7. Brief résumé of key persons, specialists, and individual consultants anticipated for this project.

a. Name & Title

H. Davis Cole, P.E.
Principal Engineer

b. Project Assignment

Client Services Manager/Technical Advisor/Quality Assurance Project Officer

c. Name of firm with which associated

H. DAVIS COLE & ASSOCIATES, LLC

d. Years Experience

With this Firm.....5 (2006)
With other firms.....8 (1998)

e. Education (Degree/Year/Specialization)

BSCE, 1998, Civil & Environmental Engineering, Louisiana State University

f. Active Registration (Year First Registered/Discipline)

2002, Civil Engineer, Louisiana, No. 30219
2004, Professional Engineer, Mississippi, No. 16658

g. Other experience & qualifications relevant to the proposed project

Mr. Cole has over a decade of experience working with varied types of civil engineering projects, including wastewater, drainage, water, structural, and transportation. He is the founder of H. Davis Cole & Associates, created in 2006 after serving several years with international, national and local engineering firms. Mr. Cole has served the metro area for the past decade, providing civil and environmental engineering services to municipal clients throughout the region.

HAZARD MITIGATION GRANT PROGRAMS AND
FEMA HURRICANE RECOVERY AND RESTORATION PROJECTS

City of Tallulah Drainage Redirection Project (Harlem Street Area to Brushy Bayou), City of Tallulah, Louisiana. HDCA is serving as the consulting engineer for the design of drainage improvements to the Harlem Street area of Tallulah, an area suffering from repetitive flooding. As part of this FEMA-HMGP funded project, HDCA has prepared a hydrology and hydraulics study and is responsible for preparation of preliminary and final design of a new drainage ditch to redirect drainage in the area beneath US Highway 80 to Brushy Bayou. Based on the results of the H&H Study, HDCA is assisting the client in seeking additional funding for further improvements. Mr. Cole is serving as Principal Engineer, responsible for coordination with FEMA and the HMGP.

Hurricane Shutters for Popich Building, Plaquemines Parish, Louisiana. HDCA served as the Design Engineer for this project which involved the installation of removable storm panels at the Plaquemines Parish Government Building. Services included development of plans & specifications, development of renderings of the installed panels, and construction administration. The project was funded through FEMA Hazard Mitigation Funding.

Hurricane Recovery Administrative & Program Management, St. Bernard Parish, Louisiana. Mr. Cole served as a Program Manager and provided administrative and technical services for FEMA-funded and EDA-funded projects in St. Bernard Parish. Mr. Cole's duties and involvement specifically included the wastewater treatment facilities consolidation and interim repairs to the water treatment plant. Mr. Cole was also involved in the preliminary design of rehabilitation measures for the 92 sewer lift stations damaged by Hurricane Katrina. As one of the early team members, Mr. Cole's duties included development of standard front end bidding documents and graphical standards, development of standard technical specifications for multiple projects requiring installation of similar equipment, completing the conceptual design and bid documentation for repair or replacement projects, assisting in the procurement of architectural/engineering services through development of requests for qualifications and review of the final selection, preparation and/or review of architectural/engineering invoices and final design documents, review/approval of bid tabulations and recommendations, oversight of monthly construction progress meetings, and processing of pay requests and change orders.

Mr. Cole's duties also included coordination with FEMA and State agency hurricane recovery officials, scope alignment reviews of FEMA project worksheets, identification and determination of potentially uncaptured damages, oversight and preparation, and packaging of documentation for Project Worksheet versions, and development and implementation of hazard mitigation proposals for review and approval by FEMA.

FEMA Hurricane Recovery and Restoration – Biloxi Infrastructure Repair, Biloxi, Mississippi. A team consisting of HDCA and Thompson Engineering was selected to provide administrative and technical services for FEMA related projects in the City of Biloxi, Mississippi. Projects involved in the program included various types of roadway, water distribution, sewage collection and storm drainage systems; and sewer lift stations. The Infrastructure Repair Program includes all projects necessary for the repair and/or replacement of approximately:

- *426,000 linear feet of sewer main,*
- *485,000 linear feet of water main,*
- *48 sewer lift stations,*
- *320,000 linear feet of storm drainage, and*
- *100 miles of street paving.*

Consultant services include, but are not limited to, preparation of standard front end bidding documents and graphical standards; coordinating with utility companies and permitting agencies; preparation of permits as required; developing standard technical specifications; completing the conceptual design and bid documentation for repair or replacement projects; completing final design and. bid documentation; reviewing and approving of contractor invoices; preparation

continues

7. Brief résumé of key persons, specialists, and individual consultants anticipated for this project.

H. Davis Cole, P.E.

continued

and/or reviewing and approving bid tabulations and recommendations; overseeing monthly construction progress meetings, pay requests and periodic change orders; and providing limited resident project representative services including the submittal of necessary as-builts. Other duties include assisting the Program Manager, as required, with activities such as coordination with FEMA and State agency hurricane recovery officials; performing scoping reviews of FEMA Project Worksheets; identification and eligibility determinations of potentially uncaptured damages; oversight, preparation and packaging of documentation for Project Worksheet versions; and development and implementation of hazard mitigation proposals for review and approval by FEMA.

Hazard Mitigation Plan Update - Louisiana Planning Pilot Grant Program (LPPGP), Tensas Parish, Louisiana. Under the Louisiana Planning Pilot Grant Program (LPPGP), HDCA, along with Bryant Hammett & Associates, LLC, provided hazard mitigation planning services resulting in an update to the Action Plan contained within the Parish's existing Plan. HDCA scoped hazard mitigation measures for 16 sewer lift stations in Tensas Parish.

Hazard Mitigation Plan Update - Louisiana Planning Pilot Grant Program (LPPGP), Concordia Parish, Louisiana. Under the Louisiana Planning Pilot Grant Program (LPPGP), HDCA, along with Bryant Hammett & Associates, LLC, provided hazard mitigation planning services resulting in an update to the Action Plan contained within the Parish's existing Plan.

Sewer Pump Station Rehabilitation Package No. 11, St. Bernard Parish Government, St. Bernard Parish, Louisiana. Responsible for the design, bidding, and construction administration for the rehabilitation of 12 sewer pump stations damaged by Hurricane Katrina including the replacement of pumps and control panels along with the implementation of various Hazard Mitigation measures. The design of this project was completed within a two week period and was successfully bid and awarded ($2.2 M construction cost). Also responsible for reviewing the associated FEMA Project Worksheets for scope and FEMA funding eligibility and preparation of the final bid documentation. Mr. Cole served as Principal Engineer/Client Services Manager for this project.

Hurricane Protection Office, U.S. Army Corps of Engineers, New Orleans District, Louisiana. HDCA provided staff for the USACE Hurricane Protection Office in services related to rehabilitation and restoration of drainage pump stations throughout Jefferson and St. Bernard Parishes. Mr. Cole oversaw staff extension services as Principal Engineer.

STRUCTURAL

Clarifier Tank Foundation, Occidental Chemical Corporation & WesTech Engineering, Taft, Louisiana. HDCA prepared construction documents for the construction of a pile – supported, reinforced concrete foundation for a clarifier tank. Unique to this project was the re–analysis of the existing foundation. HDCA determined that the existing piles could be reused. HDCA also provided the design of new "adjusting cans" for the foundation.

New Community Center, St. Patrick's Catholic Church, Ferriday, Louisiana. Conceptual and detailed design of all elements of a new 3,600 square foot community center, which included classrooms, a kitchen, restrooms, and a gathering hall. ADA compliance and permitting and inspection by the Louisiana State Fire Marshall's Office were required for the project. Mr. Cole prepared all design elements, including structural, foundation, HVAC, plumbing, and electrical design; obtained necessary permits; and assisted with bidding and periodic construction inspection. The construction cost of the project was approximately $300,000.

Rapid Evaluation Safety Assessment of Residential Structures, St. Bernard Parish Department of Community Development, Chalmette, Louisiana. Subsequent to Hurricane Katrina which devastated St. Bernard Parish with Category 3 winds and also inundated 100% of all residential structures with flood waters, St. Bernard Parish implemented a Rapid Evaluation Safety Assessment Program for all residential structures within the Parish. The purpose of this program was to rapidly assess the structural integrity of all of the Parish's residential structures for the purpose of advising homeowners as to the safety and structural soundness of their residence. Using the ATC-45 Rapid Evaluation Safety Assessment Form, formulated by the Applied Technology Council, Mr. Cole lead a team of 12 inspectors over a two (2) week period during which over 1,500 residences were assessed. For this project, Mr. Cole acted as the Principal Engineer and Project Manager.

K-Area Nuclear Material Storage (KAMS) Facility, United States Department of Energy - Savannah River Site, Aiken, South Carolina. Mr. Cole designed extensive structural modifications to convert an existing nuclear reactor facility to store weapons grade plutonium transferred to the Savannah River Site from the Rocky Flats Environmental Technology Site. Specifically, Mr. Cole designed reinforced concrete radiation shield walls, physical security barriers and improvements, and security personnel facilities. All structures were design for seismic conditions. Mr. Cole also provided engineering support during the construction phase of this design/build project.

Anaerobic Digester No. 1 Mixing and Heating System Building, City of Slidell Department of Pubic Utilities, Slidell, Louisiana. As part of a larger project to restore the mechanical and electrical systems at the Terrace Avenue Wastewater Treatment Plant, Mr. Cole designed a new building (approximately 1,500 square feet x 20 feet tall) to house a new mixing and heating system for Anaerobic Digester No. 1. The building was constructed of a reinforced concrete frame (columns and beams) with infill walls of reinforced cinder blocks. The building was constructed as a free span structure to minimize conflicts with the complex mechanical systems that it housed. The roof structural system was constructed using pre-stressed, pre-cast concrete hollow core panels. The foundation was a reinforced concrete slab with spread footings for the column foundations. The roofing system was a built-up type bituminous roofing with parapet walls and a stainless steel gutter system for drainage. The approximate cost of the structure was $50,000. Mr. Cole was responsible for the design of all elements.

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7. Brief résumé of key persons, specialists, and individual consultants anticipated for this project.

H. Davis Cole, P.E.

continued

Poland Avenue Wharf/Cruise Terminal, New Orleans, Louisiana. Responsible for water, sewer, and drainage utilities design as well as traffic and parking plans for the proposed Poland Avenue Cruise Terminal.

LCDBG-FUNDED PROJECTS

Yscloskey Ice House, St. Bernard Parish, Louisiana. HDCA has been selected to provide engineering and architectural services for the renovation/reconstruction of the old Yscloskey Ice House. Services include development of a cost opinion for renovation of the existing ice house and construction of a new ice house. The project is funded through Fisheries Improvements CDBG grants. Mr. Cole is serving as Client Services Manager/Technical Advisor.

Plaquemines Parish Oyster Conveyors, Plaquemines Parish, Louisiana. Services include site improvements, electrical, and structural work pertaining to the installation of oyster conveyors at four docks owned by the parish. The project is funded by CDBG grants. HDCA is serving as a sub-consultant, providing technical and administrative support.

EDA-FUNDED PROJECTS

Jean Lafitte Sewer Force Main Program Management, St. Bernard Parish, Louisiana. Mr. Cole served as Program Manager for this EDA-funded project which included the installation of a 16 inch diameter force main along Jean Lafitte Parkway in Chalmette, Louisiana. The force main runs along Jean Lafitte Parkway for its entire length. The $1.7 M project was funded through EDA grants as part of the Sewer Consolidation Program, managed by Mr. Cole.

TRANSPORTATION

US Highway 61 and Kansas City Southern Railway Bridges over the Comite River Diversion Canal; U.S. Army Corps of Engineers, New Orleans District – East Baton Rouge Parish, Louisiana. The SBSA Group, Ltd. (an HDCA Joint Venture Company) has been tasked with the design of two bridges along the proposed Comite River Diversion Canal. One bridge will provide a crossing for US Highway 61 over the canal and the other bridge will provide a crossing for the Kansas City Southern Railway over the canal. Both bridges will be located in northern East Baton Rouge Parish, Louisiana. HDCA is acting as the Joint Venture Task Order Manager, with Mr. Cole serving as Task Order Manager. The project also includes the relocation of local roadways to tie into the new highway alignment, relocation of numerous utilities throughout the proposed corridor, installation of a temporary "shoofly" bypass track for the KCSRR and a temporary four-lane highway detour road for US 61 during construction.

Willswood Lane Roadway Improvements, Jefferson Parish Department of Streets, Jefferson, Louisiana. This project involved the design of an addition of a third turning lane to this roadway. Also included were redesign of the roadway drainage systems, redesign of a railroad crossing, and permitting and coordinating with the railroad and various utilities. The construction cost opinion for the project was $1.9 M. Mr. Cole served as the Principal Engineer.

Lapalco Boulevard Overlay – Belle Chasse Highway to Wall Boulevard, Jefferson Parish Department of Streets, Jefferson, Louisiana. Mr. Cole served as the Principal Engineer for the construction phase of this project. This project involved roadway improvements, in accordance with DOTD standards, for a 0.6 mile 4-lane segment of Lapalco Boulevard. Included in the project were pavement repairs, addition and adjustment of drainage structures, curb and gutter replacements, and approach slab replacements. Provision and oversight of DOTD Certified Inspectors was also within the scope of the project. The project construction cost was $1.1 M.

Lapalco Boulevard Overlay – Wall Boulevard to Timberlane Drive – Jefferson Parish Department of Streets, Jefferson, Louisiana. Mr. Cole served as the Principal Engineer for the design phase of this project. This project involves the design of roadway improvements, in accordance with LADOTD standards, for a 0.5 mile long, 4-lane segment of Lapalco Boulevard including pavement repairs, addition and adjustment of drainage structures, curb and gutter replacements, and approach slab replacements. The construction cost opinion was $1.8 M.

Lapalco Boulevard Overlay – Bayou Fatma to Brooklyn Avenue, Jefferson Parish Department of Streets, Jefferson, Louisiana. Mr. Cole served as the Principal Engineer for the design phase of this project which involves the design of roadway improvements, in accordance with LADOTD standards, for a 0.3 mile long, 4-lane segment of Lapalco Boulevard including: pavement repairs, addition and adjustment of drainage structures, and curb and gutter replacements. The construction cost opinion was $1.7 M.

Veterans Boulevard Improvements – Loyola Drive to the St. Charles Parish Line, City of Kenner Department of Public Works, Kenner, Louisiana. Mr. Cole served as the Senior Project Manager for evaluation and study phase of this project which involved the addition of two additional travel lanes to create a divided boulevard roadway and reconstruction of the existing two-lane roadway. Included with the project are drainage improvements, construction of a 4-lane highway bridge, and water and sewer utilities relocations. The construction cost opinion for the project was $4.0 M.

Seventh Street Resurfacing Project, City of Slidell, Louisiana. HDCA was selected to provide engineering services for the resurfacing of Seventh Street from Gause Boulevard to Fremaux Avenue. Services include preparation of budgetary analysis for various resurfacing alternatives and preparation of plans and specifications for the selected option. HDCA has provided technical support for funding negotiations and will also provide services related to drainage improvements. Mr. Cole is serving as Principal Engineer/Technical Advisor.

WATER SUPPLY, TREATMENT, AND DISTRIBUTION

St. Bernard Water Treatment Plant, St. Bernard Parish, Louisiana. Includes complete mechanical and electrical reconstruction and expansion of 12 MGD surface water treatment

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7. Brief résumé of key persons, specialists, and individual consultants anticipated for this project.

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continued

plant. HDCA is serving as a subcontractor to BKI and is responsible for site and drainage design. Mr. Cole is serving as Principal Engineer/Client Services Manager. This $30 M project is funded by CDBG funds.

West Bank Water Treatment Plant Filter Upgrade, Jefferson Parish Department of Water, Marrero, Louisiana. This project involved the replacement of existing sand media with a dual media (sand and anthracite), replacement of existing ceramic underdrains with plastic underdrains, replacement of filter-wash troughs, extension of filter gullet walls, and removal and replacement of the existing surface backwash system with a new air-scour backwash system at a 30-MGD surface water treatment plant. Also included was integration of the new filter backwash control system into the existing plant SCADA system. Mr. Cole served as the Project Engineer during the construction phase of the project.

Water Well Disinfection Alternatives Feasibility Study, City of Slidell Department of Public Utilities, Slidell, Louisiana. Mr. Cole, as Project Engineer, prepared a report that evaluated six alternatives for disinfection of the City's groundwater. Alternatives were evaluated based on several criteria: capital costs, life-cycle costs, safety, and required maintenance.

Water Well No. 9, City of Slidell Department of Public Utilities, Slidell, Louisiana. The project involved design, bid, and construction management services for a new 1,500 GPM, 2,000-foot deep groundwater well, standby generator system, chlorination system, and SCADA control system. Mr. Cole served as Project Manager for the duration of the project.

Northshore Boulevard Utilities Extension, City of Slidell Department of Public Utilities, Slidell, Louisiana. This project served to extend the water and sewer utilities along a major roadway in the City of Slidell, Louisiana. Facilities included a new sewer pump station and force main, water and sewer line extensions, jack-and-bore installation of water and sewer lines beneath Interstate 12, and a provision of a SCADA control system for control of water distribution. The facilities were provided to accommodate a new shopping center development along Northshore Boulevard at I-12. Mr. Cole served as the Project Manager for the project during the design, permitting, bidding, and construction phases of the project.

Jackson County Water Treatment Plant, Jackson County, Mississippi. This project involved designing chemical feed systems, an ozone system, and a filtration system for a new 7 mgd water treatment plant in Jackson County, Mississippi. As Project Engineer, Mr. Cole designed sodium hypochlorite, aqueous ammonia, zinc orthophosphate, sodium bisulfite, and anionic polymer feed systems for the treatment plant.

WASTEWATER TREATMENT AND COLLECTION

Terrebonne Parish Lift Station Rehabilitation (Bobbie Lou, Brittany, and Elysian), Terrebonne Parish, Louisiana. HDCA has been selected by Terrebonne Parish Consolidated Government (TPCG) to provide design services related to the complete reconstruction of three sewer lift stations in Houma. HDCA is preparing preliminary design report, as well as plans and specifications for the project, which includes the conversion of these self-priming stations to submersible stations. Mr. Cole is serving as Technical Advisor.

Preliminary Design of Sewer Lift Stations (Parish-Wide), Department of Public Works, St. Bernard Parish, Chalmette, Louisiana. HDCA prepared the preliminary design and determination of hazard mitigation measures for 92 sewer lift stations throughout St. Bernard Parish. The stations were damaged as a result of Hurricane Katrina. Using damage assessments and the FEMA Project Worksheets, along with a pre-storm pump station inventory, HDCA prepared hydraulic calculations required to determine pump station system curves and design points. HDCA also prepared standard specifications for St. Bernard Parish Lift Stations. These specifications include pumps, valves, protective coatings, pipe and fittings, control panels, and Supervisory Control and Data Acquisition (SCADA) hardware.

Lecompte Wastewater Treatment Plant Repairs, Town of Lecompte, Louisiana. Renovation of treatment pond to include floating covers, trickling filters, and polishing reactors to meet more stringent discharge requirements. Also included Infiltration/Inflow work (including complete rehabilitation of three sewer lift stations) to reduce loads on pond. Project funded through USDA Rural Utilities Service Grants. Mr. Cole served as Project Manager/Engineer.

Marrero Wastewater Treatment Plant Consolidated Expansion, Jefferson Parish Department of Sewerage, Jefferson, Louisiana. Mr. Cole served as the Project Engineer on this project that involved designing a $17 M, 4.85 million gallon per day expansion to a wastewater treatment plant located on the West Bank of Jefferson Parish in the community of Marrero, Louisiana. Additional process units were designed including a trickling filter, solids contact basin, and primary and secondary clarifiers. Extensive modifications to the existing headworks, including new mechanical barscreens and a vortex grit removal system as well as a headworks bypass line, were, designed as part of the proposed expansion.

Wastewater Treatment Consolidation Project, City of Kenner Department of Public Works, Kenner, Louisiana. Design of mechanical, process, electrical, and instrumentation systems required to expand the City of Kenner's Wastewater Treatment Plant No. 3A to an Average Daily Flow capacity of 13.83 million gallons per day from its then-current average daily flow capacity of 4.95 million gallons per day. The project cost approximately $9 M. After completion, the City transferred flow from two smaller plants to the expanded plant and, therefore, consolidated wastewater treatment within the city. Mr. Cole served as the Project Manager for the design of the mechanical, process, electrical, and instrumentation systems.

Violet Wastewater Treatment Plant Transfer Pump Station, St. Bernard Parish Water and Sewer Division, Chalmette, Louisiana. As a component of the overall consolidation plan for the wastewater treatment facilities throughout St. Bernard Parish, a pump station is required to transfer wastewater flows from the Violet Wastewater Treatment Plant (WWTP) service

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7. Brief résumé of key persons, specialists, and individual consultants anticipated for this project.

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continued

area to the consolidated Munster WWTP. For this, Mr. Cole prepared the Preliminary Design Report (PDR) which defined all design parameters for the proposed station and established a construction budget of $3.0 M. The proposed station will make use of the existing influent pump station structure at the Violet WWTP, while all mechanical components including the existing pumps, valves, and controls will be replaced to accommodate the new design flows. The design flows are 6.2 million gallons per day (Average Daily Flow) and 20 million gallons per day (Peak Hourly Flow). Pump configurations considered were dry-pit submersible, wet-pit submersible, vertical turbine solids handling, and extended shaft non-clog pumps (wet-pit / dry-pit). Mr. Cole served as the Principal Engineer and Project Manager for the project.

Riverbend Oxidation Pond Closure Project, St. Bernard Parish Water and Sewer Division, Chalmette, Louisiana. Due to regulatory compliance issues at the Riverbend Oxidation Pond, the Parish of St. Bernard began the process of closing the oxidation pond and transferring its flow to an existing mechanical treatment plant, the Munster Wastewater Treatment Plant. To accomplish this, a new pump station and force main was designed to pump flow from the oxidation pond to the Munster Wastewater Treatment Plant. Due to permitting requirements (404 Wetlands and Section 10 Navigable Waterways Permits) and to speed the construction process, the project was divided into three (3) phases. Phase 1 involved the installation of the force main in the areas where subdivision development had already occurred and 404 Wetlands Permits were not required. Phase 2 involved the installation of the sewer pumping station at the Riverbend Oxidation Pond along with conversion of the oxidation pond into a wet weather detention facility. Finally, Phase 3 involved the installation of the remainder of the force main in the wetlands areas. Construction of Phase 1 has been completed. Design of Phase 2 and Phase 3 was approximately 60% complete. Due to Hurricane Katrina, the project was delayed. However, the project will continue under the Parish's plans to consolidate wastewater treatment throughout the entire Parish. The cost opinion for the project is $4.0 M for all phases. Mr. Cole served as the Principal Engineer and Project Manager for the project.

Northshore Mall Pump Station and Force Main Project, City of Slidell Department of Public Utilities, Slidell, Louisiana. Under this project, an approximately 2.8 mile, 8 inch diameter sewer force main and associated sewer pump station were constructed to transport wastewater from the Northshore Square Mall WWTP to the main City of Slidell sewer collection system. As a result, the small package WWTP will be demolished. The force main was constructed entirely of high density polyethylene (HDPE) piping with fusion welded joints. Where the pipeline crossed roadways and railroad lines, portions of the pipeline were installed via horizontal directional drilling (HDD) methods. The sewer pump station utilized duplex submersible pumps with redundant pump control systems to increase station reliability. Mr. Cole, as the Project Manager, provided design, permitting, bid, and construction administration services for this project.

City of Slidell Sanitary Sewer Model, Slidell, Louisiana. Using existing GIS shape files of the City's sanitary sewer collection system, H. Davis Cole led a project team in the development and calibration of a computerized hydraulic model of the sanitary sewer system. The model was created using the Hydroworks modeling package and included all sewer lines 12" in diameter and greater as well as all sewer lift stations. The model was calibrated through a city-wide flow monitoring program which helped correlate rainfall with increased sanitary sewer flows, thereby quantifying the City's infiltration problem.

Crawfish Town USA Wastewater Treatment Plant Certification, Henderson, Louisiana. Mr. Cole completed a Louisiana Department of Health and Hospitals (LDHH) Design Summary Package and design review for a proposed mechanical wastewater treatment package plant to replace an existing pond at a restaurant. Mr. Cole reviewed the design for compliance with applicable requirements of the Louisiana State Sanitary Code.

Sewer Lift Station L12-3 Rehabilitation, Jefferson Parish, Louisiana. HDCA was recently selected to provide engineering analysis and design of rehabilitation measures and/or alternatives for flow re-routing or a new lift station for this lift station located on the west bank of Jefferson Parish. HDCA will provide preliminary design alternatives and design for the chosen alternative for this fast–track, high priority sewer lift station project.

DRAINAGE

Mechanical Bar Screen Cleaners & Platform Project, City of Slidell, Louisiana. HDCA was recently selected to perform design engineering and construction administration for the installation of automated bar screen cleaners at the City Barn Drainage Pump Station. HDCA will be responsible for the mechanical and electrical design of the cleaners, as well as foundations for the equipment and the construction of a concrete work deck. This hazard mitigation project is funded by HMGP funds.

Clearview Parkway / Earhart Expressway Interchange and Surrounding Areas Drainage Study, Jefferson Parish Department of Drainage, Jefferson, Louisiana. Mr. Cole, as Principal Engineer, oversaw the hydraulic modeling and engineering activities associated with this significant hydraulic evaluation effort aimed at solving recurring flooding issues associated with the Clearview Parkway/Earhart Expressway Interchange and the surrounding Elmwood area. For this, a hydraulic model was developed using PCSWMM modeling software for the approximate 70 acre drainage basin. Using the hydraulic model, many alternatives aimed at relieving the recurring flooding problems were evaluated. Recommendations included a series of storm water detention ponds within the interchange, a new 300 cubic foot per second drainage pumping station, and major improvements to St. Peter's Ditch all totaling approximately $30 M.

City Barn Floodgate Replacement Project, City of Slidell, Louisiana. HDCA personnel are currently involved in the City of Slidell's flood gate replacement project. The project involves the replacement of three 72 in x 72 in cast iron flood gates. The two-phase project consists of a procurement phase for which HDCA prepared procurement documents and specifications. The procurement phase was successfully let and bid. HDCA personnel also prepared contract documents and specifications for the installation phase, which consists of dewatering of the site, installation of the new cast-iron slide gate assemblies, motor actuators, and installation of

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7. Brief résumé of key persons, specialists, and individual consultants anticipated for this project.

H. Davis Cole, P.E.

continued

3-phase power and control facilities to the new gate assemblies. Following this phase, HDCA prepared plans and specifications for the installation of a diesel generator and platform at the site.

Larose to Golden Meadow Hurricane Protection, U.S. Army Corps of Engineers, New Orleans District, Louisiana. HDCA served as an equity partner of a joint venture corporation, The SBSA Group, Ltd., which was Prime Contractor for a USACE IDIQ contract. The SBSA Group was authorized to perform services involved in a USACE-assigned task order for a hurricane protection project, which was part of the Larose to Golden Meadow Hurricane Protection Project in LaFourche Parish; HDCA was responsible for project management and civil engineering tasks on portions of the issued task orders. The projects of interest included the Intracoastal Floodwall & Gate Structures, South Lafourche Crawfish Farm Pump Station and Floodwall, Pump Station #4, Loop T-Wall and Sheet pile Wall, Texaco Dock Floodwall & Gate Structure, Golden Meadow Pump Station, Floodwall & Gate Structure, Pump Station #1, and Pump Station #2 and Bason's Marina Access Road. Services included preparation of an Engineering Alternatives Report (EAR) for the selected sites; performing an analysis of existing structures; developing design alternatives and preliminary cost estimates for what is required to stabilize the protection at its existing elevation as well as to the authorized levels; review of existing documentation pertaining to the sites, and; providing detailed engineering and design (E&D) consisting of various design data as well as investigations and information for the EAR. The EAR included detailed geotechnical analysis and design and a structural analysis and design of the project's components for the existing and authorized elevations.

Peter's Road Drainage Study, Regional Planning Commission for Jefferson, Orleans, Plaquemines, St. Bernard, and St. Tammany Parishes, New Orleans, Louisiana. The proposed widening of Peter's Road (located on the West Bank of Jefferson Parish, near the community of Harvey, Louisiana) prompted the Regional Planning Commission (RPC) to commission a comprehensive drainage study of the surrounding area to determine the impacts that the proposed roadway widening would have on the drainage patterns of the areas surrounding the roadway. To accomplish this task, a team of consultants was selected to conduct the drainage study. Mr. Cole was tasked with the development of a hydraulic model of the area using PCSWMM modeling software. Using the hydraulic model, drainage hydrographs were developed for the purpose of determining the adequacy of existing and proposed drainage systems along the roadway. Mr. Cole served as the Project Manager for this effort.

Evaluation of Canal No. 10, Jefferson Parish Department of Drainage, Jefferson, Louisiana. For this effort, a hydraulic and physical evaluation of Canal No. 10 located in the northern portion of Kenner, Louisiana was conducted. Specifically, slope stability of the existing canal banks and hydraulic capacity of the existing canal were assessed. Given these parameters, recommendations were made to restore the canal to its required hydraulic capacity while stabilizing areas where slope stability was an issue.

Old Norco Pump Station Improvements, St. Charles Parish Department of Public Works, Luling, Louisiana. This project consisted of the replacing the existing 125 cubic foot per second pump at the pumping station and providing a secondary containment structure around the diesel fuel storage tank at the facility. The 125 cfs pump was replaced with an axial flow type vertical pump driven by an existing diesel drive via a right angle gear drive, which was also replaced with the pump. The secondary containment structure was designed of reinforced concrete with ship ladders provided for operator access. Mr. Cole served as the Project Engineer for the design phase of this project.

Almedia Road Drainage Pump Station, St. Charles Parish Department of Public Works, Luling, Louisiana. Mr. Cole, as Project Engineer, prepared the Preliminary Design Memorandum for this proposed new 100 cfs drainage pump station. For this, Mr. Cole assisted with hydraulic calculations, site design and station layout, coordinated with adjacent property owners, and coordinated subconsultant services such as structural engineering, geotechnical engineering, and land surveying.

Rehabilitation of North & South Florrisant Drainage Pump Stations, St. Bernard Parish, Louisiana. Design and determination of hazard mitigation measures for drainage pump stations damaged by Hurricane Katrina. The North Florrisant DPS has a capacity of 25 cfs and the South Florrisant DPS has a capacity of 68 cfs. Coordination with FEMA for determination of eligible scope of work and hazard mitigation measures. Mr. Cole served as Principal Engineer/Project Manager.