

HDR's Houston-Based Team brings:

- | Resilient Flood Reduction **Expertise**
- | **Accountability**
- | **Proven** Federal Project Delivery
- | **Award-Winning** Urban Designs



Request for Qualifications North Canal High Flow Diversion Channel Hazard Mitigation Grant Program Project

Solicitation No. S83-Q29487





4828 Loop Central Drive, Suite 800
Houston, TX 77081-2220
713.622. 9264

hdrinc.com

We practice increased use of sustainable
materials and reduction of material use.

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VI.1

Submission Checklist

VI.1

Submission Checklist (Exhibit VIII)

**EXHIBIT VIII
SUBMISSION CHECKLIST**

RFQ: S83-Q29487

COMPANY NAME: HDR Engineering, Inc.

Please check a box on each line, indicating that you have completed and included each of these required forms/materials with your submission. Check N/A if subject does not apply.

Item	Mark Envelope	Yes	No	N/A
Submit five (5) printed hard copies of the Qualifications Packet, include one (1) original printed hard copy (6 total). See <i>Qualifications Packet Checklist</i> below.	Qualifications Submission Title of RFQ Number of RFQ Name of Respondent's company Due date and time of submission deadline	X		
Submit ten (10) NON-PASSWORD PROTECTED thumb drives containing an electronic copy of the Qualifications Packet in a separate envelope	Electronic Copies/Qualifications Submission Title of RFQ Number of RFQ Name of Respondent's company Due date and time of submission deadline	X		
Submit financial documents in a separate sealed envelope	Financials Title of RFQ Number of RFQ Name of Respondent's company Due date and time of submission deadline	X		

Qualifications Packet Checklist

#	ITEM	Max Pages	Yes	No	N/A
1	Submission Checklist (Exhibit VIII)	2	X		
2	Table of Contents	2	X		
3	Statement of Interest	2	X		
4	Certificate of Authority	2	X		
5	Signed in BLUE ink and notarized Offer and Submittal (Exhibit I-A)	1	X		
6	Qualifications (See <i>Part VI.6., Qualifications</i>)	27	X		
7	Experience (See <i>Part VI.7., Experience</i>)	11	X		
8	Capacity to Perform (See <i>Part VI.8., Capacity to Perform</i>)	10	X		
9	Legal Actions (Per <i>Part VI.10.</i>)	No Max	X		
10	Certifications and Licenses (Per <i>Part VI.11.</i>)	No Max	X		
11	Exceptions to Terms and Conditions of Sample Contract (If applicable)	No Max	X		
12	Exhibit I: – I-B: List of References – I-C: List of Proposed Subcontractors	3	X		
13	Exhibit II: – II-A: Schedule of M/WBE Participation, M/WBE Participation Plan Good Faith Efforts – II-B: Office of Business Opportunity and Contract Compliance M/WBE Utilization Report – II-C: Certified W/WBE Subcontract Terms – II-D: Office of Business Opportunity and Contract Compliance M/WBE Utilization Report	No Max	X		
14	Exhibit III: City of Houston Ownership Form: Ownership Disclosure Ordinance; Fair Campaign; The State of Texas Statement of Residency Requirement	No Max	X		
15	Exhibit IV: Anti-Collusion Statement	No Max	X		
16	Exhibit V: Conflict of Interest Questionnaire	No Max	X		
17	Exhibit VI: Byrd Anti-Lobbying Amendment	No Max	X		
18	Exhibit VII: Debarment Certification	No Max	X		

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 II-A Schedule of M/WBE Participation

 II-B OBO and Contract Compliance M/WBE Utilization Report

 II-C Certified M/WBE Subcontract Terms

 II-D OBO and Contract Compliance M/WBE Utilization Report

Exhibit III

 City of Houston Ownership Information Form: Ownership Disclosure Ordinance, Fair Campaign Ordinance, The State of Texas Statement of Residency Requirements

Exhibit IV Anti-Collusion Statement

Exhibit V Conflict of Interest Questionnaire

Exhibit VI Byrd Anti-Lobbying Amendment

Exhibit VII Debarment Certification

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VI.3

Statement of Interest

VI.3

Statement of Interest



VI.3 | Statement of Interest

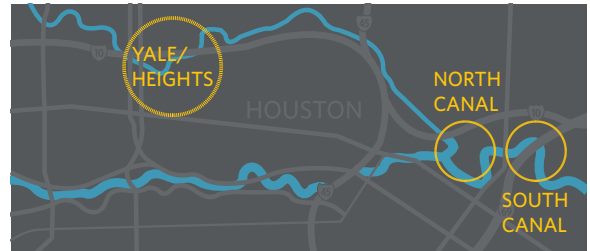
June 18, 2020

Office of the City Secretary
City Hall Annex, Public Level
900 Bagby Street
Houston, TX 77002-2527

RE: North Canal High Flow Diversion Channel Hazard Mitigation Grant Program Project, Solicitation No.: S83-129487

Dear Barbara Fisher and Selection Committee,

The North Canal High Flow Diversion Channel (NCHFDC) project will benefit over 35,000 citizens in the downtown area by diverting White Oak Bayou at the confluence to Buffalo Bayou, constructing a downstream channel for the IH 45 realignment, and reconstructing upstream bridges at Heights and Yale. This is a complex project with three project sites, funding from four agencies, in a dense urban setting requiring significant coordination with Harris County Flood Control District (HCFCF), Texas Department of Transportation (TxDOT), Union Pacific Railroad (UPRR), and Houston METRO. **Our project approach leverages lessons learned on similar projects, which will maximize reimbursement, provide transparency to stakeholders, and achieve successful financial management.**



The NCHFDC requires an engineering consultant with specialized expertise and local resources. HDR is bringing our best to be the City's partner on this critical project: **A proven, Houston-based, Project Manager with a track record of delivering successful flood control projects in Texas brings responsiveness and leverages lessons learned.** Project Manager, Jeff Mitchell brings 25 years of experience, including the award-winning San Pedro Creek Improvements Project (SPCIP) flood reduction project. He understands the keys to a successful project include maintaining clear communication of design goals and decisions while considering the downstream impacts.

Experience and relationships with all key stakeholders assures workable solutions that will receive their support. We will involve agencies early to seek their input and guidance to streamline the permitting process. Speaking "their language" and having established relationships is essential. Our team brings a track-record and respect of the HCFCF, TxDOT, UPRR, Tax Increment Reinvestment Zone (TIRZ) Number 5 and U.S. Army Corps of Engineers (USACE) Galveston District.

Deep familiarity with City of Houston and HCFCF processes and procedures to develop a solution consistent with basin-wide flood planning. Floods do not follow political boundaries, so the NCHFDC team must engage multiple jurisdictions (COH, HCFCF, USACE, TxDOT) and multiple stakeholders (UPRR, Houston Metro, TIRZ) to provide regional flood risk reduction with the White Oak and Buffalo Bayou watersheds. Team members Duane Barrett and Derek St. John were part of the Technical Advisory Committee that reviewed the original HCFCF Hydrology and Hydraulics Guidance Manual and are working with the HCFCF to update the Policy, Criteria, and Procedures Manual and the Hydrology and Hydraulics Guidance Manual. They are poised to address the needs of these jurisdictions.

Significant history and institutional knowledge of the NCHFD Project will streamline delivery, accelerate the schedule and reduce costs. Derek St. John led the development of the North Canal and South Canal project alternative and hydraulics and hydrology (H&H) analysis that was used by the City as the basis for the Hazard Mitigation Grant Program (HMGP) grant application. Our team reviewed the original modeling data for the project and provided comments and recommendations to the HCFCD. Lonnie Anderson, has extensively studied the North Canal as part of the Buffalo Federal Project and Charting Buffalo projects and brings institutional knowledge of the area through these projects as well as through providing technical support to the modeling of the canals as part of the TxDOT IH 45 project and MAAPnext restudy of both Buffalo and White Oak Bayous. Brett Jordan is performing a detailed geomorphic assessment of the project area for HCFCD and Buffalo Bayou Partnership (BBP).

Proven experience with NEPA and permitting to develop solutions that are defensible and permit ready, and garner public acceptance, while streamlining review and approval times. Christine and her team have a history of keeping NEPA documents on schedule by setting internal and external deadlines by subtask with correctly skilled and available staff that have experience following the latest NEPA guidelines of each agency. They approach scheduling challenges by having regular calls to track action items for each stakeholder and technical group. This is especially important and useful to “merge” NEPA documentation efforts for two parallel, required approvals such as Section 408 (USACE), Floodplain regulations (FEMA), and FHWA / TxDOT NEPA docs. Christine Magers has delivered on many complex NEPA and permitting projects on flood control and transportation projects throughout Texas. This includes working for federal leads such as USACE Galveston District, FHWA, and FEMA. James Thomas has successfully delivered over 100 404 permits for the USACE and together they will ensure that the NCHFD environmental approach is timely, defensible, and constructible.

Uniquely experienced in game-changing floodplain reduction projects that provide a cornerstone for resilient urban transformation and drive the commitment to places where people want to be. Through our diverse portfolio of award-winning, urban stormwater improvement projects, we understand that excellent design must be founded on solid hydraulic analyses and assumptions while balancing the demands of community and economic needs with conservation and resiliency in the natural and built environments.

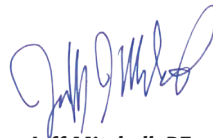
HDR has been a part of the Houston community since 1985. Our team is locally-based and is passionate about solving flood related issues where we live and work. Our history of partnership with local firms, as well as our integration of their particular and essential talents and capabilities into key project roles, is indicative of our overall philosophy regarding diversity and maximizing local, small-firm value to our clients. An integrated team approach that involves all team members in each project, where technical skill sets are available, will foster a consistent level of M/WBE participation throughout the contract. We are committed to working with you to make that happen, while individual percentages change to fit assignments, **our M/WBE commitment and goal is 31%**. We have assembled the right team of experts and partners to deliver on this critical project.

Please contact Jeff at 713.622.9264 or jeff.mitchell@hdrinc.com, if you have any questions.

Sincerely,
HDR Engineering, Inc.



David C. Weston
Vice President, Gulf Coast Area Manager



Jeff Mitchell, PE
Project Manager

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VI.4

Certificate of Authority

VI.4

Certificate of Authority

VI.4 | Certificate of Authority

David C. Weston is the Vice President and Gulf Coast Area Manager for HDR and is authorized to execute agreements on behalf of HDR.



David C. Weston

Vice President, Gulf Coast Area Manager

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VI.5

Offer and Submittal

VI.5

Offer and Submittal
(Exhibit I-A)

EXHIBIT I-A
OFFER AND SUBMITTAL

NOTE: SUBMISSION MUST BE SIGNED AND NOTARIZED BY AN AUTHORIZED REPRESENTATIVE(S) OF THE RESPONDENT, WHICH MUST BE THE ACTUAL LEGAL CONTRACTOR THAT WILL PERFORM THE CONTRACT IF AWARDED AND THE TOTAL FIXED PRICE CONTAINED THEREIN SHALL REMAIN FIRM FOR A PERIOD OF ONE-HUNDRED EIGHTY (180) DAYS.

"THE RESPONDENT WARRANTS THAT NO PERSON OR SELLING AGENCY HAS BEEN EMPLOYED OR RETAINED TO SOLICIT OR SECURE THIS CONTRACT UPON AN AGREEMENT OR UNDERSTANDING FOR A COMMISSION, PERCENTAGE, BROKERAGE, OR CONTINGENT FEE, EXCEPTING BONA FIDE EMPLOYEES. FOR BREACH OR VIOLATION OF THIS WARRANTY, THE CITY SHALL HAVE THE RIGHT TO ANNUL THIS AGREEMENT WITHOUT LIABILITY OR, AT ITS DISCRETION, TO DEDUCT FROM THE CONTRACT PRICES OR CONSIDERATION, OR OTHERWISE RECOVER THE FULL AMOUNT OF SUCH COMMISSION, PERCENTAGE, BROKERAGE OR CONTINGENT FEE."

Respectfully Submitted:

HDR Engineering, Inc.

(Print or Type Name of Contractor – Full Company Name)

City of Houston Vendor No. (If already doing business with City):

134306

Federal Identification Number:

47-0680568

By:

(Signature of Authorized Officer or Agent)

Printed Name:

David C. Weston

Title:

Vice President, Gulf Coast Area Manager

Date:

June 18, 2010

Address of Contractor:

4828 Loop Central Drive, Suite 800

Street Address or P.O. Box

Houston, TX 77081-2220

City – State – Zip Code

Telephone No. of Contractor: (713) 576-3661

Signature, Name and title of Affiant:

David C. Weston

Sarah Vuskov

Marketing Manager

(Notary Public in and for)

Harris

County, Texas

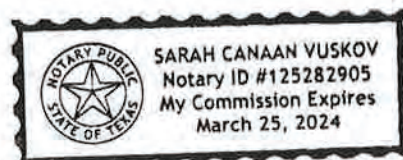
My Commission Expires:

25th

day of

March

20 *24*



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VI.6

Qualifications

VI.6

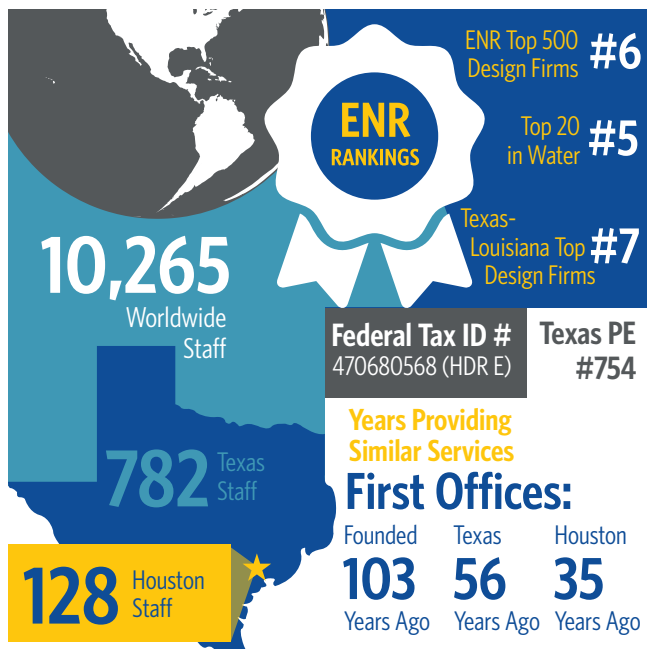
- VI.6.1. Relevant Qualifications
- VI.6.2. Organizational Chart/ Staffing Plan
- VI.6.3. Key Personnel/ Resumes

VI.6 | Qualifications

Our story a century in the making, HDR began in 1917 as a one office firm in Omaha with 12 employees designing water and sewer systems for new cities and towns throughout Nebraska. One hundred and three years later, with more than 10,000 employees worldwide, HDR is now one of the largest full-service, employee-owned Engineering and Architecture firms in the United States. In 1964, HDR became active in Texas engineering and we joined the Houston engineering community in 1985. While we bring an impressive breadth and depth of services to our clients, it's our commitment to the place we call home that makes us special.



We hold ourselves accountable. We are empowered to find the best solutions for our clients and for our own company. We do the right things for the right reasons and we take personal responsibility to see things through. The sole “shareholder” of HDR, Inc. is the employee. No one participant/employee owns more than one percent of the outstanding stock of the company. **While we can't say what our future holds, we do know this: we'll be right there with our clients, collaborating and creating in the only way we know how — together.**



VI.6.1 | Relevant Qualifications

The HDR team brings a proven track record of delivering urban flood control projects in Texas. We have added key teaming partners that bring site specific knowledge of the NCHFDC. Jeff Mitchell will lead our Houston-based team and has 25 years of experience as a professional engineer leading civil engineering projects focused on flood control. **Jeff is based in HDR's Houston office along with 10 additional key staff. We are truly a local team.** Jeff will lead our Houston-based team and leverage expertise from HDR's local teaming partners and HDR's national expertise. Our team brings an award-winning project manager, relationships with stakeholders and regulatory agencies, and site specific knowledge and history that will make this project a success.

The table below shows the number of and type of employees providing similar skills to be used on the NCHFDC. In addition we have teamed with other firms to add an additional 1,400+ Texas-based professionals to our team through our teaming partners.

Role/Task/Skill	Firm-Wide
Acoustical Engineer	66
Archeologist	15
Architect & Intern Architect	871
Biologist & Ecologist	74
CADD Technician	688
Civil Engineer	835
Construction Inspector	347
Construction Manager	179
Electrical Engineer	281
Environmental Engineer & Scientist	339
Foundation/Geotechnical Engineer	65
GIS Specialist	114
Hydrologist & Water Resources Engineer	287
Landscape Architect	43
Management Scientist	78
Mechanical Engineer	211
Planner: Urban/Regional	251
Project Manager	799
Security Specialist	16
Structural Engineer	239
Technician/Analyst	1,502
Transportation Engineer	1,043

Skills, Knowledge and Abilities

The capacity to accomplish work in a strict timeframe requires strong and experienced leaders backed by subject matter experts. Our personnel are dedicated to providing sufficient time and effort to produce a quality product. With this in mind, **our team members were carefully selected not only for their expertise, but also for their availability to work on the project for its duration. We follow well-established and time-proven procedures to manage our project work and have assembled a strong team that is available to begin work upon Notice-to-Proceed.** You can rely on us to successfully deliver this project.

Our team brings expertise in a number of skilled areas including the skills and knowledge that will be used in the NCHFDC as shown below.

Key Team Member Role	Federally-Funded	Bid Ready Plans & Specs	Env/Const Approvals	Structural Design	NEPA/Env. Permitting	H&H Study	Statistical & Physical Modeling	Community Engagement	Survey	Geotech	SUE	Permits
Jeff Mitchell, PE Project Manager and North Canal Team Leader	■	■	■	■	■	■	■	■	■	■	■	■
Derek St. John, PE, CFM Technical Advisor and Yale/Heights Team Leader	■	■	■			■		■				■
Raj Tanwani, PE South Canal Team Leader	■	■	■	■	■	■	■	■				■
Michael Vecchio, PE Quality Manager	■	■	■	■	■	■	■	■	■	■	■	■
Lonnie Anderson, PE, CFM Technical Advisor	■					■	■	■				
Christine Magers, CWB Environmental/Regulatory Delivery Coordinator			■		■			■				■
Steven Dean, PE, CFM Shared Design Services Coordinator	■	■	■		■	■		■	■	■	■	■
Jeremy Blevins, PE, CFM Hydraulics & Hydrology Delivery Coordinator	■	■	■			■		■				
James Thomas, PWS, CWB 404 Permitting	■	■	■		■	■		■				■
Russell McNaught, PE Rail Design & Coordination	■	■	■				■	■		■	■	■
Kenneth Ozuna, PE Bridge Analysis & Design	■	■	■	■				■		■		■
Dr. Daniel Gessler, PE, PhD, D.WRE CFD & Physical Modeling	■					■	■			■		
Trina McGuire-Collier Stakeholder Outreach Delivery Coordinator	■		■		■			■				
Veronica Weaver-Rivers, PE, CFM, PMP Project Controls	■	■				■		■		■	■	
Tom Wendorf, PE Federal Funding-Accounting for Reimbursement	■								■	■		



Tom Wendorf has a history of maximizing FEMA reimbursements with over \$100M in FEMA reimbursement to the City of Houston for Harvey projects to date. He has a track record of >90% FEMA reimbursement on projects since 1983.

Knowledge of Federally-Funded Projects

We work to make federal compliance seamless for you

Management | We have extensive experience reviewing, monitoring and adhering to the laws that govern federally funded projects. Our team experience includes include system management of LCPtracker, data loading and verification, troubleshooting, project-specific review and audit, assistance with labor compliance issues, as well as instruction and training.

Labor Compliance | We have extensive knowledge of requirements for managing federally funded projects. Once the contract has been awarded, a wage decision is established to confirm workers are paid Davis-Bacon prevailing wages, at a minimum, and loaded into LCPtracker. The contractor and subcontractors will submit all certified payrolls into this program, and our office manager will review approve, or reject each payroll submitted. We will verify that classifications of work are appropriate for the subcontracted work, wages are paid correctly and fringe benefits are reported accurately. Classifications not listed in the wage decision will require a conformance request and sent to the Department of Labor for review and response. Our inspectors will perform employee interviews on staff from the prime and subcontractors to confirm the employees are paid the proper wage rates and compared to certified payrolls.



Trina McGuire-Collier is successfully providing communications strategy development, social and political risk analysis, website development, and an integrated media plan for the HCFCF MAAPNext.

Public Involvement and Stakeholder Outreach

While the practice of involving the public and other interested groups in a project's early stages is nothing new, the level of stakeholder influence and engagement has never been higher. This means that effective public involvement is more important than ever to maintain successful projects.

HDR's **Trina McGuire-Collier** will be supported by M/WBE teaming partners, **Hollaway Environmental + Communication Services (HEC)** and **KGBTexas Communications (KGBT)**. HEC has extensive experience providing community engagement and NEPA-compliant public involvement services to support large-scale infrastructure projects. Not only does our team exhibit a deep understanding of high-profile projects and the public's perception of social, economic, and environmental issues associated with them, we have the training, expertise, and knowledge base to achieve clear project support. KGBT's specialized unique expertise includes strategic planning and implementation, public relations, media relations, community relations, government relations, public affairs, crisis communications, event planning and implementation, social media, advertising, web design, web programming, search engine optimization, research, and brand marketing strategies, as well as media planning and buying to local, regional and national clients.

We believe that effectively engaging stakeholders is a significant component in improving the outcome of every project. Our public involvement specialists recognize the importance of listening and encouraging two-way communication with stakeholders and incorporating stakeholders' ideas, issues and concerns into the project development process. Involving stakeholders in a meaningful way makes your project better by helping you anticipate issues up front, which leads to favorable, positive decisions.

Our approach is to carefully select the right tools and techniques to achieve maximum public engagement, from planning stages through construction completion. We are experienced in implementing flexible and comprehensive public outreach programs that are designed to inform and involve project stakeholders and other members of the public. These programs are implemented with tools that deliver messages across a suite of print- and web-based channels and through online and in-person outreach activities. Our communication and public involvement team has extensive construction outreach experience and recognizes the need to coordinate and provide timely and understandable information to the public at this highly visibly stage.

Building on our past experience working closely with other cities and agencies, we will develop a public outreach strategy that bolsters your reputation, builds a community of support, and leverages resources in a purposeful and meaningful way. We will build on our expertise in current social media technologies, such as Facebook, Twitter and YouTube, and offer web-based tools that correspond with various platforms, including email, tablets and smartphone applications. We offer consistent monitoring to adapt project messaging and communication tools to offer the biggest return on investment for the program. And finally, we know successful outreach is best accomplished through effective, efficient and proactive information dissemination; stakeholder consultation and coordination; timely issue resolution; and staff availability, flexibility and persistence.

Staffing Concurrent Projects with Multiple Teams/Crews

Our approach to scheduling and management of staff is specific to the needs of the NCHFDC. We have a core management team built around three primary project elements the North Canal, South Canal, and Yale/Heights Bridge. By using our depth of seasoned, competent local staff, we are able to provide multiple teams for the City of Houston for all three components of this project. As the prime consultant on this contract, we offer access to more than 128 professionals in Houston, 782 in Texas and an additional 1,400+ from our teaming partners to meet your needs. Our team has the experience and knowledge base to perform at a high level of excellence on your projects and the relationships to coordinate with all local entities, utilities, businesses and the public.



Jeff managed 21 teaming partners and 50+ HDR employees on the award-winning SPCIP. This skill will minimize cost and schedule overruns on NCHFDC.

Project Management

HDR's Project Management philosophy starts with our Project Management Plan (PMP). The PMP defines the vision; implementation strategy; schedule and budget criteria; and the policies, procedures, and standards for the project. The PMP is the master reference document for the team and provides guidance to subconsultants engaged throughout the life of the program, from inception through planning, design, and construction. The PMP provides a level of continuity and standardization to facilitate time and cost-effective communications and decision-making. The PMP serves as a formal process for reviewing, evaluating, prioritizing, documenting, approving, implementing, and maintaining all aspects of a project.

Quality

Our goal is to set the industry benchmark for excellence in services we provide to our clients. We accomplish this through work well done, staying true to purpose, and exercising discipline.

It is our policy to consistently provide professional services that satisfy statutory and regulatory requirements and that meet or exceed your expectations. To achieve quality in our work, we have developed a Quality Management System (QMS) based on the fundamental principles and guidelines set forth by the ISO 9001:2015 series of international standards for quality management.

Our QMS provides an important framework for ensuring that we are reaching the highest levels of quality—both for you and for ourselves. We remain focused on continual opportunities for improvement throughout our daily activities to achieve client satisfaction and meet performance expectations. The QMS includes programs, policies, and business processes, and has four key elements:

- Management Responsibility.** Management actively promotes quality in our business activities and defines responsibilities for maintaining our focus on quality.

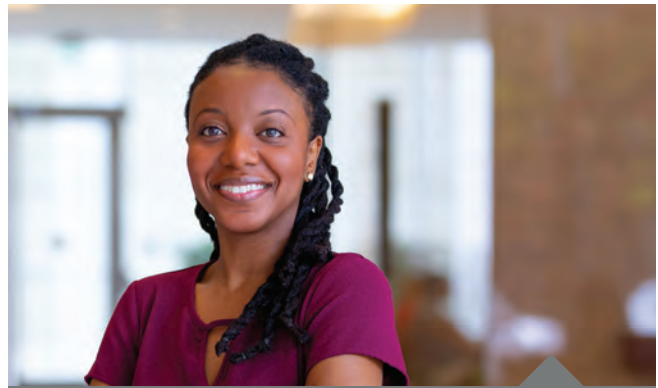
A proven PMP will provide seamless communication between the project team and the City of Houston.



- **Resource Management.** Resources are trained, available, and committed to providing quality services.
- **Professional Service Delivery.** Processes and procedures are in place that promote quality in the delivery of our products and services.
- **Measurement, Analysis, and Improvement.** Continual improvement is achieved through performance measurement and identification of areas for improvement.

Project Controls

Creating a new high-flow diversion channel is a life-saving and remarkable endeavor. Throughout, this large and complex project will have three distinct areas of scope and activity, multiple teaming partners and valuable stakeholders. Many people will be employed, millions of dollars will be flowing and infrastructure will literally be sprouting out of the ground. Every yard of dirt, inch of pipe and minute of time must be recorded, tracked, accounted for, and measured against plans. As the backbone for the entire operation, the project controls team for the NCHFDC will know where everything is at any given point in time and know up to the day if that activity is happening when it should.



Veronica established a robust Project Controls system for the HCFCD MAAPnext that includes a business intelligence (Power BI) dashboard. The management team uses the project dashboard to track earned value, key performance indicators, and streamline the monthly FEMA reporting process.

This is what we thrive on at HDR. We have a national Project Controls team, who will support our local staff to create systems to easily and accurately show you what is happening in real-time on your project. We have done this for more than \$100B worth of projects and can't wait to get started on the NCHFDC.

Resiliency

Achieving resiliency requires a plan that addresses more than just physical infrastructure. The ability of a community to quickly recover from environmental shocks is dependent on systems that address the full range of functional needs. True resiliency is met when community, infrastructure, ecological, and social systems are able to withstand impacts.

HDR has a long history of doing vulnerability assessments and developing flood control systems that enhance the community and result in community based solution. We have assembled a team for the NCHFDC that brings a proven track record delivering resiliency projects in Texas while drawing upon our expertise nationally and locally through key teaming partners.



Cedar River Flood Control System

Cedar River Flood Control System in New Bohemia/ Sinclair District, Cedar Rapids, IA

We are extremely proud of this community asset, not only for the obvious benefits of protecting against ongoing flood threats, but for the many other positive attributes this project has given back to the community. This project has opened up additional development opportunities, provided a walking and biking amenity, is contributing to improving water quality of the community, and has seamlessly blended permanent flood control into the aesthetics of the neighborhood. We are also excited for the 2019 addition of park amenities and historical markers to honor what shaped this neighborhood."

-Rob Davis, Flood Control Program Manager, City of Cedar Rapids

Risk Management

Our approach to managing project risk for the NCHFDC is to identify, plan, implement and monitor the controls and measures required to minimize or mitigate actual exposure to the various risks – such as schedule delays, cost issues, interagency coordination within the project areas, COVID-19 impacts, and HMGP grant funding implications. The HDR team will collaborate with the City to identify hazards, assess and prioritize the extent of risk, recommend and implement control measures, and manage any residual risks through use of our comprehensive risk register and management tool. HDR's risk management approach engages all parties to gather input in order to ensure consideration of all factors.

Risk mitigation efforts are only as effective as the risk register that the team is paying attention to and maintaining. We have started developing a comprehensive risk register and will continue to add and adjust hazards along with sound mitigation strategies. We've learned from experience that if we clearly identify risks and focus on developing and implementing agile mitigation strategies, impacts are significantly minimized. Moreover, open and consistent dialog between the HDR team and the City of Houston will be key to effective use of the risk register. We look forward to reviewing our risk register with the City and subsequently compiling a comprehensive risk register to guide the project through design and construction. We will engage the City with a collaborative and transparent communication process, and a seamless transition from design into construction.

COVID-19 Related Risks

Recent COVID-19 pandemic challenges require new practices and tools to allow us to operate safely while maintaining the overall project schedule. We anticipate continuation of social distancing practices at least through project start-up; therefore, our Project Management Plan will include virtual collaboration protocols on use of platforms such as Cisco WebEx, Microsoft Teams, or other, for periodic progress meetings. Additionally, the project-specific Environmental, Health, and Safety Plan will define protocols regarding safe work practices to protect the health of the HDR team and City of Houston staff working with us on the project.

In order to continue providing essential field services, HDR has developed and incorporated COVID-19 protocols for our Job Hazard Analysis (JHA) process. Similar to any other hazard encountered in the performance of fieldwork, COVID-19 presents considerations we must address as part of our JHA. The JHA procedure for NCHFDC will

require assessment of jobs performed by our team, identification of actual and/or potential hazards that the team could face during the performance of each job step, and the implementation of controls to mitigate exposure. The HDR Project Manager will disseminate essential communication and plan for appropriate personal protective equipment (PPE) and cleaning supplies needed to support the project team and activities.


The HDR Team

Our goal is to always provide our clients with **the best possible consulting resources**. We do this by specifically selecting subconsultant teaming partners for the services required on each project. The selection of subconsultants occurs early in the team-building process to provide meaningful engagement in the development of work scopes, schedules and budgets. **Subconsultants are an integral part of our project team** and subconsultant management is an essential part of overall project management.

Quality starts with senior management and continues through all levels of the project team, including our subconsultants. Subconsultant performance is a critical factor in both the quality and cost effectiveness of our work. Our subconsultant teaming partners receive a briefing on the project management plan and the quality management plan so they understand the established project procedures and standards.

We have built a reputation as a **strong and fair teaming partner**. We have long-standing relationships with subconsultants across Texas and in Houston and integrate them consistently and effectively into all of our large-scale development projects.

HDR has carefully crafted this team to provide both the local expertise and depth of resources that are required to successfully achieve our goal to be a one-stop shop in delivering the NCHFDC. Each of our subconsultant partners brings their own distinctive strengths and talents. We also understand the importance of utilizing M/WBE firms that are qualified to work on this project. Our team will continue helping our subconsultant partners build their resumes, as well as augment the HDR team with their knowledge in specialty subjects. In our current and past contracts, **we have successfully exceeded our M/WBE goals** and have added 11 qualified M/WBE partners that will allow us to exceed the 24% goal stated in the RFP. **Our commitment to you is that we will achieve M/WBE goal of 31% for this contract.**

Firm	Benefit To Houston & NCHFDC
	Led by Derek St. John and Muhammad Ali, Gauge Engineering brings unparalleled institutional knowledge of the Yale/ Heights component of the NCHFDC through previous work. Derek led the evaluation of the North and South Canals for TxDOT that was ultimately the basis for the HMGP grant application , and both men bring a strong working relationship with Memorial Heights Reinvestment Zone, TIRZ 5 through project coordination and overlap.

Firm	Benefit To Houston & NCHFC
	<p>Pape-Dawson Engineers, led by Lonnie Anderson, has extensively studied the North Canal as part of the Buffalo Federal Project and Charting Buffalo projects. They have institutional knowledge of the area through these projects as well as through providing technical support to the modeling of the canals as part of the TxDOT IH 45 project as well as the MAAPnext restudy of both Buffalo and White Oak Bayous. Pape-Dawson also brings their varied and in depth experience of providing civil, drainage, transportation, survey and environmental design experience for highly urbanized areas to projects similar to the North Canal such as the San Pedro Creek Improvement Project.</p>
	<p>Alden is an internationally acclaimed leader in solving complex flow-related engineering problems. The HDR team has a long working relationship with Alden and their experience in numerical and physical modeling will help the team achieve the most cost-effective solution. Alden has extensive experience and unique qualifications to support engineering and design services for flood prevention and mitigation projects, particularly in the area of hydraulic modeling, conceptual design and independent review. Alden has also been extensively involved with drainage improvements and flood control structures in flood prone areas.</p>
	<p>An urban infrastructure project like NCHFC will involve many interconnected utility relocation challenges, Houston-based Aurora professionals are experienced at determining critical utility conflicts that involve detailed assessment of proposed alignment, major utility crossing, floodplain or environmental condition, ROW restriction/acquisition, and alternate design solution. Aurora will develop working relationship with facility owners to find solutions that avoid, accommodate, and mitigate utility impacts and insure timely project delivery.</p>
	<p>CFS brings a proven and successful working relationship with the City of Houston. In recent years they have designed several channel structures that meet current design criteria and have been able to work through challenging construction issues through team collaboration which includes project managers within the City of Houston. Their select group of engineers have the knowledge to handle complex projects and will provide the bridge analysis and structural design services to assist delivering a quality project on schedule.</p>
	<p>EJES is a professional architectural and engineering design firm established in 1997. With a "Committed to Providing Service with Excellence" philosophy, they strive to deliver high quality service with innovation and excellence while maintaining enhanced safety to the community. EJES is extremely familiar with the local design criteria and requirements of the City of Houston Public Works. The team has extensive knowledge of current design requirements included in the City of Houston Infrastructure Design Manual and the traffic regulations included in the City of Houston Manual and in the Texas Manual on Uniform Traffic Control Devices and those of the ADA and Texas Department of Licensing and Regulation. They are also familiar with the requirements of many departments within the City of Houston. To the extent they may be applicable to certain projects; the team is familiar with the design requirements of HCFCD, TxDOT, and HCTRA.</p>
	<p>Geotest Engineering, Inc. is a Texas Corporation employing 60 plus people, locally owned and headquartered in Houston, Texas and has served government entities and private businesses for 40 years with a focus on personal attention and high-quality service. Geotest has a highly skilled technical staff with a long-standing relationship and significant experience working with the City of Houston, HCFCD and TxDOT. They also have a great deal of experience working on federally funded project and projects pertaining to drainage and canals such as the Luce Bayou Interbasin Transfer Project.</p>
	<p>Gunda Corporation recently delivered the Luce Bayou project to Coastal Water Authority and clearly understands the challenges associated with delivering a canal project. Gunda was able to deliver the project on time and was able to save the client more than 20% of the client's budget by using innovative techniques and delivering clear and concise bidding documents. Gunda successfully coordinated with and obtained permits from HCFCD, TxDOT, and City of Houston.</p>
	<p>Gupta and Associate Inc., Hoss Forouzan in particular, has 30+ years of experience with electrical, instrumentation, and SCADA system design, construction, and maintenance with City of Houston projects and local municipalities. Hoss has local knowledge of electrical and automation system within the City of Houston as he was employed with Wastewater Operations for 20 years and managed CIP projects and operation of Automation and Electrical system organization. GAI is currently involved with more than 100 Hurricane Harvey cost recovery efforts. Hoss is part of a management team developing technical memorandums and a cost estimating documentation tool that has been used by 39 consultant in providing Harvey damage reports and costs for FEMA.</p>
	<p>Hollaway Environmental + Communication Services, Inc. (formerly Crouch Environmental) is a Houston-based, WBE/DBE/HUB firm that specializes in environmental and public engagement services. With more than 100 years of combined technical experience, Hollaway Environmental + Communications Services has a deep understanding of high-profile projects and the environmental, social, and economic considerations associated with them. They have extensive experience in Texas including serving HCFCD, Harris County Engineering Department, METRO, USACE, the City of Houston, TxDOT, and TCEQ, among others.</p>

Firm	Benefit To Houston & NCHFC
	<p>HydroGeo Designs LLC. (HDG) has been restoring and enhancing Texas streams and wetlands for eleven years with their public and private partners. They know Harris County watersheds! They have walked, waded and boated over 100 miles of Harris county stream performing geomorphic assessment, analysis and natural stable channel designs for HCFCF, Buffalo Bayou Partnership (BBP), Galveston Bay Foundation, Houston Park Board, Houston Arboretum and Nature Center and many private clients in the area. HDG is performing a detailed geomorphic assessment for HCFCF and BBP from Shepherd Drive to Jensen Drive and the North Canal High Flow Bypass Channel is in that assessment reach. They know the area and have studied it in detail and are currently working on proposed erosion control design. They are excited to pass on this knowledge and insight to the project team to come up with a solution that works.</p>
	<p>The benefits KGBTexas brings to the team includes extensive experience working closely with companies across the engineering and construction industries to achieve and facilitate public affairs and public engagement goals. They have provided communications and public engagement support to city, county and state entities such as the City of San Antonio, HCFCF, the Houston-Galveston Area Council and TxDOT.</p>
	<p>A recipient of City of Houston's Outstanding Prime Contractor for Professional Services, Kuo & Associates, Inc. have been providing surveying services in the Houston area since 1985. They have worked with the City of Houston, HCFCF, TIRZ, TxDOT and HCTRCA. They have the capability to perform all categories of work defined in the current Manual of Practice for Land Surveying in the State of Texas as published by the Texas Society of Profession Surveyors. All field crews are equipped with cellular phones and two-way radios for expediting communications. They have crews who are TWIC certified.</p>
	<p>The Raba Kistner Inc. team has extensive experience with extended linear projects and dense historic and prehistoric cultural resources. This experience also involves complex overlapping local, state, and Federal agency oversight contexts including the THC and USACE Districts. The RKI cultural resources experience spans dozens of projects involving multiple stakeholders and lands owned by private, state, and federal entities with distinct regulatory requirements and project management approaches. The RKI team brings to the North Canal Project a wealth of project experiences, the in-depth knowledge of applicable regulatory laws, and the strong working relationships with state and federal agencies.</p>
	<p>Based on over 30+ projects with HCFCF and numerous park projects both with the City of Houston and other municipalities, as well as the Houston Parks Board's Bayou Greenways trails, Talley is most comfortable addressing the varied dynamics of this project's scope. TLA is well qualified to address the combination of issues that are unique to this project, such as the riparian zones and erosive landscape that will occur along the North Canal. TLA has been successful in mitigating these challenges with curated combinations of soil improvements and native plantings.</p>
	<p>The Rios Group has worked in the Houston area since they were founded in 2012. TRG's dedication to safety, accuracy and responsive, reliable results saves their clients from costly delays due to utility conflicts. Their proven experience will deliver complete and accurate utility data that will help avoid delays and unnecessary cost over-runs.</p>
	<p>Wendorf Beward & Partners, LLC brings extensive detailed knowledge of FEMA processes and compliance requirements gained through successful execution of complex projects and 95% and better reimbursement brought forward due to Hurricanes Rite, Ike, Harvey and Alicia along with Superstorm Sandy. In addition Thomas Wendorf, PE, and Nancy Beward, CFM, both have significant operational and capital drainage and flood program experience as public works executives with scope, budget and staff magnitudes similar to the City of Houston and Harris County. They've been in your shoes and know what keeps you up at night and how to best help you provide the best possible solutions within given timeframes and budgets.</p>

VI.6.2 | Organizational Chart/Staffing Plan

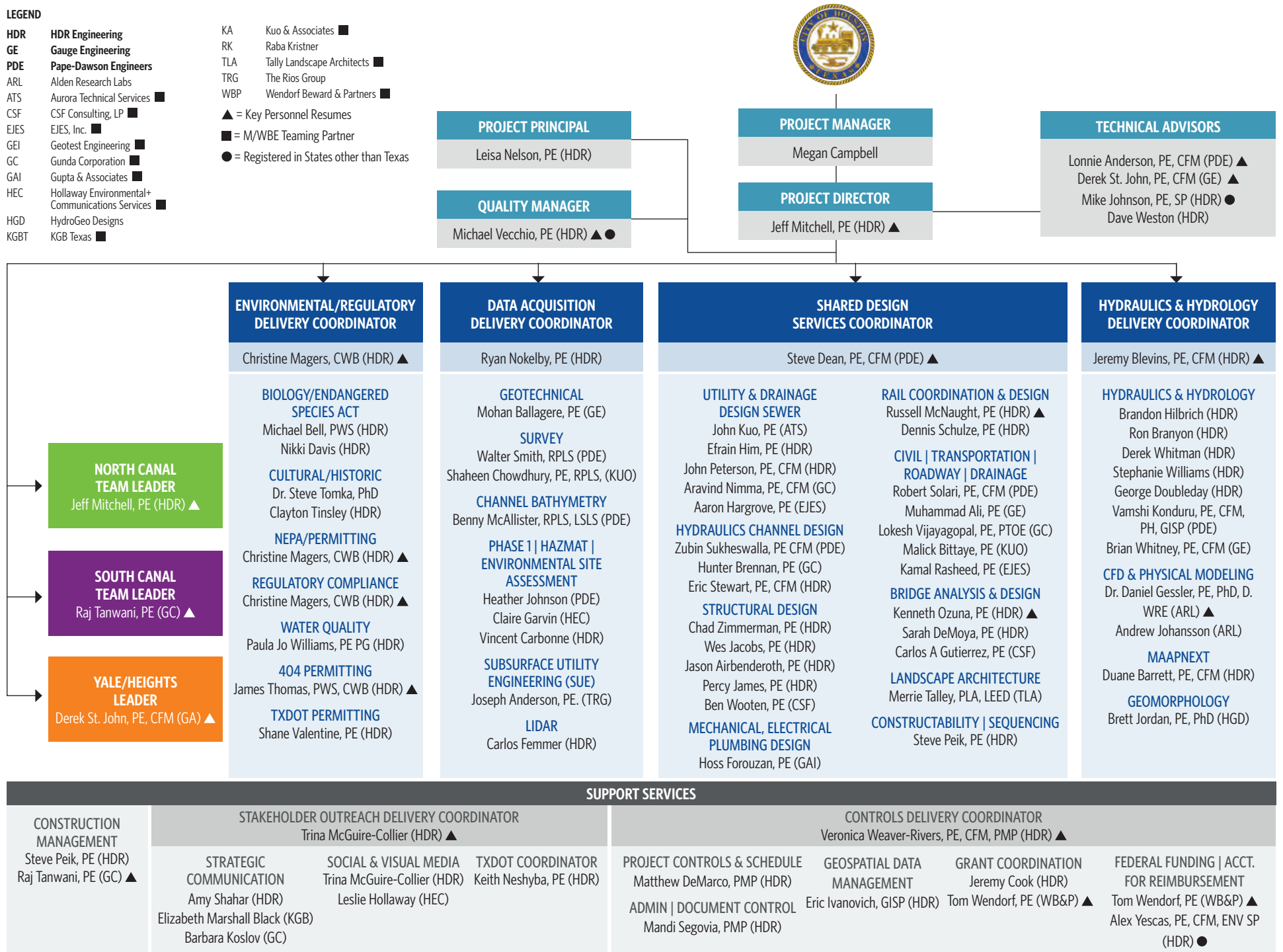
For your project, we have customized a team to leverage the knowledge and experience of technical resources familiar with the NCHDC and the City of Houston. Our organizational approach will focus on driving the three primary components of the project North Canal, South Canal, and Yale/Heights concurrently with a centralized management team and a deep bench of resources. This will reduce schedule while maintaining consistency on the project. It also draws on the synergy of key staff who have been working on similar projects as a team for many years.

Our organizational approach will focus on driving the three primary components of the project North Canal, South Canal, and Yale/Heights concurrently with a centralized management team and a deep bench of resources. This will reduce schedule while maintaining consistency on the project

LEGEND

HDR HDR Engineering
GE Gauge Engineering
PDE Pape-Dawson Engineers
 ARL Alden Research Labs
 ATS Aurora Technical Services ■
 CSF CSF Consulting, LP ■
 EJES EJES, Inc. ■
 GEI Geotest Engineering ■
 GC Gunda Corporation ■
 GAI Gupta & Associates ■
 HEC Hollaway Environmental+ Communications Services ■
 HGD HydroGeo Designs
 KGBT KGB Texas ■

KA Kuo & Associates ■
 RK Raba Kristner
 TLA Tally Landscape Architects ■
 TRG The Rios Group
 WBP Wendorf Beward & Partners ■
 ▲ = Key Personnel Resumes
 ■ = M/WBE Teaming Partner
 ● = Registered in States other than Texas



The HDR team perceives that time is of the essence and project schedule is critical for accomplishment of the NCHFDC. HDR considers the three separate areas of the project (**North Canal**, **South Canal**, and the **Yale/Heights** Improvements) to be distinct from one another in terms of footprint and containing unique sets of criteria. These segments therefore have the potential to be progressed within the workflow of the overall project as three, parallel scope initiatives, particularly for key design disciplines and elements.

NORTH CANAL TEAM LEADER	SOUTH CANAL TEAM LEADER	YALE/HEIGHTS TEAM LEADER
Jeff Mitchell, PE (HDR) ▲	Raj Tanwani, PE (HDR) ▲	Derek St. John, PE, CFM (GE) ▲
<p>CHANNEL BATHYMETRY Benny McAllister, RPLS, LSLs (PDE)</p> <p>SURVEY Shaheen Chowdhury, PE, RPLS (KUO)</p> <p>SUBSURFACE UTILITY ENGINEERING (SUE) Joseph Anderson, PE (TRG)</p> <p>BRIDGE DESIGN Kenneth Ozuna, PE (HDR) ▲ Sarah DeMoya, PE (HDR) Carlos Gutierrez, PE (CSF)</p> <p>STRUCTURAL DESIGN Chad Zimmerman, PE (HDR) Jason Abendroth, PE (HDR) Percy James, PE (HDR)</p> <p>CHANNEL DESIGN Zubin Sukheswalla, PE, CFM (PDE) Eric Stewart, PE, CFM (HDR)</p> <p>CIVIL TRANSPORTATION ROADWAY DRAINAGE Edwin Rydell, PE (HDR) Robert Solari, PE, CFM (PDE) Malick Bittaye, PE (KUO)</p> <p>UTILITIES COORDINATION & RELOCATION John Kuo, PE (ATS)</p> <p>RAIL DESIGN Russell McNaught, PE (HDR) ▲ Dennis Schulze, PE (HDR)</p>	<p>SURVEY Shaheen Chowdhury, PE, RPLS (KUO)</p> <p>SUBSURFACE UTILITY ENGINEERING (SUE) Joseph Anderson, PE (TRG)</p> <p>TXDOT COORDINATOR Keith Neshyba, PE (HDR)</p> <p>STRUCTURAL DESIGN Chad Zimmerman, PE (HDR) Percy James, PE (HDR)</p> <p>CIVIL TRANSPORTATION ROADWAY DRAINAGE Lokesh Vijayagopal, PE, PTOE (GC)</p> <p>CHANNEL DESIGN Zubin Sukheswalla, PE, CFM (PDE) Eric Stewart, PE, CFM (HDR)</p> <p>CIVIL TRANSPORTATION ROADWAY DRAINAGE Edwin Rydell, PE (HDR) Robert Solari, PE, CFM (PDE) Malick Bittaye, PE (KUO)</p> <p>UTILITIES COORDINATION & RELOCATION John Kuo, PE (ATS)</p> <p>RAIL DESIGN Russell McNaught, PE (HDR) ▲ Dennis Schulze, PE (HDR)</p>	<p>SURVEY Shaheen Chowdhury, PE, RPLS (KUO)</p> <p>SUBSURFACE UTILITY ENGINEERING (SUE) Joseph Anderson, PE (TRG)</p> <p>BRIDGE DESIGN Kenneth Ozuna, PE (HDR) ▲ Sarah DeMoya, PE (HDR) Carlos Gutierrez, PE (CSF)</p> <p>CHANNEL DESIGN Brain Whitney, PE, CFM (GE)</p> <p>CIVIL TRANSPORTATION ROADWAY DRAINAGE Muhammad Ali, PE (GE) Karam Qaddo, PE (GE) Blake Kronkosky, PE, CFM (GE)</p> <p>LANDSCAPE ARCHITECTURE / PEDESTRIAN TRAIL COORDINATION Merrie Talley, PLA, LEED (TLA)</p> <p>UTILITIES RELOCATION John Kuo, PE (ATS)</p>

The **North Canal** project scope and area, is the largest and most complex area of the project, will be led specifically by **Jeff Mitchell and HDR**, with Pape-Dawson Engineers providing strong support in the area of civil/transportation and roadway, bringing the nucleus of the successful and experienced team together from the SPCIP to the North Canal. Kuo will provide survey and both Kuo and EJES will both provide support in addition to Pape Dawson in this critical area to bring further, local expertise to the civil engineering discipline. The important rail coordination and design will be shepherded by HDR as trusted resources to the UPRR.

The **South Canal** project scope is dominated by hydraulic design, existing TxDOT infrastructure and coordination with the ongoing TxDOT NHHIP design-build procurement. With more than 30 years of strong TxDOT consulting experience, **Raj Tanwani and Gunda** will lead the South Canal project scope design and cover professional services in civil, transportation and drainage. HDR will assist this team with coordination with TxDOT and structural engineering services, and will assist GAI with the design of the hydraulic bypass channel. Similar to the North Canal project area, Kuo will provide survey.

Design for the **Yale/Heights** project scope will be led by **Derek St. John of Gage Engineering**. He and Muhammad Ali have relevant experience in the civil/transportation and drainage scope elements of the project, as well as relationships with TxDOT for coordination of impacts within the TxDOT right of way. Derek was heavily involved in the hydraulic and hydrology modeling for TxDOT which formed the basis for the NCHFDC HMGP grant application by the City and brings strong relationships with TIRZ-5. The significant needs related to bridge design will be supplied by Kenneth Ozuna and the rest of the HDR bridge team, assisted by CSF. Survey in this area will be provided by Pape Dawson Engineering.

Assisting these three area-focused teams will be the backdrop and full resources of the balance of the HDR team. At the project level and supporting all three sets of scopes will be the H&H. Our team will truly be a well-defined and sharply focused group of high caliber professionals operating within the project leadership structure promoted by HDR.

The capacity to accomplish work in a strict timeframe requires strong and experienced leaders backed by skilled team members. Our personnel are dedicated to providing sufficient time and effort to produce a quality product. With this in mind, our team members were carefully selected not only for their expertise, but also for their availability to work on the project for its duration. The table below summarizes our key team members' roles and availability for the project. Please note that availability estimates are based on what we anticipate will be needed to meet the City of Houston demands, and "as needed" indicates that all staff will be made available as necessary to meet project demands.

Staffing Plan for Key Personnel

Name Project Role	Percent of Commitment	Anticipated Duration	Benefit to the City of Houston & the NCHFDC
Jeff Mitchell, PE Project Manager and North Canal Team Leader	100% – As Needed	Through Duration	Jeff is an award winning Houston-based project manager who will bring certainty on scope, schedule, quality, and budget management for the City of Houston.
Derek St. John, PE, CFM Technical Advisor and Yale/Heights Team Leader	50% – As Needed	Through Duration	Derek is an H&H technical expert and led the drainage analysis and engineering that was used for the HMGP application - he can literally hit the ground running.
Raj Tanwani, PE South Canal Team Leader	50% – As Needed	Through Duration	Raj's knowledge of channel rehabilitation and modification in Harris County includes acting as the lead designer for the \$120M Luce Bayou Canal which conveys 500 mgd. His 32 years of experience working in the Houston Area will create certainty and efficiency leading the South Canal design.
Michael Vecchio, PE Quality Manager	10% – As Needed	Through Duration	Michael is a senior project manager, Houston native, and a subject matter expert with HDR's Quality Management System and will provide the highest quality products for this project.
Lonnie Anderson, PE, CFM Technical Advisor	50% – As Needed	Through Bidding	Lonnie has been studying the North Canal since 2000 and brings critical insight and knowledge which will create efficiencies and reduce ramp-up time.
Christine Magers, CWB Environmental/Regulatory Delivery Coordinator	25% – As Needed	Through Duration	Christine's experience with the FERC EIS for the FGT Phase VIII Pipeline Project, TxDOT NEPA delegation, and USACE GRR-EA for Port Freeport Channel Widening will provide a permitting strategy that is defensible and on schedule.
Steven Dean, PE, CFM Shared Design Services Coordinator	80% – As Needed	Through Duration	Steven's experience working with Jeff Mitchell on the award-winning SPCIP will bring synergy and continuity to the NCHFDC project.
Jeremy Blevins, PE, CFM Hydraulics & Hydrology Delivery Coordinator	25% – As Needed	Through Preliminary Engineering	Jeremy is subject matter expert in the area of hydraulics and hydrology with extensive background in the Buffalo and White Oak Bayou watersheds which will reduce ramp-up time.
James Thomas, PWS, CWB 404 Permitting	50% – As Needed	Through Duration	James, HDR's USACE permitting subject matter expert, is Texas-based, and has 26 years of experience delivering 404 and 401 water quality permits. James will bring efficiency and certainty to the permitting requirements for NCHFDC.
Russell McNaught, PE Rail Design & Coordination	20% – As Needed	Through Duration	Russell's relationships with UPRR in Houston bring a unique benefit to this project on potentially one of the more challenging aspects of the project. His knowledge of UPRR will reduce schedule and create efficiencies for the project.
Kenneth Ozuna, PE Bridge Analysis & Design	100% – As Needed	Through Duration	35+ years of bridge design in the Houston area gives our team unparalleled institutional knowledge of TxDOT processes and relationships that will bring trust and efficiency to the project.
Dr. Daniel Gessler, PE, PhD, D.WRE CFD & Physical Modeling	20% – As Needed	Through Duration	Brings a unique experience to the team that combines the use of numerical and physical modeling including Alden's previous work and knowledge on the North Canal. This will make sure that we deliver the most cost-effective high value solution.
Trina McGuire-Collier Stakeholder Outreach Delivery Coordinator	30% – As Needed	Through Duration	Expertise, honed across sectors, includes crisis communication, brand management and news media relations and proven in Harris County. Trina will bring trust and transparency with the community and stakeholders.
Veronica Weaver-Rivers, PE, CFM, PMP Project Controls	50% – As Needed	Through Duration	Veronica brings the collaboration of working with Jeff Mitchell and Steve Dean on the SPCIP. She is an army veteran and is one HDR's leading control specialists which will provide transparency and accuracy for this project.
Tom Wendorf, PE Federal Funding- Accounting for Reimbursement	40% – As Needed	Through Bidding	Strong track record of maximizing federal reimbursement with an understanding of allowable and unallowable project costs that will confirm compliance with all funding mechanism.

VI.6.3 | Key Personnel/Resumes



Jeff Mitchell, PE

Project Manager
North Canal Team Leader

BENEFITS TO HOUSTON & NCHFDC

- A Houston-based project manager with just the right experience
- Has successfully managed similar projects, with similar goals and scope – including several that have won national awards for excellence
- Successful, demonstrated ability to manage large teams on aggressive schedules
- He has a history of longevity and dedication to the projects he manages and clients he serves

FIRM
HDR

EDUCATION

MS | Civil Engineering | University of TX | 1995
BS | Civil Engineering | University of TX | 1993

ACTIVE PROFESSIONAL REGISTRATIONS & CERTIFICATIONS

Professional Engineer
TX | No. 84745
FL | No. 55743
GA | No. PE030174
IA | No. 15941
NC | No. 024761

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

25 Years | 25 Years

REFERENCES

- **Suzanne B. Scott**, General Manager, SARA, 210.302.3613, sbscott@sara-tx.org
- **Kerry Averyt**, Project Manager, SARA, 210.302.3633, Kaveryt@sara-tx.org

“As an engineer and project manager, nothing excites me more than urban watershed and floodplain projects that bring benefit, growth and promise to cities and communities. Projects like the North Canal bring the best of the best engineering and other professionals together with community leaders to create something that inspires and makes us proud. My family and I love to bike along Buffalo Bayou, Cypress Creek and other local waterways. I can’t wait to visit the site of NCHFDC and be inspired about the changes that project has brought to downtown Houston – which will extend well beyond the banks of Buffalo and White Oak.”

For the past 25 years, Jeff has worked for HDR in the Charlotte, San Antonio, and Houston offices. His primary focus for the past 15 years has been leading complex, multi-discipline civil and waterway improvements projects in urban settings – projects such as the award-winning San Antonio Museum Reach River Walk Expansion, San Antonio River Park Reach and the award-winning, SPCIP in San Antonio. These projects have all realized key goals in floodplain reduction and urban revitalization through channel improvements. As a Professional Associate with HDR, Jeff is also a recognized subject matter expert within HDR in the field of structural engineering for civil projects

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

SPCIP, San Antonio River Authority (SARA), San Antonio, TX. Project Manager. Jeff led this 2.2-mile, creek restoration and channel improvements project that revitalized a historic creek in downtown San Antonio, merging the foremost goal of flood control with locally-inspired art, pedestrian connections, award-winning native landscaping, unique plazas, and cultural experience. The four-phase project significantly reduced the 100-year floodplain, reconstructed multiple bridges, created additional aquatic habitat, improved water quality and connected long-separated cultures through a linear, cultural park. When all phases are complete, the project will remove approximately 25 acres in downtown San Antonio from the 100-year floodplain and catalyze \$1.5B in economic impact. **Phase 1.1 of the project was also nationally recognized by the American Council of Engineering Companies (ACEC) with a Grand Award in 2019.**

San Antonio River Walk Museum Reach Phase I – Urban Segment, SARA, San Antonio, TX. Project Manager. Jeff provided structural and civil design as well as project management for a \$72.1M community investment in flood control, amenities, ecosystem restoration and recreational improvements. The plan also includes the civil and structural design of walkways, pedestrian bridges, ramps, stairs, overlooks, interpretational areas, showcase areas for local art, bridge improvements, and the design of ancillary facilities for the lock and dam as well as the lock and dam itself. The entire segment includes walking and bicycle paths on both sides of the river. **The Urban Segment project was an ACEC award-winning project in 2010.**

San Antonio River Walk Museum Reach Phase II – Park Segment, SARA, San Antonio, TX. Project Manager. Jeff led the \$12.6M Museum Reach Park Segment which extends from Josephine Street to Hildebrand Avenue near the San Antonio River headwaters. The two-mile segment, runs from Avenue B to Hildebrand Avenue completed in 2012 connected downtown San Antonio to the Witte Museum, Brackenridge Park and the San Antonio Zoo with lighted hike and bike trails.

Central Pump Station, West Harris County Regional Water Authority (WHCWA), Houston, TX. HDR Project Manager. HDR has worked on a multi-discipline team since 2016 to deliver a ground storage tank and high service pumping station facility for the WHCWA and North Fort Bend County Water Authority. The Central Pump station will provide an expanded water supply to the west and southwest region of the Greater Houston area.



Derek St. John, PE, CFM

Technical Advisor and Yale/Heights
Team Leader

BENEFITS TO HOUSTON & NCHFC

- Houston-based
- Experienced with Buffalo Bayou watershed
- Extensive City of Houston experience
- Expert hydraulic and hydrology engineering

FIRM

Gauge Engineering

EDUCATION

BS | Civil Engineering | Texas A&M
University | 2001

ACTIVE PROFESSIONAL REGISTRATIONS & CERTIFICATIONS

Professional Engineer
TX | No. 96623
Certified Floodplain Manager
TX | No. 0619-04

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FRIM

19 Years | 2 Years

REFERENCES

- **Matthew Zeve, PE**, Deputy Executive Director, HCFCF, 713.542.0090, matthew.zeve@hcfcd.org
- **Adam Eaton, PE, ENV SP**, Engineer, Infrastructure Planning and Prioritization Transportation & Drainage Operations, City of Houston, 832.395.3082, adam.eaton@houstontx.gov

The goals and objectives of this project align perfectly with my career interests, large scale flood damage reduction. The NCHFCF improvement project is one of the beneficial flood mitigation projects in the region. I am genially excited about continuing my involvement in the project and seeing the vision come to life. The project knowledge that I developed when developing the engineering that the HMGP Grant was based on will be a fantastic asset to the entire project team."

Derek is a hydrology and hydraulics technical expert with a background delivering large flood mitigation projects. He will play a key role for the project team serving as a Technical Advisor. With strong working relationships with all of the partnering agencies, Derek brings the added benefit of confidence and familiarity. Over the last 10 years Derek has proven himself as a dependable project deliverer with the City of Houston, HCFCF, and TxDOT. Derek brings the added benefit of being very familiar with the North and South Canal projects having analyzed and worked on them as part of the North Houston Highway Improvement Project (NHHIP) Segment 3 Hydraulics and Hydrology Analysis. Derek is also a known commodity to the TIRZ 5 leadership

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

NHHIP Segment 3 Drainage Analysis, TxDOT Houston, Houston, TX. **Project Manager.**

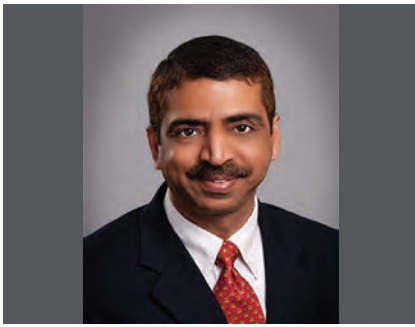
Derek managed the drainage analysis of the NHHIP Segment 3, which covers the downtown area. He led the development of improvement options for both the North and South Canals, sized the canal options through optimization runs in a comprehensive unsteady HEC-RAS analysis, and confirmed determined the benefits of the improvements. To accomplish this Derek and his team developed a project specific model set that combined portions of Buffalo Bayou, White Oak Bayou and Little White Oak Bayou. The combined unsteady model was calibrated to three different recent events using USGS flow and WSEL data and HCFCF high water marks for each event. The highly calibrated model and the historical storm event WSEL results in the vicinity of the North and South Canals was instrumental in the projects being identified and submitted as a HMGP Grant candidate. Derek effectively contributed to the multiple agency communication effort by presenting the findings of his work in a formal joint agency presentation with the City of Houston, HCFCF, and TxDOT.

Kuykendahl Regional Detention and Channel Improvements, HCFCF, Houston, TX.

Project Manager. Derek led analysis and design of a nearly 3,000 acre-foot regional detention basin in the Upper Greens Bayou Watershed. The design included HCFCF's first natural stable channel design and met the USACE's stream restoration requirements. Included in the project was the analysis of both the Kuykendahl and the Glen Forest regional basins. Both basins worked together to provide significant flood damage mitigation in the Greens Bayou watershed.

Buffalo Bayou Mid-Reach Flood Mitigation Study, City of Houston, HCFCF and Tax Increment Reinvestment Zone 1, Houston, TX. **Project Manager.**

Derek led a proof of concept study for a gravity flow inverted siphon stormwater tunnel and surface stormwater conveyance improvements for St. George Place Redevelopment Authority – TIRZ 1. The second phase of the project was initiated with partner support from HCFCF and the City of Houston. The study area is in the Buffalo Bayou watershed bound on the north by Buffalo Bayou, the east by IH-610, the south by IH-69, and the west by approximately Fondren Road. This region has experienced high property loss flood damage during several significant recent storm events. The region is primarily served by underground drainage systems with very few open channels.



Raj Tanwani, PE

South Canal Team Leader

BENEFITS TO HOUSTON & NCHFC

- Houston-based
- Recent experience on similar project
- Extensive experience working on large projects
- Local Multi-agency coordination experience

FIRM

Gunda Corporation, LLC

EDUCATION

MS | Civil Engineering | Louisiana State University | 1991

BS | Civil Engineering | Delhi College of Engineering, India | 1986

ACTIVE PROFESSIONAL REGISTRATIONS & CERTIFICATIONS

Professional Engineer

TX | No. 89754

LA | No. 0026674

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

34 Years | 14 Years

REFERENCES

- **David Miller, PE**, Major Projects Manager, Coastal Water Authority, 713.658.0855, dmiller@Coastalwaterauthority.org
- **Ravi Kaleyatodi, PE**, Sr. Assistant Director, City of Houston, 281.455.5872, Ravi.Kaleyatodi@houstontx.gov

"I love the challenge of working on large projects that require coordination and collaboration with multiple entities. The successful Luce Bayou Canal project had to be coordinated with nine governmental entities, several oil and gas pipeline firms, public and private entities and over 30 first- and second-tier subconsultants. I will leverage my experience with multi-agency and multi-entity coordination to deliver this challenging project. Additionally, Houston is my home and I am committed to providing a better quality of life to all Houstonians. I would love to contribute towards Houston's progress and am ready to work on this hallmark project."

Raj brings experience in the field of planning, design, construction, and project management of public works projects. His skill in managing projects of varying sizes and complexities across the greater Houston area will be invaluable to his role as the South Canal Team Leader. His experience in construction ensures that the projects he manages are practical and constructible, thus minimizing change orders. He has extensive experience in the design and construction management of large and complex public infrastructure projects requiring coordination with several agencies.

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

Luce Bayou Interbasin Transfer Project Canal, Harris & Liberty Counties, TX. Project Manager. Raj led the design of 23.6 miles of an earthen, open channel that conveys an ultimate flow rate of 500 mgd from the Trinity River to Lake Houston. The project design consisted of five distinct segments designed by five separate engineering teams. In addition to overall management, Raj also provided detailed design for Segment 1, the segment adjacent to Lake Houston, including the drop structure that delivers water from the canal to the lake. As the system-wide design lead, Raj managed all aspects of canal design, which included standards development, investigations and recommendations for the specialty water level control gates, investigation of two irrigation systems, landowner coordination, geotechnical fault investigation, complex canal hydraulics modeling, cross drainage modeling, syphons and construction planning. The canal was designed to maintain a constant water depth through a series of six water level control gates. **Delivered the project on time and saved the client more than 20% of the client's budget by using innovative techniques and delivering clear and concise bidding documents.**

Grand Parkway Segment E from I-10 to US 290, Harris County, TX. Project Manager. Raj delivered PS&E to construct 6,700 feet of toll road and drainage improvements for a portion of the Grand Parkway Segment E. The roadway design included the design of storm water facilities for the conveyance of runoff and measures for detention of flows into Bear Creek. The project was designed with open ditches on both sides of the tollway, including flow restrictors to limit the flows going downstream. The project also included 13 pass-through culverts to maintain the current overland drainage paths from one side of the proposed roadway to the other. The project was designed for Harris County and constructed by TxDOT, therefore, there was extensive coordination with TxDOT both during design and during construction. The project also required extensive coordination with the segment designers on both sides to coordinate the roadway profile and the drainage and with the adjacent property owners for property access during design.

K129-00-00 Channel Rehabilitation, Harris County, TX. Project Manager. Raj managed the reconstruction of a concrete-lined channel due to lining failures. He determined the cause of the failures, developed alternatives for reconstruction, and prepared construction plans. The project scope consisted of survey and geotechnical engineering services, alternative analysis, encroachment study, preparation of report to present the causes of channel lining failure, and preparation of bid documents for the proposed channel improvements.



Michael Vecchio, PE

Quality Assurance/Quality Control

BENEFITS TO HOUSTON & NCHFDC

- Houston-based
- Experience working with USACE Galveston District
- Successfully provided similar quality management on drainage and hydraulic projects

FIRM

HDR

EDUCATION

MS | Civil Engineering | University of Texas | 1989

BS | Geological Sciences | University of Texas | 1986

BA | English | University of Texas | 1985

ACTIVE PROFESSIONAL

REGISTRATIONS & CERTIFICATIONS

Professional Engineer

CA | No. 74275

NJ | No. 24GEO5384800

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

23 Years | 15 Years

REFERENCES

- **Greg Fabun**, Flood Protection Manager, West Sacramento Area Flood Control Agency, 916.617.4645, gregf@cityofwestsacramento.org
- **Linda Fisher**, Project Team Manager, New Jersey DEP – Climate & Flood Resilience Program, 609.422.7321, Linda.Fisher@dep.nj.gov

"I'm a native Houstonian who recently came home to lead HDR's part of the Freeport Coastal Storm Risk Management project for the USACE Galveston District. I am excited about the opportunity the NCHFDC project presents for contributing to flood reduction here in Houston. Importantly, a quality management role on this project is a realistic addition to my work load – a way I can contribute to the project's success while still meeting current obligations. Over the years I have developed a set of tenets for quality management that I look forward to utilizing in service of a hometown project."

Michael brings environmental and water resources project experience, with expertise in surface water hydrology and hydraulics, water quality modeling, and civil design related to flood risk reduction. These efforts have typically included design of drainage and embankment project components, such as conveyance design and upgrade, development of embankment upgrade alternatives, feasibility and cost studies, seepage control systems, and development of construction plans and specifications. Michael is a senior project manager and water resources technical specialist in the HDR's Houston office.

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

Freeport Coastal Storm Risk Management Project, USACE, Galveston District, Freeport, TX. Project Manager. Michael led this joint venture project management team to upgrade of 15 miles of the Freeport TX Coastal Storm Risk Management System. This five- to eight-year project will include collection of all require survey and geotechnical data, modeling of the riverine and interior drainage systems, design and bid package development for raising 12 miles of levees, modifying levee utility penetrations, and upgrade of three miles of floodwalls and closure gates.

Phase 1 HUD Rebuild By Design, New Jersey Department of Environmental Protection, Meadowlands, NJ. Feasibility Project Manager. Michael led the feasibility for 4,200 linear feet of channel improvements to reduce rainfall-induced flooding in the three townships. The channel flows through developed industrial/commercial corridor with numerous existing infrastructure conflicts.

Hanscom Erosion Control Design, United State Air Force, Scituate, MA. Project Manager. Michael coordinated alternatives analysis and design charrette for the 1,200 feet of erosion control and drainage improvements. Led diverse team of hydraulic, geotechnical, structural, and civil design experts.

Southport Levee Improvement Planning and Design, West Sacramento Area Flood Control Agency, West Sacramento, CA. Project Manager. Michael managed three preliminary design studies, and the 15%, 65%, and 90% PS&E for a 5.6-mile-levee improvement project, including approximately 3.5 miles of setback levee on the Sacramento River. He coordinated work flow development and design milestone definition for hydraulics, geomorphological, geotechnical, groundwater, civil design, and surveying design elements.

South Sacramento County Streams Flood Damage Reduction Project, USACE Sacramento District, Sacramento, CA. Quality Control Reviewer. Michael provided QC reviews for two technical memoranda: one comparing FEMA hydrology with several models applied to drainage basin, and the other addressing stream outflanking associated with two design water surface criteria. The purpose of this project is to provide additional flood damage reduction along the lower reaches of Morrison, Florin, Elder, and Unionhouse creeks, in Sacramento.



Lonnie Anderson, PE, CFM

Technical Advisor

BENEFITS TO HOUSTON & NCHFC

- Houston-based
- Expertise with North Canal and Buffalo Bayou
- Recognized for his hydraulic and hydrology experience
- Successfully delivered HEC-RAS models for both Buffalo and White Oak bayous

FIRM

Pape-Dawson Engineers

EDUCATION

BS | Civil Engineering | University of Nebraska-Lincoln | 1993

ACTIVE PROFESSIONAL REGISTRATIONS & CERTIFICATIONS

Professional Engineer

TX | No. 85751

CA | No. 71178

LA | No. 0035030

NE | No. E-9238

Certified Floodplain Manager

TX | No. 0495-03N

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

27 Years | 7 Years

REFERENCES

- **Mark Vogler, PE**, Chief Drainage Engineer, Fort Bend County Drainage District, 281.342.2863, Mark.vogler@fortbendcountytexas.gov
- **Elie Alkhoury, PE**, Transportation Supervisor Engineer, TxDOT-Houston, 713.802.5508, elie.alkhoury@txdot.gov

I am excited about the opportunity to provide technical assistance on this project for the City. Having been involved with studying North Canal since early 2000 as part of the Harris County 211-F and Charting Buffalo projects I am pleased to see it coming to fruition. I am committed to leveraging my 27 years of experience in detailed, design level H&H modeling to ensuring the performance of this project. I will leverage my own and our team's experience with MAAPnext mapping and modeling to help document the performance of the project in reducing flood risk."

Lonnie brings experience performing detailed H&H modeling of urban and rural stormwater drainage. He has extensive proficiency in steady and unsteady state, and 1D/2D modeling of complex water resources projects, including large- and small-scale land development drainage master plans, storm sewer analysis, roadside ditch rehabilitation, large-scale flood insurance studies, dams, watershed master plan studies, wetland mitigation banks, and TxDOT drainage studies. Lonnie is also highly experienced in providing forensic flood studies for determining root cause of flooding and providing clients with solutions to reduce future flood risk.

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

Charting Buffalo, HCFC, Harris County, TX. Senior Specialist Engineer. As senior specialist engineer, Lonnie was responsible for developing and executing unsteady state HEC-RAS models for approximately 72 river miles of Buffalo Bayou and Lower White Oak Bayou, including their FEMA studied tributaries. Floodplain mapping and calibration were performed, and the depth and number of structures impacted by various storm events were identified. Within the study limits, various flood damage reduction (FDR) alternatives were identified, and reductions in flooded structures were quantified. The project included community enhancement opportunities within the approximately 124-square-mile study area that involved quantifying their impacts on the identified FDR elements when considered as facilities.

Willow Creek Modeling, Assessment and Awareness Project (MAAPnext), HCFC, Houston, TX. Technical Lead. Lonnie provided assistance on this study that included new hydrology for over 60 square miles of the watershed, 1D-2D HEC-RAS modeling for over 22 stream miles including eight tributaries, and new mapping products per the FEMA-approved MAAPnext guidelines. As part of the hydrology, basin development factor adjustments were applied to the Clark Unit Hydrograph methodology. Lonnie developed gage-adjusted radar rainfall-based precipitation to apply to the watershed for the 2016 Tax Day, 2016 Memorial Day, and 2017 Hurricane Harvey storm events. He performed 1D-2D coupled hydraulic modeling in HEC-RAS using the latest LiDAR, land cover, field survey for structures, and bathymetry. Lonnie conducted a thorough QA/QC of all work products and mapping results validation with structure flooding records for these storm events, including in non-riverine areas where traditional FEMA models didn't show any floodplains.

Spring Gully Watershed Planning Project, HCFC, Houston, TX. Technical Advisor. Lonnie is overseeing the preparation of a comprehensive watershed plan to develop CIP projects that can be graded, prioritized, and constructed immediately. The watershed experiences significant flow transfers with adjacent watersheds, requiring technical and non-technical coordination with adjacent study consultants. Lonnie reviewed the HEC-HMS and 1D-2D HEC-RAS, meeting MAAPnext FEMA standards used to evaluate significant amount of surface flow occurring in the watershed due to undersized channel capacity. He participated in stakeholder meetings with Precinct 2 commissioner's court to corroborate modeling results with actual flooding during Hurricane Harvey. He validated models against available high water marks and identified problem areas and CIP solutions, increasing the available level of service of the existing infrastructure.



Christine Magers, CWB

Environmental/Regulatory
Delivery Coordinator

BENEFITS TO HOUSTON & NCHFDC

- Native Texas-based Houstonian
- Extensive USACE Galveston District experience
- Expertise with NEPA and FEMA Houston area
- Successfully delivered the Freeport Channel Supplemental General Re-Evaluation EA

FIRM
HDR

EDUCATION

MS | Environmental Management |
University of Houston | 2011

BS | Wildlife and Fishery Sciences | Texas
A&M University | 2005

ACTIVE PROFESSIONAL REGISTRATIONS & CERTIFICATIONS

Certified Wildlife Biologist

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

14 Years | 13 Years

REFERENCES

- **Barry Pearl**, Executive Vice President, WesPac, 713.501.1699, bpearl7649@gmail.com
- **Tom Jensen**, Vice President, WesPac, 951.318.9749, jensentomf@sbcglobal.net

"I am ready to do my part to reduce flooding in the downtown Houston area. I enjoy working with our floodplain engineers, public outreach specialists, and other specialists to create a successful project on schedule and on budget. Regulatory permits and the NEPA process can have a significant impact on a project's schedule and therefore cost. Identifying potential regulatory roadblocks up front, keying in on each federal agency's NEPA priorities, and setting out a realistic permit schedule are my strengths. I want to leverage my unique knowledge and experience in the Houston area with HDR's proven team of technical experts to design and permit the canal diversions."

Christine is a Certified Wildlife Biologist with project experience starting with wetland and habitat delineations growing to managing multiple Individual Section 404/10/408 permit applications and EIS documents. Her professional experience is built on working to support a variety of agency applications and NEPA processes. She has helped clients maneuver the NEPA EIS process to receive a ROD through the FTA, USACE, USAF, STB, FERC, and TxDOT/FHWA. She is working with HCFCF on the Jackson Bayou Watershed project and TxDOT's US-77 Sinton Bypass project providing senior QC to delineation reports and habitat assessments.

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

Houston Ship Channel Project 11, Port of Houston Authority (PHA), Houston, TX.

Environmental and Regulatory Task Lead. Christine is responsible for identifying areas that need additional delineation and reviewing the project changes for potential environmental and human resource impacts. Environmental tasks for the project include delineation of several placement area options, areas proposed for bulkhead or shoreline protection, and areas proposed for dredging. Additional tasks include reviewing the engineering plans developed for each section to determine if any changes require a new NEPA analysis based on the design changes impacts to the environment. This recent experience working in the Houston area in an engineered/alterd waterway with HDR's team, PHA, and USACE will benefit the NCHFDC. From this project Christine learned more about the dynamic environment along shores of maintained waterways so close to the gulf bay system and she also learned what types of engineering changes have cascading impacts to other resources outside of direct impact footprint such as the construction of anchor systems for retaining walls impacting far beyond the wall itself and impacts of shoreline protection above and below the OHWM.

Freeport Channel Supplemental General Re-Evaluation Environmental Assessment

(GRR-EA), Port of Freeport Authority, Freeport, TX. Project Manager. Christine managed the project which includes the GRR-EA document and appendices requiring an air conformity determination, ship simulation studies, tribal coordination, interagency coordination, public outreach, and the administrative record. Her experience with this project from beginning to end gave her an opportunity to really understand the USACE NEPA process and she will apply this knowledge to the NCHFDC to make sure the NEPA analysis focuses on language and information that is important to this agency such as the economic analysis and the incorporation of cooperating agencies concerns.

General Planning Consultant (GPC), Houston METRO, Houston, TX. Environmental

Task Lead. Christine conducted wetland delineations, habitat assessments, provided permit support, coordinated with METRO and sub-consultants to review potential park-and-ride locations. She conducted desktop assessments to focus field delineations for potential waters present on sites and analyzed potential jurisdictional status to advise METRO how to change design or location to avoid impacting potentially jurisdictional waters. When a preliminary design was developed she determined impacts from stormwater outfalls, the parking lots, or other infrastructure would qualify for non-notifying nationwide permits 14, 7, or 3. She provided METRO with documentation to support that finding to include in the NEPA documentation for each project.



Steven Dean, PE, CFM

Shared Design Services Coordinator

BENEFITS TO HOUSTON & NCHFDC

- Texas-based
- Extensive hydraulic and hydrology engineering experience for the SCPIP
- Successfully led the SPCIP project
- Expert with drainage engineering and utility relocation design

FIRM

Pape-Dawson Engineers, Inc.

EDUCATION

MS | Civil Engineering | Texas Tech University | 1993

BS | Civil Engineering | Texas Tech University | 1992

ACTIVE PROFESSIONAL REGISTRATIONS & CERTIFICATIONS

Professional Engineer

TX | No. 83905

Certified Floodplain Manager

TX | No. 2484-13N

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

27 Years | 27 Years

REFERENCES

- **Kerry Averyt, PE**, Project Manager, SARA, 210.302.3633, kaveryt@sara-tx.org
- **David McBeth, PE**, Assistant City Engineer, City of San Antonio, 210.207.6342, david.mcbeth@sanantonio.gov

“Our team’s experience with the SPCIP gives us unparalleled experience in completing projects in a highly urbanized and congested area. My number one goal is to provide flood mitigation for the Houston Area and to provide these improvements in such a way they can be turned into a public amenity. It is exciting to bring our recent experience to bear on this significant project for the City of Houston, HCFC and TxDOT.”

Steven’s years of experience in civil engineering. He has conducted feasibility studies for major capital improvement projects; conducted hydrologic and hydraulic studies of local creeks and drainage ways for FEMA submittals; and prepared plans, specifications and estimate (PS&E) for various sized roadway, utility, and drainage improvements. He has extensive experience in roadway design and rehabilitation for the City of San Antonio, Bexar County, TxDOT, and CPS Energy. He is also experienced in modeling projects within floodplains, including bridges, channels, and low water crossings; and has effectively managed design team coordination, subconsultants, utility coordination, and conflict mitigation. Steve’s extensive and varied experience, from drainage to roadway to utilities makes invaluable to any large public works project.

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

SPCIP, SARA, San Antonio, TX. Project Engineer. Steven was responsible for refining ROW requirements, reviewing updated channel geometry, and coordinating utilities for the San Pedro Creek Tunnel Outlet, which measures approximately 10,350 linear feet. He oversaw the design and preparation of the site civil construction plans for the entire project, which included traffic control, drainage channel, joint use paths, storm drains, and water quality improvements. He also designed joint bid utility relocation plans for SAWS 8- to 30-inch water and 8- to 30-inch (2 siphons) sanitary sewer improvements. Steve also managed a design team of six subconsultants during the design process and oversaw the preparation and development of the TPDES plans and document for this project to meet necessary regulations and guidelines. Incorporation of LID features was a critical component of this project. Several bio cells were designed upstream of the project per SARA LID Manual to treat runoff from Cameron Street and surrounding areas prior to discharge into the creek.

IH 410 (Nacogdoches Road to Austin Highway), TxDOT-San Antonio, San Antonio, TX. Project Manager. Steven led the H&H design improvements and prepared construction plans for this 3.3-mile roadway widening project. The team analyzed five large existing culvert crossings and design of supplemental structures to allow the existing structures to remain to provide for the required design frequency. The design also required the analysis of the viability of the three existing span bridges over three major creek crossings and evaluating various proposed bridge designs in order to meet the required design frequency.

Potranco Road (Loop 1604 West to SH 211), Bexar County, San Antonio, TX. Drainage/Utility Design Manager. Steven evaluated and designed this approximately six-mile road reconstruction project. Drainage design included converting a ditch conveyance system into a storm system for the length of the project, while incorporating BMPs at the outfalls. HEC-HMS and HEC-RAS were used for H&H analysis of FEMA-regulated creek crossings of Potranco, Medio, and Caracol creeks. Potranco and Medio creeks were designed to pass the 4% AEP storm event while maintaining a zero-rise to the 1% AEP floodplain. He coordinated locates of existing facilities, evaluated alignments of proposed gas adjustments and relocations, and oversaw the preparation of design plans to mitigate conflicts and/or affect the main relocations.



Jeremy Blevins, PE, CFM

Hydraulics & Hydrology
Delivery Coordinator

BENEFITS TO HOUSTON & NCHFC

- Houston-based
- H&H experience with Buffalo and White Oak Bayou watersheds
- Extensive experience with both City of Houston and HCFC
- Expertise providing H&H modeling in Harris County

FIRM

HDR

EDUCATION

BS | Civil Engineering | Texas A&M University | 2007

ACTIVE PROFESSIONAL REGISTRATIONS & CERTIFICATIONS

Professional Engineer
TX | No. 109719
Certified Floodplain Manager
TX | No. 1969-10N

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

13 Years | 6 Years

REFERENCES

- **Paresh Lad**, Sr. Project Manager, City of Houston, 832.395.2690, paresh.lad@houstontx.gov
- **Brennan Cook**, Project Delivery Manager, Harris County Engineering Department, 713.274.3623, brennan.cook@eng.hctx.net

“I am excited to lead the H&H delivery of the NCHFC because it has the potential to transform Downtown Houston and to reduce flood risk where in areas where I live and work. My experience in the Buffalo Bayou and White Oak Bayou watersheds will play a significant role in delivering quality hydrologic and hydraulic models which will lead into a practical, constructable design.”

For more than 13 years, Jeremy has specialized in providing hydrology and hydraulic modeling in the Houston region. He has been involved in a variety of engineering projects in the field of hydrology and hydraulics, including rainfall-runoff analysis, watershed modeling, and open channel hydraulics. He has experience in detention design, roadway drainage, and watershed planning and has worked on projects funded by the Texas General Land Office (GLO), FEMA Hazard Mitigation Grant Program and the Texas Water Development Board (TWDB). He also has experience with floodplain analyses, FEMA studies and requirements, and requests for Letters of Map Change (LOMCs). Jeremy has presented multiple papers at the Texas Floodplain Management Association Annual Conference regarding multi-use drainage facilities and risk management associated with drainage projects

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

Drainage Pre-Engineering Projects, City of Houston, Houston, TX. **Project Engineer.**

Jeremy was the engineer-of-record for multiple pre-engineering studies for multiple neighborhoods throughout the City of Houston. The pre-engineering studies included preparing hydrologic and hydraulic models to assess the existing flood risk within those communities, recommended drainage improvements to reduce flood risk, and provided prioritization and ranking scores to be used to develop the City's Capital Improvement Plan.

South Mayde Creek Drainage Feasibility Study, HCFC, Harris County, TX. **Lead Drainage Engineer.**

Jeremy served as the engineer of record for the feasibility study which involved evaluating the causes of flooding in the lower portion of the South Mayde Creek watershed, with particular concern for flooding along the roadways in subdivisions between Fry Road and Greenhouse Road. Jeremy developed the drainage feasibility study including hydrologic and hydraulic models to assess flood risk and to generate a series of projects within the watershed to reduce flood risk.

Unit P133-00-00/Smith Road Channel Diversion, HCFC, Harris County, TX. **Project Manager.**

Jeremy served as the project manager for the development of a preliminary engineering report and construction documents for the Smith Road Channel Diversion. The project involved diverting storm water away from Unit P133-00-00 which has experienced significant erosion from various storm events. Jeremy's recommendations helped the Harris County save approximately \$7M by using a unique approach by diverting stormwater back into Unit P133-00-00 downstream of the problem areas rather than to Greens Bayou. Jeremy provided support to HCFC in order to obtain grant funding for the project, and construction of the project will be funded by CDBG-DR funding administered by the Harris County Community Services Department. The project will be bid this summer.

Jackson Bayou Watershed Planning Studies, HCFC, Harris County, TX. **Project Manager.**

Jeremy is leading the preparation of a watershed plan in eastern Harris County. The watershed has experienced structural flooding during Hurricanes Ike and Harvey and Tropical Storms Allison and Imelda, and the project involves developing a plan for reducing flood risk within the watershed. The plan will provide a guide to HCFC for developing their capital improvement plan and future projects within the watershed.



James Thomas, PWS, CWB

404 Permitting

BENEFITS TO HOUSTON & NCHFC

- Texas-based
- Extensive USACE experience
- Expertise preparing Section 404 and NEPA documents
- Successfully delivered more than 100 Section 404 permits
- Expert developing creative mitigation and permitting approaches

FIRM

HDR

EDUCATION

MS | Wildlife & Fisheries Sciences | Texas A&M University | 1994

BS | Wildlife & Fisheries Sciences | Texas A&M University | 1991

ACTIVE PROFESSIONAL REGISTRATIONS & CERTIFICATIONS

Professional Wetland Scientist

TX | No. 0001279

Certified Wildlife Biologist

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

26 Years | 18 Years

REFERENCES

- **Janna Renfro**, PM, City of Austin Watershed Protection, 512.974.3422, Janna.Renfro@austintexas.gov
- **Kari Harris**, U.S. Environmental Impact Manager, CN Railroad, 708.332.4543, Kari.Harris@cn.ca

“Complex projects that help solve significant challenges for communities in Texas are what I’m most excited to work on. The Houston North and South Canal diversion project is just such an adventure. I’ll bring creativity, perseverance, and attention to detail developed over years working on Section 404 permitting for a variety of public and private infrastructure projects. My number one priority is to help you, the City of Houston, and our team deliver a quality product which meets your goals to improve public safety while conserving the natural resources of Houston for future generations. I am committed to working with our team to help permit and deliver a quality, sustainable project.”

James brings 26 years of professional experience in a variety of natural resource projects, with an emphasis on federal and state permit coordination, wetland delineations, ecological assessments, and restoration projects. His areas of expertise include Clean Water Act Sections 404 permit coordination and 401 water quality certification, jurisdictional determination of water of the U.S. (including wetlands), NEPA impact assessment, TPWD Sand and Gravel permits, aquatic habitat surveys, and mitigation planning/design.

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

San Antonio River Improvement Project, Section 404 Permitting, SARA San Antonio, TX. Permitting Task Lead. James led the delineation for waters of the U.S., impact assessment, application preparation, and coordination with the USACE. The permitting included public notice, exhibits, mitigation plans, and data compilation to respond to comments from USACE and the TCEQ. Section 404 permit authorization and 401 clearance were received within five months.

SPCIP, SARA, San Antonio, TX. QC Reviewer and Senior Regulatory Specialist. James assisted our permitting task leader and team in evaluating permitting and agency coordination for regulatory approvals, including USACE Sections 404 and 408, which included the preparation of an Environmental Assessment for NEPA compliance. Phase I and II design, permitting, and compliance reporting are complete. Phase III is underway which includes TXDOT NEPA coordination.

Bonnet Carré Spillway Bridge Replacement Permitting, Illinois Central RR, La Place, LA. Project Manager and Senior Regulatory Lead. HDR led the alternatives analysis, applications and agency coordination for regulatory permitting to replace the historic 2-mile long wooden trestle bridge and concrete and steel spans. Activities included USACE – Section 10/404, Section 408 approvals; USCG – Bridge Permit; Louisiana Coastal Use Permit; Louisiana SHPO and NPS – Section 106 Consultation; USFWS/NMFS – Section 7 Consultation; and other agency coordination.

Brazos River Temporary Saltwater Barrier, Confidential Client, TX. QC Reviewer and Senior Regulatory Specialist. HDR supported a confidential client for the design and permitting for an emergency saltwater barrier project to protect a freshwater supply intake system. The permit will allow barrier construction to proceed if needed as a drought contingency measure. The project required a Section 10/404 Joint Permit from USACE Galveston; 401 Water Quality Certification (TCEQ); Water Rights Permit amendment (TCEQ); Texas Sand, Gravel, and Marl permit (TPWD); and coordination with THC for Section 106 NHPA and USFWS for Endangered Species Act concurrences.



Russell McNaught, PE

Rail Design & Coordination

BENEFITS TO HOUSTON & NCHFD

- Houston-based
- Experience working on railroad and municipal agency projects
- Full understanding of rail operations
- Available 24/7 to provide quick and reliable answers or suggestions as the design process advances

FIRM

HDR

EDUCATION

BS | Civil Engineering | University of Nevada,
Las Vegas | 1998

ACTIVE PROFESSIONAL

REGISTRATIONS & CERTIFICATIONS

Professional Engineer

CA | No. C-65853

NV | No. 016383

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

21 Years | 16 Years

REFERENCES

- **Bruce Smith**, Principal Engineer, San Diego Association of Governments (SANDAG), 619.699.1907, Bruce.smith@sandag.org
- **Diane Jones**, Engineer, UPRR, 402.544.6001, Dljones01@up.com

“I am excited about the opportunity to use my experience in the railroad industry to help the project through the complicated world of railroads. I have successfully led clients into these murky waters and helped the team understand and provide real obtainable solutions. It has been my experience that railroads will entertain out-of-the-box solutions if they make sense for their business.”

Russell is a senior railroad project manager and leads our Gulf Coast Freight Rail practice. His understanding of operations, maintenance, and the initial capital cost of projects allows him **tailor solutions unique to each project's requirements**. He brings familiarity with Texas projects that directly impact railroad operations, where he successfully provided clients with an understanding of railroad coordination requirements. Russell is particularly skilled at leading multi-disciplined teams and projects involving key stakeholders for operationally and environmentally challenged projects.

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

City of Phoenix, Sky Harbor UPRR Planning Study – Scoping Phoenix, AZ. **Design**

Lead. Russ led the development of a lowered track profile adjacent to the Sky Harbor airport that would allow the Sky Harbor airport access to parcels north of their current property. The purpose of this project was to develop a feasibility study that presents alternatives for trenching the existing United Pacific rail line along the northern limits of Phoenix Sky Harbor International Airport between 44th street and 24th street. The alternatives were presented to UP for review and close coordination with Union Pacific and Sky Harbor Airport was critical. Understanding what key elements the railroad would require assisted the project team in developing the alternatives.

City of Phoenix, Sky Harbor UPRR Planning Study – Scoping Phoenix, AZ. **Design**

Lead. Russ led the development of a lowered track profile adjacent to the Sky Harbor airport that would allow the Sky Harbor airport access to parcels north of their current property. The purpose of this project was to develop a feasibility study that presents alternatives for trenching the existing United Pacific rail line along the northern limits of Phoenix Sky Harbor International Airport between 44th street and 24th street. The alternatives were presented to UP for review and close coordination with Union Pacific and Sky Harbor Airport was critical. Understanding what key elements the railroad would require assisted the project team in developing the alternatives.

San Elijo Lagoon Double Track Project, Encinitas, CA. **Rail Lead/Deputy Project Manager.**

Russ led this project that included the development of an Alternative Analysis Report to determine the Locally Preferred Alternative (LPA), implementation of an environmental clearance and permitting strategy that allows the project to remain on schedule, and production of preliminary engineering and final design construction documents. This project included a second track, maintenance of siding, new second bridge, and a replacement bridge for Bridge 240.4 over the existing open water portion of the lagoon. A mid-lagoon bridge may also become part of the project, dependent upon the San Elijo Lagoon Conservancy's Restoration Plan. Other key features of this project are special trackwork, signaling and communications, retaining walls, culvert extensions, stakeholder outreach for building consensus, hydrology and hydraulics modeling, and coordination with multiple adjacent projects that effect the construction phasing of the project. This project is subject to the most recent changes to permitting requirements along the North Coast Corridor as a result of the passage of Senate Bill 468.



Kenneth Ozuna, PE

Bridge Analysis & Design

BENEFITS TO HOUSTON & NCHFDC

- Houston-based
- Bridge QA reviewer for the award-winning SPCIP
- Successfully delivered bridge replacements for the Preston, Congress and Buffalo Bayou bridges
- Extensive bridge design in the Houston area

FIRM

HDR

EDUCATION

BCE | Civil Engineering | University of Texas | 1984

ACTIVE PROFESSIONAL REGISTRATIONS & CERTIFICATIONS

Professional Engineer

TX | No. 65754

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

36 Years | 7 Years

REFERENCES

- **Ken Lin, PE**, Bridge Lead Engineer, TxDOT, 713.802.5609, yongqian.lin@txdot.gov
- **Curtis Rockiki, PE**, Project Manager, TxDOT Bridge Division, 512.416.2212, curtis.rockiki@txdot.gov

“As the bridge lead I am excited to work on iconic project that will influence Houston forever. I care about how a bridge looks as much as its structural integrity. I understand that what is built today lasts for 75 years plus, so I pay attention to detail and embrace creating a destination that can be enjoyed by citizens for many years.”

Kenneth is the Texas Gulf Coast Bridge Section Manager and will serve as the lead bridge engineer for the NCHFDC. He brings bridge planning, design and construction expertise to the team and retired from TxDOT's Houston District as the District Bridge Design Engineer. He has experience in managing multiple teams in bridge layout, design, aesthetics and structural detailing. He also has extensive knowledge in rehabilitation, restoration and repairs of bridges and bridge construction techniques/repairs and construction resolution. Kenneth's experience includes coordination necessary for projects within jurisdiction of controlling/permitting agencies such as City of Houston flood permits, USCG, USACE, TxDOT, and local contractors.

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

Brays Bayou Bridge Replacement, City of Houston and TxDOT-Houston, Houston, TX. Bridge Engineer. Kenneth led his team in the engineering design for this flood critical bayou crossing. The team secured a flood plain permit from the City of Houston. The bridge is a three-span bridge using X-beams in classic side by side box beam fashion. The project included is extensive utility coordination to accommodate a 12-inch water line and a 16-inch force main that was required to remain in service during replacement. Kenneth proposed bridge phasing that allows for all utilities to remain in service. This solution avoided a costly, separate, flood sensitive, new utility bridge design, estimated at \$250k. Also included is environmental coordination between USACE, HCFCD, and the USCG. Stakeholder coordination was accomplished between City of Houston and the University of Houston.

Preston, Congress, and Capitol/Buffalo Bayou Bridge Replacements, City of Houston and TxDOT-Houston, Houston, TX. Bridge Engineer. While at TxDOT, Kenneth led, directed and supervised the design for all three bridge replacement projects in downtown Houston. He worked closely with the City of Houston staff making sure proper aesthetic treatments were designed for each site. Kenneth worked closely with architects and Bob Eury to gain consensus for each project. All bridges are bayou bridges requiring proper design to clear and withstand flood forces.

SPCIP, SARA, San Antonio, TX. Bridge Engineer. Bridge Quality Reviewer. Kenneth reviewed the bridge designs making sure they conformed to the Urban Planner/Architect's master plan of details. He confirmed all details were consistent across multiple consultants and were also contractor friendly. His coordination between offices and discipline teams made sure a quality and consistent set of plans was delivered.

Beltway 8/Houston Ship Channel, Harris County Toll Road Authority (HCTRA), Houston, TX. Bridge Manager. Kenneth led the bridge design team for the engineering design for the south approach spans of the Ship Channel Bridge Replacement project. The team prepared associated schematic validation and roadway design. Some of the job metrics are 5,900 linear feet of twin structure, each structure is 71 feet wide with 831,000 square feet of deck area. Unique design considerations include railroad crossings, more than 90 utilities, soft soils, crossing an operating Kinder Morgan Facility and uniform details across multiple consultants.



Daniel Gessler, PE, PhD, D.WRE

CFD & Physical Modeling

BENEFITS TO HOUSTON & NCHFD

- Experience on similar projects
- Experience with hydraulic modeling & design

FIRM

Alden Research Laboratory

EDUCATION

PhD | Civil Engineering/Hydraulics |
Colorado State University | 1995 | Civil
Engineering/Hydraulics

MS | Civil Engineering/Hydraulics | Colorado
State University | 1993

BS | Civil Engineering | Colorado State
University | 1988

ACTIVE PROFESSIONAL REGISTRATIONS & CERTIFICATIONS

Professional Engineer

CO | No 30926

ID | No 19333

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

28 Years | 18 Years

REFERENCES

- **Brad Barth, PE**, Operations Assist Administrator, Coastal Protection and Restoration Authority (CPRA), 225.342.4553, Bradley.Barth@la.gov
- **Norm Perkins, PE**, Director of Applied Science & Research, Simpson Gumpertz & Heger (SGH), 860.878.9332, NFPerkins@sgh.com

"I am excited at the prospect of leading the Alden modeling team for this unique and important project for the City of Houston. My expertise in numeric and physical modeling allows me to lead modeling teams that use a combine modeling approach to minimize project risk and uncertainty for the client. Each modeling tool has strengths and weaknesses, by using both numeric and physical models, Alden is able to develop the most reliable and cost effective modeling approaches. Alden prides itself on having delivered engineering solutions for over 125 years."

Dr. Gessler has experience in numeric and physical modeling. He continues to serve as Alden's technical lead for several large engineering projects, including the Mid Barataria and Mid Breton sediment diversions and the Oroville spillway aerators project. He was a research scientist at Colorado State University, working on flume studies of sediment transport and three dimensional hydrodynamic sediment transport modeling for the USACE. He brings specialized experience to the team that combines the use of numeric and physical modeling.

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

Waller Creek Tunnel Design Hydraulic Modeling, Crespo Consulting Services, City of Austin, Austin, TX. Lead CFD Engineer. Dr. Gessler conducted extensive CFD evaluations of the various components to help the City of Austin develop the Waller Creek Tunnel Project. Results of the modeling efforts were used to aid in and contribute to the design of the project. The Waller Creek Tunnel Project reduced the threat of flood damages to existing infrastructure and development, along the Lower Reach of Waller Creek.

Mid-Barataria Sediment Diversion Model, CPRA (AECOM subcontractor), New Orleans, LA. Project Manager. Dr. Gessler is leading the team to construct a 1:65 scale live-bed physical model study to help optimize and inform the design of the sediment diversion inlet. The model also evaluates flow patterns and the potential for scour, as well as indicates areas where sediment might settle downstream of the diversion and near the diversion intake. An additional 1:65 scale physical model study is being used to optimize and inform the design of the conveyance channel and outflow basin. It will verify and evaluate how the sediment transports down the channel and how the area downstream of the outfall will respond. CFD modeling is being used to examine bedload and suspended load in the Mississippi River and through the proposed sediment diversion structure to better understand how CFD models relate to the physical modeling results.

Cedar Cliff Fusegate Model, Duke Energy, Jackson County, NC. Project Manager and Technical Lead. The existing auxiliary spillway at Cedar Cliff dam is being replaced with a Hydroplus fusegate system. As an HDR-teaming partner, Dr. Gessler led the physical modeling team to evaluate performance of the system. The need to quantify entrained air required the use of a 1:8 scale sectional model and 1:19 scale complete spillway model.

Clifty Creek Power Plant Sedimentation Modeling, American Electric Power, Madison, IN. Technical Lead and Project Manager. Dr. Gessler led the 3D computational fluid dynamics modeling effort and the 1:25 scale hydraulic model study of the Clifty Creek cooling water intake. The purpose of the modeling was to determine the efficacy of replacing the existing traveling water screens with cylindrical wedge-wire screens in the forebay, evaluating the possibility of the new screens becoming inundated with sediment. The models were used to quantify sediment deposition rates for various river and cooling water flow conditions. The models were used to derive deposition mitigation measures.



Trina McGuire-Collier

Stakeholder Outreach Delivery Coordinator

BENEFITS TO HOUSTON & NCHFC

- Public outreach coordinator for the successful MAAPnext project
- Fosters awareness, understanding and support among stakeholders
- Understands large municipal water issues with both public and private experience to develop the right strategy of engagement

FIRM

HDR

EDUCATION

BA | Communication | Metropolitan State College of Denver | 1990

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

30 Years | 2 Years

REFERENCES

- **Lisa Darling**, Executive Director, South Metro Water Supply Authority, 720.216.5158, lisadarling@southmetrowater.org
- **Kelley Dearing Smith**, VP of Communications and Marketing, Louisville Water, 502.569.3695, ksmith@lwcky.com

“I take very seriously our responsibilities to the communities in which we do our work. Too often, infrastructure projects are met with opposition because the public is unaware of or misunderstands the importance, value and/or benefits of the important work we are charged to do. By fostering awareness, understanding, and support among Houston citizens for this much-needed project – in ways that establish those behind it as thoughtful, forward-thinking experts – we live up to our role as public servants. For the past three decades, this commitment has driven my approach to leading and supporting communications and outreach programs that are meaningful, inclusive and effective.”

Trina is a nationally recognized, award-winning communications expert with more than 30 years of experience creating, managing, and executing comprehensive public relations, social marketing and outreach campaigns and programs, particularly in the water industry. Prior to joining HDR, she was Director of Public Affairs for Denver Water, after serving as the agency's chief spokesperson for more than a decade. Trina brings a proven record of delivering high-level strategic guidance and counsel to senior leadership, and her thoughtful, contemporary approach to building public and stakeholder engagement and support has helped agencies across the U.S. successfully deliver major projects and gain lasting trust within their communities.

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

Harris County Flood Control District, MAAPnext Remapping Project, Houston, TX.

Public Outreach Coordinator. Trina currently provides senior-level strategic counsel on communications and public outreach for this county-wide, FEMA sponsored program. She directed development of the project's social and political risk analysis and website, provides senior level counsel on the project's integrated media campaign, and oversees digital engagement tracking and analysis.

Metropolitan Wastewater Reclamation District, Public Information Program, Denver, CO.

Project Manager. Trina is project manager for this effort, providing senior-level counsel and support for public information and outreach efforts, including external communications, brand awareness, social and traditional media relations, and key stakeholder relations.

Louisville Water, AMI Project, Louisville, KY. Senior Communications Manager.

In her role as senior advisor, Trina brings her experience with marketing utility customer service offerings to help guide the team's efforts to brand and promote the utility's new AMI program and related customer innovations across the utility's diverse service area.

Fort Collins Utilities, Halligan Project Communications and Engagement Plan, Fort Collins, CO.

Strategic Communications Coordinator. HDR's Strategic Communications team worked with Fort Collins Utilities to create a comprehensive communications and engagement plan for the Halligan Water Supply Project. Trina's role included key message development, meeting facilitation, and plan review and recommendations.

Tennessee Valley Authority, Integrated Resource Plan, Knoxville, TN. Media Spokesperson.

The Tennessee Valley Authority selected HDR to develop an Integrated Resource Plan. In preparation for the plan's unveiling, Trina provided media spokesperson training for the project's executive leadership team.

Nebraska Department of Natural Resources, Upper Platte River Basin-Wide Plan, Lincoln, NE.

Strategic Communications Coordinator. The Nebraska Department of Natural Resources selected HDR to provide strategic communications support for the Upper Platte River Basin-Wide Plan. Trina's role included plan review and strategic counsel for 40 water users' Stakeholder Planning Group.



Veronica Weaver-Rivers, PE,
PMP, CFM
Controls Delivery Coordinator

BENEFITS TO HOUSTON & NCHFDC

- Houston-based
- Managed the San Pedro Creek Culture Park Project utility relocation team
- Credentialed Project Management Professional (PMP)
- Manages a FEMA flood risk mapping project in Harris County

FIRM

HDR

EDUCATION

BS | Civil Engineering | University of Alabama at Birmingham | 2010

ACTIVE PROFESSIONAL REGISTRATIONS & CERTIFICATIONS

Professional Engineer

TX | No. 123450

FL | No. 82770

Professional Management Professional

US | No. 1988310

Certified Floodplain Manager

TX | No. 3772-19N

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

9 Years | 1 Year

REFERENCES

- **Brian Edmondson, PE, CFM,**
MAAPnext Project Manager, HCFCD,
346.286.4110, brian.edmondson@hcfcd.
hctx.net
- **Melissa Bryant, PE, CFM, PMP,**
Director of Technical Services, SARA,
210.302.3634, mbryant@sara-tx.org

"I'm excited about this project because of how transformative it will be for the City of Houston and surrounding region. A recent Houston transplant, I understand that our community has rebuilt numerous times after frequent, historic rainfall events in the last decade. As Houstonians, our ability to unite and rebuild in the face of disaster shows our strength; however, we want to be resilient. Resilience means that we are proactive in our approach to potential disasters, and this project will be a key contributor to Houston's resilience. I'm proud to bring my experience and knowledge to a team of other talented professionals who will make the NCHFDCa success."

Veronica is a motivator, skilled professional, and team leader with close to a decade of experience delivering medium to large-scale capital improvement projects. She's a licensed professional engineer in two states and has been a credentialed project manager (Project Management Professional) since 2016.

Veronica's differentiator as Controls Delivery Coordinator is her diverse background in the public and private sectors – she understands both sides, which makes her an exceptional communicator and task manager. Upon joining a major engineering consulting firm in 2013, she developed stormwater infrastructure capital improvement plans for international clients on Federal asset management contracts. She then transitioned to the public sector and led the utility relocation team for SPCIP, a \$125M drainage improvements project in San Antonio. Veronica currently manages or provides task support on several flood mitigation projects for the Harris County Flood Control District. Throughout these experiences, she has developed a strong knowledge base in project delivery, construction management, regulatory compliance and quality management. She is a proud veteran of the United States Army.

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

Modeling, Assessment and Awareness Project (MAAPnext), Harris County Flood Control District (HCFCD), Harris County, TX. Deputy Project Manager.

Veronica assists with daily project management duties on a flood hazard assessment and community outreach project using updated technology and methods to produce the county's most comprehensive and complete set of flood hazard maps. In partnership with FEMA, the HCFCD has incorporated the study of previously unmapped flooding areas to promote a better understanding of flood risk. Veronica leads the HDR quality management team, manages all aspects of project controls, maintains the earned value reporting program, and assists the client PM with monthly updates to the FEMA Mapping Information Platform.

MAAPnext – Hunting Bayou Watershed Modeling & Mapping Study, HCFCD, Harris County, TX. Project Manager.

Veronica manages hydraulic and hydrologic modeling and mapping tasks performed by HDR for the MAAPnext study of Hunting Bayou, one of 22 Harris County watersheds. The study involves planning and coordination with HCFCD, Pape-Dawson Engineers, and design engineers for UPRR to develop a comprehensive set of 1D/2D models and flood hazard maps based upon site conditions before and after completion of Project Hunting, a Federal flood risk reduction and channel improvements project under construction in the upper reach of the watershed.

SPCIP, SARA, San Antonio, TX. Utility Relocation Manager. Veronica led a utility relocation team providing critical pre-construction services for a multimillion dollar flood mitigation, ecosystem restoration, and linear park transformation of San Pedro Creek, a culturally significant waterway in the heart of San Antonio. She coordinated the work of design consultants, conducted construction progress meetings, leveraged partnerships with other government agencies to obtain funding for future project phases, and negotiated the acquisition of drainage and utility easements.



Tom Wendorf, PE

Federal Funding-Accounting for Reimbursement and Grant Coordination

BENEFITS TO HOUSTON & NCHFDC

- Houston-based
- Lead role with Hurricane Harvey FEMA funding grant management for Houston First
- Extensive track record of successful FEMA funding expenditure reimbursement to include over 90% for the State of Texas during Hurricane Ike
- Past Director of Public Works for City of San Antonio with extensive technical knowledge of drainage projects

FIRM

Wendorf Beward & Partners

EDUCATION

MA | Public Administration | University of Houston | 1992

BS | Civil Engineering | Texas A&M University | 1982

ACTIVE PROFESSIONAL REGISTRATIONS & CERTIFICATIONS

Professional Engineer
TX | No. 63078

EXPERIENCE IN THE ENGINEERING INDUSTRY | EXPERIENCE WITH FIRM

35 Years | 5 Years

REFERENCES

- **Roksan Okan-Vick**, Senior Vice President of Regional Product Development, Houston First, 713.853.8278, roksan.okanvick@houstonfirst.com
- **Larry Laine**, Former Chief Clerk, Texas General Land Office, 512.924.9760, larrylaine@tds.com

“I am excited to be involved with the HDR team for this drainage project. As a past Public Works Director for the City of San Antonio and a resident of the City of Houston, I understand the importance of maximizing recovery of project expenditures. I am committed to this project from start to finish and will leverage my technical experience and FEMA funding expertise to maximize reimbursement for the City of Houston.”

With experience in both public and private sector, Tom brings a special view of FEMA grant management. He was the Director of Public Works for the City of San Antonio during a period when the city experienced numerous federally declared disaster events. Since that time, he has specialized in grant management and disaster reimbursements for some of the country's largest federally declared disasters. As the lead for the FEMA grant management activities, Tom brings a strong track record of maximizing federal reimbursement.

EXPERIENCE & RESPONSIBILITIES ON SIMILAR PROJECTS

Hurricane Ike Recovery, State of Texas Office of Rural Community Affairs (TxORCA), TX. Program Manager. Tom provided technical assistance to 167 non-entitlement communities in a 29-county area of Texas hardest hit by Hurricane Ike. For this HUD-Funded project, TxORCA's goal was to get infrastructure projects for recovery from Hurricane Ike identified, assessed, scoped and estimated as rapidly as possible to accelerate recovery of the 49,000 square mile region, an area larger than the State of Louisiana. Ultimately the 67 non-entitlement and 14 entitlement communities were provided technical assistance to identify and plan 2,751 projects estimated at \$2.8B in infrastructure eligible for Community Development Block Grant (CDBG) funding allocated by U.S. HUD. Due to the unprecedented nature and extent of the damage ORCA required a new approach to identify and quantify the infrastructure need and recovery requirements. The technical assistance included meeting with the communities and COGs individually and collectively. As a result the effort put TxORCA three months ahead of the previous Hurricane Rita effort that was 10 times smaller than the Ike effort. Tom was key to developing and negotiating a programmatic agreement with the Texas Historical Commission (THC) and the Texas Commission on Environmental Quality (TCEQ). Tom's knowledge and expertise in local and state government operations was critical to the resounding success of the program.

Hurricane Ike Recovery, State of Texas General Land Office (TxGLO), TX. Program Manager. Tom led program management services to the GLO to repair damages to infrastructure caused by Hurricane Ike and to support the design, construction and evaluation of all facets of the program to include: program administration, design and construction project management, construction management and evaluation, Resident Project Representative (RPR) services, public information, information technology and other services necessary to execute the projects. Services also include management, professional engineering and consulting services to TxGLO as necessary to ensure timely and successful delivery of these FEMA-funded projects. Tom worked closely with TxGLO personnel and other resource agencies currently engaged in infrastructure recovery and repair. The program was responsible for overseeing the design and construction contractors performing the work defined under the FEMA Project Worksheets for restoration of infrastructure. Tom also led multiagency coordination with the Texas Governors Division of Emergency Management (GDEM), FEMA, TxDOT, and TCEQ, other Federal and state agencies. Program-wide systems were established for scheduling, budgeting and fiscal monitoring. Program and project controls were established to track project activities to the proposed repairs detailed in applicable FEMA program worksheets. Information releases to media and involvement of the public and program stakeholders also occurred.

HDR's Houston-Based Team brings:

Resilient Flood Reduction **Expertise** | **Accountability**

Proven Federal Project Delivery | **Award-Winning** Urban Designs



VI.7

Experience

VI.7

- VI.7.1. Federally Funded Project Experience
- VI.7.2. Prior Project Descriptions
- VI.7.3. References (Exhibit I-B)

VI.7 | Experience

Since 1964, we have partnered with Texas clients to help shape our communities. We are one of the nation's leading employee-owned, professional engineering and consulting firms offering a full range of civil engineering services including community planning, urban design for parks and recreation, landscape architecture and associated services. Our employee-owners not only span the highly technical disciplines expected of a major architectural-engineering firm, but also provide specialized services in sustainable design, recreational planning, renewable energy, public outreach and economic decision analysis services.

The HDR team demonstrates our experience and depth of resources by the projects in our portfolio - a portfolio that covers both the technical aspects of the NCHFDC scope as well as the delivery of services within the HMGP framework. Project Experience table on the following page summarizes the projects featured in our team's resumes and described more fully in this section. The table illustrates the areas of synergy and application to the NCHFDC. **The HDR team is the team that makes sense to provide for the needs of a challenging, urban flood resiliency project as part of the local HMGP program.**

Similar Experience

Project Name	Federally-funded HMGP/Grant Funding	Multiple Design Disciplines Mgmt	Construction Doc Plans & Specs	Cost Estimating, Project Controls	Structural Design for Hydraulic Structures	Landscape Arch	Subsurface Utility Engineering (SUE)	Environmental Permitting/NEPA	Local/Building Permit Support	H&H Analysis	Floodplain Improvement, Resiliency Focus	Statistical & Physical Modeling	Community Stakeholder Engagement
Harvey Response & Recovery Reimbursement	■	■	■	■	■			■	■		■		■
Hurricane Ike Recovery	■	■											
Harvey FEMA Reimbursement Emergency Disaster Recovery Services	■	■	■	■	■				■				
FEMA Public Assistance Program/ Piney Point Village	■	■		■				■		■	■		
Paradise Valley Creek Water Quality & Community Enhancement HMGP Project	■	■		■	■	■					■		
Plattsmouth Water & Wastewater Infrastructure Restoration after 2011 Flood Event	■	■	■	■	■						■		
Emergency & Permanent Flood Response & Hazard Mitigation at the Cedar Rapids Water Pollution Control Facility	■	■	■	■	■		■	■	■	■	■		■
Hunts Point Peninsula Resiliency Plan	■	■						■			■		■
San Pedro Creek Improvements Project (SPCIP)			■	■	■	■	■	■	■	■	■		■
San Antonio River Improvements Project (SARIP), Museum Reach/Urban Segment			■	■	■	■	■	■	■	■	■	■	■
Fargo Moorhead Flood Diversion	■		■	■	■			■	■	■	■	■	■
Roy G Guerrero Colorado River Metro Park Stabilization	■	■	■	■	■	■		■		■	■	■	
Historic Fourth Ward Park			■	■	■	■				■			■
Brush Creek Basin Plan Formulation	■		■		■	■		■	■	■	■	■	■

VI.7.1 | Federally Funded Project Experience

We understand that successful financial management is important to Houston, and FEMA Hazard Mitigation Grant Program funding is needed for full restoration to more resilient infrastructure. We have national experts who “live and breathe” FEMA policies and procedures as part of their daily experiences. In addition, we have local resources who have assisted Houston and surrounding communities during flood events such as hurricanes Ike, Harvey – including successful applications for HMGP funding. We are the only team with the right mix of individuals who can quickly provide the right level of technical engineering, physical modeling, stakeholder outreach, HMGP and other federally funded project experience to achieve success.

Our grant management services support your reimbursement activities, including Natural Resources Conservation Service – Emergency Watershed Protection (NRCS – EWP), Federal Emergency Management Agency – Public Assistance (FEMA PA), FEMA Hazard Mitigation Grant Program, Federal Highway Administration – Emergency Relief (FHWA ER), United States Department of Housing and Urban Development – Community Development Block Grant (HUD – CDBG) and related programs.

Federal-Funded Project Experience

HDR successfully delivered our first Federally-funded project for the Works Progress Administration (WPA) in the 1930s. Our teaming partner, Wendorf Beward & Partners (WB&P) specializes in working on disaster recovery projects funded by FEMA or other Federally-funded resource agencies. Following Hurricane Ike, the professionals at WB&P provided technical assistance to 167 non-entitlement communities in the 29-county area of Texas hardest hit.



Harvey Response and Recovery Reimbursement | Orange County, TX

Funding Source | Insurance, FEMA and HUD CDBG-DR

Orange County was deluged by 60+ inches of rain as a result of Hurricane Harvey. WB&P was the program manager for the disaster recovery efforts funded by insurance, **FEMA and HUD CDBG-DR**. WB&P developed, reviewed and guided all aspects of the program to include updating the County's Hazard Mitigation Action Plan, identifying and developing a prioritized list of potential projects for hazard mitigation funding to include FEMA 404 and 406 funding and CDBG-DR funds. These projects include Housing Elevation and Buyout Programs, Street and Drainage Infrastructure Projects and repairing damaged County Facilities to include Improved Relocation of several critical facilities and utilizing the FEMA 428 program to repair/improved County Parks.



Hurricane Ike Recovery | Galveston, TX

Funding Source | FEMA

WB&P served as program manager to oversee the cleanup of 80 miles of surf, beach and dune along the Texas coast. 380,000 acres of bay debris removal and sunken vessel recovery in Galveston Bay. The work was completed just in time to allow for the full economic impact of spring break to assist in the economic recovery of these hard-hit regions. Also implemented the use of side scan sonar for the recovery of debris in an environmentally friendly way instead of the old, “drag net” technology that destroyed sea grass and structure. Side scan sonar was subsequently approved as a reimbursable work activity by FEMA for every one dollar in state funding was obtained.



Harvey FEMA Reimbursement Emergency Disaster Recovery Services | Harris County, TX

Funding Source | FEMA

WB&P developed and implemented focused payroll and cost capture for Law Enforcement processes and procedures consistent with FEMA documentation and reimbursement requirements associated with Emergency Disaster Recovery Services rendered by TABC in support of the Texas Hurricane Harvey Disaster Recovery Project. (DR-4332 declared August 23, 2017)



FEMA Public Assistance Program | Piney Point Village, TX

Funding Source | FEMA

Heavy rain events that occurred on May 25, 2015 caused widespread flooding to the Greater Houston area in which the City of Piney Point Village experienced a collapse of approximately 80 linear feet of a major 96-inch corrugated metal (CMP) storm line. The collapse caused a roadway embankment to washout causing safety concerns for the nearby residents and local traffic. HDR quickly responded to the location in which personnel determined that an emergency repair was necessary to allow drainage to be conveyed through the pipe which services approximately 200 acres of a high end residential community. After retaining a Contractor to perform a temporary emergency fix, **HDR worked diligently with the City and FEMA to apply and receive funding under FEMA's Category B services** for the temporary emergency fix to the storm line. After further investigations of the pipe performed by HDR, it was determined that a majority of the pipe had endured significant damaged which could be susceptible to future collapses caused by rain events such as that which occurred in May of 2015. HDR applied for funding to permanently replace the 96-inch CMP **under the FEMA Public Assistance Program**.



Paradise Valley Creek Water Quality and Community Enhancement HMGP Project | National City, CA

Funding Source | FEMA HMGP

The Paradise Valley Creek Water Quality and Community Enhancement Project is one of the current largest multi-benefit mitigation projects in San Diego that will reduce flood risks and improve water quality through creek improvements, stormwater capture, and infiltration. This project will remove 16 properties from the FEMA 100-year SFHA, treat 30 acre-feet per year (AFY) stormwater, and infiltrate 4.6 AFY of stormwater. The project will increase the flood conveyance capacity of the existing creek by upsizing a culvert and reducing erosion along the creek. The existing culvert will be replaced with a new 325-foot-long, 5-foot by 10-foot box culvert, which is properly sized for the 100-year flows in the creek, compared to the existing culvert which is too small to accommodate storm flows and results in flooding.

This project will remove concrete lining and replace it with turf lining, which has proven successful for erosion control and reduction of sediment transport elsewhere in the region. Drought-tolerant vegetation will be planted along the creek for erosion control. Runoff from adjacent streets will be diverted to the creek for conveyances to the biofiltration basin. This will be achieved through modifications of the existing curb inlets, which will also provide safe access to the crosswalk at Paradise Valley Road and Plaza Boulevard and limit the amount of street flooding on Plaza Blvd, which is located along a sump crossing. By directing flows to a new biofiltration basin (currently in construction from a previous phase),

stormwater will be captured, allowing pollutants to settle out before flows are conveyed downstream by the existing storm drain system. Slowing the flows by allowing it to pond in the basin also allows for infiltration of some of the stormwater into the groundwater basin. The new infrastructure constructed by the project will reduce the frequency of flooding and improve the stormwater quality through the area.

HDR has successfully attained \$5.3M in grant funding for all three phases and will begin construction on the two additional phases in late 2020. HDR led the preparation of the HMGP Application through the 2017 Disaster Declaration #4308, prepared the Benefit Cost Analysis (BCA), and is supporting the City through the Construction Phase. HDR is supporting the City in managing the HMGP Quarterly Reporting and tracking the BCA to maintaining the ratio greater than 1.0. HDR also coordinated the design and environmental phases to comply with FEMA's Environmental Planning and Historical Preservation Program and Federal Executive Order 11988, Title 44 Sect 9 Floodplain Management.

The City partnered with the several NGOs to help with the future maintenance of the creek including developing an agreement with the City of San Diego's Transportation and Storm Water Department on long-term operations of the creek



Water and Wastewater Infrastructure Restoration after the 2011 Flood Event | Plattsmouth, NE

Funding Source | FEMA

The City of Plattsmouth is located immediately downstream of the confluence of the Missouri and the Platte Rivers. Critical infrastructure, including the water treatment plant (WTP) and the wastewater treatment plant (WWTP), are located within the Missouri River floodplain and have been susceptible to repeated flooding since the 1950s. The sustained flood event of 2011 impacted the WTP, well fields, WWTP, and sanitary trunk sewer.

HDR supported the City throughout the 2011 flood fight. HDR personnel were on-site in preparation for the flood, providing recommendations for sandbagging and system shutdown. We remained in close contact during the fight, providing assistance as necessary. We worked in close collaboration with the City to assess the damage to City water and wastewater infrastructure and develop recommendations for immediate repair. HDR completed the damage assessments for both plants, completed the project worksheets, worked with FEMA personnel on the funding approach, and completed the design of the repairs.

After immediate repairs were made, HDR continued to work with the City to develop a hazard mitigation project for the wellfield that involved development of one larger well to replace the three damaged wells.

We prepared the HMGP funding application and received approval



for implementation of the project utilizing HMGP funds. Our scope included developing costs estimates, descriptions for FEMA, development of plans and specifications, benefit cost analysis for the mitigation work, completion of FEMA worksheets, and also provided bid phase and construction phase services for its installation.

HDR also assisted the City with developing strategic communications for briefings to the Governor, Nebraska Emergency Management Agency, senators, and the media.

Additional services that HDR has provided to Plattsmouth include:

- Evaluation design and construction services to eliminate combined sewer overflows
- Final design and construction phase services for the Main Street Corridor Improvement Project
- Development and reporting to the NDEQ for the CSO program



Hunts Point Peninsula Resiliency Plan | New York City, NY

Funding Source | HUD Community Development Block Grant – Disaster Recovery

The Hunts Point Peninsula is home to the City-owned Hunt's Point Food Distribution Center. It is also home to a residential community of nearly 12,500 and an active industrial area including a 400 mgd wastewater treatment plant. Physical damage and disruption to the community from storm surge or extreme precipitation could have wide-ranging and long-term negative impacts to the greater region.

HDR led the planning and feasibility study to implement a **\$20M CDBG-DR from the U.S. Department of HUD** plus \$25M in supplemental funds from the City. The two resiliency concepts that were further refined by the HDR team were Energy Resiliency and Flood Risk Reduction for the entire peninsula. The study included a robust data collection and management effort to document existing conditions and prepare a series of risk and vulnerability assessments. Based on these findings, the HDR team identified and evaluated more than 30 project options, minimized potential service disruptions and protected the physical, social and economic wellbeing of community members.

Our team's public outreach approach was critical to project success. The neighborhood is a low-to-moderate income community. To engage stakeholders at all levels, we created a multi-layered process that consisted of an engagement strategy team, a technical advisory group and on-the-ground neighborhood outreach.

After completing the feasibility study, HDR brought the preferred alternative for energy and flood risk resiliency to conceptual design and completed the environmental review per NEPA.



Emergency and Permanent Flood Response and Hazard Mitigation at the Cedar Rapids Water Pollution Control Facility | Cedar Rapids, IA

Funding Source | FEMA HMGP grant

In 2008, the Cedar River flooded the City of Cedar Rapids producing a flood greater than a 500-year flood event. The worst flood in the City's history also submerged the Cedar Rapids Water Pollution Control Facility (CRWPCF), putting them entirely out of service for nearly two weeks and resulting in unsafe discharges of untreated sewage. HDR's local office of engineers assisted the City with 24-hour flood fighting efforts and then mobilized HDR's nationwide resources to assist with emergency recovery. The total cost of flood damage at the CRWPCF was estimated at \$100M.

Beginning the day after floodwaters crested, HDR partnered with the City in an accelerated flood recovery effort that the Cedar Rapids Gazette characterized as a "little short of heroic." That effort put the Water Pollution Control Facility back in business within three weeks and producing pre-flood effluent quality in just over three months. Initially HDR was part of the CRWPCF "think tank", meeting each morning seven days a week to contribute tactically to daily recovery efforts and strategically to longer term recovery efforts at the CRWPCF. In parallel, HDR led efforts working with the City to perform damage assessments and establish recovery plans for the lift stations. As progress was made with the Main Lift Station and primary treatment portion of the CRWPCF, HDR was tasked with detailed damage assessments and leading the effort to identify and implement emergency repairs for the secondary treatment and associated solids handling portions of the plant.

The team of HDR and City staff mobilized for this effort produced bidding documents in a week and a half, received competitive quotes, and had a Contractor on board for \$2.2M of emergency repairs in less than a month. As emergency work on secondary treatment and associated solids handling got underway, HDR was tasked with identifying permanent repairs to the primary treatment, secondary treatment, and associated solids handling portions of the CRWPCF. With assistance from City staff, the team was mobilized producing an inventory of permanent repairs totaling a budget estimated cost of \$8.4M in a two-week timeframe.

We also provided flood hardening recommendations to protect critical infrastructure from a flood event with a greater than 500-year recurrence interval. The study determined that a combination of levee, flood wall, pumping and setbacks to improve flood conveyance was optimum. HDR subsequently completed design of the recommendations, including a plant effluent pump station, diversion sewer modifications, storm sewer modifications, a stormwater pump station, and a flood wall and earthen berm. **Delivering these projects on budget was especially critical, as funding was provided through a FEMA HMGP grant to the City.**

Throughout design and construction, HDR effectively promoted communication and integration between the design team and the Grant Administrator so that evolving situations did not jeopardize HMGP project funding.

Project Experience

The best representation of our qualifications lies in the benefits and successes of our long-term clients for whom we've completed similar work. We have proven our ability to provide sound engineering and cost-saving ideas and we understand the specific needs of our client's facilities. We have highlighted six relevant projects that outline our team's breadth of experience r experience in all aspects of flood control and diversion, drainage and H&H modeling services similar to work under this contract. For each of the following projects, we have established successful partnerships with our clients, reaching performance goals and delivering within the required schedule; to achieve this goal, we employed cost-effective strategies, similar to those required in your scope of work.



VI.7.2 | Prior Project Experience

San Pedro Creek Improvements Project

SARA | San Antonio, TX

Methods, Approach & Controls

San Pedro Creek is one the western creeks or drainage ways in the San Antonio area, five blocks west and roughly parallel to the San Antonio River and River Walk in downtown San Antonio. The creek runs through one of the most historic areas of downtown San Antonio and is heavily constrained into a rectangular channel through this section and eventually converges with the San Antonio River southeast of downtown.

The SPCIP includes the portion of San Pedro Creek from the San Pedro Creek Tunnel Inlet at the north terminus to the intersection of San Pedro Creek and IH-35, downstream of the San Pedro Creek Tunnel Outlet. The approximate total length of the project is 10,350 linear feet. The creek's channel was widened and deepened to mitigate flooding concerns. The project includes 4 miles of trails, 11 acres of landscaped area and will remove 25 acres and 38 adjacent structures from the 100-year flood plain. There are three hydraulic crest gates constructed to enhance the human to water interaction - while allowing flood conveyance - and several waterfall features added to help enhance the feel of the creek. Eight bridges are being replaced and a further six will be retrofitted as part of the project. More than 56,000 feet of structural walls were added in the stream corridor.

The HDR team preformed a complex drainage study of the watershed by developing a new hydrologic and hydraulic model of the upper San Pedro Creek using XPSWMM for use in final design of the SPCIP. The large downtown storm sewer system and the 28-foot diameter by-pass tunnel were all modeled in conjunction with the creek in order to account for watershed timing and storage in this highly urban watershed. The final project solution contains the 100-year floodplain within the San Pedro Creek banks. It is also expected to spur a \$1.5B in beneficial economic impact.

From start to finish, the project is a powerful success story in collaboration, flexibility, schedule achievement and end result. The SPCIP started with an aggressive two-year goal for design. HDR managed a team of over 20 consultants through two significant re-designs sparked by client-requested scope changes, switched to a Construction Manager at Risk (CMAR) execution strategy after the 70% milestone and still opened the first phase of the project on time per the original schedule. **The first phase of the project was awarded a national Grand Award by the American Council of Engineering companies.**

“After four years of the public input process and design, we are extremely gratified and proud to see the progress of the project in construction. To see the vision for San Pedro Creek now become a reality is a great sense of accomplishment.”

Bridget Hinze Weber
San Antonio River Authority Administrator



FIRM(S)

- HDR (prime)
- Pape-Dawson
- Raba Kristner

START/END DATES

February 2014 - April 2018,
ongoing phases

KEY TEAM MEMBERS

- Jeff Mitchell
- James Thomas
- Brandon Hilbrich
- Mike Johnson
- Kenneth Ozuna
- Steve Dean
- Dr. Steve Tomka

COMPLIANCE W/FEDERAL REGULATIONS

USACE

FINAL CONTRACT AMOUNT

\$32.5M

ANY PROJECT CLAIMS

- None

SPECIFIC SERVICES PERFORMED

- Architectural Design Services
- Civil Engineering
- Structural Engineering
- Mechanical, Electrical & Plumbing Engineering
- Geotechnical Engineering
- Surveying
- Hydraulic Modeling
- Archeology
- Cost Estimating
- Landscape Architecture
- Archival Research
- USACE 404/408 Permitting
- Environmental Permitting
- Utility Relocation & Coordination
- Flood Control
- NEPA Documentation
- Historic Bridges
- Channel Design

San Antonio River Improvements Project (SARIP) Museum Reach/Urban Segment

SARA | San Antonio, TX

Methods, Approach & Controls

The San Antonio River Walk is a 2.5-mile stretch of the San Antonio River that is a tourism gem in the heart of San Antonio. In 1998, a 10-year River Improvements Project began, including plans to extend elements and reclaim and restore unimproved or damaged portions of the River Walk.

The HDR team provided multi-discipline support for the 1.3 mile Museum Reach/Urban Segment of this landmark project, supplying structural and civil design, H&H, full design of the only in-channel lock in the state of Texas, and environmental permitting support.

Project goals included first and foremost improvements in flood control, followed by ecosystem restoration and recreation. HDR's civil design work included a new pilot channel and bulkhead walls to allow navigation of tour barges to the upstream terminus. Because the hydrology and hydraulics of the river were critical design factors and end goals, the HDR team updated, modified and calibrated existing models for the entire San Antonio River watershed to an October 1998 storm that was one of the largest of record for the area at that time. Both computational fluid dynamics (CFD) modeling and physical scale modeling were performed to support the lock and crest gate design.

The HDR team also designed walkways, pedestrian bridges, stairs, overlooks, interpretational areas, showcase areas for local art, and bridge improvements. The 1.3-mile extension includes mixed-use pedestrian paths on both sides of the river.

The Museum Reach project was another HDR team success story. HDR supported the project through construction phase to its on-time opening in 2009 and was awarded a local Silver Award by the American Council of Engineering Companies (ACEC) in 2010.

“The design engineering services provided by HDR – including a new lock and dam system for the historic San Antonio River Walk that is both an engineering and tourist marvel – were nothing short of exceptional. The expansion of the River Walk into new reaches combined with hydrologic engineering to enhance flood control and ecosystem preservation demonstrates that engineering is much more than a dry discipline.”

Suzanne B. Scott, General Manager
SARA



FIRM(S)

- HDR
- Raba Kristner

START/END DATES

November 2004 - May 2009

KEY TEAM MEMBERS

- Jeff Mitchell
- Dr. Steve Tomka
- Mike Johnson
- James Thomas

COMPLIANCE W/FEDERAL REGULATIONS

USACE

FINAL CONTRACT AMOUNT

\$8.6M

ANY PROJECT CLAIMS

- None

SPECIFIC SERVICES PERFORMED

- Engineering Project Management
- Cost Engineering
- H&H
- Flood Reduction/Resiliency
- Drainage
- Civil Engineering
- Structural Engineering
- Electrical Engineering
- Lock & Dam Design
- Mechanical Engineering
- USACE 404 Permitting
- Environmental Permitting
- Mitigation Monitoring
- Site Civil Work
- Utility Coordination & Relocation

Fargo Moorhead Flood Diversion

USACE St. Paul District, Cities of Fargo and Moorhead | Moorhead, MN and Fargo, ND

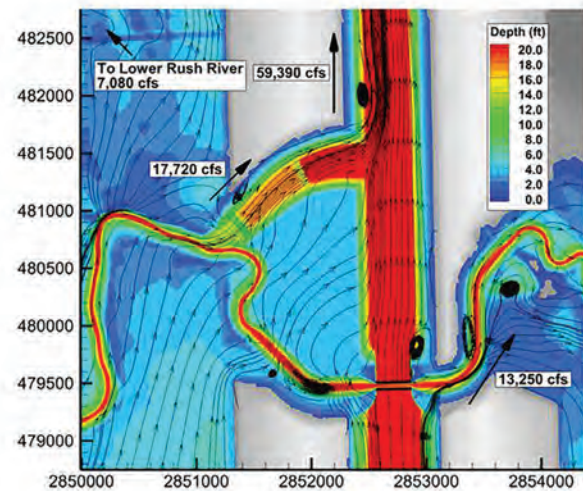
Methods, Approach & Controls

The Fargo-Moorhead metropolitan area (Fargo, ND and Moorhead, MN) is a major health, educational, cultural, and commercial center serving southeastern North Dakota and west central Minnesota, generating thousands of regional jobs and billions of revenue. However, the area is also prone to flooding.

Flood fighting efforts cost the region millions of dollars every year, and the event of emergency flood fighting efforts being overwhelmed would be catastrophic. The Red River has exceeded flood stage in 48 of the past 109 years, and every year from 1993 through 2011. In 1997 the City of Grand Forks North Dakota (population 50,000) was evacuated with significant portions of the city damaged. The estimated regional cost of this flood was \$3B. In 2002, the town of Roseau Minnesota was similarly evacuated and damaged. The Red River peak stages one foot above the 1997 event were experienced in 2009 with major damage to Fargo only averted with sand bagging and impromptu temporary earthen levees designed and constructed as flood waters rose. Average annual flood damages are estimated at more than \$194.8M. This project established permanent flood protection measures for the region, specifically the construction and operation of a flood diversion channel along the Red River of the North to reduce flood risk.

The total project is expected to take the next 10 years or more to complete at a cost of \$1.7B. Project elements include lands, easements, right-of-way, utility relocations, bridges, a 36-mile long diversion channel, hydraulic diversion structures and inlet gates, fish passage, dam embankments, floodwalls, levees, and recreational features. The project is executed through a partnership between the USACE and the project's local sponsor, the Fargo-Moorhead Diversion Authority that consists of the communities of Fargo and Moorhead, along with the counties of Cass, ND and Clay, MN and the Cass County Joint Water Resources District and Buffalo-Red River Water Resources District under a joint powers agreement.

The USACE, Saint Paul District evaluated a large bypass around the cities of Fargo and Moorhead. Current plans focus on a 35,000 cfs bypass capacity. The loss of flood plain storage is anticipated to require downstream mitigation for example with impoundment storage. Beyond this comprehensive flood mitigation in other areas of the basin will also require further flood impoundments and other strategies. To support Fargo-Moorhead bypass planning USACE is developing a set of hydrologic models for all watersheds above the international border. HDR developed 11 hydrologic models covering 17,000 square miles of the basin. The effort represents one of the largest uses of LiDAR in hydrologic model development known in the country. Prior to processing using the ArcHydro GIS software HDR reviewed and hydrologically corrected more than 150,000 locations.



FIRM(S)

- HDR

START/END DATES

June 2012 - Present

KEY TEAM MEMBERS

- Mike Johnson

COMPLIANCE W/FEDERAL REGULATIONS

USACE

FINAL CONTRACT AMOUNT

\$2M

ANY PROJECT CLAIMS

- None

SPECIFIC SERVICES PERFORMED

- Project Management
- H&H
- Physical Hydraulic Modeling & Assessment
- Levee & Floodwall Design
- Highway & Roadway Design Easements
- Right-of-Way
- Land Acquisition
- Utility Relocations
- Bridge Design
- Hydraulic Diversion Structures & Inlet Gates
- Fish Passage
- Dam Embankments
- Recreational Features
- Economic Analyses
- Cost Estimating
- Scheduling

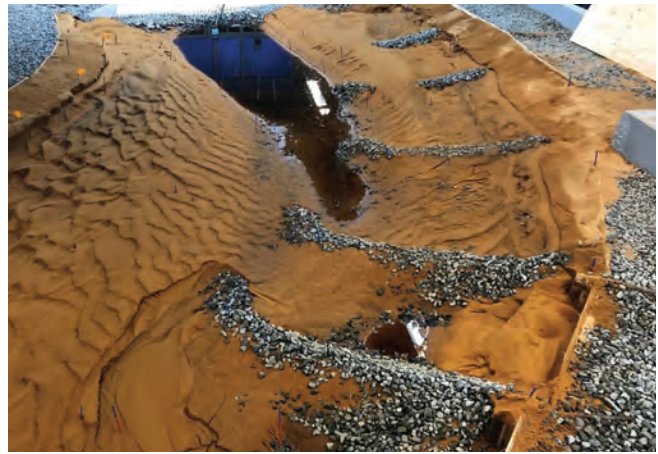
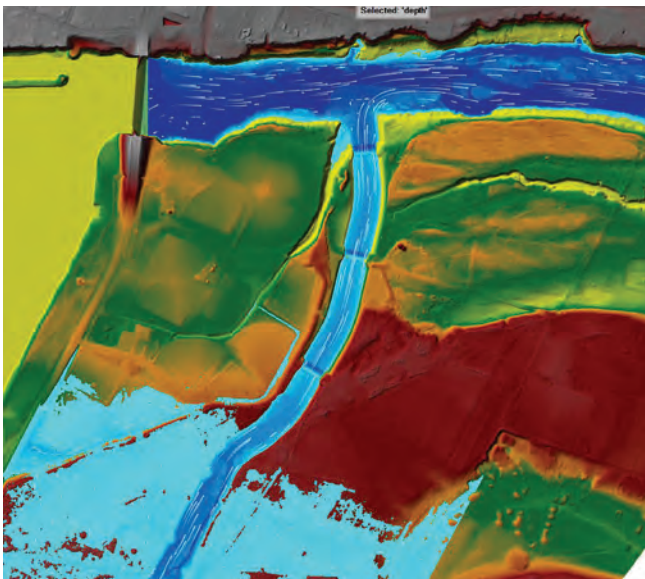
Roy G. Guerrero Colorado River Metro Park Channel Stabilization

City of Austin | Austin, TX

Methods, Approach & Controls

In response to the 2015 federally declared disaster flood, this multi-phase project modifies the floodplain and rehabilitates 2,900 linear feet of Country Club Creek West within the Roy G. Guerrero Colorado River Metro Park near downtown Austin. The stream stabilization and flood risk reduction measures include three, 150-foot-wide concrete hydraulic drop structure spillways, improved floodplain conveyance, native landscaping, and utility protection. The 2015 flood forced the creek to bypass its original alignment resulting in a 24-foot-tall headcut and significant erosion of over 50,000 cubic yards of in-situ soils. This project builds a new channel for the floodplain bypass thereby stabilizing the creek, establishing no adverse impact to the floodplain, protecting the urban park amenities, and reconstructing the pedestrian bridge, trails, reclaimed waterline, and riparian vegetation.

HDR provided the preliminary engineering and technical documentation for successful award of \$8.5M in funding from the FEMA Hazard Mitigation Grant Program. HDR is providing final design, permitting, and construction administration for this \$20M construction project. In the final design phase, HDR performed 2D hydraulic modeling and completed two physical lab studies. A 1:24 scale model of the project area was built to identify cost savings measures, refine the design of the concrete hydraulic drop structure spillways, evaluate sediment transport and scour, and develop stable channel geometry. Photo rendering and visualization was provided to support public engagement. HDR also leads the permitting efforts for FEMA compliance, USACE Section 404 Permitting, Texas Historical Commission approval, and TCEQ permitting.



FIRM(S)

- HDR

START/END DATES

Phase 1: May 2016 - January 2017

Phase 2: August 2017 - May 2019

Phase 3: July 2019 - April 2021 (estimated)

KEY TEAM MEMBERS

- Jeff Mitchell, PE
- James Thomas, PWS, CWB
- Eric Stewart, PE, CFM
- George Doubleday, PE, CFM

COMPLIANCE W/FEDERAL REGULATIONS

FEMA-HMGP

USACE Section 404

FINAL CONTRACT AMOUNT

\$2.1M

ANY PROJECT CLAIMS

- None

SPECIFIC SERVICES PERFORMED

- Federally Funded
- Flood Control
- FEMA
- Channel Diversion
- Plan Formulation & Evaluation
- H&H Analyses (HEC-HMS, HEC-RAS)
- Physical Modeling
- Environmental Studies
- 404 Permitting
- Surveys & Mapping
- Geotechnical Studies
- Engineering Design (Geotechnical, Structural, Civil, Hydraulic)
- Cost Estimating
- Public & Stakeholder Involvement
- Landscape Architecture

Historic Fourth Ward Park

Atlanta BeltLine, Inc. | Atlanta, GA

Methods, Approach & Controls

HDR was selected by Atlanta BeltLine, Inc. to provide park design and construction services for the Historic Fourth Ward Park. On a site described by The Atlanta Journal-Constitution as “a barren expanse of cracked concrete, weeds and towering trees surviving against a background of neglect,” a five-acre parcel within the Atlanta’s Historic Fourth Ward has undergone a dramatic transformation.

This stunning new park in one of the city’s oldest neighborhoods did not begin with a vision to create something beautiful. It grew, rather, out of a need to address the very unglamorous urban problem of combined sewer overflows, or CSOs. The idea came from the people – rather than adding more costly, traditional sewer tunnels to address the problem, the blighted industrial lowland area has been transformed into a beautiful park surrounding a functional stormwater retention pond. Landscape architects led a team of engineers and a local artist to design Phase 1 of Historic Fourth Ward Park. This park represents the first constructed park of a park system for the Atlanta BeltLine. Parks are a component of the BeltLine project, a regional 22-mile trail/transit corridor that weaves through both commercial and residential centers in Atlanta.

Design details and sculptural elements disguise engineering solutions by celebrating the water as it enters the park at four entry points. The stormwater pond serves as the centerpiece of the park, surrounded by walking trails, urban plazas, native plantings and an amphitheater. This project is a harbinger for development and revitalization, providing the cornerstone for a sustainable, high-density and high-quality urban transformation along with an outstanding design solution for a serious CSO problem.

AWARDS

- American Council of Engineering Companies (ACEC): Engineering Excellence Awards, Honor Award, National, A) Studies Research & Consulting, 2010, Received Honor Award
- ACEC Engineering Excellence Awards, Honor Award, National, A) Studies Research & Consulting, 2011
- ACEC of Georgia (ACEC/GA): Engineering Excellence Awards, Grand Award, Local, 2010
- ACEC/GA: Engineering Excellence Awards, Grand Award, Local, 2011
- American Society of Landscape Architects – Georgia Chapter (ASLA/GA): GAASLA Annual Design Awards, Honor Award, Local, General Design; Residential Design, 2009
- ASLA/GA: GAASLA Annual Design Awards, Honor Award, Local, General Design; Residential De, 2012, Won a Merit Award.
- Atlanta Urban Design Commission: Urban Design Awards, Award of Excellence, Local, Public Works of Art Historic P, 2011, Award of Excellence Parks and Recreation



FIRM(S)

- HDR

START/END DATES

November 2008 – May 2010

COMPLIANCE W/FEDERAL REGULATIONS

\$1.8M

FINAL CONTRACT AMOUNT

\$23M

ANY PROJECT CLAIMS

- None

SPECIFIC SERVICES PERFORMED

- Architectural Design Services
- Civil Engineering
- Structural Engineering
- Mechanical, Electrical & Plumbing Engineering
- Geotechnical Engineering
- Surveying
- Hydraulic Modeling
- Archeology
- Cost Estimating
- Landscape Architecture
- Archival Research
- Environmental Permitting
- Utility Relocation & Coordination
- Federally Funded
- Flood Control
- FEMA/NEPA
- Historic Bridges
- Channel Diversion

Brush Creek Basin Plan Formulation

USACE Kansas City District | Kansas City, MO & Johnson County, KS

Methods, Approach & Controls

Visitors to the Country Club Plaza in Kansas City, Missouri, enjoy the area's premiere shopping and entertainment along with views of Brush Creek, a tributary of the Blue River that runs through the 15-block district. As one of the area's most recognized waterways, Brush Creek straddles the Kansas/Missouri state line. Brush Creek has also been the location of a series of historic flood events, including one in September 1977 that left much of the Plaza under up to six feet of water, resulted in 25 fatalities, and damages of more than \$66M.

HDR utilized a multi-disciplined project team including biologists, water quality specialists, environmental scientists, and geotechnical, civil, and H&H engineers. HDR formulated and evaluated various alternatives to address ecosystem restoration, flood risk management, and related issues within the watershed. Plan formulation considered both structural and non-structural measures, and included a wide array of features or activities including stream corridor restoration, bioengineering, bank stabilization, grade control, stormwater best management practices (BMPs), bioretention/wetland cells, flood warning systems, conveyance improvements, property acquisition, and stream buffers. The primary outputs of the proposed plan are habitat units that drive aquatic ecosystem restoration within an urban setting. These habitat units were determined based on field data surveys, characterization of sediments, substrate, and vegetation; habitat condition assessments; evaluation of multiple habitat suitability opportunities; and cost-effectiveness and incremental cost analysis to identify the selected plan.

The integrated feasibility study (combined feasibility and NEPA) identified the federal interest in multi-purpose plans for implementation. In addition to the USACE feasibility study document, another key outcome of the study was the development of a Watershed Management Plan to guide local governments and stakeholders in both short term and long-term watershed planning, coordination, and implementation activities.

HDR conducted the feasibility study in accordance with USACE Planning Guidance (ER 1105-2-100) and follows the six-step planning process. This was a multipurpose feasibility effort considering opportunities for ecosystem restoration, flood risk management, water quality improvements, and compatible recreational improvements within an urban setting.



FIRM(S)

- HDR

START/END DATES

July 2013 – May 2015

KEY TEAM MEMBERS

- Mike Johnson

COMPLIANCE W/FEDERAL REGULATIONS

USACE

FINAL CONTRACT AMOUNT

\$1.1M

ANY PROJECT CLAIMS

- None

SPECIFIC SERVICES PERFORMED

- Plan Formulation & Evaluation
- Cost-Effectiveness & Incremental Cost Analysis (IWR-Plan)
- H&H Analyses (HEC-HMS, HECRAS, XPSWMM)
- Ecosystem Restoration & Habitat Models (HEAT, UWIM)
- Economic Analysis
- Environmental Studies & NEPA
- Surveys & Mapping
- Geotechnical Studies
- Engineering Design (Geotechnical, Structural, Civil)
- Cost Estimating
- Public & Stakeholder Involvement
- Federally Funded
- Flood Control
- FEMA/NEPA
- Historic Bridges
- Channel Diversion

**EXHIBIT I-B
REFERENCES
LIST OF PREVIOUS CUSTOMERS** (page 1 of 2)

1. Name: Kerry Averyt Phone No.: 210.302.3633
Address: 100 E. Guenther Street, San Antonio, TX 78204
Contract Award Date: February 2014 Contract Completion Date: April 2018, ongoing phases
Contract Name/Title: San Antonio River Authority | San Pedro Creek Improvements Project
Email: Kaveryt@sara-tx.org@sara-tx.org
Project Description: Floodplain improvement project on the San Pedro Creek, featuring extensive channel widening, deepening, bridge replacement, and urban amenities; recipient of ACEC National Grand Award in 2019.

2. Name: Suzanne B. Scott Phone No.: 210.302.3613
Address: 100 E. Guenther Street, San Antonio, TX 78204
Contract Award Date: November 2004 Contract Completion Date: May 2009
Contract Name/Title: San Antonio River Authority | San Antonio River Improvements Project (SARIP) Museum Reach/Urban Segment
Email: sbscott@sara-tx.org
Project Description: Floodplain reduction project on the San Antonio River including channel improvements, ecosystem restoration, and urban amenities; recipient of ACEC Regional Silver Award.

3. Name: Terry Williams Phone No.: 651.290.5517
Address: 180 5th Street E., St. Paul, MN 55101
Contract Award Date: June 2012 Contract Completion Date: Present
Contract Name/Title: USACE, St. Paul District | Fargo Moorhead Flood Diversion
Email: terryl.l.williams@usace.army.mil
Project Description: H&H Study (including physical modeling) and planning studies, preliminary design for 36-mile-long river diversion channel and related scopes including pump stations. Final project vision will exceed \$1.7B.

4. Name: Jules Parish Phone No.: 512.974.9385
Address: P.O. Box 1088, Austin, TX 78767
Contract Award Date: May 2016 Contract Completion Date: April 2021
Contract Name/Title: City of Austin | Roy G. Guerrero Colorado River Metro Park Channel Stabilization
Email: Jules.Parrish@austintexas.gov
Project Description: Final design, permitting, and construction of \$21M of drainage and stream stabilization improvements to repair and restore significant damage from a 2015 federally-declared flood disaster. HDR assisted the City secure \$8.5M in funding from the FEMA HMGP for this urban park improvement near downtown Austin.

**EXHIBIT I-B
REFERENCES
LIST OF PREVIOUS CUSTOMERS** (page 2 of 2)

1. Name: Kevin W. Burke, FASLA Phone No.: 404.477.3637
Address: 100 Peachtree Street, Suite 2300, Atlanta, GA 30303
Contract Award Date: November 2008 Contract Completion Date: May 2010
Contract Name/Title: Atlanta BeltLine, Inc. | Historic Fourth Ward Park
Email: kburke@atlbeltline.org

Project Description: Designed a five-acre park in historic area of Atlanta to correct flooding in an industrial lowland area, repairing a serious CSO problem and providing the cornerstone for a sustainable, high-density and high-quality urban transformation along with an outstanding design solution.

2. Name: John Grothaus Phone No.: 816.389.3110
Address: 601 E. 12th Street, Kansas City, MO 64106
Contract Award Date: July 2013 Contract Completion Date: May 2015
Contract Name/Title: USACE Kansas City District | Brush Creek Basin Plan Formulation
Email: john.j.grothaus@usace.army.mil

Project Description: Feasibility study (including preliminary NEPA), watershed management plan for improvements to the Brush Creek Basin watershed; proposed improvements cover ecosystem restoration, flood resiliency, and related issues.

3. Name: _____ Phone No.: _____
Address: _____
Contract Award Date: _____ Contract Completion Date: _____
Contract Name/Title: _____
Email: _____
Project Description: _____

4. Name: _____ Phone No.: _____
Address: _____
Contract Award Date: _____ Contract Completion Date: _____
Contract Name/Title: _____
Email: _____
Project Description: _____

HDR's Houston-Based Team brings:

Resilient Flood Reduction **Expertise** | **Accountability**

Proven Federal Project Delivery | **Award-Winning** Urban Designs



VI.8

- VI.8.1. Work Capacity
- VI.8.2. Project Engagement Plan
- VI.8.3. Work Plan
- VI.8.4. Quality Control Program
- VI.8.5. Federally Funded Project Compliance

VI.8

Capacity to Perform

VI.8 | Capacity to Perform

The HDR Team is uniquely experienced in floodplain reduction projects constructed in highly urbanized settings. Our comprehensive portfolio also covers the key aspects of permitting for these projects – including FEMA/Federal coordination – and will bring this experience to the successful execution of the NCHFDC project. Led by our Project Manager, **Jeff Mitchell**, we bring a team that has implemented similar, award-winning projects such as the SPCIP and the Urban Segment of the San Antonio River Improvements Project in San Antonio. We have added key, local professionals in the Houston area with a demonstrated track record in the region, who have detailed knowledge of the concept evolution of the NCHFDC project and its goals over the past 20 years. In terms of capacity to perform, we truly bring past project experience, a national presence and capability, local participation, expertise, and heart. **The HDR team knows what to do, is available, and ready to begin.**

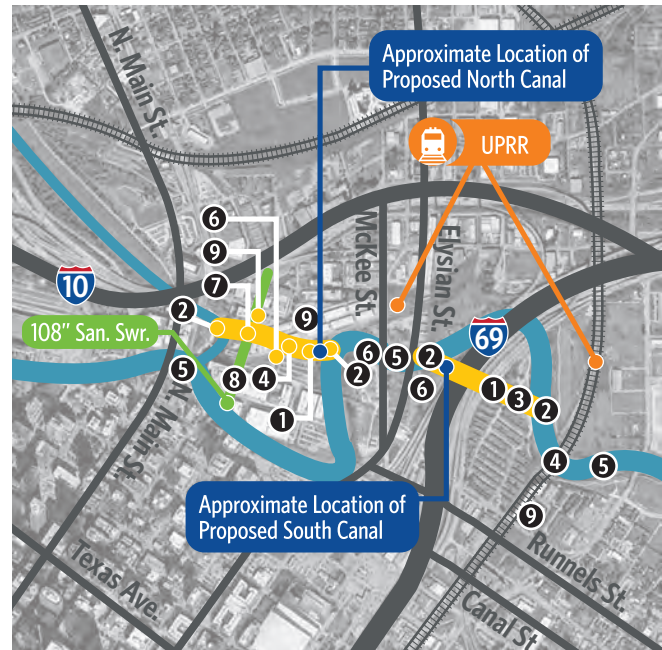
The HDR team will further demonstrate our robust capacity to perform through key and important metrics. First and foremost in our capacity to perform, we will demonstrate our understanding of key elements of the project scope: we know what this project entails and will require. **The HDR team has been structured with key discipline and subject matter leads to match up with these project requirements.**

In addition to our clear understanding of critical scope elements - FEMA floodplain compliance, permitting, risk management, utility relocation and stakeholder engagement/public outreach - we present these key details:

- An outline of our overall staffing plan and ability to fulfill the project scope
- **A plan for project engagement**, particularly in the critical first 30, 60, and 90 days after receiving notice-to-proceed
- **A detailed, overall schedule** of the project delivery that shows our grasp of the scope components integration of critical permitting activities and approvals as they relate to design delivery and agency authorization of the project
- **Methodology and approach for critical quality control and quality assurance** of our team's professional services and deliverables
- **A plan for compliance** with critical regulations related to the Hazard Grant Mitigation Program (HMGP)

Critical Project Elements

The three project areas defined in the project scope are shown in the two maps below. **The numbers indicate critical project elements which we discuss on the following pages.**



1. Complex Hydraulic Analysis and Design

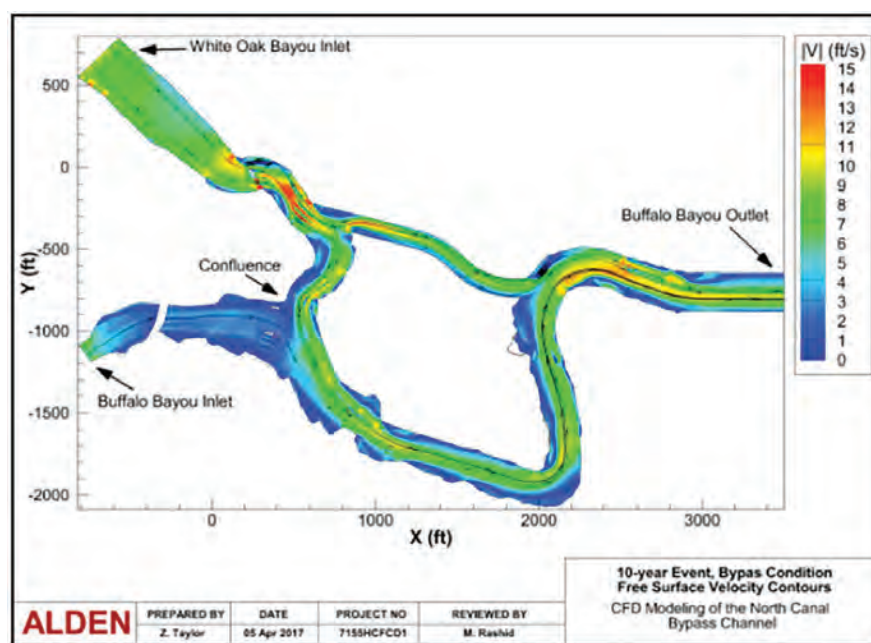
Simply put, improved flood resiliency/ floodplain reduction and achieving anticipated floodplain goals is the central mission for the NCHFDC project, in response to recent, devastating storms such as the Hurricane Harvey, Tax Day 2016 and Memorial Day 2015 events. The coming NHHIP brings further impetus to these improvements, both in terms of required mitigation and economy of design. Achieving anticipated reductions in water surface elevations and floodplain in key downtown areas, and accomplishing this within the funding goals established, is further necessary to ensure the viability of FEMA HMGP funding. With these pivotal, goals squarely in view, the NCHFDC must get the hydraulic analysis correct and be able to converge on solution scenarios that meet the project goals for floodplain reduction. Moreover, our team knows how to navigate the FEMA floodplain permitting process and has experience with making informed decisions based on the risks associated with floodplain redevelopment. The HDR team has organized to this end with key professionals in the field of hydrology and hydraulics to guide and perform this critical work element. **Derek St. John** from Gauge Engineering and **Lonnie Anderson** from Pape Dawson Engineers **joined our team with detailed insight to the TxDOT-led, unsteady 1D HEC-RAS model that has informed the project scope and HMGP application, as well as the development of new, combined models of the Buffalo, White Oak and Little White Oak bayous that are emerging from the HCFCD MAAPnext effort.** HDR also adds H&H experts in the state of Texas who successfully completed **SARIP Urban Segment and SPCIP studies which achieved similar goals in floodplain reduction while balancing diverse project criteria, and hit the mark.** **Dr. Daniel Gessler** from Alden Labs joins our team to provide for computational fluid

dynamics (CFD) modeling and physical scale modeling to shape and validate the HEC-RAS findings and provide detailed understanding to guide hydraulic channel and hydraulic structure design. **Alden Labs performed early CFD modeling in study of the North Canal Diversion in 2017 as a precursor to the TxDOT hydraulic study. Their addition to the HDR team brings more institutional knowledge, a leg up in model understanding and value-added expertise. Our prior experience and knowledge of the project will save time and money for the City of Houston, as well as mitigate some project risk.**

2. Hydraulic Structure and Channel Design

Hydraulic structure design and geo-structural analysis and design are closely tied to the project hydraulic analyses and follow closely in priority toward providing protection of the public through experienced design, constructability and cost-effectiveness. **Alden's earlier CFD modeling work shows the proposed North Canal diversion will create areas of high velocity and scour potential at the diversion entrance/exit, as well as increased channel velocity and scour potential upstream along White Oak Bayou.** The South Canal diversion has not yet been modeled with CFD, but HEC-RAS models predict similar results may be expected at the south diversion transitions. Depending on the channel options selected, key structural and geo-structural design requirements will include items such as scour protection, design for hydrodynamic forces, slope-stability and seepage analyses, rapid draw-down effects, temporary support of excavation, permanent retaining wall design of multiple wall types, control of groundwater and design for flotation effects. Temporary cofferdam or similar provisions will likely be required for constructability in actively flowing channels, especially at diversion tie-in locations. The HDR team brings an impressive depth of professional experience in this important area of scope, with projects such as SPCIP, Cedar Rapids, SARIP Urban Segment and others. **Key members of the SPCIP structural team, such as Chad Zimmerman, Kenneth Ozuna and others, will bring successful execution strategies and lessons learned to benefit the project.**

Prior CFD Analysis of North Canal by Team Member, Alden Labs



3. Coordination of Proposed Channel Modifications & Impacts to Existing TxDOT Facilities

In the Yale/Heights project area, proposed channel improvements intersect existing TxDOT rights-of-way (ROW) and infrastructure. We know that key considerations such as bridges, drainage, utilities, hazardous materials and environmental/regulatory compliance must be coordinated with TxDOT stakeholders.

Within the South Canal project area, many elements of existing TxDOT infrastructure will be decommissioned as part of the NHHIP, but will still require detailed coordination relative to demolition and the footprint, criteria and impact of South Canal. The design of the NCHFDC will be deeply meshed with the TxDOT design-build procurement and construction of NHHIP Segment 3. As one of the TxDOT Houston District's GECs on Segment 3 (downtown), HDR provides ROW acquisition, traffic control and METRO coordination support. Furthermore, we have participated in major design-build procurements of transportation projects in Texas and across the nation.

According to recently proposed schedules, the NHHIP will issue draft RFP documents around the time NCHFDC receives notice to proceed. Construction is anticipated to start while NCHFDC is still in design, necessitating detailed and systematic processes for the project teams to effectively communicate during the design-build proposal phase and throughout design. Establishing, delivering, and protecting agreed upon design hold points between the two projects will be paramount to avoiding negative commercial impacts, particularly to the NHHIP.

The HDR team will satisfy capacity to perform by defining a key coordination liaison with the NHHIP who has visibility and an understanding of both projects. These interfaces with the NHHIP team will provide valuable insights and connections while coordinating the NCHFDC and NHHIP. Our team has strong experience in the area of TxDOT coordination, having successfully accomplished similar scopes with multiple facets of coordination on the SARIP Urban Segment/Museum Reach (IH 35 and US 281) and SPCIP (IH 35 and South Alamo Street) projects. **Keith Neshyba** will lead our TxDOT coordination. He has over 30 years of experience working with TxDOT, including seven years working for the TxDOT Houston District prior to joining HDR. We recognize the importance of coordination of impacts to existing TxDOT infrastructure and have identified discipline leads with relationships to satisfy this capacity in the bridge, drainage, roadway, utilities and environmental compliance areas. Keith and **Muhammad Ali** (Gauge Engineering) will lead coordination with TxDOT for the South Canal and Yale/Heights project segments, respectively.

4. Coordination of Impacts to Rail Facilities

The NCHFDC segment will necessarily impact the existing "Terminal-Passenger" Track owned by the Union Pacific Railroad (UPRR) which provides access to the existing Amtrak station. Current project scope calls for a bridge crossing over the coming canal diversion and a potential shoo-fly. The rail line and structure, if needed, would be designed and constructed by the NCHFDC project. In addition, the latest hydraulic studies show an increase in flows and elevated water surface elevation at the existing rail crossing of UPRR's "West Belt" line over the Buffalo Bayou, immediately downstream of the South Canal diversion. The extent of this impact at the south crossing will depend on the scope of stormwater detention basins constructed separately from the NCHFDC – potentially through the NHHIP. Anticipation and coordination of railroad-acceptable solutions is of paramount significance. It is extremely important to reduce schedule impact risk by developing acceptable solutions to rail stakeholders and design these solutions appropriately, as our experience has shown that rail coordination can be a critical path to public infrastructure projects. **HDR has been a preferred A/E provider to UPRR for more than 30 years. Russell McNaught** will lead our rail coordination and rail design team. He has worked on Texas projects since 2006, and is local to the HDR Houston office. **HDR is highly qualified to perform in this scope capacity and has already developed potential strategies that could allow the North Canal rail crossing to be temporarily taken out of service while the North Canal is under construction – without the need for a temporary shoo-fly. This approach will save the City of Houston both time and money.**

5. Complex Environmental Permitting For Modification of Federal-Project Channels and Waters

Our team understands the importance of identifying sensitive project and permitting issues, along with establishing early consultation and mitigation efforts while not compromising project objectives for project. Project area scopes impact the banks of Buffalo and White Oak bayous, many portions of which were originally included in the Buffalo Bayou and Tributaries, Texas Project authorized by Congress in the 1930s and regulated since that time under Federal interest. The anticipated environmental permits required by the NCHFDC will include nationwide permit(s) for Section 10/404, Section 408 engineering review, Section 4(f) and Section 106. The project will require the rapid collection of data and analysis of completed reviews to determine additional regulatory actions and supplemental NEPA evaluations that will require an experienced, multi-discipline, multi-agency environmental permitting team. We will identify options to consider for avoidance and minimization of impacts to reduce cost and streamline the permitting process. We have the experience, track record and capacity to perform in this critical area for the project. **Our strategy will engage in a "rapid gap analysis" in**

view of the NEPA documentation already performed and largely completed by TxDOT/FHWA for the NHHIP, and determine additional NEPA actions and documents that will be potentially needed by USACE. There has been local discussion of implementing programmatic Environmental Assessment documentation in facilitation of pending HMGP projects such as North Canal, and these avenues will be evaluated as well. It will be critical to satisfy each agency's requirements for scoping, alternatives analysis and impact assessment commensurate with their jurisdictions. Led by **Christine Magers**, our team has senior permitting leaders for USACE, FEMA and FHWA agencies along with key regulatory experience with SHPO, USFWS, and NOAA. Upon notice-to-proceed, Christine will organize chartering meetings with key agencies to gather existing information and clearly define the roles, responsibilities, and communication protocols critical to a successful permitting strategy. **The local HDR team has successfully acquired Section 408 approval for 5 projects in the past 2 years with the Galveston District and also has more than 10 nationwide permits and 5 individual permits currently under review in this District. We provide benefit by having an established relationship with permitting agencies and knowing their procedures, which will ultimately save time and money.**

6. Impacts to Existing/New Pedestrian Trails

The NCHFDC includes channel modification and new channel diversion scope that will impact existing, pedestrian and multi-use pathways. Channel widening in the Heights project area will encroach and impact key segments of the White Oak Bayou Greenway Trail. The North and South Canal project segments must anticipate and leave space for pedestrian access, connectivity, and potential green space design guidelines. We understand this need and are positioned to accommodate those requirements. Our team includes partners who have worked with HDR to provide over 25,000 linear feet of pedestrian and multi-use trails along urban waterways within tight right-of-way (ROW) constraints, both at "high bank" (above the level of flood risk) and "low bank" (within the risk of flood inundation). **Derek St. John led a proof of concept study for a gravity-flow inverted siphon stormwater tunnel and surface stormwater conveyance improvements for St. George Place Redevelopment Authority – TIRZ 1, and will act as team leader for the Yale/Heights project area design in TIRZ 5.**

7. Coordination of Channel Modifications with Existing Bridges and Infrastructure

The NCHFDC project scope includes channel modifications around bridges, changes to channel hydraulic conditions that will impact existing bridges, pipe crossings and the design of new bridges with hydraulic constraints and criteria. In most cases, prior studies leading up to the NCHFDC have focused on hydraulic requirements

and necessary channel modifications for hydraulic benefit and have deferred review of constructability and feasibility pertaining to bridges and pipeline crossings. We are ready to meet the diverse challenges related to bridge coordination and design in a complex urban setting. Between the SARIP Museum Reach and San Pedro Creek projects in San Antonio, HDR navigated the details of channel widening and deepening within tight project limits in highly urban (and historic) contexts. All told, these two projects brought channel improvements (including pedestrian paths) underneath 16 existing city bridges and designed and replaced 8 more bridges in the heart of downtown San Antonio. All eight bridge replacements included complex construction sequencing and were interwoven with staged, joint-bid utility relocations and detailed plans for traffic control. Both bridge replacement and preservation scopes included structures in the TxDOT inventory. **Kenneth Ozuna**, former (retired) TxDOT Houston District Bridge Engineer with 35 years of experience, along with local subconsultants possessing extensive experience with the City of Houston, will lead this team effort. We have **the capacity to understand and perform the bridge scope associated with NCHFDC.**

8. Knowledge of Design and Mitigation of Impacts to Buried Utilities

Buried utility documentation, proactive utility owner coordination, and utility relocation will be critical to the success of NCHFDC. The North Canal diversion segment will extend across the current North San Jacinto Street ROW, with numerous known utilities that will be in conflict and need strategies for accommodation or relocation, one by one. Fortunately, the existing 108-inch diameter sanitary sewer that follows the alignment of North San Jacinto Street appears to be sufficiently below the invert of the proposed diversion channel as currently planned. **Our M/WBE teaming partner, The Rios Group, will verify this and other buried utilities for the project.** The HDR team will demonstrate capacity to perform in this key scope area by bringing local civil and utility design firms with proven, local expertise to bear – such as **Rafael Ortega** with Aurora Technical Services, under the leadership of **Steven Dean** (Pape Dawson Engineers), a discipline lead who has successfully worked with HDR for decades. Existing utility strategies such as an aggressive acquisition and review of existing record documents, early and accelerated development of a utility conflict matrix, timely communication with utility owners, and a phased used of SUE exploration will be employed. Where future construction schedules may dictate and funding guidelines allow, our team has learned that joint-bid and reimbursed utility relocation design and construction may present worthwhile benefits such as reducing cost and accelerating schedules.

9. Impacts to Existing Structures and Properties – Stakeholder Coordination and Communication

The proposed North Canal diversion will impact a number of buildings and properties along North San Jacinto Street; the Houston Metro Buffalo Bayou Facility (including the building currently occupied by the Harris County Sheriff's office) and the building occupied by Touch Makeup Academy on the corner of North San Jacinto and Wood Street will all be removed by the north diversion. The affected footprint may change if an alternate canal alignment becomes recommended due to hydraulic optimization. Numerous additional properties and local stakeholders will be impacted by the construction process and altered urban landscape. In the area of South Canal, similar impacts will occur, predominantly gathered within the footprint of the TxDOT NHHIP. The Yale/Heights project improvements will impact the White Oak Bayou Greenway and its attendant interest groups, including the significant local funding partner, TIRZ 5. Depending on downstream hydraulic impact mitigation strategy, there will likely be some properties impacted by an expanded downstream floodplain. Therefore, effective communication and stakeholder dialog, under the authority of the City of Houston, but facilitated by **Trina McGuire-Collier**, our Stakeholder Outreach Coordinator, will be critical to earning community trust and communicating the significant floodplain reduction benefits of the NCHFDC. Our team is structured and staffed to deliver in this area of project scope as well. M/WBE teaming partners, **Hollaway Environmental+Communications Services and KGB Texas**, will support Trina in providing strategic communications services and proactive stakeholder interaction, as requested by the City of Houston. On similar fronts, the HDR team has engaged in stakeholder coordination on the SPCIP project since 2014. We continue to attend monthly steering group meetings and provide regular community updates. The HDR team has also assisted with multiple public design review engagements and charrettes to both gather and give feedback. We have found that the use of multiple venues and interactive, web-based social media communication tools can be appropriate and effective in stakeholder dialog. **We are prepared to meet the challenges of stakeholder coordination for the NCHFDC.**

MAAPnext Stakeholder Outreach

Trina McGuire-Collier and Leslie Hollaway are managing stakeholder outreach and coordination on the HCFCD MAAPnext, giving our team specialized understanding of the special conditions and needs of Houston and Harris County with regard to flood risk awareness.



VI.8.1 | Work Capacity

We assembled a team of both local and national staff with experience on similar, award winning projects, and brings those capabilities together in a deep bench of professionals with the capacity to perform and steer the NCHFDC to success. The majority of our 15 key personnel are either local to Houston or the State of Texas. Our team is led by the HDR Project Manager, **Jeff Mitchell**, a Houston native who returned to the area eight years ago and will be 100% available to the NCHFDC upon contract award. For the past six years, Jeff has directed the design team of the SPCIP Project in San Antonio and with that project winding down at the end of July, 2020 in design, he is ready to bring this experience to the NCHFDC. Jeff has 25 years of tenure as an experienced project manager and will work with the Project Controls team to personally oversee and monitor the staffing commitments within HDR and among subconsultants throughout the project.

The HDR team will be mobilized and operational within seven days of contract execution.



VI.8.2 | Project Engagement Plan

The HDR team will fully implement the processes, procedures and accountabilities defined in the HDR Project Management Plan (PMP), Quality Management Plan (QMP) and project-specific, project controls requirements. With respect to project engagement and organizational structure for the NCHFDC, HDR perceives that time is of the essence and schedule-criticality should influence the team structure. There is strong governmental and stakeholder interest in advancing flood resiliency improvements to completion in the Houston area. In addition, HMGP grant funding has defined timeframes for implementation and companion projects such as the NHHIP require these improvements to be completed with timely execution.

HDR considers the three separate areas of the project (North Canal, South Canal, and the Yale/Heights Improvements) to be sufficiently distinct and contain unique sets of criteria. As such that these segments may be progressed within the overall project as three, parallel scope deliveries for key disciplines within the structure of one overall project managed by HDR. If the City of Houston agrees with this approach, HDR proposes to structure design analysis and production for key disciplines - such as survey sciences, data acquisition, civil, structural, drainage, and utility design - using parallel execution teams according to project area. This more

focused execution of separate scopes will allow many of the heavy lifting work elements to proceed at an accelerated pace and with greater precision.

HDR will structure and monitor work flows and assignments within the overall team accordingly. In addition to elements of the team focused on project area, a number of the disciplines and scopes within the NCHFDC such as H&H, environmental permitting, project controls and management, stakeholder coordination, MEP, and landscape architecture will be most efficiently progressed at the comprehensive project level, covering and extending between the project areas. The Team Organization Charts contained in Section VI.6.2 show the details of this proposed organization structure.

In addition to this area-centered team execution focus, the following, project-specific processes will be implemented to effectively progress and manage the NCHFDC:

- Storage and maintenance of project files and records on a centralized platform accessible to the design team, City of Houston, and key interlocal partners as appropriate. Available platforms include server-based systems, such as Bentley Projectwise and web-based platforms such as Building Information Modeling (BIM)-360. HDR has used the Projectwise system to maintain common and centralized files for the SPCIP since its inception in 2014. Centralized files and file access become even more important to ensure high productivity and quality in the current atmosphere of COVID-19.

Initial Project Milestones – 30-, 60-, and 90-Day Focus

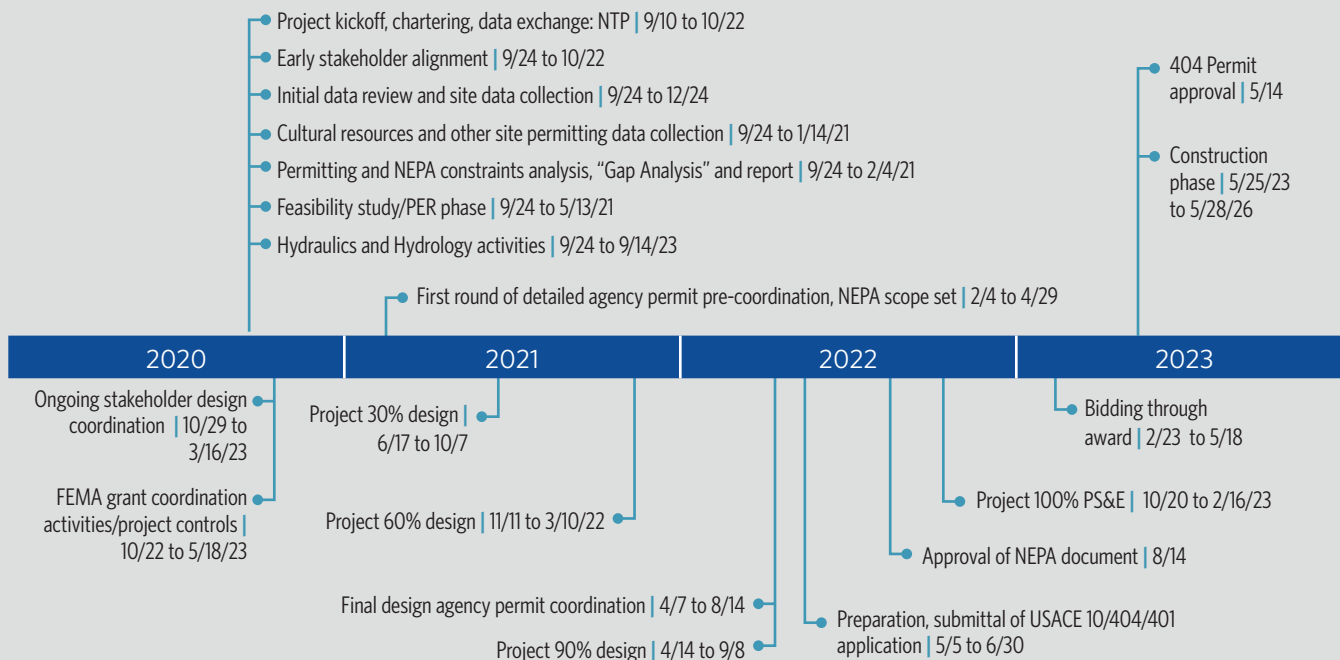
In preparing for a swift and efficient start to the NCHFDC, HDR has begun to develop a detailed project schedule to guide team planning. This initial schedule is informed by our successful work on similar projects; specifically our team's knowledge of the likely environmental permitting requirements and interplay between permitting and design activities. This schedule will need to be validated and expanded during project kickoff and chartering, as existing site data, details of the project scope as defined in the HMGP grant application, and permitting/NEPA details related to the NHHIP are shared and reviewed by the design team. The HDR initial schedule highlights the following milestones and focus elements in the first 90 days of the project following contract execution.

1 st 30 Days Activities & Milestones	1 st 60 Days Activates & Milestones	1 st 90 Days Activates & Milestones
<ul style="list-style-type: none"> • Stakeholder communication • Public engagement plan and kickoff • Effective mobilization of design team key staff • Project kickoff – design team and City of Houston • Project chartering: scope and schedule alignment and schedule refinement establishment of project controls • Data requests by design team, dissemination of existing and site data for design team review • Early survey science activities: rights of entry, apparent right of way research, existing utility research, start of channel bathymetry • Early site activities: site access and review in project areas by key design team disciplines, acquisition of localized LIDAR, focusing on standing features • Early permitting activities: start of ordinary high-water mark (OHWM) and wetlands delineations, review of existing NEPA and permitting data, start of environmental permitting "Gap Analysis" and permitting constraints analysis, Antiquities Permit coordination between City of Houston and Texas Historical Commission (THC) • Early design activities: review of hydraulic models, start of review of existing structural, utility, geotechnical data 	<ul style="list-style-type: none"> • Completion of design team review of existing data, including geotechnical data • Start of on-the-ground survey activities • Phase 1 Environmental Site Assessment, draft results • Complete initial aquatic studies, OHWM and wetlands delineations • Pedestrian archeological survey of all three project areas • Geotechnical fault study • Complete first version of conformed project schedule based on available information and input • Early UPRR concept review and feedback • Early concept coordination with Houston Metro, City of Houston, Harris County, TIRZ 5, TxDOT stakeholders. Start of coordination with project steering committee 	<ul style="list-style-type: none"> • Draft archeological pedestrian survey complete, State SHPO (THC) pre-coordination, start of historic standing structures surveys • Preliminary on the ground survey, apparent ROW, channel bathymetry, localized LIDAR data acquisitions complete • Level C/D subsurface utility engineering (SUE) complete, level B SUE well underway • Start of development of phase 1 geotechnical scope • Start of Preliminary Engineering Report (PER) detailed evaluations: project constructability, detailed feasibilities, structural impact and options definitions • Corrected effective model updates with survey and channel bathymetry data largely complete. Evaluation of diversion channel details and options underway • Ongoing stakeholder coordination and interface with project steering committee

- Within this philosophy of centralized electronic file systems, maintenance of key drawing and production files live and visible/available to the entire team as work progresses. BIM-360 provides an efficient and effective platform for Autocad, Civil 3-D and other 3-D drafting software that HDR has effectively used and will implement on the NCHFDC.
- Use of 3-D BIM software for drawing development and production, greatly enhancing visualization and coordination processes as designs develop.
- With the reality of COVID-19 restrictions and protocols that are still developing, there are no immediate plans to co-locate all members of the design team into one facility. Dispersed project execution is a reality that will likely continue for some time, even as companies such as HDR and our project partners implement safe return-to-workplace procedures. To meet these challenges and realities, HDR has developed workflows and support structures that capitalize on virtual meetings and project coordination. We can actually report an increase in staff and project productivity levels since the onset of COVID-19 in March, 2020.
- Holding regular team coordination meetings while being sensitive to all social distancing requirements. Meetings will be available for attendance by City of Houston staff as desired and agendas will be provided well in advance. Notes documenting key decisions will be distributed to all participants and maintained within the project centralized electronic files for team visibility and ongoing reference. Key, distinctive features of HDR's team management and documentation culture includes an emphasis on action item and key decision logs, development and maintenance of appropriate project risk registers, and availability of these files in the centralized electronic filing system for design team and City of Houston reference. Since 2014, HDR has conducted bi-monthly team coordination meetings on the SPCIP and has made those meetings available for attendance by client staff.
- HDR project management and coordination will be conducted from the central "home base" of the HDR Loop Central office location. Jeff and key design team staff will be available to meet with the City of Houston upon short notice.

VI.8.3 | Work Plan

We have created a detailed project schedule with more than 150 line items, along with a simplified version **to show what will be accomplished in the first 90 days of the NCHFDC project.**



VI.8.4 | Quality Control Program

Quality and the confidence that a culture quality instills is of the utmost importance to the HDR team. A project-specific QMP will be developed for the NCHFDC that addresses quality and its documentation at every step throughout the life of the project. Our QMP process will start and be fully developed by the **HDR Design Quality Manager (DQM), Michael Vecchio, who is based on location in the HDR Houston office.** Michael and Jeff have both used and implemented the HDR QMP processes for over a decade. The QMP will embody and carry out the HDR quality philosophy:

Quality is the responsibility of each person working on the Project. The Design Team will be organized in such a manner that quality is achieved and maintained by those responsible for performance of the work and that the quality achievement is verified by persons or organizations not directly responsible for performance of the work. Quality will be built in – not added on. The benefits of continuous improvement will be integrated into our basic operating principles – and by extension, our operating practices.

Quality management will start at the top of the HDR team organization and Michael will work directly with Jeff to ensure full development, implementation, monitoring and effectiveness of the project QMP. Routine audit and internal reporting on this effectiveness will be included in HDR's regular project management reviews and reporting to the City of Houston. Quality management will be intentionally and thoughtfully built-in to the HDR project process for NCHFDC. Its importance and emphasis cannot be over-stated.

Working with Jeff and the HDR regional quality office, Michael will start working on day one of the project to develop and hone the NCHFDC project-specific QMP for early implementation within the team. The fundamental requirements of the QMP will be built into subcontracts within the HDR team so that an understanding and adherence to these principles is captured within the team contractual relationships. The full details of the QMP will be established within the first 30 days from contract authorization and included in team kickoff meetings and chartering commitments. Jeff Mitchell managed a similar-sized team including multiple subconsultants for the SPCIP and used these principles. Key lessons learned from projects like SPCIP and others within the HDR resume will ensure that the following principles are among those captured in the detailed QMP plan:

- **A project-specific Design Criteria Document (DCD) will be prepared by the Design Quality Manager for team use.** This document will provide project designers with project-specific design requirements, particular to the NCHFDC scope and contract. This will capture by reference requirements such as

applicable industry design codes, expectations for milestone completion standards (including appropriate check-lists), mandatory design procedures, project restrictions, key environmental requirements, and similar guidance for the team.

- **Requirements for ongoing design checking activities as design elements progress,** so that designs promoted by the HDR team evolve on a firm foundation of accuracy and consistency. Discipline and subconsultant-specific checking will be required to be documented before deliverable-specific review by the Quality Review Team.
- **Implementation of an approved Quality Review Team for each project deliverable.** The Quality Review Team will comprise senior-level technical staff, independent from the design production team, design management team and project quality assurance team who are responsible for technical quality reviews of specific design documents to verify that deliverable items are completed in accordance with project requirements and standards.
- **Establishment and maintenance of an effective Quality Assurance Audit Team –** a group of senior-level technical reviewers that report to the Design Quality Manager and are independent from the Design Production Team and Quality Reviewers. The Audit Team is responsible for performing quality assurance audits on deliverables, quality control documentation and additional periodic audits to verify compliance with the QMP. Quality assurance staff will have access to work areas and the authority to meet with design staff to identify deficiencies, recommend recovery solutions and document and confirm corrective actions taken to resolve deficiencies.
- **Maintenance of effective documentation:** the results of quality control and quality assurance reviews will be clearly documented (Design Quality Records) and maintained in project electronic files throughout the life of the NCHFDC and will be available for review by the City of Houston staff.
- **Scheduling of quality activities:** The NCHFDC PMP will include a detailed project schedule that identifies the submission dates for each design submittal and the corresponding schedule for design quality reviews and quality assurance audits.

The HDR project-specific QMP will contain far more important detail than can be captured in the space of this RFQ response. This discussion provides a sampling of some of the key components of the HDR plan for project quality which will ensure design risks to the City of Houston are minimized and confidence in the deliverables produced by the HDR NCHFDC team remains high.

VI.8.5 | Federally Funded Project Compliance

FEMA and HMGP compliance necessitate complete understanding of program requirements to include the approved project scope and schedule, allowable and unallowable project costs, project reporting requirements and compliance with Federal statutes, regulations, or terms or conditions of award. Additionally, all projects funded by FEMA to include Hazard Mitigation Grant Program (HMGP) projects undergo a detailed FEMA review. This review is meant to assure that project goals are established by the means to achieve those goals and are driven by the approved project scope, schedule and budget.

All grant administration shall be managed and delivered in strict accordance with 2 CFR 200 Subtitle A - Office of Management and Budget Guidance for Grants and Agreements and Subtitle B - Federal Agency Regulations for Grants and Agreements. These sections comprise the rules of the road for delivery of this critical program. Successful program delivery necessitates that all activities associated with the NCHFDC strictly conform to these standards. **The HDR team will specifically reference required activities in the Project Management Plan and internal quality reviews will be implemented to confirm compliance.**

Scope of Work and Budget Changes

Failure to obtain prior written approval of needed scope of work changes may result in the disallowance of costs. In addition to a revised scope, the request must also include any subsequent changes to the project schedule and budget. Scope of work changes are also subject to all programmatic requirements, including environmental and historical preservation (EHP) review requirements. HDR understands this process through our experience on multiple HMGP-funded projects. **Our team is ready to work with the City to coordinate any scope of work changes and mitigate unforeseen impacts to the project.**

A cost overrun or underrun to an award can result in scope, schedule or budget changes and FEMA must be notified as soon as possible. In all cases the project must continue to meet cost share and eligibility requirements. Benefit-cost analysis will be required to ensure the project still meets the threshold for feasibility and allocation of federal funds (benefit–cost ratio greater than 1.0). Our qualified team stands ready to assist with navigating through this part of the process.

Schedule

The project schedule or period of performance (POP) is expected to complete the Federal award activities and incur or expend approved funds within the specific FEMA Program period of time. **The HDR team will work with the Project Manager to ensure all approved activities are completed within the POP award since requests for extensions to an award POP will be evaluated but not automatically approved by FEMA.** Extensions to a project schedule must be submitted to FEMA at least 60 days prior to the expiration and include a full justification for the extension. In the event that an extension is warranted, we will ensure the required justification includes verification that project progress has been made (as described in the quarterly reports), reason(s) for delay, current project status, current POP end date with the new projected completion date, remaining funds available, a budget outline of how remaining funds will be expended, a plan for completion, and a new project schedule.

Compliance and Reporting Requirements

Failure to comply with applicable Federal statutes, regulations or terms and conditions of the Federal award can result in FEMA temporarily withholding cash payments and future awards, or terminating the award.

Through the HDR document management system, all records of work and expenditures on the NCHFDC will be maintained. Quarterly financial and performance reports will be submitted to FEMA since reports are required even during periods of inactivity. Failure to submit these reports may result in an inability to access grant funds; however, **the HDR team has developed and continues to implement proven protocols and procedures to ensure timely reporting for our clients.**

Moreover, we are familiar with the final project reporting requirements upon FEMA's determination that all administrative actions and the required work have been completed. A final SF-425 and Performance Report will be submitted no later than 90 days after the project end date.

Mitigation Implementation & Monitoring

HAZUS is a useful, GIS-based tool that the team leverage to develop best-achievable solutions while minimizing costs to the greatest extent possible. The HDR team will also use HAZUS in review of previous assessments for the mitigation planning process, which is foundational for the program strategy to significantly reduce future disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage. Furthermore, HAZUS will be utilized to determine and memorialize the most beneficial mitigation approaches for the program. Stakeholder and public input, in accordance with results of the Environmental Assessment, will be incorporated into the final, approved project. We propose to use HAZUS in the ARCINFO environment to present and educate the project team, stakeholders and public in a focused and credible, visual way. **The HDR team has experienced GIS resources who will maximize the use of HAZUS at the appropriate time in program execution.**

Project Close-Out and Record Retention

HDR will complete the FEMA Closeout Checklist developed for HMGP awards that identifies the minimum requirements and submit the required documentation to FEMA confirming that the City of Houston has verified critical areas of the award for compliance. The HDR team understands HMGP funding requirements and have assisted several clients with all aspects of the grant compliance process. Establishing essential protocols at the beginning of the project, with a sound framework of accountability in place, is the key to a successful compliance program.

Project Controls

The best project team has an established plan from day one. HDR Project Controls team, led by **Veronica Weaver-Rivers** as Controls Delivery Coordinator, has put this mantra into action through extensive experience on a myriad of HMGP grant-funded projects across the country. HDR has successfully executed projects with strict emergency funding requirements, aggressive schedules, and statewide attention. Our team knows how to manage budgets and forecast future costs at a programmatic level for a project with multiple sites such as NCHFDC. It is imperative for a project with the complexity, level of exposure, and schedule constraints anticipated for NCHFDC to have a team with proven experience at the helm. HDR will implement a Project Controls system that will ensure effective programmatic-level management with an area-centered execution focus.

Veronica will manage progress and incorporate “data storytelling” by leveraging tools within our Project Controls program, such as Microsoft Teams, Primavera P6 (P6) and Power BI. Power BI is a business analytics service providing interactive data visualization through a dashboard, the end user-friendly interface.

Much of the day-to-day task management will occur through Microsoft Planner, a project management application for visual work organization and team coordination. Through Microsoft Planner, the City of Houston Project Manager, Megan Campbell, can monitor progress of job tasks along with Jeff and Veronica for transparency. Our services and tools will further facilitate communication, agile decision making, and provide ease of collaboration between the City of Houston and the project team in the following key areas:

Scheduling | Scheduling is essential to ensuring project delivery within the required constraints. A critical path method schedule is a core element of the scheduling approach. The Controls Delivery Team will develop programmatic and area-centered delivery schedules with P6. The P6 schedule will be integrated into the NCHFDC Power BI dashboard for data visualization to give the City of Houston and

stakeholders schedule access for internal management briefings and public meetings. HDR is also experienced with variance reporting and schedule recovery analyses, two tools that will be utilized to identify schedule maintenance and optimization strategies through the life of the project.

Document Control and Dashboard Analytics | The NCHFDC Power BI dashboard will connect and transform external data from various sources (Excel, SharePoint lists, SQL server) into intuitive reports tailored to the City of Houston’s needs. With Power BI as the central platform for information sharing, the HDR team will turn complexity into simplicity. The dashboard will compile key performance indicators for budget and schedule performance and drive optimal decision making for the project once leveraged from a programmatic perspective. It can be utilized for executive reports and stakeholder debriefing, presented online or on a mobile phone.

Risk Management and Change Management | Schedule and federal reimbursement comprise the most significant risks, given the need to adhere to regulations in order to maintain HMGP funding. Through the Project Controls system, HDR will manage reimbursement risks associated with the HMGP grant. Tracking tasks incorrectly can lead to loss of federal funding, and the approval process can be complicated. We propose to proactively identify and manage these aspects of the project with City of Houston staff. Furthermore, we will assist with formalizing documentation, evaluation, and final contractual decisions through development of a Project Change Management Plan.

Cost Management and Estimating | Both Veronica and Jeff are experienced with “looking through the crystal ball” to determine what the team should be spending and budgeting at each project area. Our team has experience with a diverse array of budgeting instruments to develop the framework for a cost management system that can provide comprehensive budgeting and forecasting data to feed performance trend analyses. We will develop estimating guidelines, review cost estimates, and prepare independent cost estimates, as necessary, through the life of the project.

Through implementation of the HDR Project Controls system tools, many conflicts and issues will be avoided simply through agile responses to problems that may arise. The system will provide limitless reporting solutions and serve as the glue to help hold NCHFDC together.

HDR's Houston-Based Team brings:

Resilient Flood Reduction **Expertise** | **Accountability**

Proven Federal Project Delivery | **Award-Winning** Urban Designs



VI.9

M/WBE Participation

VI.9

M/WBE Participation

VI.9 | M/WBE Participation

Commitment to M/WBE Subconsultants and Growing the Success of Our Small Business Partners

HDR is committed to developing our M/WBE team members to their fullest potential through an environment that respects and values diversity and encourages growth. We strive to maximize participation of M/WBEs in all projects, regardless of the client or their specific program requirements. Our history of partnership with local firms, as well as our integration of their particular and essential talents and capabilities into key project roles, is indicative of our overall philosophy regarding diversity and maximizing local, small-firm value to our clients. An integrated team approach that involves all team members in each project, where technical skill sets are available, will foster a consistent level of M/WBE participation throughout the contract. We are committed to working with you to make that happen, while individual percentages change to fit assignments, **our M/WBE commitment shown in the table below is 31% exceeding your 24% goal.**

Firm	Role	Participation
Aurora Technical Services, LLC	Utility relocation support Civil engineering support	5
CSF Consulting, LP	Structural engineering support	2
EJES, Inc.	General civil support	3
Geotest Engineering, Inc.	Geotechnical engineering support	2
Gunda Corporation	General civil engineering support H&H support Transportation engineering support	10
Gupta & Associates, Inc.	Electrical engineering support	2
Hollaway Environmental + Communications Services, Inc.	Environmental, NEPA support Stakeholder outreach support	1
KGBTexas	Communications and stakeholder outreach support	1
Kuo & Associates, Inc.	Survey and general civil engineering support	3
Talley Landscape Architects, Inc	Landscape architecture	1
Wendorf Beward & Partners, LLC	Grant coordination Federal funding accounting for reimbursement support	1
TOTAL M/WBE Participation		31%

HDR is committed to small businesses and is proud of the role we have played to promote locally-owned firms. As shown below, on four of the five most recent City of Houston contracts, **we have exceeded 30% participation by our M/WBE teaming partners and all five exceeded the 24% goal.** Demonstrating that we take our civic responsibility seriously to build the economic and technical capacity of our M/WBE partners.

- Storm Water Drainage Improvement Work Orders | **37.4%**
- Magnolia Point Unserved Areas Projects | **30.11%**
- Neighborhood Sewer System Improvements Projects | **25.22%**
- Pierce Elevated Parking and Parking Lot C Rehabilitation Project | **32.6%**
- Morningside Reconstruction NSR #446 | **38.75%**

HDR's Houston-Based Team brings:

Resilient Flood Reduction **Expertise** | **Accountability**

Proven Federal Project Delivery | **Award-Winning** Urban Designs



VI.
10'

Legal Actions

VI.
10'

Legal Actions

VI.10 | Legal Actions

In today's legal environment, claims and litigation are a reality for any large participant in the construction industry. When claims do occur, HDR seeks to be proactive and cooperate with our client in reaching a resolution that is fair and reasonable to all. We also value the confidences of our clients as well as our contractual commitments to confidentiality, and do not discuss with third parties the circumstances involving other projects. We would take the same position with information regarding our work on your project. If necessary, we would be willing to meet in person with your selection committee with appropriate confidentiality agreements, to discuss the merits or background of past claims. There are no claims or litigation that would have a material impact on our financials or our ability to perform your project. HDR has maintained professional liability insurance in force continually since 1958 for the protection of us and our clients.

HDR's Houston-Based Team brings:

Resilient Flood Reduction **Expertise** | **Accountability**

Proven Federal Project Delivery | **Award-Winning** Urban Designs



VI.
11

Certifications and Licenses

VI.
11

Certifications and Licenses



Sylvester Turner,
Mayor

CITY OF HOUSTON

Office of Business Opportunity



Aurora Technical Services LLC

is duly certified as a

Minority Business Enterprise (MBE)

Certified Categories:

Certification Number: 16-06-13172

NAICS 236220: CONSTRUCTION MANAGEMENT, COMMERCIAL AND INSTITUTIONAL BUILDING
NAICS 541330: ENGINEERING SERVICES

Carlecia D. Wright

Director of Office of Business Opportunity

Note: This certificate is the property of the City of Houston Office of Business Opportunity, and may be revoked should the above named firm graduate from the MWDBE program or the firm's certification is no longer active. In addition, this certificate is valid only in conjunction with the firm's active listing in the City of Houston's Directory of certified MBE, WBE, SBE, PDBE, ACDBE and DBE firms via the following weblink: <https://houston.mwdbe.com/?TN=houston>.



Sylvester Turner,
Mayor

CITY OF HOUSTON

Office of Business Opportunity



CSF Consulting, L.P.

is duly certified as a

Minority Business Enterprise (MBE)

Certified Categories:

Certification Number: 19-6-10603

NAICS 236210: CONSTRUCTION MANAGEMENT, INDUSTRIAL BUILDING (EXCEPT WAREHOUSES)
NAICS 541330: ENGINEERING SERVICES

Carlecia D. Wright

Director of Office of Business Opportunity

Note: This certificate is the property of the City of Houston Office of Business Opportunity, and may be revoked should the above named firm graduate from the MWDBE program or the firm's certification is no longer active. In addition, this certificate is valid only in conjunction with the firm's active listing in the City of Houston's Directory of certified MBE, WBE, SBE, PDBE, ACDBE and DBE firms via the following weblink: <https://houston.mwdbe.com/?TN=houston>.



Sylvester
Turner, Mayor

CITY OF HOUSTON

Office of Business Opportunity



EJES Incorporated

is duly certified as a

Minority Business Enterprise (MBE)

Certified Categories:

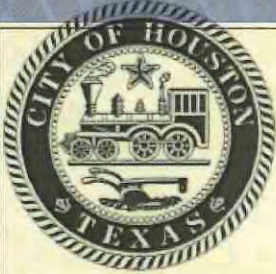
Certification Number: 18-12-12177

NAICS 237110: CONSTRUCTION MANAGEMENT, WATER AND SEWAGE TREATMENT PLANT

NAICS 541330: CIVIL ENGINEERING SERVICES

Director of Office of Business Opportunity

Note: This certificate is the property of the City of Houston Office of Business Opportunity, and may be revoked should the above named firm graduate from the MWDBE program or the firm's certification is no longer active. In addition, this certificate is valid only in conjunction with the firm's active listing in the City of Houston's Directory of certified MBE, WBE, SBE, PDBE, ACDBE and DBE firms via the following weblink: <https://houston.mwdbe.com/?TN=houston>.



Sylvester Turner,
Mayor

CITY OF HOUSTON

Office of Business Opportunity



Geotest Engineering, Inc.

is duly certified as a

Minority Business Enterprise (MBE)

Certified Categories:

Certification Number: 18-6-10833

NAICS 236118: CONSTRUCTION MANAGEMENT, RESIDENTIAL REMODELING
NAICS 541330: ENGINEERING SERVICES
NAICS 541380: TESTING LABORATORIES (EXCEPT MEDICAL, VETERINARY)
NAICS 541620: ENVIRONMENTAL CONSULTING SERVICES

Carlecia D. Wright

Director of Office of Business Opportunity

Note: This certificate is the property of the City of Houston Office of Business Opportunity, and may be revoked should the above named firm graduate from the MWDBE program.



Sylvester Turner,
Mayor

CITY OF HOUSTON

Office of Business Opportunity



Gunda Corporation, LLC

is duly certified as a

Minority Business Enterprise (MBE)

Certified Categories:

Certification Number: 17-12-8936

NAICS 236220: COMMERCIAL AND INSTITUTIONAL BUILDING CONSTRUCTION

NAICS 541330: ENGINEERING SERVICES

NAICS 541512: CAD (COMPUTER-AIDED DESIGN) SYSTEMS INTEGRATION DESIGN SERVICES

NAICS 541611: ADMINISTRATIVE MANAGEMENT AND GENERAL MANAGEMENT CONSULTING SERVICES

NAICS 541618: OTHER MANAGEMENT CONSULTING SERVICES

Certification Review Date:

December 31, 2020

Carlecia D. Wright

Expiration Date

Note: This certificate is the property of the City of Houston Office of Business Opportunity, and may be revoked should the above named firm graduate from the MWDBE program.



Sylvester Turner,
Mayor

CITY OF HOUSTON

Office of Business Opportunity



Gupta & Associates, Inc.

is duly certified as a

Minority Business Enterprise (MBE)

Certified Categories:

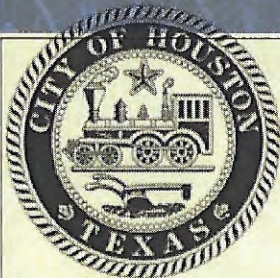
Certification Number: 18-6-11436

NAICS 236220: CONSTRUCTION MANAGEMENT, COMMERCIAL AND INSTITUTIONAL BUILDING
NAICS 541330: ELECTRICAL ENGINEERING SERVICES

Carlecia D. Wright

Director of Office of Business Opportunity

Note: This certificate is the property of the City of Houston Office of Business Opportunity, and may be revoked should the above named firm graduate from the MWDBE program.



Sylvester Turner,
Mayor

CITY OF HOUSTON

Office of Business Opportunity



Crouch Environmental Services, Inc.

is duly certified as a

Women Business Enterprise (WBE)

Certified Categories:

Certification Number: 18-7-10371

NAICS 541613: MARKETING CONSULTING SERVICES

NAICS 541620: ENVIRONMENTAL CONSULTING SERVICES

NAICS 541820: PUBLIC RELATIONS CONSULTING SERVICES

Carlecia D. Wright

Director of Office of Business Opportunity

Note: This certificate is the property of the City of Houston Office of Business Opportunity, and may be revoked should the above named firm graduate from the MWDBE program.



Sylvester Turner,
Mayor

CITY OF HOUSTON

Office of Business Opportunity



Crouch Environmental Services, Inc.

is duly certified as a

Disadvantaged Business Enterprise (DBE)

Certified Categories:

Certification Number: 18-7-10371

NAICS 541613: MARKETING CONSULTING SERVICES
NAICS 541620: ENVIRONMENTAL CONSULTING SERVICES
NAICS 541820: PUBLIC RELATIONS CONSULTING SERVICES

Carlecia D. Wright

Director of Office of Business Opportunity

Note: This certificate is the property of the City of Houston Office of Business Opportunity, and may be revoked should the above named firm graduate from the MWDBE program.



Sylvester Turner,
Mayor

CITY OF HOUSTON

Office of Business Opportunity



KGB TEXAS MARKETING/PUBLIC RELATIONS, INC. DBA KGBTexas.communications

is duly certified as a

Women Business Enterprise (WBE)

Certified Categories:

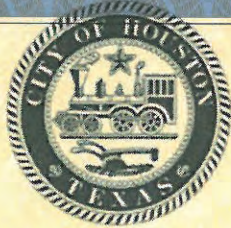
Certification Number: 19-7-12321

NAICS 541613: MARKETING CONSULTING SERVICES
NAICS 541810: ADVERTISING AGENCY CONSULTING SERVICES
NAICS 541820: PUBLIC RELATIONS SERVICES

Carlecia D. Wright

Director of Office of Business Opportunity

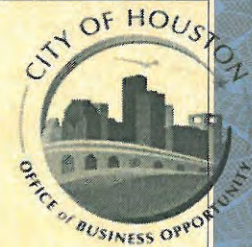
Note: This certificate is the property of the City of Houston Office of Business Opportunity, and may be revoked should the above named firm graduate from the MWDBE program or the firm's certification is no longer active. In addition, this certificate is valid only in conjunction with the firm's active listing in the City of Houston's Directory of certified MBE, WBE, SBE, PDBE, ACDBE and DBE firms via the following weblink: <https://houston.mwdbe.com/?TN=houston>.



Sylvester Turner,
Mayor

CITY OF HOUSTON

Office of Business Opportunity



Kuo & Associates, Inc.

is duly certified as a

Minority Business Enterprise (MBE)

Certified Categories:

Certification Number: 18-10-1629

NAICS 541330: ENGINEERING SERVICES

NAICS 541370: SURVEYING AND MAPPING SERVICES (EXCEPT GEOPHYSICAL)

Carlecia D. Wright

Director of Office of Business Opportunity

Note: This certificate is the property of the City of Houston Office of Business Opportunity, and may be revoked should the above named firm graduate from the MWDBE program or the firm's certification is no longer active. In addition, this certificate is valid only in conjunction with the firm's active listing in the City of Houston's Directory of certified MBE, WBE, SBE, PDBE, ACDBE and DBE firms via the following weblink: <https://houston.mwdbe.com/?TN=houston>.



Sylvester Turner,
Mayor

CITY OF HOUSTON

Office of Business Opportunity



Talley Landscape Architects Inc.

is duly certified as a

Women Business Enterprise (WBE)

Certified Categories:

Certification Number: 18-3-8997

NAICS 236220: CONSTRUCTION MANAGEMENT, COMMERCIAL AND INSTITUTIONAL BUILDING

NAICS 236220: PROJECT MANAGEMENT

NAICS 541320: LANDSCAPE ARCHITECTURAL SERVICES

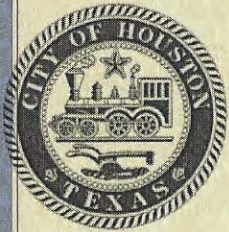
Certification Review Date:

December 31, 2020

Carlecia D. Wright

Expiration Date

Note: This certificate is the property of the City of Houston Office of Business Opportunity, and may be revoked should the above named firm graduate from the MWDBE program.



Sylvester Turner,
Mayor

CITY OF HOUSTON

Office of Business Opportunity



Wendorf Beward & Partners, LLC DBA Wendorf Beward

is duly certified as a

Women Business Enterprise (WBE)

Certified Categories:

NAICS 541611: BUSINESS MANAGEMENT CONSULTING SERVICES
NAICS 624230: EMERGENCY AND OTHER RELIEF SERVICES

Certification Number: 18-02-13737

Certification Review Date:

February 28, 2021

Carlecia D. Wright

Expiration Date

Note: This certificate is the property of the City of Houston Office of Business Opportunity, and may be revoked should the above named firm graduate from the MWD BE program.

HDR's Houston-Based Team brings:

Resilient Flood Reduction **Expertise** | **Accountability**

Proven Federal Project Delivery | **Award-Winning** Urban Designs



VI. 12

Exceptions to Terms and
Conditions of Sample Contract

VI.
12

Exceptions to Terms and Conditions of Sample Contract

VI.12 | Exceptions to Terms and Conditions of Sample Contract

No suggested changes.

HDR's Houston-Based Team brings:

Resilient Flood Reduction **Expertise** | **Accountability**

Proven Federal Project Delivery | **Award-Winning** Urban Designs



Exhibit I

- I-C List of Proposed Subcontractors

EXHIBIT I-C LIST OF SUBCONTRACTOR(S)

The following is a list of Subcontractors we propose to engage on the following items of Work. Any item of Work which does not designate a Subcontractor will be done by the firm submitting the Submission.

SEGREGATED PART OF WORK	SUBCONTRACTOR/SUPPLIER
Hydraulics & hydrology, civil, transportation, roadway, drainage, channel design	Gauge Engineering
Design services, hydraulics & hydrology, hydraulics channel design, survey, channel bathymetry, phase 1 Haz-Mat, environmental site assessment, civil, transportation, roadway, drainage	Pape-Dawson Engineers, Inc.
Physical modeling	Alden Research Laboratory, Inc.
Utility relocation support & civil engineering support	Aurora Technical Services, LLC
Structural engineering support	CSF Consulting, LP
General civil support	EJES, Inc.
Geotechnical engineering support	Geotest Engineering, Inc.
General civil engineering support, hydraulics & hydrology support, & transportation engineering support	Gunda Corporation
Electrical engineering support	Gupta & Associates, Inc.
Environmental, NEPA support & stakeholder outreach support	Hollaway Environmental + Communications Communications Services, Inc.
Geomorphology	HydroGeo Designs
Communications and stakeholder outreach support	KGB Texas
Survey, general civil support	Kuo & Associates, Inc.
Cultural resources	Raba Kristner, Inc.
Landscape architecture	Tally Landscape Architects, Inc.
Subsurface utility engineering support	The Rios Group
Grant coordination & Federal funding accounting for reimbursement support	Wendorf Beward & Partners

HDR's Houston-Based Team brings:

Resilient Flood Reduction **Expertise** | **Accountability**

Proven Federal Project Delivery | **Award-Winning** Urban Designs



Exhibit II

- II-A Schedule of M/WBE Participation
- II-B OBO and Contract Compliance
M/WBE Utilization Report
- II-C Certified M/WBE Subcontract Terms
- II-D OBO and Contract Compliance
M/WBE Utilization Report

EXHIBIT II
ATTACHMENT “A”
SCHEDULE OF MWBE PARTICIPATION (page 1 of 3)

Date:	June 18, 2020
Bid Number:	S83-Q29487
Formal Bid Title:	NORTH CANAL HIGH FLOW DIVERSION CHANNEL Hazard Mitigation Grant Program Project

Name of Certified MWBE Subcontractor	Street Address, City, State, Zip Code, Tel # & Email	Certification Type {✓}		NAICS Code (6 Digits)	Description of Work (Scope of Work)	% of Participation
		MBE	WBE			
Aurora Technical Services, LLC	2121 Sage Road, Suite 150 Houston, TX 77056	X		236220, 541330	Utility relocation support & civil engineering support	5
CSF Consulting, LP	11301 Fallbrook Dr., Suite 320 Houston, Texas 77065	X		236210 541330	Structural engineering support	2
EJES, Inc.	6161 Savoy Dr., Suite 830 Houston, TX 77036	X		237110, 541330	General civil support	3
Geotest Engineering, Inc.	5600 Bintliff Drive Houston, Texas 77036	X		236118, 541330 541380, 541620	Geotechnical engineering support	2
Gunda Corporation	11750 Katy Fwy, Suite 300 Houston, Texas 77079	X		236220, 541330, 541512 541611, 541618	General civil engineering support, H&H support, & transportation engineering support	10

TOTAL	\$
MWBE PARTICIPATION	\$
TOTAL BID AMOUNT	\$

EXHIBIT II
ATTACHMENT “A”
SCHEDULE OF MWBE PARTICIPATION (page 2 of 3)

Date:	June 18, 2020
Bid Number:	S83-Q29487
Formal Bid Title:	NORTH CANAL HIGH FLOW DIVERSION CHANNEL Hazard Mitigation Grant Program Project

Name of Certified MWBE Subcontractor	Street Address, City, State, Zip Code, Tel # & Email	Certification Type {✓}		NAICS Code (6 Digits)	Description of Work (Scope of Work)	% of Participation
		MBE	WBE			
Gupta & Associates, Inc.	7322 Southwest Freeway Suite 410 Houston, TX 77074	X		236220, 541330	Electrical engineering support	2
Hollaway Environmental + Communications Services, Inc. (formerly Crouch Environmental)	2500 Summer Street, Suite 1130 Houston, TX 77007		X	541613, 541620, 541820	Environmental, NEPA support & stakeholder outreach support	1
KGB Texas	5615 Kirby Drive, Suite 250 Houston, Texas 77005		X	541613, 541810 541820	Communications & stakeholder outreach support	1
Kuo & Associates, Inc.	10300 Westoffice Drive, Suite 800 Houston, Texas 77042		X	541330, 541370	Survey & general civil support	3
Tally Landscape Architects, Inc.	P.O. Box 211 Orchard, Texas 77464		X	236220, 236220 541320	Landscape architect support	1

TOTAL	\$
MWBE PARTICIPATION	\$
TOTAL BID AMOUNT	\$

EXHIBIT II
ATTACHMENT “A”
SCHEDULE OF MWBE PARTICIPATION (page 3 of 3)

Date:	June 18, 2020
Bid Number:	S83-Q29487
Formal Bid Title:	NORTH CANAL HIGH FLOW DIVERSION CHANNEL Hazard Mitigation Grant Program Project

Name of Certified MWBE Subcontractor	Street Address, City, State, Zip Code, Tel # & Email	Certification Type {✓}		NAICS Code (6 Digits)	Description of Work (Scope of Work)	% of Participation
		MBE	WBE			
Wendorf Beward & Partners, LLC	602 Rock Cove Houston, Texas 77079-2437		X	541611, 624230	Grant coordination & Federal funding accounting for reimbursement	1

TOTAL	\$
MWBE PARTICIPATION	\$
TOTAL BID AMOUNT	\$

**EXHIBIT II
ATTACHMENT "A"
MWBE PARTICIPATION PLAN
GOOD FAITH EFFORTS**

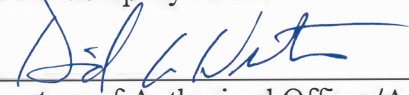
If you have exhausted your best efforts to comply with the City's MWBE Policy by seeking subcontracts and supply agreements with certified minority and women business enterprises, yet failed to meet the MWBE contract goal of this bid document, list below your good faith efforts to demonstrate compliance. For more information, please review the Good Faith Efforts Policy, which can be found on the OBO website at www.houstontx.gov/ofo.

****All firms listed above must be certified by the Office of Business Opportunity at the time of bid submission. This schedule of MWBE participation must be returned with the bid form.**

The undersigned will enter into a formal subcontracting agreement with the M/WBEs and suppliers listed on this participation plan upon award of a contract from the City.

HDR Engineering, Inc.

Bidder Company Name



Signature of Authorized Officer/Agent/Bidder & Title

David C. Weston, Vice President, Gulf Coast Area Manager

Print or Typed Name of Authorized Officer/Agent/Bidder & Title

June 18, 2020

Date

**EXHIBIT II
ATTACHMENT "B"
OFFICE OF BUSINESS OPPORTUNITY AND
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT**

NOTICE OF INTENT

THIS AGREEMENT IS SUBJECT TO MEDIATION AND CAN BE INITIATED BY THE COMPANIES SIGNED BELOW OR THE OFFICE OF BUSINESS OPPORTUNITY.

To: City of Houston Date: June 1, 2020
Administering Department
Project Name and Number North Canal High Flow Diversion Channel,
Hazard Mitigation Grant Program Project, Solicitation No.: S83-Q19487
Bid Amount: _____ M/W/BE Goal: 24%

HDR Engineering, Inc., agrees to enter into a contractual agreement with
Prime Contractor

Aurora Technical Services, LLC, who will provide the following goods/services in connection
MWBE Subcontractor

with the above-referenced contract:

Utility relocation and civil engineering support

for an estimated amount of \$ _____ or 5 % of the total contract value.

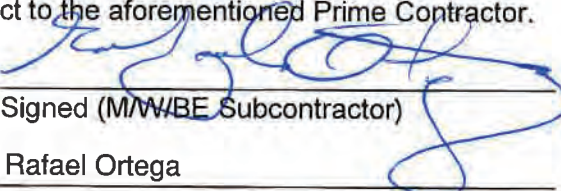
Aurora Technical Services, LLC is currently certified with the City of Houston's Office of Business
(MW/BE Subcontractor) Opportunity to function in the aforementioned capacity.

HDR Engineering, Inc. Aurora Technical Services, LLC Intend to
Prime Contractor MW/BE Subcontractor

work on the above-named contract in accordance with the MW/DBE Participation Section of the City of Houston Bid Provisions, contingent upon award of the contract to the aforementioned Prime Contractor.


Signed (Prime Contactor)

David C. Weston
Printed Signature


Signed (M/W/BE Subcontractor)
Rafael Ortega
Printed Signature

Vice President, Gulf Coast Area Manager June 1, 2020
Title Date

President June 5, 2020
Title Date

**EXHIBIT II
ATTACHMENT "B"
OFFICE OF BUSINESS OPPORTUNITY AND
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT**

NOTICE OF INTENT

THIS AGREEMENT IS SUBJECT TO MEDIATION AND CAN BE INITIATED BY THE COMPANIES SIGNED BELOW OR THE OFFICE OF BUSINESS OPPORTUNITY.

To: City of Houston
Administering Department

Date: June 1, 2020

Project Name and Number North Canal High Flow Diversion Channel,
Hazard Mitigation Grant Program Project, Solicitation No.: S83-Q19487

Bid Amount: _____ M/W/BE Goal: 24%

HDR Engineering, Inc., agrees to enter into a contractual agreement with
Prime Contractor

CSF Consulting, LP, who will provide the following goods/services in connection
MWBE Subcontractor

with the above-referenced contract:

Structural engineering support

for an estimated amount of \$ _____ or 2 % of the total contract value.

CSF Consulting, LP is currently certified with the City of Houston's Office of Business
(M/W/BE Subcontractor) Opportunity to function in the aforementioned capacity.

HDR Engineering, Inc.
Prime Contractor

CSF Consulting, LP Intend to
M/W/BE Subcontractor

work on the above-named contract in accordance with the M/W/DBE Participation Section of the City of Houston Bid Provisions, contingent upon award of the contract to the aforementioned Prime Contractor.

David C. Weston
Signed (Prime Contractor)

Carlos A. Gutierrez
Signed (M/W/BE Subcontractor)

David C. Weston
Printed Signature

Carlos A. Gutierrez
Printed Signature

Vice President, Gulf Coast Area Manager June 1, 2020
Title Date

Principal Civil/Structural Engineer 6/4/2020
Title Date

**EXHIBIT II
ATTACHMENT "B"
OFFICE OF BUSINESS OPPORTUNITY AND
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT**

NOTICE OF INTENT

THIS AGREEMENT IS SUBJECT TO MEDIATION AND CAN BE INITIATED BY THE COMPANIES SIGNED BELOW OR THE OFFICE OF BUSINESS OPPORTUNITY.

To: City of Houston
Administering Department

Date: June 1, 2020

Project Name and Number North Canal High Flow Diversion Channel,
Hazard Mitigation Grant Program Project, Solicitation No.: S83-Q19487

Bid Amount: _____ M/W/BE Goal: 24%

HDR Engineering, Inc., agrees to enter into a contractual agreement with
Prime Contractor

EJES, Incorporated, who will provide the following goods/services in connection
MWBE Subcontractor

with the above-referenced contract:

General civil engineering support

for an estimated amount of \$ _____ or 3 % of the total contract value.

EJES, Incorporated is currently certified with the City of Houston's Office of Business
(MW/BE Subcontractor) Opportunity to function in the aforementioned capacity.

HDR Engineering, Inc.
Prime Contractor

EJES, Incorporated Intend to
MW/BE Subcontractor

work on the above-named contract in accordance with the M/W/DBE Participation Section of the City of Houston Bid Provisions, contingent upon award of the contract to the aforementioned Prime Contractor.


Signed (Prime Contactor)


Signed (M/W/BE Subcontractor)

David C. Weston
Printed Signature

Kamal Rasheed
Printed Signature

Vice President, Gulf Coast Area Manager June 1, 2020
Title Date

Vice President, Gulf Regional Manager 6/12/2020
Title Date

**EXHIBIT II
ATTACHMENT "B"
OFFICE OF BUSINESS OPPORTUNITY AND
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT**

NOTICE OF INTENT

THIS AGREEMENT IS SUBJECT TO MEDIATION AND CAN BE INITIATED BY THE COMPANIES SIGNED BELOW OR THE OFFICE OF BUSINESS OPPORTUNITY.

To: City of Houston
Administering Department

Date: June 1, 2020

Project Name and Number North Canal High Flow Diversion Channel,
Hazard Mitigation Grant Program Project, Solicitation No.: S83-Q19487

Bid Amount: _____ M/W/BE Goal: 24%

HDR Engineering, Inc., agrees to enter into a contractual agreement with
Prime Contractor

Geotest Engineering, Inc., who will provide the following goods/services in connection
MWBE Subcontractor
with the above-referenced contract:

Geotechnical engineering support

for an estimated amount of \$ _____ or 2 % of the total contract value.

Geotest Engineering, Inc. is currently certified with the City of Houston's Office of Business
(M/W/BE Subcontractor) Opportunity to function in the aforementioned capacity.

HDR Engineering, Inc. Geotest Engineering, Inc. Intend to
Prime Contractor M/W/BE Subcontractor

work on the above-named contract in accordance with the M/W/DBE Participation Section of the City of Houston Bid Provisions, contingent upon award of the contract to the aforementioned Prime Contractor.


Signed (Prime Contractor)

David C. Weston
Printed Signature

Vice President, Gulf Coast Area Manager June 1, 2020
Title Date


Signed (M/W/BE Subcontractor)

Mohan Ballagere, P.E.
Printed Signature

Vice President June 1, 2020
Title Date

**EXHIBIT II
ATTACHMENT "B"
OFFICE OF BUSINESS OPPORTUNITY AND
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT**

NOTICE OF INTENT

THIS AGREEMENT IS SUBJECT TO MEDIATION AND CAN BE INITIATED BY THE COMPANIES SIGNED BELOW OR THE OFFICE OF BUSINESS OPPORTUNITY.

To: City of Houston Date: June 1, 2020
Administering Department
Project Name and Number North Canal High Flow Diversion Channel,
Hazard Mitigation Grant Program Project, Solicitation No.: S83-Q19487
Bid Amount: _____ M/W/BE Goal: 24%

HDR Engineering, Inc., agrees to enter into a contractual agreement with
Prime Contractor
Gunda Corporation, LLC, who will provide the following goods/services in connection
MWBE Subcontractor
with the above-referenced contract:

General civil engineering support, hydraulics and hydrology support, and transportation engineering support

for an estimated amount of \$ _____ or 10 % of the total contract value.

Gunda Corporation, LLC is currently certified with the City of Houston's Office of Business
(MW/BE Subcontractor) Opportunity to function in the aforementioned capacity.

HDR Engineering, Inc. Gunda Corporation, LLC Intend to
Prime Contractor MW/BE Subcontractor

work on the above-named contract in accordance with the MW/DBE Participation Section of the City of Houston Bid Provisions, contingent upon award of the contract to the aforementioned Prime Contractor.


Signed (Prime Contactor)

David C. Weston
Printed Signature


Signed (MW/BE Subcontractor)

Rajesh Tanwani, PE
Printed Signature

Vice President, Gulf Coast Area Manager June 1, 2020
Title Date

Vice President June 4, 2020
Title Date

**EXHIBIT II
ATTACHMENT "B"
OFFICE OF BUSINESS OPPORTUNITY AND
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT**

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To: City of Houston Date: June 1, 2020
Administering Department
Project Name and Number North Canal High Flow Diversion Channel,
Hazard Mitigation Grant Program Project, Solicitation No.: S83-Q19487
Bid Amount: _____ M/W/BE Goal: 24%

HDR Engineering, Inc., agrees to enter into a contractual agreement with
Prime Contractor

Gupta & Associates, Inc., who will provide the following goods/services in connection
MWBE Subcontractor

with the above-referenced contract:


Electrical engineering support

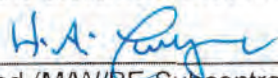
for an estimated amount of \$ _____ or 2 % of the total contract value.

Gupta & Associates, Inc. is currently certified with the City of Houston's Office of Business
(M/W/BE Subcontractor) Opportunity to function in the aforementioned capacity.

HDR Engineering, Inc. Gupta & Associates, Inc. Intend to
Prime Contractor M/W/BE Subcontractor

work on the above-named contract in accordance with the M/W/DBE Participation Section of the City of Houston Bid Provisions, contingent upon award of the contract to the aforementioned Prime Contractor.


Signed (Prime Contactor)


Signed (M/W/BE Subcontractor)

David C. Weston
Printed Signature

Hoss Forouzan, PE
Printed Signature

Vice President, Gulf Coast Area Manager June 1, 2020
Title Date

Senior Vice President 6/4/2020
Title Date

**EXHIBIT II
ATTACHMENT "B"
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CONTRACT COMPLIANCE MWBE UTILIZATION REPORT**

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To: City of Houston
Administering Department

Date: June 1, 2020

Project Name and Number North Canal High Flow Diversion Channel,
Hazard Mitigation Grant Program Project, Solicitation No.: S83-Q19487

Bid Amount: _____ M/W/BE Goal: 24%

HDR Engineering, Inc., agrees to enter into a contractual agreement with
Prime Contractor
Hollaway Environmental +
Communications Services, Inc., who will provide the following goods/services in connection
MWBE Subcontractor

with the above-referenced contract:

Environmental, NEPA support and stakeholder outreach support

for an estimated amount of \$ _____ or 1 % of the total contract value.
Hollaway Environmental +
Communications Services, Inc.

(M/W/BE Subcontractor) is currently certified with the City of Houston's Office of Business Opportunity to function in the aforementioned capacity.

HDR Engineering, Inc. Hollaway Environmental +
Communications Services, Inc. Intend to
Prime Contractor M/W/BE Subcontractor

work on the above-named contract in accordance with the M/W/DBE Participation Section of the City of Houston Bid Provisions, contingent upon award of the contract to the aforementioned Prime Contractor.


Signed (Prime Contactor)

David C. Weston
Printed Signature


Signed (M/W/BE Subcontractor)

Leslie Hollaway
Printed Signature

Vice President, Gulf Coast Area Manager June 1, 2020
Title Date

Owner + President 06/08/2020
Title Date

**EXHIBIT II
ATTACHMENT "B"
OFFICE OF BUSINESS OPPORTUNITY AND
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT**

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To: City of Houston Date: June 1, 2020
Administering Department

Project Name and Number North Canal High Flow Diversion Channel,
Hazard Mitigation Grant Program Project. Solicitation No.: S83-Q19487

Bid Amount: _____ MW/BE Goal: 24%

HDR Engineering, Inc. _____, agrees to enter into a contractual agreement with
Prime Contractor

KGB Texas _____, who will provide the following goods/services in connection
MWBE Subcontractor
with the above-referenced contract:

Communications and stakeholder outreach support

for an estimated amount of \$ _____ or 1 % of the total contract value.

KGB Texas _____ is currently certified with the City of Houston's Office of Business
(MW/BE Subcontractor) Opportunity to function in the aforementioned capacity.

HDR Engineering, Inc. _____ KGB Texas _____ Intend to
Prime Contractor MW/BE Subcontractor

work on the above-named contract in accordance with the MW/DBE Participation Section of the City of Houston
Bid Provisions, contingent upon award of the contract to the aforementioned Prime Contractor.

David C. Weston
Signed (Prime Contractor)

David C. Weston
Printed Signature

Vice President, Gulf Coast Area Manager June 1, 2020
Title Date

K.G. Harvey
Signed (MW/BE Subcontractor)

K.G. Harvey
Printed Signature

CEO 6/9/20
Title Date

**EXHIBIT II
ATTACHMENT "B"
OFFICE OF BUSINESS OPPORTUNITY AND
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT**

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To: City of Houston
Administering Department

Date: June 1, 2020

Project Name and Number North Canal High Flow Diversion Channel,
Hazard Mitigation Grant Program Project, Solicitation No.: S83-Q19487

Bid Amount: _____ M/W/BE Goal: 24%

HDR Engineering, Inc., agrees to enter into a contractual agreement with
Prime Contractor

Kuo & Associates, Inc., who will provide the following goods/services in connection
MWBE Subcontractor

with the above-referenced contract.

Survey support

for an estimated amount of \$ _____ or 3 % of the total contract value.

Kuo & Associates, Inc. is currently certified with the City of Houston's Office of Business
(M/W/BE Subcontractor) Opportunity to function in the aforementioned capacity.

HDR Engineering, Inc. Kuo & Associates, Inc. Intend to
Prime Contractor M/W/BE Subcontractor

work on the above-named contract in accordance with the M/W/DBE Participation Section of the City of Houston Bid Provisions, contingent upon award of the contract to the aforementioned Prime Contractor.

David C. Weston
Signed (Prime Contractor)

David C. Weston
Printed Signature

Shaheen Chowdhury
Signed (M/W/BE Subcontractor)

Shaheen Chowdhury
Printed Signature

Vice President, Gulf Coast Area Manager June 1, 2020
Title Date

President 06/09/2020
Title Date

**EXHIBIT II
ATTACHMENT "B"
OFFICE OF BUSINESS OPPORTUNITY AND
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT**

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To: City of Houston
Administering Department
Date: June 1, 2020
Project Name and Number North Canal High Flow Diversion Channel,
Hazard Mitigation Grant Program Project, Solicitation No.: S83-Q19487
Bid Amount: _____ M/W/BE Goal: 24%

HDR Engineering, Inc., agrees to enter into a contractual agreement with
Prime Contractor

Talley Landscape Architects, Inc., who will provide the following goods/services in connection
MWBE Subcontractor

with the above-referenced contract:

Landscape architecture support

for an estimated amount of \$ _____ or 1 % of the total contract value.

Talley Landscape Architects, Inc. is currently certified with the City of Houston's Office of Business
(M/W/BE Subcontractor) Opportunity to function in the aforementioned capacity.

HDR Engineering, Inc. Talley Landscape Architects, Inc. Intend to
Prime Contractor M/W/BE Subcontractor

work on the above-named contract in accordance with the M/W/DBE Participation Section of the City of Houston Bid Provisions, contingent upon award of the contract to the aforementioned Prime Contractor.

David C. Weston
Signed (Prime Contractor)

David C. Weston
Printed Signature

Vice President, Gulf Coast Area Manager June 1, 2020
Title Date

MERRIE TALLEY
Signed (M/W/BE Subcontractor)

MERRIE TALLEY
Printed Signature

PRESIDENT 6/09/2020
Title Date

**EXHIBIT II
ATTACHMENT "B"
OFFICE OF BUSINESS OPPORTUNITY AND
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT**

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THIS AGREEMENT IS SUBJECT TO MEDIATION AND CAN BE INITIATED BY THE COMPANIES SIGNED BELOW OR THE OFFICE OF BUSINESS OPPORTUNITY.

To: City of Houston Date: June 1, 2020
Administering Department
Project Name and Number North Canal High Flow Diversion Channel,
Hazard Mitigation Grant Program Project, Solicitation No.: S83-Q19487
Bid Amount: _____ MW/BE Goal: 24%

HDR Engineering, Inc., agrees to enter into a contractual agreement with
Prime Contractor

Wendorf Beward & Partners, who will provide the following goods/services in connection
MWBE Subcontractor

with the above-referenced contract:

Grant coordination and Federal funding | accounting for reimbursement

for an estimated amount of \$ _____ or 1 % of the total contract value.

Wendorf Beward & Partners is currently certified with the City of Houston's Office of Business
(MW/BE Subcontractor) Opportunity to function in the aforementioned capacity.

HDR Engineering, Inc. Wendorf Beward & Partners Intend to
Prime Contractor MW/BE Subcontractor

work on the above-named contract in accordance with the MW/DBE Participation Section of the City of Houston
Bid Provisions, contingent upon award of the contract to the aforementioned Prime Contractor.

David C. Weston
Signed (Prime Contractor)

David C. Weston
Printed Signature

Vice President, Gulf Coast Area Manager June 1, 2020
Title Date

Nancy A Beward
Signed (MW/BE Subcontractor)

NANCY ANN BEWARD
Printed Signature

President June 5, 2020
Title Date

**EXHIBIT II
ATTACHMENT "C"
CERTIFIED MWBE SUBCONTRACT TERMS**

CITY OF HOUSTON CERTIFIED MWBE SUBCONTRACT TERMS

Contractor shall ensure that all subcontracts with M/WBE subcontractors and suppliers are clearly labeled **"THIS CONTRACT IS SUBJECT TO MEDIATION"** and contain the following terms:

1. Aurora Technical Services, LLC (M/WBE subcontractor) shall not delegate or subcontract more than 50% of the work under this subcontract to any other subcontractor or supplier without the express written consent of the City of Houston's Office of Business Opportunity Director ("the Director").
2. Aurora Technical Services, LLC (M/WBE subcontractor) shall permit representatives of the City of Houston, at all reasonable times, to perform 1) audits of the books and records of the subcontractor, and 2) inspections of all places where work is to be undertaken in connection with this subcontract. Subcontractor shall keep such books and records available for such purpose for at least four (4) years after the end of its performance under this subcontract. Nothing in this provision shall affect the time for bringing a cause of action or the applicable statute of limitations.
3. Within five (5) business days of execution of this subcontract, Contractor (prime contractor) and Subcontractor shall designate in writing to the Director an agent for receiving any notice required or permitted to be given pursuant to Chapter 15 of the Houston City Code of Ordinances, along with the street and mailing address and phone number of such agent.

These provisions apply to goal-oriented contracts. A goal-oriented contract means any contract for the supply of goods or non-professional services in excess of \$100,000.00 for which competitive proposals are required by law; not within the scope of the MBE/WBE/SBE program of the United States Environmental Protection Agency or the United States Department of Transportation; and which the City Chief Procurement Officer has determined to have significant MWBE subcontracting potential in fields which there are an adequate number of known MBEs, WBE's, and or SBE's (if applicable) to compete for City contracts.

The MWBE policy of the City of Houston will be discussed during the pre-proposal conference. For information, assistance, and/or to receive a copy of the City's Affirmative Action Policy and/or Ordinance, contact the Office of Business Opportunity Division at 832.393.0600, 611 Walker Street, 7th Floor, Houston, Texas 77002.

**EXHIBIT II
ATTACHMENT "C"
CERTIFIED MWBE SUBCONTRACT TERMS**

CITY OF HOUSTON CERTIFIED MWBE SUBCONTRACT TERMS

Contractor shall ensure that all subcontracts with M/WBE subcontractors and suppliers are clearly labeled **"THIS CONTRACT IS SUBJECT TO MEDIATION"** and contain the following terms:

1. CSF Consulting, LP (M/WBE subcontractor) shall not delegate or subcontract more than 50% of the work under this subcontract to any other subcontractor or supplier without the express written consent of the City of Houston's Office of Business Opportunity Director ("the Director").
2. CSF Consulting, LP (M/WBE subcontractor) shall permit representatives of the City of Houston, at all reasonable times, to perform 1) audits of the books and records of the subcontractor, and 2) inspections of all places where work is to be undertaken in connection with this subcontract. Subcontractor shall keep such books and records available for such purpose for at least four (4) years after the end of its performance under this subcontract. Nothing in this provision shall affect the time for bringing a cause of action or the applicable statute of limitations.
3. Within five (5) business days of execution of this subcontract, Contractor (prime contractor) and Subcontractor shall designate in writing to the Director an agent for receiving any notice required or permitted to be given pursuant to Chapter 15 of the Houston City Code of Ordinances, along with the street and mailing address and phone number of such agent.

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**EXHIBIT II
ATTACHMENT "C"
CERTIFIED MWBE SUBCONTRACT TERMS**

CITY OF HOUSTON CERTIFIED MWBE SUBCONTRACT TERMS

Contractor shall ensure that all subcontracts with M/WBE subcontractors and suppliers are clearly labeled **"THIS CONTRACT IS SUBJECT TO MEDIATION"** and contain the following terms:

1. EJES, Incorporated (M/WBE subcontractor) shall not delegate or subcontract more than 50% of the work under this subcontract to any other subcontractor or supplier without the express written consent of the City of Houston's Office of Business Opportunity Director ("the Director").
2. EJES, Incorporated (M/WBE subcontractor) shall permit representatives of the City of Houston, at all reasonable times, to perform 1) audits of the books and records of the subcontractor, and 2) inspections of all places where work is to be undertaken in connection with this subcontract. Subcontractor shall keep such books and records available for such purpose for at least four (4) years after the end of its performance under this subcontract. Nothing in this provision shall affect the time for bringing a cause of action or the applicable statute of limitations.
3. Within five (5) business days of execution of this subcontract, Contractor (prime contractor) and Subcontractor shall designate in writing to the Director an agent for receiving any notice required or permitted to be given pursuant to Chapter 15 of the Houston City Code of Ordinances, along with the street and mailing address and phone number of such agent.

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**EXHIBIT II
ATTACHMENT "C"
CERTIFIED MWBE SUBCONTRACT TERMS**

CITY OF HOUSTON CERTIFIED MWBE SUBCONTRACT TERMS

Contractor shall ensure that all subcontracts with M/WBE subcontractors and suppliers are clearly labeled **"THIS CONTRACT IS SUBJECT TO MEDIATION"** and contain the following terms:

1. Geotest Engineering, Inc. (M/WBE subcontractor) shall not delegate or subcontract more than 50% of the work under this subcontract to any other subcontractor or supplier without the express written consent of the City of Houston's Office of Business Opportunity Director ("the Director").
2. Geotest Engineering, Inc. (M/WBE subcontractor) shall permit representatives of the City of Houston, at all reasonable times, to perform 1) audits of the books and records of the subcontractor, and 2) inspections of all places where work is to be undertaken in connection with this subcontract. Subcontractor shall keep such books and records available for such purpose for at least four (4) years after the end of its performance under this subcontract. Nothing in this provision shall affect the time for bringing a cause of action or the applicable statute of limitations.
3. Within five (5) business days of execution of this subcontract, Contractor (prime contractor) and Subcontractor shall designate in writing to the Director an agent for receiving any notice required or permitted to be given pursuant to Chapter 15 of the Houston City Code of Ordinances, along with the street and mailing address and phone number of such agent.

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The MWBE policy of the City of Houston will be discussed during the pre-proposal conference. For information, assistance, and/or to receive a copy of the City's Affirmative Action Policy and/or Ordinance, contact the Office of Business Opportunity Division at 832.393.0600, 611 Walker Street, 7th Floor, Houston, Texas 77002.

**EXHIBIT II
ATTACHMENT "C"
CERTIFIED MWBE SUBCONTRACT TERMS**

CITY OF HOUSTON CERTIFIED MWBE SUBCONTRACT TERMS

Contractor shall ensure that all subcontracts with M/WBE subcontractors and suppliers are clearly labeled **"THIS CONTRACT IS SUBJECT TO MEDIATION"** and contain the following terms:

1. Gunda Corporation, LLC (M/WBE subcontractor) shall not delegate or subcontract more than 50% of the work under this subcontract to any other subcontractor or supplier without the express written consent of the City of Houston's Office of Business Opportunity Director ("the Director").
2. Gunda Corporation, LLC (M/WBE subcontractor) shall permit representatives of the City of Houston, at all reasonable times, to perform 1) audits of the books and records of the subcontractor, and 2) inspections of all places where work is to be undertaken in connection with this subcontract. Subcontractor shall keep such books and records available for such purpose for at least four (4) years after the end of its performance under this subcontract. Nothing in this provision shall affect the time for bringing a cause of action or the applicable statute of limitations.
3. Within five (5) business days of execution of this subcontract, Contractor (prime contractor) and Subcontractor shall designate in writing to the Director an agent for receiving any notice required or permitted to be given pursuant to Chapter 15 of the Houston City Code of Ordinances, along with the street and mailing address and phone number of such agent.

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**EXHIBIT II
ATTACHMENT "C"
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CITY OF HOUSTON CERTIFIED MWBE SUBCONTRACT TERMS

Contractor shall ensure that all subcontracts with M/WBE subcontractors and suppliers are clearly labeled **"THIS CONTRACT IS SUBJECT TO MEDIATION"** and contain the following terms:

1. Gupta & Associates, Inc. (M/WBE subcontractor) shall not delegate or subcontract more than 50% of the work under this subcontract to any other subcontractor or supplier without the express written consent of the City of Houston's Office of Business Opportunity Director ("the Director").
2. Gupta & Associates, Inc. (M/WBE subcontractor) shall permit representatives of the City of Houston, at all reasonable times, to perform 1) audits of the books and records of the subcontractor, and 2) inspections of all places where work is to be undertaken in connection with this subcontract. Subcontractor shall keep such books and records available for such purpose for at least four (4) years after the end of its performance under this subcontract. Nothing in this provision shall affect the time for bringing a cause of action or the applicable statute of limitations.
3. Within five (5) business days of execution of this subcontract, Contractor (prime contractor) and Subcontractor shall designate in writing to the Director an agent for receiving any notice required or permitted to be given pursuant to Chapter 15 of the Houston City Code of Ordinances, along with the street and mailing address and phone number of such agent.

These provisions apply to goal-oriented contracts. A goal-oriented contract means any contract for the supply of goods or non-professional services in excess of \$100,000.00 for which competitive proposals are required by law; not within the scope of the MBE/WBE/SBE program of the United States Environmental Protection Agency or the United States Department of Transportation; and which the City Chief Procurement Officer has determined to have significant MWBE subcontracting potential in fields which there are an adequate number of known MBEs, WBE's, and or SBE's (if applicable) to compete for City contracts.

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**EXHIBIT II
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CITY OF HOUSTON CERTIFIED MWBE SUBCONTRACT TERMS

Contractor shall ensure that all subcontracts with M/WBE subcontractors and suppliers are clearly labeled **"THIS CONTRACT IS SUBJECT TO MEDIATION"** and contain the following terms:

1. Hollaway Environmental +
Communications Services, Inc. (M/WBE subcontractor) shall not delegate or subcontract more than 50% of the work under this subcontract to any other subcontractor or supplier without the express written consent of the City of Houston's Office of Business Opportunity Director ("the Director").
2. Hollaway Environmental +
Communications Services, Inc. (M/WBE subcontractor) shall permit representatives of the City of Houston, at all reasonable times, to perform 1) audits of the books and records of the subcontractor, and 2) inspections of all places where work is to be undertaken in connection with this subcontract. Subcontractor shall keep such books and records available for such purpose for at least four (4) years after the end of its performance under this subcontract. Nothing in this provision shall affect the time for bringing a cause of action or the applicable statute of limitations.
3. Within five (5) business days of execution of this subcontract, Contractor (prime contractor) and Subcontractor shall designate in writing to the Director an agent for receiving any notice required or permitted to be given pursuant to Chapter 15 of the Houston City Code of Ordinances, along with the street and mailing address and phone number of such agent.

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**EXHIBIT II
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CITY OF HOUSTON CERTIFIED MWBE SUBCONTRACT TERMS

Contractor shall ensure that all subcontracts with M/WBE subcontractors and suppliers are clearly labeled **"THIS CONTRACT IS SUBJECT TO MEDIATION"** and contain the following terms:

1. KGB Texas (M/WBE subcontractor) shall not delegate or subcontract more than 50% of the work under this subcontract to any other subcontractor or supplier without the express written consent of the City of Houston's Office of Business Opportunity Director ("the Director").
2. KGB Texas (M/WBE subcontractor) shall permit representatives of the City of Houston, at all reasonable times, to perform 1) audits of the books and records of the subcontractor, and 2) inspections of all places where work is to be undertaken in connection with this subcontract. Subcontractor shall keep such books and records available for such purpose for at least four (4) years after the end of its performance under this subcontract. Nothing in this provision shall affect the time for bringing a cause of action or the applicable statute of limitations.
3. Within five (5) business days of execution of this subcontract, Contractor (prime contractor) and Subcontractor shall designate in writing to the Director an agent for receiving any notice required or permitted to be given pursuant to Chapter 15 of the Houston City Code of Ordinances, along with the street and mailing address and phone number of such agent.

These provisions apply to goal-oriented contracts. A goal-oriented contract means any contract for the supply of goods or non-professional services in excess of \$100,000.00 for which competitive proposals are required by law; not within the scope of the MBE/WBE/SBE program of the United States Environmental Protection Agency or the United States Department of Transportation; and which the City Chief Procurement Officer has determined to have significant MWBE subcontracting potential in fields which there are an adequate number of known MBEs, WBE's, and or SBE's (if applicable) to compete for City contracts.

The MWBE policy of the City of Houston will be discussed during the pre-proposal conference. For information, assistance, and/or to receive a copy of the City's Affirmative Action Policy and/or Ordinance, contact the Office of Business Opportunity Division at 832.393.0600, 611 Walker Street, 7th Floor, Houston, Texas 77002.

**EXHIBIT II
ATTACHMENT "C"
CERTIFIED MWBE SUBCONTRACT TERMS**

CITY OF HOUSTON CERTIFIED MWBE SUBCONTRACT TERMS

Contractor shall ensure that all subcontracts with M/WBE subcontractors and suppliers are clearly labeled "**THIS CONTRACT IS SUBJECT TO MEDIATION**" and contain the following terms:

1. Kuo & Associates, Inc. (M/WBE subcontractor) shall not delegate or subcontract more than 50% of the work under this subcontract to any other subcontractor or supplier without the express written consent of the City of Houston's Office of Business Opportunity Director ("the Director").
2. Kuo & Associates, Inc. (M/WBE subcontractor) shall permit representatives of the City of Houston, at all reasonable times, to perform 1) audits of the books and records of the subcontractor, and 2) inspections of all places where work is to be undertaken in connection with this subcontract. Subcontractor shall keep such books and records available for such purpose for at least four (4) years after the end of its performance under this subcontract. Nothing in this provision shall affect the time for bringing a cause of action or the applicable statute of limitations.
3. Within five (5) business days of execution of this subcontract, Contractor (prime contractor) and Subcontractor shall designate in writing to the Director an agent for receiving any notice required or permitted to be given pursuant to Chapter 15 of the Houston City Code of Ordinances, along with the street and mailing address and phone number of such agent.

These provisions apply to goal-oriented contracts. A goal-oriented contract means any contract for the supply of goods or non-professional services in excess of \$100,000.00 for which competitive proposals are required by law; not within the scope of the MBE/WBE/SBE program of the United States Environmental Protection Agency or the United States Department of Transportation; and which the City Chief Procurement Officer has determined to have significant MWBE subcontracting potential in fields which there are an adequate number of known MBEs, WBE's, and or SBE's (if applicable) to compete for City contracts.

The MWBE policy of the City of Houston will be discussed during the pre-proposal conference. For information, assistance, and/or to receive a copy of the City's Affirmative Action Policy and/or Ordinance, contact the Office of Business Opportunity Division at 832.393.0600, 611 Walker Street, 7th Floor, Houston, Texas 77002.

**EXHIBIT II
ATTACHMENT "C"
CERTIFIED MWBE SUBCONTRACT TERMS**

CITY OF HOUSTON CERTIFIED MWBE SUBCONTRACT TERMS

Contractor shall ensure that all subcontracts with M/WBE subcontractors and suppliers are clearly labeled **"THIS CONTRACT IS SUBJECT TO MEDIATION"** and contain the following terms:

1. Talley Landscape Architects, Inc. (M/WBE subcontractor) shall not delegate or subcontract more than 50% of the work under this subcontract to any other subcontractor or supplier without the express written consent of the City of Houston's Office of Business Opportunity Director ("the Director").
2. Talley Landscape Architects, Inc. (M/WBE subcontractor) shall permit representatives of the City of Houston, at all reasonable times, to perform 1) audits of the books and records of the subcontractor, and 2) inspections of all places where work is to be undertaken in connection with this subcontract. Subcontractor shall keep such books and records available for such purpose for at least four (4) years after the end of its performance under this subcontract. Nothing in this provision shall affect the time for bringing a cause of action or the applicable statute of limitations.
3. Within five (5) business days of execution of this subcontract, Contractor (prime contractor) and Subcontractor shall designate in writing to the Director an agent for receiving any notice required or permitted to be given pursuant to Chapter 15 of the Houston City Code of Ordinances, along with the street and mailing address and phone number of such agent.

These provisions apply to goal-oriented contracts. A goal-oriented contract means any contract for the supply of goods or non-professional services in excess of \$100,000.00 for which competitive proposals are required by law; not within the scope of the MBE/WBE/SBE program of the United States Environmental Protection Agency or the United States Department of Transportation; and which the City Chief Procurement Officer has determined to have significant MWBE subcontracting potential in fields which there are an adequate number of known MBEs, WBE's, and or SBE's (if applicable) to compete for City contracts.

The MWBE policy of the City of Houston will be discussed during the pre-proposal conference. For information, assistance, and/or to receive a copy of the City's Affirmative Action Policy and/or Ordinance, contact the Office of Business Opportunity Division at 832.393.0600, 611 Walker Street, 7th Floor, Houston, Texas 77002.

**EXHIBIT II
ATTACHMENT "C"
CERTIFIED MWBE SUBCONTRACT TERMS**

CITY OF HOUSTON CERTIFIED MWBE SUBCONTRACT TERMS

Contractor shall ensure that all subcontracts with M/WBE subcontractors and suppliers are clearly labeled **"THIS CONTRACT IS SUBJECT TO MEDIATION"** and contain the following terms:

1. Wendorf Beward & Partners (M/WBE subcontractor) shall not delegate or subcontract more than 50% of the work under this subcontract to any other subcontractor or supplier without the express written consent of the City of Houston's Office of Business Opportunity Director ("the Director").
2. Wendorf Beward & Partners (M/WBE subcontractor) shall permit representatives of the City of Houston, at all reasonable times, to perform 1) audits of the books and records of the subcontractor, and 2) inspections of all places where work is to be undertaken in connection with this subcontract. Subcontractor shall keep such books and records available for such purpose for at least four (4) years after the end of its performance under this subcontract. Nothing in this provision shall affect the time for bringing a cause of action or the applicable statute of limitations.
3. Within five (5) business days of execution of this subcontract, Contractor (prime contractor) and Subcontractor shall designate in writing to the Director an agent for receiving any notice required or permitted to be given pursuant to Chapter 15 of the Houston City Code of Ordinances, along with the street and mailing address and phone number of such agent.

These provisions apply to goal-oriented contracts. A goal-oriented contract means any contract for the supply of goods or non-professional services in excess of \$100,000.00 for which competitive proposals are required by law; not within the scope of the MBE/WBE/SBE program of the United States Environmental Protection Agency or the United States Department of Transportation; and which the City Chief Procurement Officer has determined to have significant MWBE subcontracting potential in fields which there are an adequate number of known MBEs, WBE's, and or SBE's (if applicable) to compete for City contracts.

The MWBE policy of the City of Houston will be discussed during the pre-proposal conference. For information, assistance, and/or to receive a copy of the City's Affirmative Action Policy and/or Ordinance, contact the Office of Business Opportunity Division at 832.393.0600, 611 Walker Street, 7th Floor, Houston, Texas 77002.

**EXHIBIT II
ATTACHMENT "D"
OFFICE OF BUSINESS OPPORTUNITY AND
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT** (page 1 of 3)

Report Period: _____
PROJECT NAME & NUMBER: NORTH CANAL HIGH FLOW DIVERSION CHANNEL Hazard Mitigation Grant Program Project | NO.: S83-Q29487
PRIME CONTRACTOR: HDR Engineering, Inc.
ADDRESS: 4828 Loop Central Drive, Suite 800, Houston, TX 77081
LIAISON/PHONE NO.: 713-622-9264

AWARD DATE: July 29, 2020 (estimated)
CONTRACT NO.: SOLICITATION NO.: S83-Q29487
CONTRACT AMOUNT: TBD
MWBE GOAL: 24%

MWBE SUB/VENDOR NAME	DATE OF OBO CERTIFICATION	DATE OF SUBCONTRACT	SUBCONTRACT AMOUNT	% OF TOTAL CONTRACT	AMOUNT PAID TO DATE	% OF CONTRACT TO DATE
Aurora Technical Services, LLC				5		
CSF Consulting, LP				2		
EJES, Inc.				3		
Geotest Engineering, Inc.				2		
Gunda Corporation				10		
Use additional pages if needed. Submit by the 15th day of the following month. Provide support documentation on all revenues paid to end of the report period to: MWBE's to reflect up/down variances on Contract amount.				Office of Business Opportunity ATTN: Marsha Murray 713-837-9000 611 Walker, 7 th Floor Houston, Texas 77002		

**EXHIBIT II
ATTACHMENT "D"
OFFICE OF BUSINESS OPPORTUNITY AND
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT** (page 2 of 3)

Report Period: _____
PROJECT NAME & NUMBER: NORTH CANAL HIGH FLOW DIVERSION CHANNEL Hazard Mitigation Grant Program Project | NO.: S83-Q29487
PRIME CONTRACTOR: HDR Engineering, Inc.
ADDRESS: 4828 Loop Central Drive, Suite 800, Houston, TX 77081
LIAISON/PHONE NO.: 713-622-9264

AWARD DATE: July 29, 2020 (estimated)
CONTRACT NO.: SOLICITATION NO.: S83-Q29487
CONTRACT AMOUNT: TBD
MWBE GOAL: 24%

MWBE SUB/VENDOR NAME	DATE OF OBO CERTIFICATION	DATE OF SUBCONTRACT	SUBCONTRACT AMOUNT	% OF TOTAL CONTRACT	AMOUNT PAID TO DATE	% OF CONTRACT TO DATE
Gupta & Associates, Inc.				2		
Hollaway Environmental + Communications Services, Inc. (formerly Crouch Environmental)				1		
KGB Texas				1		
Kuo & Associates, Inc.				3		
Tally Landscape Architects, Inc.				1		
Use additional pages if needed. Submit by the 15th day of the following month. Provide support documentation on all revenues paid to end of the report period to: MWBE's to reflect up/down variances on Contract amount.				Office of Business Opportunity ATTN: Marsha Murray 713-837-9000 611 Walker, 7 th Floor Houston, Texas 77002		

**EXHIBIT II
ATTACHMENT "D"
OFFICE OF BUSINESS OPPORTUNITY AND
CONTRACT COMPLIANCE MWBE UTILIZATION REPORT** (page 3 of 3)

Report Period: _____
PROJECT NAME & NUMBER: NORTH CANAL HIGH FLOW DIVERSION CHANNEL Hazard Mitigation Grant Program Project | NO.: S83-Q29487
PRIME CONTRACTOR: HDR Engineering, Inc.
ADDRESS: 4828 Loop Central Drive, Suite 800, Houston, TX 77081
LIAISON/PHONE NO.: 713-622-9264

AWARD DATE: July 29, 2020 (estimated)
CONTRACT NO.: SOLICITATION NO.: S83-Q29487
CONTRACT AMOUNT: TBD
MWBE GOAL: 24%

MWBE SUB/VENDOR NAME	DATE OF OBO CERTIFICATION	DATE OF SUBCONTRACT	SUBCONTRACT AMOUNT	% OF TOTAL CONTRACT	AMOUNT PAID TO DATE	% OF CONTRACT TO DATE
Wendorf Beward & Partners, LLC				1		
Use additional pages if needed. Submit by the 15th day of the following month. Provide support documentation on all revenues paid to end of the report period to: MWBE's to reflect up/down variances on Contract amount.				Office of Business Opportunity ATTN: Marsha Murray 713-837-9000 611 Walker, 7 th Floor Houston, Texas 77002		

HDR's Houston-Based Team brings:

Resilient Flood Reduction **Expertise** | **Accountability**

Proven Federal Project Delivery | **Award-Winning** Urban Designs



Exhibit III

- City of Houston Ownership Information Form: Ownership Disclosure Ordinance, Fair Campaign Ordinance, The State of Texas Statement of Residency Requirements.

EXHIBIT III OWNERSHIP INFORMATION FORM

The City of Houston Ownership Information Form is used to gather information to comply with:

- a. The City of Houston Contractor Ownership Disclosure Ordinance (Chapter 15 of the Code of Ordinances, Article VIII. City Contracts; Indebtedness to City);
- b. The City of Houston Fair Campaign Ordinance (Chapter 18 of the Code of Ordinances); and,
- c. The State of Texas Statement of Residency Requirements (Tex. Govt. Code Chapter 2252).

Please complete the form, in its entirety, and submit it with the Official Bid or Proposal Form. Except as noted below regarding the Statement of Residency, failure to provide this information may be just cause for rejection of your bid or proposal.

NOTICE OF AFFIRMATIVE ACCEPTANCE OF THE CITY OF HOUSTON FAIR CAMPAIGN ORDINANCE

By submitting a bid or proposal to the City of Houston for a Contract in excess of \$50,000 or for which a request is presented to City Council for approval, all respondents agree to comply with the Chapter 18 of the Code of Ordinances.

Further, pursuant to Section 18-36 of the Code of Ordinances, it shall be unlawful either for any person who submits a bid or proposal to contribute or offer any contribution to a candidate or for any candidate to solicit or accept any contribution from such person for a period commencing at the time of posting of the City Council Meeting Agenda including an item for the award of the Contract and ending upon the 30th day after the award of the Contract by City Council.

INSTRUCTIONS

1. Please **type** or **legibly print in dark ink** responses. Individuals and entities should disclose their full, legal names (not initials) and all required corporate letters ("Inc", "LLP", etc.).
 - a. If a firm is operating under an assumed name, the following format is recommended:
Corporate/Legal Name DBA Assumed Name.
2. Full addresses are required, including street types ("St", "Rd", etc.) and unit number.
3. Individuals or entities with 10% or more ownership of the corporation, partnership, or joint venture (including persons who own 100%) are required to be disclosed with their full name and full address. All officers and directors are also required to be disclosed with their full name and full address.

PROJECT AND BID/PROPOSAL PREPARER INFORMATION

Project or Matter Being Bid: _____

Bidder's complete firm/company business information

Name: _____ HDR Engineering, Inc.
Business Address [No./Street] _____ 4828 Loop Central, Suite 800
City / State / Zip Code _____ Houston, TX 787081
Telephone Number _____ 713.62.9264

Bidder's email address

Email Address: _____ david.weston@hdrinc.com _____ jeff.mitchell@hdrinc.com

STATEMENT OF RESIDENCY

(THE STATEMENT OF RESIDENCY PORTION OF THIS DOCUMENT IS **NOT APPLICABLE** IF THE SOLICITATION INDICATES FEDERAL FUNDS WILL BE USED)

TEX. GOV'T CODE §2252.001, §(4) defines a "**Resident bidder**" as a bidder whose principal place of business* is in this state, and includes a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

TEX. GOV'T CODE §2252.001§ (3) defines a "**Nonresident bidder**" as a bidder who is not a resident in this state.

* Principal Place of Business in Texas means that the business entity:

- has at least one permanent office located within the **State of Texas**, from which business activities other than submitting bids to governmental agencies are conducted and from which the bid is submitted; and
- has at least one employee who works in the Texas office.

Based on the definitions above, your business is a: ☒ TEXAS RESIDENT BIDDER
☐ NONRESIDENT BIDDER

If you are a Nonresident Bidder, does your home state have a statute giving preference to resident bidders? If so, you must attach a copy of the statute to this Document.

A copy of the State of _____ statute is attached.

NOTE: The State of residency of a bidder is not used in the decision-making criteria for the award of contracts for projects receiving federal funding, whether in whole or in part.

CONTRACTING ENTITY ORGANIZATIONAL ENTITY TYPE

FOR PROFIT ENTITY:

- ☐ SOLE PROPRIETORSHIP
- ☒ CORPORATION
- ☐ PARTNERSHIP
- ☐ LIMITED PARTNERSHIP
- ☐ JOINT VENTURE
- ☐ LIMITED LIABILITY COMPANY
- ☐ OTHER (*specify in space below*)

NON-PROFIT ENTITY:

- ☐ NON-PROFIT CORPORATION
- ☐ UNINCORPORATED ASSOCIATION

LISTING OF ADDRESSES

List all current and prior addresses where the bidder does/has done business or owns property (real estate and/or business personal property) in the city of Houston ("Houston") in the past 3 years from the date of submittal of this form. If within the past 3 years from the date of submitting this form, the bidder does not and has not done business and has not or does not own property (real estate and/or business personal property) in Houston, please state "None" on the first line below.

4828 Loop Central, Suite 800, Houston, TX 77801

Address

1001 Fannin Street, Suite 525, Houston, TX 77002

Address

1631 E. Sam Houston Parkway, Houston , TX 77015

Address

ATTACH ADDITIONAL SHEETS AS NEEDED.

CONTRACTING ENTITY ORGANIZATIONAL ENTITY TYPE

FOR PROFIT ENTITY:

- ☐ SOLE PROPRIETORSHIP
 - ☒ CORPORATION
 - ☐ PARTNERSHIP
 - ☐ LIMITED PARTNERSHIP
 - ☐ JOINT VENTURE
 - ☐ LIMITED LIABILITY COMPANY
 - ☐ OTHER (*specify in space below*)
-
-

NON-PROFIT ENTITY:

- ☐ NON-PROFIT CORPORATION
- ☐ UNINCORPORATED ASSOCIATION

LISTING OF ADDRESSES

List all current and prior addresses where the bidder does/has done business or owns property (real estate and/or business personal property) in the city of Houston ("Houston") in the past 3 years from the date of submittal of this form. If within the past 3 years from the date of submitting this form, the bidder does not and has not done business and has not or does not own property (real estate and/or business personal property) in Houston, please state "None" on the first line below.

11724 Katy Freeway, Suite 102, Houston, TX 77094

Address

14640 Henry Road, Houston, TX 77060

Address

Address

ATTACH ADDITIONAL SHEETS AS NEEDED.

LISTING OF OFFICERS

LIST ALL OFFICERS OF THE ENTITY, REGARDLESS OF THE AMOUNT OF OWNERSHIP (IF NONE STATE "NONE")

Name	O'Reilly, Charles L.	Chief Operating Officer, President	1917 South 67th Street Omaha, NE 68106
	Officer		Address
Name	Debs, Jody K.	Secretary	1917 South 67th Street Omaha, NE 68106
	Officer		Address
Name	Buell, Elizabeth C.	Assistant Secretary	1917 South 67th Street Omaha, NE 68106
	Officer		Address
Name	Vik, Laurie S.	Assistant Secretary	1917 South 67th Street Omaha, NE 68106
	Officer		Address
Name	Heaney, Kathy	Treasurer	1917 South 67th Street Omaha, NE 68106
	Officer		Address
Name	Cox, Joseph R.	Assistant Treasurer	1917 South 67th Street Omaha, NE 68106
	Officer		Address

LISTING OF DIRECTORS OR MEMBERS

LIST ALL DIRECTORS OF THE ENTITY, REGARDLESS OF THE AMOUNT OF OWNERSHIP (IF NONE STATE "NONE")

Name	Keen, Eric L.	Director	1917 South 67th Street Omaha, NE 68106
	Director or Member		Address
Name	O'Reilly, Charles L.	Chief Operating Officer, President	1917 South 67th Street Omaha, NE 68106
	Director or Member		Address
Name			
	Director or Member		Address
Name			
	Director or Member		Address
Name			
	Director or Member		Address

Display Name	Officer Title	Location
White, Troy L.	Assistant Treasurer	1917 South 67th Street, Omaha, NE 68106
Crockett, Timothy R.	Executive Vice President	1917 South 67th Street, Omaha, NE 68106
LeCureux, David F.	Executive Vice President	1917 South 67th Street, Omaha, NE 68106
Meysenburg, Galen J.	Executive Vice President	1917 South 67th Street, Omaha, NE 68106
Roden, Laurie L.	Executive Vice President	20 East Thomas Road, Suite 2500, Phoenix, AZ 85012-3118
Felker, Brent R.	Executive Vice President	2379 Gateway Oaks Drive, Suite 200, Sacramento, CA 95833-4240
Shoemaker, Darryl J.	Executive Vice President	700 Washington St., Suite 405, Vancouver, WA 98660-3177
McAneny, Douglas J.	Executive Vice President	100 M Street SE, Suite 305, Washington, DC 20003-3569
Dalton, Mark R.	Senior Vice President	2525 C Street, Suite 500, Anchorage, AK 99503-2632
Hippe, Duane A.	Senior Vice President	2525 C Street, Suite 500, Anchorage, AK 99503-2632
Steinert, John P.	Senior Vice President	5405 Data Court, Ann Arbor, MI 48108-8949
Scales, John C.	Senior Vice President	3001 Washington Blvd, Suite 200, Arlington, VA 22201-2117
Graff, Neil A.	Senior Vice President	4401 West Gate Blvd, Suite 400, Austin, TX 78745-1469
Kaatz, Kelly J.	Senior Vice President	4401 West Gate Blvd, Suite 400, Austin, TX 78745-1469
Keyes, Steven A.	Senior Vice President	4401 West Gate Blvd, Suite 400, Austin, TX 78745-1469
Williams, Stanley T.	Senior Vice President	4401 West Gate Blvd, Suite 400, Austin, TX 78745-1469
Berman, Robert S.	Senior Vice President	929 108th Avenue NE, Suite 1300, Bellevue, WA 98004-4361
Doherty, Karen M.	Senior Vice President	929 108th Avenue NE, Suite 1300, Bellevue, WA 98004-4361
Laccinole, Matthew B.	Senior Vice President	929 108th Avenue NE, Suite 1300, Bellevue, WA 98004-4361
Ohlsen, Ronald G.	Senior Vice President	929 108th Avenue NE, Suite 1300, Bellevue, WA 98004-4361
Barnhart, William E.	Senior Vice President	970 South 29th Street West, Billings, MT 59102-7431
Hereim, Scott A.	Senior Vice President	970 South 29th Street West, Billings, MT 59102-7431
Clark, David L.	Senior Vice President	412 E Parkcenter Blvd Suite 100, River Quarry at Park Center, Boise, ID 83706-6659
Luttrell, Edwin C.	Senior Vice President	440 S Church Street, Suite 1000, Charlotte, NC 28202-2075
Miller, Richard R.	Senior Vice President	440 S Church Street, Suite 1000, Charlotte, NC 28202-2075
Mosteller, Lewis K.	Senior Vice President	440 S Church Street, Suite 1000, Charlotte, NC 28202-2075
Rella, Robert J.	Senior Vice President	440 S Church Street, Suite 1000, Charlotte, NC 28202-2075
Gadzinski, Norman	Senior Vice President	1100 Superior Avenue, Suite 650, Cleveland, OH 44114-2518
Schwarz, Joseph H.	Senior Vice President	5555 Tech Center Drive, Suite 310, Colorado Springs, CO 80920-2371
Connelly, David L.	Senior Vice President	2800 Corporate Exchange Drive, Suite 100, Columbus, OH 43231-1666
Bruce, Dennis W.	Senior Vice President	26 Silver Street, Corner Brook, A2H 7J6, CA
Massengill, Jeffrey B.	Senior Vice President	555 N Carancahua, Suite 1600, Corpus Christi, TX 78401-0850
Chiglo, Jay L.	Senior Vice President	17111 Preston Road, Suite 300, Dallas, TX 75248-1232
Nidam, Susan R.	Senior Vice President	17111 Preston Road, Suite 300, Dallas, TX 75248-1232
Gapinski, Duane P.	Senior Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
Martin, Brad B.	Senior Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
Pilgrim, Richard D.	Senior Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
Wenger, Jason S.	Senior Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
White, Stephanie L.	Senior Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
Brauer, Rod G.	Senior Vice President	9781 Meridian Blvd, Suite 400, Englewood, CO 80112-5936
Boling, Robert M.	Senior Vice President	2365 Iron Point Road, Suite 300, Folsom, CA 95630-8709
Fanselau, Jason R.	Senior Vice President	2365 Iron Point Road, Suite 300, Folsom, CA 95630-8709
Frederiksen, Lee E.	Senior Vice President	2365 Iron Point Road, Suite 300, Folsom, CA 95630-8709
Neethling, Johannes B.	Senior Vice President	2365 Iron Point Road, Suite 300, Folsom, CA 95630-8709
Neil, Jason E.	Senior Vice President	2365 Iron Point Road, Suite 300, Folsom, CA 95630-8709
Balchunas, Brian M.	Senior Vice President	8115 Maple Lawn Blvd. , Suite 360, Fulton, MD 20759-2681
Hentz, Lawrence H.	Senior Vice President	8115 Maple Lawn Blvd. , Suite 360, Fulton, MD 20759-2681
Carnaggio, Sam S.	Senior Vice President	1099 Alakea Street, Suite 2110, Honolulu, HI 96813-4500
McConnell, James	Senior Vice President	1099 Alakea Street, Suite 2110, Honolulu, HI 96813-4500
Claunch, Christopher E.	Senior Vice President	4828 Loop Central Drive, Suite 800, Houston, TX 77081-2220
Young, Thomas W.	Senior Vice President	4828 Loop Central Drive, Suite 800, Houston, TX 77081-2220
Johnson, Erik B.	Senior Vice President	3230 El Camino Real, Suite 200, Irvine, CA 92602-1377
Kim, Thomas T.	Senior Vice President	3230 El Camino Real, Suite 200, Irvine, CA 92602-1377
Lewis, Harold E.	Senior Vice President	76 S. Laura Street, Suite 1600, Jacksonville, FL 32202-4321
Christopher, Stanley A.	Senior Vice President	10450 Holmes Road, Suite 600, Kansas City, MO 64131-3471

Drimmel, Joseph E.	Senior Vice President	10450 Holmes Road, Suite 600, Kansas City, MO 64131-3471
Young, Patrick R.	Senior Vice President	10450 Holmes Road, Suite 600, Kansas City, MO 64131-3471
Edelen, Benedict R.	Senior Vice President	2517 Sir Barton Way, Lexington, KY 40509-2275
Clark, Angela M.	Senior Vice President	2810 Crossroads Drive, Suites 4027 & 4029, Madison, WI 53718-7942
Scholl, Colleen M.	Senior Vice President	2810 Crossroads Drive, Suites 4027 & 4029, Madison, WI 53718-7942
Delange, Kevin	Senior Vice President	1 International Blvd., 10th Floor, Suite 1000, Mahwah, NJ 07495-0002
Frissora, Joseph	Senior Vice President	1 International Blvd., 10th Floor, Suite 1000, Mahwah, NJ 07495-0002
Mueller, Werner G.	Senior Vice President	1 International Blvd., 10th Floor, Suite 1000, Mahwah, NJ 07495-0002
Williams, Bradley C.	Senior Vice President	1 International Blvd., 10th Floor, Suite 1000, Mahwah, NJ 07495-0002
Arseneau, Bernard J.	Senior Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
Bissonnette, Michelle F.	Senior Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
Jackson, Douglas P.	Senior Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
Johnson, Michael W.	Senior Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
Muench, Brian P.	Senior Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
Stonehouse, Gregory J.	Senior Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
Hickox, Patrick P.	Senior Vice President	63 S. Royal Street, Suite 1202, Mobile, AL 36602-3239
Charalambous, Yiannoulla	Senior Vice President	500 7th Avenue, New York, NY 10018-4502
Donnelly, Thomas A.	Senior Vice President	500 7th Avenue, New York, NY 10018-4502
Khoury, Eli R.	Senior Vice President	500 7th Avenue, New York, NY 10018-4502
La Tusso, Christopher	Senior Vice President	500 7th Avenue, New York, NY 10018-4502
McLaughlin, Thomas C.	Senior Vice President	500 7th Avenue, New York, NY 10018-4502
Waldron, Thomas R.	Senior Vice President	1037 Raymond Blvd 14th Floor, One Riverfront Plaza, Newark, NJ 07102-5418
Batenhorst, Ralph A.	Senior Vice President	1917 South 67th Street, Omaha, NE 68106
Beduhn, Robert J.	Senior Vice President	1917 South 67th Street, Omaha, NE 68106
Bekka, Khalid	Senior Vice President	1917 South 67th Street, Omaha, NE 68106
Dingwell, Michael D.	Senior Vice President	1917 South 67th Street, Omaha, NE 68106
English, Quint R.	Senior Vice President	1917 South 67th Street, Omaha, NE 68106
Hill, Steven R.	Senior Vice President	1917 South 67th Street, Omaha, NE 68106
Kramer, David C.	Senior Vice President	1917 South 67th Street, Omaha, NE 68106
Olson, Craig (Omaha) R.	Senior Vice President	1917 South 67th Street, Omaha, NE 68106
Sanders, Thomas M.	Senior Vice President	1917 South 67th Street, Omaha, NE 68106
Sharp, William H.	Senior Vice President	1917 South 67th Street, Omaha, NE 68106
Sova, Ronald J.	Senior Vice President	1917 South 67th Street, Omaha, NE 68106
Tondl, Matthew B.	Senior Vice President	1917 South 67th Street, Omaha, NE 68106
Wittmann, Michaela W.	Senior Vice President	1917 South 67th Street, Omaha, NE 68106
Ferrell, Stephen J.	Senior Vice President	315 E Robinson Street, Suite 400, Orlando, FL 32801-1949
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Smith, Kenneth A.	Senior Vice President	20 East Thomas Road, Suite 2500, Phoenix, AZ 85012-3118
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Peduzzi, Bill R.	Senior Vice President	One Oxford Centre, 301 Grant Street Suite 1700, Pittsburgh, PA 15219-1407
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Catron, Heather J.	Senior Vice President	1050 SW 6th Avenue, Suites 1800, Portland, OR 97204-1151
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Ellmers, Glen E.	Senior Vice President	555 Fayetteville Street, Suite 900, Raleigh, NC 27601
Kalisiak, Kip C.	Senior Vice President	555 Fayetteville Street, Suite 900, Raleigh, NC 27601
Lamb, Warren F.	Senior Vice President	555 Fayetteville Street, Suite 900, Raleigh, NC 27601
Whitley, Stephen R.	Senior Vice President	555 Fayetteville Street, Suite 900, Raleigh, NC 27601
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Hise, Wallace	Senior Vice President	2825 East Cottonwood Parkway, Suite 200, Salt Lake City, UT 84121-7077
Jensen, Brent W.	Senior Vice President	2825 East Cottonwood Parkway, Suite 200, Salt Lake City, UT 84121-7077
Johnson, Bradford L.	Senior Vice President	2825 East Cottonwood Parkway, Suite 200, Salt Lake City, UT 84121-7077
Tuck, Lisa M.	Senior Vice President	2825 East Cottonwood Parkway, Suite 200, Salt Lake City, UT 84121-7077
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Moyano, David Charles	Senior Vice President	700 Washington St., Suite 405, Vancouver, WA 98660-3177
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Han, Jeffrey	Senior Vice President	249 Central Park Avenue, Suite 201, Virginia Beach, VA 23462-3099
M'Coy, William S.	Senior Vice President	249 Central Park Avenue, Suite 201, Virginia Beach, VA 23462-3099
Tugman, Michael F.	Senior Vice President	249 Central Park Avenue, Suite 201, Virginia Beach, VA 23462-3099
Wright, Kenneth J.	Senior Vice President	249 Central Park Avenue, Suite 201, Virginia Beach, VA 23462-3099
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Kennedy, Holly L.	Senior Vice President	100 Pringle Ave, Suite 400, Walnut Creek, CA 94596
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Gallagher, Timothy J.	Vice President	2525 C Street, Suite 500, Anchorage, AK 99503-2632
Hawley, William T.	Vice President	2525 C Street, Suite 500, Anchorage, AK 99503-2632
Stone, Matt T.	Vice President	2525 C Street, Suite 500, Anchorage, AK 99503-2632
Witt, Paul T.	Vice President	2525 C Street, Suite 500, Anchorage, AK 99503-2632
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Brigham, James W.	Vice President	5405 Data Court, Ann Arbor, MI 48108-8949
Bromley, Patrick G.	Vice President	5405 Data Court, Ann Arbor, MI 48108-8949
Soubra, Khaled S.	Vice President	5405 Data Court, Ann Arbor, MI 48108-8949
Wiitanen, Mark A.	Vice President	5405 Data Court, Ann Arbor, MI 48108-8949
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Johnson, Andrew D.	Vice President	4401 West Gate Blvd, Suite 400, Austin, TX 78745-1469
Leahey, Bob E.	Vice President	4401 West Gate Blvd, Suite 400, Austin, TX 78745-1469
Meroney, Michael P.	Vice President	4401 West Gate Blvd, Suite 400, Austin, TX 78745-1469
Morgan, Teri J.	Vice President	4401 West Gate Blvd, Suite 400, Austin, TX 78745-1469
Thomas, James A.	Vice President	4401 West Gate Blvd, Suite 400, Austin, TX 78745-1469
Vaugh, Samuel K.	Vice President	4401 West Gate Blvd, Suite 400, Austin, TX 78745-1469
Verver, Elaine E.	Vice President	4401 West Gate Blvd, Suite 400, Austin, TX 78745-1469
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Ferrier, Paul A.	Vice President	929 108th Avenue NE, Suite 1300, Bellevue, WA 98004-4361
Garrod, Justin S.	Vice President	929 108th Avenue NE, Suite 1300, Bellevue, WA 98004-4361
Gould, Thomas E.	Vice President	929 108th Avenue NE, Suite 1300, Bellevue, WA 98004-4361
Hadler, Edith M.	Vice President	929 108th Avenue NE, Suite 1300, Bellevue, WA 98004-4361
Haley, Henry P.	Vice President	929 108th Avenue NE, Suite 1300, Bellevue, WA 98004-4361
Loo, Michael V.	Vice President	929 108th Avenue NE, Suite 1300, Bellevue, WA 98004-4361
Lykken, Jeffrey W.	Vice President	929 108th Avenue NE, Suite 1300, Bellevue, WA 98004-4361
Pecha, Dan L.	Vice President	929 108th Avenue NE, Suite 1300, Bellevue, WA 98004-4361
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Grimstad, James E.	Vice President	970 South 29th Street West, Billings, MT 59102-7431
Harris, Jared R.	Vice President	970 South 29th Street West, Billings, MT 59102-7431
Schneider, Nicholas L.	Vice President	970 South 29th Street West, Billings, MT 59102-7431
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Hall, Ryan Z.	Vice President	412 E Parkcenter Blvd Suite 100, River Quarry at Park Center, Boise, ID 83706-6659
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King, Stanley G.	Vice President	750 Old Hickory Blvd, Building 1, Suite 200, Brentwood, TN 37027-4528
Trotter, Brian H.	Vice President	750 Old Hickory Blvd, Building 1, Suite 200, Brentwood, TN 37027-4528
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McClure, Theresa V.	Vice President	4400 Leeds Avenue, Suite 450, North Charleston, SC 29405-7547
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Grady, David R.	Vice President	440 S Church Street, Suite 1000, Charlotte, NC 28202-2075
Grenoble, Bruce A.	Vice President	440 S Church Street, Suite 1000, Charlotte, NC 28202-2075
Knosby, Mary P.	Vice President	440 S Church Street, Suite 1000, Charlotte, NC 28202-2075
Reiter, Jared C.	Vice President	440 S Church Street, Suite 1000, Charlotte, NC 28202-2075
Schmedes, Richard W.	Vice President	440 S Church Street, Suite 1000, Charlotte, NC 28202-2075
Sisco, Lee P.	Vice President	440 S Church Street, Suite 1000, Charlotte, NC 28202-2075
Ziegler, Tyrus K.	Vice President	440 S Church Street, Suite 1000, Charlotte, NC 28202-2075
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Stevens, Jerry L.	Vice President	5555 Tech Center Drive, Suite 310, Colorado Springs, CO 80920-2371
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Pietz, Kenny J.	Vice President	1122 Lady Street, Suite 1100, Columbia, SC 29201-3372
Slayton, Erin N.	Vice President	1122 Lady Street, Suite 1100, Columbia, SC 29201-3372
Stober, John T.	Vice President	1122 Lady Street, Suite 1100, Columbia, SC 29201-3372
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Moore, David B.	Vice President	555 N Carancahua, Suite 1600, Corpus Christi, TX 78401-0850
Schroeder, Jim K.	Vice President	555 N Carancahua, Suite 1600, Corpus Christi, TX 78401-0850
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Biglen, Douglas K.	Vice President	17111 Preston Road, Suite 300, Dallas, TX 75248-1232
Cantwell, Joel R.	Vice President	17111 Preston Road, Suite 300, Dallas, TX 75248-1232
Ferland, Lance M.	Vice President	17111 Preston Road, Suite 300, Dallas, TX 75248-1232
Hoffman, Robert W.	Vice President	17111 Preston Road, Suite 300, Dallas, TX 75248-1232
Miguez, Ramon F.	Vice President	17111 Preston Road, Suite 300, Dallas, TX 75248-1232
Shelton, Thomas G.	Vice President	17111 Preston Road, Suite 300, Dallas, TX 75248-1232
Swindell, Brian A.	Vice President	17111 Preston Road, Suite 300, Dallas, TX 75248-1232
Tanner, Jon M.	Vice President	17111 Preston Road, Suite 300, Dallas, TX 75248-1232
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DeCesare, Douglas T.	Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
Dwyer, Blaine N.	Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
Edwards, Allison M.	Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
Everson, Tony W.	Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
Ferguson, Keith A.	Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
Glover, Jeffrey B.	Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
Heffron, Tammy C.	Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
Key, Dustin D.	Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
Leidy, Donald J.	Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824

Long, Stephen N.	Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
Lowrey, Kenneth J.	Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
McGlashan, Michael J.	Vice President	1670 Broadway, Suite 3400, Denver, CO 80202-4824
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Hammer, Mark J.	Vice President	2365 Iron Point Road, Suite 300, Folsom, CA 95630-8709
Olson, Craig A.	Vice President	2365 Iron Point Road, Suite 300, Folsom, CA 95630-8709
Pallari, Kimberly L.	Vice President	2365 Iron Point Road, Suite 300, Folsom, CA 95630-8709
Perkins, Ronald R.	Vice President	2365 Iron Point Road, Suite 300, Folsom, CA 95630-8709
Planck, Samuel M.	Vice President	2365 Iron Point Road, Suite 300, Folsom, CA 95630-8709
Raibley, Timothy J.	Vice President	2365 Iron Point Road, Suite 300, Folsom, CA 95630-8709
Snyder, Kevin P.	Vice President	2365 Iron Point Road, Suite 300, Folsom, CA 95630-8709
Stratton, Richard G.	Vice President	2365 Iron Point Road, Suite 300, Folsom, CA 95630-8709
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Thornton, Richard B.	Vice President	419 Canyon Avenue, Suite 316, Fort Collins, CO 80521-2670
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Chin, Allen E.	Vice President	1099 Alakea Street, Suite 2110, Honolulu, HI 96813-4500
Hino, Francis T.	Vice President	1099 Alakea Street, Suite 2110, Honolulu, HI 96813-4500
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Weston, David C.	Vice President	4828 Loop Central Drive, Suite 800, Houston, TX 77081-2220
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Conti, Arthur J.	Vice President	3230 El Camino Real, Suite 200, Irvine, CA 92602-1377
Douglas, James G.	Vice President	3230 El Camino Real, Suite 200, Irvine, CA 92602-1377
Friedman, Steven A.	Vice President	3230 El Camino Real, Suite 200, Irvine, CA 92602-1377
Garcia, Fernando A.	Vice President	3230 El Camino Real, Suite 200, Irvine, CA 92602-1377
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Price, Kristina M.	Vice President	76 S. Laura Street, Suite 1600, Jacksonville, FL 32202-4321
Roberts, Mark G.	Vice President	76 S. Laura Street, Suite 1600, Jacksonville, FL 32202-4321
Schnell, Steven J.	Vice President	76 S. Laura Street, Suite 1600, Jacksonville, FL 32202-4321
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Imhoff, Cory M.	Vice President	10450 Holmes Road, Suite 600, Kansas City, MO 64131-3471
Kalis, Michael P.	Vice President	10450 Holmes Road, Suite 600, Kansas City, MO 64131-3471
Keller, Kevin K.	Vice President	10450 Holmes Road, Suite 600, Kansas City, MO 64131-3471
Moore, Kerry A.	Vice President	10450 Holmes Road, Suite 600, Kansas City, MO 64131-3471
Rand, Chris E.	Vice President	10450 Holmes Road, Suite 600, Kansas City, MO 64131-3471
Rolle, Barry O.	Vice President	10450 Holmes Road, Suite 600, Kansas City, MO 64131-3471
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Roether, Virginia M.	Vice President	2517 Sir Barton Way, Lexington, KY 40509-2275

Tippey, Brent A.	Vice President	2517 Sir Barton Way, Lexington, KY 40509-2275
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Duschang, John H.	Vice President	1 International Blvd., 10th Floor, Suite 1000, Mahwah, NJ 07495-0002
Keane, Kevin D.	Vice President	1 International Blvd., 10th Floor, Suite 1000, Mahwah, NJ 07495-0002
Morrison, James P.	Vice President	1 International Blvd., 10th Floor, Suite 1000, Mahwah, NJ 07495-0002
Murphy, Michael M.	Vice President	1 International Blvd., 10th Floor, Suite 1000, Mahwah, NJ 07495-0002
Parvis, Patricia A.	Vice President	1 International Blvd., 10th Floor, Suite 1000, Mahwah, NJ 07495-0002
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Liebsch, Edward J.	Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
Olson, Luke	Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
Piner, Angela G.	Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
Quernemoen, Keith M.	Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
Reed, Scott M.	Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
Sherwood, Michelle E.	Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
Wiegert, Christine A.	Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
Zuehls, Matthew G.	Vice President	701 Xenia Avenue South, Suite 600, Minneapolis, MN 55416-3636
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Tam, Helena L.	Vice President	500 7th Avenue, New York, NY 10018-4502
Tomlinson, Kevin J.	Vice President	500 7th Avenue, New York, NY 10018-4502
Werman, Roni	Vice President	500 7th Avenue, New York, NY 10018-4502
Zipf, Peter J.	Vice President	500 7th Avenue, New York, NY 10018-4502
Davis, Peter J.	Vice President	1037 Raymond Blvd 14th Floor, One Riverfront Plaza, Newark, NJ 07102-5418
LoBuono, Joseph	Vice President	1037 Raymond Blvd 14th Floor, One Riverfront Plaza, Newark, NJ 07102-5418
Moses, Robert S.	Vice President	1037 Raymond Blvd 14th Floor, One Riverfront Plaza, Newark, NJ 07102-5418
Thuman, Andrew J.	Vice President	1037 Raymond Blvd 14th Floor, One Riverfront Plaza, Newark, NJ 07102-5418
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Koch, John E.	Vice President	905 Plum Street SE, Suite 200, Town Square 3, Olympia, WA 98501-1516
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Berggren, Eric G.	Vice President	1917 South 67th Street, Omaha, NE 68106
Bisson, Doug J.	Vice President	1917 South 67th Street, Omaha, NE 68106
Dickerson, Nathan P.	Vice President	1917 South 67th Street, Omaha, NE 68106
Engel, John J.	Vice President	1917 South 67th Street, Omaha, NE 68106
Engelbert, Patrick J.	Vice President	1917 South 67th Street, Omaha, NE 68106
Ferguson, Matthew W.	Vice President	1917 South 67th Street, Omaha, NE 68106
Froscheiser, Keith A.	Vice President	1917 South 67th Street, Omaha, NE 68106
Fryklind, Karl J.	Vice President	1917 South 67th Street, Omaha, NE 68106
Gesell, Gregory H.	Vice President	1917 South 67th Street, Omaha, NE 68106
Gruwell, Nancy A.	Vice President	1917 South 67th Street, Omaha, NE 68106
Horton, Richard T.	Vice President	1917 South 67th Street, Omaha, NE 68106
Hunter, Craig J.	Vice President	1917 South 67th Street, Omaha, NE 68106
Khalil, Hussein H.	Vice President	1917 South 67th Street, Omaha, NE 68106
Maguire, Molly M.	Vice President	1917 South 67th Street, Omaha, NE 68106
Meier, David A.	Vice President	1917 South 67th Street, Omaha, NE 68106
Ray, Brian G.	Vice President	1917 South 67th Street, Omaha, NE 68106
Richardson, Lisa M.	Vice President	1917 South 67th Street, Omaha, NE 68106
Roszbach, Phil E.	Vice President	1917 South 67th Street, Omaha, NE 68106

Sachsenmaier, Zachary J.	Vice President	1917 South 67th Street, Omaha, NE 68106
Selinger, Matthew J.	Vice President	1917 South 67th Street, Omaha, NE 68106
Sigler, William B.	Vice President	1917 South 67th Street, Omaha, NE 68106
Srb-Vampola, Kandi K.	Vice President	1917 South 67th Street, Omaha, NE 68106
Ubbelohde, Kurt	Vice President	1917 South 67th Street, Omaha, NE 68106
Wajda, James E.	Vice President	1917 South 67th Street, Omaha, NE 68106
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Roy, Santanu	Vice President	315 E Robinson Street, Suite 400, Orlando, FL 32801-1949
Van Ravenswaay, Brenda	Vice President	315 E Robinson Street, Suite 400, Orlando, FL 32801-1949
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Washer, Shawn P.	Vice President	4645 Village Square Drive, Suite F, Paducah, KY 42001-7448
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Kellner, Robert E.	Vice President	25 West Cedar Street, Suite 200, Pensacola, FL 32502-5945
Wimberly, John E.	Vice President	25 West Cedar Street, Suite 200, Pensacola, FL 32502-5945
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Williams, Ann E.	Associate Vice President	1917 South 67th Street, Omaha, NE 68106
Young, Christina R.	Associate Vice President	1917 South 67th Street, Omaha, NE 68106
Arms, Jeffrey B.	Associate Vice President	315 E Robinson Street, Suite 400, Orlando, FL 32801-1949
Hansen, John M.	Associate Vice President	315 E Robinson Street, Suite 400, Orlando, FL 32801-1949
Smith, Anna Lynn	Associate Vice President	1515 Market St, Suite 2020, Philadelphia, PA 19102-1920
Fort, Jason R.	Associate Vice President	20 East Thomas Road, Suite 2500, Phoenix, AZ 85012-3118
Harris, Nathan J.	Associate Vice President	20 East Thomas Road, Suite 2500, Phoenix, AZ 85012-3118
Honsberger, Heather L.	Associate Vice President	20 East Thomas Road, Suite 2500, Phoenix, AZ 85012-3118

Miller, Scott R.	Associate Vice President	20 East Thomas Road, Suite 2500, Phoenix, AZ 85012-3118
Bintrim, James W.	Associate Vice President	One Oxford Centre, 301 Grant Street Suite 1700, Pittsburgh, PA 15219-1407
Davis, Chad R.	Associate Vice President	One Oxford Centre, 301 Grant Street Suite 1700, Pittsburgh, PA 15219-1407
Fuller, Jason A.	Associate Vice President	One Oxford Centre, 301 Grant Street Suite 1700, Pittsburgh, PA 15219-1407
Jacobs, Michael C.	Associate Vice President	One Oxford Centre, 301 Grant Street Suite 1700, Pittsburgh, PA 15219-1407
Sheppard, Maurice A.	Associate Vice President	138 Canal Street, Suite 501, Pooler, GA 31322-4049
Brown, Christopher D.	Associate Vice President	1050 SW 6th Avenue, Suites 1800, Portland, OR 97204-1151
Howell, Thomas D.	Associate Vice President	1050 SW 6th Avenue, Suites 1800, Portland, OR 97204-1151
Johnson, Andrew S.	Associate Vice President	1050 SW 6th Avenue, Suites 1800, Portland, OR 97204-1151
McCaskill, Andrew F.	Associate Vice President	1050 SW 6th Avenue, Suites 1800, Portland, OR 97204-1151
Koenig, Kurt M.	Associate Vice President	555 Fayetteville Street, Suite 900, Raleigh, NC 27601
Moody, Will W.	Associate Vice President	555 Fayetteville Street, Suite 900, Raleigh, NC 27601
Gilley, Calvin D.	Associate Vice President	4880 Sadler Road, Suite 100, Glen Allen, VA 23060-6164
Hager, Mark S.	Associate Vice President	2280 Market Street, Suite 100, Riverside, CA 92501-2110
Williamson, Sheri S.	Associate Vice President	157 E Main Street, Suite 400, Rock Hill, SC 29730-4563
Peterman, Lance G.	Associate Vice President	9450 W Bryn Mawr Avenue, Suite 400, Rosemont, IL 60018-5273
Van Santen, Victor E.	Associate Vice President	9450 W Bryn Mawr Avenue, Suite 400, Rosemont, IL 60018-5273
Wong, David W.	Associate Vice President	9450 W Bryn Mawr Avenue, Suite 400, Rosemont, IL 60018-5273
Bowen, John P.	Associate Vice President	710 Hester's Crossing, Suite 150, Round Rock, TX 78681-7839
Creamer, Karen M.	Associate Vice President	710 Hester's Crossing, Suite 150, Round Rock, TX 78681-7839
Caldwell, Jarvis A.	Associate Vice President	2379 Gateway Oaks Drive, Suite 200, Sacramento, CA 95833-4240
Lutz, Lisa M.	Associate Vice President	2379 Gateway Oaks Drive, Suite 200, Sacramento, CA 95833-4240
Warner, Terry R.	Associate Vice President	2825 East Cottonwood Parkway, Suite 200, Salt Lake City, UT 84121-7077
Buchanan, Brian D.	Associate Vice President	613 NW Loop 410, Suite 700, San Antonio, TX 78216-5507
Gonzalez, Jose M.	Associate Vice President	613 NW Loop 410, Suite 700, San Antonio, TX 78216-5507
Rodriguez, Albert	Associate Vice President	613 NW Loop 410, Suite 700, San Antonio, TX 78216-5507
Villarreal, Gabriel J.	Associate Vice President	613 NW Loop 410, Suite 700, San Antonio, TX 78216-5507
Duffy, Jennifer M.	Associate Vice President	591 Camino de la Reina, Suite 300, San Diego, CA 92108-3104
Gipson, Dean J.	Associate Vice President	591 Camino de la Reina, Suite 300, San Diego, CA 92108-3104
O'Neill, Patrick W.	Associate Vice President	591 Camino de la Reina, Suite 300, San Diego, CA 92108-3104
McVicker, LuAnn C.	Associate Vice President	201 California Street, Suite 1500, San Francisco, CA 94111-5002
Crozier, Allen R.	Associate Vice President	1290 Wonder World Drive, Building #1, Suite 1230, San Marcos, TX 78666-7969
Baldwin, W.D. D.	Associate Vice President	600 University Street, Suite 500, Seattle, WA 98101-4132
Harrison, Todd L.	Associate Vice President	600 University Street, Suite 500, Seattle, WA 98101-4132
Rood, Beth P.	Associate Vice President	600 University Street, Suite 500, Seattle, WA 98101-4132
Jensen, Todd R.	Associate Vice President	835 N Post Street, Suite 101, Spokane, WA 99201-2126
Marshall, Scott R.	Associate Vice President	835 N Post Street, Suite 101, Spokane, WA 99201-2126
Cochran, Matthew D.	Associate Vice President	2139 E Primrose, Suite E, Springfield, MO 65804-4589
Dorman, Mary J.	Associate Vice President	4830 W Kennedy Blvd., Suite 400, Tampa, FL 33609-2548
Jenik, Warren F.	Associate Vice President	4830 W Kennedy Blvd., Suite 400, Tampa, FL 33609-2548
Dalager, Nathan P.	Associate Vice President	213 LaBree Ave N, Suite 203, Thief River Falls, MN 56701-2022
Pargas, Ricardo A.	Associate Vice President	1 S Church Ave, Suite 625, Tucson, AZ 85701-1612
Victor, Robert A.	Associate Vice President	2650 Park Tower Drive, Suite 400, Vienna, VA 22180-7306
Harris, Christine M.	Associate Vice President	249 Central Park Avenue, Suite 201, Virginia Beach, VA 23462-3099
Ngau, Guinevere	Associate Vice President	249 Central Park Avenue, Suite 201, Virginia Beach, VA 23462-3099
Walsh, Claudia A.	Associate Vice President	249 Central Park Avenue, Suite 201, Virginia Beach, VA 23462-3099
Burles, Holly G.	Associate Vice President	100 Pringle Ave, Suite 400, Walnut Creek, CA 94596
Patel, Sheena C.	Associate Vice President	100 Pringle Ave, Suite 400, Walnut Creek, CA 94596
Solis, Alejandro J.	Associate Vice President	100 M Street SE, Suite 305, Washington, DC 20003-3569
Brunner, Robert V.	Associate Vice President	711 Westchester Avenue, Suite 103, White Plains, NY 10604-3504
Fisher, Gregory M.	Associate Vice President	711 Westchester Avenue, Suite 103, White Plains, NY 10604-3504
Jensen, James R.	Associate Vice President	711 Westchester Avenue, Suite 103, White Plains, NY 10604-3504
MacNeil, Mike S.	Associate Vice President	711 Westchester Avenue, Suite 103, White Plains, NY 10604-3504
Pucci, Michael W.	Associate Vice President	711 Westchester Avenue, Suite 103, White Plains, NY 10604-3504
Palmatier, Alexander M.	Associate Vice President	301 N Main Street, Suite 2030, Winston-Salem, NC 27101-3836

DISCLOSURE OF OWNERSHIP (OR NON-PROFIT OFFICERS)

Bidders are required to disclose all owners of 10% or more of the Contracting Entity. For non-profit entities, please provide the complete information for the President, Vice-President, Secretary, and Treasurer.

IN ALL CASES, USE FULL NAMES, LOCAL BUSINESS AND RESIDENCE ADDRESSES AND TELEPHONE NUMBERS. DO NOT USE POST OFFICE BOXES FOR ANY ADDRESS. INCLUSION OF E-MAIL ADDRESSES IS OPTIONAL, BUT RECOMMENDED. ATTACH ADDITIONAL SHEETS AS NEEDED.

Contracting Entity:

Name: HDR Engineering, Inc.
Business Address [No./Street] 4828 Loop Central Drive, Suite 800
City / State / Zip Code Houston, TX 77801
Telephone Number 713.622.92.64
Email Address: david.weston@hdrin.c.com jeff.mitchell@hdrinc.com

DISCLOSURE OF OWNERSHIP (OR NON-PROFIT OFFICERS) continued.

Owner(s) of 10% or More (IF NONE, STATE "NONE."):

Name: NONE
Business Address [No./Street] _____
City / State / Zip Code _____
Telephone Number _____
Email Address: _____
Residence Address [No./Street] _____
City / State / Zip Code _____

Owner(s) of 10% or More (IF NONE, STATE "NONE."):

Name: NONE
Business Address [No./Street] _____
City / State / Zip Code _____
Telephone Number _____
Email Address: _____
Residence Address [No./Street] _____
City / State / Zip Code _____

ATTACH ADDITIONAL SHEETS AS NEEDED.

OPTIONAL: TAX APPEAL INFORMATION

If the firm/company or an owner/officer is actively protesting, challenging, or appealing the accuracy and/or amount of taxes levied with a tax appraisal district, please provide the following information:

Debtor (Firm or Owner Name):	
Tax Account Nos.:	
Case or File Nos.:	
Attorney/Agent Name:	
Attorney/Agent Phone No.:	
Tax Years:	

Status of Appeal **[DESCRIBE]**:

If an appeal of taxes has been filed on behalf of your company, please include a copy of the official form receipted by the appropriate agency.

REQUIRED: UNSWORN DECLARATION

I certify that I am duly authorized to submit this form on behalf of the firm, that I am associated with the firm in the capacity noted below, and that I have personal knowledge of the accuracy of the information provided herein. I affirm that all the information contained herein is true and correct to the best of my knowledge. I understand that failure to submit accurate information with my submission may result in my submission being considered non-responsive and non-responsible.



June 18, 2020

Preparer's Signature

Date

David C. Weston

Printed name

Vice President, Gulf Coast Area Manager

Title

NOTE: This form constitutes a **governmental record**, as defined by Section 37.01 of the Texas Penal Code. Submission of a false government record and falsification of a governmental record are crimes, punishable as provided in Section 37.10 of the Texas Penal Code.

HDR's Houston-Based Team brings:

Resilient Flood Reduction **Expertise** | **Accountability**

Proven Federal Project Delivery | **Award-Winning** Urban Designs



Exhibits IV-VII

- Anti-Collusion Statement
- Conflict of Interest Questionnaire
- Byrd Anti-Lobbying Amendment
- Debarment Certification

EXHIBIT IV
ANTI-COLLUSION STATEMENT

The undersigned, as **Respondent**, certifies that the only person or parties interested in this Response as principals are those named herein; that the Respondent has not, either directly or indirectly entered into any Agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with the award of this Contract.

June 18, 2020

Date



Respondent Signature

**EXHIBIT V
CONFLICT OF INTEREST QUESTIONNAIRE**


CONFLICT OF INTEREST QUESTIONNAIRE		FORM CIQ
For vendor or other person doing business with local governmental entity		OFFICE USE ONLY
<p>This questionnaire reflects changes made to the law by H.B. 1491, 80th Leg., Regular Session.</p> <p>This questionnaire is being filed in accordance with Chapter 176, Local Government Code by a person who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the person meets requirements under Section 176.006(a).</p> <p>By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed. See Section 176.006, Local Government Code.</p> <p>A person commits an offense if the person knowingly violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.</p>		<p>Date Received</p>
<p>1 Name of person who has a business relationship with local governmental entity.</p> <p style="text-align: center;">Not Applicable</p>		
<p>2 <input type="checkbox"/> Check this box if you are filing an update to a previously filed questionnaire.</p> <p>(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate.)</p>		
<p>3 Name of local government officer with whom filer has employment or business relationship.</p> <p style="text-align: center;">_____ Name of Officer</p> <p>This section (item 3 including subparts A, B, C & D) must be completed for each officer with whom the filer has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.</p> <p>A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the filer of the questionnaire?</p> <p style="text-align: center;"><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>B. Is the filer of the questionnaire receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?</p> <p style="text-align: center;"><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?</p> <p style="text-align: center;"><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>D. Describe each employment or business relationship with the local government officer named in this section</p>		
<p>4</p> <div style="display: flex; justify-content: space-between; align-items: flex-end;"><div style="text-align: center;"> _____ Signature of person doing business with the governmental entity</div><div style="text-align: center;"><p>June 18, 2020</p> _____ Date</div></div>		

EXHIBIT VI
CERTIFICATION FOR CONTRACTS, GRANTS, LOANS,
AND COOPERATIVE CONTRACTS

(to be submitted with each bid or offer exceeding \$100,000)

The undersigned certifies, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative Contract, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative Contract.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative Contract, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- (3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative Contracts) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

HDR Engineering, Inc.

Name of Contractor



David C. Weston

Signature

Printed Name

Vice President, Gulf Coast Area Manager

June 18, 2020

Title

Date

EXHIBIT VII

CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER RESPONSIBILITY MATTERS

INSTRUCTIONS FOR CERTIFICATION

1. By signing and submitting this proposal, the Engineer (referred to herein as the "prospective lower tier participant") is providing the certification set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
3. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.
4. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meaning set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
6. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not proposed for debarment under 48 CFR part 9, subpart 9.4, debarred, suspended, ineligible, or voluntarily excluded from covered transactions, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is proposed for debarment under 48 CFR part 9, subpart 9.4, suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AN VOLUNTARY
EXCLUSION—LOWER TIER COVERED TRANSACTIONS

- (1) The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- (2) Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

HDR Engineering, Inc.

CONTRACTOR Company Name

David C. Weston

Name

Vice President, Gulf Coast Area Manager

Title



Signature

June 18, 2020

Date