FEDERAL QUALIFICATIONS

OEI
O'BRIEN
ENGINEERING, INC

FEDERAL QUALIFICATIONS

Celebrating over 30 years since our founding in 1987, OEI serves our federal customers nationwide and overseas through five primary business lines: facilities, infrastructure, water resources, real estate, and support services.

SDVOSB (Service Disabled Veteran Owned Small Business)

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TBPE #F-3758 TBAE #BR3993

STATEMENT OF QUALIFICATIONS: FEDERAL EXPERIENCE

COMPANY OVERVIEW

Founded in 1987 in North Texas, O'Brien Engineering, Inc. (OEI) was originally established as a specialty civil engineering firm, primarily solving surface water issues - including drainage, flooding, dam/levee, and forensics - in our geographic region. Because of our niche services, we worked for a variety of customers on a range of project types as both a prime and subconsultant. This project, customer, and role diversity afforded OEI the benefit to master our project management protocols and procedures, emphasis on quality at every level, and team and customer communications. Beginning in 2004, our expertise, combined with our management proficiencies and efficiencies, led us to subconsultant opportunities within the federal sector. In 2012, OEI became a certified Service-Disabled Veteran Owned Small Business (SDVOSB) and began serving as a prime consultant shortly thereafter.

Today, OEI is a multidiscipline architecture / engineering and environmental firm with capabilities in architecture and support services. We serve our federal customers nationwide and overseas. And we remain focused on providing our customers with high quality design and support services in a timely and cost-effective manner. In turn, our customers have consistently given us Exceptional and Very Good CPARS ratings, as well as follow-on contracts and task orders. This work and our overall federal capabilities fall into five broad categories: facilities, infrastructure, water resources, real estate, and support services.

OEI's foundation is ownership, teamwork, continuous improvement, competence, and ethical behavior. Our purpose and passion are solving our customer's problems; with emphasis on empathizing with our customers, analyzing, and solving the problem, then delivering the appropriate solution. We truly listen to people to really understand the problem and then deliver a thoughtful, comprehensive solution.

FEDERAL BUSINESS LINES

OEI's federal business lines are across five broad areas:

- Facilities
- Infrastructure
- Water Resources
- Real Estate
- Support Services

Our facilities experience is almost exclusively as a prime consultant and includes full Architecture/Engineering (A/E) design and drawing preparation – architecture and interior design, mechanical/electrical/plumbing (MEP), civil, structural, architectural, cost estimating, etc. – A/E studies and analysis, facility condition assessments, construction phase services, and design-build (D-B) RFP preparation. Serving as both a prime and a subconsultant, our infrastructure project experience includes roads, utilities, parking facilities, and site development services providing full design and drawing preparation, construction administration and construction phase services, and permitting and permitting coordination. For projects involving water resources, OEI is likewise involved as both a prime and subconsultant, and our experience includes complex hydraulic, hydrologic, and hydrodynamic modeling (1-D and 2-D), analysis, design, and reviews for a variety of projects including dam and levee safety and rehabilitation, floodplain management and administration, drainage structures and facilities, and stream/creek/slope stabilization. OEI's real estate capabilities include property and deed research, easement determination, title and closing services, acquisition, negotiation, mapping and GIS support, and surveying. Finally, our support services involve a mix of experience and capabilities including staff augmentation, surveying, project management, and Independent External Peer Reviews/Independent Technical Reviews.

FEDERAL CUSTOMERS

OEI's first federal client was the Department of Defense's US Army Corps of Engineers (**USACE**) Southwester Division's Fort Worth District in 2004. Today, we continue to serve not only the Fort Worth District but also other Divisions and Districts

both as a prime and a subconsultant. Over the years, due to our past performance and exceptional and very good CPARS ratings, we have served (and continue to serve) the Department of Veterans Affairs (**VA**) across multiple VISNs and multiple states, the Department of Homeland Security's Federal Emergency Management Agency (**FEMA**) and Customs and Border Protection (**CBP**), military installations **(Lackland AFB, Fort Sam Houston, Fort Polk, Fort Hood, Laughlin AFB)**, and the Department of Agriculture's (**USDA**) Forest Service.

FEDERAL IDIQ/MATOC CONTRACTS

In addition to multiple single project contracts, OEI currently holds two long-term contracts as a prime:

- Joint Base San Antonio (JBSA) A&E MAC IDIQ – $67M Capacity, Randolph AFB/Fort Sam Houston TX. Contract FA301620D0017
- USACE Tulsa District General A&E Services MATOC $99M Capacity. Contract W912BV20D0025 (OEI-Etegra JV)
- USACE Fort Worth District A&E Services for Horizontal Design MATOC $65M Capacity. Contract W912BV20D0004 (contract through Tulsa, managed by Fort Worth) (OEI-Etegra JV)
- VISN17 A/E IDIQ $25M Capacity, TX. Contract 36C25720D0060
- VISN22 A/E MATOC $20M Capacity, AZ, NM, CA. Contract number 36C258D0047 (OEI-LBL JV)
- USACE Fort Worth District Real Estate Title and Curative Services BPA, Southern Border. Contract W9126G19A0030
- USACE Fort Worth District Real Estate Support Services MATOC $40M Capacity, TX, AZ, NM, CA. Contract W9126G17D0028
- VISN17 Central Texas VA Health Care System Short Selection Simplified Acquisition Vehicle
- VISN17 Central Texas VA Health Care System Short Selection Simplified Acquisition Vehicle (OEI-LBL JV)
- USDA Forest Service A/E ARS Selective Shortlist
- *(recently expired) USACE Fort Worth District Engineering and Construction Support Office (ECSO) Nationwide A/E IDIQ $15M Capacity Contract W9126G15D0011 (~14M capacity exhausted)*

FEDERAL DETAILS

- Primary NAICS Code: 541330
- Secondary NAICS Codes: 541310, 541620, 541690, 541191
- DUNS 790794960
- CAGE 1XVZ8
- Registered engineering firm in Alabama, Arizona, Louisiana, Oklahoma, Texas, Utah, and Wisconsin
- SDVOSB Certified Joint Ventures: OEI-Etegra Joint Venture, 1, LLC (DUNS 117007790) and OEI-LBL Joint Venture, LLC (DUNS 080886270)

KEY PERSONNEL

President: Jim O'Brien, PE, CFM, F.SAME. Founder of OEI, Mr. O'Brien has 40 years of experience within the engineering and design industry; he has dedicated his career to the management, planning, design, analysis, and study of engineering and multidiscipline projects. He has served as Program Manager, Principal-in-Charge, and/or Senior Project Manager on numerous federal contracts and task orders serving USACE, VA, FEMA, CBP, and Forest Service. He holds a BS in Civil Engineering, Hydraulics/Hydrology emphasis, from Texas Tech University and has 30 hours toward an MS in Civil Engineering, Water Resources. Mr. O'Brien is a registered Professional Engineer (Civil), Certified Floodplain Manager, and Society of American Military Engineers (SAME) Fellow who is currently serving as the TEXOMA Regional Fellows Point of Contact.

Federal Project Manager / Senior Civil Engineer: Jim Lyles, PE. With 20 years of experience as an engineer and project manager and a strong reputation as an effective federal project manager on DoD, DHS, and military instillation projects, Mr. Lyles offers a proven understanding of the requirements necessary to produce quality deliverables on schedule and within budget. His management experience ranges from civil site, transportation, aviation, utility design, architectural design,

facility rehabilitation, MEP systems design, master planning, and more. A registered Professional Engineer (Civil), Mr. Lyles has an ME in Civil Engineering and a BS in Civil Engineering.

Vice President, Operations / Senior Project Manager: Garry Kraus, PE, MBA. Mr. Kraus serves as our company's Vice President of Operations as well as Senior Project Manager. A seasoned project management and senior engineer, Mr. Kraus has over 40 years of experience providing engineering design and management experience on projects ranging from alleys and minor roadway design to pedestrian trail design, to thoroughfare reconstruction. Mr. Kraus has an established a reputation for understanding client needs through excellent communication initially and throughout project delivery. He holds an MBA from the University of Houston and an MS in Civil Engineering/Sanitary Engineering and BS in Civil Engineering from the University of Maine. He is a registered Professional Engineer (Civil).

Vice President, Finance / Special Projects Manager and Senior Engineer: Joe O'Brien, PE, MBA. Joining OEI in 2017, Mr. O'Brien spent nearly 12 years in the aerospace engineering industry and now directs the company's financial matters as well as specific special project management and client development. At his previous position he served as Director of Engineering and Military Programs, responsible for engineering direction, military business development, and military program management. He holds a BS in Mechanical Engineering from Baylor University and an MBA from the University of Texas at Arlington. Mr. O'Brien is a registered Professional Engineer (Aeronautical/Aerospace).

Senior Project Manager / Senior Architect: Jim Wiginton, AIA, RID. Mr. Wiginton has been practicing architecture for 48 years. Mr. Wiginton served as architect on buildings for cities and counties across Texas and the Southwestern United States. Other governmental clients included The State of Texas, Department of Veterans Affairs and The University of Texas. He served as Principal-in-Charge, Planner, designer, and Project Manager on over 100 governmental facilities. Mr. Wiginton joined OEI and oversees architectural design and aspects; he is a registered Architect and Interior Designer. He has a BA in Architecture.

Water Practice Leader / Senior Hydrologist: Gerardo Ocañas, PhD. Dr. Ocañas offers over 35 years of experience in project management, including projects involving other prime contractors, subcontractors that necessitate the interaction with federal, state, county and city governments, as well as community leaders and other interested stakeholders. Dr. Ocanas mastery and fluency of the Spanish language and his ability to professionally communicate verbally and in writing has proven a powerful and vital instrument of communication in getting local people actively involved. Dr. Ocañas experience comprises many fields of civil engineering and water resources. His most recent expertise includes two-dimensional (2D) hydraulic simulation of complex drainage, river, stormwater and wastewater collection systems using leading edge technologies such as InfoWorks, SWMM, HEC computer programs, and others. He has a PhD in Civil-Water Resources Engineering, MS in Civil-Environmental Engineering, and BS in Civil Engineering.

Senior Water Resources Project Manager: Kimberly Cornett, PE, CFM, F.ASCE. Ms. Cornett brings depth and experience in with over 20 years of experience in drainage design, floodplain management, and site development throughout the varying regions and topographies of Texas. A registered Professional Engineer (Civil) and Nationally Certified Floodplain Manager, she brings passion for and understanding of infrastructure improvements combined with policy change and guidance through her role in ASCE Fort Worth Branch – Texas Session as Director. She holds an MS in Civil Engineering and Water Resources and a BS in Hydrology and Water Resources.

Senior Project Manager / Senior Environmental and Civil Engineer: Craig Bond, PE. Mr. Bond offers 40 years of experience in civil and environmental engineering project management on project types including railroad, roadway, site development, and on environmental cleanup sites. He provides construction management and project management of a variety of construction types. A registered Professional Engineer (Environmental), Mr. Bond has a BS in Civil Engineering.

Senior Construction Manager / MEP Supervisor: Ray Collins, BA, MBA. Mr. Collins has 40 years' experience in design and construction management serving several federal clients. He has extensive proficiency in Healthcare/Medical, Institutional, Organizational, and Federal/State/Local Governmental ventures responsible for project management and technical direction from conception throughout design, construction, and commissioning. In addition, Mr. Collins is directly responsible for the

coordination and oversight of field activities by contractors during construction phasing to ensure alignment with project goals and objectives. As MEP Supervisor Mr. Collins is responsible for leading the efforts in coordinating and managing the MEP trades on projects. Responsibilities include estimating the scope of MEP trades during pre-construction phases, supervising the daily activities of the technical team, and ensuring that both the quality and the magnitude of production are in line with service level agreements and expectations.

Senior Healthcare Architect: Kei Lee, AIA, LEED AP BD+C. Mr. Lee provides 15 years of experience across healthcare/medical, office/retail, faith-based, and institutional sectors, affording him the opportunity to learn and apply best practices and industry innovations across his clients. A specialist in architectural designs and functional space planning with integration of architectural and interior design, based on the adept coordination between disciplines, Mr. Lee is a registered Architect and LEED® AP BD+C who holds an MS and BS in Architecture.

Lead Mechanical Engineer: Milad Majdi, PE, LEED AP BD+C. Mr. provides a focus on incorporating sustainable and energy efficient solutions relating to his mechanical engineering and HVAC designs in the federal, healthcare, and industrial sectors. His experience includes design for a variety of retrofit and new installation projects. A registered Professional Engineer (Mechanical), Mr. Majdi has an MS and BS in Mechanical Engineering and is an LEED Accredited Professional.

Senior Electrical Engineer: Tim Mueck, PE. Mr. Mueck brings 34 years of electrical engineering analysis and design experience on healthcare, infrastructure, and utilities projects for renovations and new facility designs, providing expertise with niche specialties such as historic preservation, photovoltaic system design, and biogas fueled electric generator installation. Mr. Mueck is a registered professional engineer with a BS in Electrical Engineering, Electrical Power specialty.

Senior Plumbing Engineer: Mike Senuta, PE, LEED AP. Mr. Senuta offers over 23 years of focused plumbing design and analysis experience on healthcare, commercial, and institutional projects. His experience includes all aspects of plumbing design and performance-based fire protection design for a variety of project types including universities, schools, office buildings, libraries, hospitals, nursing homes, state correction facilities, hotels, U.S. Postal Service facilities, shopping malls, parking garages, recreation facilities, restaurants, municipal facilities, and manufacturing facilities. A registered Professional Engineer in Texas and seven other states and LEED Accredited Professional, Mr. Senuta has a BS in Mechanical Engineering Technology.

Vice President, Business Development: Sarah Cole, MBA, F.SAME. Ms. Cole has been with OEI since 2000 and leads our company's business development and marketing initiatives. Her focus is on cultivating, maintaining, and serving federal customers, responsible for client relationship development, pursuit capture management, and proposal strategy, preparation, and execution. She holds a BBA in Entrepreneurship from Baylor University and an MBA from the University of Dallas.

In addition to OEI's leadership and management team, our staff includes Professional Engineers (Civil, Mechanical, Electrical, Aeronautical, Environmental), GIS specialists, Certified Floodplain Managers, and administrative personnel.

EXPERIENCE

Title and Location	Client	Dates
A/E DESIGN AND CONSTRUCTION PERIOD SERVICES CLC PHASE 3 (BIG SPRING, TX) (VISN17)	WEST TEXAS VAHCS	2021 – Current

The VA resident's care area at Big Spring was primarily housed on the upper floor of the 1950 vintage hospital consisting of a long rectilinear design serviced by two extensive corridors requiring patients to navigate up to 439 feet one way across slippery, glare reflecting flooring. The layout made nursing observation and access for patients difficult and did not support the VA team concept of care. The VA requested, as solution, the design and construction of phased housing 10-bed cottages, Community Living Centers (CLC), that would provide greater patient observation and care while reducing travel distancing for the patient's activities such as recreation, dining, and interactive socializing.

OEI's conceptual project plan was the design and development of a 10-bed cottage solution of approximately at 8,800 square feet square as an expansion of their original WTVAHCS Construct CLC Phase I and Phase II project development maintaining the facility's style and architecture impressions. In addition to design and development of the new housing facility considerations such as Decorative Security Fencing, Landscaping, Wander-guard systems, Physical Security Design – Blast Resistance, and Anti-Fragmentation Laminated Windows were design consideration parts of the project. As a "Life-Safety Protected" facility, special attention was required for building occupancy to maintain all VA - Government New Healthcare Occupancy standards as covered within the NFPA 101 guidelines. Identification of Special function areas, as defined in the PSDM Mission Critical requirements, mandated additional functional, environmental, sever storm weather, and security considerations during design phasing.

In cooperation with the VA's project development team, OEI's design solution centered around the principles of "a home-like environment" while incorporating the newest and best in patient care considerations. In addition, throughout the Community Living Center design and development project, the inclusion of infrastructure improvements to electrical, sewer, and HVAC modeling focused on LEED Silver standard considerations providing the client with the best in functional, ecological, and conceptual design solutions.

Highlights

- OEI Role: Prime
- Prime Contract: 36C25720D0060
- Percent Complete: 40%
- OEI Federal Business Line Categories: Facilities, Infrastructure
- Design: Architecture, Mechanical, Electrical, Plumbing, Medical Equipment Planning, Space Planning, Civil

Title and Location	Client	Dates
CARRIZO SPRINGS BORDER PATROL CHECKPOINT FACILITY DESIGN (CARRIZO SPRINGS, TEXAS)	USACE / CBP	2017 – 2018

Under a USACE Southwestern Division (SWD) Fort Worth District contract and serving the Customs and Border Protection (CBP), OEI led a full-service A/E team from design through construction phase services to provide 100% Design Documents for the Carrizo Springs Border Patrol Checkpoint new facility. OEI conducted a Design Charrette to determine the CBP's functional requirements, scope, budget and schedule, and included reviewing the CBP Design Standard for Small Checkpoints; the standard provides the number of personnel, operations requirements, floor layouts and room sizes, equipment requirements, utilities, security, Due Diligence studies, LEED/Sustainable design, commissioning, and site requirements.

Project requirements included a Quality Control Plan, Reviews/Conferences, Utility Connection identification (including drilling test wells for water), production of Demolition Plans, performance of Structural Analysis, using data provided by a previously completed Geotechnical investigation for Design Requirements, preparation of Construction Cost Estimates (PACES) for the Parametric Design (35%) stage, and an MII MCACES for 65%, 95%, and 100% Design Data submittals. Additional tasks included a Value Engineering Study, a Design Analysis (DA) prepared in accordance with SWD Architectural and Engineering Instructions Manual (AEIM), user interviews, functional analysis, and cost analyses.

Design and construction considerations included Energy (massing, natural ventilation, daylighting and other passive strategies to meet Sustainability and Life Cycle Cost Analysis requirements), Landscaping, Fencing; Parking, Roadways, Exterior Lighting; Storm Drainage, Storm Water Pollution Prevention Plan; Site Utilities (Domestic Water, Sanitary Sewer, and Natural Gas); Architectural; Comprehensive Interior Design; Structural Interior Design (Programming, Space Planning, furniture footprints, interior finish materials [walls, ceilings, floors, window treatments], accessories, [marker boards, bulletin boards] , signage, and built in case work; Furniture, Fixtures, & Equipment (FF&E); Structural (wind, snow, and seismic loading); Mechanical/Plumbing (ASHRAE 90.1-2007); Electrical; Fire Protection; Telephones, Computers, CCTV, Intrusion Detection; Lightning Protection, Grounding; Sustainability; Bidder Inquiries / Amendments (ProjNet).

Highlights

- OEI Role: Prime
- Prime Contract: W9126G-15-D-0011
- Task Order: W9126G17F0179
- Percent Complete: 100% (design); CPS TBD
- OEI Federal Business Line Categories: Facilities, Infrastructure
- Interagency and International Support (IIS)
- Full Design: Mechanical, Electrical, Plumbing, Civil, Structural, Architectural, Interior Design, Cost Estimating, Environmental, Value Engineering, AT/FP, Landscaping
- Construction Phase Services
- Demolition Plans
- Sustainable Design

Title and Location	Client	Dates
USACE FORT WORTH DISTRICT (SWF) WATER CONTROL MANUAL DEVELOPMENT: AQUILLA, NAVARRO MILLS, OC FISHER, BARDWELL, SOMERVILLE (TEXAS)	USACE Fort Worth District	2017 – Current

OEI is updating the Water Control Manuals for five of the 28 lakes/dams operated by the Southwestern Division's Fort Worth District. The manuals provide the water control plan describing how the dam is to be operated regarding flood control, hydroelectric power, and emergency action plans (EAPs). The water control chapter is produced by USACE. The remaining chapters provide a description and history of the dam project. They also include pertinent data about the dam such as watershed characteristics, data collection and communication networks, and hydrologic forecasts. For these chapters of the manual, we are responsible for authoring chapters, creating graphs, plots, maps, tables, research, editorial support, printing, and preparation of electronic and paper documents.

OEI's contract includes a base period and four options; Aquilla Lake was the base period and Navarro Mills Lake has been exercised. As of November 2017, the remaining manuals, to be exercised as funding becomes available, include OC Fisher, Bardwell, and Somerville.

The existing manuals for each lake vary in age and quality. Some of the manuals have not been updated since the project was completed and date as far back as the 1950's while others were updated as recently as 10 years ago.

To produce plates relating to hydrologic data, OEI utilized ArcGIS, including the latest PMP/PMF report produced by USACE for the area, rain and streamflow gage locations, the hydrologic network, and travel times. Other plates included hydraulic data for the dam such as outlet works rating curves, spillway rating curves, lake evaporation curves, area and capacity curves, spillway design flood, and elevation capacities. OEI updated historical watershed information with data including major recorded storms and floods, monthly and annual inflow volumes, monthly inflow frequencies, historical evaporation and precipitation data, water quality sampling, area population growth, agricultural production, and employment numbers.

Highlights

- OEI Role: Prime
- Prime Contract: W9126G-15-D-0011
- Task Order: W9126G17F0105
- Percent Complete: 100% (base and two options)
- OEI Federal Business Line Categories: Water Resources
- Water Control Manual Development
- Hydraulic Structures
- GIS

Title and Location	Client	Dates
TEAGUE VAMC SURGICAL SUITE REPLACEMENT, TEMPLE, TX	VAMC CENTRAL TEXAS	Current

The Teague Veterans' Medical Center had its origins in the McCloskey General Hospital, which was activated on June 16, 1942. In May 1946, the hospital was taken over by the VA and became a general medical and surgical center, renamed in honor of Olin E. Teague in 1979. Over the decades, VAMC in Temple has continued to grow and expand, now providing services well beyond general medical and surgical services including blind rehabilitation, chiropractic, dental, education, home based primary care, telehealth, mental health, and more.

As services and demand for care increased, the Hospital realized the necessity for expansion within their Surgical Suite facilities. OEI was hired to design a new Surgical Suite addition, of approximately 23,000 square feet and renovate the existing adjacent spaces and related service areas. The Scope of Work included providing construction documents and construction period services allowing the existing eight (8) surgical suites to continue operation, while upgrading utilities, especially electrical service to the suite and comply with current VA specifications, guidelines, design alerts, manuals, details, criteria, instructions, procedures, and standards. Existing operational suites were on the second (2nd) floor of the VA Teague facility mandating a design consideration that required the expansion and additional surgical area be elevated on piers to the second-floor level. The structural solution entailed an elevated cast in place wide module concrete joist system consisting of a 4 ½ inch thick concrete slab with 8" by 16" deep concrete joist spaced on 74" centers. A second factor contributing to design obligations was location of the mechanical room servicing for the new surgical addition. Due to potential cross-contamination, equipment servicing, and mechanical room access, the mechanical area was of necessity located on the ground floor with the surgical suites elevated where it is the floor height complementing the existing hospital second floor.

The design solution generated a new state-of-the-art Surgical area consisting of four (4) Operating Rooms (OR) to service their stakeholders. The project development solution provided one (1) General OR, two (2) Specialty ORs, and one (1) Hybrid/Robotics OR and included an elevator system to transport surgical equipment seamlessly from the OR's to the Sterile Processing Department (SPD), Soiled Receiving, Non-Sterile Storage, and Sterile Preparation functions in the basement level of the existing facility currently servicing the ORs. The strategy of design for the new Surgical Suites area addition provided Operating Suites, a Sterile Core, an Elevator system, Egress Stairs, Storage Areas, Life Safety, and supporting Mechanical Spaces that met/exceeded Surgical and Endovascular constraints.

Highlights

- OEI Role: Prime
- Prime Contract: 36C25720D0060
- Task Order: 36C25720N0598
- Percent Complete: 70% (design); CPS TBD
- OEI Federal Business Line Categories: Facilities, Infrastructure
- Full Design: Architectural, Mechanical, Electrical, Plumbing, Civil, Structural, Interior Design, Cost Estimating, Environmental, Value Engineering, Life Safety, Landscaping
- Construction Phase Services
- Sustainable Design

Title and Location	Client	Dates
CAMPUS PARKING, DRAINAGE, AND SLOPE STABILIZATION IMPROVEMENTS (SHREVEPORT, LOUISIANA)	Overton Brooks Veteran Affairs Medical Center	2016 - 2017

To solve its parking, drainage, and slope stabilization issues on five separate projects broken into two groups around the campus, the Overton Brooks Veterans Affair Medical Center (OBVAMC) engaged OEI to design improvements, prepare drawings, and provide construction phase services.

OEI provided design services, construction drawings (with AutoCAD 2015), team management, QA/QC throughout the project, and cost estimates at each design phase (25, 65, 95, and 100%) with the appropriate contingency level per the "Manual for Preparation of Cost Estimates and Related Documents." OEI managed the topographic, geotechnical, and utility surveys as well as the PVC drain line CCTVing.

Parking Lot and Drainage Remediation: A patient parking lot had experienced pavement damage from apparent groundwater seepage beneath and through the pavement. OEI designed a level subgrade with perforated pipe drains to safely capture and transfer groundwater from beneath the pavement; approximately 7000 sf of pavement and subgrade was replaced. There was significant erosion at the flume outfall of this portion of the parking lot. This flume was replaced with a curb inlet and a pipe that discharges further down the hill. A riprap pad was provided to protect against scour.

Slope Stability: Four areas experienced slope stability issues including damaged flumes. In one location, a drain pipe had been damaged due to the slope failure. In another location behind a building, past slope failures had damaged the water main and threatened the gas main. And in another location, there had been two substantial slides and future instability was threatening two nearby buildings, a storm sewer, and parking lot infrastructure. OEI prepared the design to the stabilizations and repairs. Between both slopes, approximately 650 feet of slope was stabilized.

OEI is providing Construction Phase Services (CPS) to include assistance with questions, requests for information (RFIs), clarifications and addendums, and review/coordination of contract modifications/change orders during the construction solicitation phase.

Highlights

- OEI Role: Prime
- Prime Contract: VA256-16-C-0135
- Percent Complete: 100% (Design); 100% (CPS)
- OEI Federal Business Line Categories: Facilities, Infrastructure, Water Resources
- Design: Civil, Geotechnical, Electrical
- Cost Estimating
- Drawing Preparation
- Construction Phase Services
- Testing
- Phased Improvements to Minimize Impacts to Patients, Staff, and Visitors
- **PPQ** ratings/comments include **Exceptional** ratings across the board in Management / Personnel / Labor, Customer Satisfaction, and Safety / Security. **Exceptional** and **Very Good** ratings in Schedule/Timeliness, Cost and Financial Management, and Quality.

Title and Location	Client	Dates
AIR AND MARINE OPERATIONS CENTER FACILITY DESIGN RECONFIGURATION (MARCH AIR RESERVE BASE, RIVERSIDE, CALIFORNIA)	USACE/CBP	2017 – 2020

OEI led a full-service A/E team for the performance of services required for the US Customs and Border Protection, Air and Marine Operations Center (AMOC) Renovation Design for the reconfiguration of several structures at March Air Reserve Base. Established in 1988 to serve as the nation's state-of the-art law enforcement Radar surveillance center operating 24 hours a day, 7 days a week to protect the people and the nation's critical infrastructure through the integration of air and marine forces, the AMOC serves to detect, interdict, and prevent acts of terrorism and the unlawful movement of people, illegal drugs, and other contraband towards and across the borders of the United States. Renovations at the existing AMOC Facility serve to convert the facility into a secured area. Deliverables included a full design package to include drawings, specifications, and a design analysis. The scope included an option for an electrical power supply study (exercised).

Renovation of approximately 10,000 sf in the AMOC, a main building, and one modular building, utilizing detailed room by room descriptions of renovations and space repurposing provided by others. This task order provided expanded intelligence workspace for Top Secret (Sensitive Compartmented Information Facility (SCIF)), Secret level activity space, and general-purpose administration space. Because the project will be in an occupied facility, there is to be no down time or loss of mission effectiveness in the areas not under contract.

Work included interior and exterior alterations to SCIF walls, doors, ceilings, windows, and access/circulation, as well as mechanical, electrical, lighting, fire detection, alarm and suppression systems, as well as building access walkways and ramps, intrusion detection, access control, and security camera system upgrades to meet current functional requirements, codes, and standards. The work also included some new furnishings and equipment as well as IT alterations and equipment. Renovations occurred in two main phases, with some sequencing within each phase.

Highlights

- OEI Role: Prime
- Prime Contract: W9126G-15-D-0011
- Task Order: W9126G17F0205
- Percent Complete: 100% (Design); CPS TBD
- OEI Federal Business Line Categories: Facilities, Infrastructure, Support Services
- Top Secret – Sensitive Compartmented Information Facility (SCIF)
- Secret Level Activity Space
- Full Design
- Electrical Power Supply Study
- Construction Phase Services
- Life Safety Design
- Mechanical, Electrical, Fire Protection, IT, Security
- Architectural, Interior Design

Title and Location	Client	Dates
CONSOLIDATE OUTPATIENT CLINIC BUILDING 1, DORIS MILLER VA MEDICAL CENTER (WACO, TX) (VISN17)	VAMC CENTRAL TEXAS	2021 – Current

The VA Waco Outpatient Clinic Building 1, Doris Miller Facility, project consists of a redesign and remodel of the 1939 constructed, six floor 68,000 square foot historic structure. The building was unoccupied for approximately 15 years being used for storage with multiple minor renovations made throughout those years later found to require complete remodification and redesign. All interior floors were demolished as part of a previous asbestos abatement effort requiring minimal subsequent demolition to accommodate new design efforts however all floors did require significant remodeling and repair. The first (1st) floor entrance and lobby area were to be designed with historic "grand hotel entrance" aesthetics and details that mimicked the concept and design of late 1930's to early 1940's creating an original presentation of that era. The exterior of the building had accessibility and deterioration issues which needed to be addressed. The primary entrance for patients necessitated relocation to the rear of the building to accommodate ADA access and parking requirements allowing the original front entrance to remain as a design element and aesthetic focal point.

One of the major design obstacles was the duplication of period specific accent elements that exactly harmonized with minimal samples remaining from the original 1940 construction period, nearly 85-year-old patterns. Additionally, locations of operational components such as all MEP, communication and fire protection services required redesign, replacement, and relocation to meet to date equipment and code compliances.

OEI's approach was to perform the necessary investigations and design development to fulfill the Veteran Administration's desired Scope of Work and provide the best in presentation and solutioning. In keeping with the phased approach identified in the SOW, O'brien Architectural and Engineering Services proposed processes divided into three (3) categories: Pre-Design/Study Services; Design and Document Services; and Bidding & Construction Support Services. To accomplish the design elements obliged within the VA Primary Care Team requisites, OEI focused on functionally and performance based on VA team, end user, interviews, programming, design development, and cost estimates meeting budget constraints. The ultimate design solution was the incorporation of VA PACT functionality with the integration of modern client focused considerations including a period specific entry motif.

Highlights

- OEI Role: Prime
- Prime Contract: 36C25720D0060
- Task Order: 36C25721N0257
- Percent Complete: 25%
- OEI Federal Business Line Categories: Facilities, Infrastructure

Title and Location	Client	Dates
CAMPUS WATER SYSTEM UPGRADE (TUCSON, ARIZONA)	Southern Arizona Veterans Affairs Health Care System	2013 - 2017

OEI provided A/E design and full construction documents on this water system upgrade. The Southern Arizona Veterans Affairs Health Care System (SAVAHCS) comprises a campus of 86 buildings on 116 acres. The facility traces its roots to 1928, with much of the original infrastructure still in use. A comprehensive schematic of the entire system was needed. The water system needed improvements to satisfy numerous demands, including the need to evaluate station water budget, identify losses indicating the likelihood of substantial leaks, improve system reliability, keep pace with technological and regulatory standards, and follow the VA's Department-wide commitment to reduce waste, improve efficiencies, and conserve resources (E.O. 13514). The resulting water system upgrade satisfied The Joint Commission's (JCAHO/TJC) 2009 Standard EM.02.01.01, EP 3, to establish response procedures when local community cannot support the hospital.

OEI evaluated the existing system and The JCAHO/TJC 96-Hour Rule and provided systems recommendations, schematic design, design development submission, construction documents, final design submissions (including replacement of 300 feet of waterline near the water towers, replacement of 300 feet of waterline near Building 30, replacement of approximately 300 feet of waterline near Building 40, replacement of 10 water valves, replacement of two booster pumps, addition of a third pump for redundancy, replacement of the existing booster pump controller), and construction period services.

A primary challenge was to identify and locate existing system components from unreliable, outdated documentation. Issues were mitigated by on-site visits and assessments, review of as-built and record drawings to determine required information, and interviews with key station personnel. OEI designed water line and valve replacements, upgraded pumps, and conceptualized the plan forward to help the station meet the 96-Hour Rule requirements while improving reliability. Because some areas have proven to be more difficult (since they are unmapped), the SAVAHCS and OEI developed a follow-on contract to isolate parts of the system to facilitate the repairs.

Highlights

- OEI Role: Prime
- Prime Contract: VA258-13-C-0087
- Percent Complete: Design 100%, CPS 100%
- OEI Federal Business Line Categories: Facilities, Infrastructure, Water Resources
- Design: Civil, Mechanical, Electrical
- Drawing Preparation
- Construction Phase Services
- Cost Estimating
- The Joint Commission compliance
- **CPARS** ratings: Quality, Schedule, Management, and Regulatory Areas all rated **Very Good**

Title and Location	Client	Dates
FREER BORDER PATROL STATION CAMPUS DESIGN (FREER, TEXAS)	USACE/CBP	2017 – 2020

OEI led a multidiscipline A/E team from design through construction phase services for the full design of a 250 Agent Border Patrol Station in Freer. This task order is off one of OEI's IDIQ contract with the USACE Fort Worth District, which was principally developed to support the Customs and Border Protection (CBP).

The scope included 100% design documents (Civil 3D, Revit, and Microstation) conforming to CBP design criteria. The task order required the development of a Design Quality Control Plan, Design Charrette, Parametric Design (35%), Preliminary Design (65%), Advance Final Design (95%), Corrected Final Design (100%), Demolition Plans, Structural Analysis, Construction Cost Estimates, Topographic Surveys, Value Engineering study, Geotechnical Engineering and testing, as well as the full design requirements: site, landscaping and fencing, parking and roadways, exterior lighting, storm drainage and Storm Water Pollution Prevention Plan, site utilities, architectural, comprehensive interior design requirements, structural interior design requirements, Furniture, Fixtures & Equipment (FF&E), Structural, Anti-Terrorism Force Protection (AT/FP) and Progressive Collapse, Mechanical/Plumbing, Electrical, Fire Protection, Telephones / Computers / CCTV / Intrusion Detection, Lighting Protection and Grounding, and Sustainable Design (CBP Sustainability Design Requirements).

The new station includes:

- 250 Agent Border Patrol Station
- 10 Horse Equestrian Facility
- 8 Dog Short-Stay Kennel
- Four-Point above-ground Fueling Island with 12,000-gallon tank
- 100' Communications Tower with IR surveillance camera
- Two bay Car Wash facility
- Parking Area for 120 vehicles and 12-vehicle impound lot
- Four-bay Vehicle Maintenance Facility
- Heli-pad (this is a remote location with no other heli-pads nearby)
- ATV Shed for 10 ATVs
- Treated Water Well and Anaerobic Septic System
- 50-yard Indoor Firing Range with six lanes

Highlights

- OEI Role: Prime
- Prime Contract: W9126G-15-D-0011
- Task Order: W9126G17F0179
- Percent complete: 100%
- OEI Federal Business Line Categories: Facilities, Infrastructure
- Full Design: Civil, Structural, Mechanical/Plumbing, Electrical, AT/FP, Interior Design, Architecture, Cost Estimating, Environmental, Fire Protection, Geotechnical, Landscape Architecture
- Sustainable Design
- Drawing Preparation
- $65M Construction Estimate

Title and Location	Client	Dates
CHAPMAN ACTIVE VEHICLE BARRIERS INSTALLATION (JBSA, LACKLAND AFB, TX)	Joint Base San Antonio, Lackland Air Force Base	2021

OEI provided a full design package for a resulting design/build solicitation, including a detailed cost estimate for construction and a preliminary construction schedule to replace the Active Vehicle Barriers (AVB) at Chapman Gate in accordance with UFC 4-022-01 and a DD1391 form. Title I Services included engineering and related services, to include conducting field surveys and investigations to obtain design data, preparing contract plans, specifications, cost estimates, and estimated construction periods of performance. Services included all aspects of design: preparation and/or review of contract plans, specifications, scheduling, cost estimates, system commissioning services and preparation of operating and design manuals.

Discipline efforts included civil, which included the design of all AVB equipment and relocation/extension of existing knee walls and cable barriers; utilities, which included verification of existing utilities, new infrastructure requirements and points of connection to service the project; geotechnical investigation; structural design; architectural design; electrical engineering; and communications design.

Highlights

- OEI Role: Prime
- Percent Complete: 60%
- Contract: FA301620D0017
- Project: MPYJ180054
- OEI Federal Business Line Categories: Infrastructure, Facilities, Water Resources

Title and Location	Client	Dates
SOUTHERN RIO GRANDE VALLEY LEVEE WALL DESIGN-BUILD RFP PREPARATION (RIO GRANDE VALLEY, TEXAS)	USACE/CBP	2017 – 2019

OEI led a multidiscipline A/E services team to prepare a Design-Build (D-B) Request for Proposal (RFP) for floodwall, fence, roads, drainage and lights at the Rio Grande Valley Sector. This task order is off one of OEI's IDIQ contract with the USACE Fort Worth District (through its IIS Program), which supports other USACE Districts and other federal agencies but was principally developed to support the Customs and Border Protection (CBP). The Government will construct new, and modify existing, flood risk management features that are interconnected and necessary to exclude flood waters from the floodplain while providing border security along the Southern Border. The design and completed construction will be approved and certified for the FEMA national database for flood protection.

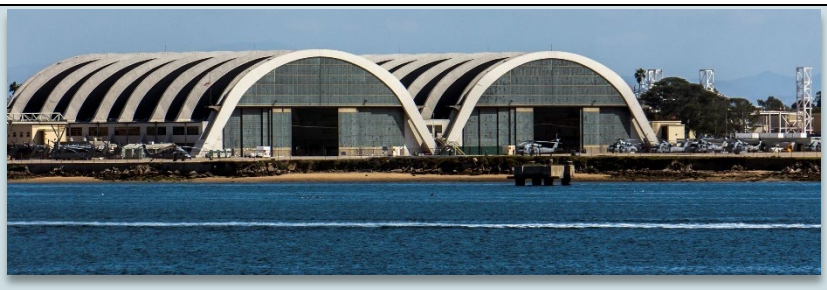
The project entailed approximately 7.9 miles of levee wall construction in the Rio Grande Valley Zones 11, 12, and 13. The project alignment is on the south toe of the north U.S. International Boundary and Water Commission (IBWC) levee along Maintenance Road, within the 32.8 miles in the Government's base bid project.

The completed D-B RFP consist of reports and other data, and all necessary supporting materials, which include information gleaned from previously completed surveys, as well as geotechnical and drainage studies. OEI also provided the Construction Cost Estimate/Current Working Estimate. The scope included development of a Design Quality Control Plan, Reviews and Conferences, Confirmation Notices and Status Reports, Drainage Study, and Surveying.

Highlights

- OEI Role: Prime
- Prime Contract: W9126G-15-D-0011
- Task Order: W9126G17F0183
- Percent complete: 100%
- OEI Federal Business Line Categories: Infrastructure, Water Resources, Real Estate, Support Services
- Design-Build RFP Preparation
- Interagency and International Support (IIS)
- **CPARS** ratings: **Very Good** for Quality and **Very Good** for Schedule

Title and Location	Client	Dates
FACILITY CONDITION ASSESSMENTS OF DEFENSE LOGISTICS AGENCY FACILITIES, SAN DIEGO AREA, CA	USACE/DLA	2018



Under a USACE Fort Worth District IDIQ contract (W9126G-15-D-0011, Task Order W9126G18F0083) serving the Defense Logistics Agency (DLA), OEI led a multidiscipline Architecture/Engineering team on-site to provide a Facility Condition Assessment (FCA) of over 30 buildings and associated facilities at three DLA compounds in the San Diego area. The OEI team assessed approximately 1,000,000 square feet of buildings and over 20 acres of paving and fencing. Providing logistical support to DoD agencies, the facilities include fuel storage, transmission, industrial plants, distribution facilities, warehouses for bulk storage and material distribution and reutilization, and administrative office space.

FCAs included buildings, roofs, and outdoor facilities (pavement and fencing). Building assessments included foundations, basement construction, superstructure, exterior enclosures, roofing systems, interior construction, stairs, interior finishes, conveying, plumbing, HVAC, fire protection, electrical, equipment, furnishings, special construction, and site improvements. BUILDER was used to document the conditions and manage assets. Roof assessments included direct observation, where it could be done safely, and pole mounted camera assessment for sloped roofs and inaccessible locations.

BUILDER Sustainment Management System and its field tool BUILDER Remote Entry Database (BRED) was used for building the facility inventory and documenting the facility conditions. BRED output was used for quality control to ensure all facilities were assessed and that the assessments were internally consistent and correctly documented. Life safety issues were noted on special forms for more rapid resolution.

OEI led the team of 16 assessors and managers in the field, including architects and mechanical/plumbing, electrical, and civil engineers. The OEI team ensured compliance with regulations and protocols, including Antiterrorism and Operation Security and the USACE 385-1-1 safety manual. Deliverables included a Quality Control Plan (QCP), Safety and Health Plans per USACE 385-1-1, FCA photos, Draft Package (BUILDER report, plus all associated supporting materials including photos, calculations, Eagle View Technologies roof reports, In brief/Out brief reports, sketches, GIS data, and walk sheets), and the Final Package and these will be uploaded in the BUILDER Sustainment Management System (SMS) database.

Highlights

- OEI Role: Prime
- Prime Contract: W9126G-15-D-0011
- Task Order: W9126G18F0083
- Percent complete: 100%
- OEI Federal Business Line Categories: Infrastructure, Support Services
- BUILDER assessments
- OEI coordinated 16 assessors in the field
- 30 buildings and facilities
- Assessments included buildings, roofs, infrastructure (civil components), plumbing, electrical, HVAC, fire protection, architectural components, mechanical
- Completed the assessments in half the time, in part due to innovative approaches to roof assessments, which resulted in what is now a patent-pending device
- **CPARS** ratings: **Exceptional** in Management, **Exceptional** in Schedule. *[OEI's] "management of their FCA team resulted in an on-time and complete delivery in spite of a compressed and rigid site visit schedule. This was displayed in their flexibility in meeting the customers rigid visit schedule. This could not have happened without a knowledgeable and agile management team."* – on Management; [OEI] *"accelerated the schedule to complete the FCA five days early and started just days after the award. Their efforts exceeded expectations in responsiveness to schedule needs. All reviews on time or sooner."* – on Schedule.

Title and Location	Client	Dates
SAIPAN AND ROTA AIRPORTS FACILITY CONDITION ASSESSMENTS (COMMONWEALTH OF NORTHERN MARIANA ISLANDS (CNMI))	USACE/CBP	2016 - 2017

OEI was engaged to provide facility condition assessments and Operation and Maintenance (O&M) scope developments at two Customs and Border Protection airports at Saipan and Rota. This task order is off one of OEI's IDIQ contract with the USACE Fort Worth District (through its IIS Program), which supports other USACE Districts and other federal agencies but was principally developed to support the Customs and Border Protection (CBP). The Fort Worth District managed the work on this task order for the CBP. OEI provided the labor, management, investigations, studies, travel/preparations, supplies, equipment, and materials to perform the services. OEI led the team in CNMI, providing the mechanical, electrical, and civil engineering and architecture disciplines. OEI coordinated with a local mechanical and electrical testing company to provide the required testing on specific equipment.

The goal of the work was to provide CBP's Office of Administration a list of emergent repairs including Construction Administration reports, O&M scopes to provide routine, preventative, and emergency repair, operations and maintenance services for the facilities and infrastructure at the two airports.

OEI's staff coordinated the work and travel with both USACE and CBP and completed the condition assessments within one week. The condition assessments included utility meters, fixtures, interior finishes, communications systems, power systems, lighting systems, hot water heating systems, building envelope and roofing systems, pumps/motors/piping systems, fire suppression systems, HVAC systems, plumbing and water distribution systems, and site work.

Highlights

- OEI Role: Prime
- Prime Contract: W9126G-15-D-0011
- Task Order: 0007
- Percent Complete: 100%
- OEI Federal Business Line Categories: Facilities, Support Services
- Facility Condition Assessments
- Mechanical, Electrical, and Civil Disciplines
- Overseas Support
- Operations & Maintenance Scope Development
- Renovation/Repair projects
- Interagency and International Support (IIS)

Title and Location	Client	Dates
RIO GRANDE CITY COMMAND & CONTROL FACILITY DESIGN-BUILD RFP DEVELOPMENT (TEXAS)	USACE/CBP	2017

OEI developed a Design-Build (D-B) Request for Proposal (RFP) to construct a Command and Control Facility (C2) in support of the Office of Technology Innovation and Acquisition (OTIA) at the Border Patrol Station in Rio Grande City. OEI's IDIQ contract is through the USACE Fort Worth District's Engineering and Construction Support Office (IIS Program), and supports other USACE Districts, and other federal agencies but was principally developed to support the Customs and Border Protection (CBP). The Fort Worth District managed the work on this task order for the CBP.

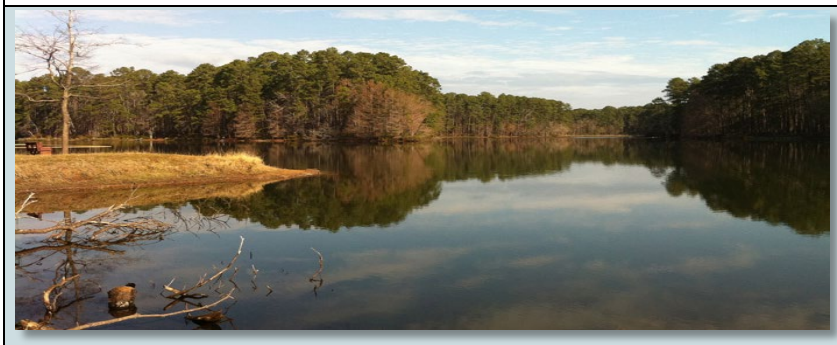
OEI prepared a D-B RFP denoting all design (including civil, mechanical, electrical, plumbing, fire protection, anti-terrorism/force protection, architectural, IT, etc.), construction, and performance requirements to complete a useable facility. Tasks included the Design Quality Control Plan, 35% conceptual plans, development of construction cost estimates/current work estimates (PACES for the Draft D-B and MII MCACES Version 4.2 for the Final D-B RFP), as well as a Design-Build construction contract for site and facility. The 35% conceptual plans included architect, civil engineer, mechanical engineer, electrical engineer, cost estimator, and support staff involvement.

The D-B RFP included technical specifications, technical evaluation criteria, special phasing requirements, and reference drawings. All submittals were prepared in accordance with USACE instructions, regulations, and manuals and conformed to CBP criteria. The scope of work included conducting a pre-proposal conference and site-visit, making a presentation of the general RFP development concept and project features, and preparing an agenda and organizing the conference so that all technical and functional issues were addressed. Due to project site restrictions and operations, all on-site personnel were required to be vetted and cleared prior to site access, with final site access approval determined by the Department of Homeland Security (DHS).

Highlights

- OEI Role: Prime
- Prime Contract: W9126G-15-D-0011
- Task Order: 0003
- Percent Complete: 100%
- OEI Federal Business Line Categories: Facilities, Infrastructure, Support Services
- Interagency and International Support (IIS)
- **CPARS** ratings: **Very Good** on Schedule, Cost Control, and Management
- Customer comment: *"[OEI] kept **good communication** with the USACE team at all times throughout the project. Meeting notes and follow up were **thorough**. Contractor was **consistently responsive** and worked to meet USACE contract requirements."*

Title and Location	Client	Dates
RATCLIFF DAM ASSESSMENT AND REHABILITATION (LUFKIN, TEXAS)	USDA Forest Service	2017



The U.S. Forest Service (USFS) (Department of Agriculture) engaged OEI to provide engineering services to investigate and determine the extent of damage and efforts required to repair the dam and spillway at Ratcliff Dam/Ratcliff Lake, located in the Davy Crockett National Forest, Ratcliff Recreation Area. OEI performed a feasibility study, including site observations and damage assessment, and subsequently provided repair options and a summary submittal of the discussions. OEI was then selected to develop designs for the dam rehabilitation, providing complete designs including a construction-contract ready package of plans, specifications, and cost estimates. The scope included designs and construction administration for repairs to the dam, spillway, and downstream channel, as well as the access road for maintenance and future repairs. OEI also provided erosion control plans, 404 permitting, and Texas Commission on Environmental Quality (TCEQ) coordination.

OEI analyzed the existing hydraulic structure (spillway and dam) to determine if it met TCEQ and USFS design requirements, determining the dam needed upgrading. Water depth analysis and velocities were performed at the transition between the spillway outfall and creek channel. Roadway culverts were designed along the maintenance road to handle local drainage. OEI designed the concrete spillway and grouted riprap flume, including structural design of concrete flatwork and training walls.

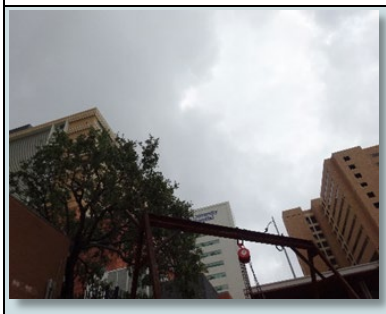
The earthen dam embankment is composed of clayey sands with some permeability. The geotechnical engineer performed a seepage analysis as part of the design of spillway cutoff walls. A slope analysis was performed to assess the ultimate stable slope of the embankment and address shallow sloughing along the downstream face of the dam.

OEI used ArcGIS for all base map generation, hydrology delineation, and inundation area mapping. Historic data was georeferenced to survey data and georeferenced aerials. TCEQ's Gridded PMP Tool was used to determine basin rainfall totals for the spillway adequacy assessment. Base maps were developed using aerial photographs, traditional land surveying, photogrammetry contours, scanned and vectorized historical plans, georeferenced historical maps and plans, and USFS GIS data, for the watershed entering the lake, and the dam breach inundation area downstream of the lake.

Highlights

- OEI Role: Prime
- Prime Contract: AG43ZPC170001
- Percent Complete: 100%
- OEI Federal Business Line Categories: Infrastructure, Water Resources
- Evaluating stream stability
- Stream restoration and rehabilitation design
- Developing stream stabilization and construction plans
- Flood studies in steady and unsteady state HEC-RAS
- State and federal submittals, permitting, and compliance
- Dredging
- Hydraulic and hydrologic modeling and analysis
- Stream geomorphology
- Erosion risk and problem area identification
- GIS analysis and database development
- Field reconnaissance
- Field review and evaluation
- Conceptual project solutions
- Cost estimates
- Analysis and design of hydraulic structures
- **PPQ** ratings: **Very Good** on Quality, Schedule / Timeliness of Performance, Customer Satisfaction, Management / Personnel / Labor, Cost / Financial Management, and Security / Safety

Title and Location	Client	Dates
AUDIE L. MURPHY VA MEDICAL CENTER, REPLACE WATER SOFTENERS WITH BRINE TANKS (SAN ANTONIO, TEXAS)	Southern Texas Veterans Health Care System, Audie L. Murphy VAMC	2018 – 2020



The brine tank and water softener at the South Texas Veterans Health Care System in San Antonio is used for removing calcium and magnesium (hard) ions. Hard water is more difficult to clean with, leaves more of a residue, clogs pipes and valves and can be damaging to skin and scalp.

Design and construction related services are for the replacement of four water softeners (100gpm) at the Audie L. Murphy VA Medical Center, a 1.4M SF facility which has 462 beds. The original water softener was constructed in 1973 in the Mechanical Room. A medical vacuum system has since been installed within the same area. The hospital area has increased significantly since 1973, yet there is no additional area to accommodate the needed increase in capacity of the water softener. For this reason, the new system must be designed to occupy the original space.

The scope included (1) preparing the CAD floor plan of the Mechanical Room as no CAD plans were available, (2) analyzing the existing system for size, capacity and demand and sizing the water softeners accordingly, (3) preparing plans, details, and specifications for the replacement of the softeners with the new softeners, (4) specifying associated equipment and devices, (5) preparing a cost estimate, (6) conducting a structural condition inspection of the tank, (7) preparing a report assessment with recommendations for repair/replacement and (8) conducting an asbestos survey of the mechanical room.

Highlights

- OEI Role: Prime
- Prime Contract: 36C25718C0110
- Percent Complete: 100% (design)
- OEI Federal Business Line Categories: Facilities, Infrastructure
- **PPQ** rating: **Exceptional** on Quality, **Exceptional** on Schedule, **Exceptional** on Cost Control. *[OEI] "has been very professional and has done their due diligence on this project….quality and level of detail has been superb."* – on Quality; *[OEI's] timing has been on point on every single mark."* – on Schedule.

Title and Location	Client	Dates
USACE FORT WORTH DISTRICT'S MEMORANDUM OF RECORD FLOODS 2015 – 2016 (TEXAS)	USACE Fort Worth District	2016-2017

OEI was engaged to develop a comprehensive memorandum, *Memorandum of Record Floods of 2015 – 2016,* for the USACE Fort Worth District's Water Resources Branch. OEI delineated watersheds based on USGS gage placements within major river systems in Texas. Services provided included project management, writing, editing, organization and coordination of a multi-agency project effort.

Upon completion of the investigations and studies, OEI prepared and furnished reports and other data, and supporting materials that described the floods experienced in Texas during the years 2015 and 2016 in the Trinity, Guadalupe, Nueces, Brazos, Colorado, Lavaca/Navidad, Red, San Jacinto, Neches, and Sabine River Basins. The Fort Worth District partnered with the National Weather Service (NWS), the U.S. Geological Survey (USGS), and the North Central Texas Council of Governments (NCTCOG) as part of this effort. The NWS, NCTCOG, and USGS contributed information that OEI incorporated in the report, along with details about each agency and how the agencies worked together during the flooding events. The report included information on Fort Worth District lake levels, operational aspects of lake operations, peak stream and river flows, and storm rainfall data. It also included information on damages prevented from Fort Worth District lakes, as well as available state-wide damage information.

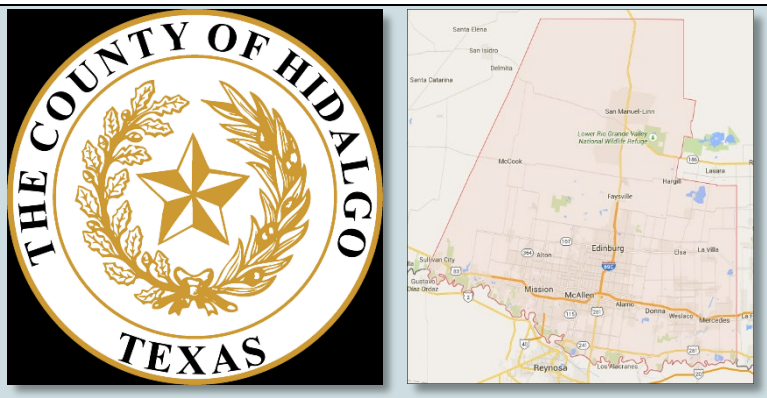
HEC-MetVue was utilized to develop hyetographs over a given watershed using hourly rainfall data obtained from NOAA for a chosen time period. The resulting hyetographs were then compared to the stream stage-discharge data provided by the USGS. Additionally, OEI developed a condensed version of the report using Esri StoryMap, a web-based platform.

The report included individual, specific flood event chapters, graphs, plots, maps, exhibits, tables, and research data. Additional scope of work items included providing editorial support, printing, and preparation of electronic files and paper documents. The maps were produced using ESRI ArcMap showing monthly precipitation totals for several months during the flooding using gridded daily rainfall data from NOAA.

Highlights

- OEI Role: Prime
- Prime Contract: W9126G-15-D-0011, Task Order 0006
- Percent complete: 100%
- OEI Federal Business Line Category: Water Resources
- Hydrologic and hydraulic modeling
- HEC-MetVue and ArcGIS
- Multiple federal and state agency coordination
- **CPARS** ratings: **Very Good** (Management)
- Customer comment: *"This task order required substantial coordination with a number of different agencies and piecing the data from these different agencies into one usable format of data. This required more than just normal effort and the contractor accomplished it and **should be commended** for doing that. [OEI] completed the contract on time and on budget. They also printed additional copies of the final report at no cost. They coordinated between several agencies when collecting data for the report, e.g. USACE, NWS, USGS, FEMA, and the Harris County Flood Control District. Coordination among this many agencies can be problematic, however **they executed this task very well**. The **final report is of excellent quality** and an improvement over past floods reports produced by the Fort Worth District."*

Title and Location	Client	Dates
USACE FORT WORTH DISTRICT REAL ESTATE MATOC, TITLE SERVICES FOR HIDALGO COUNTY, TX	USACE Fort Worth District	2017 – 2021



Highlights

- OEI Role: Prime
- Percent complete: 5% (Overall contract), 100% (Named Task Order)
- Task Order W9126G18F0149
- OEI Federal Business Line Categories: Real Estate
- Interagency and International Support (IIS)

Under this $40M Multiple Award Task Order Contract (MATOC) managed by the Department of Defense's US Army Corps of Engineers for the Department of Homeland Security's Customs and Border Protection (an Interagency and International Support (IIS) contract), OEI is one of two awarded firms. OEI's prime contract number is W9126G-17-D-0028. The Real Estate MATOC provides for real estate support services including title research, appraisals, surveys, negotiation services, escrow support, land mapping, land research, Declaration of Taking preparation, relocation assistance, and bilingual/Spanish language translation. The region for services under this contract includes Texas, New Mexico, Arizona, and California.

Task Order W9126G18F0149, which was awarded for a fee of $465K, included providing Title Services on 237 tracts of land within Hidalgo County, TX.

Title and Location	Client	Dates
FEMA SUBSTANTIAL DAMAGE ESTIMATES (SDE) IN FLOOD IMPACTED COUNTIES (LOUISIANA)	FEMA	2016

Severe storms and flooding impacted many counties in Louisiana in 2016 and as a result, thousands of structures were damaged or destroyed, presenting an immediate threat to the health and safety of the public. These threats left local officials overwhelmed in performing their essential community services to deal with thousands of non-conforming structures. To alleviate the threat, local officials needed to evaluate the damage state of these structures and enforce FEMA's National Flood Insurance Program (NFIP) requirements for bringing substantially damaged structures into compliance. As a subconsultant, OEI provided assistance by collecting data for use by local communities for making Substantial Damage Determinations / Estimates (SDEs) of affected residential and non-residential structures, as required by the NFIP. FEMA's Substantial Damage Estimator 2.2 tool was used to collect the data. Data captured was intended to be used by local communities or the Federal Government for rebuilding, building code compliance, investigations, surveying, evaluations, consultations, comprehensive planning, program management, conceptual designs, plans and specifications, value engineering, and construction phase services. OEI personnel conducted over 2500 SDEs over a six-week period, working six days a week, 12-14 hours per day in multiple counties in Louisiana, working with FEMA and the prime contractor. OEI completed the SDE 2.2 Inspection worksheet and provided: damage inspection data entered into a SDE software database, digital photographs documenting damage and importing them into the SDE database, accurate GPS coordinates, community summary reports, a geo-referenced file, and a final report of the results of the SDE Collections (external to the SDE Estimation tool) which was provided to the Joint Field Office in Louisiana and the Region 6 FEMA Office in Denton. OEI complied with the 29 CF 1910 Occupational Safety and Health Standards and 29 CFR 1926 Safety and Regulations for Construction.

Highlights

- OEI Role: Subconsultant
- Percent Complete: 100%
- OEI Federal Business Line Categories: Support Services
- Substantial Damage Estimator (SDE)
- FEMA's Substantial Improvement
- Substantial Damage Desk Reference Manual
- Flood damage estimates
- BCA Tool
- Post disaster preliminary damage assessments
- Substantial Damage Assessment reports

Title and Location	Client	Dates
RED RIVER ARMY DEPOT CANEY LAKE TEST TRACK DRAINAGE STUDY AND CANEY LAKE DAM REPAIR (TEXARKANA, TEXAS)	USACE Fort Worth	2017 – 2020

OEI was engaged to provide A/E services for the preparation of the Caney Lake Test Track Drainage Study and the Design-Bid-Build (DBB) Request for Proposal (RFP) for the repair of the Caney Lake Dam's spillway at the Red River Army Depot (RRAD). The RFP denotes all design, construction, and performance requirements to provide for the repair of the spillway, creating a complete and useable facility.

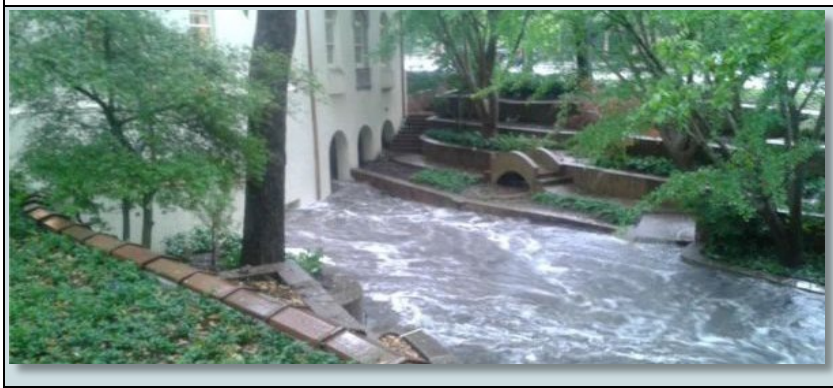
OEI performed a detailed drainage study involving surveying, inspection, and assessment of all existing natural and constructed stormwater drainage system elements in the industrial area of RRAD. A non-detailed drainage analysis was also performed in another area near the mouth of Caney Lake. Three bridges were evaluated for capacity and conveyance. The stormwater drainage system for the detailed study was assessed to determine its compliance with Section 438 of the Energy Independence and Security Act.

The repair of the Caney Lake Dam spillway involves repair or replacement of the existing spillway sluice gate or construction of an alternate emergency release/outlet; sealing cracks in the concrete on the spillway and the abutment walls to prevent leakage through the spillway monolith and retaining walls; plugging, sealing, or removal of the water supply pipe through the spillway; and, installation of toe drains near the spillway. As a part of this task, OEI also provided recommendations to address observed inadequacies.

Highlights

- OEI Role: Subconsultant
- Contract/Task Order: W9126G-17-D-0018 / W9126G18F0037
- Percent Complete: 100%
- OEI Federal Business Line Categories: Infrastructure, Water Resources
- Drainage study
- Dam spillway repair
- RFP development

Title and Location	Client	Dates
FEMA HAZARD MITIGATION TECHNICAL ASSISTANT PROGRAM GRANT REVIEWS (VARIOUS)	FEMA	2016 - 2020



To provide technical assistance and support to FEMA in performing reviews of Hazard Mitigation Assistance (HMA) program applications under the Pre-Disaster Mitigation and Flood Mitigation Assistance programs, OEI was engaged as a subconsultant to serve on-site for four weeks during 2016. OEI provided support in conducting cost effectiveness and feasibility reviews, on primarily flood risk reduction reviews, for HMA grant applications. OEI functions included conducting feasibility reviews, benefit/cost analysis reviews, and summary reporting. Feasibility reviews involved verifying that all technical information submitted in support of the application complied with applicable codes and standards, regulations, and guidance, and verification of assumptions. Benefit Cost Analysis (BCA) reviews involved confirming that the documentation provided ensured all requirements of guidance was met; evaluation of the general analysis approach including a review of principal BCA parameters, such as hazard data, data regarding the facilities to be protected by the project, historical losses, and the useful life and projected level of protection for the project; and, reanalysis when possible to correct any errors made. The BCA reviews were performed within the standards of the FEMA BCA Tool or other FEMA approved methodology. Finally, the Summary reporting included conclusions from the programmatic, feasibility, and BCA reviews, including a verified benefit-cost ratio and all supporting documentation.

Highlights

- OEI Role: Subconsultant
- Percent Complete: 100%
- OEI Federal Business Line Categories: Water Resources, Support Services
- Flood Hazard / Risk Reduction Reviews
- Hazard Mitigation Assistance (HMA)

OEI

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