



## Halff Associates, Inc. Scope of Services

## Disaster Recovery Data Center Infrastructure

June 29, 2015

Halff Associates, Inc. is pleased to submit this proposal for the design of the Disaster Recovery Data Center Infrastructure in the Plano facility located at 920 Park Blvd, Plano, TX. This design will include expanding the existing room and raised floor area, relocating the high density shelving and 1.5 ton humidity controlled HVAC system as required, designing a new generator set in the existing electrical distribution system to support the new Disaster Recovery Data Center, designing a redundant raised floor CRAC system, modifying the existing fire sprinkler system within the room to a secondary pre-action system with a clean agent system fire protection system provided as the primary fire protection system (including a high sensitivity smoke detection system). Additional aspects of the design may include structural support for roof mounted condensers and/or a concrete pad for the generator set.

### Project Description:

Halff will provide plans and specifications for the Disaster Recovery Data Center Infrastructure related to the room envelope, fire suppression, HVAC, and electrical systems. Halff will provide Collin County with information on different clean agent fire suppression systems as required, with our recommendation of the chemical system to be used in this application as well as justification for the required aspects of the design (listed above).

### EXCLUSIONS

- Environmental impact studies, statements, assessments.
- Asbestos identification and or removal.
- Major HVAC system modifications outside the limits of this construction.
- Architectural work associated to rebuilding walls and structure outside the Data Center area.

### OWNER RESPONSIBILITIES

Items provided by Collin County to Halff Associates in as timely a manner as possible include but are not limited to:

1. Relevant electronic AutoCAD plans of the area where work will be included or hardcopy drawings of the project area including existing utilities, etc.
2. Reasonable access to all areas of the building and site necessary to properly evaluate the elements included in the project description.
3. Soils report to aid in the design of a generator pad.

### Investigative Work:

Halff will use existing plans if available and will confirm existing conditions related to the work defined above. Additional access may be needed to be performed observations while completing the design activities.

### Basic Services:

#### **Construction Documents:**

- Floor plan relocating the existing Data Center HVAC equipment, electrical outlets, feeders, and equipment as required. Demolition plans will be required to define the expansion of the existing Data Center raised floor area.

- Floor plan locating new equipment; CRAC units, ATS, Electric Panel, Clean Agent System.
- Site Plan defining the location of the new generator and feeder to the ATS.
- Modifications and interface with the existing fire detection system and with mechanical / electrical systems as required for equipment shut down.
- Performance specifications to construct a pre-action sprinkler system as required.
- Construction documents will include Floor Plans, Schedules, Details, and Specifications.
- Floor Plans will be scaled at a typical scale of 1/8" = 1' scale. We will provide final plans and specifications to you electronically in PDF format as well as a paper copy as required.
- We will attend design coordination meetings at the Collin County Central Plant Conference Room as required to review the progress of the Construction Documents.
- We will provide two submittals during the construction documents phase for review (at approximately 50% and 100% complete).

**Construction Phase Services:**

- We will provide an electronic copy of the bid set (plans and specs) for Bidding purposes.
- We will attend a Pre-Bid and Pre-Construction Meeting
- We will answer questions prior to bid through the purchasing department.
- We will review and answer all RFI's and Clarifications
- We will review project submittals and shop drawings
- We will attend monthly site visit meetings and provide a final punch list visit. We are providing effort for a construction duration of 5 months
- We will provide one final punch list report.
- We will review as-built drawings created by the contractor for clarity only. Field verification is not included.

**Base Fee:**

We are providing the Basic Services listed above (Construction Documents and Construction Phase Services) and will invoice for the work performed based upon our hourly contracted rates, not to exceed \$104,000 for the combined construction document and construction administration phases.

This fee is based on a production schedule of approximately 10 weeks and a construction schedule of approximately 5 months. **Reimbursable expenses are estimated to be \$650.00 in addition to the NTE.**

**If electronic backgrounds are not available from the County, Halff can create the backgrounds by field measurements. This effort will be provided as an additional service and can be estimated upon request.**

Payment will be made in accordance with VTCA 2251.021, Time for Payment by a Government Entity.

**Additional and/or Reimbursable Services:**

- Significant design revisions following substantial completion of the Construction Documents, which are not due to design errors or omissions.
- Modifications to documents after documents are issued for construction.
- Modification to documents to meet budgeting constraints of other disciplines.
- Design and/or modifications to existing systems not within the scope boundaries of the project.
- Design or modifications to ducted systems beyond addition of fire/smoke dampers in the wall penetrations.
- Modifications to the data center walls beyond fire caulking, door seals, fire/smoke dampers and door replacement.

- Preparation of any special interim sets of construction documents for phased construction.
- Preparation or submittal of any design calculations.
- Printing of Drawings and Specifications for Bidding.
- Filing fees and permits fees.
- As-built drawings.
- Construction cost estimates.
- Coordination with insurance companies, attorneys, or banking institutions.
- Bid evaluation and management.
- Site visits or meetings not included under Base Services.
- Additional labor or overtime, due to lack of information and/or background drawings in a timely manor
- Creation of Electronic Backgrounds
- Design or specification of systems not listed under Project Description or Basic Services

**Compensation for Additional Services:**

Half Associates will be compensated for services on a time and materials basis. Labor will be billed at our negotiated hourly rates. Direct expenses, such as travel, courier services, and reproduction services will be billed at actual cost. Invoices for all services will be submitted monthly, with documentation.

If this proposal meets with your approval, please sign and date in the spaces provided below and return one copy as your Notice To Proceed and Approval of the fees quoted. This quoted fee is good for fifteen (15) days from the date above. Half Associates, Inc. will begin working on the project within seven (7) working days of receipt of your Purchase Order and all backgrounds.

If you have questions please let me know,

Sincerely,  
**Half Associates, Inc.**



**Phillip Applebaum, PE**  
**Vice President**