EXHIBIT "A"

SCOPE OF SERVICES
For
PRE-EVENT

DISASTER MONITORING/CONSTRUCTION ENGINEERING & INSPECTION – East H-Contract Oversight
SCOPE OF SERVICES

Financial Project ID(s): various
Federal Project No.: various

SCOPE OF SERVICES
DISASTER MONITORING/CONSTRUCTION ENGINEERING & INSPECTION

1.0 PURPOSE:

Provide Disaster Monitoring/Construction Engineering and Inspection (CEI) services required for contract administration, disaster related damage assessment, debris monitoring, recovery monitoring, construction inspection for emergency work and environmental clearance support for the event preparation and recovery efforts in District Two for the contract duration.

The Department intends to solicit consultant services under this Agreement to perform the described services in locations within the District as determined by the Department's Project Manager or designee. Contract services will be performed on a task assignment basis. The Department will furnish the Consultant with a Task Work Order(s) specifying the services to be performed and the fees to be paid associated with a given Task Work Order. The time frame for completion of Task Work Order services will be specified within the Task Work Order.

The Department shall authorize Consultant services on an as-needed basis. There is no guarantee that any or all of the services described in this Agreement will be assigned during the term of this Agreement. Further, the Consultant is providing these services on a non-exclusive basis.

2.0 SCOPE:

The Consultant shall be responsible for providing services as defined in this Scope of Services in agreement with all Department Manuals, Procedures, Standards, and Specifications, which are hereby incorporated by reference and as amended in this contract.

The projects for which the services are required are:

Financial Project IDs: various (provided within the Task Work Order)
Descriptions: To be determined (provided within the Task Work Order)
Primary Counties: Alachua, Baker, Bradford, Clay, Columbia, Duval, Hamilton, Nassau, Putnam, St. Johns, Suwannee, and Union
Secondary Counties: All 18 counties of District Two, and all 9 counties of District Five

The Consultant shall exercise their independent professional judgment in performing their obligations and responsibilities under this Agreement. The authority of the Consultant's lead person, such as the Senior Project Engineer, and the Consultant's Project Administrator shall be identical to the Department's Resident Engineer and Project Administrator respectively and shall be interpreted as such, however, the Consultant shall seek input from the Department's Project Manager.

3.0 MEDIA OR POLITICAL INTERACTION

All inquiries by a member of the media or any elected official shall be directed to the Department's Communications Office. The Consultant shall disseminate this guidance to all employees and subconsultants on the Agreement.

4.0 LENGTH OF SERVICE:

The duration of this Contract is 5 years after the execution of the Contract, unless the duration is extended by the Department and Consultant by mutual agreement one time, or $5 million, whichever comes first.
The Consultant's services for each task shall begin upon written notification to proceed by the Department.

5.0 DEFINITIONS:

A. **Agreement**: The Standard Professional Services Agreement between the Department and the Consultant setting forth the obligations of the parties thereto, including but not limited to the performance of the work, furnishing of services, and the basis of payment.

B. **CEI Consultant Project Administrator /Engineer**: The employee assigned by the Consultant to be in charge of providing CEI Contract administration services.

C. **CEI Consultant Senior Project Engineer:** The Engineer assigned by the Consultant to be in charge of providing CEI Contract administration. This person may supervise other Consultant employees and act as the lead Engineer for the Consultant.

D. **CEI Project Manager**: An employee of the Consultant who functions as the point of contact for the Department and who is responsible for overall project management and coordination of the debris monitoring services required to oversee the debris removal operations.

E. **CEI Resident Compliance Specialist**: The employee assigned by the Consultant to oversee project specific compliance functions.

F. **Communications Office**: The Department's office assigned to manage public information.

G. **Consultant**: The entity that is providing Disaster Monitoring/Construction Engineering and Inspection services for the Department for this Agreement.

H. **Contractor**: The individual, firm, or company contracting with the Department for performance of work or furnishing of materials.

I. **Construction Training/Qualification Program (CTQP)**: The Department program for training and qualifying technicians in Aggregates, Concrete, Earthwork, and Asphalt. The program is administered by RedVector, Inc. Program information is available at CTQP website.

J. **Data Manager**: Manages data collected from monitoring operations and is an employee of the Consultant.

K. **Debris Management Plan**: The plan is a statewide plan with sub-district plans specific to each District which establishes policies, procedures, and guidelines for recovery from debris generating disaster events.

L. **Department or FDOT**: The Florida Department of Transportation.

M. **District**: A geographical area created by the Department.

N. **District Contract Compliance Manager**: The administrative head of the District Contract Compliance Office.

O. **District Director of Transportation Operations**: The Director of Construction, Maintenance, Traffic Operations, Materials and Safety.

P. **District Maintenance Engineer (DME)**: The administrative head of the disaster/hurricane event. They shall function as the point of contact for all event preparations and recovery efforts on behalf of the District. Also referred to as the Department's Project Manager.

Q. **District Procurement Services Manager**: The Administrative Head of the Professional Services Office. All requests for professional services will be channeled through the appropriate District Procurement Services Manager.

R. **District Secretary**: The Chief Executive Officer in each of the Department's Districts and the Florida Turnpike Enterprise.

S. **Emergency Contract**: The written agreement between the Department and the Consultant for the emergency repair/construction contract setting forth the obligations of the parties thereto, including but not limited to the performance of the work, furnishing of labor and materials, and the basis of payment. The emergency contract is good only for a specific disaster/hurricane event.

T. **Emergency Management Office:** The office designated to coordinate the emergency preparedness, response, recovery and mitigation efforts for the Florida Department of Transportation.

U. **Federal Emergency Management Agency (FEMA)**: Federal agency responsible for providing federal response guidelines and policies to assist States in the recovery from widespread disasters.

V. **Federal Highway Administration (FHWA)**: Federal agency responsible for providing stewardship over the construction, maintenance and preservation of the Nation's highways, bridges and tunnels.

W. **Hand Held Units (HHU)**: Hand Held Units are mobile devices used to write data to, and read data from, removable storage media. The HHU are used in electronic debris monitoring.

X. **Operations/Resident Project Manager**: The Department employee assigned to monitor the CEI Contract on a day to day basis within the Operations area.

Y. **Operations/Resident Engineer**: The engineer assigned to a particular County or area to administer Construction and Maintenance Contracts for the Department. This person functions as point of contact at the Operations Center or the Resident Office as appropriate. The Operations/Resident Engineer or their designee shall function as the Operations Recovery Manager and the Department's Project Manager for this contract.

Z. **Pre-event Contract**: The written agreement between the Department and the Consultant setting forth the obligations of the parties thereto, including but not limited to the performance of the work, furnishing of labor and materials, and the basis of payment.

AA. **System**: The word "System" is used in reference to the electronic portion of electronic debris monitoring.

BB. **System Database**: A system database is a compilation of all information gathered or reconciled and meets requirements set forth by this Scope of Services.

CC. **Temporary Debris Management Sites**: A Florida Department of Environmental Protection pre-authorized and authorized site where debris is stored, reduced, burned, ground, or sorted. Debris resides at the site for a relatively short period of time prior to final disposal during the debris management process.

6.0 ITEMS TO BE FURNISHED BY THE DEPARTMENT TO CONSULTANT:

A. The Department, on as needed basis, shall furnish the documents listed below. These documents may be provided in either paper or electronic format.

1. Copy of Executed Pre-Event Contract(s)
2. Copy of Executed Emergency Contract(s)
3. District Federal Aid Road Maps
4. District Road Atlas
5. Roadway Characteristics Inventory (RCI)
6. District Debris Management Plan

B. The Department will allow connection to the FDOT Network by the Consultant through either authorized Virtual Private Network (VPN) or approved leased lines. Appropriate approvals must be received from the Department prior to the installation and use.

7.0 ITEMS FURNISHED BY THE CONSULTANT:

7.1 Department Documents:

All Department documents, directives, procedures, and standard forms are available through the Department's Internet website. Most items can be purchased through the following address. All others can be acquired through the District Office or online at the Department's website.

Florida Department of Transportation
Maps and Publication Sales
605 Suwannee Street, MS 12

Tallahassee, Florida 32399-0450
Telephone No. (850) 488-9220

http://www.fdot.gov/publications/publications.shtm

7.2 Documents:

The following documents will be provided by the consultant:

1. Load Tickets
2. Truck Certification Forms
3. Truck Placards

7.3 Office Automation:

Provide all software and hardware necessary to efficiently and effectively carry out the responsibilities under this Agreement.

Provide each inspection staff with a laptop computer (or tablet) running SiteManager application through Citrix connection using a mobile broadband connection at the jobsite.

All computer coding shall be input by Consultant personnel using equipment furnished by them.

Ownership and possession of computer equipment and related software, which is provided by the Consultant, shall remain at all times with the Consultant. The Consultant shall retain responsibility for risk of loss or damage to said equipment during performance of this Agreement. Field office equipment should be maintained and operational at all times.

Current technical specifications for office automation can be viewed at:
http://www.fdot.gov/Construction/DesignBuild/ConsultantCEI/OfficeAutomation.shtm

7.4 Field Office:

In most situations, the Consultants shall coexist with the Department's staff at the Department's facility. When Consultant has to provide field offices, the field office must have sufficient room and furnishings to effectively carry out their responsibilities under this Scope of Services. Field Office expenses will be compensated in accordance with Exhibit B, Method of Compensation. All Task Work Orders where services are anticipated to be wholly and exclusively performed utilizing Department space or field personnel will be compensated at reduced overhead compensation, or field office rates.

7.5 Vehicles:

Vehicles must be equipped with appropriate safety equipment and must be able to effectively carry out requirements of this Agreement. Vehicles shall have the name and phone number of the consulting firm visibly displayed on both sides of the vehicle.

For structural inspection activities, lift trucks with a 2-person capacity and a minimum of 45-foot reach are to be provided by the Consultant. The Consultant shall provide all needed Traffic Control installations and vehicles required to complete assigned tasks, included but not limited to crash attenuator trucks and/or traffic control officers.

7.6 Field Equipment:

The Consultant shall supply GPS and GIS instruments, GPS enabled smartphones, cameras, laptop computers, mobile devices, communication equipment, inspection and testing equipment, essential in order to carry out the work under this Agreement. Such equipment includes those non-consumable and non-expendable items, which are normally needed for a CEI project and are essential in order to carry out the work under this Agreement.

Hard hats and vests shall have the name of the consulting firm visibly displayed.

Equipment described herein and expendable materials under this Agreement will remain the property of the Consultant and must be removed at completion of the work by the Consultant.

The Consultant's handling of nuclear density gauges must be in compliance with their license.

The Consultant shall retain responsibility for risk of loss or damage to said equipment during performance of this Agreement. Field office equipment must be maintained and in operational condition at all times.

7.7 Licensing for Equipment Operations:

The Consultant shall obtain proper licenses for equipment and personnel operating equipment when licenses are required. The Consultant shall make the license and supporting documents available to the Department for verification, upon request.

Radioactive Materials License for use of Surface Moisture Density Gauges shall be obtained through the State of Florida Department of Health.

8.0 LIAISON:

The Consultant shall document and keep the Department's Project Manager or designee informed of all significant activities, decisions, correspondence, reports, and other communications related to its responsibilities under this Agreement. Each year during the duration of the Contract, and 2 months prior to hurricane season, the Consultant shall update the list of contacts and proposed staff and provide it to the Department's Project Manager.

The Consultant shall attend meetings as directed by the Department for purposes of coordinating with federal, state or local agencies to assist the Department in its Emergency Response and Recovery Efforts.

Agreement administrative duties relating to Invoice Approval Requests, Personnel Approval Requests, User ID Requests, Time Extension Requests, and Supplemental Amendment Requests shall be reviewed and approved by the Department's Project Manager or designee. The Consultant's invoices will be reviewed by the Department's Project Manager or designee.

The Consultant shall coordinate with the Department's Project Manager to ensure reimbursement eligibility to the Department from the applicable Federal Reimbursement Program(s) (FDRP), which includes but is not limited to, programs of the Federal Highway Administration and the Federal Emergency Management Agency.

9.0 PERFORMANCE OF THE CONSULTANT:

During the term of this Agreement and all supplements thereof, the Department will review various phases of Consultant operations for each activated disaster event—such as damage assessment on roadways and bridges including scour damage assessment of bridges, monitoring, construction inspection, and administrative activities—to determine compliance with this Agreement. As part of the scour damage assessment effort, the Consultant may be required to perform a hydrographic survey. This task may include comparison of post event survey data against existing baseline data. The Consultant shall cooperate and assist Department representatives in conducting the reviews. If deficiencies are indicated, the Consultant shall implement remedial action immediately upon the approval of the Department Project Manager or designee. Department recommendations and Consultant responses/actions are to be properly documented by the Department Project Manager or designee. No additional compensation shall be allowed for remedial action taken by the Consultant to correct deficiencies. Remedial actions and required response times include, but are not limited to, the following:

A. Further subdivide assigned responsibilities, reassign personnel, or assign additional personnel, within two (2) working days of notification.

B. Replace personnel whose performance has been determined by the Department to be inadequate. Personnel whose performance has been determined to be unsatisfactory shall be removed immediately.

C. Immediately increase the frequency of monitoring and inspection activities in phases of work that are the Consultant's responsibility.

D. Increase the scope and frequency of training of the Consultant personnel.

10.0 REQUIREMENTS:

10.1 General:

The Consultant shall have knowledge of and experience in the Federal Highway Administration Emergency Relief Program (ER), the Federal Emergency Management Agency Public Assistance Program (PA), and other applicable federal, state and/or local programs to assist the Department in its Emergency Response and Recovery efforts. Proper documentation by the Consultant as required by FHWA and FEMA is required for all debris removal monitoring

operations to ensure reimbursement to the Department from the appropriate agency.

It shall be the responsibility of the Consultant to coordinate the duties under this Agreement to properly document and administer on behalf of the Department the Federal Highway Administration Emergency Relief Program (ER), the Federal Emergency Management Agency Public Assistance Program (PA) and other applicable federal, state and/or local programs to assist the Department in its Emergency Response and Recovery efforts.

To facilitate the overall Emergency Response and Recovery efforts, the Department's Emergency Management Office performs reviews of the records to ensure proper documentation for reimbursement through the FEMA Public Assistance (PA) and FHWA Emergency Relief (ER) programs. The Consultant shall coordinate with the Emergency Management Office to ensure that all project documentation meet the requirements of the applicable federal recovery programs.

While this contract scope provides for emergency work off the state road system and/or on private roads, any work off the state road system must be first authorized by the Department and coordinated with the appropriate jurisdiction(s).

The Consultant shall ensure that Department Contractors do not perform any work on private property without receiving authorization from the Department. When Department authorization is provided, Consultant shall ensure the proper Right-of-Entry Form and Indemnification Certification is obtained from the property owner prior to any work commencing.

The Consultant shall assist the Department in performing:

1. Contract Administration – Perform construction inspections and accurately documents all contractor operations to the expectations of the Engineer.
2. Damage Assessment – Perform site inspections of areas designated by the Department, prepare Detailed Damage Inspection Reports (DDIR), FEMA Project Worksheets (PW) and other appropriate forms for use in the determination of reimbursement eligibility, to develop scopes, and determine preliminary cost estimates for proposed work.
3. Environmental permitting of temporary debris management sites, to include any pre and post operations soil and groundwater sampling.
4. Truck Certification
5. Identify debris to be removed, including marking hazardous trees (leaners), hazardous limbs (hangers) and hazardous stumps.
6. Construction Inspection in accordance with Department guidelines and procedures.
7. Quality Assurance and Quality Control of all documentation pertaining to debris removal and monitoring.
8. Assist the Department in responding to public inquiries.
9. Be available to address questions from the Emergency Management Office both during and after services have been performed.

The Consultant shall provide a 24/7 contact number and shall be activated to the appropriate level within 2 hours upon receipt of the Notice to Proceed. The appropriate activation level shall be determined by the Department.

The Consultant shall report for operations within the time constraints set by the Department Project Manager to begin the services under this Agreement.

The Consultant shall monitor, observe, and inspect the Contractor's work to determine the progress and quality of work, identify and document discrepancies, report significant discrepancies to the Contractor and Department, and direct the Contractor to stop and correct such observed discrepancies.

The Consultant shall ensure that the recovery efforts under their control are progressing in a manner satisfying the expectations as noted in the Department's procedure, Emergency Management Program 956-030-001, 23 CFR 668, and the current edition of the FHWA Emergency Relief Manual, including the supplements prepared by the FHWA Florida Division and the FEMA PA Program. The supplements to the Emergency Relief Manual can be found at https://www.fhwa.dot.gov/reports/erm/er.pdf

The Consultant shall assist the Department in negotiating with the Contractor(s) on amendments to the contract(s).

The Consultant shall advise the Department's Project Manager of any significant omissions, substitutions, defects, and deficiencies noted in the work of the Contractor and the corrective action that has been directed to be performed by the Contractor. The Consultant shall note all damages caused by the Contractor, document the damages, and report immediately to the Department.

10.2 Damage Assessment:

The Consultant may be required to assist the Department with the damage assessment and preparation of DDIR FHWA Form 1547. If such service is needed, the Consultant shall start damage assessment operations as directed by the Department's Project Manager as soon as weather conditions allow safe operations to begin. The Consultant shall report the damages to the Department's Project Manager a minimum of once every two hours. The Consultant shall take sufficient and appropriate photos or videos to document the damages. The provision of GPS coordinates of the photos and videos shall be included in the final damage assessment report.

10.3 Monitoring / Inspection:

The Consultant shall coordinate, monitor, observe, and inspect the Contractor's disaster event preparation/recovery activities. Such activities may include but are not limited to the lowering/raising of high-mast lights, debris monitoring, sign repairs, signal repairs and emergency roadway and bridge repairs.

The monitoring of the permanent roadway and bridge repairs will be done by others. The Consultant shall keep detailed accurate records of the Contractor's daily operations to ensure reimbursement eligibility to the Department from the applicable Federal Reimbursement Program(s) (FDRP), which include but are not

limited to, programs of the Federal Highway Administration and the Federal Emergency Management Agency. In addition, the Consultant shall ensure that all repairs satisfy Department's Design Standards, the Standard Specifications, Supplemental Specifications and as modified by the Special Provisions of the Recovery Contract(s).

The Consultant shall monitor and inspect the Contractor's Work Zone Traffic Control Plan in accordance with the Department's standards and procedures. Consultant employees performing such services shall be qualified in accordance with the Department's procedures.

The Consultant shall ensure that the materials for the recovery efforts are in accordance with the Department's requirements and satisfy the requirements of 23 CFR 635.410 FHWA Buy America provisions.

The Consultant may be required to perform structural inspections of bridges and ancillary structures (Signs, High Mast Light Poles or Traffic Signal Mast Arms).

10.4 Debris Monitoring Operations:

The Consultant shall monitor the Contractor's debris removal activities. Activities include, but are not limited to, identifying leaners, hangers, and hazardous stumps in advance of the Contractors debris removal activities and monitoring the following: field operations regarding all disaster-generated debris; debris pickup; debris hauling; debris staging and reduction; temporary debris site management; debris management; final disposal of debris to an approved facility; and the identification of leaners, hangers and hazardous stumps.

The Consultant will monitor the Contractor's debris removal operations for compliance with the Department's and District Debris Management Plan. The Department reserves the right to add or remove highway segments at the direction of the Department's Project Manager.

The Consultant shall coordinate with the Department's Project Manager or designee the scheduling of debris removal monitoring and contractor operations. The Consultant shall provide the following:

1. Administration

The listed services shall be performed by the Consultant:

a. The Consultant shall ensure all reports are provided to the Department's Project Manager or designee and other key Department personnel within timeframes requested by the Department.

b. The Consultant shall ensure that all required staff report as directed in all issued Task Work Orders.

c. The Consultant shall ensure all documentation required for payment of Contractor invoices and reimbursement of eligible work activities are appropriately collected, maintained, and prepared for submittal.

2. Pre-event Planning

The Consultant may be required to provide up to two (2) representatives to participate in Department directed disaster recovery planning meetings, training and/or exercises, 1 to 2 days each year. Payment will be negotiated at the time it is determined these services are needed.

The Department may request the Consultant to provide pre-event planning services to assist the Department in the Debris Planning, which may include but is not limited to, mapping services and coordination meetings in excess of those identified above. Payment will be negotiated at the time it is determined that these services are needed.

3. Project Management

The CEI Project Manager shall be responsible for the overall project management and coordination of the debris monitoring services required to monitor the debris removal operations. The CEI Project Manager shall be the point of contact to the Department and shall be on site at the District's Emergency Operations Center within six (6) hours of notification by the Department. The CEI Project Manager shall assign a manager to monitor the debris removal contractor(s) operations and to provide supervision of the data entry operations and documentation process. The number of personnel required will be dependent on the number of Debris Crews activated. Project management duties include, but are not limited to, the following:

a) Ensure a minimum of _XX_____ trained debris monitors are available to monitor any pre-staging activities and the "first push" (cut & toss) operations within twenty four (24) hours of the original notification by the Department.
b) Ensure a minimum of ___XX____ trained debris monitors are available to monitor all "first pass" and subsequent passes of debris removal and hauling activities within twenty four (24) hours of the original notification by the Department.
c) Provide trained tower / disposal site monitors to observe and record all debris loads entering the temporary debris management sites.
d) Provide trained tower / disposal site monitors to observe and record all debris loads exiting the temporary debris management sites for final disposal.
e) Provide data entry and document processing personnel.
f) Conduct safety meetings with field staff, as necessary.
g) Respond to and document issues regarding work ineligible for Federal reimbursement, complaints, damages, accidents or incidents involving the Consultant or Contractor personnel and ensure that they are fully documented and reported.

h) Coordinate updates and briefings with the Department and the debris removal contractor(s), provide status reports to the District Emergency Operations Center of work activities, progress, and staffing a minimum of two (2) times a day at intervals to be determined by the Department's Project Manager.

i) Prior to use, ensure that the documentation of environmental authorizations and/or permits are secured by the Contractor for temporary debris management sites and final disposal of debris.

j) Provide technical expertise and guidance to the Department as applicable to Federal emergency assistance programs.

k) Review and reconciliation of debris removal contractor invoices submitted to the Department, ensuring invoices are delineated by:
   a. Road type;
   b. Road number and county;
   c. Push operations, or first, second, or third pass;
   d. Work performance time frames in accordance with FEMA's Debris Management Pilot Program sliding scale;
   e. and any other classification as directed by the Department.

l) Preparation of interim operations and status reports and final report, as directed by the Department.

4. Documentation and Data Management

The Consultant shall ensure all necessary documentation is provided as follows:

a) Maintain a database of all contract quantities. Ensure all eligible debris removal operations activities are documented and tracked specific to the FHWA-ER program, the FEMA PA program, or other applicable Federal, state, or local agencies.

b) Documentation of the number of crews and types of equipment utilized, actual hours of operation, and locations of work performed during the time and materials phase of operations.

c) Completion of truck certifications, equipment certifications, and establishment of a QA/QC program throughout the life of the project

d) Load tickets documenting the eligible debris removal and/or disposal activities by the applicable program FHWA – ER or FEMA PA, and/or other federal, state or local programs as outlined in and in accordance with the Debris Management Plan.

e) Documentation of eligible hazardous stump removal, hangers, leaners, or tree removal which includes photos, GPS coordinates, street or milepost identifier, and/or other information as available and applicable.

f) Environmental authorizations and/or permits, as applicable.

g) Daily electronic spreadsheet summaries of cubic yards/tons collected, organized by Federal program. The daily summary shall be communicated to the Department's Project Manager or designee.

h) Production in electronic format (scanned) and paper copies of all documentation for submittal to Federal and/or State agencies.

i) Assist the Department in creating field maps using GIS, as well as track and present Contractor progress in GIS.

j) Provide certified weigh master summary as necessary.

k) Organize, maintain, and provide the Department electronic copies of documentation in a satisfactory manner. All documentation and information related to the project shall be surrendered to the Department and/or District upon completion of the project.
l) Coordinate documentation for FEMA and FHWA reimbursement funding requests with the Emergency Management Office.

5. Field Monitoring

The Consultant shall provide trained staff in sufficient numbers to adequately monitor all field operations. Field monitoring duties shall include, but are not limited to, the following:

a) Provide sufficient staff pre-event (within 24 hours of notification) to monitor Contractor pre-staging activities.
b) Truck certification and documentation of all vehicles used in the debris removal activities.
c) Quality assurance / quality control of truck certification measurements throughout life of project.
d) Provide monitoring services and documentation of all eligible debris removal activities from Federal Aid eligible roadways – First Push (Cut & Toss) and First Pass.
e) Provide monitoring services and documentation of all eligible debris removal activities on non-Federal Aid eligible roadways, AS DIRECTED BY THE DEPARTMENT – First Push (Cut & Toss) and First Pass.
f) Provide monitoring services and documentation of all eligible debris removal activities from second and subsequent passes on all roadways, AS DIRECTED BY THE DEPARTMENT.
g) Ensure that ineligible debris—including ineligible hazardous stumps, leaners, and hangers—are not collected, cut or removed by the debris removal contractor, unless directed in writing by the Department. If ineligible debris—including ineligible hazardous stumps, leaners, and hangers—are collected cut or removed, document the ineligible work and material, but do not issue a load ticket. Escalate and notify the Department.
h) Disposal Site / Tower Monitors will observe and record the truck quantity estimates of inbound and outbound debris.
i) Exit Site Monitors will observe that all outbound trucks are fully discharged of their load prior to exit of the temporary debris management site.
j) Monitors will ensure that accurate, legible, and complete documentation is provided through load tickets, truck certifications, and/or other logs and reports, as required.
k) Maintain photo documentation (and GPS information as needed) of the debris removal activities, specifically of the hazardous stump removal process, hangers, leaners, or tree removal and/or other special or unusual occurrences in the field.
l) Document and report activities to the Department which may require remediation, such as: fuel spills, hazardous materials collection locations, and other similar environmental concerns.

m) Document and report to the Department damages which occur on public or private property as a result of the debris removal operations.
n) Document and report to the Department any violations of Department of Environmental Protection's (DEP) debris site conditions.
o) If DEP debris site conditions are violated the Consultant shall oversee tasks sufficient to satisfy the DEP performed by the debris removal contractor.
p) Provide certified weigh master if necessary.

The Department may exercise the option to utilize electronic debris monitoring and if chosen, the Consultant must comply with the requirements set forth in sections six (6) through eight (8).

6. Equipment Requirements

a) Data Storage Media – Debris management data will be stored and transferred on encryption protected removable data storage media. All data media will be provided by the Consultant. Data must include a unique user ID which identifies the user's name, role, limits the user's ability to collect or validate information, etc. and employs an anti-tampering mechanism. Consultant shall provide media to each person performing a debris mission role that results in data collection, i.e., drivers, ticket managers, etc.

b) Handheld Units (HHU) - The Consultant shall provide weather proof and shock resistant handheld units (HHU) for recording debris management data in the field. These HHU devices will be capable of writing data to, and reading data from, the removable data storage media. HHUs shall have the capability to determine locations by GPS and the capability to write GPS coordinates to the removable media. The HHUs will perform three functions: (1) Recording of initial load data information, and (2) verification of vehicle certification, and (3) recording of debris type and quantity. All field units will be operated by stand-alone power sources which will allow the units to perform uninterrupted for a work period. When HHUs are used, Consultant shall have a manual back-up system available including all

c) supplies, but not limited to, FEMA-compliant debris ticket forms, etc. Consultant CEI staff shall be proficient in using the back-up system.

- HHUs capable of recording truck certification data onto driver removable media are used at the truck certification area. Truck certification records will include truck measurements, Truck ID, Driver ID and a digital photograph of the truck and trailers.

- HHUs capable of recording user ID information, including a unique user ID, digital photograph and any additional user information required for system operation.

- GPS- HHU units shall have integrated GPS capability. GPS readings (accuracy within 3 meters of the HHU) shall automatically be recorded without any additional manual effort each time the HHU

unit records and retrieves information related to the debris mission. External GPS units shall have reliable connectivity to the HHU and be rugged and durable.

c) Durable Printer – The Consultant shall provide a durable printer to print load tickets at the request of the Department. Once the tower manager completes the load data entries the information shall be transmitted to the printer. The printer must print a minimum 2 copies of the ticket. Two copies must be given to the driver (one copy for the driver and the other for the Contractor). The HHU shall have program flexibility to alter the number of printed tickets. The printed ticket paper and print shall be of a quality that the print is not affected by harsh weather conditions and does not fade over time, nor smear or deteriorate due to moisture or UV rays. All field units shall be operated by stand-alone power sources which will allow the units to perform uninterrupted for a minimum of a work period.

d) Server(s) – The Consultant shall provide computer servers for the storage and maintenance of records. The data contained in the Consultant's database must be placed on the Internet for controlled use, and be password protected by the Consultant. Upon completion of the work, the Consultant shall surrender the records to the Department who shall maintain the official database and records on its government furnished secure server. Access to the Department server is limited to "Official Use Only". The Department server is provided and maintained by the state.

e) Back-up equipment – In the event of equipment malfunction, loss or damage, the Consultant shall have a sufficient supply of replacement equipment and personnel available such that production is not affected. The back-up equipment shall be readily available on-site for rapid distribution.

f) GIS – GIS mapping must be provided by the Consultant from the most current source(s) available. This information will be used as a base map to visually illustrate work zones, leaner locations, hanger locations, hazardous stump locations, ticket and tower personnel locations and activities, work progress, historical and/or environmentally sensitive areas, geospatial data, and other mission informational needs from the data gathered by the HHUs.

g) Internet Accessible Database – The Consultant shall establish a web-based database which is updated daily if not real-time. The data will be accessible, by permission only, to subcontractors, local and state officials and others on a "need to know" basis. Database access will be role-based and no direct access to the data tables shall be allowed, unless approved by the Department.

7. General Statement of Electronic Debris Monitoring System Parameters

a) The system must utilize an encryption protected removable data storage device. The data storage device will store data collected in the field, such as fields from traditional paper debris load tickets as well as truck

certification information. The device must be capable of depicting images and other identifying data.

b) The system must have a database capable of storing all data collected in the field. The Consultant shall provide the Department a copy of the database with a matching structure at the completion of the work unless otherwise specified.

c) The system must include the capability to share database records with contractors, subcontractors, the Department, and others via the internet. Data contained in the system must be password protected, implement role-based access controls and must have viewing, printing and editing capabilities. Each contractor, subcontractor and customer must have permissions that allow only them to review and print information specific to their need. The system must also have the capability to generate reports on all aspects of the debris mission.

d) The Consultant uses the HHU to initiate the load data by entering the debris type into the HHU. The driver's media card will either be swiped or inserted into the HHU and the HHU will write the debris type, pick-up GPS location), address of pick-up if applicable, time, date, truck certification and driver information, and the ticket manager's unique ID Code onto the removable media. Once the data is written to the media, the Ticket Manager will return the media to the driver. By this action, the Consultant verifies the debris meets FEMA and FHWA eligibility requirements,

e) HHUs are used at the debris verification area of disposal site(s) by the tower manager. The vehicle driver presents the removable media, which was previously initiated by the field monitor, to the tower manager personnel located in the disposal site tower(s). The tower manager verifies the debris classification is appropriate (vegetative, Construction & Demolition, mixed, etc., manually revising classifications as necessary), verifies vehicle(s) and driver information is correct, and estimates and enters the load quantity into the HHU. The HHU will automatically extract the information recorded earlier on the smart card and add the information to the tower manager's HHU including the date, time debris arrives, site ID, GPS readings, load quantity and tower manager unique ID Code.

f) All information regarding each debris load will be stored in the HHUs internal memory or on a separate, encryption protected removable media device. The debris load information will be uploaded to the system Department and Consultant databases. Once this information is recorded, the tower manager HHU will clear the removable media's debris data for the driver to re-use.

g) The media will retain a running total of the quantity and type of debris hauled by a particular vehicle. All debris load information within the tower manager HHU will be retained until upload to the database has been accomplished and confirmed by authorized personnel. Direct access to

data on the HHU will be restricted to personnel specifically authorized to do so by the Department.

8. Functional Specifications and System Architecture

a) Ticket/Tower Managers – Personnel Registration, Administration and Management: The system shall have the capability to manage user roles. The majority of the system users will be either ticket or tower managers. At a minimum, the system must have the following capabilities:

- A means to create encryption protected electronic media with unique User ID, digital photograph, user roles and other identifying data
- Electronic registration of ticket/tower monitor
- Link designated ticket/tower personnel roles to a specific mission
- The ability to edit ticket/tower personnel roles i.e., create, update and delete
- Store ticket/tower personnel contact information relative to the mission
- Track and Manage ticket/tower personnel role and status
- Assign and track equipment assigned to the user
- Reject invalid ticket/tower personnel credentials
- Reject invalid certification credentials

b) Truck Certification: The system shall have the capability to record truck and trailer certification data. Truck certification is used to register authorized debris hauling vehicles and equipment. At a minimum, the following must be included:

- A means of electronically registering authorized debris Contractor vehicles and equipment
- Link electronic registration to digital images
- Identify mission and respective Department or District
- Generate unique ID's for Contractor vehicles and equipment
- Utilize uniform measurements e.g. feet and inches
- Capture vehicle volume
- Utilize industry standard equations for all volume calculations
- Capture drivers and certification team member unique identification number
- A means to create encryption protected electronic driver removable media with unique Truck ID, digital photograph, truck and /or trailer measurements, vehicle volume, and other identifying data
- Must depict image and other identifying data
- Must contain counter area for total cubic yards hauled
- Must employ anti-tampering mechanism
- Capability to recertify vehicles
- Recertified vehicles must be recorded in an audit table
- Certification data must be associated to authorized system user
- Reject media which are not associated with current event and applicant
- Capture vehicle audit records

- Create a printed certification record
- Administrative reporting capabilities

c) Right-of-Way (ROW) Debris Management: ROW transactional data must be captured, stored, validated, audited, reported and transmitted to mission managers, haulers and applicants. At a minimum, the application must exhibit the following characteristics:

- Allow creation of point of origin load data on encryption protected driver media when position is known and credentials have been authenticated
- Capture date and time and other relevant point of origin data
- Validate media is present in system and configured to receive data
- Designate debris type
- Designate debris location as Federal Aid or Non-Federal Aid
- Designate first pass and subsequent passes
- Write point of origin load data using encrypted storage algorithms
- Associate ticket/tower personnel credentials with point of origin load data
- Acknowledge successful card write via display status message
- Provide user configurable time option for GPS audit
- Detect current location using GPS and store data to secure memory location
- Provide capability to add digital image if debris is other than vegetative or C&D

d) Debris Disposal Site Management: Completed ROW, and Per-unit point of origin transactions must be received at the approved disposal site. Transactions are not considered complete until they are processed through the receiving applications. At a minimum, the system must provide the capability to:

- Accept site configuration data at the beginning of each work day
- Dynamically configure receiving application based on site configuration data
- Display certification data and photo from driver smart card so that ticket/tower personnel can perform a field audit of truck/trailer to assure data matches certification and placard number
- Accept loads where:
  - Mission and applicant are valid and,
  - Media authentication data is valid and unaltered and,
  - Media contains valid load data
- Designate debris type
- Record debris volume (based on unit of measure)
- Receive volume or per unit loads
- Identify original load data
- Identify duplicate load data
- Configure number of hard copies
- Create load data record in internal storage
- Create backup copy of internal storage

- Prepare driver media for next load
- Increment driver smart card based on total CY counter value
- Continuously calculate and present real-time disposal site statistics
- Re-print load ticket data
- Interface with durable outdoor printer
- Preserve in its original state, then transmit daily transaction data
- Associate ticket/tower personnel credentials with each received load

e) Field Administrative Functions: The system must have the capability to perform administrative duties in the field. Requirements include the capability to edit user roles, verify vehicle audit information, display real-time collection volumes, and review ticket/tower personnel GPS audit logs. At a minimum, the system must provide the capability to:

- Change ticket/tower personnel identification badge roles and responsibilities
- Review media total CY counter value
- Audit vehicle certification data
- Validate/invalidate smart cards
- Reinitiate security sequence for ticket/tower personnel or media
- In tabular format, display the results of ticket/tower GPS audit files by limiting access to the internet data or by the Department secure server

f) Data Consolidation and Analysis/Reports Generation: Transactional data must be summarized, validated, presented, and audited to provide an overall status of mission performance. The system must facilitate billing, error reporting, performance tracking, and graphical data preparation. At a minimum, the Data Consolidation and Analysis/Reports must provide the capability to:

- Accept transactional data sets from multiple debris location systems
- Recognize multiple mission/applicant configurations
- Grant access to authorized authenticated users or processes
- Contain a master record of:
  - Roles and responsibilities
  - Ticket/tower personnel credentials and other data
  - Certification credentials and other data
  - Mission data
  - Applicant data
  - Geospatial data
    - Street centerlines
    - County outlines
    - Population and demographic
    - Elevation
    - Wetlands delineation
    - Historic and Environmentally Sensitive areas
    - Debris work zones

    - Parcel data
    - Land use
    - FEMA flood zones
- Graphically depict:
  - Load locations by Contractor
  - Load locations by subcontractor
  - Load locations by driver
  - Load locations by ticket/tower personnel
  - Load locations by date range
  - Load locations by zone
  - Load locations by county and municipality
  - Load locations by applicant
  - Load locations by mission
  - Load locations by debris type
  - Load locations by disposal site
  - Load locations by Federal, state and private roads
  - Load locations by land use
  - Load locations by disposal site
- Thematic mapping techniques to distinguish different data by color and/or symbol
- Identify data attributes for a single point of data
- Select one or many points of data
- Calculate operational efficiency statistics such as:
  - Trip turnaround time
  - Trip distance to disposal site (straight line projection sorted by 0 - 15 miles, 16 – 30 miles, 31 – 60 miles and greater than 61 miles)
  - Average container fill percentage
  - Average tower manager load call
  - Load call trend data, e.g., by tower managers, Contractor, subcontractor, driver, etc.
- Dynamically configure user interface in response to point data selection to limit user authorities
- Generate tabular data reports from multiple data selections
- Filter mechanisms to highlight geospatial data
- Control data access using role-based security
- User interface and access to underlying system data must be dynamically configured at run time through the presentation of appropriate user credentials
- Manage data ownership
- Provide access based on security role model
- Identify and distribute “owned” transactional datasets to limit internet access to the website data to view only the data collected
- Prevent distributed data from being reprocessed for billing purposes
- Identify billing data sets based on parameters such as:
  - Time/Date
  - Contractor/Subcontractor
  - Debris type
  - Debris disposal method (haul-in, reduction, open burn, incineration, haul-out, leave in place, etc.)
  - Haul distance

- County
- Route billing data sets via defined and customizable workflow rules
- Approved billing data sets
- Communicate general event status e.g.:
  - Total CY hauled (by debris type)
  - Total CY by disposal site
  - Total CY by Contractor/subcontractor
  - Total CY by work zone/sector
  - Total CY by county and municipality
  - Total CY by Federal, state and private roads
  - Total CY by certified vehicle
  - Number of vehicles utilized
  - Number of ticket/tower personnel resources assigned
- Manage user roles, responsibilities and passwords
- Prevent modification to original data by unauthorized or unauthenticated users
- Insert audit records into audit tables for all insertions, modifications, and deletions to original data

g) Field Architecture – The field-based system must be characterized by the following general statements of direction with respect to construction, operability, supportability and security. At a minimum, the system must:

- Require user authentication credentials
- Display current version at application start-up
- Synchronize with Greenwich Mean Time (GMT)for all date/time fields
- System must utilize location specific configuration data to initiate a warm start sequence for global positioning system
- System must remain in a ready state by default
- Acknowledge successful card write via display status message
- Create identification structures which utilize encryption technologies
- Employ anti-tamper and anti-tearing methods and technologies
- Where applicable, utilize 3 DES data encryption technologies to protect data
- Perform validation and checksum (a running production total of cubic yards or appropriate payment capacity) stored on each debris vehicle's removable media)

h) Back-office Architecture – At a minimum, the back-office applications must be characterized by the following general statements of direction with respect to construction, operability, supportability and security.

- Utilize relational database technology
- Employ geospatial analysis tools for data visualization
- Enable audit ability for:
  - Data insertion
  - Data modification
  - Data deletion
- Prevent field and row level data deletion
- All access to data must be controlled

- Store certification and other identification data using encrypted relational technology
- Reside in a secure internet environment
- Preserve base transactional data in its original state prior to processing or consolidation with other data

i) Initial Startup Procedure for Debris Removal – Debris missions are critical to emergency response and the Consultant shall be adequately prepared to respond.

9. Reporting

The Department requires the Consultant to provide daily status reports of the debris removal operations, preparation of interim reports (as directed by the Department), as well as a final report of the debris removal operations.

The daily status report shall include at a minimum: the daily cubic yards/tons collected by material and by program (FEMA, FHWA-ER First Pass, First Pass on non-Federal Aid roadways, second and subsequent passes on all roadways), cumulative totals in cubic yards/tons by debris type, number of debris removal crews and equipment operating, number of debris monitors in field, cubic yards/tons by debris type hauled to final disposal and location of final disposal, and total cubic yards/tons hauled to recycling or salvage facilities. GIS maps showing Contractor's progress shall be provided if requested by the Department.

An interim status report may be required at the discretion of the Department. A final report covering the history of the operations, the locations of temporary debris sites used, remediation and site closure activities, including any environmental reports or authorizations generated; and the locations of final disposal sites and permits, recycling facilities and salvage facilities used during operations. The report may include identification of weakness in the operations and recommendations for future debris activities.

10. Permits

a) Assist the Department with any permit applications and coordination with environmental agencies.
b) Conduct any required pre or post operation sampling of soil or groundwater.
c) Monitor compliance by the contractors to all permit requirements.

10.5 <u>Sign and Signal Repair Monitoring</u>

a. Documentation and Data Management

1. Location and type of sign or signal.
2. Description of damage
3. Operational status (flashing, isolated, coordinated, and/or supplementary power needed)
4. Photographs of damage
5. Replacement purchase invoices

10.6 <u>Emergency Roadway and Bridge Repair Monitoring</u>

10.6.1 Sampling and Testing

The Consultant shall perform sampling and testing of component materials for emergency repairs of roadway and sign/signal foundations. The minimum sampling frequencies set out in the Department's Materials Sampling, Testing and Reporting Guide shall be met. In complying with the aforementioned guide, the Consultant shall provide daily surveillance of the Contractor's Quality Control activities at the project site and perform the sampling and testing of materials and completed work items that are normally done in the vicinity of the project for verification and acceptance.

The Consultant shall be specifically responsible for job control samples determining the acceptability of all materials and completed work items on the basis of either test results or verification of a certification, certified mill analysis, DOT label, DOT stamp, etc.

The Department shall monitor the effectiveness of the Consultant's testing procedures through surveillance and obtaining and testing independent assurance samples.
Sampling, testing and laboratory methods shall be as required by the Department's Standard Specifications, Supplemental Specifications or as modified by the Special Provisions of the Construction Contract.

Documentation reports on sampling and testing performed by the Consultant shall be submitted to responsible parties during the same week that the construction work is done.

The Consultant shall be responsible for transporting samples to be tested in a Department laboratory to the appropriate laboratory or appropriate local FDOT facility.

The Consultant shall input verification testing information and data into the Department’s database. Designated Consultant personnel will be provided written instructions from the Department for performing this task.

10.6.2 Engineering and Administrative Services

The Consultant shall coordinate the disaster recovery contract administration activities of all parties involved in the disaster event recovery efforts. The Consultant’s Engineering Services may include but not limited to the following:

(1) Assist the Department in separating reimbursable costs from non-reimbursable cost in accordance with applicable federal guidelines.
(2) Assist the Department in determining the pre-position locations of the contractor(s) prior to a disaster event or hurricane landfall.
(3) Assist the Department in documenting the pre-disaster activities in coordination with the Department.
(4) Assist the Department in preparing the Daily Situation Report.
(5) Prepare and submit daily recovery progress to the Department’s Project Manager.

(6) Provide personnel proficient in the use of computers and scanner operation to input documents into an EDMS. This will require familiarity with the documents and guidelines, posted on the Department's website for EDMS. Duties will include scanning, attributing and retrieving documents that are to be archived electronically.

(7) Verify that the Contractor is conducting the recovery activities in accordance with National Environmental Policy Act (NEPA) requirements. Complete the NEPA Field Review Form.

(8) Analyze problems that arise on a recovery contract and proposals submitted by the Contractor, work to resolve such issues, and process the necessary paperwork.

(9) Produce reports, verify quantity calculations and field measure for payment purposes as needed to prevent delays in Contractor operations and to facilitate prompt processing of such information in order for the Department to make timely payment to the Contractor and request eligible reimbursement from FHWA and FEMA.

(10) Prepare and make presentations before the Dispute Review Boards in connection with the recovery contract(s) covered by this Agreement.

(11) Monitor each Contractor and subcontractor's compliance with specifications and special provisions of the Construction Contract in regard to payment of predetermined wage rates in accordance with Department procedures.

(12) Provide a CEI Resident Compliance Specialist for surveillance of the Contractor's compliance with Construction Contract requirements. The CEI Resident Compliance Specialist is responsible for reviewing, monitoring, evaluating and acting upon documentation required for disaster recovery contract compliance, and maintaining the appropriate files thereof. Typical areas of compliance responsibility include EEO Affirmative Actions for the prime contractor and subcontractor, DBE Affirmative Action, Contractor Formal Training, Payroll, and Subcontracts. The CEI Resident Compliance Specialist must keep all related documents and correspondence accurate and up to date; attend all compliance reviews and furnish the complete project files for review; and assist the District Contract Compliance Manager as requested. Information shall be provided to the Department's Recovery Services Consultant for review as directed by the Department.

(13) Provide a digital photo log or video of hurricane recovery activities, with heavy emphasis on potential claim items/issues and on areas of real/potential public controversy.

11.0 PERSONNEL:

11.1 General Requirements:

The Consultant shall staff the project with the qualified personnel necessary to efficiently and effectively carry out its responsibilities under this Agreement. Method of compensation for personnel assigned to this project will be in accordance with Exhibit "B, Method of Compensation." In accordance with 23 CFR 172.9, the methods of payment which shall be used are: lump sum, cost plus fixed fee, cost per unit of work, specific rates of compensation, or a combination thereof. Details of fee will be included in the Task Work Order issued to the

Consultant. The Consultant shall provide and maintain an up-to-date list of staff with agreed-to classifications and approved salaries (subject to the contract Exhibit "B") that would be available to be assigned to specific Task Work Orders. No consultant staff, except those specifically identified in a Task Work Order or those specifically agreed to by the Department Project Manager, shall charge time to that particular Task Work Order. Unless otherwise agreed by the Department, the Department will not compensate straight overtime or premium overtime for the positions of Senior Project Engineer, Project Administrator, Contract Support Specialist, and Associate Contract Support Specialist. Consultant must request approval from the Department's Project Manager and Procurement for any modifications or additions to the list of available staff prior to the initiation of any work by the modified or added individual. If applicable, new job classifications may be added to the contract via contract amendment. Consultant shall submit a copy of the resume and payroll register before new staff can be added.

11.2 <u>CEI Personnel Minimum Qualifications: (as applicable)</u>

The Consultant shall utilize only competent personnel, qualified by experience, and education. The Consultant shall submit in writing to the Department Project Manager the names of personnel proposed for assignment to the project management team, including a detailed resume for each containing at a minimum, salary, education, and experience. Personnel identified in the Consultant technical proposal are to be assigned as proposed and are committed to performing services under this Agreement. Personnel changes to the Consultant's Management Staff requires written approval from Department. Staff that has been removed shall be replaced by the Consultant within 2 days of Department notification.

Before the project begins, all project staff shall have a working knowledge of the current Construction Project Administration Manual (CPAM) and must possess all the necessary qualifications/certifications for obtaining the duties of the position they hold. Cross training of the Consultant's project staff is highly recommended to achieve a knowledgeable and versatile project inspection team but cross training shall not be at any additional cost to the Department and shall occur as workload permits.

Minimum qualifications for the Consultant personnel are set forth as follows. Exceptions to these minimum qualifications will be considered on an individual basis. However, a Project Engineer working under the supervision and direction of a Senior Project Engineer or an Inspector working under the supervision and direction of a Senior Inspector shall have six months from the date of hire to obtain the necessary qualifications/certifications provided, all other requirements for such positions are met and the Consultant submits a training plan detailing when such qualifications/certifications will be obtained and other training to familiarize with Department's procedures, Specifications and Design Standards. The will have the final approval authority on such exceptions.

<u>CEI Senior Project Engineer</u> - A Civil Engineering degree and registered in the State of Florida as a Professional Engineer with hurricane or other disaster related recovery experience and six (6) years of engineering experience [two (2) years of which are in major road construction/maintenance] or for non-degreed personnel, the aforementioned registration with one (1) year of disaster/hurricane recovery experience and ten (10) years of engineering experience [two (2) years of which

are in major road construction/maintenance]. Qualifications include the ability to communicate effectively in English (verbally and in writing); direct highly complex and specialized construction/maintenance engineering administration and inspection program; plan and organize the work of subordinate and staff members; develop and review policies, methods, practices, and procedures; and review programs for conformance with Department standards. Also must have the following:

Qualification:
FDOT Advanced MOT
Attend the CTQP Quality Control Manager course and pass the examination.
ICS-200
ICS-300
ICS 700
ICS 800

Certifications:
Professional Engineer

A Master's Degree in Engineering may be substituted for one (1) year engineering experience.

CEI Project Administrator / Engineer - A Civil Engineering degree with disaster recovery experience plus two (2) years of engineering experience in construction of major road, or for non-degreed personnel eight (8) years of responsible and related engineering experience, two (2) years of which involved construction of major road.

Receives general instructions regarding assignments and is expected to exercise initiative and independent judgment in the solution of work problems. Directs and assigns specific tasks to inspectors and assists in all phases of the construction project. Will be responsible for progress and final estimates throughout the construction project duration. Must have the following:

Qualifications:
FDOT Advanced MOT
CTQP Final Estimates Level II

Other:
Attend CTQP Quality Control Manager Course and pass the examination.
ICS-200

A Master's Degree in Engineering may be substituted for one (1) year of engineering experience

CEI Contract Support Specialist - A High School diploma or equivalent, disaster recovery experience, and four (4) years of road construction engineering inspection (CEI) experience having performed/assisted in project related duties (i.e., CQR/LIMS, progress and final estimates, EEO compliance, processing Construction Contract changes, etc.) or a Civil Engineering degree . Should exercise independent judgment in planning work details and making technical

decisions related to the office aspects of the project. Should be familiar with the Department's Procedures covering the project related duties as stated above and be proficient in the computer programs necessary to perform these duties. Shall become proficient in Trimble Business Center - Heavy Construction Edition (HCE) or approved surface to surface comparison software and Engineering Menu. Must have the following:

Qualifications:
CTQP Final Estimates Level II

CEI Resident Compliance Specialist - A High School diploma or equivalent with one (1) year of experience as a resident compliance officer on a construction project or two (2) years of assisting the resident compliance officer in monitoring the project. Should have prior experience in both State funded and Federal Aid funded construction projects with FDOT and knowledge of EEO/AA laws and FDOT's DBE and OJT programs. Ability to analyze, collect, evaluates data, and take appropriate action when necessary. Must attend all training workshops or meetings for CEI Resident Compliance Specialists as determined necessary.

CEI Senior Inspector – A High School diploma or equivalent plus four (4) years of experience in construction inspection, two (2) years of which shall have been in bridge and/or roadway construction.

For work requiring electrical inspection, high school graduate or equivalent plus five (5) years of experience in inspection of electrical components/system.

For work requiring structural (bridges or ancillary structures) inspection, the individual must meet the Florida requirements for the inspection of structures as a team leader. For non-professional engineers, the senior inspector must be a Florida Certified Bridge Inspector. .
Must have the following:

Qualifications:
CTPQ Concrete Field Technician Level 1 (if applicable
CTQP Concrete Field Inspector Level I (If applicable)
CTQP Asphalt Roadway Level I (If applicable)
CTQP Asphalt Roadway Level II (If applicable)
CTQP Earthwork Construction Inspection Level I (If applicable)
CTQP Earthwork Construction Inspection Level II (If applicable)
CTQP Pile Driving Inspection (If applicable)
CTQP Drilled Shaft Inspection (If applicable – required for inspection of all drilled shafts including miscellaneous structures such as Sign structures, Lighting structures, and Traffic Signal structures)
FDOT Intermediate MOT
CTQP Final Estimates Level I
Training and knowledge of Department Debris Operations to include:
debris measurement, documentation, and verification for reimbursement eligibility for FHWA and FEMA programs.

NOTE: CTQP certifications are not required for debris monitoring.

Certifications:
Nuclear Radiation Safety (If applicable)
IMSA Traffic Signal Inspector Level II (For Signal Repair CEI)

Or a Civil Engineering degree and one (1) year of road construction/maintenance CEI experience with the ability to earn additional required qualifications within one year.

Responsible for performing highly complex technical assignments in making and checking engineering computations, inspecting construction work, and conducting field tests and is responsible for coordinating and managing the lower level inspectors. Work is performed under the general supervision of the Project Administrator.

CEI Inspector - A High School diploma or equivalent plus two (2) years experience in construction inspection, one (1) year of which shall have been in bridge and/or roadway construction inspection plus the following:

Qualifications:
CTQP Concrete Field Inspector Level I (If applicable)
CTQP Asphalt Roadway Level I (If applicable)
CTQP Earthwork Construction Inspection Level I (If applicable)
CTQP Pile Driving Inspection (If applicable)
CTQP Drilled Shaft Inspection (If applicable– required for inspection of all drilled shafts including miscellaneous structures such as Sign structures, Lighting structures, and Traffic Signal structures)
CTQP Final Estimates Level I
Training and knowledge of Department Debris Operations to include:
debris measurement, documentation and verification for reimbursement eligibility for FHWA and FEMA programs.

NOTE: CTQP certifications are not required for debris monitoring.

Certifications:
Nuclear Radiation Safety (If applicable)
IMSA Traffic Signal Inspector Level I
FDOT Intermediate MOT

Or a Civil Engineering degree with the ability to earn additional required qualifications within one year.

Responsible for performing assignments assisting Senior Inspector in the performance of their duties. Receive general supervision from the Senior Inspector who reviews work while in progress.

CEI Inspectors Aide - A High School diploma or equivalent and able to perform basic mathematical calculation and follow simple technical instructions. Duties are to assist higher-level inspectors.

CEI Secretary/Clerk Typist - A High School diploma or equivalent plus two (2) years of secretarial and/or clerical experience. Ability to type at a rate of 35 correct words per minute. Experienced in the use of standard word processing software. Should exercise independent initiative to help relieve the supervisor of clerical detail. Work under general supervision of the Senior Project Engineer and their staff.

Environmental Specialist - A bachelors degree with a major in one of the physical or natural sciences or engineering and two (2) years of professional experience in environmental protection, regulation or health; one of the physical or natural sciences; or engineering; or a Masters degree in one of the physical or natural sciences or engineering and one (1) year of professional experience described above; or a Doctorate degree in one of the physical of natural sciences or engineering or one (1) year of experience as an Environmental Specialist I with the State Of Florida. Receives general instruction regarding assignments and is expected to exercise initiative, and independent judgment in the solution of work problems. Must have knowledge of the terminology, principles, data collection, and analytical techniques and procedures of the physical or natural sciences. Also must have ability to collect, evaluate, analyze, and interpret scientific or technical data.

11.3 Debris Monitoring Personnel Qualifications (as applicable):

The following qualifications apply only to personnel activated to monitor the District's debris removal operations. All the below debris monitoring personnel besides Data Manager must have training and knowledge of the FHWA and FEMA debris removal documentation reimbursement requirements.

Debris Manager - Must have experience with FEMA and FHWA disaster debris management coordination. One Debris Manager will be utilized and responsibilities will include:

- Coordinating daily briefings, work progress, staffing, and other key items with the Department;
- Scheduling work for all team members and contractors on a daily basis;
- Monitoring recovery contractors progress and making/implementing recommendations to improve efficiency and speed up recovery work;
- Monitoring project budget, preparing reports and presentations to provide updates to Department;
- Assisting the Department with responding to public concerns and comments;
- Conducting safety inspections;
- Ensuring compliance with contracts by all subcontractors;
- Scheduling and running periodic meetings with field staff and contractors;
- Oversight of the documentation required for the FEMA reimbursement process and procedures; and
- Monitor Contractors work activities and advise the Department Project Manager when all activities have been successfully completed.

Qualifications:
FDOT Intermediate MOT
Attend CTQP Quality Control Manager Course and pass the examination.
ICS-100

ICS-200
ICS-700
ICS-800

Operations Debris Manager - Must have experience with FEMA or FHWA disaster debris management coordination. Work locations and travel times must be taken into consideration when determining the number of Operations Debris Managers needed as they must be able to respond timely to issues as they arise. Operations Debris Manager responsibilities include:

- Assisting in the development of daily briefings, work progress, staffing, and other key items;
- Implementing schedules and work plans while ensuring debris removal operations are performed efficiently;
- Managing daily field operations and addressing issues as they arise;
- Reporting the status of debris contractors' progress making/implementing recommendations to improve efficiency and speed up recovery work;
- Resolving issues in the field identified in public concerns and comments;
- Conducting daily safety meetings for debris monitoring personnel;
- Assisting Debris Manager in ensuring compliance with contracts by all subcontractors;
- Ensuring adequate MOT is utilized;
- Managing the certification of volumetric capacity for hauling equipment; and
- Reviewing load calls made from towers at Debris Management Sites to ensure calls are proper.

Qualifications:

FDOT Intermediate MOT
Attend CTQP Quality Control Manager Course and pass the examination.
ICS-100
ICS-200
ICS-700

Debris Supervisor - – Work locations and travel times must also be taken into consideration when determining the number of Debris Supervisors needed as they must be able to respond timely to issues as they arise. Debris Supervisor responsibilities include: Must have experience with FEMA or FHWA disaster debris management coordination.

- Ensuring monitors are working in assigned areas and performing their jobs up to required standards;
- Ensuring that monitors issue load tickets for FEMA-eligible storm debris only;
- Maintaining regular communication with collection monitors in assigned zone and meet with each one frequently;
- Interacting with FEMA and Department representatives in the field to resolve issues;

- Tracking, documenting and reporting any damages to private or public property caused by the debris removal contractors;
- Ensuring that monitors are completing load tickets and field logs accurately;
- Reporting safety concerns or issues to the Debris Operations Manager and help resolve them;
- Maintaining a daily field log and report;
- Reviewing and approving monitor time sheets daily; and
- Attending regular meetings and training sessions.

Qualifications:

FDOT Intermediate MOT
Attend CTQP Quality Control Manager Course and pass the examination.
ICS-100
ICS-200
ICS-700

Data Manager - Must have two (2) years of experience working with a relational database management system.

Debris Collection, Tower, and Exit Site Monitors - Must have a High School diploma or equivalent and be adequately trained on Debris Operations.

11.4 Staffing:

Once authorized, the Consultant shall establish and maintain an appropriate staff through the duration of disaster recovery and completion of the final estimate. Responsible personnel, thoroughly familiar with all aspects of construction and final measurements of the various pay items, shall be available to resolve disputed final pay quantities until the appropriate Recovery Contract has been paid off.
CEI forces will be required of the Consultant at all times while the Contractor is working. If Contractor operations are substantially reduced or suspended, the Consultant shall reduce its staff appropriately.
In the event that the suspension of Contractor operations requires the removal of Consultant forces from the project, the Consultant will be allowed ten (10) days maximum to demobilize, relocate, or terminate such forces.

11.5 Subconsultants

Services assigned to any subconsultants must be approved in writing by the Department Project Manager, Procurement Office, and the CEI Project Manager in accordance with this Agreement prior to work performance. All subconsultants must be technically qualified by the Department to perform all work assigned to them. Additional subconsultants with specialized areas of expertise may be required to complete specific Task Work Order assignments. Any subconsultant to be hired, all work assignments to be performed, and all rates of compensation shall be agreed to by the Department Project Manager, Procurement Office and the CEI Project Manager and documented in the contract file prior to any work being performed by the subconsultant.

12.0 QUALITY ASSURANCE (QA) PROGRAM:

12.1 Quality Reviews:

The Consultant shall conduct weekly reviews to make certain his own organization is in compliance with the requirements cited in the Scope of Services. Quality Reviews shall be conducted to evaluate the adequacy of materials, processes, documentation, procedures, training, guidance, and staffing included in the execution of this Agreement. Quality Reviews shall also be developed and performed to achieve compliance with specific QA provisions contained in this Agreement. The weekly reviews shall be submitted to the Department Project Manager in written form no later than one (1) week after the review.

12.2 QA Plan:

Within thirty (30) days after receiving award of an Agreement, the Consultant shall furnish a QA Plan to the Department Project Manager. The QA Plan shall detail the procedures, evaluation criteria, and instructions of the Consultant's organization for providing services pursuant to this Agreement. Unless specifically waived, no payment shall be made until the Department approves the Consultant QA Plan.

Significant changes to the work requirements may require the Consultant to revise the QA Plan. It shall be the responsibility of the Consultant to keep the plan current with the work requirements. The Plan shall include, but not be limited to, the following areas:

A. Organization:

A description is required of the Consultant QA Organization and its functional relationship to the part of the organization performing the work under the Agreement. The authority, responsibilities and autonomy of the QA organization shall be detailed as well as the names and qualifications of personnel in the quality control organization.

B. Quality Reviews:

The Consultant QA shall detail the methods used to monitor and achieve organization compliance with Agreement requirements for services and products.

C. Quality Records:

The Consultant shall outline the types of records, which will be generated and maintained during the execution of his QA program.

D. Control of Sub-consultants and Vendors:

The Consultant shall detail the methods used to control sub-consultants and vendor quality.

E. Quality Assurance Certification:

An officer of the Consultant firm shall certify that the inspection and documentation was done in accordance with FDOT specifications, plans, Standard Plans, and Department procedures.

12.3 Quality of Records:

The Consultant shall maintain adequate records of the quality assurance actions performed by his organization (including subconsultants and vendors) in providing services and products under this Agreement. All records shall indicate the nature and number of observations made, the number and type of deficiencies found, and the corrective actions taken. These records shall be available to the Department, upon request, during the Agreement term. All records shall be kept at the primary job site and shall be subject to audit review.

13.0 CERTIFICATION OF FINAL ESTIMATES: (as applicable)

13.1 Final Estimate and As-Built Plans submittal:

Prepare documentation and records in compliance with the Agreement, Statewide Quality Control (QC) Plan, or Consultant's approved QC Plan and the Department's Procedures.

Submit the Final Estimate(s) and one (1) set of final "as-built plans" documenting Contractor's work (one record set with two copies) as follows:

(a) Within thirty (30) calendar days of final acceptance; or

(b) Where all items of work are complete and conditional/partial acceptance is utilized (Lighting, Plant establishment, etc.) for a period exceeding thirty (30) calendar days, the final estimate(s) will be due on the thirtieth (30th) day after conditional/partial acceptance. A memorandum with documentation will be transmitted to the District Final Estimate Manager, with a copy to the Department Project Manager, at final acceptance detailing any necessary revisions to the pay items covered under the conditional/partial acceptance.

The Consultant shall be responsible for making any revisions to the Certified Final Estimate at no additional cost to the Department.

13.2 Certification:

Consultant personnel preparing the Certified Final Estimate Package shall be CTQP Final Estimates Level II.

Duly authorized representative of the Consultant firm shall provide a notarized certification on a form pursuant to Department' procedures.

13.3 Offer of Final Payment:

The Consultant shall prepare the Offer of Final Payment package as outlined in Chapter 14 of the Review and Administration Manual. The package shall accompany the Certified Final Estimates Package submitted to the District Final Estimates Office (DFEO). The Consultant shall be responsible for forwarding the Offer of Final Payment Package to the Contractor.

14.0 AGREEMENT MANAGEMENT:

14.1 General:

(1) With each monthly invoice submittal, the CEI Consultant Senior Project Engineer shall provide a reviewed and approved Status Report for the Agreement. This report shall provide the CEI Consultant Senior Project Engineer's accounting of the additional Agreement calendar days allowed

to date, an estimate of the additional Agreement calendar days anticipated to be added to the original Agreement schedule time, an estimate of the Agreement completion date, and an estimate of the Consultant funds expiration date per Agreement schedule for the prime Consultant and for each sub-consultant.

(2) When the Consultant identifies a condition that will require an Amendment Request (AR) to the Agreement, the CEI Consultant Senior Project Engineer shall communicate the need to the Department Project Manager for an approval in concept. Once received, the Consultant shall prepare and submit the AR, and all accompanying documentation to the Department Project Manager for approval and further processing. The Consultant shall submit ARs to allow the Department one week to process, approve, and execute the AR. The content and format of the AR and accompanying documentation shall be in accordance with the instructions and format to be provided by the Department.

(3) When the Consultant identifies a condition that will require a Supplemental Amendment Request (SAR) to the Agreement, the or CEI Consultant Senior Project Engineer shall communicate this condition/need to the Department Project Manager and request approval in concept. Once received, the Consultant shall prepare and submit the SAR, and all accompanying documentation to the Department Project Manager for approval and further processing. The Consultant shall submit SARs to allow the Department 2 weeks to process, approve, and execute the SAR. The content and format of the SAR and accompanying documentation shall be in accordance with the instructions and format to be provided by the Department.

(4) The CEI Consultant Senior Project Engineer for the project shall be responsible for performing follow-up activities to determine the status of each AR and SAR submitted to the Department.

14.2 <u>Invoicing Instructions:</u>

Monthly invoices shall be submitted to the Department in a format and distribution schedule defined by the Department, no later than the 20th day of the following month.

If the monthly invoice cannot be submitted on time, notify the Department prior to the due date stating the reason for the delay and the planned submittal date. Once submitted, the Consultant Project Principal or CEI Consultant Senior Project Engineer shall notify the Construction Project Manager via e-mail of the total delay in calendar days and the reason(s) for the delay(s).

All invoices shall be submitted to the Department in electronic and hard copy formats in accordance with District Construction and Consultant Invoice Transmittal System (CITS) procedures. The Construction Project Manager must receive hard copy documentation within three (3) workdays of electronic submittal or the electronic submittal will be rejected. (Saturday, Sunday, and Department holidays are not considered workdays).

All charges to the individual project will end no later than thirty (30) calendar days following final acceptance; or where all items of work are complete and

conditional/partial acceptance is issued; unless authorized in writing by the Department.

A Final Invoice must be submitted to the Department no later than the 60th day following Final Acceptance of the individual project or as requested by the Department.

15.0 OTHER SERVICES:

Upon written authorization by the Department's Project Manager or designee, the Consultant shall perform additional services in connection with the disaster recovery effort not otherwise identified in this Agreement. The following items are not included as part of this Agreement, but may be required by the Department to supplement the Consultant services under this Agreement.

A. Assist in preparing for arbitration hearings or litigation that occurs during the Agreement time in connection with the construction project covered by this Agreement.

B. Provide qualified engineering witnesses and exhibits for any litigation or hearings in connection with the Agreement.

16.0 CLAIMS REVIEW:

In the event the Contractor submits a claim for additional compensation and/or time after the Consultant has completed this Agreement, the Consultant shall, upon execution by the Department and the Consultant of an Amendment to this Agreement providing for compensation for such services, analyze the claim, engage in negotiations leading to settlement of the claim, and prepare and process the required documentation to close out the claim. Compensation for such services will be negotiated and effected through a Supplement to this Agreement.

17.0 CONTRADICTIONS:

In the event of a contradiction between the provisions of this Scope of Services and the Consultant's proposal as made a part of their Agreement, the provisions of the Scope of Services shall apply.

18.0 THIRD PARTY BENEFICIARY:

It is specifically agreed between the parties executing this Agreement that it is not intended by any of the provisions of any part of the Agreement to create in the public or any member thereof, a third-party beneficiary hereunder, or to authorize anyone not a party to this Agreement to maintain a claim, cause of action, lien or any other damages or any relief of any kind pursuant to the terms or provisions of this Agreement.

19.0 DEPARTMENT AUTHORITY:

The Department shall be the final authority in considering contract modifications.

EXHIBIT "A"

SCOPE OF SERVICES
For
PRE-EVENT

DISASTER MONITORING/CONSTRUCTION ENGINEERING & INSPECTION – West H-Contract Oversight
SCOPE OF SERVICES

Financial Project ID(s): various
Federal Project No.: various

SCOPE OF SERVICES
DISASTER MONITORING/CONSTRUCTION ENGINEERING & INSPECTION

1.0 PURPOSE:

Provide Disaster Monitoring/Construction Engineering and Inspection (CEI) services required for contract administration, disaster related damage assessment, debris monitoring, recovery monitoring, construction inspection for emergency work and environmental clearance support for the event preparation and recovery efforts in District Two for the contract duration.

The Department intends to solicit consultant services under this Agreement to perform the described services in locations within the District as determined by the Department's Project Manager or designee. Contract services will be performed on a task assignment basis. The Department will furnish the Consultant with a Task Work Order(s) specifying the services to be performed and the fees to be paid associated with a given Task Work Order. The time frame for completion of Task Work Order services will be specified within the Task Work Order.

The Department shall authorize Consultant services on an as-needed basis. There is no guarantee that any or all of the services described in this Agreement will be assigned during the term of this Agreement. Further, the Consultant is providing these services on a non-exclusive basis.

2.0 SCOPE:

The Consultant shall be responsible for providing services as defined in this Scope of Services in agreement with all Department Manuals, Procedures, Standards, and Specifications, which are hereby incorporated by reference and as amended in this contract.

The projects for which the services are required are:

Financial Project IDs: various (provided within the Task Work Order)
Descriptions: To be determined (provided within the Task Work Order)
Primary Counties: Alachua, Baker, Bradford, Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Levy, Madison, Suwannee, Taylor, and Union
Secondary Counties: All 18 counties of District Two, all 16 counties of District Three and all 5 counties of District Seven

The Consultant shall exercise their independent professional judgment in performing their obligations and responsibilities under this Agreement. The authority of the Consultant's lead person, such as the Senior Project Engineer, and the Consultant's Project Administrator shall be identical to the Department's Resident Engineer and Project Administrator respectively and shall be interpreted as such, however, the Consultant shall seek input from the Department's Project Manager.

3.0 MEDIA OR POLITICAL INTERACTION

All inquiries by a member of the media or any elected official shall be directed to the Department's Communications Office. The Consultant shall disseminate this guidance to all employees and subconsultants on the Agreement.

4.0 LENGTH OF SERVICE:

The duration of this Contract is 5 years after the execution of the Contract, unless the duration is extended by the Department and Consultant by mutual agreement one time, or $5 million, whichever comes first.
The Consultant's services for each task shall begin upon written notification to proceed by the Department.

5.0 DEFINITIONS:

A. **Agreement**: The Standard Professional Services Agreement between the Department and the Consultant setting forth the obligations of the parties thereto, including but not limited to the performance of the work, furnishing of services, and the basis of payment.

B. **CEI Consultant Project Administrator /Engineer**: The employee assigned by the Consultant to be in charge of providing CEI Contract administration services.

C. **CEI Consultant Senior Project Engineer:** The Engineer assigned by the Consultant to be in charge of providing CEI Contract administration. This person may supervise other Consultant employees and act as the lead Engineer for the Consultant.

D. **CEI Project Manager**: An employee of the Consultant who functions as the point of contact for the Department and who is responsible for overall project management and coordination of the debris monitoring services required to oversee the debris removal operations.

E. **CEI Resident Compliance Specialist**: The employee assigned by the Consultant to oversee project specific compliance functions.

F. **Communications Office**: The Department's office assigned to manage public information.

G. **Consultant**: The entity that is providing Disaster Monitoring/Construction Engineering and Inspection services for the Department for this Agreement.

H. **Contractor**: The individual, firm, or company contracting with the Department for performance of work or furnishing of materials.

I. **Construction Training/Qualification Program (CTQP)**: The Department program for training and qualifying technicians in Aggregates, Concrete, Earthwork, and Asphalt. The program is administered by RedVector, Inc. Program information is available at CTQP website.

J. **Data Manager**: Manages data collected from monitoring operations and is an employee of the Consultant.

K. **Debris Management Plan**: The plan is a statewide plan with sub-district plans specific to each District which establishes policies, procedures, and guidelines for recovery from debris generating disaster events.

L. **Department or FDOT**: The Florida Department of Transportation.

M. **District**: A geographical area created by the Department.

N. **District Contract Compliance Manager**: The administrative head of the District Contract Compliance Office.

O. **District Director of Transportation Operations**: The Director of Construction, Maintenance, Traffic Operations, Materials and Safety.

P. **District Maintenance Engineer (DME)**: The administrative head of the disaster/hurricane event. They shall function as the point of contact for all event preparations and recovery efforts on behalf of the District. Also referred to as the Department's Project Manager.

Q. **District Procurement Services Manager**: The Administrative Head of the Professional Services Office. All requests for professional services will be channeled through the appropriate District Procurement Services Manager.

R. **District Secretary**: The Chief Executive Officer in each of the Department's Districts and the Florida Turnpike Enterprise.

S. **Emergency Contract**: The written agreement between the Department and the Consultant for the emergency repair/construction contract setting forth the obligations of the parties thereto, including but not limited to the performance of the work, furnishing of labor and materials, and the basis of payment. The emergency contract is good only for a specific disaster/hurricane event.

T. **Emergency Management Office:** The office designated to coordinate the emergency preparedness, response, recovery and mitigation efforts for the Florida Department of Transportation.

U. **Federal Emergency Management Agency (FEMA)**: Federal agency responsible for providing federal response guidelines and policies to assist States in the recovery from widespread disasters.

V. **Federal Highway Administration (FHWA)**: Federal agency responsible for providing stewardship over the construction, maintenance and preservation of the Nation's highways, bridges and tunnels.

W. **Hand Held Units (HHU)**: Hand Held Units are mobile devices used to write data to, and read data from, removable storage media. The HHU are used in electronic debris monitoring.

X. **Operations/Resident Project Manager**: The Department employee assigned to monitor the CEI Contract on a day to day basis within the Operations area.

Y. **Operations/Resident Engineer**: The engineer assigned to a particular County or area to administer Construction and Maintenance Contracts for the Department. This person functions as point of contact at the Operations Center or the Resident Office as appropriate. The Operations/Resident Engineer or their designee shall function as the Operations Recovery Manager and the Department's Project Manager for this contract.

Z. **Pre-event Contract**: The written agreement between the Department and the Consultant setting forth the obligations of the parties thereto, including but not limited to the performance of the work, furnishing of labor and materials, and the basis of payment.

AA. **System**: The word "System" is used in reference to the electronic portion of electronic debris monitoring.

BB. **System Database**: A system database is a compilation of all information gathered or reconciled and meets requirements set forth by this Scope of Services.

CC. **Temporary Debris Management Sites**: A Florida Department of Environmental Protection pre-authorized and authorized site where debris is stored, reduced, burned, ground, or sorted. Debris resides at the site for a relatively short period of time prior to final disposal during the debris management process.

6.0 ITEMS TO BE FURNISHED BY THE DEPARTMENT TO CONSULTANT:

A. The Department, on as needed basis, shall furnish the documents listed below. These documents may be provided in either paper or electronic format.

1. Copy of Executed Pre-Event Contract(s)
2. Copy of Executed Emergency Contract(s)
3. District Federal Aid Road Maps
4. District Road Atlas
5. Roadway Characteristics Inventory (RCI)
6. District Debris Management Plan

B. The Department will allow connection to the FDOT Network by the Consultant through either authorized Virtual Private Network (VPN) or approved leased lines. Appropriate approvals must be received from the Department prior to the installation and use.

7.0 ITEMS FURNISHED BY THE CONSULTANT:

7.1 Department Documents:

All Department documents, directives, procedures, and standard forms are available through the Department's Internet website. Most items can be purchased through the following address. All others can be acquired through the District Office or online at the Department's website.

Florida Department of Transportation
Maps and Publication Sales
605 Suwannee Street, MS 12

Tallahassee, Florida 32399-0450
Telephone No. (850) 488-9220

http://www.fdot.gov/publications/publications.shtm

7.2 Documents:

The following documents will be provided by the consultant:

1. Load Tickets
2. Truck Certification Forms
3. Truck Placards

7.3 Office Automation:

Provide all software and hardware necessary to efficiently and effectively carry out the responsibilities under this Agreement.

Provide each inspection staff with a laptop computer (or tablet) running SiteManager application through Citrix connection using a mobile broadband connection at the jobsite.

All computer coding shall be input by Consultant personnel using equipment furnished by them.

Ownership and possession of computer equipment and related software, which is provided by the Consultant, shall remain at all times with the Consultant. The Consultant shall retain responsibility for risk of loss or damage to said equipment during performance of this Agreement. Field office equipment should be maintained and operational at all times.

Current technical specifications for office automation can be viewed at:
http://www.fdot.gov/Construction/DesignBuild/ConsultantCEI/OfficeAutomation.shtm

7.4 Field Office:

In most situations, the Consultants shall coexist with the Department's staff at the Department's facility. When Consultant has to provide field offices, the field office must have sufficient room and furnishings to effectively carry out their responsibilities under this Scope of Services. Field Office expenses will be compensated in accordance with Exhibit B, Method of Compensation. All Task Work Orders where services are anticipated to be wholly and exclusively performed utilizing Department space or field personnel will be compensated at reduced overhead compensation, or field office rates.

7.5 Vehicles:

Vehicles must be equipped with appropriate safety equipment and must be able to effectively carry out requirements of this Agreement. Vehicles shall have the name and phone number of the consulting firm visibly displayed on both sides of the vehicle.

For structural inspection activities, lift trucks with a 2-person capacity and a minimum of 45-foot reach are to be provided by the Consultant. The Consultant shall provide all needed Traffic Control installations and vehicles required to complete assigned tasks, included but not limited to crash attenuator trucks and/or traffic control officers.

7.6 Field Equipment:

The Consultant shall supply GPS and GIS instruments, GPS enabled smartphones, cameras, laptop computers, mobile devices, communication equipment, inspection and testing equipment, essential in order to carry out the work under this Agreement. Such equipment includes those non-consumable and non-expendable items, which are normally needed for a CEI project and are essential in order to carry out the work under this Agreement.

Hard hats and vests shall have the name of the consulting firm visibly displayed.

Equipment described herein and expendable materials under this Agreement will remain the property of the Consultant and must be removed at completion of the work by the Consultant.

The Consultant's handling of nuclear density gauges must be in compliance with their license.

The Consultant shall retain responsibility for risk of loss or damage to said equipment during performance of this Agreement. Field office equipment must be maintained and in operational condition at all times.

7.7 Licensing for Equipment Operations:

The Consultant shall obtain proper licenses for equipment and personnel operating equipment when licenses are required. The Consultant shall make the license and supporting documents available to the Department for verification, upon request.

Radioactive Materials License for use of Surface Moisture Density Gauges shall be obtained through the State of Florida Department of Health.

8.0 LIAISON:

The Consultant shall document and keep the Department's Project Manager or designee informed of all significant activities, decisions, correspondence, reports, and other communications related to its responsibilities under this Agreement. Each year during the duration of the Contract, and 2 months prior to hurricane season, the Consultant shall update the list of contacts and proposed staff and provide it to the Department's Project Manager.

The Consultant shall attend meetings as directed by the Department for purposes of coordinating with federal, state or local agencies to assist the Department in its Emergency Response and Recovery Efforts.

Agreement administrative duties relating to Invoice Approval Requests, Personnel Approval Requests, User ID Requests, Time Extension Requests, and Supplemental Amendment Requests shall be reviewed and approved by the Department's Project Manager or designee. The Consultant's invoices will be reviewed by the Department's Project Manager or designee.

The Consultant shall coordinate with the Department's Project Manager to ensure reimbursement eligibility to the Department from the applicable Federal Reimbursement Program(s) (FDRP), which includes but is not limited to, programs of the Federal Highway Administration and the Federal Emergency Management Agency.

9.0 PERFORMANCE OF THE CONSULTANT:

During the term of this Agreement and all supplements thereof, the Department will review various phases of Consultant operations for each activated disaster event—such as damage assessment on roadways and bridges including scour damage assessment of bridges, monitoring, construction inspection, and administrative activities—to determine compliance with this Agreement. As part of the scour damage assessment effort, the Consultant may be required to perform a hydrographic survey. This task may include comparison of post event survey data against existing baseline data. The Consultant shall cooperate and assist Department representatives in conducting the reviews. If deficiencies are indicated, the Consultant shall implement remedial action immediately upon the approval of the Department Project Manager or designee. Department recommendations and Consultant responses/actions are to be properly documented by the Department Project Manager or designee. No additional compensation shall be allowed for remedial action taken by the Consultant to correct deficiencies. Remedial actions and required response times include, but are not limited to, the following:

A. Further subdivide assigned responsibilities, reassign personnel, or assign additional personnel, within two (2) working days of notification.

B. Replace personnel whose performance has been determined by the Department to be inadequate. Personnel whose performance has been determined to be unsatisfactory shall be removed immediately.

C. Immediately increase the frequency of monitoring and inspection activities in phases of work that are the Consultant's responsibility.

D. Increase the scope and frequency of training of the Consultant personnel.

10.0 REQUIREMENTS:

10.1 General:

The Consultant shall have knowledge of and experience in the Federal Highway Administration Emergency Relief Program (ER), the Federal Emergency Management Agency Public Assistance Program (PA), and other applicable federal, state and/or local programs to assist the Department in its Emergency Response and Recovery efforts. Proper documentation by the Consultant as required by FHWA and FEMA is required for all debris removal monitoring

operations to ensure reimbursement to the Department from the appropriate agency.

It shall be the responsibility of the Consultant to coordinate the duties under this Agreement to properly document and administer on behalf of the Department the Federal Highway Administration Emergency Relief Program (ER), the Federal Emergency Management Agency Public Assistance Program (PA) and other applicable federal, state and/or local programs to assist the Department in its Emergency Response and Recovery efforts.

To facilitate the overall Emergency Response and Recovery efforts, the Department's Emergency Management Office performs reviews of the records to ensure proper documentation for reimbursement through the FEMA Public Assistance (PA) and FHWA Emergency Relief (ER) programs. The Consultant shall coordinate with the Emergency Management Office to ensure that all project documentation meet the requirements of the applicable federal recovery programs.

While this contract scope provides for emergency work off the state road system and/or on private roads, any work off the state road system must be first authorized by the Department and coordinated with the appropriate jurisdiction(s).

The Consultant shall ensure that Department Contractors do not perform any work on private property without receiving authorization from the Department. When Department authorization is provided, Consultant shall ensure the proper Right-of-Entry Form and Indemnification Certification is obtained from the property owner prior to any work commencing.

The Consultant shall assist the Department in performing:

1. Contract Administration – Perform construction inspections and accurately documents all contractor operations to the expectations of the Engineer.
2. Damage Assessment – Perform site inspections of areas designated by the Department, prepare Detailed Damage Inspection Reports (DDIR), FEMA Project Worksheets (PW) and other appropriate forms for use in the determination of reimbursement eligibility, to develop scopes, and determine preliminary cost estimates for proposed work.
3. Environmental permitting of temporary debris management sites, to include any pre and post operations soil and groundwater sampling.
4. Truck Certification
5. Identify debris to be removed, including marking hazardous trees (leaners), hazardous limbs (hangers) and hazardous stumps.
6. Construction Inspection in accordance with Department guidelines and procedures.
7. Quality Assurance and Quality Control of all documentation pertaining to debris removal and monitoring.
8. Assist the Department in responding to public inquiries.
9. Be available to address questions from the Emergency Management Office both during and after services have been performed.

The Consultant shall provide a 24/7 contact number and shall be activated to the appropriate level within 2 hours upon receipt of the Notice to Proceed. The appropriate activation level shall be determined by the Department.

The Consultant shall report for operations within the time constraints set by the Department Project Manager to begin the services under this Agreement.

The Consultant shall monitor, observe, and inspect the Contractor's work to determine the progress and quality of work, identify and document discrepancies, report significant discrepancies to the Contractor and Department, and direct the Contractor to stop and correct such observed discrepancies.

The Consultant shall ensure that the recovery efforts under their control are progressing in a manner satisfying the expectations as noted in the Department's procedure, Emergency Management Program 956-030-001, 23 CFR 668, and the current edition of the FHWA Emergency Relief Manual, including the supplements prepared by the FHWA Florida Division and the FEMA PA Program. The supplements to the Emergency Relief Manual can be found at https://www.fhwa.dot.gov/reports/erm/er.pdf

The Consultant shall assist the Department in negotiating with the Contractor(s) on amendments to the contract(s).

The Consultant shall advise the Department's Project Manager of any significant omissions, substitutions, defects, and deficiencies noted in the work of the Contractor and the corrective action that has been directed to be performed by the Contractor. The Consultant shall note all damages caused by the Contractor, document the damages, and report immediately to the Department.

10.2 Damage Assessment:

The Consultant may be required to assist the Department with the damage assessment and preparation of DDIR FHWA Form 1547. If such service is needed, the Consultant shall start damage assessment operations as directed by the Department's Project Manager as soon as weather conditions allow safe operations to begin. The Consultant shall report the damages to the Department's Project Manager a minimum of once every two hours. The Consultant shall take sufficient and appropriate photos or videos to document the damages. The provision of GPS coordinates of the photos and videos shall be included in the final damage assessment report.

10.3 Monitoring / Inspection:

The Consultant shall coordinate, monitor, observe, and inspect the Contractor's disaster event preparation/recovery activities. Such activities may include but are not limited to the lowering/raising of high-mast lights, debris monitoring, sign repairs, signal repairs and emergency roadway and bridge repairs.

The monitoring of the permanent roadway and bridge repairs will be done by others. The Consultant shall keep detailed accurate records of the Contractor's daily operations to ensure reimbursement eligibility to the Department from the

applicable Federal Reimbursement Program(s) (FDRP), which include but are not limited to, programs of the Federal Highway Administration and the Federal Emergency Management Agency. In addition, the Consultant shall ensure that all repairs satisfy Department's Design Standards, the Standard Specifications, Supplemental Specifications and as modified by the Special Provisions of the Recovery Contract(s).

The Consultant shall monitor and inspect the Contractor's Work Zone Traffic Control Plan in accordance with the Department's standards and procedures. Consultant employees performing such services shall be qualified in accordance with the Department's procedures.

The Consultant shall ensure that the materials for the recovery efforts are in accordance with the Department's requirements and satisfy the requirements of 23 CFR 635.410 FHWA Buy America provisions.

The Consultant may be required to perform structural inspections of bridges and ancillary structures (Signs, High Mast Light Poles or Traffic Signal Mast Arms).

10.4 Debris Monitoring Operations:

The Consultant shall monitor the Contractor's debris removal activities. Activities include, but are not limited to, identifying leaners, hangers, and hazardous stumps in advance of the Contractors debris removal activities and monitoring the following: field operations regarding all disaster-generated debris; debris pickup; debris hauling; debris staging and reduction; temporary debris site management; debris management; final disposal of debris to an approved facility; and the identification of leaners, hangers and hazardous stumps.

The Consultant will monitor the Contractor's debris removal operations for compliance with the Department's and District Debris Management Plan. The Department reserves the right to add or remove highway segments at the direction of the Department's Project Manager.

The Consultant shall coordinate with the Department's Project Manager or designee the scheduling of debris removal monitoring and contractor operations. The Consultant shall provide the following:

1. Administration

The listed services shall be performed by the Consultant:

a. The Consultant shall ensure all reports are provided to the Department's Project Manager or designee and other key Department personnel within timeframes requested by the Department.

b. The Consultant shall ensure that all required staff report as directed in all issued Task Work Orders.

c. The Consultant shall ensure all documentation required for payment of Contractor invoices and reimbursement of eligible work activities are appropriately collected, maintained, and prepared for submittal.

2. Pre-event Planning

The Consultant may be required to provide up to two (2) representatives to participate in Department directed disaster recovery planning meetings, training and/or exercises, 1 to 2 days each year. Payment will be negotiated at the time it is determined these services are needed.

The Department may request the Consultant to provide pre-event planning services to assist the Department in the Debris Planning, which may include but is not limited to, mapping services and coordination meetings in excess of those identified above. Payment will be negotiated at the time it is determined that these services are needed.

3. Project Management

The CEI Project Manager shall be responsible for the overall project management and coordination of the debris monitoring services required to monitor the debris removal operations. The CEI Project Manager shall be the point of contact to the Department and shall be on site at the District's Emergency Operations Center within six (6) hours of notification by the Department. The CEI Project Manager shall assign a manager to monitor the debris removal contractor(s) operations and to provide supervision of the data entry operations and documentation process. The number of personnel required will be dependent on the number of Debris Crews activated. Project management duties include, but are not limited to, the following:

a) Ensure a minimum of _XX_____ trained debris monitors are available to monitor any pre-staging activities and the "first push" (cut & toss) operations within twenty four (24) hours of the original notification by the Department.
b) Ensure a minimum of ___XX____ trained debris monitors are available to monitor all "first pass" and subsequent passes of debris removal and hauling activities within twenty four (24) hours of the original notification by the Department.
c) Provide trained tower / disposal site monitors to observe and record all debris loads entering the temporary debris management sites.
d) Provide trained tower / disposal site monitors to observe and record all debris loads exiting the temporary debris management sites for final disposal.
e) Provide data entry and document processing personnel.
f) Conduct safety meetings with field staff, as necessary.
g) Respond to and document issues regarding work ineligible for Federal reimbursement, complaints, damages, accidents or incidents involving the Consultant or Contractor personnel and ensure that they are fully documented and reported.

h) Coordinate updates and briefings with the Department and the debris removal contractor(s), provide status reports to the District Emergency Operations Center of work activities, progress, and staffing a minimum of two (2) times a day at intervals to be determined by the Department's Project Manager.

i) Prior to use, ensure that the documentation of environmental authorizations and/or permits are secured by the Contractor for temporary debris management sites and final disposal of debris.

j) Provide technical expertise and guidance to the Department as applicable to Federal emergency assistance programs.

k) Review and reconciliation of debris removal contractor invoices submitted to the Department, ensuring invoices are delineated by:
   a. Road type;
   b. Road number and county;
   c. Push operations, or first, second, or third pass;
   d. Work performance time frames in accordance with FEMA's Debris Management Pilot Program sliding scale;
   e. and any other classification as directed by the Department.

l) Preparation of interim operations and status reports and final report, as directed by the Department.

4. Documentation and Data Management

The Consultant shall ensure all necessary documentation is provided as follows:

a) Maintain a database of all contract quantities. Ensure all eligible debris removal operations activities are documented and tracked specific to the FHWA-ER program, the FEMA PA program, or other applicable Federal, state, or local agencies.

b) Documentation of the number of crews and types of equipment utilized, actual hours of operation, and locations of work performed during the time and materials phase of operations.

c) Completion of truck certifications, equipment certifications, and establishment of a QA/QC program throughout the life of the project

d) Load tickets documenting the eligible debris removal and/or disposal activities by the applicable program FHWA – ER or FEMA PA, and/or other federal, state or local programs as outlined in and in accordance with the Debris Management Plan.

e) Documentation of eligible hazardous stump removal, hangers, leaners, or tree removal which includes photos, GPS coordinates, street or milepost identifier, and/or other information as available and applicable.

f) Environmental authorizations and/or permits, as applicable.

g) Daily electronic spreadsheet summaries of cubic yards/tons collected, organized by Federal program. The daily summary shall be communicated to the Department's Project Manager or designee.

h) Production in electronic format (scanned) and paper copies of all documentation for submittal to Federal and/or State agencies.

i) Assist the Department in creating field maps using GIS, as well as track and present Contractor progress in GIS.

j) Provide certified weigh master summary as necessary.

k) Organize, maintain, and provide the Department electronic copies of documentation in a satisfactory manner. All documentation and information related to the project shall be surrendered to the Department and/or District upon completion of the project.
l) Coordinate documentation for FEMA and FHWA reimbursement funding requests with the Emergency Management Office.

5. Field Monitoring

The Consultant shall provide trained staff in sufficient numbers to adequately monitor all field operations. Field monitoring duties shall include, but are not limited to, the following:

a) Provide sufficient staff pre-event (within 24 hours of notification) to monitor Contractor pre-staging activities.
b) Truck certification and documentation of all vehicles used in the debris removal activities.
c) Quality assurance / quality control of truck certification measurements throughout life of project.
d) Provide monitoring services and documentation of all eligible debris removal activities from Federal Aid eligible roadways – First Push (Cut & Toss) and First Pass.
e) Provide monitoring services and documentation of all eligible debris removal activities on non-Federal Aid eligible roadways, AS DIRECTED BY THE DEPARTMENT – First Push (Cut & Toss) and First Pass.
f) Provide monitoring services and documentation of all eligible debris removal activities from second and subsequent passes on all roadways, AS DIRECTED BY THE DEPARTMENT.
g) Ensure that ineligible debris—including ineligible hazardous stumps, leaners, and hangers—are not collected, cut or removed by the debris removal contractor, unless directed in writing by the Department. If ineligible debris—including ineligible hazardous stumps, leaners, and hangers—are collected cut or removed, document the ineligible work and material, but do not issue a load ticket. Escalate and notify the Department.
h) Disposal Site / Tower Monitors will observe and record the truck quantity estimates of inbound and outbound debris.
i) Exit Site Monitors will observe that all outbound trucks are fully discharged of their load prior to exit of the temporary debris management site.
j) Monitors will ensure that accurate, legible, and complete documentation is provided through load tickets, truck certifications, and/or other logs and reports, as required.
k) Maintain photo documentation (and GPS information as needed) of the debris removal activities, specifically of the hazardous stump removal process, hangers, leaners, or tree removal and/or other special or unusual occurrences in the field.
l) Document and report activities to the Department which may require remediation, such as: fuel spills, hazardous materials collection locations, and other similar environmental concerns.

m) Document and report to the Department damages which occur on public or private property as a result of the debris removal operations.
n) Document and report to the Department any violations of Department of Environmental Protection's (DEP) debris site conditions.
o) If DEP debris site conditions are violated the Consultant shall oversee tasks sufficient to satisfy the DEP performed by the debris removal contractor.
p) Provide certified weigh master if necessary.

The Department may exercise the option to utilize electronic debris monitoring and if chosen, the Consultant must comply with the requirements set forth in sections six (6) through eight (8).

6. Equipment Requirements

a) Data Storage Media – Debris management data will be stored and transferred on encryption protected removable data storage media. All data media will be provided by the Consultant. Data must include a unique user ID which identifies the user's name, role, limits the user's ability to collect or validate information, etc. and employs an anti-tampering mechanism. Consultant shall provide media to each person performing a debris mission role that results in data collection, i.e., drivers, ticket managers, etc.

b) Handheld Units (HHU) - The Consultant shall provide weather proof and shock resistant handheld units (HHU) for recording debris management data in the field. These HHU devices will be capable of writing data to, and reading data from, the removable data storage media. HHUs shall have the capability to determine locations by GPS and the capability to write GPS coordinates to the removable media. The HHUs will perform three functions: (1) Recording of initial load data information, and (2) verification of vehicle certification, and (3) recording of debris type and quantity. All field units will be operated by stand-alone power sources which will allow the units to perform uninterrupted for a work period. When HHUs are used, Consultant shall have a manual back-up system available including all

c) supplies, but not limited to, FEMA-compliant debris ticket forms, etc. Consultant CEI staff shall be proficient in using the back-up system.

- HHUs capable of recording truck certification data onto driver removable media are used at the truck certification area. Truck certification records will include truck measurements, Truck ID, Driver ID and a digital photograph of the truck and trailers.

- HHUs capable of recording user ID information, including a unique user ID, digital photograph and any additional user information required for system operation.

- GPS- HHU units shall have integrated GPS capability. GPS readings (accuracy within 3 meters of the HHU) shall automatically be recorded without any additional manual effort each time the HHU

unit records and retrieves information related to the debris mission. External GPS units shall have reliable connectivity to the HHU and be rugged and durable.

c) Durable Printer – The Consultant shall provide a durable printer to print load tickets at the request of the Department. Once the tower manager completes the load data entries the information shall be transmitted to the printer. The printer must print a minimum 2 copies of the ticket. Two copies must be given to the driver (one copy for the driver and the other for the Contractor). The HHU shall have program flexibility to alter the number of printed tickets. The printed ticket paper and print shall be of a quality that the print is not affected by harsh weather conditions and does not fade over time, nor smear or deteriorate due to moisture or UV rays. All field units shall be operated by stand-alone power sources which will allow the units to perform uninterrupted for a minimum of a work period.

d) Server(s) – The Consultant shall provide computer servers for the storage and maintenance of records. The data contained in the Consultant's database must be placed on the Internet for controlled use, and be password protected by the Consultant. Upon completion of the work, the Consultant shall surrender the records to the Department who shall maintain the official database and records on its government furnished secure server. Access to the Department server is limited to "Official Use Only". The Department server is provided and maintained by the state.

e) Back-up equipment – In the event of equipment malfunction, loss or damage, the Consultant shall have a sufficient supply of replacement equipment and personnel available such that production is not affected. The back-up equipment shall be readily available on-site for rapid distribution.

f) GIS – GIS mapping must be provided by the Consultant from the most current source(s) available. This information will be used as a base map to visually illustrate work zones, leaner locations, hanger locations, hazardous stump locations, ticket and tower personnel locations and activities, work progress, historical and/or environmentally sensitive areas, geospatial data, and other mission informational needs from the data gathered by the HHUs.

g) Internet Accessible Database – The Consultant shall establish a web-based database which is updated daily if not real-time. The data will be accessible, by permission only, to subcontractors, local and state officials and others on a "need to know" basis. Database access will be role-based and no direct access to the data tables shall be allowed, unless approved by the Department.

7. General Statement of Electronic Debris Monitoring System Parameters

a) The system must utilize an encryption protected removable data storage device. The data storage device will store data collected in the field, such as fields from traditional paper debris load tickets as well as truck

certification information. The device must be capable of depicting images and other identifying data.

b) The system must have a database capable of storing all data collected in the field. The Consultant shall provide the Department a copy of the database with a matching structure at the completion of the work unless otherwise specified.

c) The system must include the capability to share database records with contractors, subcontractors, the Department, and others via the internet. Data contained in the system must be password protected, implement role-based access controls and must have viewing, printing and editing capabilities. Each contractor, subcontractor and customer must have permissions that allow only them to review and print information specific to their need. The system must also have the capability to generate reports on all aspects of the debris mission.

d) The Consultant uses the HHU to initiate the load data by entering the debris type into the HHU. The driver's media card will either be swiped or inserted into the HHU and the HHU will write the debris type, pick-up GPS location), address of pick-up if applicable, time, date, truck certification and driver information, and the ticket manager's unique ID Code onto the removable media. Once the data is written to the media, the Ticket Manager will return the media to the driver. By this action, the Consultant verifies the debris meets FEMA and FHWA eligibility requirements,

e) HHUs are used at the debris verification area of disposal site(s) by the tower manager. The vehicle driver presents the removable media, which was previously initiated by the field monitor, to the tower manager personnel located in the disposal site tower(s). The tower manager verifies the debris classification is appropriate (vegetative, Construction & Demolition, mixed, etc., manually revising classifications as necessary), verifies vehicle(s) and driver information is correct, and estimates and enters the load quantity into the HHU. The HHU will automatically extract the information recorded earlier on the smart card and add the information to the tower manager's HHU including the date, time debris arrives, site ID, GPS readings, load quantity and tower manager unique ID Code.

f) All information regarding each debris load will be stored in the HHUs internal memory or on a separate, encryption protected removable media device. The debris load information will be uploaded to the system Department and Consultant databases. Once this information is recorded, the tower manager HHU will clear the removable media's debris data for the driver to re-use.

g) The media will retain a running total of the quantity and type of debris hauled by a particular vehicle. All debris load information within the tower manager HHU will be retained until upload to the database has been accomplished and confirmed by authorized personnel. Direct access to

data on the HHU will be restricted to personnel specifically authorized to do so by the Department.

8. Functional Specifications and System Architecture

a) Ticket/Tower Managers – Personnel Registration, Administration and Management: The system shall have the capability to manage user roles. The majority of the system users will be either ticket or tower managers. At a minimum, the system must have the following capabilities:

- A means to create encryption protected electronic media with unique User ID, digital photograph, user roles and other identifying data
- Electronic registration of ticket/tower monitor
- Link designated ticket/tower personnel roles to a specific mission
- The ability to edit ticket/tower personnel roles i.e., create, update and delete
- Store ticket/tower personnel contact information relative to the mission
- Track and Manage ticket/tower personnel role and status
- Assign and track equipment assigned to the user
- Reject invalid ticket/tower personnel credentials
- Reject invalid certification credentials

b) Truck Certification: The system shall have the capability to record truck and trailer certification data. Truck certification is used to register authorized debris hauling vehicles and equipment. At a minimum, the following must be included:

- A means of electronically registering authorized debris Contractor vehicles and equipment
- Link electronic registration to digital images
- Identify mission and respective Department or District
- Generate unique ID's for Contractor vehicles and equipment
- Utilize uniform measurements e.g. feet and inches
- Capture vehicle volume
- Utilize industry standard equations for all volume calculations
- Capture drivers and certification team member unique identification number
- A means to create encryption protected electronic driver removable media with unique Truck ID, digital photograph, truck and /or trailer measurements, vehicle volume, and other identifying data
- Must depict image and other identifying data
- Must contain counter area for total cubic yards hauled
- Must employ anti-tampering mechanism
- Capability to recertify vehicles
- Recertified vehicles must be recorded in an audit table
- Certification data must be associated to authorized system user
- Reject media which are not associated with current event and applicant
- Capture vehicle audit records

- Create a printed certification record
- Administrative reporting capabilities

c) Right-of-Way (ROW) Debris Management: ROW transactional data must be captured, stored, validated, audited, reported and transmitted to mission managers, haulers and applicants. At a minimum, the application must exhibit the following characteristics:

- Allow creation of point of origin load data on encryption protected driver media when position is known and credentials have been authenticated
- Capture date and time and other relevant point of origin data
- Validate media is present in system and configured to receive data
- Designate debris type
- Designate debris location as Federal Aid or Non-Federal Aid
- Designate first pass and subsequent passes
- Write point of origin load data using encrypted storage algorithms
- Associate ticket/tower personnel credentials with point of origin load data
- Acknowledge successful card write via display status message
- Provide user configurable time option for GPS audit
- Detect current location using GPS and store data to secure memory location
- Provide capability to add digital image if debris is other than vegetative or C&D

d) Debris Disposal Site Management: Completed ROW, and Per-unit point of origin transactions must be received at the approved disposal site. Transactions are not considered complete until they are processed through the receiving applications. At a minimum, the system must provide the capability to:

- Accept site configuration data at the beginning of each work day
- Dynamically configure receiving application based on site configuration data
- Display certification data and photo from driver smart card so that ticket/tower personnel can perform a field audit of truck/trailer to assure data matches certification and placard number
- Accept loads where:
  - Mission and applicant are valid and,
  - Media authentication data is valid and unaltered and,
  - Media contains valid load data
- Designate debris type
- Record debris volume (based on unit of measure)
- Receive volume or per unit loads
- Identify original load data
- Identify duplicate load data
- Configure number of hard copies
- Create load data record in internal storage
- Create backup copy of internal storage

- Prepare driver media for next load
- Increment driver smart card based on total CY counter value
- Continuously calculate and present real-time disposal site statistics
- Re-print load ticket data
- Interface with durable outdoor printer
- Preserve in its original state, then transmit daily transaction data
- Associate ticket/tower personnel credentials with each received load

e) Field Administrative Functions: The system must have the capability to perform administrative duties in the field. Requirements include the capability to edit user roles, verify vehicle audit information, display real-time collection volumes, and review ticket/tower personnel GPS audit logs. At a minimum, the system must provide the capability to:

- Change ticket/tower personnel identification badge roles and responsibilities
- Review media total CY counter value
- Audit vehicle certification data
- Validate/invalidate smart cards
- Reinitiate security sequence for ticket/tower personnel or media
- In tabular format, display the results of ticket/tower GPS audit files by limiting access to the internet data or by the Department secure server

f) Data Consolidation and Analysis/Reports Generation: Transactional data must be summarized, validated, presented, and audited to provide an overall status of mission performance. The system must facilitate billing, error reporting, performance tracking, and graphical data preparation. At a minimum, the Data Consolidation and Analysis/Reports must provide the capability to:

- Accept transactional data sets from multiple debris location systems
- Recognize multiple mission/applicant configurations
- Grant access to authorized authenticated users or processes
- Contain a master record of:
  - Roles and responsibilities
  - Ticket/tower personnel credentials and other data
  - Certification credentials and other data
  - Mission data
  - Applicant data
  - Geospatial data
    - Street centerlines
    - County outlines
    - Population and demographic
    - Elevation
    - Wetlands delineation
    - Historic and Environmentally Sensitive areas
    - Debris work zones

    - Parcel data
    - Land use
    - FEMA flood zones
- Graphically depict:
  - Load locations by Contractor
  - Load locations by subcontractor
  - Load locations by driver
  - Load locations by ticket/tower personnel
  - Load locations by date range
  - Load locations by zone
  - Load locations by county and municipality
  - Load locations by applicant
  - Load locations by mission
  - Load locations by debris type
  - Load locations by disposal site
  - Load locations by Federal, state and private roads
  - Load locations by land use
  - Load locations by disposal site
- Thematic mapping techniques to distinguish different data by color and/or symbol
- Identify data attributes for a single point of data
- Select one or many points of data
- Calculate operational efficiency statistics such as:
  - Trip turnaround time
  - Trip distance to disposal site (straight line projection sorted by 0 - 15 miles, 16 – 30 miles, 31 – 60 miles and greater than 61 miles)
  - Average container fill percentage
  - Average tower manager load call
  - Load call trend data, e.g., by tower managers, Contractor, subcontractor, driver, etc.
- Dynamically configure user interface in response to point data selection to limit user authorities
- Generate tabular data reports from multiple data selections
- Filter mechanisms to highlight geospatial data
- Control data access using role-based security
- User interface and access to underlying system data must be dynamically configured at run time through the presentation of appropriate user credentials
- Manage data ownership
- Provide access based on security role model
- Identify and distribute “owned” transactional datasets to limit internet access to the website data to view only the data collected
- Prevent distributed data from being reprocessed for billing purposes
- Identify billing data sets based on parameters such as:
  - Time/Date
  - Contractor/Subcontractor
  - Debris type
  - Debris disposal method (haul-in, reduction, open burn, incineration, haul-out, leave in place, etc.)
  - Haul distance

- County
- Route billing data sets via defined and customizable workflow rules
- Approved billing data sets
- Communicate general event status e.g.:
  - Total CY hauled (by debris type)
  - Total CY by disposal site
  - Total CY by Contractor/subcontractor
  - Total CY by work zone/sector
  - Total CY by county and municipality
  - Total CY by Federal, state and private roads
  - Total CY by certified vehicle
  - Number of vehicles utilized
  - Number of ticket/tower personnel resources assigned
- Manage user roles, responsibilities and passwords
- Prevent modification to original data by unauthorized or unauthenticated users
- Insert audit records into audit tables for all insertions, modifications, and deletions to original data

g) Field Architecture – The field-based system must be characterized by the following general statements of direction with respect to construction, operability, supportability and security. At a minimum, the system must:

- Require user authentication credentials
- Display current version at application start-up
- Synchronize with Greenwich Mean Time (GMT)for all date/time fields
- System must utilize location specific configuration data to initiate a warm start sequence for global positioning system
- System must remain in a ready state by default
- Acknowledge successful card write via display status message
- Create identification structures which utilize encryption technologies
- Employ anti-tamper and anti-tearing methods and technologies
- Where applicable, utilize 3 DES data encryption technologies to protect data
- Perform validation and checksum (a running production total of cubic yards or appropriate payment capacity) stored on each debris vehicle's removable media)

h) Back-office Architecture – At a minimum, the back-office applications must be characterized by the following general statements of direction with respect to construction, operability, supportability and security.

- Utilize relational database technology
- Employ geospatial analysis tools for data visualization
- Enable audit ability for:
  - Data insertion
  - Data modification
  - Data deletion
- Prevent field and row level data deletion
- All access to data must be controlled

- Store certification and other identification data using encrypted relational technology
- Reside in a secure internet environment
- Preserve base transactional data in its original state prior to processing or consolidation with other data

i) Initial Startup Procedure for Debris Removal – Debris missions are critical to emergency response and the Consultant shall be adequately prepared to respond.

9. Reporting

The Department requires the Consultant to provide daily status reports of the debris removal operations, preparation of interim reports (as directed by the Department), as well as a final report of the debris removal operations.

The daily status report shall include at a minimum: the daily cubic yards/tons collected by material and by program (FEMA, FHWA-ER First Pass, First Pass on non-Federal Aid roadways, second and subsequent passes on all roadways), cumulative totals in cubic yards/tons by debris type, number of debris removal crews and equipment operating, number of debris monitors in field, cubic yards/tons by debris type hauled to final disposal and location of final disposal, and total cubic yards/tons hauled to recycling or salvage facilities. GIS maps showing Contractor's progress shall be provided if requested by the Department.

An interim status report may be required at the discretion of the Department. A final report covering the history of the operations, the locations of temporary debris sites used, remediation and site closure activities, including any environmental reports or authorizations generated; and the locations of final disposal sites and permits, recycling facilities and salvage facilities used during operations. The report may include identification of weakness in the operations and recommendations for future debris activities.

10. Permits

a) Assist the Department with any permit applications and coordination with environmental agencies.
b) Conduct any required pre or post operation sampling of soil or groundwater.
c) Monitor compliance by the contractors to all permit requirements.

10.5 Sign and Signal Repair Monitoring

a. Documentation and Data Management

1. Location and type of sign or signal.
2. Description of damage
3. Operational status (flashing, isolated, coordinated, and/or supplementary power needed)
4. Photographs of damage
5. Replacement purchase invoices

10.6 Emergency Roadway and Bridge Repair Monitoring

10.6.1 Sampling and Testing

The Consultant shall perform sampling and testing of component materials for emergency repairs of roadway and sign/signal foundations. The minimum sampling frequencies set out in the Department's Materials Sampling, Testing and Reporting Guide shall be met. In complying with the aforementioned guide, the Consultant shall provide daily surveillance of the Contractor's Quality Control activities at the project site and perform the sampling and testing of materials and completed work items that are normally done in the vicinity of the project for verification and acceptance.

The Consultant shall be specifically responsible for job control samples determining the acceptability of all materials and completed work items on the basis of either test results or verification of a certification, certified mill analysis, DOT label, DOT stamp, etc.

The Department shall monitor the effectiveness of the Consultant's testing procedures through surveillance and obtaining and testing independent assurance samples.
Sampling, testing and laboratory methods shall be as required by the Department's Standard Specifications, Supplemental Specifications or as modified by the Special Provisions of the Construction Contract.

Documentation reports on sampling and testing performed by the Consultant shall be submitted to responsible parties during the same week that the construction work is done.

The Consultant shall be responsible for transporting samples to be tested in a Department laboratory to the appropriate laboratory or appropriate local FDOT facility.

The Consultant shall input verification testing information and data into the Department’s database. Designated Consultant personnel will be provided written instructions from the Department for performing this task.

10.6.2 Engineering and Administrative Services

The Consultant shall coordinate the disaster recovery contract administration activities of all parties involved in the disaster event recovery efforts. The Consultant’s Engineering Services may include but not limited to the following:

(1) Assist the Department in separating reimbursable costs from non-reimbursable cost in accordance with applicable federal guidelines.
(2) Assist the Department in determining the pre-position locations of the contractor(s) prior to a disaster event or hurricane landfall.
(3) Assist the Department in documenting the pre-disaster activities in coordination with the Department.
(4) Assist the Department in preparing the Daily Situation Report.
(5) Prepare and submit daily recovery progress to the Department’s Project Manager.

(6) Provide personnel proficient in the use of computers and scanner operation to input documents into an EDMS. This will require familiarity with the documents and guidelines, posted on the Department's website for EDMS. Duties will include scanning, attributing and retrieving documents that are to be archived electronically.

(7) Verify that the Contractor is conducting the recovery activities in accordance with National Environmental Policy Act (NEPA) requirements. Complete the NEPA Field Review Form.

(8) Analyze problems that arise on a recovery contract and proposals submitted by the Contractor, work to resolve such issues, and process the necessary paperwork.

(9) Produce reports, verify quantity calculations and field measure for payment purposes as needed to prevent delays in Contractor operations and to facilitate prompt processing of such information in order for the Department to make timely payment to the Contractor and request eligible reimbursement from FHWA and FEMA.

(10) Prepare and make presentations before the Dispute Review Boards in connection with the recovery contract(s) covered by this Agreement.

(11) Monitor each Contractor and subcontractor's compliance with specifications and special provisions of the Construction Contract in regard to payment of predetermined wage rates in accordance with Department procedures.

(12) Provide a CEI Resident Compliance Specialist for surveillance of the Contractor's compliance with Construction Contract requirements. The CEI Resident Compliance Specialist is responsible for reviewing, monitoring, evaluating and acting upon documentation required for disaster recovery contract compliance, and maintaining the appropriate files thereof. Typical areas of compliance responsibility include EEO Affirmative Actions for the prime contractor and subcontractor, DBE Affirmative Action, Contractor Formal Training, Payroll, and Subcontracts. The CEI Resident Compliance Specialist must keep all related documents and correspondence accurate and up to date; attend all compliance reviews and furnish the complete project files for review; and assist the District Contract Compliance Manager as requested. Information shall be provided to the Department's Recovery Services Consultant for review as directed by the Department.

(13) Provide a digital photo log or video of hurricane recovery activities, with heavy emphasis on potential claim items/issues and on areas of real/potential public controversy.

11.0 PERSONNEL:

11.1 General Requirements:

The Consultant shall staff the project with the qualified personnel necessary to efficiently and effectively carry out its responsibilities under this Agreement. Method of compensation for personnel assigned to this project will be in accordance with Exhibit "B, Method of Compensation." In accordance with 23 CFR 172.9, the methods of payment which shall be used are: lump sum, cost plus fixed fee, cost per unit of work, specific rates of compensation, or a combination thereof. Details of fee will be included in the Task Work Order issued to the

Consultant. The Consultant shall provide and maintain an up-to-date list of staff with agreed-to classifications and approved salaries (subject to the contract Exhibit "B") that would be available to be assigned to specific Task Work Orders. No consultant staff, except those specifically identified in a Task Work Order or those specifically agreed to by the Department Project Manager, shall charge time to that particular Task Work Order. Unless otherwise agreed by the Department, the Department will not compensate straight overtime or premium overtime for the positions of Senior Project Engineer, Project Administrator, Contract Support Specialist, and Associate Contract Support Specialist. Consultant must request approval from the Department's Project Manager and Procurement for any modifications or additions to the list of available staff prior to the initiation of any work by the modified or added individual. If applicable, new job classifications may be added to the contract via contract amendment. Consultant shall submit a copy of the resume and payroll register before new staff can be added.

11.2 <u>CEI Personnel Minimum Qualifications: (as applicable)</u>

The Consultant shall utilize only competent personnel, qualified by experience, and education. The Consultant shall submit in writing to the Department Project Manager the names of personnel proposed for assignment to the project management team, including a detailed resume for each containing at a minimum, salary, education, and experience. Personnel identified in the Consultant technical proposal are to be assigned as proposed and are committed to performing services under this Agreement. Personnel changes to the Consultant's Management Staff requires written approval from Department. Staff that has been removed shall be replaced by the Consultant within 2 days of Department notification.

Before the project begins, all project staff shall have a working knowledge of the current Construction Project Administration Manual (CPAM) and must possess all the necessary qualifications/certifications for obtaining the duties of the position they hold. Cross training of the Consultant's project staff is highly recommended to achieve a knowledgeable and versatile project inspection team but cross training shall not be at any additional cost to the Department and shall occur as workload permits.

Minimum qualifications for the Consultant personnel are set forth as follows. Exceptions to these minimum qualifications will be considered on an individual basis. However, a Project Engineer working under the supervision and direction of a Senior Project Engineer or an Inspector working under the supervision and direction of a Senior Inspector shall have six months from the date of hire to obtain the necessary qualifications/certifications provided, all other requirements for such positions are met and the Consultant submits a training plan detailing when such qualifications/certifications will be obtained and other training to familiarize with Department's procedures, Specifications and Design Standards. The will have the final approval authority on such exceptions.

<u>CEI Senior Project Engineer</u> - A Civil Engineering degree and registered in the State of Florida as a Professional Engineer with hurricane or other disaster related recovery experience and six (6) years of engineering experience [two (2) years of which are in major road construction/maintenance] or for non-degreed personnel, the aforementioned registration with one (1) year of disaster/hurricane recovery experience and ten (10) years of engineering experience [two (2) years of which

are in major road construction/maintenance]. Qualifications include the ability to communicate effectively in English (verbally and in writing); direct highly complex and specialized construction/maintenance engineering administration and inspection program; plan and organize the work of subordinate and staff members; develop and review policies, methods, practices, and procedures; and review programs for conformance with Department standards. Also must have the following:

Qualification:
FDOT Advanced MOT
Attend the CTQP Quality Control Manager course and pass the examination.
ICS-200
ICS-300
ICS 700
ICS 800

Certifications:
Professional Engineer

A Master's Degree in Engineering may be substituted for one (1) year engineering experience.

CEI Project Administrator / Engineer - A Civil Engineering degree with disaster recovery experience plus two (2) years of engineering experience in construction of major road, or for non-degreed personnel eight (8) years of responsible and related engineering experience, two (2) years of which involved construction of major road.

Receives general instructions regarding assignments and is expected to exercise initiative and independent judgment in the solution of work problems. Directs and assigns specific tasks to inspectors and assists in all phases of the construction project. Will be responsible for progress and final estimates throughout the construction project duration. Must have the following:

Qualifications:
FDOT Advanced MOT
CTQP Final Estimates Level II

Other:
Attend CTQP Quality Control Manager Course and pass the examination.
ICS-200

A Master's Degree in Engineering may be substituted for one (1) year of engineering experience

CEI Contract Support Specialist - A High School diploma or equivalent, disaster recovery experience, and four (4) years of road construction engineering inspection (CEI) experience having performed/assisted in project related duties (i.e., CQR/LIMS, progress and final estimates, EEO compliance, processing Construction Contract changes, etc.) or a Civil Engineering degree . Should exercise independent judgment in planning work details and making technical

decisions related to the office aspects of the project. Should be familiar with the Department's Procedures covering the project related duties as stated above and be proficient in the computer programs necessary to perform these duties. Shall become proficient in Trimble Business Center - Heavy Construction Edition (HCE) or approved surface to surface comparison software and Engineering Menu. Must have the following:

Qualifications:
CTQP Final Estimates Level II

CEI Resident Compliance Specialist - A High School diploma or equivalent with one (1) year of experience as a resident compliance officer on a construction project or two (2) years of assisting the resident compliance officer in monitoring the project. Should have prior experience in both State funded and Federal Aid funded construction projects with FDOT and knowledge of EEO/AA laws and FDOT's DBE and OJT programs. Ability to analyze, collect, evaluates data, and take appropriate action when necessary. Must attend all training workshops or meetings for CEI Resident Compliance Specialists as determined necessary.

CEI Senior Inspector – A High School diploma or equivalent plus four (4) years of experience in construction inspection, two (2) years of which shall have been in bridge and/or roadway construction.

For work requiring electrical inspection, high school graduate or equivalent plus five (5) years of experience in inspection of electrical components/system.

For work requiring structural (bridges or ancillary structures) inspection, the individual must meet the Florida requirements for the inspection of structures as a team leader. For non-professional engineers, the senior inspector must be a Florida Certified Bridge Inspector. .
Must have the following:

Qualifications:
CTPQ Concrete Field Technician Level 1 (if applicable
CTQP Concrete Field Inspector Level I (If applicable)
CTQP Asphalt Roadway Level I (If applicable)
CTQP Asphalt Roadway Level II (If applicable)
CTQP Earthwork Construction Inspection Level I (If applicable)
CTQP Earthwork Construction Inspection Level II (If applicable)
CTQP Pile Driving Inspection (If applicable)
CTQP Drilled Shaft Inspection (If applicable – required for inspection of all drilled shafts including miscellaneous structures such as Sign structures, Lighting structures, and Traffic Signal structures)
FDOT Intermediate MOT
CTQP Final Estimates Level I
Training and knowledge of Department Debris Operations to include:
debris measurement, documentation, and verification for reimbursement eligibility for FHWA and FEMA programs.

NOTE: CTQP certifications are not required for debris monitoring.

Certifications:
Nuclear Radiation Safety (If applicable)
IMSA Traffic Signal Inspector Level II (For Signal Repair CEI)

Or a Civil Engineering degree and one (1) year of road construction/maintenance CEI experience with the ability to earn additional required qualifications within one year.

Responsible for performing highly complex technical assignments in making and checking engineering computations, inspecting construction work, and conducting field tests and is responsible for coordinating and managing the lower level inspectors. Work is performed under the general supervision of the Project Administrator.

CEI Inspector - A High School diploma or equivalent plus two (2) years experience in construction inspection, one (1) year of which shall have been in bridge and/or roadway construction inspection plus the following:

Qualifications:
CTQP Concrete Field Inspector Level I (If applicable)
CTQP Asphalt Roadway Level I (If applicable)
CTQP Earthwork Construction Inspection Level I (If applicable)
CTQP Pile Driving Inspection (If applicable)
CTQP Drilled Shaft Inspection (If applicable– required for inspection of all drilled shafts including miscellaneous structures such as Sign structures, Lighting structures, and Traffic Signal structures)
CTQP Final Estimates Level I
Training and knowledge of Department Debris Operations to include:
debris measurement, documentation and verification for reimbursement eligibility for FHWA and FEMA programs.

NOTE: CTQP certifications are not required for debris monitoring.

Certifications:
Nuclear Radiation Safety (If applicable)
IMSA Traffic Signal Inspector Level I
FDOT Intermediate MOT

Or a Civil Engineering degree with the ability to earn additional required qualifications within one year.

Responsible for performing assignments assisting Senior Inspector in the performance of their duties. Receive general supervision from the Senior Inspector who reviews work while in progress.

CEI Inspectors Aide - A High School diploma or equivalent and able to perform basic mathematical calculation and follow simple technical instructions. Duties are to assist higher-level inspectors.

CEI Secretary/Clerk Typist - A High School diploma or equivalent plus two (2) years of secretarial and/or clerical experience. Ability to type at a rate of 35 correct words per minute. Experienced in the use of standard word processing software. Should exercise independent initiative to help relieve the supervisor of clerical detail. Work under general supervision of the Senior Project Engineer and their staff.

Environmental Specialist - A bachelors degree with a major in one of the physical or natural sciences or engineering and two (2) years of professional experience in environmental protection, regulation or health; one of the physical or natural sciences; or engineering; or a Masters degree in one of the physical or natural sciences or engineering and one (1) year of professional experience described above; or a Doctorate degree in one of the physical of natural sciences or engineering or one (1) year of experience as an Environmental Specialist I with the State Of Florida. Receives general instruction regarding assignments and is expected to exercise initiative, and independent judgment in the solution of work problems. Must have knowledge of the terminology, principles, data collection, and analytical techniques and procedures of the physical or natural sciences. Also must have ability to collect, evaluate, analyze, and interpret scientific or technical data.

11.3 Debris Monitoring Personnel Qualifications (as applicable):

The following qualifications apply only to personnel activated to monitor the District's debris removal operations. All the below debris monitoring personnel besides Data Manager must have training and knowledge of the FHWA and FEMA debris removal documentation reimbursement requirements.

Debris Manager - Must have experience with FEMA and FHWA disaster debris management coordination. One Debris Manager will be utilized and responsibilities will include:

- Coordinating daily briefings, work progress, staffing, and other key items with the Department;
- Scheduling work for all team members and contractors on a daily basis;
- Monitoring recovery contractors progress and making/implementing recommendations to improve efficiency and speed up recovery work;
- Monitoring project budget, preparing reports and presentations to provide updates to Department;
- Assisting the Department with responding to public concerns and comments;
- Conducting safety inspections;
- Ensuring compliance with contracts by all subcontractors;
- Scheduling and running periodic meetings with field staff and contractors;
- Oversight of the documentation required for the FEMA reimbursement process and procedures; and
- Monitor Contractors work activities and advise the Department Project Manager when all activities have been successfully completed.

Qualifications:
FDOT Intermediate MOT
Attend CTQP Quality Control Manager Course and pass the examination.
ICS-100

ICS-200
ICS-700
ICS-800

Operations Debris Manager - Must have experience with FEMA or FHWA disaster debris management coordination. Work locations and travel times must be taken into consideration when determining the number of Operations Debris Managers needed as they must be able to respond timely to issues as they arise. Operations Debris Manager responsibilities include:

- Assisting in the development of daily briefings, work progress, staffing, and other key items;
- Implementing schedules and work plans while ensuring debris removal operations are performed efficiently;
- Managing daily field operations and addressing issues as they arise;
- Reporting the status of debris contractors' progress making/implementing recommendations to improve efficiency and speed up recovery work;
- Resolving issues in the field identified in public concerns and comments;
- Conducting daily safety meetings for debris monitoring personnel;
- Assisting Debris Manager in ensuring compliance with contracts by all subcontractors;
- Ensuring adequate MOT is utilized;
- Managing the certification of volumetric capacity for hauling equipment; and
- Reviewing load calls made from towers at Debris Management Sites to ensure calls are proper.

Qualifications:

FDOT Intermediate MOT
Attend CTQP Quality Control Manager Course and pass the examination.
ICS-100
ICS-200
ICS-700

Debris Supervisor - – Work locations and travel times must also be taken into consideration when determining the number of Debris Supervisors needed as they must be able to respond timely to issues as they arise. Debris Supervisor responsibilities include: Must have experience with FEMA or FHWA disaster debris management coordination.

- Ensuring monitors are working in assigned areas and performing their jobs up to required standards;
- Ensuring that monitors issue load tickets for FEMA-eligible storm debris only;
- Maintaining regular communication with collection monitors in assigned zone and meet with each one frequently;
- Interacting with FEMA and Department representatives in the field to resolve issues;

- Tracking, documenting and reporting any damages to private or public property caused by the debris removal contractors;
- Ensuring that monitors are completing load tickets and field logs accurately;
- Reporting safety concerns or issues to the Debris Operations Manager and help resolve them;
- Maintaining a daily field log and report;
- Reviewing and approving monitor time sheets daily; and
- Attending regular meetings and training sessions.

Qualifications:

FDOT Intermediate MOT
Attend CTQP Quality Control Manager Course and pass the examination.
ICS-100
ICS-200
ICS-700

Data Manager - Must have two (2) years of experience working with a relational database management system.

Debris Collection, Tower, and Exit Site Monitors - Must have a High School diploma or equivalent and be adequately trained on Debris Operations.

11.4 Staffing:

Once authorized, the Consultant shall establish and maintain an appropriate staff through the duration of disaster recovery and completion of the final estimate. Responsible personnel, thoroughly familiar with all aspects of construction and final measurements of the various pay items, shall be available to resolve disputed final pay quantities until the appropriate Recovery Contract has been paid off.
CEI forces will be required of the Consultant at all times while the Contractor is working. If Contractor operations are substantially reduced or suspended, the Consultant shall reduce its staff appropriately.
In the event that the suspension of Contractor operations requires the removal of Consultant forces from the project, the Consultant will be allowed ten (10) days maximum to demobilize, relocate, or terminate such forces.

11.5 Subconsultants

Services assigned to any subconsultants must be approved in writing by the Department Project Manager, Procurement Office, and the CEI Project Manager in accordance with this Agreement prior to work performance. All subconsultants must be technically qualified by the Department to perform all work assigned to them. Additional subconsultants with specialized areas of expertise may be required to complete specific Task Work Order assignments. Any subconsultant to be hired, all work assignments to be performed, and all rates of compensation shall be agreed to by the Department Project Manager, Procurement Office and the CEI Project Manager and documented in the contract file prior to any work being performed by the subconsultant.

12.0 QUALITY ASSURANCE (QA) PROGRAM:

12.1 Quality Reviews:

The Consultant shall conduct weekly reviews to make certain his own organization is in compliance with the requirements cited in the Scope of Services. Quality Reviews shall be conducted to evaluate the adequacy of materials, processes, documentation, procedures, training, guidance, and staffing included in the execution of this Agreement. Quality Reviews shall also be developed and performed to achieve compliance with specific QA provisions contained in this Agreement. The weekly reviews shall be submitted to the Department Project Manager in written form no later than one (1) week after the review.

12.2 QA Plan:

Within thirty (30) days after receiving award of an Agreement, the Consultant shall furnish a QA Plan to the Department Project Manager. The QA Plan shall detail the procedures, evaluation criteria, and instructions of the Consultant's organization for providing services pursuant to this Agreement. Unless specifically waived, no payment shall be made until the Department approves the Consultant QA Plan.

Significant changes to the work requirements may require the Consultant to revise the QA Plan. It shall be the responsibility of the Consultant to keep the plan current with the work requirements. The Plan shall include, but not be limited to, the following areas:

A. Organization:

A description is required of the Consultant QA Organization and its functional relationship to the part of the organization performing the work under the Agreement. The authority, responsibilities and autonomy of the QA organization shall be detailed as well as the names and qualifications of personnel in the quality control organization.

B. Quality Reviews:

The Consultant QA shall detail the methods used to monitor and achieve organization compliance with Agreement requirements for services and products.

C. Quality Records:

The Consultant shall outline the types of records, which will be generated and maintained during the execution of his QA program.

D. Control of Sub-consultants and Vendors:

The Consultant shall detail the methods used to control sub-consultants and vendor quality.

E. Quality Assurance Certification:

An officer of the Consultant firm shall certify that the inspection and documentation was done in accordance with FDOT specifications, plans, Standard Plans, and Department procedures.

12.3 Quality of Records:

The Consultant shall maintain adequate records of the quality assurance actions performed by his organization (including subconsultants and vendors) in providing services and products under this Agreement. All records shall indicate the nature and number of observations made, the number and type of deficiencies found, and the corrective actions taken. These records shall be available to the Department, upon request, during the Agreement term. All records shall be kept at the primary job site and shall be subject to audit review.

13.0 CERTIFICATION OF FINAL ESTIMATES: (as applicable)

13.1 Final Estimate and As-Built Plans submittal:

Prepare documentation and records in compliance with the Agreement, Statewide Quality Control (QC) Plan, or Consultant's approved QC Plan and the Department's Procedures.

Submit the Final Estimate(s) and one (1) set of final "as-built plans" documenting Contractor's work (one record set with two copies) as follows:

(a) Within thirty (30) calendar days of final acceptance; or

(b) Where all items of work are complete and conditional/partial acceptance is utilized (Lighting, Plant establishment, etc.) for a period exceeding thirty (30) calendar days, the final estimate(s) will be due on the thirtieth (30th) day after conditional/partial acceptance. A memorandum with documentation will be transmitted to the District Final Estimate Manager, with a copy to the Department Project Manager, at final acceptance detailing any necessary revisions to the pay items covered under the conditional/partial acceptance.

The Consultant shall be responsible for making any revisions to the Certified Final Estimate at no additional cost to the Department.

13.2 Certification:

Consultant personnel preparing the Certified Final Estimate Package shall be CTQP Final Estimates Level II.

Duly authorized representative of the Consultant firm shall provide a notarized certification on a form pursuant to Department' procedures.

13.3 Offer of Final Payment:

The Consultant shall prepare the Offer of Final Payment package as outlined in Chapter 14 of the Review and Administration Manual. The package shall accompany the Certified Final Estimates Package submitted to the District Final Estimates Office (DFEO). The Consultant shall be responsible for forwarding the Offer of Final Payment Package to the Contractor.

14.0 AGREEMENT MANAGEMENT:

14.1 General:

(1) With each monthly invoice submittal, the CEI Consultant Senior Project Engineer shall provide a reviewed and approved Status Report for the Agreement. This report shall provide the CEI Consultant Senior Project Engineer's accounting of the additional Agreement calendar days allowed

to date, an estimate of the additional Agreement calendar days anticipated to be added to the original Agreement schedule time, an estimate of the Agreement completion date, and an estimate of the Consultant funds expiration date per Agreement schedule for the prime Consultant and for each sub-consultant.

(2) When the Consultant identifies a condition that will require an Amendment Request (AR) to the Agreement, the CEI Consultant Senior Project Engineer shall communicate the need to the Department Project Manager for an approval in concept. Once received, the Consultant shall prepare and submit the AR, and all accompanying documentation to the Department Project Manager for approval and further processing. The Consultant shall submit ARs to allow the Department one week to process, approve, and execute the AR. The content and format of the AR and accompanying documentation shall be in accordance with the instructions and format to be provided by the Department.

(3) When the Consultant identifies a condition that will require a Supplemental Amendment Request (SAR) to the Agreement, the or CEI Consultant Senior Project Engineer shall communicate this condition/need to the Department Project Manager and request approval in concept. Once received, the Consultant shall prepare and submit the SAR, and all accompanying documentation to the Department Project Manager for approval and further processing. The Consultant shall submit SARs to allow the Department 2 weeks to process, approve, and execute the SAR. The content and format of the SAR and accompanying documentation shall be in accordance with the instructions and format to be provided by the Department.

(4) The CEI Consultant Senior Project Engineer for the project shall be responsible for performing follow-up activities to determine the status of each AR and SAR submitted to the Department.

14.2 <u>Invoicing Instructions:</u>

Monthly invoices shall be submitted to the Department in a format and distribution schedule defined by the Department, no later than the 20th day of the following month.

If the monthly invoice cannot be submitted on time, notify the Department prior to the due date stating the reason for the delay and the planned submittal date. Once submitted, the Consultant Project Principal or CEI Consultant Senior Project Engineer shall notify the Construction Project Manager via e-mail of the total delay in calendar days and the reason(s) for the delay(s).

All invoices shall be submitted to the Department in electronic and hard copy formats in accordance with District Construction and Consultant Invoice Transmittal System (CITS) procedures. The Construction Project Manager must receive hard copy documentation within three (3) workdays of electronic submittal or the electronic submittal will be rejected. (Saturday, Sunday, and Department holidays are not considered workdays).

All charges to the individual project will end no later than thirty (30) calendar days following final acceptance; or where all items of work are complete and

conditional/partial acceptance is issued; unless authorized in writing by the Department.

A Final Invoice must be submitted to the Department no later than the 60th day following Final Acceptance of the individual project or as requested by the Department.

15.0 OTHER SERVICES:

Upon written authorization by the Department's Project Manager or designee, the Consultant shall perform additional services in connection with the disaster recovery effort not otherwise identified in this Agreement. The following items are not included as part of this Agreement, but may be required by the Department to supplement the Consultant services under this Agreement.

A. Assist in preparing for arbitration hearings or litigation that occurs during the Agreement time in connection with the construction project covered by this Agreement.

B. Provide qualified engineering witnesses and exhibits for any litigation or hearings in connection with the Agreement.

16.0 CLAIMS REVIEW:

In the event the Contractor submits a claim for additional compensation and/or time after the Consultant has completed this Agreement, the Consultant shall, upon execution by the Department and the Consultant of an Amendment to this Agreement providing for compensation for such services, analyze the claim, engage in negotiations leading to settlement of the claim, and prepare and process the required documentation to close out the claim. Compensation for such services will be negotiated and effected through a Supplement to this Agreement.

17.0 CONTRADICTIONS:

In the event of a contradiction between the provisions of this Scope of Services and the Consultant's proposal as made a part of their Agreement, the provisions of the Scope of Services shall apply.

18.0 THIRD PARTY BENEFICIARY:

It is specifically agreed between the parties executing this Agreement that it is not intended by any of the provisions of any part of the Agreement to create in the public or any member thereof, a third-party beneficiary hereunder, or to authorize anyone not a party to this Agreement to maintain a claim, cause of action, lien or any other damages or any relief of any kind pursuant to the terms or provisions of this Agreement.

19.0 DEPARTMENT AUTHORITY:

The Department shall be the final authority in considering contract modifications.