MACP/PACP/LACP Certified

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

Mr. Montalvo has 28 years of data analytics, Geographical Information Systems (GIS), and asset management experience. He currently serves as the GIS Group Manager and has been instrumental in the expansion of GIS services offered by Tetra Tech. He has extensive experience in master planning, condition assessment, capital improvement planning, and repair and rehabilitation efforts. He has performed various water, wastewater, and reclaimed water master plans, as well as large GIS condition assessments, rehabilitation designs, and construction management programs.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Stormwater Master Plan Update, Village of Key Biscayne, FL	**2017**	**NA**

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

Scope: The Stormwater Master Plan Update applied the use of InfoSWMM 9.0 Hydraulic and Hydrology Modeling based on existing asset inventory. This model became the basis for the GIS based application created for the Village as a tool to manage stormwater assets for tracking of maintenance efforts. In transition to the GIS web hosted site, the Village was provided access to their inventory through the Google Earth application by use of kmz files. This allowed non-GIS users to view GIS shapefiles in the office or in the field. Tetra Tech then implemented the GIS Updating and Web Hosting Plan to view and manage the Village's data via ESRI AcrGIS Online Accounts via application for use through iPads, iPhones, notebooks, desktops, laptops, etc. **Cost:** NA **Fee:** $143K **Role:** Senior GIS Analyst

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Stormwater 30% Preliminary Design, Town Fort Myers Beach, FL	**2020**	**NA**

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

Scope: Preliminary design report (PDR) for the remaining side streets of Fort Myers Beach. Design included the utilization of 2D hydrologic and hydraulic modeling to identify areas of nuisance flooding and deficient infrastructure. These results aided in the development of preliminary designs for stormwater improvements for more than 27,000 linear feet of roadway within the Town right-of-way. Projects were scored based on benefit provided to the residents. GIS was utilized for development of existing conditions surface model based on LiDAR and subsequent inundation calculations for multiple design storm events. **Cost:** $23M (Estimated) **Fee:** $950K **Role:** Senior GIS Analyst

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Islesboro Stormwater Management Improvements, City of New Smyrna Beach, FL	**2017**	**2019**

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

Scope: Preliminary design and alternatives analysis, preparation of construction documents, permitting, public information meetings, bidding, and construction administration services. Islesboro subdivision is a 720-acre area that experienced significant flooding due to the lack of adequate storage and conveyance infrastructure for runoff. The project includes upgrade of 9,900 feet of water main, 2,900 feet of sanitary sewer collection system, 21,000 feet of storm culverts, and expansion and creation of stormwater ponds. GIS was used to develop the existing conditions surface model and basin delineations based on merger of high-resolution elevation data and supplemental survey, and development of inundation for multiple design storm events. **Cost:** $11.1M **Fee:** $541K **Role:** Senior GIS Analyst

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
Barney Lighter, PLA	**Landscape Architect**	**34**	**7**

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

MSMM Engineering, LLC – New Orleans, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
BLA, Landscape Architecture, LSU, 1991	Landscape Architect - LA #L-240

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

Barney Lighter is an experienced Landscape Architect and Design Principal; Mr. Lighter is responsible for developing creative initiatives and generating ideas that form the foundation of the firm's designs. He is involved throughout all phases of each project to ensure that the project's design vision remains strong and consistent at every level of detail and construction. His work has influenced our public parks, recreational facilities, golf courses, and some of New Orleans' and the greater region's streetscapes and memorials. Several projects with which Mr. Lighter was involved with at other firms won ASLA awards, including the Baytown Wetlands Mitigation Project in Baytown, Texas; Lakeshore East Park in downtown Chicago, Illinois; and a FedEx Technology Campus in Collierville, Tennessee.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
East Baton Rouge Parish North Landfill Leachate Pond Abandonment, Pump Station, and Forcemain, Baton Rouge, LA	**ONGOING**	**ONGOING**

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

Scope: (Full Project Writeup is included in SF330 Section F, Project Number 5) As part of the New Orleans District Environmental Infrastructure Program, this project was developed to eliminate the lagoon treatment and discharge to a local stream. This would reduce negative environmental impact by pumping lecheate landfill instead to a new forcemain that tied into the parish's sanitary sewer treatment facilities. Mr. Lighter's responsibilities included the design of a timber walkway extending from the pump station to the inlet structure in the leachate holding pond, planning and coordination for the fill and grading of the approximate 6-acre area to return to natural appearance, the preservation and restoration of existing building materials. **Cost:** $2.7M **Fee:** $455K **Role:** Landscape Architect

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Bayou Segnette State Park Improvements, Jefferson Parish, LA	**2022**	**2022**

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

Scope: MSMM was recently under contract with CPRA to perform all engineering services associated with developing ADA-compliant playground updates, improvements to the boat launch, and upcoming repairs to roads and parking areas. Improvements to the boat launch consist of pavement elevation for the roadway and parking lot, and in-water pavement work below the high tide line. MSMM was the Prime firm for this project and was tasked with providing 100% of the design and construction services for this project. Mr. Lighter provided the design of the playground and ensured compliance with ADA.
Cost: $3M **Fee:** $548k **Role:** Landscape Architect

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Timber Creek Recreational Facility Design, Austin, TX	**2018**	**2021**

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

Scope: MSMM recently completed the design for the development of a new park in Austin, Texas. This Federal project designed through USACE involved the development site plan, detailed design of recreational features such as trails, picnic shelters, scenic overlooks, parking and roadway access and restroom facilities. Mr. Lighter helped develop the recreational plan in a floodplain that is a reclamation of an old neighborhood. He was responsible for assisting in the site layout and ensuring the trail design met the strategic recreational plan for the area, aligning trail heads with the potential future expansion of the trail system. He also sighted and designed the scenic overlooks added to the park. **Cost:** $2.2M **Fee:** $356K **Role:** Landscape Architect

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
John Bonneau, PLS	**Land Surveyor**	**45**	**5**

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

Lowe Engineers, LLC – Mandeville, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
AS, Land Surveying BS, Civil Engineering	Professional Land Surveyor – LA (#4423)

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

John Bonneau has over 45 years of field experience with 41 of those years as a Licensed Professional Land Surveyor. Throughout his career, he has performed sectionalized retracement surveys and topographic surveys, working with hundreds of private investors on a variety of land development projects, and is a qualified expert witness in several surrounding Judicial District Courts dealing with boundary and drainage issues. John is a hands-on professional managing his office staff and field crews daily.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
West Shore Lake Pontchartrain Levee Expansion Survey LaPlace, LA	**2019**	**N/A**

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

Scope: Hydrographic and topographic survey with sections collected at 100' intervals along a 9-mile portion of the proposed levee centerline using RTK and/or Total Stations. Data was processed and reviewed for quality assurance. Obtained accurate field reconnaissance; oversaw use of Total Stations and GPS equipment; provided clear, data processing.
Cost: $400,000
Role: Conventional Land Surveyor Manager

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Pearl River Boat Launch Survey Pearl River, LA	**2023**	**N/A**

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

Scope: Lowe was tasked to identify the right-of-way line for the Pearl River turn-around and to distinguish ownership of neighboring parcels to the boat launch. Topographical features were collected of the roads, riverbanks, and utilities in the area using total station methods. Once our boat with the SonarMite attached was deployed, the bathymetric survey determined the depth of the channel and the existing boat launch. Combinations of the data were sent to the client.
Cost: $45,000
Role: Conventional Survey Manager

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Pruden Creek Drainage Improvements Survey, Mandeville, LA	**2023**	**N/A**

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

Scope: Lowe was tasked to survey and collect data from Pruden Creek for drainage improvement purposes. The scope of work included physical locations of the creek as well as creek-defining cross sections to be obtained anywhere from 50' to 500'. All drainage structures were located as well as live oak trees 18" DBH and greater with their driplines.
Cost: $46,000
Role: Conventional Land Surveyor Manager

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
James H. Chustz, PLS	**Land Surveyor**	**48**	**27**

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

Chustz Surveying, LLC, New Roads, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
LSU - Surveying	Registered Professional Land Surveyor – LA No. 4657, MS No. 2604

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

Mr. Chustz is a member of S.A.M.E., Hydrographic Society of America, American Association of Geodetic Surveying, ACSM, and the NSPS. He has been responsible for collecting and providing survey data to the USACE New Orleans District for over 20 years. Developing surveys for existing civil works structures, Mr. Chustz has extensive experience collecting survey cross sections and profiles, settlement mark readings, joint movement readings, joint alignment readings and piezometer readings. He has led hydrographic, overbank, horizontal distances and control data surveys that were produced and submitted in compliance with New Orleans District survey standards and USACE EMs.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Post Ida Grand Isle Surveys, Grand Isle, LA, USACE, New Orleans District, MVN Contract W912P8-20-D-0001	**2021**	**NA**

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

Scope: Mr. Chustz was responsible for the overall management of this job. Chustz provided Static GPS, Single Beam and Multibeam Hydrographic, overbank, Aerial LiDAR, and Aerial Imagery surveys. Deliverables included LAS Files, an Orthomosaic, XYZ ASCII Files, and a Survey Report.
Size: 6.6 Miles **Fee:** $199K **Role:** Land Surveyor

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Post Ida Emergency Services for Multibeam and LiDAR, USACE, New Orleans District, MVN Contract W912P8-20-D-0001	**2021**	**NA**

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

Scope: Mr. Chustz was responsible for the overall management of this job. Chustz provided Multibeam Hydrographic, Aerial LiDAR, and Aerial Imagery surveys of the Mississippi River, locating obstructions after Hurricane Ida. Deliverables included Orthomosaics, ASCII Files, and a Survey Report.
Size: 162 Miles **Fee:** $322K **Role:** Land Surveyor

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Survey and Monument the Mat Casting Field Boundary, LA MVK Contract W912EE-20-D-0001	**2021**	**NA**

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

Scope: Mr. Chustz was responsible for the overall project management of this job. Chustz Surveying provided were Cadastral including ROW, Easements and Servitudes, and Boundary utilizing RTK, Ground-Based GPS, and Conventional Total Station methods. Deliverables included a survey plat signed and stamped by a licensed PLS, Property Descriptions, and Abstracts.
Size: 2 Miles **Fee:** $40K **Role:** Land Surveyor

d

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Old River Control Structures High Water Monitoring, New Orleans District, LA, W912P8-15-D-0009	**2019**	**NA**

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

Scope: Mr. Chustz was responsible for the overall project management of this job. Chustz provided I&E Monitoring Surveys at the four Old River Control Structures due to the 2019 high waters. The types of surveys conducted were Hydrographic Multibeam, DGPS, Aerial LiDAR, Overbanks, Digital Levels, RTK, C4G VRS and Topo using Total Stations and Data Collectors. Deliverables included Gridded XYZ Files.
Fee: $338K **Role:** Land Surveyor

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

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Lonnie Dupont	**Topographic Surveyor**	**26**	**22**

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

Chustz Surveying, LLC, New Roads, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
High School Graduate	

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

Annual training in Navigation Software, GPS, and Quality Management; Certified in First Aid/CPR

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
LA 73 Bayou Manchac Bridge, Baton Rouge, LA LADOTD, H.012563.5	**2022**	**NA**

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

Scope: Mr. Dupont was responsible for supervision of the field crew and QA/QC of field data. The types of surveys that Chustz provided were Topographic, Aerial LiDAR, Static GPS, and RTK. Deliverables included Microstation InRoads DGN, DTM, and ALG files, GPS Photos, and ASCII Files.
Size: 23 Acres **Fee:** $101K **Role:** Topographic Surveyor

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Post Ida Grand Isle Surveys, Grand Isle, LA, USACE, New Orleans District, MVN Contract W912P8-20-D-0001	**2021**	**NA**

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

Scope: Mr. Dupont was responsible for supervision of the field crew and QA/QC of field data. Chustz provided Static GPS, Single Beam and Multibeam Hydrographic, overbank, Aerial LiDAR, and Aerial Imagery surveys. Deliverables included LAS Files, an Orthomosaic, XYZ ASCII Files, and a Survey Report. **Size:** 6.6 Miles **Fee:** $199K **Role:** Topographic Surveyor

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Post Ida Emergency Services for Multibeam and LiDAR, USACE, New Orleans District	**2021**	**NA**

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

Scope: Mr. Dupont was responsible for supervision of the field crew and QA/QC of field data. Chustz provided Multibeam Hydrographic, Aerial LiDAR, and Aerial Imagery surveys of the Mississippi River, locating obstructions after Hurricane Ida. Deliverables included Orthomosaics, ASCII Files, and a Survey Report. **Size:** 162 Miles **Fee:** $322K **Role:** Topographic Surveyor

d

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Emergency Grand Isle Post Hurricane Zeta LiDAR Surveys, Grand Isle, LA, USACE, New Orleans District	**2021**	**NA**

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

Scope: Mr. Dupont was responsible for supervision of the field crew and QA/QC of field data. Chustz Surveying provided emergency surveys consisting of Aerial LiDAR Data and Aerial Imagery along the Grand Isle Dune System utilizing GPS, and our Unmanned Aerial Systems (UAS). Deliverables included a Detailed Survey Report, LAS Files, GPS Network Reports, an Orthomosaic, and ASCII files. **Size:** 395 Acres **Fee:** $29K **Role:** Topographic Surveyor

e

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Old River Control Structures High Water Monitoring, New Orleans District, LA, W912P8-15-D-0009	**2019**	**NA**

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

Scope: Mr. Dupont was responsible for supervision of the field crew and QA/QC of field data. Chustz provided I&E Monitoring Surveys at the four Old River Control Structures due to the 2019 high waters. The types of surveys conducted were Hydrographic Multibeam, DGPS, Aerial LiDAR, Overbanks, Digital Levels, RTK, C4G VRS and Topo using Total Stations and Data Collectors. Deliverables included Gridded XYZ Files. **Fee:** $338K **Role:** Topographic Surveyor

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

12. NAME	13. ROLE IN THIS CONTRACT	14. YEARS EXPERIENCE	
		a. TOTAL	b. WITH CURRENT FIRM
Josh Daniel, PLS	**Hydrographic Surveyor**	**23**	**23**

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

Lowe Engineers, LLC - Atlanta, GA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
University of Tennessee, 2 Years	Professional Land Surveyor – AL (#33665-S), KY (#4285)

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

Josh Daniel has 23 years of experience as a surveyor, with experience in all types of field surveys. He has managed survey contracts for USACE New Orleans, Mobile, and Savannah Districts, with state and federal projects in the Southeast for USACE. He has GPS Technical and OSHA Training attends annual OSHA updates and is First Aid/CPR certified.

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
West Shore Lake Pontchartrain Levee Expansion Survey LaPlace, LA	**2019**	**N/A**

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

Scope: Hydrographic and topographic survey with sections collected at 100' intervals along a 9-mile portion of the proposed levee centerline using RTK and/or Total Stations. Data was processed and reviewed for quality assurance. Obtained accurate field reconnaissance; oversaw use of Total Stations and GPS equipment; provided clear, data processing.
Cost: $400,000
Role: Hydro Survey Manager

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Cow Bayou Hydro, Topo, Boundary, and SUE Surveys Orange County, TX	**2020**	**N/A**

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

Scope: Post-hurricane hydrographic, topographic, and bathymetric survey. The scope further included setting three new GPS control points. Data was collected on these and four existing monuments, with data from the three new ones processed using a 3D-constrained adjustment to establish horizontal and vertical coordinates. Additional work required 1,000-foot cross-sections along the proposed levee centerline every 100' for approx. 1.5 miles at a shot spacing of up to 25'.
Cost: $800,000
Role: Hydro Survey Manager

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
CSX Railroad Bridge Survey Rigolets, LA	**2023**	**N/A**

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

Scope: Collection of topographic and hydrographic data of an existing railroad bridge crossing. GPS and conventional methods were used to establish targets across the bridge for the LiDAR survey. LiDAR data was collected across the bridge to pick up overhead bridge data. Conventional survey methods were used in the areas GPS would not allow.
Cost: $40,000
Role: Hydro Survey Manager

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
Tom Odom, AS	**GPS Surveyor**	**28**	**4**

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

Chustz Surveying, LLC, New Roads, LA

16. EDUCATION *(DEGREE AND SPECIALIZATION)*	17. CURRENT PROFESSIONAL REGISTRATION *(STATE AND DISCIPLINE)*
Associate of Science, Drafting and Design	

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

Terrestrial LiDAR and Boating Safety; Certified First Aid/CPR

19. RELEVANT PROJECTS

a

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Post Ida Emergency Services for Multibeam and LiDAR, USACE, New Orleans District	**2021**	**NA**

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

Scope: Mr. Odom was responsible for supervision of the field crew and QA/QC of field data. Chustz provided Multibeam Hydrographic, Aerial LiDAR, and Aerial Imagery surveys of the Mississippi River, locating obstructions after Hurricane Ida. Deliverables included Orthomosaics, ASCII Files, and a Survey Report. **Size:** 162 Miles **Fee:** $322K **Role:** GPS Surveyor Chief

b

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Automated Revetment Surveys on the Mississippi, Atchafalaya, and Red Rivers, New Orleans District	**2021**	**NA**

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

Scope: Mr. Odom was responsible for supervision of the field crew and general QA/QC. Chustz provided Multibeam surveys for 320 miles of riverbank on the Mississippi River, and 130 miles on the Atchafalaya River and Red River. DGPS and Electronic River Gauges were used as control for this job. River gauges were downloaded and prorated to each half mile of river to produce the most accurate data. **Fee:** $1.2M **Role:** GPS Surveyor

c

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Mississippi River General Hydrographic Surveys, Vicksburg District, AR, MS, LA, W912EE-17-D-0008	**2021**	**NA**

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

Scope: Mr. Odom was responsible for field crew supervision and QA/QC of Single Beam data collected. The types of surveys that CSI provided were Automated Hydrographic utilizing Multibeam and Single Beam technology positioned by DGPS for 297 miles along the banks of the Mississippi River. Deliverables included Gridded XYZ files and Benchmark Description Forms Transmitted via the USACE File Transfer System. **Fee:** $550K **Role:** GPS Surveyor

d

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Miss. River Revetments, Bank Grading, Memphis District, TN, AR, KY, MO, MS, LA, W912EQ-16-D-0007	**2019**	**NA**

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

Scope: Mr. Odom was responsible for field crew supervision and QA/QC of Single Beam and RTK data. CSI provided Single Beam Hydrographic Surveys of the Mississippi River using DGPS and Temporary Staff Gauges, along with RTK surveys for Volume Computations, Cross Section Plots, and Dredge Material Measurements. **Fee:** $798K **Role:** GPS Surveyor

e

(1) TITLE AND LOCATION *(City and State)*	(2) YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(if applicable)*
Old River Control Structures High Water Monitoring, New Orleans District, LA, W912P8-15-D-0009	**2019**	**NA**

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

Scope: Mr. Odom was responsible for supervision of the field crew and QA/QC of field data. Chustz provided I&E Monitoring Surveys at the four Old River Control Structures due to the 2019 high waters. The types of surveys conducted were Hydrographic Multibeam, DGPS, Aerial LiDAR, Overbanks, Digital Levels, RTK, C4G VRS and Topo using Total Stations and Data Collectors. Deliverables included Gridded XYZ Files. **Fee:** $338K **Role:** GPS Surveyor

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER
	1

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Ascension Parish Environmental Infrastructure Wastewater Treatment Plant Design *Hillaryville, LA*	2022	TBD

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE New Orleans District	Christopher L. Dunn, Ph.D., P.E. / T. (Jerry) Shih, Ph.D., P.E. / George Krausser, P.E.	504-862-1799 / 504-862-2423 / 504-862-1712

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

Design Fee: $1.4M, **MCACES Cost Estimate:** $21.5M,
% of Design Complete: 90%*, **% of CA Complete:** NA
*(Plan was submitted to USACE for review however local sponsor privatized WW operation and therefore project stopped)

As part of the New Orleans District Environmental Infrastructure Program, our team worked with the Ascension Parish Government to design a new Wastewater Treatment Plant within the area. Our engineers are to provide 100% bid ready plans and specifications (in USACE format) for a new 1.8 million gallon per day (average daily flow) WWTP to increase treatment capacity and facilitate regionalization of the Parish. The Wastewater Treatment Plant would be adjacent to the recent MSMM designed and constructed effluent sewer pump station and forcemain (separate task order). The WWTP is one step of a larger regionalization plan that MSMM developed. This regionalization plan aimed to bring all wastewater in the area to a single advanced treatment facility and discharge the treated effluent into the Mississippi River instead of local ditches.

This area of Ascension Parish utilized a fragmented system of treatment options with subpar results that varied by subdivision. It included septic tanks, package treatment plants, and an oxidation pond, all discharged into local ditches and streams. The regionalization plan was formed to increase the quality of life and rectify the environmental situation by eliminating discharge into local water sources.

The treatment plant design included a new treatment plant on an eight (8) acre parcel of land owned by Ascension Parish. The design consisted of a dual set of treatment processes for redundancy. It included an influent pump station, headworks with screens and grit removal, extended aeration basin, circular clarifier, chlorine contact chamber, aerobic digesters, belt filter sludge press with new building, maintenance/administration building, and emergency generator as well as site fencing, drainage, and internal asphalt roadways. The facility was designed with future expansion in mind so that an aeration basin and clarifier can be constructed to easily upgrade the treatment plant to 2.7 mgd as additional capacity is needed.

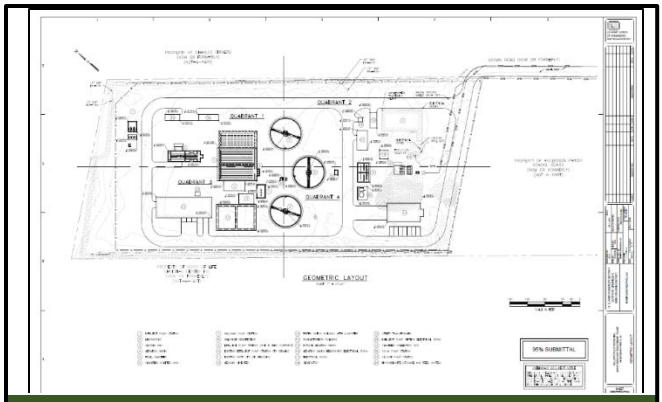
PROJECT RELEVANCIES

- ✓ MVN Section 219 Environmental Infrastructure Program
- ✓ Design of Wastewater Treatment Plant, Purification, Pump Station, Sewage Collection, and Conveyance System
- ✓ Potential Expansion Plan Analysis
- ✓ Sludge Conditioning, Dewatering and Disposal
- ✓ MCACES Cost Estimating
- ✓ Design Utilizing CAD/BIM Policies
- ✓ Geotechnical Investigations
- ✓ Pile Design
- ✓ Right of Way (ROW) Determination

EXEMPLIFIES EXPERIENCE IN:

- ✓ Civil Engineering
- ✓ Structural Engineering
- ✓ Electrical Engineering
- ✓ Mechanical Engineering
- ✓ Hydraulic Engineering
- ✓ Instrumentation
- ✓ Architectural Design
- ✓ Geotechnical Engineering
- ✓ Project Management
- ✓ Surveying
- ✓ Hydrology

MSMM is providing full design services including project management, letter report and PPA preparation, feasibility report, field topographic surveying, geotechnical investigation, structural, mechanical, electrical, instrumentation, process, civil engineering, H&H modeling, environmental support, coordination, and permitting support.



MSMM's Site Plan for Ascension Wastewater Treatment Plant

Civil engineering design included sizing the influent and effluent pump station, headworks design, and site layout, including site drainage, access roads, and process piping. Structural engineering design included reinforced concrete structures for all process units, pump stations, and slabs on grade. The structural design also consisted of the CMU electrical/control buildings and pile design for all structures and buildings.

The geotechnical investigation included drilling three deep undisturbed sample-type soil test borings, ten shallow auger borings to determine subsoil conditions and stratification, and eleven CPTs to augment the soil test borings. Soil mechanics laboratory tests performed on samples obtained were used to evaluate the physical properties of the various substrata. Based on the available soil boring and laboratory tests, engineering analyses were made to determine recommendations regarding site preparation, excavations and dewatering, lateral earth pressures, estimates of allowable soil bearing values, uplift, pile capacity curves, estimates of settlement and general foundation construction procedures, and recommendations for flexible and rigid pavements.

Discharge of the WWTP effluent is now routed to the Mississippi River through an effluent pump station and forcemain. In addition to the design documents, our team was responsible for project permitting through USACE, LADEQ, LADHH, LADOTD, and CPRA of Louisiana. Our work also included MCACES cost estimating, presentations at public meetings, and surveying.

3D Rendering of Proposed Wastewater Treatment Plant

3D Rendering of Final Clarifiers, Aeration Basins, RAS/WAS Pump Station, Blower Pads, Filter Press Building, Electrical Rooms, and Headworks

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	**MSMM Engineering, LLC**	New Orleans, LA	Sub (90% of work performed) – Design, Civil, Architectural, Electrical, Mechanical & Structural, Design, Plans and Specs, Cost Engineering, Public Information, Preparation of Letter Report, PPA
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
b	**Eustis Engineering, LLC**	Metairie, LA	Sub (5% of work performed) – 100% Geotechnical Investigation

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER
	2

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
East Baton Rouge Parish Wastewater Treatment Collection System 5 MG Ground Storage Tank and Pump Station *Baton Rouge, LA*	ONGOING	TBD

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE New Orleans District	George Krausser, P.E., Project Manager	504-862-1712

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

Design Fee: $1.6M, **Construction Cost:** TBD,
% of Design Complete: 65%, **% of CA Complete:** NA

As the lead design firm under the New Orleans District Environmental Infrastructure Program, MSMM is in charge of design and construction services involving wastewater storage in the collection system at the location of the existing Pump Station 45. The project is intended to reduce the heavy flows into the North Wastewater Treatment Plant during extreme rain events when inflow and infiltration (I/I) have led to overflows at the treatment plant.

The project includes the design of two pile supported above-ground 5 million gallons (MG) prestressed concrete storage tanks, a 14,000 gpm sewer pump station, and a CMU control building. The existing pump station will be connected to the new pump station with a 42" diameter pipe and overflow chamber with automatic slide gates to control when flows will be diverted to the new pump station. The new pump station will pump overflow into the storage tanks for temporary holding, and the wastewater will be released slowly back into the existing pump station when the treatment plant is ready using control valves and tank head pressure.

MSMM is providing full design services including project management, comprehensive planning, and field topographic surveying, geotechnical investigation, structural, mechanical, electrical, instrumentation, process, civil engineering, H&H modeling, environmental support, coordination, and permitting support. Services include the development of a PPA and letter report, preliminary studies, engineering design through detailed plans, specifications; design analysis and technical documentation report preparation; and MCACES (MII) cost estimates.

- Civil Information Modeling (CIM) Bentley OpenRoads / OpenBuildings was used to design storage tank, pump station, piping, and other civil site plans. CIM allowed revisions of multiple sheets and sections to be completed quickly. CIM also creates a visualization of the proposed facilities in a 3D model for resolving any conflicts in real time.

PROJECT RELEVANCIES

- ✓ MVN Section 219 Environmental Infrastructure Program
- ✓ Implemented USACE design standards for geotechnical design investigation, and analysis compliant with USACE EMs
- ✓ Technical analysis, engineering plans, SpecsIntact, design analysis and calculations; MicroStation CAD using A/E/C standards
- ✓ MCACES Cost Estimating
- ✓ Design Utilizing CAD/BIM Policies
- ✓ Pile Group Analysis
- ✓ Piping Analysis
- ✓ Real Estate Right-of-Way (ROW) Determinations
- ✓ Temporary Retaining Structure Design
- ✓ Aerial Images for Acquisition Maps
- ✓ Geotechnical Investigations

Existing Pump Station 45 and Control Building Baton Rouge, LA

- Civil design included storage tank/pumping station site design, interior drainage, drainage culverts, access roads, and site design.

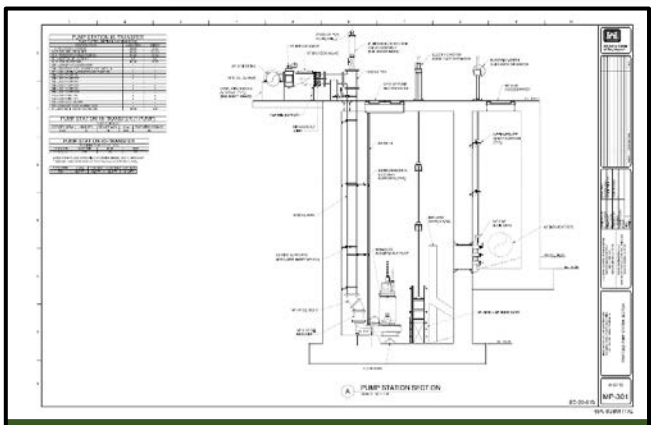
Additional design features include two large in-ground control valve junction boxes and concrete paved access roads around the tanks. The project will be built in two phases, with half of the project—one 5 MG ground storage tank and associated site work—to be constructed at a future date. All design elements were planned for future expansion and will be constructed in preparation for the second storage tank. This includes electrical, pump station, piping, site utility, and control design.

Site work will include fencing, concrete drives around the tank, service water, site lighting, and site drainage. This will require modifications to the current pump station instrumentation and control system in order to allow systems to work together properly. Additional structural design features include two large control valve junction boxes, electrical controls to operate flow between tanks and treatment plant, and a control building that will house the electrical control systems.

EXEMPLIFIES EXPERIENCE IN:

- ✓ Civil Engineering
- ✓ Structural Engineering
- ✓ Electrical Engineering
- ✓ Mechanical Engineering
- ✓ Hydraulic Engineering
- ✓ Instrumentation
- ✓ Geotechnical Engineering
- ✓ Project Management
- ✓ Surveying
- ✓ Hydrology
- ✓ Environmental Analyses

The MSMM team also performed geotechnical investigations to develop analyses for soil bearing values, pile load capacities, temporary retaining structure design, and general construction procedures. As part of the loading considerations, we presented several calculations for uplift analyses, soil loads, wind loads, fluid loads, etc. An additional responsibility for this project will be topographic surveys, which will include the presentation of Right of Way (ROW) Maps with aerial background images, CAD drawings, and property limit determinations. All structural design elements of this project will comply with USACE's Engineering Manuals, Regulations, and Technical Letters for Civil Works Design and Construction.



MSMM's Preliminary Design Section of Proposed 14,000 gpm Sewer Pump Station

MSMM is responsible for providing 100% bid ready plans and specifications (in USACE format). Additional services performed by MSMM will include MCACES cost estimate; coordination with East Baton Rouge Parish, DHH and FAA; permitting; preparation of Letter report for Project Partnership Agreement between USACE and East Baton Rouge Parish; and eventual assistance to the USACE with bidding and construction services.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	**MSMM Engineering, LLC**	New Orleans, LA	Sub (78% of work performed) – Design, Structural, Civil, Process, Piping, Engineering, Mechanical Instrumentation, EA Assistance, ROW Maps, MII Cost Estimate, Permitting, Local Sponsor Coordination, Hydraulics
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
b	**IMC Consulting Engineers, Inc.**	Metairie, LA	Sub (18% of work performed) – Electrical Instrumentation
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
c	**N-Y Associates, Inc.**	Metairie, LA	Prime (4% of work performed) – Civil Engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*			20. EXAMPLE PROJECT KEY NUMBER
			3
21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED		
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*	
Hillaryville Pump Station and Effluent Discharge Forcemain *Hillaryville, LA*	2016	2017	

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE New Orleans District	Jasmine S. Williams, Project Manager	504-862-2917

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

Design Fee: $283k, **Construction Cost:** $2M,
% of Design Complete: 100%, **% of EDC Complete:** 100%

In 2016, MSMM completed full engineering design services for a New Orleans District Environmental Infrastructure Program project in Ascension Parish, LA. This project was designed under a partnership between the USACE New Orleans District and the cost sharing partner Ascension Parish. The project was constructed because of antiquated wastewater infrastructure in Ascension Parish that would not allow the Parish to support future growth. MSMM staff prepared GIS mapping of the Parish's existing and proposed sanitary sewer system and prepared an Environmental Information Document (EID) for its long-term wastewater infrastructure plan. The completed EID led to a decision that Ascension Parish needed to make significant upgrades to their public infrastructure system, specifically water lines and sanitary sewer systems to meet various environmental regulations that were currently out of compliance.

MSMM identified alternatives that would route effluent drainage away from a neighborhood ditch and properly discharge in accordance with future permit limitations. This led to the design and construction of a sewerage project that consisted of a 562 gpm sewerage pump station and 4,068 feet of discharge pipe that travels underneath two (2) state highways and over the Mississippi River Levee before discharging into the Mississippi River. The pipe material is ductile iron for above grade application (levee crossing), PVC for open cut installation and HDPE (high density polyethylene) for the directional drill aspect of the project. A concrete ramp was designed and constructed on the levee crown to allow the levee access road to pass over the top of the new 8" forcemain and 20" pipe installed for use under the future regionalization plan.

The project required extensive permitting through LADOTD, LADEQ, CPRA and USACE New Orleans District. MSMM completed 100% of the required design and permitting services for the project, prepared ROW drawings, performed the construction management and engineering during construction (EDC), and worked with USACE to close out the construction phase of the project and prepare the new cross-sectional drawings of the improved levee. The pump station wetwell utilized precast concrete for the body with reinforced cast-in-place concrete base and top slabs.

PROJECT RELEVANCIES

- ✓ MVN Section 219 Environmental Infrastructure Program
- ✓ Sewer Pump Station & Forcemain Design
- ✓ 100% Bid Ready Package Through USACE Process
- ✓ Development of DDR Report
- ✓ MCACES Cost Estimate & Permitting
- ✓ Potential Expansion Plan Analysis
- ✓ Right-of-Way (ROW) Drawings
- ✓ Water Quality Analysis
- ✓ Piping Analysis
- ✓ Levee Crossing / Discharge Basin
- ✓ 408 Permitting

EXEMPLIFIES EXPERIENCE IN:

- ✓ Hydraulics
- ✓ Geotechnical Design, Investigation and Analysis
- ✓ Civil Design Plans and Specifications
- ✓ Structural Engineering
- ✓ Electrical Engineering
- ✓ GIS/Survey/Mapping
- ✓ Construction Cost Estimating
- ✓ Planning & Project Management
- ✓ Engineering Support During Advertisement (EDA)
- ✓ Engineering Support During Construction (EDC)

As the discharge pipe went over the Mississippi River levee, a redesign of the levee was necessary. For the levee redesign, and facilitation of levee crossing, it was imperative for MSMM to preserve the integrity of the levee system and not obstruct the levee access road. Various cases of global and local stability were evaluated and presented for review.

In addition to the design plans and specifications, our team was also responsible for soil borings and geotechnical analyses, detailed MCACES cost estimating, and surveying. MSMM was responsible for project coordination and permitting through LDOTD, LDHH, LDEQ, CPRA, and USACE New Orleans District, preparation of ROW drawings, detailed design report (DDR), engineering during construction (EDC), working with USACE to close out the construction phase of the project and preparation of new cross-sectional as-built drawings of the improved levee. Through all of this, MSMM was able to offer a higher quality of life to the Ascension Parish population through the improvement of local water quality.

Map of Hillaryville Pump Station and Effluent Forcemain

Construction of the New Forcemain Levee Crossing and Access Road Ramp

Ribbon Cutting Ceremony at the Mississippi River Levee Crossing

Control Panel and Access Hatches for New Effluent Pump Station

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	**MSMM Engineering, LLC**	New Orleans, LA	Sub (85% of work performed) – Sewer Pump Station Evaluation/Design, Civil, Structural, Electrical Engineering, Engineer on Record, Cost Estimating, Engineering during Construction
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
b	**Eustis Engineering, LLC**	Metairie, LA	Sub (6% of work performed) – Geotechnical

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER
	4

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
PUA & ACUD#1 Drinking Water Infrastructure Improvements, Water Meter Replacement *Hillaryville, LA*	2024	ONGOING

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE New Orleans District	Wayne A. Duplantier, Project Manager	504-862-1989

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

Design Fee: $915k **Construction Cost:** $6M,
% of Design Complete: 100%, **% of EDC Complete:** 10%

As part of the New Orleans District Environmental Infrastructure Program, MSMM is working with Ascension Parish Government on water meter replacements in the Donaldsonville area.

One of the many purposes of this project is to eliminate Ascension Parish's dependency on Assumption Parish's water system. This will require the connection of the Public Utilities of Ascension (PUA) and Ascension Consolidated Utility District (ACUD) #1 water distribution systems. In order to do this, MSMM must investigate the layout of the two existing water systems; identify potential connection locations; evaluate the identified connection points to determine optimal tie-in locations; and develop conceptual layouts and cost estimates for the proposed work.

Furthermore, the age of the PUA system necessitated a need to review infrastructure upgrades and replacements. The Donaldsonville area currently uses the traditional method of manually reading water meters, an inconvenient process that has proven to be time consuming and costly. Aside from this, the meters and especially those from the PUA system, are well beyond their design life and have been estimated to underreport usage by as much as 30%. Our team's goal is to make this process more accurate, labor-saving, and cost-effective by laying the groundwork for an automated water meter reading system.

Before the installation of the water meter system, an assessment was made to determine whether residential and commercial customers needed a water meter upgrade in the Donaldsonville area. The range of this assessment was around 3,500 meters. For the evaluation, we used Arch GIS to gather X-Y GPS coordinates were assigned to each property address requiring a meter upgrade, and tables were prepared showing coordinates with associated addresses and property owners. A conceptual layout was then developed to depict the water meter replacement locations.

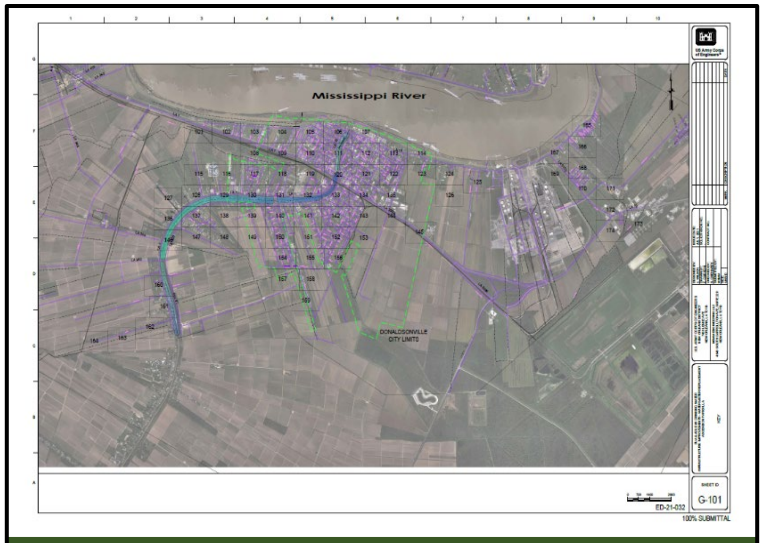
Once locations were decided upon, design began for the water meter system to be upgraded with integrated registers, meter interface units (MIU's) and fixed data collection units necessary to facilitate the automatic reading of the meters. It will ensure that equipment is capable of transferring data to a central database for billing, trouble shooting, and analyzing. The meters and equipment were further assessed for compatibility with other similar equipment used in Ascension Parish.

PROJECT RELEVANCIES

- ✓ MVN Section 219 Environmental Infrastructure Program
- ✓ 100% Bid Ready Plans and Specifications
- ✓ Design Utilizing CADBIM Policies
- ✓ Utilized Specs Intact
- ✓ Cost Estimating Using MCACES
- ✓ Smart Meter Installation and Fee Collection System Design

EXEMPLIFIES EXPERIENCE IN:

- ✓ Hydraulics
- ✓ Civil Engineering
- ✓ Environmental Analyses
- ✓ Assessments
- ✓ Cultural Resources
- ✓ GIS/Survey/Mapping
- ✓ Technical Reviews
- ✓ Development of P&S



Donaldsonville Area Map Showing Location of Water Meters to be Removed and Replaced

Deliverables for this project include monthly progress reports as well as final data, maps, and drawings. Specific responsibilities include providing 100% bid ready plans and specifications (in USACE format) for the removal and replacement of approximately 3,500 water meters of various sizes and the installation of four fixed location data collection devices to be mounted on water towers and utility poles located in the project area. Meter removal and replacement requires new meter boxes, meters, encoder registers and antenna; traffic control; and removal and replacement of asphalt/concrete driveways and sidewalks. In order to have the new water meters and data collection devices work seamlessly with the other areas of the Ascension Parish water system, data collection, and billing software, MSMM prepared a J&A document (Justification for other than full and open competition) to allow the use of sole source product for the meters.

Additional services performed or to be performed by MSMM include field work, MCACES cost estimate, coordination with Ascension Parish and agencies having jurisdiction, and assisting USACE with EA, bidding, and engineering during construction (EDC).

Typical Existing Water Meter to be Replaced

Display Model of Typical New Water Meter and Box

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	**MSMM Engineering, LLC**	New Orleans, LA	Prime (100% of work performed) – AE Design, Plans and Specs, Cost Estimate, Bidding, Construction Services, GIS, Mapping, Civil and Hydraulic Engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER
	5

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
East Baton Rouge Parish North Landfill Leachate Pond Abandonment, Pump Station, and Forcemain *Baton Rouge, LA*	ONGOING	ONGOING

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE New Orleans District	George Krausser, P.E., Project Manager	504-862-1712

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

Design Fee: $455k (Phase 1 & 2), **Construction Cost:** $2.7M (Phase 1 & Phase 2 estimate combined), **% of Design Complete:** 95% (Phase 2), **% of CA Complete:** 50% (Phase 1 complete, Phase 2 TBD)

As the lead design firm under the New Orleans District Environmental Infrastructure Program, MSMM led the design of this EBR pump station and forcemain project. MSMM's effort in this project was to eliminate the lagoon treatment and discharge to a local stream, opting to reduce negative environmental and human impact by pumping landfill leachate instead to a new forcemain that is tied into the parish's sanitary sewer treatment facilities. These measures were taken in anticipation of increases in discharge limitations in Baton Rouge Bayou, as well as to eliminate a discharge permit through the LDEQ and to take advantage of the new Zachary Area Transmission Network Improvements Project. This is set to be a two-phase project that will include design and construction of the new pump station and forcemain as phase one, followed by the pond abandonment as phase two.

Originally, the North Landfill Leachate was collected and treated in a three-pond lagoon system and then discharged into the Baton Rouge Bayou. MSMM's design and construction of the North Landfill Leachate forcemain rerouted the leachate from the landfill, eliminating the need for the three ponds. Consequently, MSMM is tasked with closure and abandonment of these ponds in accordance with DEQ parameters under phase 2 of the project. No longer using the ponds made a quick impact, proven by the improvement of the water quality in the drainage ditches and bayous that the ponds previously discharged into.

Phase 1 of the project design re-used the existing pump station structure, demolished all existing pumps, piping, valves, controls, electrical work, and constructed a new timber walkway extending from the pump station to the inlet structure in the leachate holding pond. The modified pump station included two new self-priming pumps, suction/discharge piping, valves, electrical/controls, lighting, and an Owner furnished generator. The forcemain was approximately 3,500-feet of 6" HDPE pipe designed for installation by a combination of open cut and directional drill. Other features of the project included pipe support design, air release valves in manholes, painting of existing handrails, a concrete valve pit and tie-in to the existing 48" transmission forcemain. Phase 1 has completed construction and been in service since 2023.

PROJECT RELEVANCIES

- ✓ MVN Section 219 Environmental Infrastructure Program
- ✓ 100% Bid Ready Plans and Specifications
- ✓ Design Utilizing CADBIM Policies
- ✓ Cost Estimating Using MCACES
- ✓ Drainage Analysis
- ✓ Piping Analysis
- ✓ Sludge Sampling and Analysis

EXEMPLIFIES EXPERIENCE IN:

- ✓ Hydrology
- ✓ Hydraulics
- ✓ Civil Engineering
- ✓ Structural Engineering
- ✓ Mechanical Engineering
- ✓ Cost Engineering
- ✓ Environmental Analyses
- ✓ Electrical Engineering
- ✓ Construction Service Assistance
- ✓ Topographic Survey
- ✓ Geotechnical Investigations and Design
- ✓ Technical Writing

Design documents for Phase 2 addressed methods to drain the ponds; removal and disposal of the existing sewage sludge; removal of the existing levees surrounding the ponds; removal of the HDPE liners; removal of existing treatment equipment including piping, concrete structures, and UV System; and fill and grading of the approximate 6-acre area to return it to the appearance of natural land. This phase has been designed to 95% and will advance to BCOES review once funding is in place.

MSMM provided full design services, including civil, mechanical, structural, and electrical engineering. MSMM also provided geotechnical investigation and design, which involved soil sampling of sludge to test for volatile organic compounds and other contaminants. A topographic survey was conducted as well, which included existing pond contours; contours of the areas surrounding the pond; and existing structures.

Aerial Photo Showing Existing Leachate Ponds and Pump Station

New Timber Walkway from PS to Leachate Pond Inlet Structure

Existing Pump Station with New Pumps, Piping, Control Panel, and Lighting

Existing Pump Station with New Pumps, Piping, Control Panel and Lighting

Additional services performed by MSMM included MCACES cost estimating and coordination with East Baton Rouge Parish and the landfill operators. A Design Quality Control Plan (DQCP) was developed, consisting of technical reviews performed by MSMM as well as New Orleans District and Local Sponsors.
Continuing tasks will include completion of phase 2 design and assistance to USACE with bidding and construction services, as well as coordination with the LA Department of Environmental Quality (LDEQ) for closure of the treatment facilities.

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	**MSMM Engineering, LLC**	New Orleans, LA	Prime (80% of work performed) – AE Design Services, Civil, Mechanical, Structural, Geotechnical, Electrical Engineering, Plans and Specs, HTRW

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER
	6

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Cow Bayou Drainage Pump Station Complex *Orange, TX*	2020	TBD

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE New Orleans District	Charlie Brandstetter, Design Manager	504-862-2501

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

Design Fee: $1.3M, **Construction Cost:** $325M,
% of Design Complete: 35%, **% of CA Complete:** TBD

Our team completed 35% design of the 8,190 CFS pump station as part of the Sabine to Galveston Cow Bayou Complex project. This project includes levee tie-ins, floodwalls, sluice gate structures and a sector gate for navigational traffic. The pump station consists of five 1,365 CFS horizontal, vacuum primed pumps with 126-inch suction side and 115-inch discharge side formed concrete intakes; and three 455 CFS vertical self-priming pumps with 84-inch discharge piping.

The preliminary design phase was a joint engineering effort between USACE New Orleans District, Galveston District and our team in which we operated as one integrated design team. Our design responsibilities included structural design, architectural design, civil site work, geotechnical evaluation and design, cost estimating, CAD drafting and project management. New Orleans District provided the mechanical and electrical design while we were responsible for coordinating the mechanical and electrical design with the civil, structural, and geotechnical engineering design. Other project features being designed by our team include dolphin structures to protect the facility from possible boat impact, a pump station safe house, a fuel farm, and access roads. We designed the project in Microstation 3D and Civil 3D, also utilizing Revit BIM 3D modeling and CIM modeling for the facilities. Preliminary investigations consisted of extensive geotechnical testing to determine soil suitability, preliminary estimates of dredging based on navigational traffic loads in the Cow Bayou area, and structural calculations for the T-walls, and navigational structures. Preliminary architectural work was also completed to design the safe house which includes all facilities and workspaces for the pump station operators.

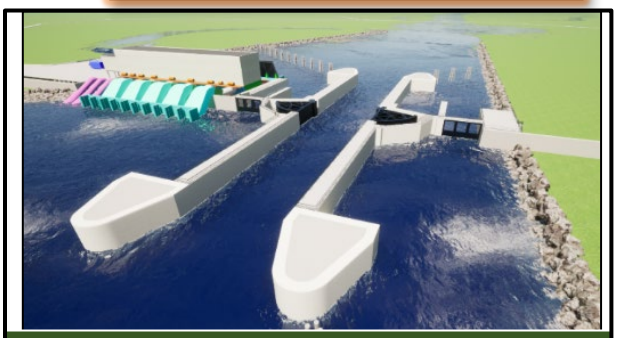
The pump station reinforced concrete structure is 250 FT by 128 FT, with 8 pump bays and is supported by 100 FT long steel H-pile. The vertical pumps, engines, generators, gear boxes, vacuum pumps and electrical equipment are all housed within the pump station building. The structural steel building located above the concrete pump station structure is 43 FT tall and utilizes 8 IN thick precast concrete tilt up wall panels. Our structural engineers, following USACE EM's, designed permanent project structures associated with the pump station including the horizontal and vertical pump intakes and discharge structures, engine and pump support slabs, pump station building, pump station safe house, fuel tank

PROJECT RELEVANCIES

- ✓ Pumping Station
- ✓ Use of CIM and BIM Modeling
- ✓ Use of USACE CADBIM Policies
- ✓ Construction Cost Estimating
- ✓ Perform Soil Borings
- ✓ 3D Modeling of Buildings, Structures, Sites
- ✓ Seepage Analysis
- ✓ Uplift Analysis
- ✓ Temporary Retaining Structure (TRS)

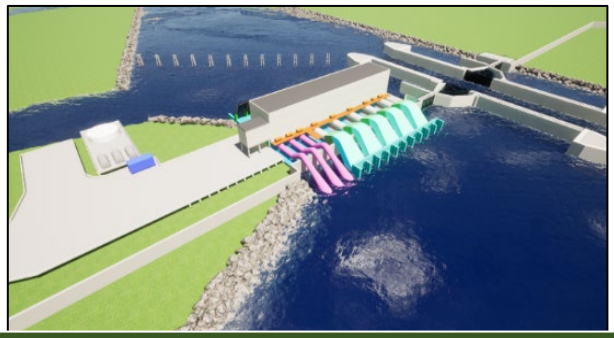
EXEMPLIFIES EXPERIENCE IN:

- ✓ Hydrology
- ✓ Civil Design Plans
- ✓ Structural Design
- ✓ Architectural Design
- ✓ Civil Site Work
- ✓ Geotechnical Evaluation and Design
- ✓ Highway Work (Access Road)
- ✓ MicroStation 3D and Civil 3D



MSMM's 3D Rendering of Cow Bayou Sector Gate and Pump Station Facility

foundation/containment, water tank foundation, west access bridge, exterior semi-gantry and overhead bridge crane supports, and protective dolphins. The pump station and safe house were designed utilizing STAAD software.



8,190 CFS Pumping Station including Horizontal and Vertical Pumps, Site Paving, Elevated Fuel Farm, Sector Gate and Protective Dolphins

The pump station safe house is a two-story structure 36 FT by 22 FT. The building is supported by cast-in place concrete beams and columns. The safe house is a separate structure near the pump station building, houses emergency personnel required during a hurricane and is designed for tornado force winds. It required a 1,000 gallon per day onsite wastewater treatment facility due to the lack of facilities in the project area. Our civil engineering team provided the wastewater treatment facility design, layout of the entry roadways and parking lots, and provided the site grading and utility layout in compliance with UFC-201-01.

The geotechnical services included engineering analyses on the soil borings data which the New Orleans District provided our geotechnical engineers. The team provided recommendations regarding site preparation and drainage, estimates of allowable pile load capacity for support of pump station components and the fuel platform, and estimates of settlement. The geotechnical analysis included performing deep seated stability analyses of the pump station, determining the unbalanced force, designing seepage cutoff beneath the pump station, performing analyses to evaluate potential uplift of the pump station during and after construction, determining lateral earth pressures for the wall design, and providing a preliminary design for temporary retaining structures (TRS). Analyses were also performed for the design of the dolphins to protect the pump station and gates. As part of our PM responsibilities, we prepared a detailed communication plan for our design team and the USACE M/E team which outlined procedures for coordination of activities and the transfer of information. The plan addressed scheduling, communication distribution structure, information collection and filing procedures, and a flow chart of personnel and project progression. Following receipt of the 35% design package, SWD engaged CERL/ERDC to complete additional hydrologic and hydraulic modeling and changed the acquisition strategy to Design-Build.

This project received an Excellent CPARS rating from the New Orleans District and the lead POC (Charlie Brandstetter) offered the following statement in the CPARS evaluation: “The Contractor provided excellent management of the task order contract. There was very little turnover during this effort, which allowed the team to work seamlessly from the beginning to the end of this contract. The Contractor did an excellent job managing his staff and coordinating the work between the Government and the contractor. The contractor's work was highly dependent on government input. On multiple occasions the contractor was forced to make up schedule based on slips resulting from government delays. The contractor was able to manage his assets and successfully recover the schedule. Due to the complexity of the project, the contractor had to work with multiple government offices with multiple disciplines all over the country, the contractor was able to manage his assets to produce highly accurate plans and designs despite the geographical challenges.”

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	**MSMM Engineering, LLC**	New Orleans, LA	Prime (92% of the work performed) – Civil Design, Structural Design, Architectural Design, Detailed Design Report (DDR), Plans and Specs, Cost Engineering, Site Layout
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
b	**Eustis Engineering**	Metairie, LA	Sub (5% of the work performed) – Perform Soil Borings, Soil Testing to Determine Soil Properties and Provide Soil Boring Logs in Accordance with USACE MVN Geotechnical Guide

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER
	7

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
East Baton Rouge Parish Rehabilitation of Multiple Sanitary Sewer Overflow (SSO) Pump Stations *Baton Rouge, LA*	2020	TBD

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE New Orleans District	Jasmine S. Williams, Project Manager	504-862-2917

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

Design Fee: $433k, **Construction Cost:** TBD,
% of Design Complete: 95%, **% of CA Complete:** NA

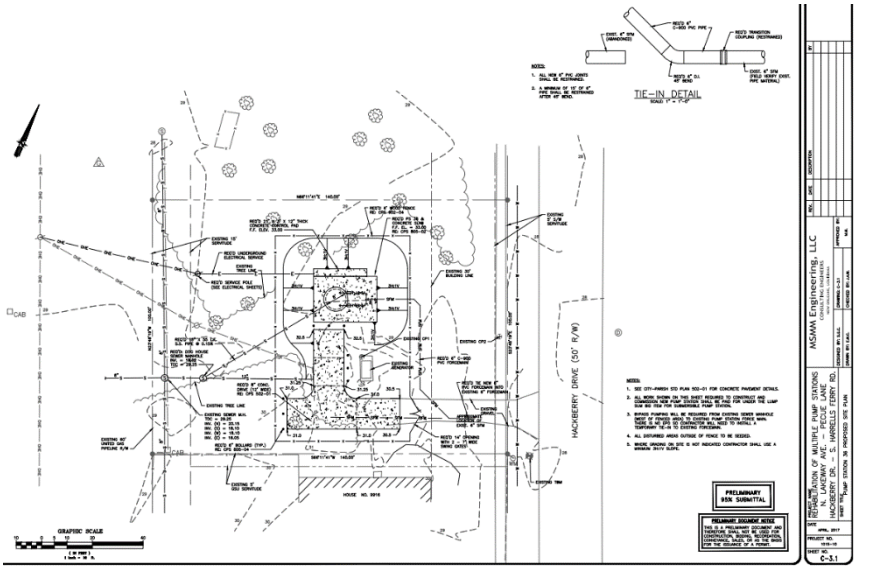
As the lead design firm under the New Orleans District Environmental Infrastructure Program, MSMM worked with the East Baton Rouge Parish Government to perform several projects to upgrade multiple sewer pump stations. These projects are being undertaken to assist the non-Federal sponsor in achieving goals set forth in their consent decree related to a history of sewage overflows. The Group 1 pump stations included the upgrade of two duplex and two triplex sewer pump stations with design flows ranging from 600 to 1,800 gpm. The Group 2 pump stations covered 10 sites and consisted of a variety of small projects in one. Two pump stations are being demolished and removed from the existing system, with flows being re-routed via the design of a gravity sewer system. The remaining eight sites require replacement of the existing duplex pumps stations with new ones. The flows range from 13 gpm to 300 gpm. The third stage of this project included the upgrade of one duplex and two triplex sewer pump stations with design flows of 100, 1,400, and 1,800 gpm.

PROJECT RELEVANCIES

- ✓ MVN Section 219 Environmental Infrastructure Program
- ✓ 95% Plans and Specifications
- ✓ Cost Estimating
- ✓ Flow Rate Measurement
- ✓ Sewage Collection

EXEMPLIFIES EXPERIENCE IN:

- ✓ Hydraulics and Hydrology
- ✓ Civil Engineering
- ✓ Environmental Analyses
- ✓ Geotechnical Design
- ✓ Landscaping
- ✓ Mechanical Engineering
- ✓ Electrical Engineering
- ✓ Structural Engineering
- ✓ Topographic Surveys



MSMM's Proposed Site Plan for Pump Stations at N. Lakeway Ave., Pecue Lane, Huckberry Dr., and S. Harrells Ferry Rd. Designed for 95% Submittal

Existing Pump Station to be Replaced

The existing pump stations were in poor condition; two utilized an older, less desirable layout with a wetwell and dry pit, and one used pumps, valves, and piping squeezed into a small fiberglass structure. The dry pits had manhole sized entrances with tight spacing that made maintenance and repairs difficult and were classified as confined spaces.

MSMM was responsible for mechanical, civil, electrical, and structural engineering design to provide 100% bid ready plans and specifications. The design scope on this project was to completely replace with new wet wells, submersible pumps, appurtenances, controls, generators, and concrete driveways. The existing pump station facilities were partially removed, partially abandoned in place, or the wet wells were converted to function as a manhole. Bypassing of the pump stations during construction was planned to be accomplished by utilizing existing manholes and emergency pump out connections. Most of the stations needed to be elevated by various amounts to minimize flooding. Some were designed to be elevated with onsite fill and some used concrete piles and an elevated concrete platform design due to space limitations on site.

Additional services performed by MSMM on this project included topo surveys, soil borings with geotechnical analyses and report, engineering cost estimates and coordination with the non-Federal sponsor. Geotechnical services included one soil boring at every location, and analyses to determine net allowable soil bearing capacity, estimated settlement, and pile load capacities.

Existing Sewer Pump Station in Residential Front Yard to be Demolished and Replaced with Gravity Drainage

Existing Dry Pit Pump to be Replaced

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	**MSMM Engineering, LLC**	New Orleans, LA	Prime (100% of work performed) – AE Design Services, Plans and Specs, Hydraulic, Civil, Mechanical, Structural, Electrical Engineering, Landscaping, Sewage Collection Design

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER
	8

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
Design of the City of Walker Sewer Improvements, Environmental Infrastructure Project *Livingston Parish, LA*	ONGOING	TBD

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
USACE New Orleans District	George Krausser, P.E., Project Manager	504-862-1712

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

Design Fee: $647k, **Construction Cost:** TBD,
% of Design Complete: 5%, **% of CA Complete:** TBD

As the lead design firm under the New Orleans District Environmental Infrastructure Program, MSMM has been tasked to design the second phase of this City of Walker project, as Phase 1 (South of I-12 Sewer System Improvements) was recently constructed by the local sponsor. The Livingston Parish area is experiencing significant growth, as more planned community subdivision developments are being constructed by the parish and local businesses. As a result of this growth, the need for sufficient sewer infrastructure in the area has rapidly increased. MSMM is in the process of meeting this need by designing approximately 2,450 feet of 8-inch gravity sewer, 8 sewer manholes, and service connections.

The project location runs along both sides of LA Highway 447 (Walker South Road) from Miller Road to just south of O'Donovan Boulevard. Since the gravity sewer will cross the state highway, this will require a steel casing installed by jack and bore to extend from right-of-way to right-of-way along with LDOTD coordination regarding this installation and their plans for future widening of the state highway in this area. Other features of this project include removal and replacement of driveways and tie-in to the existing pump station constructed under phase 1. Fortunately, the service area community, which currently uses private treatment, has been very receptive to the installation of the public sewer system. The adjacent Our Lady of the Lake Hospital, which has plans for future expansion, has been especially supportive.

Work for this project includes technical writing, involving a Design Document Report (DDR) and Design Quality Control Plan (DQCP). Our team will also be responsible for preparing a geotechnical report.

Construction documents include Right-of-Way (ROW) Drawings to be submitted alongside plans and specifications. Investigations will be included for all geotechnical and civil design features, describing the calculations and analyses performed to decide upon design details.

PROJECT RELEVANCIES

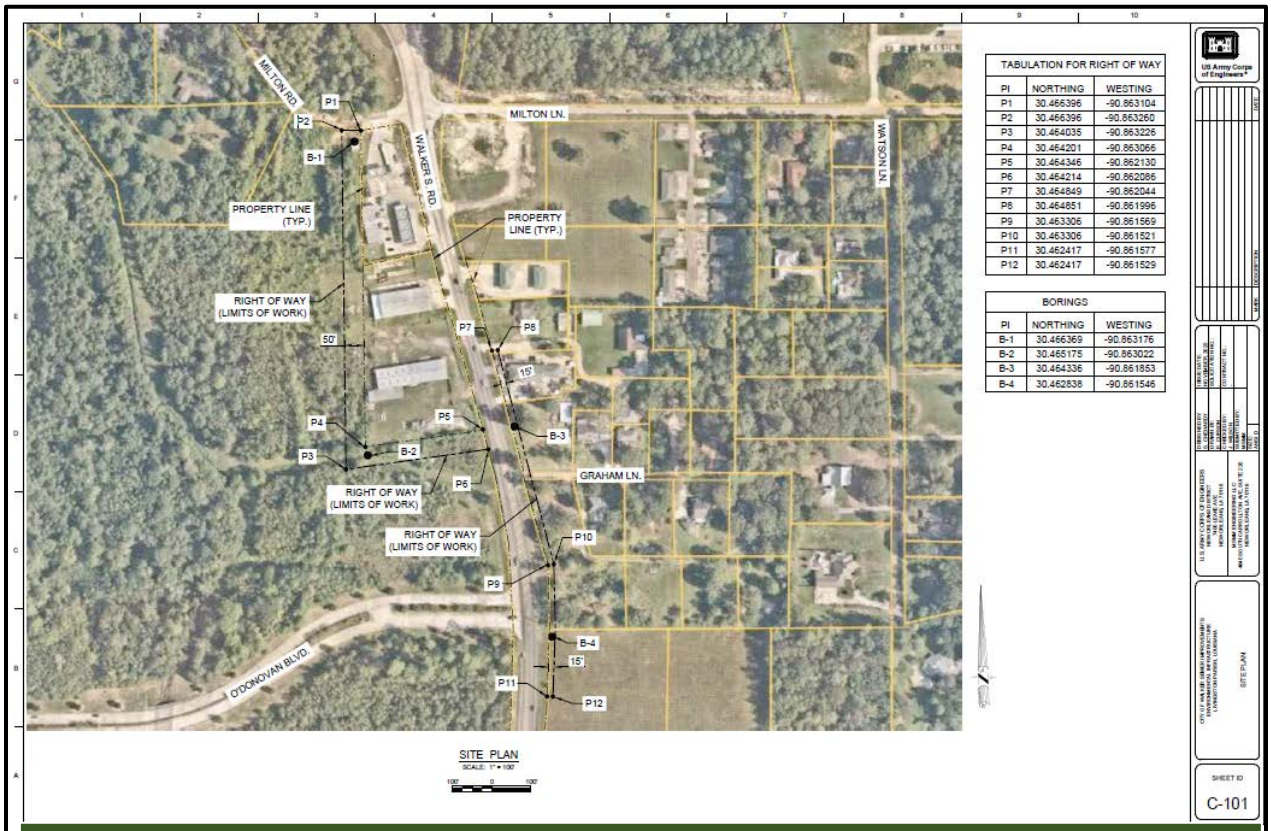
- ✓ MVN Section 219 Environmental Infrastructure Program
- ✓ Task Order Services Completed for USACE
- ✓ Cost Estimating Using MCACES
- ✓ Design Utilizing CADBIM Policies
- ✓ 100% Bid Ready Plans and Specifications
- ✓ Right-of-Way (ROW) Drawings
- ✓ Surveying
- ✓ Geotechnical Soil Borings and Analyses
- ✓ Engineering During Advertisement (EDA)
- ✓ Potential Expansion Plan Analysis
- ✓ Design Document Report (DDR)

EXEMPLIFIES EXPERIENCE IN:

- ✓ Hydraulics
- ✓ Civil Engineering
- ✓ Highway Work
- ✓ Geotechnical Investigations
- ✓ Technical Writing
- ✓ Topographic Survey

Additionally, the MSMM team is responsible for project management, MCACES cost estimating, topographic surveying, geotechnical soil borings and analyses, and preparation of the Letter Report for Project Partnership Agreement between USACE and the City of Walker. Permitting and coordination will be required through LDOTD for the state highway crossing and LDHH for the sewer design. Upon completion of design, MSMM will also be required to assist with Engineering during Advertisement (EDA), Engineering during Construction (EDC), and preparation of Engineering Considerations and Instructions to Field Personnel (ECIFP).

Aerial Photo Showing Proposed Layout of New Gravity Sewers



TABULATION FOR RIGHT OF WAY

PI	NORTHING	WESTING
P1	30.466396	-90.863104
P2	30.466396	-90.863260
P3	30.464035	-90.863226
P4	30.464201	-90.863065
P5	30.464346	-90.862130
P6	30.464214	-90.862086
P7	30.464649	-90.862044
P8	30.464651	-90.861996
P9	30.463306	-90.861569
P10	30.463306	-90.861521
P11	30.462417	-90.861577
P12	30.462417	-90.861529

BORINGS

PI	NORTHING	WESTING
B-1	30.466369	-90.863176
B-2	30.465175	-90.863022
B-3	30.464336	-90.861853
B-4	30.462838	-90.861546

Preliminary ROW Map Used for Obtaining Right of Entry

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	**MSMM Engineering, LLC**	New Orleans, LA	Sub (95% of work performed) – Project Management, Civil Engineering, Plans and Specs, Geotechnical, Topographic Survey, Cost Estimating, Highway Work, EDA
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
b	**N-Y Associates, Inc.**	Metairie, LA	Prime (5% of work performed) – Civil Engineering

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER
	9

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
New Orleans International Airport (MSY) Drainage Pump Station *Kenner, LA*	2017	2018

23. PROJECT OWNER'S INFORMATION

a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
New Orleans Aviation Board	Chris Spann, Program Manager	913-940-1301

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

Design Fee: $2.7M, **Construction Cost:** $25M,
% of Design Complete: 100%, **% of CA Complete:** 100%

MSMM completed full engineering design on the highly anticipated $45 million drainage mitigation for New Orleans International Airport (MSY). This work involved full investigation, analysis, and design for a new 600 cfs stormwater drainage pump station (four 150 cfs pumps, each 44" w/ 800 HP Driver) and for all landside drainage as part of constructing a new airport terminal. MSMM is the sole entity to envision, assess and design this important addition to the region's flood protection abilities. The project was a true multidisciplinary effort, spanning civil, structural, electrical, mechanical, and environmental design, hydraulic modeling (HEC-HMS and HEC-RAS), architectural design, cost estimating, environmental permitting, CAD drafting, and extensive FAA coordination. As the $826 million overall airport improvement project was meant to be completed in time for the city's tricentennial in 2018, MSMM was challenged to complete this portion on an extremely compressed schedule and did so without issue.

The timeline was not the only challenge presented in this project. There was also the issue of discharging stormwater through a newly built hurricane protection floodwall. This new floodwall, built in the aftermath of Hurricane Katrina, is a crucial part of the area's storm protection infrastructure and an understandably sensitive issue among the agencies in charge of maintaining the system's structural integrity. Our team performed detailed structural design calculations, design, and drafting and proceeded to make contact with COE, as well as coordinating with levee and coastal authorities. After this concentrated effort, we were awarded the clearances necessary to continue with the stormwater discharge plan.

From there, the project involved discharging stormwater over the hurricane protection flood wall, through the construction of 4,000 ft. of 4-60" steel discharge pipes; requiring detailed structural design of sheet pile cutoff walls, steel sheet pile temporary retaining structure (TRS), buttress, pipe bents, cofferdam and walers, intake channel and reinforced concrete box culvert, pipe supports, and a discharge basin. The design required excavation of a new airport canal and connection of the canal to the existing Butler Canal. The new canal serves as the pumping basin and required extensive stability analyses and erosion control measures (rip rap), as well as the design of reinforced embankments. MSMM closely coordinated with FAA on this portion of the design, as the service area lay in such close proximity to an active runway.

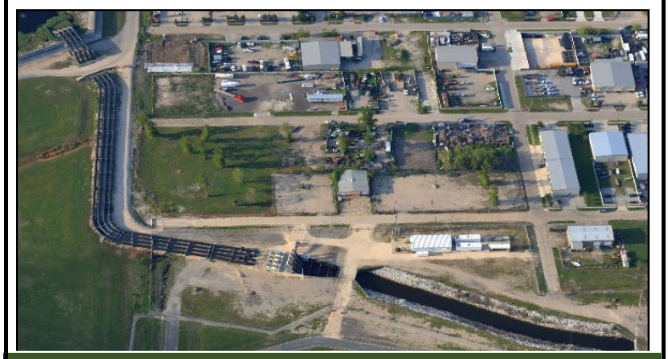
PROJECT RELEVANCIES

- ✓ Task Order Services Completed for USACE
- ✓ Design-Build RFP Development
- ✓ Cost Estimating Using MCASES
- ✓ Design Utilizing CADBIM Policies
- ✓ Drafting (CAD, Civil 3D, REVIT, GIS)
- ✓ Engineering During Construction (EDC)
- ✓ Hydrologic and Hydraulic Modeling (UNET, SWMM, HEC-HMS, HEC-RAS)
- ✓ Landside Drainage Design
- ✓ Piping Analysis
- ✓ Water Distribution Design
- ✓ Temporary Retaining Structure Design
- ✓ Drainage Analysis

EXEMPLIFIES EXPERIENCE IN:

- ✓ Civil Engineering
- ✓ Electrical Engineering
- ✓ Mechanical Engineering
- ✓ Environmental Design
- ✓ Architectural Design
- ✓ CAD Drafting
- ✓ Structural Design
- ✓ Calculations and Data Analysis

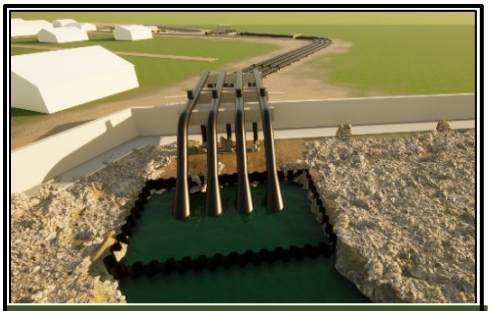
Our team also coordinated with roadway drainage designers, terminal designers, and apron designers on landside drainage design. Adaptability and flexibility were key in this part of the design, as the MSMM team incorporated numerous changes from other designs into our drainage design via hydraulic modeling exercises and pipe networking/sizing.



Completed 600CFS Pump Station, Discharge Pipes, Intake Canal and Discharge Basin

The final sensitive issue that we ran into was the operation and control of the pump station in accordance with the Operation and Maintenance Manual. Separate and unique demands from multiple entities—Jefferson Parish, City of Kenner, MSY—had to be taken into account. Fortunately, MSMM was able to use our vast experience in local drainage work, our decades of relationships with local administration and public works directors, and our intimate knowledge of the Jefferson Parish drainage system to create a consensus among the disparate parties.

The quick turn-around on this project was ultimately possible because of our team's familiarity with urban subsurface drainage systems, and the ability to cross reference more than 400 as-built drawings with GIS shape files, LIDAR data, USGS Quad Maps, aerial photos, survey data and past hydraulic/hydrologic model data.



3D Rendering of Discharge Basin

More broadly, MSMM was responsible for all civil/structural site work design inclusive of earthwork and site layout; engineering during construction (EDC) inclusive of coordination with the construction contractor; hydrologic and hydraulic modeling (UNET, SWMM); and developing all plans and specs. The project was successfully constructed in 2018.

Construction of Pump Station Prior to Setting First Two Pumps

60" Discharge Pipes During Construction

TRS for the Intake Canal Concrete Box Culvert

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT			
	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	**MSMM Engineering, LLC**	New Orleans, LA	Sub (100% of work performed) – Full Engineering Design, Hydraulic Modeling, Drafting, Permitting, Civil, Structural, Electrical, Mechanical, Environmental, Architectural, Engineer on Record

F. EXAMPLE PROJECTS WHICH BEST ILLUSTRATE PROPOSED TEAM'S QUALIFICATIONS FOR THIS CONTRACT *(Present as many projects as requested by the agency, or 10 projects, if not specified. Complete one Section F for each project.)*	20. EXAMPLE PROJECT KEY NUMBER
	10

21. TITLE AND LOCATION *(City and State)*	22. YEAR COMPLETED	
	PROFESSIONAL SERVICES	CONSTRUCTION *(If applicable)*
East Bank Water Treatment Plant (EBWTP) Expansion *Jefferson Parish, LA*	2026 (Est)	2028 (Est.)

23. PROJECT OWNER'S INFORMATION		
a. PROJECT OWNER	b. POINT OF CONTACT NAME	c. POINT OF CONTACT TELEPHONE NUMBER
Jefferson Parish Department of Water	Sidney Bazley, Director	504-736-6744

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

Design Fee: $8M, **Construction Cost:** $120M,
% of Design Complete: 90%, **% of CA Complete:** 20%

Jefferson Parish's first water treatment plant (P1) has been pumping, filtering, and cleaning Mississippi River water since 1931 for use by East Bank area residents in Jefferson Parish. Other treatment units were added in the 1950s and 1960s (P2 and P3) to address distribution system growth, level of service and regulatory requirements. Plants P1, P2, and components of P3 have exceeded their useful service life. This project allows construction of a new water treatment plant (P4) and allows for portions of P3 to be modernized and upgraded with innovative technologies to extend this facilities design life. These upgrades provide reliable potable treated water and increase system resiliency with backup power and pumping systems to allow for increased growth experienced by the Parish.

The project includes engineering and design, bidding, and construction administration services for a new water treatment plant with operations building and process facilities, including rapid mix, flow splitter, precipitators (flocculation/sedimentation), filters with air scour under drains, bulk chemical storage and feed, waste wash water equalization basin, clearwell, and transfer and high service pumping stations. The project also includes upgrades to the intake pumping stations, new laboratory facility and upgrades to the existing treatment plant. Expansion of the EBWTP consists of a 40 MGD expansion of the existing plant. Design services included treatment concepts including innovative treatment methodologies.

Full engineering services were provided for this project from project management to concept design to construction phase services. This included process mechanical, environmental engineering, structural engineering, civil engineering, hydraulic engineering, geotechnical engineering, building mechanical engineering, electrical engineering, cost estimating; architecture, surveying, drafting via computer aided design (CAD MicroStation), 3-D modeling CAD consisting of BIM and CIM.

Stantec also designed a new 10,125 SF bacteriological / chemistry laboratory. The building consists of 2 stories and the design is aesthetically pleasing and functional. The exterior walls are a cavity wall system consisting concrete masonry units with a decorative masonry veneer. The roof system for the building consists of two roof

PROJECT RELEVANCIES

- ✓ Design-Build RFP Development
- ✓ Fee over $1M
- ✓ Cost Estimating
- ✓ Design Utilizing CADCIM Policies
- ✓ Plans and Specifications

EXEMPLIFIES EXPERIENCE IN:

- ✓ Project Management
- ✓ Structural Engineering
- ✓ Civil Engineering
- ✓ Mechanical Engineering
- ✓ Electrical Engineering
- ✓ Geotechnical Engineering
- ✓ Architecture
- ✓ Landscape Architecture
- ✓ BIM/CIM

Completed Raw Intake Pump Station

types, a single gable standing seam metal roofing and a low slope single-ply membrane system installed on rigid insulation above a structural metal roof deck. The interior includes metal casework and chemical resistant counters.

Civil Information Modeling (CIM) was applied to provide conceptual and detailed design of the EBWTP and other on-site facilities in a 3D model to allow the team to evaluate the effectiveness of various components and automatically calculate quantities for cost estimates. The project team and client were able to analyze project elements and revise plans and drawings in real time across multiple plan sheets and sections to help streamline the review process which enhanced collaboration while improving project outcomes. This CIM tool allows for real time collaboration between disciplines to reduce conflicts and manage collaboration while also used as a communication tool with the Parish and operators to discuss changes and design decisions.

Construction phase services included review of shop drawings, request for information, change orders, payment requests, and communication between the client, contractor, and stakeholders. Stantec provided on-site construction observation services to monitor compliance with design plans, construction drawings, environmental compliance, and industry standards including health and safety practices. Documented and maintained records including site visits, construction progress, and deviations from design plans. Additionally, Stantec oversaw testing and commission activities of the equipment and systems.

Jefferson Parish East Bank Water Treatment Plant Expansion Program, Jefferson Parish, LA

3-D Model Utilizing BIM to Provide Conceptual and Detail Design of the P4 Expansion Design

25. FIRMS FROM SECTION C INVOLVED WITH THIS PROJECT

	(1) FIRM NAME	(2) FIRM LOCATION *(City and State)*	(3) ROLE
a	**Stantec Consulting Services Inc.**	Baton Rouge, LA	Prime – Engineering and Design Services: Structural, Civil, Hydraulic, Geotechnical, Mechanical, Electrical, and Environmental Engineering; Cost Estimating; Architecture; Surveying; 3-D CADD BIM/CIM; Project Management; Engineering Support During Construction; and Water Treatment Plant

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Manish Mardia, PE (*MSMM Engineering, LLC*) New Orleans, LA	Program Manager	X	X	X	X	X	X	X	X	X	
Scott Chehardy, PE (*MSMM Engineering, LLC*) New Orleans, LA	Civil Engineer	X	X		X	X	X	X	X	X	
Michael Harden, PE (*MSMM Engineering, LLC*) New Orleans, LA	Project Manager	X	X		X	X		X	X		
Henry I. DiFranco, Jr., MBA, PE (*Principal Engineering, Inc.*) Mandeville, LA	Project Manager										
Robert Yokum, PE (*MSMM Engineering, LLC*) New Orleans, LA	Structural Engineer	X	X				X				
Ramesh Kalvakaalva, PE, CVS (*MSMM Engineering, LLC*) New Orleans, LA	Structural Engineer				X	X		X		X	
Jim Wilson, PE, LEED©AP (*MSMM Engineering, LLC*) New Orleans, LA	Civil Engineer			X	X	X			X	X	
Jeff Wilson, PE (*MSMM Engineering, LLC*) New Orleans, LA	Project Manager		X				X				
Stuart Seiler, PE (*MSMM Engineering, LLC*) New Orleans, LA	Civil Engineer		X								
James J. Hance, PE (*Eustis Engineering, LLC*) Metairie, LA	Geotechnical Engineer	X		X			X				
Mark Woodward, PE (*Tetra Tech, Inc.*) Baton Rouge, LA	Geotechnical Engineer										
Chris Mills, PE (*MSMM Engineering, LLC*) New Orleans, LA	Hydraulic Engineer	X				X	X				
Jessica Watts, PE, CFM, D.WRE, ENV SP (*CDM Smith*) New Orleans, LA	Hydraulic Engineer										
Don Daigle, CVS, CPE (*MSMM Engineering, LLC*) New Orleans, LA	Cost Estimator	X	X	X	X	X	X	X	X	X	
Ike Pace, PE, SE, CCP (*Tetra Tech, Inc.*) Baton Rouge, LA	Cost Estimator										
Indira Pjectrovic, PE, PMP (*CDM Smith*) Dallas, TX	Electrical Engineer										
Paul Vlosich, PE (*IMC Consulting Engineers, Inc.*) Metairie, LA	Electrical Engineer		X								
David Socha, PE, PMP (Stantec Consulting Services, Inc.) Tampa, FL	Mechanical Engineer										X
Eugene Higbee, III, PE (*IMC Consulting Engineers, Inc.*) Metairie, LA	Mechanical Engineer		X								

29. EXAMPLE PROJECTS KEY

NO	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1.	**Ascension Parish Environmental Infrastructure Wastewater Treatment Plant Design**	6.	**Cow Bayou Drainage Pump Station Complex**
2.	**East Baton Rouge Parish Wastewater Treatment Collection System 5MG Ground Storage Tank and Pump Station**	7.	**East Baton Rouge Parish Rehabilitation of Multiple Sanitary Sewer Overflow (SSO) Pump Stations**
3.	**Hillaryville Pump Station and Effluent Discharge Force Main**	8.	**Design of the City of Walker Sewer Improvements, Environmental Infrastructure Project**
4.	**PUA & ACUD#1 Drinking Water Infrastructure Improvements, Water Meter Replacement**	9.	**New Orleans International Airport (MSY) Drainage Pump Station**
5.	**East Baton Rouge Parish North Landfill Leachate Pond Abandonment, Pump Station, and Forcemain**	10.	**Eastbank Water Treatment Plant (EBWTP) Expansion**

G. KEY PERSONNEL PARTICIPATION IN EXAMPLE PROJECTS

26. NAMES OF KEY PERSONNEL (From Section E, Block 12)	27. ROLE IN THIS CONTRACT (From Section E, Block 13)	28. EXAMPLE PROJECTS LISTED IN SECTION F (Fill in "Example Projects Key" section below before completing table. Place "X" under project key number for participation in same or similar role.)									
		1	2	3	4	5	6	7	8	9	10
Stephen Shumaker, PE, BCEE (*CDM Smith*) Carlsbad, CA	Corrosion Engineer										
Trey Johnston, PE (*Corrpro*) San Diego, CA	Corrosion Engineer										
Marty Tittlebaum, PE (*MSMM Engineering, LLC*) New Orleans, LA	Environmental Engineer	X	X	X	X	X	X	X	X	X	
Arthur Umble, PE, BCEE, F.WEG (*Stantec Consulting Svcs, Inc*) Denver, CO	Environmental Engineer										X
Steve Finegan, AIA (*MSMM Engineering, LLC*) New Orleans, LA	Architect	X	X				X			X	
Michael Buisson, AIA, NCARB, LEED AP (*N-Y Associates, Inc*) Metairie, LA	Architect		X								
Roderick Cashe, PE, CDT, LEEP AP (*Tetra Tech, Inc.*) Orlando, FL	Hydrologist										
Nathan Quick, PG (*Eustis Engineering, LLC*) Metairie, LA	Geologist	X		X			X				
Chuck Drake, PG, CPG (*Tetra Tech, Inc.*) Orlando, FL	Geologist										
Eric Curson (*MSMM Engineering, LLC*) New Orleans, LA	CAD Technician	X	X	X	X	X	X	X	X	X	
Binh Le (*MSMM Engineering, LLC*) New Orleans, LA	BIM/ CIM	X	X								
William Vogel (*Stantec Consulting Services, Inc*) Lake Mary, FL	BIM/CIM										X
Chris Lemay *(N-Y Associates, Inc*) Metairie, LA	GIS (Mapping and Analysis)								X		
Alex Montalvo *(Tetra Tech, Inc.)* Orlando, FL	GIS Analyst										
Barney Lighter, LA (*MSMM Engineering, LLC*) New Orleans, LA	Landscape Architect	X		X		X			X	X	
John Bonneau, PLS (*Lowe Engineers, LLC*) Mandeville, LA	Land Surveyor										
James Chustz, PLS (*Chustz Surveying, LLC*) New Roads, LA	Land Surveyor										
Lonnie Dupont (*Chustz Surveying, LLC*) New Roads, LA	Topographic Surveyor										
Josh Daniel, PLS (*Lowe Engineers, LLC*) Atlanta, GA	Hydrographic Surveyor										
Tom Odom (*Chustz Surveying, LLC*) New Roads, LA	GPS Surveyor										

29. EXAMPLE PROJECTS KEY

NO	TITLE OF EXAMPLE PROJECT (FROM SECTION F)	NO	TITLE OF EXAMPLE PROJECT (FROM SECTION F)
1.	**Ascension Parish Environmental Infrastructure Wastewater Treatment Plant Design**	6.	**Cow Bayou Drainage Pump Station Complex**
2.	**East Baton Rouge Parish Wastewater Treatment Collection System 5MG Ground Storage Tank and Pump Station**	7.	**East Baton Rouge Parish Rehabilitation of Multiple Sanitary Sewer Overflow (SSO) Pump Stations**
3.	**Hillaryville Pump Station and Effluent Discharge Force Main**	8.	**Design of the City of Walker Sewer Improvements, Environmental Infrastructure Project**
4.	**PUA & ACUD#1 Drinking Water Infrastructure Improvements, Water Meter Replacement**	9.	**New Orleans International Airport (MSY) Drainage Pump Station**
5.	**East Baton Rouge Parish North Landfill Leachate Pond Abandonment, Pump Station, and Forcemain**	10.	**Eastbank Water Treatment Plant (EBWTP) Expansion**

H. Additional Information

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

INTRODUCTION:

As provided in our cover letter, MSMM Engineering, LLC (MSMM) is one of the fastest-growing small businesses in the greater New Orleans area. Our team stands by a cradle-to-grave philosophy, which is why we are comprised of project managers, civil, structural, hydraulic, and environmental engineers, as well as architects, cost estimators, CAD technicians, BIM/CIM Modelers, resident inspectors, quality insurance inspectors, surveyors and many other staff required to support the delivery of Mississippi Valley Division's (MVD) and New Orleans District's (MVN) Civil Works program. This full-service capability led the United States Army Corps of Engineers (USACE) to identify MSMM as one of the most trusted small business Architect-Engineering (A-E) firms providing analysis and design becoming a trusted partner to the MVN. Our passionate, multidisciplinary team of experts and rich history of federal design have allowed us to forge a long-lasting relationship with USACE and MVN, for whom we have recently conducted design, investigations, planning, hydraulic modeling, project management, construction oversight services and many other facets of the Civil Works program.

MSMM not only has a successful track record with the USACE, but we also have a professional and personal stake in supporting the Environmental Infrastructure Program, as authorized under Section 219 of the Water Resources Development Act of 1992 (WRDA 1992), while improving the overall quality of life within the New Orleans District area of responsibility. The ability to provide this level of service can only be provided by firms with prior USACE and more specifically, MVN experience. The services highlighted in this solicitation require a unique skill set combined with robust capabilities that reflect an exceptional knowledge of the New Orleans District Environmental Infrastructure Program. The selected firm must understand the Environmental Infrastructure's unique delivery process, and as evidenced in this proposal, MSMM is uniquely positioned to continue to provide such support to MVD and the New Orleans District. Our featured projects illustrate a history of delivery success within the MVN, especially on Civil Works projects including water and wastewater related projects under the Environmental Infrastructure Program.

This solicitation aligns exceptionally well with MSMM's expertise in Environmental Infrastructure; our team's #1 specialty for MVN. This is validated by the projects highlighted in our resumes and projects and recent contracts we have been awarded. We have an outstanding record of Environmental Infrastructure work that is unmatched by any other firm in the region. MSMM has partnered with MVN on 24 task orders in support of MVN's Environmental Infrastructure Program between 2013 and 2023, many of which involved MSMM from conception to scope development, to coordination with the Non-Federal Sponsor, to project delivery including construction. As a team that heavily focuses on water resources, we have worked extensively on projects involving water supply, water quality, waste disposal, erosion control protection, water and wastewater distribution, stormwater management, environmental and ecosystem habitat restoration, storm damage risk reduction, surface water protection, comprehensive watershed evaluations, water infrastructure, and multi-purpose water resources projects.

Among the advantages we offer USACE on this assignment is the responsiveness of a local small business with a proven track record backed by a host of small business firms but also large business firms with nationwide resources. Our combined resources offer MVD and MVN a full-service infrastructure planning, design, construction and operations/maintenance management team that deeply understands the requirements of MVD as well as the New Orleans District's design and construction mission. We boast experience in water-related projects across MVD and certainly within MVN.

In addition to the depth of resources and diversity of geographic coverage, Team MSMM offers MVD and MVN a thorough understanding of supporting and delivering assignments provided under a multi-year IDIQ contract. Team MSMM's approach to delivery is informed by decades of experience and completing hundreds of individual task orders of varying scope, complexity and technical requirements which is made possible thru

effective teaming with 11 individual small and large businesses with experience and expertise throughout the Mississippi Valley Division. This capability includes extensive professional management, planning, design, construction and operation/maintenance experience complimented by significant capabilities for geotechnical and topographical survey investigations within the New Orleans District Area of Responsibility.

For this solicitation, we carefully hand-selected firms with excellent USACE qualifications that align with the requirements being sought by MVN. Team MSMM offers a "hands on" and proven knowledge of the USACE Environmental Infrastructure design process (as referenced in Table 1). Additionally, Team MSMM has first-hand knowledge and experience of the locality that is complimented with a deep understanding of the Environmental Infrastructure design processes to support sustainable and resilient infrastructure for MVD and certainly MVN.

MSMM is proud of the recent design work we have completed for USACE and the design work we are currently performing for the New Orleans, Ft. Worth, Tulsa, and Galveston Districts. We are confident in our ability to help MVD and MVN plan, investigate, analyze, evaluate, design, and oversee construction for future MVN Environmental Infrastructure projects. Team MSMM provides USACE with a collective group of familiar, proven, and trusted engineers, scientists, project managers and other professionals to deliver the requirements of USACE.

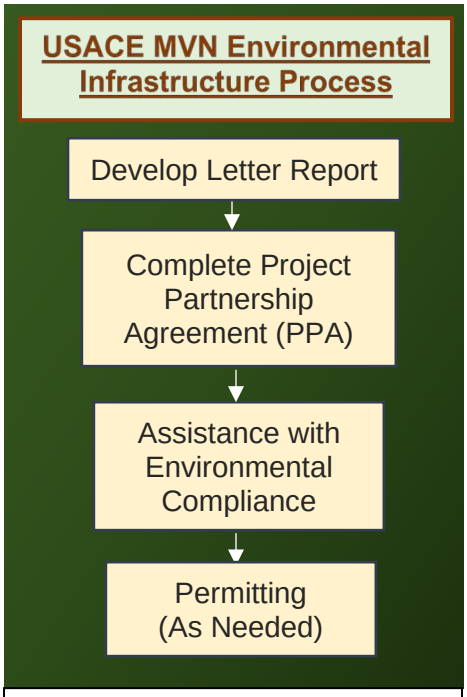


Table 1. MVN's Environmental Infrastructure Program Delivery Process

Summary of Team MSMM Advantages

- **Program Knowledge** - MSMM has supported MVN in the development of its Environmental Program and has gained an innate knowledge of how MVN can support local communities for water and wastewater needs based upon its experience and direct coordination between MVN and multiple parishes including Ascension, East Baton Rouge, Livingston, Iberia, New Orleans and other southern LA communities seeking authority in accordance with Section 219 of WRDA 92. MSMM is a TRUSTED AGENT.

- **Environmental Infrastructure Experience** - MSMM personnel have planned (letter reports, agreements), managed, designed, reviewed, performed construction management, provided EDC, and coordinated with non-Federal sponsors in support of the MVN Environmental Infrastructure Program.

- **Understands the Region** – Our staff understands the unique nature of the MVN AOR including it's unique terrain, and infrastructure and the limitations posed by relative sea level rise, inclement weather conditions, poor soil quality and soft soil conditions, geology, climatology and low lying conditions all located in an environmentally sensitive setting.

- **Committed Team** – The **MSMM** team is supported by small and large businesses with highly qualified staff and experience in MVD and MVN. MSMM has previously partnered with all the firms that are listed as sub-consultants in Section C. While MSMM will be the prime, we acknowledge that as a Small Business we may not have the staff to perform all functions required and have built a team to provide the level of expertise required by MVD and MVN. MSMM will self-perform roughly 75% of the services for this contract.

- **Familiarity of MVD and MVN** – Team MSMM, through its teaming partners, has management, planning, design, construction and O&M experience as well as unmatched geotechnical investigations and topographical survey experience throughout MVD and MVN. Team MSMM draws on its experience of conducting more than 3000 task orders for USACE with direct experience in MVN, MVK, MVM, MVR, MVS and MVP.

MSMM's Previous Experience with Team Members:

For this solicitation, MSMM carefully hand-selected firms with excellent water resource related project qualifications stemming from completing more than 3000 task orders for USACE with direct experience across all MVD Districts including robust capabilities within the MVN area of responsibility. Team MSMM offers a thorough understanding of USACE processes, the technical and engineering requirements to provide relevant services, and the local geographical knowledge to implement resilient and sustainable water resources projects including Environmental Infrastructure projects to MVD and MVN. Each team member is shown below with a summary of their primary capabilities and talents that will support delivery of the MVD/MVN civil works program.

N-Y Associates located in SE Louisiana**,** offers extensive experience in the planning and designing of structural foundations, drainage pumping stations, drainage canals, roadways and bridges, utilities (water, sewer, and drainage), and multi-purpose buildings. N-Y has been the prime A/E for sixteen federal contracts, ten of which were performed for various USACE districts. They bring an extensive knowledge of the locality and USACE requirements, making them a highly qualified addition to the team. N-Y has supported MVN thru 5 contracts and 2 contracts in MVK.

Principal Engineering, Inc. is a full-service Louisiana consulting firm specializing in architectural, civil, environmental, structural, electrical, mechanical, and consulting engineering services. Principal is a certified Service-Disabled Veteran Owned Small Business with the SBA, and has been successfully providing professional services to federal, state, parish/county, and city government agencies since 2004. Over 90% of their work volume is from government agencies with the majority of their work in Louisiana.

IMC Consulting Engineers, located in Metairie, LA, is a small mechanical, electrical, and plumbing consulting firm based in Metairie, LA. IMC has participated in multiple IDIQ contracts similar to the one advertised for this project. Their work for the USACE MVN and MVD includes electrical design for the replacement of the replacement of the entire electrical system at the IHNC, plumbing and electrical design for Ollie Pumping Station, and electrical design for the new floodgate/sector gate at Seller's Canal.

Eustis Engineering, located in Metairie, LA is a small business geotechnical firm, has worked on nearly 1,200 projects for the USACE as the prime or as a sub to multiple divisions and districts. As the third oldest continually operating geotechnical firm in the United States, Eustis's work involves extensive investigation and analysis experience with a working knowledge of the USACE design standards. Eustis maintains a USACE-verified testing laboratory and has worked mainly with the Mississippi Valley Division, participating in over 100 projects with experience coming from more than 1200 projects with direct experience in MVN, MVK and MVM.

Tetra Tech delivers innovative, nature-based solutions and structural design for coastal communities seeking climate-resilient flood risk reduction and marine habitat restoration, including storm risk management. Tetra Tech provides full-service support in maintaining and improving critical dam, levee, and reservoir infrastructure that protects life, property, and the environment. ENR has ranked Tetra Tech, Inc.'s expertise in the coastal environment as #1 in Water in its Top 500 Design Firms issue for 20 consecutive years and has direct experience in supporting MVR and MVN by completing many task orders.

Stantec is a large business with 80 years of experience partnering to deliver USACE projects for civil works, military programs, and environmental missions. In the last ten years, Stantec successfully executed 146 task orders within the MVD at a cost in excess of $100M with direct support to MVN, MVK, MVR, MVS and MVP. Stantec offers experts

in various fields, spanning civil/ mechanical/ electrical/ plumbing/ structural/ environmental engineering, architecture, and construction phase services. Furthermore, Stantec brings extensive experience in water/wastewater based upon working on wastewater systems ranging from 0.25MGD to 800MGD.

CDM has continually served the New Orleans region for over 40 years while being one of the nation's leading multi-disciplinary engineering firms with a long, successful history working with USACE. This history includes 90+ USACE contracts and more than 2000 task orders for 18 USACE districts including MVN. CDM currently provides A-E services for some of the USACE's largest FRM and CSRM projects.

CORRPRO, an international provider of multi-discipline cathodic protection engineering with a primary focus on corrosion processes, has worked alongside MSMM previously as a corrosion engineering sub-consultant. Their 560+ strong team specializes in engineering and design, turnkey installation, pipeline integrity, and structural integrity.

Coast and Harbor Engineering, located in south LA, is a small specialty consulting engineering firm with worldwide expertise, local experience, and solid technical specializations in civil, coastal, hydraulic, and dredge engineering. Since its founding in 2003, Coast and Harbor's hydraulic and coastal engineers have provided analysis and design for coastal protection, flood protection, and ecosystem restoration projects worldwide. CHE is a trusted partner for engineering in Louisiana, with over 20 years of experience working within MVN and experience stemming from over 200 H&H type projects along the Gulf Coast.

Lowe Engineers is a local small business located in Scott, LA and Mandeville, LA with in-depth Mississippi Valley Division locality knowledge. The Lowe team has worked with the USACE for over 65 years, encompassing 100's of task orders, providing them with an understanding of the unique USACE process in the surveying and mapping community. Their specialized skills perfectly align with the requests made in this solicitation, spanning boundary resolution surveys, complex GPS networks, hydrographic, topographic, and as-built surveys.

Chustz (CSI), located in New Roads, LA was established in 1995; since its inception, CSI has worked on land, aerial, and hydrographic surveying for USACE projects. CSI has been awarded 15 consecutive contracts within the New Orleans, Vicksburg, and Memphis districts, with over 600 task orders. Their surveying and engineering expertise combination has recieved exceptional ratings on all performance evaluations since 2000.

PRIMARY SELECTION CRITERIA:

Criterion (A) – Specialized Experience and Technical Competence

The ten projects featured in Section F highlight some of the more relevant MVN Environmental Infrastructure Projects and related work accomplished by Team MSMM. In accordance with paragraph 2b of the solicitation, we have defined four key categories which we will use to describe our ***Specialized Experience and Technical Competence*** as follows:

Category 1) Wastewater Treatment Plants and Related Facilities

Category 2) Water Supply, Storage, Treatment, and Distribution Facilities

Category 3) Highway Work such as Roads, Bridges, Ramps, Culverts

Category 4) Buildings and Other Multi-Purpose Projects

Presented below is a matrix that summarizes the projects described in Section F in terms of our specialized experience and technical competence across all 4 categories as defined above:

	Project	Category 1: Wastewater Treatment Plants and Related Facilities	Category 2: Water Supply, Storage, Treatment, and Distribution Facilities	Category 3: Highway Work such as Roads, Bridges, Ramps, Culverts	Category 4: Buildings and Other Multi-Purpose Projects
Projects in F	Project 1: AP WWTP Design	♦			♦
	Project 2: EBR WWT Tank & PS	♦	♦		♦
	Project 3: Hillaryville PS & FM	♦		♦	
	Project 4: Water Meter		♦		
	Project 5: EBR Pond, PS, and FM	♦			♦
	Project 6: Cow Bayou PS			♦	♦
	Project 7: EBR (SSO) PS	♦			♦
	Project 8: Walker Sewer	♦		♦	
	Project 9: MSY PS			♦	♦
	Project 10: EBWTP		♦		♦

Team MSMM's broad and diverse experience and competency extends well beyond the above 10 projects considering the depth and breadth of our 11 team members. The below sections provide further insights into Team MSMM's experience, competency, capabilities, talents, and commitment to support the delivery of the MVD/MVN Civil Works Program. This information will be illustrated across all 4 categories as presented above.

CATEGORY 1 – WASTEWATER TREATMENT PLANTS AND RELATED FACILITIES:

East Baton Rouge Parish Sewer Lagoon Sites Rehabilitation (2022)

This project was part of the New Orleans District Environmental Infrastructure Program. Our team developed plans to rehabilitate two existing sites that utilized sewer treatment lagoons. Our work on the first site, Treakle Drive, involved upgrading the site to mitigate erosion from stormwater runoff, rebuilding the lagoon levees, covering the final lagoon, and repaving the entrance asphalt roadway. The second sewer treatment lagoon at Pony Dr. was replaced with an onsite sewer pump station to redirect wastewater to the municipal wastewater treatment plant. The design for the Pony Drive site addresses the closure and abandonment of six surface treatment ponds, including methods to drain the ponds and remove and dispose of the existing sewage sludge. MSMM was responsible for preparation of all design documents (including plans and specifications); incorporation and confirmation of existing site surveys; incorporation of geotechnical investigation data; permit applications; construction schedule preparation; coordination with government agencies; rebuilding pond levees; installation of sheet piling for stabilization and seepage prevention; addition of new overflow culverts; replacing the existing asphalt driveway; and onsite drainage improvements, MCACES cost estimates, sludge sampling for analysis, and coordination with East Baton Rouge Parish and the USACE.

Sewer Treatment Lagoons Rehabilitated by MSMM Under MVN's Environmental Infrastructure Program

CATEGORY 1 (Cont.)

City of Kenner Wastewater Treatment Plant (2023)

MSMM was tasked with the complete engineering design and construction management services for consolidating the City of Kenner's existing wastewater treatment plants (WWTPs) at the site of WWTP No. 3, near I-10 and the Parish line in Kenner, LA. The wastewater project involved decommissioning WWTP Nos. 1 and 2, rerouting raw waste flows from WWTP Nos. 1 and 2 to WWTP No. 3, and ensuring that the modifications effectively treated all wastewater flow generated within the city. Project services included preliminary design, design, permitting, construction management, and quality assurance (QA). MSMM staff provided quick response, flexibility, and extensive management and coordination between the City of Kenner, LA, the construction contractor, and regulatory agencies. The construction items included multiple wastewater pump stations and auxiliary power provisions, structures such as clarifiers, aeration basins, wet wells, and junction boxes, and utilities such as water, sewer, and drainage pipes (gravity and forcemain).

Clarifier at WWTP No. 3 Kenner, LA; Design/Construction Management by MSMM

The treatment plant facilities included hydraulic structures (pump stations, clarifiers, and aeration basins) and buildings (pump houses, generator stations, and motor control centers). We were tasked with providing design plans and project specifications, as well as contract document preparation following the City of Kenner requirements; on-site resident inspection to monitor contractor adherence to contract plans and specifications; documentation and reports detailing contractor's construction quality; management of construction progress, materials testing, surveying, fill and volume computations and plots, shop drawing submittal management, cost estimating, scheduling, coordination, contract modifications; and processing contractor pay requests. The testing of soil, concrete, and gradation was also included. This project's planning and design phases required extensive topographic surveying work to aid in preparing the construction documents. The survey data was then utilized to produce AutoCAD plots and detailed engineering drawings. Our team then prepared a 20-year wastewater master plan, focusing on a detailed capital improvements program and operations management plan that would best suit the wastewater collection and treatment for a city of 80,000.

Picayune Wastewater Treatment Plant (2021)

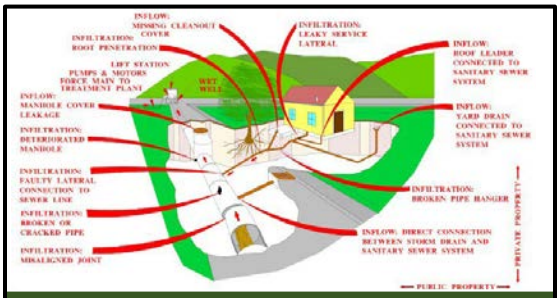
In coordination with USACE Vicksburg District WRDA-2007, Environmental Infrastructure assistance, MSMM completed a wastewater facility project for the City of Picayune. This project required a feasibility study of problem lift stations and the design and construction of rehabilitation improvements to five critical stations. The first step was to conduct a current condition survey of the most affected wastewater components, which proved to be the collection system lift stations, and then to determine the feasibility of rehabilitating the five worst affected sewage stations. Our team provided field data collection, field flow verification, demographic data collection and flow estimation, flow data analysis, development of system improvement alternatives, opinions of probable construction cost, and recommendations for prioritized lift stations. The City and MSMM staff accepted the recommendations and subsequently conducted design, bidding, and construction management of the improvements.

Lift Station Designed by MSMM Under the Vicksburg District Environmental Infrastructure Program

CATEGORY 1 (Cont.)

Jefferson Parish Department of Sewerage – Sewer Infiltration and Inflow Management (2016)

MSMM conducted a field survey of sewer manholes and pump stations utilizing GPS equipment (GPS System 500) and SKI-Pro software, data entry into the database, and management of database (MS Access) to create and maintain Jefferson Parish's intricate wastewater collection system network in ArcGIS software, mapping of the system's features, followed by hydraulic modeling (InfoWorks) to identify problem areas under various storm conditions graphically within a GIS mapping environment and recommend capacity and rehabilitation improvements to minimize rainfall derived infiltration and inflow (I&I) and related sanitary sewer overflows (SSOs). Detailed field investigations of nearly 6,000 manholes and 250 pump stations were conducted.



MSMM GIS Mapping of Wastewater Collection System Network for Jefferson Parish

Ruby & Wright Avenue Forcemain Design for the Jefferson Parish Department of Sewerage (2018)

MSMM was tasked to provide full engineering design of a new forcemain that would go from the intersection of Wright Avenue and Ruby Street to the intersection of Wright Avenue and Carol Sue Avenue in Terrytown, LA. The forcemain was 4,700 linear feet of 10-inch Asbestos line that would break repeatedly. The design of the forcemain required Horizontal Directional Drilling, and the new line would be a 12-inch HDPE for the directional drill portion and 10-inch PVC for the open-cut portion. Our engineers were responsible for the preliminary, 65%, and final design for the portion of the forcemain that extended from Wright Avenue to Carol Sue Avenue. We were also tasked with bidding phase services and shop drawing reviews.

MSMM Design of Forcemain for Jefferson Parish

Data Collection of Existing Sanitary Sewer System for the Chitimacha Tribe (2013)

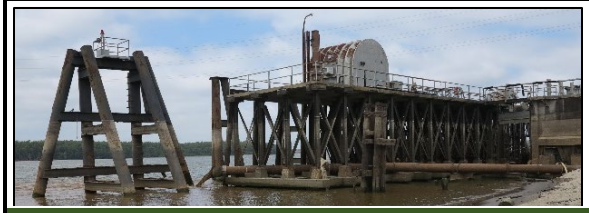
MSMM provided professional services to USACE New Orleans District by assisting the Sovereign Nation of the Chitimacha Tribe of Charenton, LA, in advancing an ongoing Foundational GIS initiative that they've been pursuing to advance sewer infrastructure for their Tribal lands. This project was part of the Continuing Authorities Program (CAP), which allows USACE the authority to solve water-resource, flood-risk mitigation, and environmental restoration problems in partnership with local sponsors without the need to obtain specific Congressional authorization. We undertook a planning initiative that involved completing an assessment of the current sewer infrastructure on-site, cataloging the existing information, performing field GPS surveying to obtain x-y-z coordinates of existing sewer system features (manholes and pump stations), and developing CAD and GIS data sets for the Tribe to use in future infrastructure planning. The specific GPS unit used was the Leica Geosystems GPS System 500. The coordinate type used was Grid (Louisiana State Plane). The Reference Ellipsoid was the WGS 1984 / Geoid 03 Model. After creating CAD sheets and GIS drawings for the existing sewer system, as well as CAD sheets for the planned sewer upgrades, MSMM was able to input as-built drawings into the GIS and CAD databases to incorporate the Tribe's requested features, namely manhole locations, numbers, department, and pipe size. LIDAR was flown to provide aerial photography and identify topographic issues that could prevent challenges to the Tribe's master plan, and infrastructure recommendations were provided to Chitimacha Tribe leadership.

Master Planning of Chitimacha Tribe Sanitary Sewer System by MSMM for New Orleans

CATEGORY 1 (Cont.)

Sludge Line to the River Design, from Carrollton Water Purification Plant to Mississippi River (2015)

MSMM designed the levee crossing and bike path relocation as a sub to team member CDM Smith on a Sewerage and Water Board project as they intend to install a new 36" sludge line from its Carrollton Water Purification Plant to discharge into the Mississippi River. Environmental permitting, including 408 permitting, was also part of MSMM's responsibilities on the project.



MSMM Design of Levee Crossing and Bike Path for CNO Sewerage and Water Board

Causeway Boulevard and Scott Street Sewer Lift Station Improvements (2018)

The Jefferson Parish Department of Sewerage tasked MSMM to provide full engineering design for sewer lift station rehabilitation to the Causeway and Scott Sewer Lift Station in Metairie, LA. The Scott Street lift station was originally a submersible pump station with a buried fiberglass wetwell containing three pumps and a buried fiberglass valve pit. The 10" pipes on each pump combined to discharge into a 16-inch diameter pipe that went to the Shresbury & Railroad lift station. The lift station required the replacement of pumps, piping, valves, controls, and other rehabilitation items, including elevating the top slab to mitigate floodwaters entering the wetwell. Our work included replacing the pumps replacing the control panel, replacing discharge piping and valves, designing a method to elevate the access hatch into the wetwell and valve pit, repaving the area surrounding the lift station to assist with drainage, adding an Emergency Pump Out (EPO) manhole; and adding odor control.

Before and After MSMM's Design of Causeway and Scott Sewer Lift Station for Jefferson Parish Dept. of Sewerage

Hillaryville Wastewater Treatment Plant (WWTP) Existing Conditions and Future Requirements (2016)

MSMM was tasked by the USACE MVN under the Environmental Infrastructure Program to collect and document all existing information and conditions of the facilities located within the Hillaryville WWTP, coordinating with Ascension Parish staff to document the future needs to receive and process planned future effluent discharge from the Riverton Subdivision. MSMM documented the need for an additional triplex pump station, scoped possible locations for constructing a future triplex pump station, and the need for standby power requirements if the Hillaryville WWTP power source goes offline. Deliverables for this task included all collected field data and a preliminary report outlining the requirements and potential issues of an additional triplex pump station (including gallons per minute, location, power source requirements, and need for a new sewer forcemain).

39th Street and Power Boulevard Sewer Lift Station Upgrades (2018)

The City of Kenner tasked MSMM to provide full engineering design for sewer lift station rehabilitation to the 39th Street and Power Blvd—Sewer Lift Station in Kenner, LA. The 39th and Power station is a duplex self-priming pump station with a buried concrete wetwell and above-ground CMU block/brick exterior building. The lift station required the rebuilding of pumps, replacement of the motor, and replacement of the existing control panel. MSMM tasks on this project consisted of design for rehabilitation to upgrade the lift station for increased capacity and improved functionality. This included refurbishing the pumps, increasing the impeller size, upgrading the motor, replacing the control panel with new variable frequency drives, upgrading the SCADA system, adding an emergency pump out (EPO), and adding an exhaust fan to the building.

MSMM Design – 39th St. and Power Blvd. Sewer Lift Station Kenner, LA

CATEGORY 1 (Cont.)

42nd & Lake Trail and 31st & Loyola Sewer Lift Station Improvements (2024)

The City of Kenner hired MSMM to provide professional services to the 42nd & Lake Trail and 31st & Loyola pump station sites. The work involved removing and disposing of all existing pumps, piping, and valves inside the wetwell and providing new 4" pumps, piping, and valves, as well as level controls and backup floats. MSMM provided supplementary services, which included topographic survey, soil investigations, traffic engineering; preparation of environmental assessment documents and environmental permits; Right-of-Way, easement, and property acquisition surveys, plats, maps, and documents; and assisted the City of Kenner in the preparation of the grant application and with the grant administration.

Snapfinger Creek Advanced Wastewater Treatment Plant Expansion – Phase II

Initially constructed in the early 1960s and expanded numerous times, the Snapfinger Creek Advanced Wastewater Treatment Plant (AWTP) is an advanced secondary treatment-activated sludge facility. Our team member Tetra Tech provided construction management services to build a 54 MGD adjacent to the existing facility. The new facility is designed to collect and process primary, secondary, and tertiary wastewater from the southern portion of the County and surrounding areas. Construction services included constructability reviews, cost estimates, bidding assistance services, progress meetings, scheduling, change orders, safety plans, and progress payments. Plant construction includes plant headwork improvements, primary clarifiers, biological reactors, membrane bioreactors (MBRs), UV disinfection, effluent discharge systems, chemical storage and feed systems, biosolids collection and processing systems, and odor control systems and appurtenances. Upon startup, the plant will be the largest MBR facility in the United States.

Tetra Tech Construction Management for Wastewater Treatment Plant Dekalb County, GA

Rehabilitation of the Trickling Filters at the Marrero Wastewater Treatment Plant

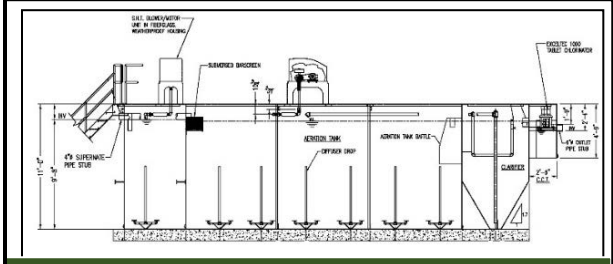
Our team member N-Y Associates, Inc. provided design, bidding, and construction administration services to the Jefferson Parish Department of Public Works to replace the trickling filters rotary distribution system. The project also included rehabilitating the existing filter media and removing, repairing, and replacing two (2) 130' diameter aluminum geodesic dome covers for the trickling filters.

N-Y Associates - Geodesic Dome Covers for Trickling Filters Marrero, LA

St. Bernard Port, Harbor, and Terminal District New Wastewater Treatment Plant

Our team member N-Y Associates, Inc. provided the design of a new 20,000 GPD Package Wastewater Treatment Plant, which includes:

- A pre-fabricated steel treatment plant on a pile-supported foundation.
- Electrical service and controls.
- Re-routing the pump station forcemain to the new plant.
- Effluent gravity line to a small pond.
- Chlorine gas feed to the treatment plant.
- Site work, including grading, drainage, lighting, and parking.



N-Y Associates – Design Services for 20,000 GPD Wastewater Treatment Plant Chalmette, LA

CATEGORY 1 (Cont.)

Baton Rouge Wastewater System Improvement Program

Our team member CDM Smith served as the program and design manager for the City of Baton Rouge, East Baton Rouge Parish's Wastewater System Improvement Program, providing technical assistance, scheduling control, and coordination of over 40 design consultant firms and other services to assist in completing the engineering design phases of the program on schedule and within budget. Under the provisions of a consent decree between the City of Baton Rouge, Parish of East Baton Rouge (City/Parish), and the U.S. Environmental Protection Agency (EPA), the City/Parish agreed to implement a remedial action program. This program outlined a specific schedule of milestones for completion of engineering and construction work necessary for the City/Parish wastewater treatment facilities to meet the requirements of the Clean Water Act, state regulations, and NPDES permits.

As the wastewater improvement program entered the design phase, CDM Smith's responsibilities included developing design standards, typical construction details, and standard construction specifications. This work involved the review of various materials to be used in the construction of the wastewater conveyance system and treatment facilities, including the evaluation of piping materials manufactured by new processes and techniques, various types of pumping equipment, pump control equipment, and methods of transporting the wastewater flow to the centralized treatment facilities. The result was a pressurized conveyance system of wastewater pump stations, force mains, and gravity sewers using materials and equipment of proven performances, providing a cost-effective, energy-efficient wastewater distribution network.

Fort Johnson (formerly Fort Polk) Wastewater Treatment Plant

As the Engineer of Record, our team member Stantec, designed two new state-of-the-art wastewater treatment plants (WWTPs) to replace two existing plants that had served Fort Johnson since 1941, when Camp Johnson first existed. The new facilities support nearly 25,000 military personnel and their families. The project has significantly increased the WWTP's overall capacities, including increasing South Fort to 18.1 MGD and North Fort to 8 MGD. The new modernized WWTPs operate 24 hours a day, seven days a week, capable of treating 1.8 million gallons of wastewater per day while conserving millions of potable drinking water through a more efficient operational process. Stantec provided full A-E Design and construction phase services (CPS) for two replacement WWTPs supporting Fort Johnson, Louisiana. Stantec was responsible for the majority of the process design and supported management of the construction and demolition process, including construction on the operations buildings and the two WWTPs.

Dupre & Gayoso Water and Sewer (2023)

MSMM Engineering was hired as a subcontractor to our team member CDM Smith Inc., which agreed with the City of New Orleans to perform professional services in connection with the Dupre & Gayoso Street Improvements project. The project consists of a complete street reconstruction on Dupre Street from Tulane Avenue to Canal Street and South Gayoso Street from Banks Street to Canal Street. A full street reconstruction calls for the design and construction of an entirely new roadway surface, including new curbs, sidewalks, pervious pavement parking lanes, and driveway aprons within the public right of way; replacement of all existing water and sewer infrastructure; and upgrade of the stormwater management system to manage the runoff generated from a 10-year storm. MSMM's specific task was to design the existing water and sewer infrastructure replacement. MSMM prepared detailed construction contract specifications and bid documents for the water and sewer portions of the project, along with the "Advance Check" prints, for review. A revised construction cost estimate was submitted at this time. Specifications, contract documents, and the construction cost estimate were submitted in hard copy and electronic format. Upon receiving comments on water and sewer line plans and specifications, MSMM revised and completed the final contract plans and specifications.

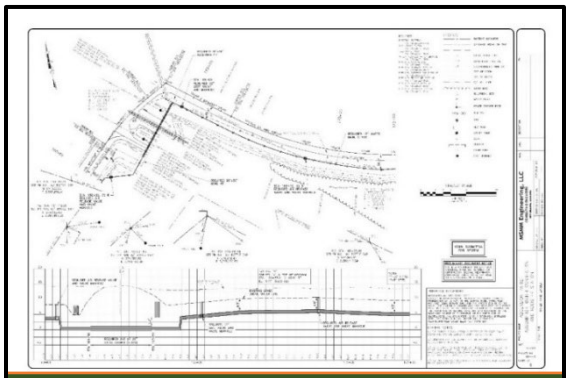
CATEGORY 2 – WATER SUPPLY, STORAGE, TREATMENT, AND DISTRIBUTION FACILITIES:

Ascension Assumption Water Connection (2015)

MSMM Engineering completed full engineering design services for this New Orleans District Environmental Infrastructure Program project. This project was designed under a partnership between the USACE New Orleans District and cost-sharing partner Ascension Parish, with direct input from Assumption Parish and the Environmental Protection Agency (EPA). The project was fully designed in 2015 but has been stalled by local political differences at the Parish level.

The design services completed by MSMM consisted of the following: hydraulic modeling, extensive permitting, right-of-way inclusive of railroad permissions, pipeline conflict resolution, and design of 10,340 linear feet of 12" watermain to extend from the existing line in Assumption Parish to an existing water tower in Ascension Parish. The project includes a booster pump station, flow metering, and chlorination disinfection. The project will use bore and jacking steel casing under major road intersections and the Union Pacific Railroad. The MSMM team evaluated the existing in-line system pressures via hydraulic modeling and residual chlorine test results to determine the design parameters.

MSMM design personnel worked with the water utility departments from both Parishes to design this critical project for Ascension Parish. Ascension pays excessively for potable water, and the current supply barely meets LADEQ requirements. Given the area's increasing population, the Parish government decided the best course of action would be to connect the water main to the Assumption connection and pay Assumption for the water. The design process was challenging as multiple pipelines and railroad crossings exist in the current route. MSMM worked with all utility providers and received railroad permissions to construct the project. Once fees are worked out between the two municipalities, MSMM will perform the construction admin and engineering during construction (EDC).



Design Services of 12" Watermain Completed by MSMM Under MVN's Environmental Infrastructure Program

Ascension Parish Water System Planning and Environmental Infrastructure

As part of the New Orleans District Environmental Infrastructure Program, MSMM supported MVN and Ascension Parish with a project that involved collecting data to develop water system maps and investigating the feasibility of installing a water transmission pipeline from the People's Water Facility on the west bank to a new water storage structure on the east bank. Upon completing data gathering, water system planning, field survey, and field mapping, MSMM comprehensively evaluated the pipeline's feasibility.

Ascension Parish Environmental Infrastructure Waterline Replacement (2024)

MSMM has been working with USACE preplanning to assist the Ascension Parish Government with waterline improvements in the Donaldsonville area under the New Orleans District's Environmental Infrastructure Program. The project consists of replacing the existing small diameter (3/4" to 2") waterlines with new 3" waterlines in the Port Barrow area west of Bayou Lafourche and north of LA Highway 1. As Ascension Parish currently has a project under design to install a new grid system of 6" waterlines and fire hydrants in this area, MSMM will coordinate the replacement of the remaining undersized diameter waterlines with that planned water system upgrade. Additionally, this project includes the design for replacing existing 3" to 6" waterlines in the area east of Bayou Lafourche and north of LA Highway 3089. The estimated waterline to be installed in this area includes 23,400 linear feet of 3", 2,800 linear feet of 4", and 17,000 linear feet of 6".

Review and Assessment of Ascension Parish PUA Waterlines for Integration with the ACUD#1 System

Ascension Parish is in the process of integrating the ACUD (Ascension Consolidated Utility District) water system with the PUA (Parish Utilities of Ascension) water system using the New Orleans District's

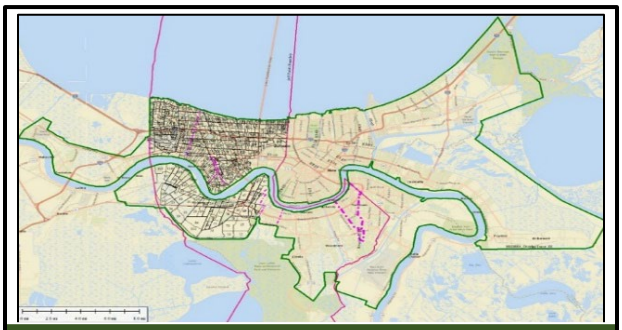
CATEGORY 2 (Cont.)

Environmental Infrastructure Program. Due to the age of the PUA system, many waterlines need upgrading and replacement. MSMM is responsible for investigating the PUA system for the priority area identified by Ascension Parish (local sponsor) and assessing the need for upgrades and replacement due to age and to meet current regulations per the Louisiana Department of Health and the 10 States Standards. MSMM is currently developing preliminary phasing and cost estimates for the upgrades required.

USACE Silver Jackets Program Support; Water Resource Master Plan and Watershed Analysis (2021)

Through the United States Army Corps of Engineers Silver Jackets program, MSMM developed a Watershed Master Plan for Jefferson Parish. The developed plan promotes coordinated decision-making, reduces increased flooding from future conditions, and identifies segments of green infrastructure elements in the Fat City portion of the Parish. The purpose of this watershed master plan was ultimately to improve water quality and provide the community with an option that will reduce future flooding from new development, climate change, and sea level rise.

The Silver Jackets Program allowed MSMM to provide lead assistance in the ongoing process of acquiring National Flood Insurance Program (NFIP) credit for developing the WMP as part of the Community Rating System (CRS), a voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the NFIP. This project also offered MSMM the dual opportunities of assisting parish leadership in developing strategies to prepare a safer drainage system and assisting parish residents in lowering their flood insurance rates.

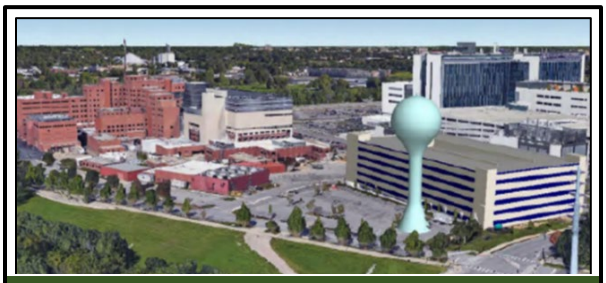


MSMM Completed Master Plan for Jefferson Parish under MVN's Silver Jackets Program

MSMM's team was responsible for reviewing previous hydrologic and hydraulic (H&H) models, performing new modeling to validate designed rainfall runoff retention rates, deriving watershed behavior, assessing the impacts of multiple rainfall/storm events in specific areas, and developing a subset of non-structural mitigation actions that were promoted within regions 6 and 8 of the Louisiana Watershed Initiative.

Contingency Water Supply and Remediation, Richard L. Roudebush VA Medical Center

MSMM Engineering, LLC has completed evaluating and designing the contingency water supply at the Richard L. Roudebush VA Medical Center in Indianapolis, IN. As part of this endeavor, MSMM evaluated critical areas of the facility contingency supply, including the installation of a 350,000-gallon to 500,000-gallon water supply that satisfies fire protection, potable water, and industrial water storage, connection of the contingency water supply to the emergency power supply, design for controls compatible with the Johnson Controls facility building and a complete design that integrates the water supply from the Indianapolis Water main to the domestic water supply located in Building 1, along with the fire pump located in building 1.



MSMM Design Services for Water Supply at Richard L. Roudebush VA Medical Center in Indianapolis, IN.

Ascension Parish GIS Support

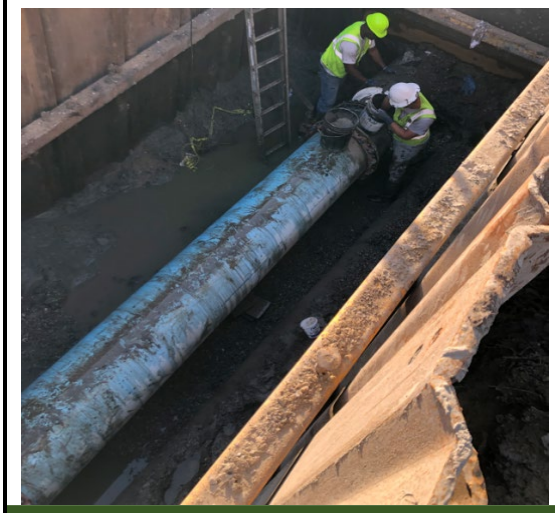
USACE MVN contracted MSMM in support of the Environmental Infrastructure Program to work with Ascension Parish staff to design a utility geodatabase model to meet the Parish's current and future utility asset management needs and identify and define the logical structure for the geodatabase model.

CATEGORY 2 (Cont.)

Additionally, MSMM was tasked to provide water network GPS data collection services using Real-Time Kinematic (RTK) GPS methods. MSMM located the water network within the defined project limits. Captured features through GPS surveys, which included all features designated by Ascension Parish during the project's planning phase. After a thorough investigation by MSMM field staff, a report containing all waterline network features that were not found or determined to be inaccessible was submitted to the Parish of Ascension Parish. MSMM worked with Parish staff to locate utility features during the cleanup phase of the project. MSMM collected features more quickly and efficiently, translating into cost savings for Ascension Parish and minimizing the impact on Parish staff. GPS surveys referenced the Louisiana State Plane Coordinate System, which allowed direct insertion into the GIS program developed for Ascension Parish. Horizontal (x,y) coordinates and vertical (z) elevations were obtained in the field for the water facilities.

Jefferson Parish Waterline Replacement

MSMM Engineering, LLC, through the direction of the Jefferson Parish Water Department, has been awarded three (3) independent contracts to design multiple transmission water mains throughout the Jefferson Parish area. Jefferson Parish discovered numerous failures within the existing waterline infrastructure, requiring replacing any out-of-date pipes. The first project is replacing approximately 4800 linear feet of 24" Price Brothers Pipe located on Veterans Memorial Blvd between Jasper Street and the Airport Access Road. The second project consists of the replacement of approximately 4200 linear feet of 36" Price Brothers Pipe on Ames Blvd between Lapalco Blvd and Avery Dr. Finally, the third project involves the replacement of approximately 3000 linear feet of 42" Price Brothers Pipe on Kenner Ave between Oxley St. and Jackson St. Services on said contracts include, but are not limited to, a general topographic survey of the project area, geotechnical investigation of pavement sections and soils within the project area, development of Plans and Specifications, generation of a project cost estimate, acquiring all necessary permits, general project management and coordination with the stakeholders, sub-consultant management, assisting in the bidding process, and resident inspection of the project's construction. Such projects offer dynamic designs that encounter many significant challenges. Some challenges include determining the proper construction method to keep the project within budget, ensuring seamless tie-ins to the existing, smaller-diameter waterlines, avoiding conflicts with other municipal utilities, and crossing existing canals within the project limits.



MSMM Design Services for 4,800 ft. Pipeline Replacement, Designed by MSMM for Jefferson Parish

Northwest Regional Water Reclamation Facility Expansion

In 2014, Hillsborough County, Florida began enacting its wastewater treatment consolidation program as part of the County's Capital Improvements Program for the northwest region of the county. Our team member Tetra Tech was the lead design engineer in the design-build team (Garney/Wharton-Smith Joint Venture). The design-build delivery method allowed the County to manage program risks, promote collaboration, and mitigate community impacts. The county identified the program's goals early on as needing to improve treatment efficiency, reduce power consumption, and minimize future rate impacts for County residents. The cornerstone of the county's program was the $193 million

Water/Environment 2020 Best Project Wastewater Treatment Plant Designed by Tetra Tech

CATEGORY 2 (Cont.)

expansion of the Northwest Regional WRF (NWRWRF) from 10 to 30 MGD—the largest capital improvement project in county history. This project included demolishing two aging advanced wastewater treatment plants (Dale Mabry and River Oaks) and expanding the NWRWRF to be the sole wastewater treatment plant for the region, all while maintaining 100% operation. Engineering News-Record (ENR) Southeast recognized this project as the Water/Environment 2020 Best Project and by Doing Business in America as the 2020 Best Project – Water/Wastewater.

Ottawa Water Treatment Plant End of Pipe Treatment

The Division of Water Supply & Treatment (WS&T) provides clean drinking water to more than 430,000 Montgomery and Greene counties residents. The Ottawa Water Treatment Plant (OWTP, 96 MGD rated capacity) is impacted by a Per- and Polyfluoroalkyl Substances (PFAS) plume in the Mad River Well Field. The contamination, which others have caused, has forced the City to temporarily decommission eight (8) wells closest to the plume. Even with these eight wells out of service, the OWTP sees PFAS levels ranging from approximately 3 ppt to 14 ppt in the finished water. It's understood that the Mad River Well Field recharge water has concentrations of PFAS at similar levels.

Ottawa Water Treatment Plant Evaluated by Tetra Tech for the Division of Water Supply & Treatment

Our team member Tetra Tech was selected to perform a planning and engineering evaluation to identify the cost-effective PFAS treatment system to mitigate PFAS levels below detection limits in the finished water from OWTP. Project elements included storage evaluation, blending evaluation, adsorptive media bench testing and selection, siting evaluation, alternative delivery, and preliminary design report. When complete, the PFAS treatment facility will be the largest in the United States.

On-Call Consulting Services for PFAS Treatment Systems

Our team member Tetra Tech was recently contracted by the Orange County Water District (OCWD) for the On-Call Consulting Services for PFAS Treatment Systems, providing design services to OCWD and the Orange County Producers to resolve the PFAS issues in the Orange County Groundwater Basin. These projects are critical because each month, the Producers cannot use their wells; they must use imported water at an additional cost to the Producers of $4.0 million per month. The program will construct treatment facilities for 66 affected wells in Orange County. Tetra Tech completed the design of multiple components (4 separate water plants) as part of OCWD's program.

Tetra Tech Professional Services to Address PFAS Treatment Systems in Orange County, CA

Jefferson Highway Waterline Replacement

Our team member N-Y Associates, Inc. provided design, bidding, construction administration, and resident inspection for utility replacement and roadway reconstruction along Jefferson Highway from Filmore Street to Florida Street, including:

- Replacement of 2,919 LF of existing 12" waterline, including gate and valve boxes, new service connections, and new fire hydrants.
- Removal and reconstruction of the existing roadway as required.
- Sidewalk, ADA ramp, and driveway apron replacement as required.

Map of Waterline Replacement Designed by N-Y Associates for Jefferson Parish

CATEGORY 3 – HIGHWAY WORK SUCH AS ROADS, BRIDGES, RAMPS, CULVERTS:

Lapalco Bridge Over Harvey Canal Design Project (2023)

MSMM provided full engineering design services for the existing Fixed Bridge, which included schematic design, preliminary design, final design, and load ratings. The project scope included reconfiguring an existing four-lane bridge into a bridge containing three eastbound lanes with a new independent three-lane westbound bridge. For the fixed bridge component, design services consisted of removing the raised median and deck and designing it to be flush with the existing deck; reconfiguration of the roadway to include the 3 new lanes and the pedestrian/bike lane; re-design the bridge approaches on the east and west sides; realignment of the connector road including a new bridge for the connector road; H&H modeling to ensure the new drainage system continues to flow to the same major outfall canal; and a traffic handling plan. MSMM is also responsible for the load ratings of the existing bridge before and after modifications, the new bridge, and the existing Murphy Bridge before and after modifications. In addition, MSMM is responsible for Utility Coordination, LDOTD Coordination, and Permitting.

Newly Constructed Fixed Bridge, Designed by MSMM for the Jefferson Parish Public Works Department

Dallas Floodway Extension Recreation Design

In 2018, MSMM Engineering was tasked by the United States Army Corps of Engineers (USACE) Ft. Worth District to design various recreational, roadway, and bridge features for a public recreational park in South Dallas. This project involved the planning and designing of various recreational components on a former golf course in South Dallas. The trail system and bridge features were designed for the United States Army Corps of Engineers (USACE) Ft. Worth District to support the City of Dallas. The Dallas Floodway extension project comprised various access routes, walking/vehicular trails, bridges, boardwalks, and platforms. The project provided recreational access to a chain of wetlands designed to provide unimpeded overflow for floodwater along the west side of the Trinity River from the Dallas Floodway to Loop 122. The project continues an overall master planning effort to provide recreational access across Dallas with uninterrupted access. This project provided another 12 miles of multi-use trails, additional parking lots at major trail connection points, three additional bridges, including one larger bridge across the Trinity River, an elevated boardwalk trail for access across a low-lying marshy area, and new birdwatching platforms in the previously created wetlands. The design team also added public safety features, including culverts for stormwater equalization, locked gates, and pipe rail fences for the City of Dallas to manage public access, site lighting in the added parking lots, and site signage at the access points for time periods where the recreational areas are flooded, and public access is restricted. Benches were also added at scenic overlooks, wildflower areas, and for views of the wetlands.

Dallas Floodway Bridge Designed by MSMM for USACE Ft. Worth District

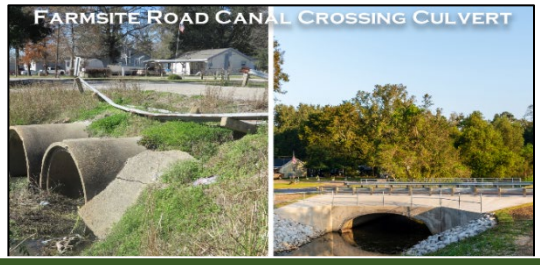
MSMM provided full engineering services to the USACE, including schematic design, preliminary design, and final design. The scope of work included the development of plans and specifications for three (3) bridge crossings: one over Elam Creek (60 feet), one over the chain of wetlands (80 feet), and a larger crossing over the Trinity River (150 feet). Additionally, the design package consists of over 10 miles of 12-ft wide multi-use

CATEGORY 3 (Cont.)

roadway (trail) for vehicular/walking trail access, 800 feet of elevated boardwalk with hand railing, the restoration of parking lots at trailheads, the inclusion of pipe rail fences and gates to prevent after-hour access, and the design of bird watching platforms over the wetlands. MSMM performed H&H modeling of the Trinity River to help aid in the bridge design process. All roadways/bridges consist of a single lane and were designed to contain the load of school buses/emergency vehicles. Additionally, our team performed detailed cost estimating utilizing MCACES. We also provided design and project schedules using the Primavera suite of scheduling services.

Farmsite Road Canal Crossing Culvert Replacement

The MSMM team performed civil and structural design (including schematic, preliminary, and final design), hydraulic modeling, survey services, and construction management to replace an undersized culvert at Farmsite Road and Green Avenue Canal in Violet, LA. MSMM developed a hydraulic analysis of the location, including an analysis of existing canal flows, existing culvert configuration flows, and optimum flow allowances to account for a large watershed event.



Before and After MSMM's Design of the Farmsite Arch Culvert Bridge in Violet, Louisiana

After completing the hydraulic analysis, MSMM provided updated information to FEMA to refine the project worksheet and used the hydraulic data to determine which Arch Culvert bridge system was best applied to the design. MSMM then designed the replacement of the pre-cast Arch Culvert bridge, CATEGORY 3 (Cont.)

which FEMA approved. The design included pile-supported foundations, coordination with the arch culvert manufacturer, an 8" water line replacement, miscellaneous roadway drainage improvements, bituminous roadway replacement, sidewalks, guardrail, slope protection, hand railing, fencing, and incidental pavements. The project was bid on in November of 2019, and MSMM continued to provide construction management and engineering services during construction.

Oak Street Reconstruction

MSMM Engineering was the designer of record on a cutting-edge roadway design for Oak Street, a 5,200 linear feet street within the City of New Orleans. This project was the first design project in the greater New Orleans area to feature green infrastructure elements such as porous pavement and one of the first design projects to feature a more pedestrian-friendly route. The project was designed for the City of New Orleans and not only as a replacement for a busy thoroughfare but also with the concept of using the street for future festivals. The project was designed and constructed within a completely built-out neighborhood with various businesses (restaurants, shops, bookstores, jewelry, apparel, etc.) and residences. Oak Street is designated a National Main Street roadway, and all design procedures must comply with the regulations associated with that designation.

Comite River Diversion Project: US Highway 61 Bridges

Our team member N-Y Associate was the engineer of record for the US 61 Highway Bridges. Both features are designed as twin parallel structures for northbound & southbound traffic. The bridges are 350 feet long with five equal spans. Each bridge has two 12' travel lanes, a 6' inside shoulder, a 10' outside shoulder, and a design speed of 65 mph. The bridge superstructures are cast-in-place concrete decks on pre-cast, pre-stressed concrete AASHTO Type III girders. The bridge superstructure is supported on concrete bent caps, columns,

US Highway 61 Bridge After N-Y Design East Baton Rouge Parish

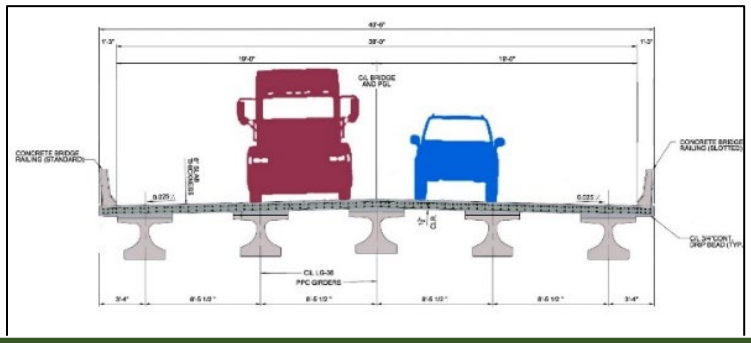
CATEGORY 3 (Cont.)

and drilled shafts. The design of the columns and drilled shafts include provisions for 30 feet of channel scour at the drilled shafts and a channel flow velocity of over 7 ft./sec. Concrete abutments and wing walls support the ends of the bridges on pre-cast, pre-stressed concrete piles. The design of the bridge is based on current LADOTD and AASHTO criteria. Our team member, N-Y Associates was the designer and professional engineer of record for multiple features of this bridge design project. N-Y provided civil, structural, and hydraulic engineering to construct the new U.S. Highway 61 bridges. The work involved roadway and drainage design, channel design, H&H, and relocation of a 2,700 LF segment of Barnett Road, site drainage, and channel design for a porton of the Comite River Diversion Channel. All work was accomplished for MVN as part of the ongoing BBA-18 Comite River Diversion Project.

Carney Road Realignment and New Bridge

Our team member N-Y Associates designed the re-alignment of approximately 1 mile of Carney Road with a new connection to LA 964 north as part of the Comite River Diversion – Bayou Baton Rouge Rock Chute for USACE MVN in 2023. The new roadway will include two 11' travel lanes and 8' shoulders/bicycle lanes, meeting East Baton Rouge's Complete Streets requirements.

The re-alignment consists of a new 270 LF, 3-span bridge crossing Bayou Baton Rouge using LADOTD LG girders. To match the roadway width, the new bridge will have 11' travel lanes and 8' shoulders/bicycle lanes. Approximately 1500 feet of Bayou Baton Rouge is also being re-aligned for construction of the Rock Chute to control the flow of Bayou Baton Rouge into the Comite River Diversion Channel.



N-Y Associates' Sketch of New 270 LF, 3-span Bridge Designed by N-Y Associates for USACE MVN

CATEGORY 4 – BUILDINGS AND OTHER MULTI-PURPOSE PROJECTS:

Granger Lake Management Office Building Design (2022)

In 2021, MSMM completed the full architectural design for a new 6,000-square-foot lake management office building for the USACE Ft. Worth District in Granger Lake, Texas. This facility was successfully bid, and the construction award was issued on the last day of the fiscal year.

The design package referenced above is for replacing the Granger Lake office management facility that houses the Lake Ranger and administrative staff. This 6,000-square-foot building features Texas limestone and has been designed for an inside/outside type feel. Given the location and the occupation of the professionals working at the facility, they wanted the appearance and feel of a lodge. The lobby will feature displays for arrowheads, deer mounts, and other displays collected within the Granger Lake grounds. The lobby's centerpiece will display a mammoth pelvis found on the grounds. Design considerations have been devoted to displaying these items. Furthermore, a large conference room has been added and positioned to provide grandiose lake views. This conference room will hold up to 60 people and will be the featured attraction for the building.

MSMM Architectural/Design Services of 6,000-square-foot Office Building for USACE Fort Worth District

CATEGORY 4 (Cont.)

The MSMM design consisted of site development and new construction, including all required services (i.e., electrical/mechanical/ fire protection, life safety, civil/structural/architecture). The new facility also includes the design of landscaping, new paving, paving repairs, and force protection. Site lighting design was also provided, including parking for visitors and staff and the fencing required for the government vehicle and equipment compound behind the new office. A septic field was designed and incorporated into the compound. Considerable design considerations were given to domestic water and water supply as the area is very remote, and the active utilities would not support the size of the facility, given the number of plumbing fixtures. After considerable effort working with the local water purveyor, MSMM civil engineering staff decided to design a storage tank within the government compound for domestic water and fire suppression. A BIM model was completed for the facility, incorporating the mechanical platform added above the ceiling. The building also features a safe room for extreme weather events. MSMM architectural staff completed engineering support during advertisement (EDA) services and engineering support during construction (EDC), including site visits, reviewing submittals and RFI's, and providing periodic inspections. Included is the architectural rendering of the front entrance of the facility.

MSMM Rendering of Granger Lake Management Office Building

USACE: Venice Sub-Office Replacement Building

Our team member N-Y Associates was the prime contractor for this Design-Build project, which included a 2-story, 10,000 SF pre-cast concrete building consisting of:

- Eight (8) Offices
- Reception area
- Conference Room
- Kitchen
- Exercise Room
- Garage
- 400 KW Emergency Generator
- Guardhouse
- 100' Communications Radio Tower.

The building is designed to withstand 155 mph sustained winds and flooding to the post-Katrina FEMA base flood elevation.

Venice Sub-Office Building for USACE Designed by N-Y Associates

Criterion (B) – Professional Qualifications

- As an indication of the commitment and priority we place on supporting delivery of the USACE Civil Works Program including those requirements under this solicitation, MSMM has assembled an extremely experienced team of technical experts from our 11 teaming partners. This teaming relationship brings together the breadth and depth to satisfy all the requirements under this solicitation for MVD and MVN. We call this assembly of experts, Team MSMM. Team MSMM has placed an emphasis and focus on the key discipline leaders presented in Section E that will primarily be responsible for program level quality control and oversight on task orders to ensure delivery in accordance with the expectations and requirements of MVD and MVN. In addition to these delivery leaders, another advantage that Team MSMM provides is that our geographically diverse and resource-deep team partnerships yields significant reach-back capabilities to meet the anticipated depth and breadth requirements of MVD and MVN; the "first line" of this team depth is presented in the following matrix. Team MSMM features 120 dedicated industry professionals that have extensive experience and practice in delivery of the USACE Civil Works Program with thousands of years of combined experience. Team MSMM, through its teaming partners, has management, planning, design, construction and O&M experience as well as unmatched geotechnical investigations and topographical survey experience throughout MVD and MVN. In total, Team MSMM draws on its capability and experience from conducting more than 3000 task orders for USACE with direct experience in MVN, MVK, MVM, MVR, MVS and MVP.

Team MSMM is positioned to support MVD and MVN in delivery of this important Environmental Infrastructure Program. Partnering with Team MSMM provides MVD and MVN with a robust, knowledgeable, dedicated and committed team to meet the requirements of not only the New Orleans Districts but the upper 5 USACE districts thru out the Mississippi Valley Division in accordance with this regional solicitation. Please refer to the summary matrix below for a review of the overall qualifications of our team compared to the personnel needs illustrated in your solicitation.

Personnel	Education	Registration/ Certifications	Firm	Yrs With Firm	Yrs Exp	USACE Exp	Exp in Proposed Role
Program Manager							
Manish Mardia	M.S., B.S.	PE	MSMM	13	30	✓	✓
Project Managers							
Scott Chehardy	B.S.	PE	MSMM	8	29	✓	✓
Mike Harden	B.S.	PE	MSMM	8	49	✓	✓
Henry DiFranco	MBA, B.S.	PE	PEI	19	32	✓	✓
Jim Wilson	B.S.	PE, LEED AP	MSMM	10	36	✓	✓
Stuart Seiler	B.S.	PE	MSMM	1	8	✓	✓
Chris Mills	B.S.	PE	MSMM	5	5	✓	✓
Lee Walker	M.S., B.S.	PE	MSMM	4	24	✓	✓
Frank Nicoladis	B.S.	PE	NY	55	67	✓	✓
Michael Nicoladis	MBA, B.S.	EI	NY	40	40	✓	✓
David Socha	MBA, B.S.	PE, PMP	STN	13	28	✓	✓
Indira Pjetrovic	B.S.	PE, PMP	CDM	26	28	✓	✓
Structural Engineers							
Robert Yokum	M.S., B.S.	PE	MSMM	11	49	✓	✓
Ramesh Kalvakaalva	M.S., B.S.	PE, CVS	MSMM	13	30	✓	✓
Ali Tareh	M.S.	SE	MSMM	1	25	✓	✓
James Simmons	B.S.	PE	NY	30	47	✓	✓

Personnel	Education	Registration/ Certifications	Firm	Yrs With Firm	Yrs Exp	USACE Exp	Exp in Proposed Role
Steven Fall	MBA, B.S.	PE	NY	16	40	✓	✓
Jason Burkett	M.S., B.S.	PE	TT	13	18	✓	✓
James Costello	M.S., B.S.	PE	TT	31	36	✓	✓
G. Katzenberger	B.S.	PE, SE	TT	15	20	✓	✓
B. Twitchell	B.S.	PE	TT	12	15	✓	✓
S. Saiedi	PhD	Peng	TT	25	31	✓	✓
Chris Willcox	M.S., B.S.	PE, SE	TT	15	30	✓	✓
B. Zahawi	B.S.	PE, SE	STN	14	25	✓	✓
E. Coon	B.S.	PE	STN	7	22	✓	✓
J. Trowbridge	B.S.	PE	STN	11	15	✓	✓
E. Brjorklund	B.S.	PE	CDM	2	24	✓	✓
Civil Engineers							
Jim Wilson	B.S.	PE, LEED AP	MSMM	10	36	✓	✓
Jeff Wilson	B.S.	PE	MSMM	1	35	✓	✓
Stuart Seiler	B.S.	PE	MSMM	1	8	✓	✓
Scott Chehardy	B.S.	PE	MSMM	8	29	✓	✓
Chris Mills	B.S.	PE	MSMM	5	5	✓	✓
James Simmons	B.S.	PE	NY	30	47	✓	✓
Constantine Nicoladis	B.S., MBA	PE	NY	37	37	✓	✓
Fred Mortali	B.S.	PE	NY	15	31	✓	✓
Andre C. Monnot	B.S.	PE	PEI	14	21	✓	✓
M. Hough	B.S.	PE	TT	25	25	✓	✓
A. Baines	B.S.	PE	TT	23	24	✓	✓
Jeff Sapia	B.S.	PE	STN	27	35	✓	✓
B. Zahawi	B.S.	SE, PE	STN	26	33	✓	✓
K. Broome	B.S.	PE, PMP	STN	11	15	✓	✓
L. Pass	B.S.	PE	STN	5	11	✓	✓
Geotechnical Engineers							
James Hance	MBA, M.S.	PE	EUS	20	24	✓	✓
Mark Woodward	M.S., M.E.	PE	TT	6	42	✓	✓
J. Williams	B.S.	PE	EUS	12	12	✓	✓
Benjamin Cody	M.S., B.S.	PE	EUS	22	26	✓	✓
Chad Held	M.S., B.S.	PE	EUS	33	33	✓	✓
T. Richards	B.S.	PE	EUS	7	17	✓	✓
G. Andersen	B.S.	ScD PE	CDM	25	33	✓	✓
Hydraulic Engineers							
Chris Mills	B.S.	PE	MSMM	5	5	✓	✓
Jessica Watts	M.S., B.S.	PE, CFM	CDM	18	22	✓	✓
Cecil Soileau	B.S.	PE, PLS	MSMM	2	63	✓	✓
Constantine Nicoladis	B.S., MBA	PE	NY	37	37	✓	✓
Fred Mortali	B.S.	PE	NY	15	31	✓	✓
Chad Held	M.S., B.S.	PE	EUS	33	33	✓	✓
Brenda Keenan	B.S.	PE	TT	9	19	✓	✓

Personnel	Education	Registration/ Certifications	Firm	Yrs With Firm	Yrs Exp	USACE Exp	Exp in Proposed Role
R. Holcombe	B.S.	PE, QSD	TT	8	11	✓	✓
S. Stone	B.S.	PE	CDM	2	18	✓	✓
M. Schmidt	B.S.	PE, BCEE	CDM	7	7	✓	✓
Josh Carter	M.S., B.S.	PE, BC, CE	CHE	1	23	✓	✓
Arpit Agarwal	M.S., B.S.	PE	CHE	1	19	✓	✓
Craig Harter	M.S., B.S.	PE	CHE	1	10	✓	✓
Cost Engineers							
Don Daigle	A.A.S.,	CVS, CPE	MSMM	6	45	✓	✓
Ike Pace	B.S.	PE, SE, CCP	TT	24	24	✓	✓
C. McDuff	B.S.	PE, CCE	MSMM	12	50	✓	✓
S. Vose	B.S.	CCP	TT	15	25	✓	✓
M. Schlebusch	B.S.	PE, PMP	CDM	11	32	✓	✓
Electrical Engineers							
Indira Pjetrovic	B.S.	PE, PMP	CDM	26	28	✓	✓
Paul Vlosich	B.S.	PE	IMC	23	30	✓	✓
Richard Nichols	B.S.	PE	IMC	6	30	✓	✓
Jason Seignoret	B.S.		TT	11	16	✓	✓
Alma Reantaso	B.S.	PE	TT	4	25	✓	✓
Albert Barnes	BASc	PE	TT	15	31	✓	✓
B. Buchanan	B.S.	PE	STN	9	10	✓	✓
M. Armenta	B.S.	PE, RCDD	STN	20	34	✓	✓
Mechanical Engineers							
David Socha	MBA, B.S	PE, PMP	STN	13	28	✓	✓
Eugene Higbee, III	B.S.	PE	IMC	24	34	✓	✓
Michael Sutherland	B.S.	PE, CEM,	TT	7	14	✓	✓
Eric Flickinger	B.S.	PE	TT	14	14	✓	✓
C. Grompe	B.S.	PE	TT	5	5	✓	✓
Stephen Burdett	B.S.	PE, CPD	CDM	17	19	✓	✓
C. Frizzell	PhD	PE	CDM	11	15	✓	✓
Corrosion Engineers							
Stephen Shumaker	B.S.	PE, BCEE	CDM	21	32	✓	✓
Trey Johnston	BE	PE	COR	16	16	✓	✓
Environmental Engineers							
Marty Tittlebaum	Ph.D.,	PE	MSMM	9	47	✓	✓
Arthur Umble	Ph.D, BS	PE, BCE	STN	13	33	✓	✓
Manish Mardia	M.S., B.S.	PE	MSMM	13	30	✓	✓
Lee Walker	M.S., B.S.	PE	MSMM	4	19	✓	✓
S. Nolan	B.S.	PE, PMP	STN	11	22	✓	✓
J. Addison	B.S.	PE, NGICP	CDM	17	34	✓	✓
Architects							
Steve Finegan	M.S., B.S.	AIA	MSMM	5	34	✓	✓
Michael Buisson	B. Arch	AIA, NCARB	NY	8	33	✓	✓

Personnel	Education	Registration/ Certifications	Firm	Yrs With Firm	Yrs Exp	USACE Exp	Exp in Proposed Role
Hydrologists							
Roderick Cashe	B.S.	PE, CDT, LEED	TT	31	35	✓	✓
K. Neff	B.S.	PE	STN	7	16	✓	✓
Geologists							
Nathan Quick	M.S., B.S.	PG	EUS	3	8	✓	✓
Chuck Drake	B.S.	PG, CPG	TT	34	42	✓	✓
CAD/ Microstation Drafters/ BIM/ CIM/ GIS							
Eric Curson	A.S.		MSMM	7	22	✓	✓
Binh Le	B.Arch		MSMM	1	43	✓	✓
Dennis Voss	A.S.	NICET	NY	50	58	✓	✓
Noah Jackson	A.S.		NY	6	25	✓	✓
Chris LeMay	A.S.		NY	4	24	✓	✓
K. Hartmann	B.S.		IMC	3	19	✓	✓
Le Thi Nguyen	B.S.		TT	2	47	✓	✓
Jonathan Evans	B.S.	PE	TT	11	23	✓	✓
LauraLienhop	A.A.		STN	39	42	✓	✓
E. Gardiner	A.A.	LSI	CSI	12	15	✓	✓
William Vogel	A.S.		STN	42	47	✓	✓
J. Huang	B.S.	PhD, AIA	STN	25	25	✓	✓
Alex Montalvo	A.A.	NASSCO	TT	21	28	✓	✓
James Chustz		PLS	CSI	27	48	✓	✓
T. Rink	B.S.	GISP	STN	15	22	✓	✓
Landscape Architects							
Barney Lighter	BLA	PLA	MSMM	7	34	✓	✓
H. Conn	B.S.	PLA	TT	18	26	✓	✓
A. Seek	B.S.	RLA	STN	24	28	✓	✓
S. Niedergeses	B.S.	RLA	STN	15	23	✓	✓
Land Surveyors							
John Bonneau	A.S., B.S.	PLS	LOWE	5	45	✓	✓
James Chustz	B.S.	PLS	CSI	27	48	✓	✓
Ryan Chapman	A.S., B.S.	PLS	LOWE	5	23	✓	✓
C. Woods	A.S.	PLS	CSI	14	17	✓	✓
Topographic Surveyors							
Lonnie Dupont	B.S.		CSI	22	26	✓	✓
R. Bellendorf	B.S.	CST 1	LOWE	14	22	✓	✓
J. Canova	A.S.		LOWE	10	17	✓	✓
R. Fernandez			LOWE	5	11	✓	✓
B. Conner	A.S.		CSI	15	15	✓	✓
Hydrographic Surveyors							
Josh Daniel	B.S.	PLS	LOWE	23	23	✓	✓
D. Speight	B.S.		LOWE	18	34	✓	✓
L. Evans	B.S.	LSIT	LOWE	11	15	✓	✓

Personnel	Education	Registration/ Certifications	Firm	Yrs With Firm	Yrs Exp	USACE Exp	Exp in Proposed Role
C. Villemarrette	A.S.		CSI	9	17	✓	✓
J. Phillips	B.S.	CST	CSI	8	15	✓	✓
M. Voinche	B.S.	CST	CSI	11	18	✓	✓
GPS Surveyors							
Tom Odom	A.S.		CSI	4	28	✓	✓
Jason Combs	B.S.	GISP	LOWE	15	21	✓	✓
L. Dischler	A.S.		LOWE	14	14	✓	✓
B. Hall			LOWE	8	15	✓	✓
C. Lee	B.S.		CSI	6	22	✓	✓
Value Engineer							
Ramash Kalvakaalva	M.S., B.S.	PE, CVS	MSMM	13	30	✓	✓

MSMM Engineering, LLC (MSMM) | N-Y Associates, Inc (NY) | IMC Consulting, Inc (IMC) | Eustis Engineering, LLC (EUS)
Tetra Tech, Inc (TT) | Stantec Consulting Services, Inc (STN) | CDM Smith (CDM) | Corrpro Companies, Inc (COR)
Coast & Harbor Engineering, Inc (CHE) | Lowe Engineers (LOWE) | Chustz Surveying, LLC (CSI)
Principal Engineering (PEI)

The 120 industry professionals that make up Team MSMM are considered the "first line" team to respond to any requirement that MVN or the Mississippi Valley Division may have. As clearly shown in Part II, Team MSMM can provide significant reach back from our 11 teaming partners (both large and small businesses) and augment the above team by using readily available water resource professionals that stand ready to support any civil works delivery requirement. Reach back is available across all personnel requirements included in the above matrix and beyond, drawing experience from all team members that have delivered on more than 3000 task orders for USACE with direct experience in MVN, MVK, MVM, MVR, MVS and MVP.

Criterion (C) – Capacity to Accomplish the Work

MSMM is a proven small business that has shown an ability to successfully execute multiple task orders simultaneously for MVN, SWG, SWF and SWT while delivering for other customers as well. MSMM currently executes approximately $5-6M per year in task orders for USACE, and over 80% of those task orders are completed with in-house personnel. Team MSMM intends to lean on MSMM as a small business to lead most of the requirements in-house with support from our team members as needed. This is an incredible capability considering Team MSMM familiarity of MVD and MVN. Through its teaming partners, Team MSMM has unmatched capability and capacity in the areas of program and project management, planning, alternative analysis, feasibility analyses, all facets of civil works and water resources design including environmental infrastructure planning and design, construction and Operations and Maintenance. Additionally, Team MSMM's field work capabilities are unmatched in the areas of geotechnical investigations and topographical survey experience thru out MVD and MVN. To that end, all fieldwork requirements will draw upon the direct expertise from our geotechnical and topographical survey team members. In total, Team MSMM draws on its capability and experience from conducting more than 3000 task orders for USACE with direct experience in MVN, MVK, MVM, MVR, MVS and MVP.

For the past five years, MSMM has been able to execute this teaming model under the program management of Mr. Mardia to the satisfaction of multiple USACE districts, and we anticipate similar continued success. When additional resources are required to satisfy requirements under this contract, reach back across the entire Team MSMM will occur in rapid fashion to ensure the needs and requirements of USACE are met. Based upon the current availability of personnel (see below table), MSMM intends to self-perform approximately 75% of all task order requirements with the balance of the requirements being performed by Team MSMM. This capability

meets and exceeds the requirements of a small business performing at least 51% of all work assignments. Team MSMM's extended capability across 11 teaming partners guarantees that capacity and capability will be available when MVD or MVN have a requirement.

2024 MSMM TEAM AVAILABILITY (team members are positioned to support solicitation in the out-years):

Team Member:	% Availability Between May and December 2024	Planned Hours Off	Available Hours
Manish Mardia, PE	25%	40	296
Michael R. Harden, PE	20%	56	212.8
Jeff Wilson, PE	50%	56	616
Bob Yokum, PE	20%	64	204.8
Ramesh Kalvakaalva, PE, CVS	40%	40	497.6
Jim Wilson, PE, LEED AP	15%	40	161.6
Scott Chehardy, PE	25%	16	320
Stuart Seiler, PE	75%	8	1000
Chris Mills, PE	60%	32	774.4
Don Daigle, CVS, CPE	50%	48	624
Marty Tittlebaum, PH. D, PE	10%	50	84.4
Steve Finegan, AIA	35%	40	430.4
Eric Curson	20%	32	236.8
Binh Le	50%	16	656
Barney Lighter, PLA	30%	40	363.2
		Available Team Hours:	**6478**

Criterion (D) – Past Performance

Since its inception, MSMM has prided itself in providing quality professional services with the utmost responsiveness. This has garnered many accolades and "repeat calls" for service from clients. We have an enviable performance history, especially in terms of our civil, structural and water resources design and the water and waste water solutions we have provided under the MVN Environmental Infrastructure Program in close coordination and collaboration with MVN. Our outstanding record results from our demonstrated ability to control project costs, provide high-quality technical products, and meet project schedules for many concurrent government contracts. This is apparent in Federal client Letters of Recommendation we have received and in customer feedback (see 2 examples below) provided in CPARS ratings.

"MSMM Engineering continuously and repeatedly meets and beats schedule, even with the delay in schedule due to weather (act of God). The firm adjusts and continues to adjust to circumstances out of their control."
Kolawole Anifowoshe | Design Manager USACE Ft. Worth District. | Dallas Floodway Extension Project

"The Contractor provided excellent management of the task order contract. There was minimal turnover during this effort, which allowed the team to work seamlessly from the beginning to the end of this contract. The Contractor did an excellent job managing his staff and coordinating the work between the Government and the contractor. The contractor's work was highly dependent on government input. On multiple occasions, the contractor was forced to make up a schedule based on slips resulting from government delays. The contractor was able to manage his assets and successfully recover the schedule. Due to the project's complexity, the contractor had to work with multiple government offices and disciplines nationwide. The contractor was able to manage his assets to produce highly accurate plans and designs despite the geographical challenges."
Charlie Brandstetter | Engineering Design Manager USACE New Orleans District | Cow Bayou

MSMM CPARS RATINGS TABLE –
Task Order Numbers Highlighted are Environmental Infrastructure Projects:

Contract Number	Task Order Number	CPARS Quality Rating	CPARS Name and Title of Assessing Official / Phone Number
W912P819D0011	W912P819F0250	Exceptional	Ione Cataldo; Supvr Contract Specialist, USACE MVN; 504-862-2882
W912P816D0006	W912P818F0053	Very Good	George Krausser; Civil Engineer, USACE MVN; 504-862-1712
W912P820D0007	W912P822F0166	Satisfactory	George Krausser; Civil Engineer, USACE MVN; 504-862-1712
W912P819D0011	W912P821F0146	Exceptional	Veronica F. Garner-Flint; Contracting Officer USACE MVN; 504-862-1515
W912P816D0006	W912P818F0260	Very Good	George Krausser; Civil Engineer, USACE MVN; 504-862-1712
W912P819D0011	W912P819F0247	Exceptional	Ione Cataldo; Supvr Contract Specialist, USACE MVN; 504-862-2882
W912P816D0006	W912P817F0087	Very Good	George Krausser; Civil Engineer, USACE MVN; 504-862-1712
W912P819D0011	W912P820F0150	Exceptional	Christopher Nuccio; Contracting Officer, USACE MVN; 504-862-2704
W912P816D0006	W912P818F0052	Very Good	George Krausser; Civil Engineer, USACE MVN; 504-862-1712
W912P820D0007	W912P822F0165	Very Good	George Krausser; Civil Engineer, USACE MVN; 504-862-1712
W912P819D0011	W912P822F0025	Exceptional	Veronica F. Garner-Flint; Contracting Officer USACE MVN; 504-862-1515
W912P819D0011	W912P822F0098	Exceptional	Karen Hargrave; Contracting Officer USACE MVN; 504-862-1561
W912P819D0011	W912P821F0182	Exceptional	Veronica F. Garner-Flint; Contracting Officer USACE MVN; 504-862-1515
W912P819D0011	W912P819F0230	Exceptional	Veronica F. Garner-Flint; Contracting Officer USACE MVN; 504-862-1515
W912P819D0011	W912P819F0246	Exceptional	Ione Cataldo; Supvr Contract Specialist, USACE MVN; 504-862-2882
W912P819D0011	W912P820F0148	Exceptional	Christopher Nuccio; Contracting Officer, USACE MVN; 504-862-2704

Contract Number	Task Order Number	CPARS Quality Rating	CPARS Name and Title of Assessing Official / Phone Number
W912P819D0011	W912P819F0171	Exceptional	Christopher Nuccio; Contracting Officer, USACE MVN; 504-862-2704
W912P819D0011	W912P820F0079	Exceptional	Veronica F. Garner-Flint; Contracting Officer USACE MVN; 504-862-1515
W912P819D0011	W912P820F0172	Exceptional	Christopher Nuccio; Contracting Officer, USACE MVN; 504-862-2704
W912P819D0011	W912P820F0182	Exceptional	Christopher Nuccio; Contracting Officer, USACE MVN; 504-862-2704
W912P819D0011	W912EQ20F0074	Very Good	Samantha Harper; Contracting Officer USACE MVM; 901-828-0562
W9126G16D0017	W912P819F0215	Exceptional	Veronica F. Garner-Flint; Contracting Officer USACE MVN; 504-862-1515
W9126G16D0017	W9126G18F0294	Very Good	James Wright; Professional Engineer USACE SWF; 817-886-1305
W9126G16D0017	W9126G18F0286	Very Good	James Wright; Professional Engineer USACE SWF; 817-886-1305
W9126G16D0017	W9126G20F0033	Satisfactory	James Wright; Professional Engineer USACE SWF; 817-886-1305
W9126G16D0017	W9126G19F0004	Exceptional	Jacob Walsdorf; Landscape Architect USACE SWF; 409-766-3817
W9126G16D0017	W912HY19F0031	Exceptional	Kalli Clark-Egan; Civil Engineer USACE SWG; 469-367-6036
W9126G16D0017	W9126G18F0348	Satisfactory	James Wright; Professional Engineer USACE SWF; 817-886-1305
W9126G16D0017	W9126G18F0159	Exceptional	Jacob Walsdorf; Landscape Architect USACE SWF; 409-766-3817
W9126G16D0017	W9126G18F0322	Satisfactory	James Wright; Professional Engineer USACE SWF; 817-886-1305
W912QR23D0008	W912QR23F0094	Very Good	Bruce Doughten; Chief, Engineering Management Branch; 502-315-6425
W912BV20D0027	W912BV23F0002	Very Good	Rudolfo Morales; Contracting Officer, USACE SWT; 918-669-7275

In addition, many of our team members including Eustis, NY Associates, Stantec, CDM, Tetra Tech, Lowe Engineers, Chustz Surveying have “very good to exceptional” CPAR and/or similar ratings.

Criterion (E-F) – Secondary Criteria:

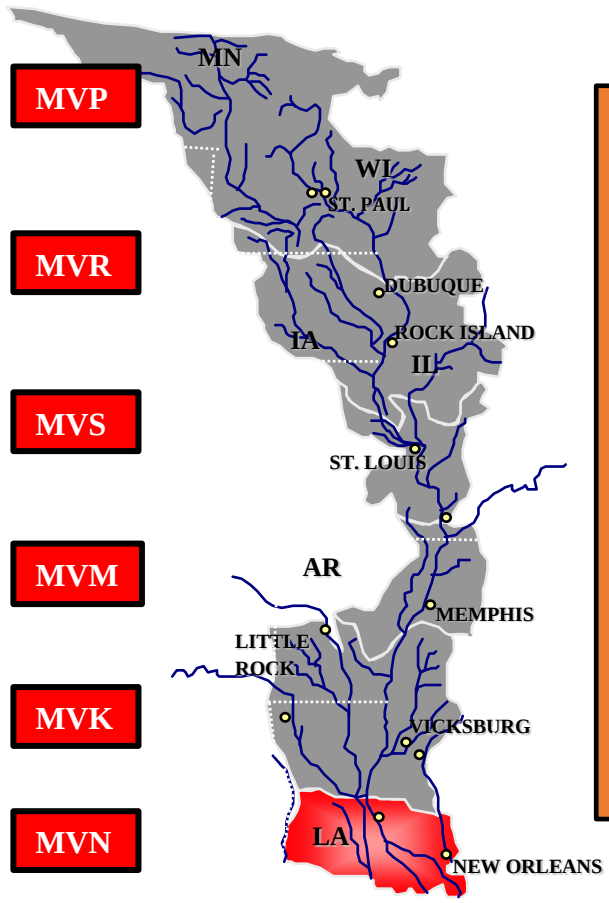
Small Business

As a Small-Business prime contractor, MSMM intends to self-perform approximately 75% of the work assignments required under this contract. Given Team MSMM includes small business field firms that specialize in field investigations, for both survey and geotechnical work, it is envisioned that about 5-10% of the work performed under this contract will go to large business firms. It is noted that Team MSMM includes a total of 6 small businesses including Principal which is a certified Service-Disabled Veteran Owned Small Business. This team composition supports Federal small business goals.

Knowledge of the Locality

All MSMM team members have long-standing business operations in New Orleans, south Louisiana, and surrounding states. Most of the staff members of the MSMM team have received their academic degrees and professional experience working in the unique and sensitive environment of the Gulf Coast including south Louisiana. Therefore, Team MSMM has an intimate knowledge of the above-ground terrain, subsurface conditions, subsidence, coastal and water resource characteristics, climate conditions including sea level rise, flooding sources, navigational requirements, permitting and our sensitive environmental setting and disaster mitigation and recovery of this region. Similar to Team MVN, many of the members of Team MSMM have a personal stake in the region's wellbeing and clearly understand the importance of the mission and the criticality of delivery.

Our team's understanding of the locality is evident from the vast array of USACE projects completed by Team MSMM within the New Orleans District as well as the region's footprint (as presented above). The capacity to accomplish the requested work in this solicitation is further enhanced when considering the number of offices our team offers within the project footprint. The landscapes covered by the boundaries of the New Orleans District provide a unique set of physical and environmental conditions that must be considered when undertaking project planning and design. Team MSMM has over 1,000 professionals in the MVN footprint MVN who have lived and worked in this geographic setting for many years on public and private client projects and are comfortable and confident in executing and delivering projects that meet the needs of this unique area. This has been clearly shown under this proposal in earlier sections that highlighted countless projects and personnel that are familiar with the New Orleans District as well as MVD.



- ✓ Team MSMM has successfully completed over 3000 task orders for USACE
- ✓ Team MSMM's experience, competency, capability, local knowledge stems from completing over 2000 task orders for MVD
- ✓ Team MSMM has management, planning, design, construction experience in MVN, MVK, MVM, MVR, MVS, MVP
- ✓ Team MSMM has extensive field work experience (geotechnical and topographical survey) in MVN, MVK and MVM
- ✓ Team MSMM members are primarily located in South LA

Team MSMM experience and familiarity across MVD and within

Through its teaming partners, Team MSMM has unmatched familiarity in the areas of program and project management, planning, alternative analysis, feasibility analyses, all facets of civil works and water resources design including environmental infrastructure planning and design, construction and Operations and Maintenance throughout the MVD area of responsibility. Additionally, Team MSMM's field work capabilities are unmatched in the areas of geotechnical investigations and topographical survey experience thru out MVD and MVN. Team MSMM's field work experience draws from more than 2000 task orders with many of those performed for MVN. In total, Team MSMM draws on its capability and experience from conducting more than 3000 task orders for USACE with direct experience throughout the Mississippi Valley Division including; MVN, MVK, MVM, MVR, MVS and MVP.

KEY TAKEAWAYS:

- ✓ MSMM is a Small Business engineering firm that specializes in the delivery of Civil Works and water resource related projects for USACE across several USACE districts including the New Orleans District.
- ✓ Like Team MVN, many of the members of Team MSMM have a personal stake in the region's wellbeing and clearly understand the importance of the mission and the criticality of delivery.
- ✓ MSMM has a rich history of supporting the New Orleans District in maturing its Environmental Infrastructure Program since 2013.
- ✓ Mr. Manish Mardia, Program Manager, has been part of the New Orleans Districts Environmental Infrastructure program dating back to the days it was established under the PM Branch Chief, Mr. Falcolm Hull (nearly a 20-year history with MVN's 219/EI program).
- ✓ MSMM has direct, hands-on-experience, executing 24 separate MVN Environmental Infrastructure Task Orders from 2013 to current.
- ✓ MSMM is one of USACE's most trusted small business Architect-Engineering (A-E) firms and is in very good standing based upon its CPAR ratings and reviews.
- ✓ MSMM understands the importance of task order execution and delivery while complying with all USACE regulations, policies, procedures underpinned by authorizations and appropriations.
- ✓ MSMM has assembled 11 established small and large business firms comprising "Team MSMM".
- ✓ Team MSMM has significant experience in both field investigations (survey and geotechnical requirements) as well as planning, design and construction experience in the Civil Works arena across the Mississippi Valley Division including the New Orleans District to be responsive to USACE.
- ✓ Team MSMM draws upon experience gained from completing more than 3000 task orders for USACE including completing assignments in MVN, MVK, MVM, MVS, MVR and MVP. Nearly 2000 field investigation task orders have been completed with the majority of that work in the lower 3 MVD districts (MVN, MVK, MVM). A good number of the 2000 task orders were located in MVN.
- ✓ MSMM will ensure that effective and efficient communications will occur between Team MSMM and MVD/MVN to ensure all requirements are clearly understood to enable a timely and quality deliverable and limit unpleasant "surprises".
- ✓ While MSMM as the small business prime contractor will perform an estimated 75% of the requirements under this contract, Team MSMM brings extensive capability and experience to respond when required; many of our team members are located within the New Orleans District footprint.
- ✓ MSMM stands ready to meet the requirements under this contract and partner with MVD and MVN to support delivery of the mission.

I. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts

31. SIGNATURE	32. DATE SIGNED
	April 16, 2024

33. NAME AND TITLE

Manish Mardia, P.E., President

SF330, PART II

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*): W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (*Or Branch Office*) NAME MSMM Engineering, LLC		3. YEAR ESTABLISHED 2011	4. UNIQUE ENTITY IDENTIFIER NYLUL4Q5GYF6
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 SDB
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

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	4	3
05	Architect	1	1
08	CADD Technician	5	2
12	Civil Engineer	5	3
15	Inspector	3	3
18	Cost Engineer /Estimator	1	1
21	Electrical Engineer	1	1
23	Environmental Engineer	1	1
32	Hydraulic Engineer	2	1
39	Landscape Architect	1	1
48	Project Manager	7	6
57	Structural Engineer	2	2
	Total	33	25

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

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
C07	Coastal Engineering	2
C13	Computer Facilities;Computer Service	2
C15	Construction Management	4
D01	Dams (Concrete; Arch)	1
D02	Dams; Dikes; Levees	5
E03	Electrical Studies and Design	1
L06	Lighting (Exteriors; Streets; Memorials Athletic Fields)	1
P06	Planning (Site, Installation, and Project)	6
R11	Rivers; Canals: Waterways; Flood Control	5
S09	Structural Design; Special Structures	5
S13	Storm Water Handling & Facilities	5
W02	Water Resources; Hydrology Ground Water	3
W03	Water Supply; Treatment and Distribution	3

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

a. Federal Work	7
b. Non-Federal Work	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 April 16, 2024
c. NAME AND TITLE Manish Mardia, P.E., President/Owner	

STANDARD FORM 330 (REV. 7/2021)

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*): W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (*Or Branch Office*) NAME MSMM Engineering, LLC		3. YEAR ESTABLISHED 2011	4. UNIQUE ENTITY IDENTIFIER JVL4KTEBNRX9
2b. STREET 13850 Gulf Freeway, Suite 202A		5. OWNERSHIP	
2c. CITY Houston	2d. STATE TX	2e. ZIP CODE 77034	a. TYPE Limited Liability Corporation
6a. POINT OF CONTACT NAME AND TITLE Manish Mardia, P.E., President/Owner			b. SMALL BUSINESS STATUS SDB
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

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	4	1
05	Architect	1	
08	CADD Technician	5	1
12	Civil Engineer	5	1
15	Inspector	3	
18	Cost Engineer /Estimator	1	
21	Electrical Engineer	1	
23	Environmental Engineer	1	
32	Hydraulic Engineer	2	
39	Landscape Architect	1	
48	Project Manager	7	1
57	Structural Engineer	2	
	Total	33	4

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

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
C07	Coastal Engineering	2
C13	Computer Facilities;Computer Service	2
C15	Construction Management	4
D01	Dams (Concrete; Arch)	1
D02	Dams; Dikes; Levees	5
E03	Electrical Studies and Design	1
L06	Lighting (Exteriors; Streets; Memorials Athletic Fields)	1
P06	Planning (Site, Installation, and Project)	6
R11	Rivers; Canals: Waterways; Flood Control	5
S09	Structural Design; Special Structures	5
S13	Storm Water Handling & Facilities	5
W02	Water Resources; Hydrology Ground Water	3
W03	Water Supply; Treatment and Distribution	3

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

a. Federal Work	7
b. Non-Federal Work	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
	April 16, 2024

c. NAME AND TITLE
Manish Mardia, P.E., President/Owner

STANDARD FORM 330 (REV. 7/2021)

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*) W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (*Or Branch Office*) NAME **N-Y Associates, Inc. ACASS #000716**	3. YEAR ESTABLISHED **1969** 4. UNIQUE ENTITY IDENTIFIER **F8LWMASG7AL1**
2b. STREET **2750 Lake Villa Drive**	5. OWNERSHIP a. TYPE **Corporation**
2c. CITY **Metairie** / 2d. STATE **LA** / 2e. ZIP CODE **70002**	b. SMALL BUSINESS STATUS **N-Y is a federal Small Business Enterprise (SBE)**
6a. POINT OF CONTACT NAME AND TITLE **Michael F. Nicoladis, President**	7. NAME OF FIRM (*If block 2a is a branch office*) **N/A**
6b. TELEPHONE NUMBER **(504) 885-0500** / 6c. EMAIL ADDRESS **mnicoladis@n-yassociates.com**	

8a. FORMER NAME(S) (*If any*)	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER
N/A	**N/A**	**N/A**

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	2	
06	Architect	4	
08	CADD Technician	2	
12	Civil Engineer	5	
15	Construction Inspector	3	
47	Planner: Urban/Regional	1	
57	Structural Engineer	4	
	Engineer Intern	2	
	Eng. Tech/Designer	1	
	Total	24	

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

a. Profile Code	b. Experience	c. Revenue Index Number (*see below*)
A11	Auditoriums & Theatres	1
B02	Bridges	5
D02	Dams (Earth; Rock); Dikes; Levees	5
D07	Dining Halls; Clubs; Restaurants	1
D08	Dredging Studies and Design	1
E02	Educational Facilities; Classrooms	3
E09	Environmental Impact Studies	4
F02	Field Houses; Gyms; Stadiums	1
H07	Highways; Streets; Airfield Paving	5
H11	Housing (Residential, Multi-Family)	1
L04	Libraries; Museums; Galleries	1
O01	Office Buildings; Industrial Parks	1
P05	Planning (Community, Regional)	2
R03	Railroad; Rapid Transit	1
R11	Rivers; Canals; Waterways; Flood	5
S04	Sewage Collection, Treatment and	2
S09	Structural Design; Special	1
S13	Storm Water Handling & Facilities	4
T03	Traffic & Transportation	1
W03	Water Supply, Treatment and	2
Z01	Zoning; Land Use Studies	2

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	6
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 **March 1, 2024**

c. NAME AND TITLE
Michael F. Nicoladis, President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (If any): W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM *(or branch office)* NAME	PRINCIPAL ENGINEERING, INC.
3. YEAR ESTABLISHED	2004
4. UNIQUE ENTITY IDENTIFIER	KKMXN5FVNCM9
2b. STREET	1011 N. Causeway Blvd., Suite 19
2c. CITY	Mandeville
2d. STATE	LA
2e. ZIP CODE	70471
5. OWNERSHIP a. TYPE	S-Corporation
b. SMALL BUSINESS STATUS	Certified – SDVOSB
6a. POINT OF CONTACT NAME AND TITLE	Henry I. DiFranco, Jr, PE, MBA, President
6b. TELEPHONE NUMBER	(985) 624-5001
6c. E-MAIL ADDRESS	henry@pi-aec.com
7. NAME OF FIRM *(if block 2a is a branch office)*	
8a. FORMER FIRM NAME(S) (if any)	
8b. YR. ESTABLISHED	
8c. DUNS NUMBER	

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of employees (1) FIRM	c. No. of employees (2) BRANCH
02	Administrative	3	
06	Architect	1	
08	CADD Technician	5	
12	Civil Engineer	3	
15	Construction Inspector	4	
16	Construction Manager	2	
21	Electrical Engineer	2	
25	Fire Protection Engineer	1	
32	Hydraulic Engineer	1	
42	Mechanical Engineer	1	
48	Project Manager	3	
57	Structural Engineer	1	
58	Technician/Analyst	8	
	Total	35	

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

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
B02	Bridges	1
C07	Coastal Engineering	3
C15	Construction Management	3
C18	Cost Estimating	1
D02	Dams (Earth; Rock); Dikes; Levees	1
E03	Electrical Studies and Design	1
H01	Harbors, Jetties; Piers, Ship Terminal Facilities	1
H07	Highways; Streets; Airfield Paving; Parking Lots	3
H09	Hospital & Medical Facilities	4
R04	Recreation Facilities (Parks, Marinas, Etc.)	1
R06	Rehabilitation (Buildings; Structures; Facilities)	3
R11	Rivers; Canals; Waterways; Flood Control	3
S04	Sewage Collection, Treatment and Disposal	3
S06	Solar Energy Utilization	3
S09	Structural Design; Special Structures	3
S11	Sustainable Design	1
S13	Storm Water Handling & Facilities	3
T03	Traffic & Transportation Engineering	3
W02	Water Resources; Hydrology; Ground Water	3
W03	Water Supply; Treatment and Distribution	3

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

(Insert revenue index number shown at right)

a. Federal Work	4
B. Non-Federal Work	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: Henry I. DiFranco Jr.

b. DATE: 3/13/2024

c. NAME AND TITLE: Henry I. DiFranco, Jr, PE, President

AUTHORIZED FOR LOCAL REPRODUCTION

STANDARD FORM 330 (REV. 7/2021)

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*) W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (*Or Branch Office*) NAME IMC Consulting Engineers, Inc.	3. YEAR ESTABLISHED 1988
	4. UNIQUE ENTITY IDENTIFIER GNTNET9H4Y85
2b. STREET 2714 Independence Street	5. OWNERSHIP a. TYPE S Corporation
2c. CITY Metairie 2d. STATE LA 2e. ZIP CODE **70448**	b. SMALL BUSINESS STATUS Small business by federal standards
6a. POINT OF CONTACT NAME AND TITLE Paul Vlosich, Principal and Director Municipal Projects	7. NAME OF FIRM (*If block 2a is a branch office*) N/A
6b. TELEPHONE NUMBER 504-831-9119 6c. EMAIL ADDRESS pvlosich@imcconsultingengineers.com	

8a. FORMER NAME(S) (*If any*)	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	2	
21, 56	Elec Eng/Spec Writer	5	
42, 56	Mech Eng/Spec Writer	7	
08	CADD Technician	4	
	Total	18	

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

a. Profile Code	b. Experience	c. Revenue Index Number (*see below*)
A06	Airport: Terminal, Hangar	1
C06	Church, Chapel	2
C10	Commercial Bldg., Shop Ctr.	3
C11	Community Facility	1
C13	Computer Facility	1
D04	Design Build - Prep of RFP	3
D07	Dining Hall, Restaurant	1
E02	Educ Facility, Classroom	3
F02	Field House, Gym, Stadium	1
G01	Garage, Vehicle Maintenance	1
H06	Highrise, Air-Rights-Type Bldg	1
H09	Hospital, Medical Facility	6
H10	Hotel, Motel	3
H11	Housing (Apt, Condo)	4
N01	Indstr. Bldg., Manuf. Plant	1
N02	Navigation Structure, Lock	2
O01	Office Bldg., Industr. Park	3
R04	Recreation Facility	2
R11	Waterway, Flood Control	3
S13	Storm Water Handling Facility	2

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

a. Federal Work	3
b. Non-Federal Work	6
c. Total Work	6

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE (*The foregoing is a statement of facts.*)

a. SIGNATURE Paul S. Vlosich

b. DATE **3/5/2024**

c. NAME AND TITLE
Paul S. Vlosich, PE, Principal and Director of Municipal Projects

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*): W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (*Or Branch Office*) NAME	Eustis Engineering L.L.C.
3. YEAR ESTABLISHED	2006
4. UNIQUE ENTITY IDENTIFIER	R83MG9NLTMS4
2b. STREET	3011 28th Street
2c. CITY	Metairie
2d. STATE	LA
2e. ZIP CODE	**70002**
5. OWNERSHIP a. TYPE	Corporation
b. SMALL BUSINESS STATUS	Small Business
6a. POINT OF CONTACT NAME AND TITLE	Gwendolyn P. Sanders, P.E. / President
6b. TELEPHONE NUMBER	504-834-0157
6c. EMAIL ADDRESS	gsanders@eustiseng.com
7. NAME OF FIRM *(If block 2a is a branch office)*	

8a. FORMER NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER
Eustis Engineering Company, Inc.	1946	03-439-1870
Eustis Engineering Services, L.L.C.	2006	78-481-0959

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH	a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
27	Geotechnical Engineer (P.E.)	16	12	S05	Soils & Geologic Studies: Foundations	7
	Assistant Engineer (E.I.)	6	3	T02	Testing & Inspection Services	7
	Engineering Graduate	2	2			
	Engineering Technician	2	1			
	Engineering Intern	0				
30	Geologist (P.G.)	1	0			
30	Geoscientist-in-Training (G.I.T.)	1	1			
30	Field Geologist	0				
	AutoCAD Technician	1	1			
02	Administrative	15	12			
	Drilling Personnel	17	16			
	Laboratory Personnel	8	8			
	CMT Personnel	16	11			
	Safety Manager	1	1			
	Quality Control Manager	1	1			
	Operations Manager	1	1			
	Total	88	70			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS *(Insert revenue index number shown at right)*	
a. Federal Work	7
b. Non-Federal Work	7
c. Total Work	8

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE	
b. DATE	03/05/2024
c. NAME AND TITLE	Gwendolyn P. Sanders, P.E. / President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*: W912P824R0023

PART II - GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (*or Branch Office*) NAME: Tetra Tech – Baton Rouge

3. YEAR ESTABLISHED: 1966

4. UNIQUE ENTITY IDENTIFIER: QL4JXK7UV9K1

2b. STREET: 748 Main Street, Suite B

2c. CITY: Baton Rouge

2d. STATE: LA

2e. ZIP CODE: 70802

5. OWNERSHIP

a. TYPE: Large Business Corporation

b. SMALL BUSINESS STATUS: N/A

6a. POINT OF CONTACT NAME AND TITLE: Joe Cancienne - Director

6b. TELEPHONE NUMBER: 225.383.1780

6c. EMAIL ADDRESS: joe.cancienne@tetratech.com

7. NAME OF FIRM *(If Block 2a is a Branch Office)*: Tetra Tech, Inc.

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER
N/A	N/A	N/A

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	c. Number of Employees (2) BRANCH
24	Environmental Scientist	1,100	3
29	GIS Specialist	83	1
30	Geologist	443	1
48	Project Manager	3,193	1
	Other Employees	23,143	
	Total	**27,962**	**6**

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

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
C07	Coastal Engineering	5
C14	Conservation and Resource Management	3
D08	Dredging Studies and Design	1
E01	Ecological & Archaeological Investigations	1
E08	Engineering Economics	1
E09	Environmental Impact Studies & Assessments	4
E11	Environmental Planning	4
G04	GIS: Development, Analysis, & Data Collection	4
G06	Graphic Design	1
H08	Historical Preservation	1
P05	Planning (Community, Regional, Areawide, State)	4
P06	Planning (Site, Installation, Project)	2
R04	Recreation Facilities (Parks, Marinas, Etc.)	1
R11	Rivers; Canals; Waterways; Flood Control	3
S13	Storm Water Handling & Facilities	1
W02	Water Resources; Hydrology; Ground Water	4

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	6
c. Total Work	**6**

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE: Joe Cancienne

b. DATE: March 5, 2024

c. NAME AND TITLE: Joe Cancienne - Director

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER
W912P824R0023

PART II - GENERAL QUALIFICATIONS

2a. FIRM (OR BRANCH OFFICE) NAME Tetra Tech — Orlando, FL		3. YEAR ESTABLISHED 1966	4. UNIQUE ENTITY IDENTIFIER W4QXA872KKH3
2b. STREET 201 E. Pine Street, Suite 1000		5. OWNERSHIP a. TYPE Large Business Corporation	
2c. CITY Orlando	2d. STATE Florida	2e. ZIP CODE 32801	b. SMALL BUSINESS STATUS N/A
6a. POINT OF CONTACT NAME AND TITLE Lawrence Jenkins- Office Manager			7. NAME OF FIRM (*if block 2a is a branch office*) Tetra Tech, Inc.
6b. TELEPHONE NUMBER 407.480.3922	6c. E-MAIL ADDRESS Eddie.Jenkins@tetratech.com		
8a. FORMER FIRM NAME(S) N/A		8b. YEAR ESTABLISHED N/A	8c. UNIQUE ENTITY IDENTIFIER N/A

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	1,802	21
08	CADD Technician	522	7
12	Civil Engineer	2,399	24
21	Electrical Engineer	706	6
23	Environmental Engineer	843	1
24	Environmental Scientist	1,100	6
29	Geographic Information System Specialist	83	2
30	Geologist	443	5
35	Industrial Engineer	412	1
36	Industrial Hygienist	75	1
38	Land Surveyor	172	3
42	Mechanical Engineer	788	5
48	Project Manager	3,193	22
52	Sanitary Engineer	184	2
57	Structural Engineer	240	1
58	Technician/Analyst	2,767	1
60	Transportation Engineer	152	2
	Financial Analysts	84	2
	Information Technology/Data Specialists	40	2

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

a. Profile Code	b. Experience	c. Revenue Index Number
A12	Automation; Controls; Instrumentation	1
C07	Coastal Engineering	1
C08	Codes; Standards; Ordinances	1
C10	Commercial Building (low rise); Shopping Centers	1
C11	Community Facilities	1
C15	Construction Management	4
C18	Cost Estimating; Cost Engineering and Analysis; Parametric Costing; Forecasting	1
D04	Design-Build - Preparation of Requests for Proposals	1
E01	Ecological & Archeological Investigations	1
E03	Electrical Studies and Design	4
E04	Electronics	1
E10	Environmental and Natural Resource Mapping	1
E11	Environmental Planning	2
E12	Environmental Remediation	1
E13	Environmental Testing and Analysis	1
G01	Garages; Vehicle Maintenance Facilities; Parking Decks	1
H04	Heating; Ventilating; Air Conditioning	1
H07	Highways; Streets; Airfield Paving; Parking Lots	1
H11	Housing (Residential, Multi-Family; Apartments; Condominiums)	1
H12	Hydraulics & Pneumatics	1
I01	Industrial Buildings; Manufacturing Plants	1
I02	Industrial Processes; Quality Control	1
I03	Industrial Waste Treatment	5
I05	Interior Design; Space Planning	1
L02	Land Surveying	1
L06	Lighting (Exteriors; Streets; Memorials; Athletic Fields, Etc.)	1
P05	Planning (Community, Regional, Areawide and State)	3
P06	Planning (Site, Installation, and Project)	1
R03	Railroad; Rapid Transit	1
R04	Recreation Facilities (Parks, Marinas, Etc.)	1
R11	Rivers; Canals; Waterways; Flood Control	1
S04	Sewage Collection, Treatment and Disposal	6
S06	Solar Energy Utilization	2
S07	Solid Wastes; Incineration; Landfill	1
S09	Structural Design; Special Structures	1
S10	Surveying; Platting; Mapping; Flood Plain Studies	2
S13	Storm Water Handling & Facilities	1
T02	Testing & Inspection Services	2
T03	Traffic & Transportation Engineering	5
T04	Topographic Surveying and Mapping	1
U03	Utilities (Gas and Steam)	1
W01	Warehouses & Depots	1
W02	Water Resources; Hydrology; Ground Water	3
W03	Water Supply; Treatment and Distribution	7

				W04	Wind Tunnels; Research/Testing Facilities Design	1
	Other Employees	11,957				
	Total	27,962	114			

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

a. Federal Work	2
b.. Non Federal Work	8
c. Total Work	8

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE

b. DATE

March15, 2023

c. NAME AND TITLE

Lawrence Jenkins- Office Manager

ARCHITECT - ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*
W912P824R0023

PART II – GENERAL QUALIFICATIONS
(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. UNIQUE ENTITY IDENTIFIER
Stantec Consulting Services Inc.	2012	JK98RMLS5HJ8

2b. STREET		
1200 Brickyard Lane Suite 400		
2c. CITY	2d. STATE	2e. ZIP CODE
Baton Rouge	LA	70802

6a. POINT OF CONTACT NAME AND TITLE	
Gary Heitman - Senior Principal, Operations Leader	
6b. TELEPHONE NUMBER	6c. EMAIL ADDRESS
(225) 215-5105	gary.heitman@stantec.com

5. OWNERSHIP

a. TYPE
Corporation

b. SMALL BUSINESS STATUS
N/A

7. NAME OF FIRM *(If block 2a is a branch office)*
Stantec Inc.

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) Firm	c. No. of Employees (2) Branch
02	Administrative	5432	13
05	Archaeologist	572	1
06	Architect	1250	13
07	Biologist	411	0
08	CAD Technician	1106	8
12	Civil Engineer	3757	23
14	Computer Programmer	1197	2
15	Construction Inspector	360	1
16	Construction Manager	380	1
21	Electrical Engineer	1052	1
23	Environmental Engineer	871	0
24	Environmental Scientist	1756	4
27	Foundation/Geotechnical Engineer	525	0
30	Geologist	309	1
38	Land Surveyor	381	0
42	Mechanical Engineer	1153	1
47	Planner, Urban/Regional	951	0
48	Project Manager	1723	5
57	Structural Engineer	1075	9
58	Technician/Analyst	1815	1
	Other Employees	2220	0
	Total	**28296**	**84**

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

a. Profile Code	b. Experience	c. Revenue Index Number *(See Below)*
B02	Bridges	10
C07	Coastal Engineering	6
C10	Commercial Building (low rise); Shopping Centers	10
D02	Dams (Earth; Rock); Dikes; Levees	9
E02	Educational Facilities; Classrooms	10
H07	Highways; Streets; Airfield Paving; Parking Lots	10
H09	Hospital & Medical Facilities	10
I01	Industrial Building; Manufacturing Plants	10
L02	Land Surveying	8
R03	Railroad; Rapid Transit	10
R04	Recreation Facilities (Parks, Marinas, Etc.)	8
R11	Rivers; Canals; Waterways; Flood Control	8
S04	Sewage Collection, Treatment, and Disposal	10
S09	Structural Design; Special Structures	7
T03	Traffic & Transportation Engineering	10
W02	Water Resources; Hydrology; Ground Water	10
W03	Water Supply; Treatment , and Distribution	10

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
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
Amy Campbell

b. DATE
March 08, 2024

c. NAME AND TITLE
Amy Campbell - Senior Principal, Regional Leader US South

ARCHITECT - ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*
W912P824R0023

PART II – GENERAL QUALIFICATIONS
(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	3. YEAR ESTABLISHED	4. UNIQUE ENTITY IDENTIFIER
Stantec Consulting Services Inc.	2012	RR7KJAM4G4Z3

2b. STREET		
777 S Harbour Island Boulevard Suite 600		
2c. CITY	2d. STATE	2e. ZIP CODE
Tampa	FL	33602-5729

6a. POINT OF CONTACT NAME AND TITLE	
Douglas Stoker PE - ENV SP, Vice President	
6b. TELEPHONE NUMBER	6c. EMAIL ADDRESS
(727) 431-1550	douglas.stoker@stantec.com

5. OWNERSHIP

a. TYPE
Corporation

b. SMALL BUSINESS STATUS
N/A

7. NAME OF FIRM *(If block 2a is a branch office)*
Stantec Inc.

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) Firm	c. No. of Employees (2) Branch
02	Administrative	5432	40
06	Architect	1250	1
07	Biologist	411	1
08	CAD Technician	1106	7
10	Chemical Engineer	367	3
12	Civil Engineer	3757	26
14	Computer Programmer	1197	2
15	Construction Inspector	360	1
16	Construction Manager	380	2
21	Electrical Engineer	1052	1
23	Environmental Engineer	871	1
24	Environmental Scientist	1756	4
27	Foundation/Geotechnical Engineer	525	1
29	GIS Specialist	306	5
30	Geologist	309	1
38	Land Surveyor	381	14
42	Mechanical Engineer	1153	9
47	Planner, Urban/Regional	951	8
48	Project Manager	1723	15
57	Structural Engineer	1075	4
	Other Employees	3934	2
	Total	**28296**	**148**

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

a. Profile Code	b. Experience	c. Revenue Index Number *(See Below)*
A01	Acoustics; Noise Abatement	7
A05	Airports; Navaids; Airport Lighting; Aircraft Fueling	8
B02	Bridges	10
C16	Construction Surveying	7
E02	Educational Facilities; Classrooms	10
E09	EIS, Assessments of Statements	10
H07	Highways; Streets; Airfield Paving; Parking Lots	10
H09	Hospital & Medical Facilities	10
H11	Housing (Residential, Multi-Family, Apts, Condos)	10
I01	Industrial Building; Manufacturing Plants	10
O01	Office Buildings; Industrial Parks	10
P05	Planning (Comm., Regional, Areawide , and State)	9
P06	Planning (Site, Installation, and Project)	10
R04	Recreation Facilities (Parks, Marinas, Etc.)	8
S04	Sewage Collection, Treatment, and Disposal	10
S10	Surveying; Platting; Mapping; Flood Plain Studies	8
S13	Storm Water Handling & Facilities	9
T03	Traffic & Transportation Engineering	10
T04	Topographic Surveying and Mapping	6
U02	Urban Renewals; Community Development	10
W02	Water Resources; Hydrology; Ground Water	10
W03	Water Supply; Treatment , and Distribution	10

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
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
Amy Campbell

b. DATE
March 07, 2024

c. NAME AND TITLE
Amy Campbell - Senior Principal, Regional Leader US South

ARCHITECT - ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*
W912P824R0023

PART II – GENERAL QUALIFICATIONS
(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	**Stantec Consulting Services Inc.**
3. YEAR ESTABLISHED	2017
4. UNIQUE ENTITY IDENTIFIER	HAKDPJ5Q18X5
2b. STREET	410 17th Street Suite 1400
2c. CITY	Denver
2d. STATE	CO
2e. ZIP CODE	80202-4427
6a. POINT OF CONTACT NAME AND TITLE	Sarah A. McIlroy - Vice President, US Pacific
6b. TELEPHONE NUMBER	(916) 472-3976
6c. EMAIL ADDRESS	sarah.mcilroy@stantec.com
5. OWNERSHIP	
a. TYPE	**Corporation**
b. SMALL BUSINESS STATUS	**N/A**
7. NAME OF FIRM *(If block 2a is a branch office)*	**Stantec Inc.**

8a. FORMER FIRM NAME(S) *(If any)*	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER
Cardno, Inc.; Stantec Consulting Services Inc. (Denver (S Colorado) CO; Stantec Consulting Services Inc. (Church Ranch, Westminster, CO); Stantec Consulting Services Inc. (Denver (18th St) CO; Stantec Consulting Services Inc. (Denver (Broadway) CO); Stantec Consulting Services Inc. (Denver, CO); Stantec Consulting Services Inc. (S Pennsylvania St) Denver, CO); Stantec Consulting Services Inc. (Englewood, CO)	1933; 2009; 2017; 2017; 2017; 2018; 2021; 2022	NPUPPC7VGKF7; TS2KYRHBKZA3; 83-205-8106; NUCNR8LGR2Z3; YKQBNN21M3M5; 14-965-4381; XY59YKA7BE83; NPUPPC7VGKF7

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) Firm	c. No. of Employees (2) Branch
02	Administrative	5432	167
05	Archaeologist	572	13
06	Architect	1250	54
08	CAD Technician	1106	7
10	Chemical Engineer	367	13
12	Civil Engineer	3757	73
14	Computer Programmer	1197	24
15	Construction Inspector	360	5
16	Construction Manager	380	5
21	Electrical Engineer	1052	5
23	Environmental Engineer	871	8
24	Environmental Scientist	1756	19
27	Foundation/Geotechnical Engineer	525	24
29	GIS Specialist	306	3
30	Geologist	309	9
42	Mechanical Engineer	1153	18
47	Planner, Urban/Regional	951	8
48	Project Manager	1723	34
57	Structural Engineer	1075	30
58	Technician/Analyst	1815	9
	Other Employees	2339	41
	Total	**28296**	**569**

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

a. Profile Code	b. Experience	c. Revenue Index Number *(See Below)*
C13	Computer Facilities; Computer Service	6
C15	Construction Management	9
D01	Dams (Concrete; Arch)	9
E07	Energy Conservation; New Energy Sources	6
E09	EIS, Assessments of Statements	10
E12	Environmental Remediation	10
E13	Environmental Testing and Analysis	8
H07	Highways; Streets; Airfield Paving; Parking Lots	10
H12	Hydraulics & Pneumatics	5
I01	Industrial Building; Manufacturing Plants	10
P05	Planning (Comm., Regional, Areawide , and State)	9
P06	Planning (Site, Installation, and Project)	10
P12	Power Generation, Transmission, Distribution	10
R10	Risk Analysis	6
S04	Sewage Collection, Treatment, and Disposal	10
S07	Solid Wastes; Incineration; Landfill	7
S13	Storm Water Handling & Facilities	9
W02	Water Resources; Hydrology; Ground Water	10
W03	Water Supply; Treatment , and Distribution	10

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
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE
The foregoing is a statement of facts.

a. SIGNATURE

b. DATE
March 07, 2024

c. NAME AND TITLE
Sheina Hughes - Vice President, US Mountain Regional Leader

ARCHITECT - ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER *(If any)*
W912P824R0023

PART II – GENERAL QUALIFICATIONS
(If a firm has branch offices, complete for each specific branch office seeking work.)

2a. FIRM (OR BRANCH OFFICE) NAME	**Stantec Consulting Services Inc.**
3. YEAR ESTABLISHED	2012
4. UNIQUE ENTITY IDENTIFIER	G385LEAJBJK9
2b. STREET	300 Primera Boulevard Suite 300
2c. CITY	Lake Mary
2d. STATE	FL
2e. ZIP CODE	32746-2145
6a. POINT OF CONTACT NAME AND TITLE	John C. Moore Jr - Principal
6b. TELEPHONE NUMBER	(850) 878-5001
6c. EMAIL ADDRESS	john.moorejr@stantec.com
5. OWNERSHIP	
a. TYPE	**Corporation**
b. SMALL BUSINESS STATUS	**N/A**
7. NAME OF FIRM *(If block 2a is a branch office)*	**Stantec Inc.**
8a. FORMER FIRM NAME(S) *(If any)*	
8b. YEAR ESTABLISHED	
8c. UNIQUE ENTITY IDENTIFIER	

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) Firm	c. No. of Employees (2) Branch
02	Administrative	5432	8
05	Archaeologist	572	0
06	Architect	1250	0
07	Biologist	411	0
08	CAD Technician	1106	2
10	Chemical Engineer	367	0
12	Civil Engineer	3757	12
14	Computer Programmer	1197	1
15	Construction Inspector	360	1
16	Construction Manager	380	0
21	Electrical Engineer	1052	10
23	Environmental Engineer	871	0
24	Environmental Scientist	1756	3
27	Foundation/Geotechnical Engineer	525	0
38	Land Surveyor	381	0
42	Mechanical Engineer	1153	2
47	Planner, Urban/Regional	951	3
48	Project Manager	1723	3
57	Structural Engineer	1075	1
58	Technician/Analyst	1815	3
	Other Employees	2162	0
	Total	**28296**	**49**

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

a. Profile Code	b. Experience	c. Revenue Index Number *(See Below)*
C15	Construction Management	9
E09	EIS, Assessments of Statements	10
E13	Environmental Testing and Analysis	8
P12	Power Generation, Transmission, Distribution	10
T03	Traffic & Transportation Engineering	10

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
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

Amy Campbell

b. DATE
March 07, 2024

c. NAME AND TITLE
Amy Campbell - Senior Principal, Regional Leader US South

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*): W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (*Or Branch Office*) NAME	CDM Federal Programs Corporation (CDM Smith)
3. YEAR ESTABLISHED	1986
4. UNIQUE ENTITY IDENTIFIER	DHS5ZJSFCSH9
2b. STREET	1515 Poydras Street, Suite 1130
2c. CITY	New Orleans
2d. STATE	LA
2e. ZIP CODE	70112
5. OWNERSHIP	
a. TYPE	Corporation
b. SMALL BUSINESS STATUS	Large Business
6a. POINT OF CONTACT NAME AND TITLE	Jessica Watts, PE, CFM,D.WRE, ENV SP, Principal
6b. TELEPHONE NUMBER	1.504.799.1100
6c. EMAIL ADDRESS	WattsJL@cdmsmith.com
7. NAME OF FIRM (*If block 2a is a branch office*)	CDM Federal Programs Corporation
8a. FORMER NAME(S) (*If any*)	
8b. YEAR ESTABLISHED	
8c. UNIQUE ENTITY IDENTIFIER	

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
57	Structural Engineer	192	-
12	Civil Engineer	639	3
32	Hydraulic Engineer	133	-
27	Geotechnical Engineer	170	-
42	Mechanical Engineer	99	-
21	Electrical Engineer	228	-
23	Environmental Engineer	670	3
18	Cost Engineer	62	-
34	Hydrologist	149	2
30	Geologist	226	-
06	Architect	65	2
39	Landscape Architect	15	-
08	CAD/BIM Technician	229	1
48	Project Manager	309	2
15	Construction Inspector	329	1
16	Construction Manager	165	2
24	Environmental Scientist	267	-
29	GIS Specialist	139	-
47	Planner	218	2
58	Technician	799	2
	Other Employees	1,143	5
	Total	6,246	25

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

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
B02	Bridges	8
C07	Coastal Engineering	8
C15	Construction Management	10
C18	Cost Estimating; Cost Eng.	7
D02	Dams (Earth; Rock); Levees	7
D08	Dredging Studies and Design	4
E01	Ecological Investigations	6
E09	Environmental Impact Studies	8
E11	Environmental Planning	8
E12	Environmental Remediation	10
G04	GIS Services	8
H01	Harbors; Jetties; Piers	6
P06	Planning (Site, Project)	9
R11	Rivers; Flood Control	9
S04	Sewage Collection, Treatment	10
S05	Soils & Geologic Studies	9
S09	Structural Design	8
S10	Mapping; Flood Plain Studies	8
S13	Storm Water Handling/Facilities	9
U04	Utility Design/Inspection	9
W02	Water Resources; Hydrology	10
W03	Water Treatment, Distribution	10

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
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: Scott W Stone

b. DATE: March 11, 2024

c. NAME AND TITLE: Scott Stone, PE, CFM, Senior Vice President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*): W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (*Or Branch Office*) NAME	CDM Federal Programs Corporation (CDM Smith)
3. YEAR ESTABLISHED	1986
4. UNIQUE ENTITY IDENTIFIER	DHS5ZJSFCSH9
2b. STREET	12400 Coit Road, Suite 400
2c. CITY	Dallas
2d. STATE	TX
2e. ZIP CODE	75251
5. OWNERSHIP	
a. TYPE	Corporation
b. SMALL BUSINESS STATUS	Large Business
6a. POINT OF CONTACT NAME AND TITLE	Scott Stone, PE, CFM, Senior Vice President
6b. TELEPHONE NUMBER	1.214.346.2800
6c. EMAIL ADDRESS	StoneSW@cdmsmith.com
7. NAME OF FIRM (*If block 2a is a branch office*)	CDM Federal Programs Corporation
8a. FORMER NAME(S) (*If any*)	
8b. YEAR ESTABLISHED	
8c. UNIQUE ENTITY IDENTIFIER	

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
57	Structural Engineer	192	10
12	Civil Engineer	639	10
32	Hydraulic Engineer	133	3
27	Geotechnical Engineer	170	6
42	Mechanical Engineer	99	8
21	Electrical Engineer	228	14
23	Environmental Engineer	670	12
18	Cost Engineer	62	3
34	Hydrologist	149	4
30	Geologist	226	-
06	Architect	65	3
39	Landscape Architect	15	-
08	CAD/BIM Technician	229	3
48	Project Manager	309	7
15	Construction Inspector	329	1
16	Construction Manager	165	6
24	Environmental Scientist	267	1
29	GIS Specialist	139	3
47	Planner	218	7
58	Technician	799	5
	Other Employees	1,143	10
	Total	6,246	110

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

a. Profile Code	b. Experience	c. Revenue Index Number *(see below)*
B02	Bridges	8
C07	Coastal Engineering	8
C15	Construction Management	10
C18	Cost Estimating; Cost Eng.	7
D02	Dams (Earth; Rock); Levees	7
D08	Dredging Studies and Design	4
E01	Ecological Investigations	6
E09	Environmental Impact Studies	8
E11	Environmental Planning	8
E12	Environmental Remediation	10
G04	GIS Services	8
H01	Harbors; Jetties; Piers	6
P06	Planning (Site, Project)	9
R11	Rivers; Flood Control	9
S04	Sewage Collection, Treatment	10
S05	Soils & Geologic Studies	9
S09	Structural Design	8
S10	Mapping; Flood Plain Studies	8
S13	Storm Water Handling/Facilities	9
U04	Utility Design/Inspection	9
W02	Water Resources; Hydrology	10
W03	Water Treatment, Distribution	10

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
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: Scott W Stone

b. DATE: March 11, 2024

c. NAME AND TITLE: Scott Stone, PE, CFM, Senior Vice President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*): W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (*Or Branch Office*) NAME	CDM Federal Programs Corporation (CDM Smith)
2b. STREET	1808 Aston Ave., Suite 240
2c. CITY	Carlsbad
2d. STATE	CA
2e. ZIP CODE	92008
6a. POINT OF CONTACT NAME AND TITLE	Jenna Atchison, Associate
6b. TELEPHONE NUMBER	1.760.438.7755
6c. EMAIL ADDRESS	AtchisonJL@cdmsmith.com
3. YEAR ESTABLISHED	1986
4. UNIQUE ENTITY IDENTIFIER	DHS5ZJSFCSH9
5. OWNERSHIP	
a. TYPE	Corporation
b. SMALL BUSINESS STATUS	Large Business
7. NAME OF FIRM (*If block 2a is a branch office*)	CDM Federal Programs Corporation

8a. FORMER NAME(S) (*If any*)	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
57	Structural Engineer	192	1
12	Civil Engineer	639	3
32	Hydraulic Engineer	133	2
27	Geotechnical Engineer	170	-
42	Mechanical Engineer	99	1
21	Electrical Engineer	228	-
23	Environmental Engineer	670	10
18	Cost Engineer	62	1
34	Hydrologist	149	2
30	Geologist	226	-
06	Architect	65	-
39	Landscape Architect	15	-
08	CAD/BIM Technician	229	2
48	Project Manager	309	3
15	Construction Inspector	329	1
16	Construction Manager	165	4
24	Environmental Scientist	267	1
29	GIS Specialist	139	-
47	Planner	218	-
58	Technician	799	2
	Other Employees	1,143	10
	Total	6,246	43

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

a. Profile Code	b. Experience	c. Revenue Index Number (*see below*)
B02	Bridges	8
C07	Coastal Engineering	8
C15	Construction Management	10
C18	Cost Estimating; Cost Eng.	7
D02	Dams (Earth; Rock); Levees	7
D08	Dredging Studies and Design	4
E01	Ecological Investigations	6
E09	Environmental Impact Studies	8
E11	Environmental Planning	8
E12	Environmental Remediation	10
G04	GIS Services	8
H01	Harbors; Jetties; Piers	6
P06	Planning (Site, Project)	9
R11	Rivers; Flood Control	9
S04	Sewage Collection, Treatment	10
S05	Soils & Geologic Studies	9
S09	Structural Design	8
S10	Mapping; Flood Plain Studies	8
S13	Storm Water Handling/Facilities	9
U04	Utility Design/Inspection	9
W02	Water Resources; Hydrology	10
W03	Water Treatment, Distribution	10

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
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: Scott W Stone

b. DATE: March 11, 2024

c. NAME AND TITLE: Scott Stone, PE, CFM, Senior Vice President

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*) W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (*Or Branch Office*) NAME Corrpro Companies, Inc		3. YEAR ESTABLISHED 1984	4. UNIQUE ENTITY IDENTIFIER JNKVMSMG57J6
2b. STREET 6445 Marindustry Drive		5. OWNERSHIP a. TYPE Corporation	
2c. CITY San Diego	2d. STATE CA	2e. ZIP CODE 92121	b. SMALL BUSINESS STATUS NA
6a. POINT OF CONTACT NAME AND TITLE Jason Gerin, Business Development Manager			7. NAME OF FIRM (*If block 2a is a branch office*) Corrpro Companies Inc.
6b. TELEPHONE NUMBER 619-318-0965	6c. EMAIL ADDRESS jgerin@aegion.com		

8a. FORMER NAME(S) (*If any*)	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH	a. Profile Code	b. Experience	c. Revenue Index Number (*see below*)
02	Administration	153	2	A05	Airports	4
08	CADD Technician	4	1	B02	Bridges	7
15	Construction Inspector	131		C04	Chemical Processing & Storage	5
16	Construction Manager	9		C17	Corrosion Control	10
17	Corrosion Engineer	83	12	D02	DAMS	4
51	Safety	4		E04	Electronics	2
				G02	Gas Systems	5
				H01	HARBORS	5
				L06	Lighting	1
				M08	Modular Systems	1
				N01	Naval Architecture	8
				P01	Petroleum Exploration	7
				P02	Petroleum & Fuel Storage	10
				P04	Pipelines	10
				P12	Power Generation	7
				R03	Railroad/Rapid Transit	6
				R04	Recreation Facilities	5
	Total	384	15			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (*Insert revenue index number shown at right*)	
a. Federal Work	7
b. Non-Federal Work	7
c. Total Work	10

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE	b. DATE
	6 March 2024

c. NAME AND TITLE
JASON GERIN, BUSINESS DEVELOPMENT MANAGER

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*)
W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (*Or Branch Office*) NAME Coast & Harbor Engineering, Inc.	3. YEAR ESTABLISHED 2024
	4. UNIQUE ENTITY IDENTIFIER S1BXXBQFUMS8
2b. STREET 5710 Penny Creek Dr	5. OWNERSHIP
2c. CITY Austin	2d. STATE TX
2e. ZIP CODE 78759	a. TYPE Corporation
6a. POINT OF CONTACT NAME AND TITLE Josh Carter PE - Principal	b. SMALL BUSINESS STATUS Small Business
6b. TELEPHONE NUMBER 512-615-0816	6c. EMAIL ADDRESS Josh.carter@coastharboreng.com
	7. NAME OF FIRM (*If block 2a is a branch office*) Coast & Harbor Engineering, Inc.

8a. FORMER NAME(S) (*If any*)	8b. YEAR ESTABLISHED	8c. UNIQUE ENTITY IDENTIFIER
N/A	N/A	N/A

9. EMPLOYEES BY DISCIPLINE				10. PROFILE OF FIRM'S EXPERIENCE AND ANNUAL AVERAGE REVENUE FOR LAST 5 YEARS		
a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH	a. Profile Code	b. Experience	c. Revenue Index Number (*see below*)
62	Water Resource/Coastal Engineer	11	7	C07	Coastal Engineering	1
				C15	Construction Management	1
				D08	Dredging Studies and Design	1
				H01	Harbors; Jetties; Piers, Ship Terminal Facilities	1
				O02	Oceanographic Engineering	1
				R04	Recreation Facilities (Parks, Marinas, etc)	1
				R11	Rivers; Canals; Waterways; Flood Control	1
				S13	Stormwater Handling and Facilities	1
	Total	11	7			

11. ANNUAL AVERAGE PROFESSIONAL SERVICES REVENUES OF FIRM FOR LAST 3 YEARS (*Insert revenue index number shown at right*)	
a. Federal Work	1
b. Non-Federal Work	1
c. Total Work	1

PROFESSIONAL SERVICES REVENUE INDEX NUMBER

1. Less than $100,000
2. $100,000 to less than $250,000
3. $250,000 to less than $500,000
4. $500,000 to less than $1 million
5. $1 million to less than $2 million
6. $2 million to less than $5 million
7. $5 million to less than $10 million
8. $10 million to less than $25 million
9. $25 million to less than $50 million
10. $50 million or greater

12. AUTHORIZED REPRESENTATIVE

The foregoing is a statement of facts.

a. SIGNATURE	b. DATE
	3/7/2024

c. NAME AND TITLE
Joshua D. Carter, PE - Principal

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION OR PROJECT NUMBER *(If any)*: W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branches offices, complete for each specific branch office seeking work.)

2a. FIRM *(or Branch Office)* NAME	Lowe Engineers, LLC
2b. STREET	1011 North Causeway Boulevard, Suite 34
2c. CITY	Mandeville
2d. STATE	LA
2e. ZIP CODE	70471
3. YEAR ESTABLISHED	2019
4. UNIQUE ENTITY IDENTIFIER	DNK9YCGKFH76
5. OWNERSHIP a. TYPE	Limited Liability Company
b. SMALL BUSINESS STATUS	Small Business
6a. POINT OF CONTACT NAME AND TITLE	Josh Daniel, PLS - Partner
6b. TELEPHONE NUMBER	985.809.4109
6c. E-MAIL ADDRESS	josh.daniel@loweengineers.com
7. NAME OF FIRM *(If Block 2a is a Branch Office)*	
8a. FORMER FIRM NAME(S) *(if any)*	John E. Bonneau and Associates, Inc.
8b. YEAR ESTABLISHED	1983
8c. UNIQUE ENTITY IDENTIFIER	N/A

5. OWNERSHIP

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	c. Number of Employees (2) BRANCH
02	Administrative	22	1
08	CADD Specialists/Technicians	7	2
12	Civil Engineers	11	0
28	Geodetic Surveyors	10	2
29	Geographic Information Specialists	5	0
33	Hydrographic Surveyor	10	2
38	Land Surveyor	23	4
46	Photogrammetrist	1	0
48	Project Manager	20	2
49	Remote Sensing Specialist	5	0
58	Technician/Analyst	11	0
60	Transportation Engineer	7	0
62	Water Resources Engineer	5	0
	Other Employees		
	Total	**137**	**13**

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

a. Function Code	b. Experience	c. Revenue Index Number *(see below)*
C15	Construction Management	5
C16	Construction Surveying	6
G04	GIS: Development, Analysis, & Data Conversion	5
H09	Hospital & Medical Facilities	4
H13	Hydrographic Surveying	4
L02	Land Surveying	6
M05	Military Design Standards	4
P03	Photogrammetry	4
P06	Planning (Site, Installation, & Project)	4
S10	Surveying, Platting, Mapping, Flood Plain Studies	4
T03	Traffic & Transportation Engineering	6
W02	Water Resources, Hydrology, Ground Water	4

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	7
c. Total Work	8

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: 02/29/2024

c. NAME AND TITLE: Josh Daniel, PLS - Partner

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION OR PROJECT NUMBER *(If any)*: W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branches offices, complete for each specific branch office seeking work.)

2a. FIRM *(or Branch Office)* NAME	Lowe Engineers, LLC
2b. STREET	104 Speedpro Lane
2c. CITY	Scott
2d. STATE	LA
2e. ZIP CODE	70583
3. YEAR ESTABLISHED	2006
4. UNIQUE ENTITY IDENTIFIER	YWDYTLXFB211
5. OWNERSHIP a. TYPE	Limited Liability Company
b. SMALL BUSINESS STATUS	Small Business
6a. POINT OF CONTACT NAME AND TITLE	Josh Daniel, PLS - Partner
6b. TELEPHONE NUMBER	985.809.4109
6c. E-MAIL ADDRESS	josh.daniel@loweengineers.com
7. NAME OF FIRM *(If Block 2a is a Branch Office)*	
8a. FORMER FIRM NAME(S) *(if any)*	
8b. YEAR ESTABLISHED	
8c. UNIQUE ENTITY IDENTIFIER	

5. OWNERSHIP

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	(2) BRANCH
02	Administrative	22	1
08	CADD Specialists/Technicians	7	1
12	Civil Engineers	11	0
28	Geodetic Surveyors	10	3
29	Geographic Information Specialists	5	0
33	Hydrographic Surveyor	10	4
38	Land Surveyor	23	4
46	Photogrammetrist	1	0
48	Project Manager	20	1
49	Remote Sensing Specialist	5	0
58	Technician/Analyst	11	0
60	Transportation Engineer	7	0
62	Water Resources Engineer	5	0
	Other Employees		
	Total	**137**	**14**

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

a. Function Code	b. Experience	c. Revenue Index Number *(see below)*
C15	Construction Management	5
C16	Construction Surveying	6
G04	GIS: Development, Analysis, & Data Conversion	5
H09	Hospital & Medical Facilities	4
H13	Hydrographic Surveying	4
L02	Land Surveying	6
M05	Military Design Standards	4
P03	Photogrammetry	4
P06	Planning (Site, Installation, & Project)	4
S10	Surveying, Platting, Mapping, Flood Plain Studies	4
T03	Traffic & Transportation Engineering	6
W02	Water Resources, Hydrology, Ground Water	4

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	7
c. Total Work	8

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: 2/29/2024

c. NAME AND TITLE: Josh Daniel, PLS - Partner

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION OR PROJECT NUMBER *(If any)*: W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branches offices, complete for each specific branch office seeking work.)

2a. FIRM *(or Branch Office)* NAME	Lowe Engineers, LLC
2b. STREET	990 Hammond Drive, Suite 900
2c. CITY	Atlanta
2d. STATE	GA
2e. ZIP CODE	30328
3. YEAR ESTABLISHED	1957
4. UNIQUE ENTITY IDENTIFIER	XWS9YF1NVNR8
5. OWNERSHIP a. TYPE	Limited Liability Company
b. SMALL BUSINESS STATUS	Small Business
6a. POINT OF CONTACT NAME AND TITLE	Josh Daniel, PLS - Partner
6b. TELEPHONE NUMBER	985.809.4109
6c. E-MAIL ADDRESS	josh.daniel@loweengineers.com
7. NAME OF FIRM *(If Block 2a is a Branch Office)*	
8a. FORMER FIRM NAME(S) *(if any)*	
8b. YEAR ESTABLISHED	
8c. UNIQUE ENTITY IDENTIFIER	

5. OWNERSHIP

a. Function Code	b. Discipline	c. Number of Employees (1) FIRM	(2) BRANCH
02	Administrative	22	20
08	CADD Specialists/Technicians	7	4
12	Civil Engineers	11	11
28	Geodetic Surveyors	10	5
29	Geographic Information Specialists	5	5
33	Hydrographic Surveyor	10	4
38	Land Surveyor	23	15
46	Photogrammetrist	1	1
48	Project Manager	20	17
49	Remote Sensing Specialist	5	5
58	Technician/Analyst	11	11
60	Transportation Engineer	7	7
62	Water Resources Engineer	5	5
	Other Employees		
	Total	**137**	**110**

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

a. Function Code	b. Experience	c. Revenue Index Number *(see below)*
C15	Construction Management	5
C16	Construction Surveying	6
G04	GIS: Development, Analysis, & Data Conversion	5
H09	Hospital & Medical Facilities	4
H13	Hydrographic Surveying	4
L02	Land Surveying	6
M05	Military Design Standards	4
P03	Photogrammetry	4
P06	Planning (Site, Installation, & Project)	4
S10	Surveying, Platting, Mapping, Flood Plain Studies	4
T03	Traffic & Transportation Engineering	6
W02	Water Resources, Hydrology, Ground Water	4

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	7
c. Total Work	8

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: 02/29/2024

c. NAME AND TITLE: Josh Daniel, PLS - Partner

ARCHITECT-ENGINEER QUALIFICATIONS

1. SOLICITATION NUMBER (*If any*): W912P824R0023

PART II – GENERAL QUALIFICATIONS

(If a firm has branch offices, complete for each specific branch office seeking work)

2a. FIRM (*Or Branch Office*) NAME	Chustz Surveying, LLC, a Division of GIS Engineering
3. YEAR ESTABLISHED	1995
4. UNIQUE ENTITY IDENTIFIER	QWXJLZNY6F21
2b. STREET	211 Richy St.
2c. CITY	New Roads
2d. STATE	LA
2e. ZIP CODE	70760
6a. POINT OF CONTACT NAME AND TITLE	James H. Chustz, Jr. PLS, Manager
6b. TELEPHONE NUMBER	225-718-7103
6c. EMAIL ADDRESS	jchustz@chustz.com
5. OWNERSHIP a. TYPE	Corporation
b. SMALL BUSINESS STATUS	N/A
7. NAME OF FIRM (*If block 2a is a branch office*)	GIS Engineering, LLC
8a. FORMER NAME(S) (*If any*)	
8b. YEAR ESTABLISHED	
8c. UNIQUE ENTITY IDENTIFIER	

9. EMPLOYEES BY DISCIPLINE

a. Function Code	b. Discipline	c. No. of Employees (1) FIRM	c. No. of Employees (2) BRANCH
02	Administrative	3	
03	Ariel Photographer	2	
08	Cadd Technician	5	
28	Geodetic Surveyor	1	
29	G.I.S.S.	1	
33	Hydrographic Surveyor	2	
38	Land Surveyor	5	
48	Project Manager	3	
	Survey Party Chief	7	
	Survey Technicians	14	
	Total	43	

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

a. Profile Code	b. Experience	c. Revenue Index Number (*see below*)
G03	Geodetic Surveying	2
H13	Hydrographic Surveying	6
L02	Land Surveying	2
S10	Surveying, Platting, Mapping, Flood Plain Studies	3
T04	Topographic Surveying and Mapping	5

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

(Insert revenue index number shown at right)

a. Federal Work	7
b. Non-Federal Work	2
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: **3/10/2024**

c. NAME AND TITLE: James H. Chustz, Jr, PLS Manager

MSMM
ENGINEERING, LLC

4640 S. Carrollton Avenue, Suite 220, New Orleans, LA 70119
504-559-1897 - www.msmmeng.com