

**ATTACHMENT "A"**  
**SCOPE OF SERVICES**

**Services in General** - The typical services requested by the City will be detailed in a Letter of Authorization.

**Services in Particular** - If required by the Director, the Architect/Engineer will also provide the deliverables as stated below:

**1. GENERALLY**

a) The Architect/Engineer agrees to provide prompt and efficient professional services for the projects assigned by the City through one or more LOAs for the fees hereinafter specified and in accordance with each LOA Schedule. Each LOA Schedule will be drafted by the Architect/Engineer, in consultation with the City staff, approved by the Director and updated monthly and submitted at the time of invoice submittal. Each LOA shall contain a mutually agreed Maximum Total Fees for Basic Services, Reimbursable Expense, and if requested Additional Services.

b) Architect/Engineer will be responsible for services performed by subcontractors to the same extent as if the services were performed by Architect/Engineer. Architect/Engineer will replace any subcontractor when requested by the Director to do so, who will state the reasons for such request. Architect/Engineer will provide the City with a copy of any of its subcontractor's subcontracts at City's request.

c) The On-Call Design contract is performance-based. Architect/Engineer's performance reviews will be periodically performed to ensure projects are designed, developed and successfully implemented.

d) Architect/Engineer will fully participate in the Commissioning Process during all phases of project development, including, but not limited to: Pre-Design, Design, Construction, Closeout, and First Year Post-Occupancy, when required. The specific deliverables associated are described in the following Sections covering the general scope of services.

e) The Architect/Engineer will lead the efforts for creating and managing the Design BIM Model for the extended design team consultants. The Architect/Engineer will be the primary point of contact for the design team, including all Subconsultants, and represent the design team in the development and assembly of the BIM Project Execution Plan (BPxP). The Architect/Engineer will direct and coordinate the BIM performance of the Subconsultants to ensure the work is seamlessly integrated into the Project. The Architect/Engineer will verify the work of the Subconsultants is aligned with HAS BIM requirements and comply with the HAS BIM Standard Manual to produce accurate Construction Documents. The Architect/Engineer will work closely with the BIM Contractor and the HAS BIM Manager to incorporate design phase feedback, transition and integrate the Design Model into the construction phase, and develop accurate Record Models. The Architect/Engineer represents the design team in all BIM related meetings and workshops.

**A. Monthly Invoice Deliverables:**

- (1) Updated OBO goal participation plan actuals will be submitted with every monthly invoice.
- (2) Updated LOA Design Dates tracking log and project schedule submitted with every monthly invoice.
- (3) Any required supporting documentation or additional information requested by the Director or Designee.

**B. Architect/Engineer may coordinate Commissioning Services, when requested by the Director, which is not limited to the following:**

The Commissioning Provider will conduct a comparative review of the OPR and BOD, either confirming alignment of the two guiding documents, or identify where they may conflict or differ. The Architect/Engineer will review and respond to the Commissioning Review of these documents. As necessary, the Architect/Engineer and their Subconsultants will meet with the Owner and the Commissioning Provider to discuss modification to the BOD or the OPR in order to achieve alignment prior to commencing Design Development.

The objective of commissioning (Cx) is to provide documented conformation that the facilities fulfill the functional and performance requirements of the Owner, occupants and operators. To reach this goal, it is necessary for the commissioning process to develop and document the Owner's criteria for system function, performance, and maintainability as well as, to verify and document compliance with these criteria throughout the phases of each project, design, construction, acceptance and the initial period of operation and the 12 month warranty phase.

**2. PHASE I SERVICES: DESIGN**

**General.** Phase I Design will be divided into three or more stages, including but not limited to Pre-Design, Schematic Design, and Design Development. The Architect/Engineer will, on behalf of the City, file all applications for utilities commitments and furnish any additional information necessary to obtain utility commitments.

**1. Pre-Design services may include, if requested by the Director, but are not limited to, the following:**

This submittal will include but not be restricted to the following where applicable: planning, programming, geotechnical and other site investigations, existing field conditions assessments, and any other Pre-Design services, information, or investigations required to establish a BOD and deliver the project design and construction, as intended.

- a) As part of the Pre-Design commissioning activities, when requested; a charrette to develop the Owner's Project Requirements (OPR) document will

be held. The Architect/Engineer and their Subconsultants will participate in the development of the OPR.

- b) Referencing the OPR and documents coming out of the programming effort, the Architect/Engineer and their Subconsultants will develop a Basis of Design (BOD) document. This BOD will be a technical narrative describing how the design goals stated in the OPR are to be achieved.

**2. Schematic or Preliminary Design (30%) services may include, if requested by the Director, but are not limited to, the following:**

This submittal will include but not be restricted to the following where applicable:

- (a) General listing of the types, quantities and sizes of spaces included in the design. Prepare a comparison of these spaces with those listed in the Program, if there is a variance.
- (b) Scaled drawings of the site plan, floor plan(s), exterior elevations and transverse and longitudinal sections through the building, construction details, finishes, equipment and furniture schedules when required, and any other documentation required to complete the project design.
- (c) Preliminary Cost Estimate of the probable Construction Cost (Rough Order of Magnitude – ROM) of the LOA, based on proposed systems, quantities, and project requirements.
- (d) General statement or schedule of proposed finishes.
- (e) General statement of proposed structural system or systems in sufficient detail to demonstrate that spatial and functional requirements have been accommodated and to provide a valid basis for the preliminary estimate of Construction Cost.
- (f) General statement of proposed mechanical, electrical, and plumbing systems, in sufficient detail to demonstrate that spatial and functional requirements have been accommodated and to provide a valid basis for the preliminary estimate of Construction Cost.

**3. Design Development (60%) services may include, if requested by the Director, but are not limited to, the following:**

Based upon approved schematic or preliminary design Documents and any further adjustments in the scope or quality of the Project authorized by the Director, Design Development and Construction Documents services include, but are not limited to, the following:

- (a) Scaled drawings of the site plan, floor plans(s), exterior elevations and such sections and/or details necessary to demonstrate the Schematic Design. The floor plan(s) will show all furniture, fixtures, equipment, door swings and main dimensions (if applicable).

- (b) Plan layout of the proposed structural system showing preliminary main member sizes.
- (c) Plan layouts, each on a separate sheet, of the proposed mechanical, electrical and plumbing systems in sufficient detail to show equipment, fixtures, lighting, devices and distribution/gathering systems.
- (d) Outline specifications of principal materials, systems and equipment proposed for inclusion into the LOA. Provide a schedule of proposed finishes.
- (e) Updated estimate of the probable Construction Cost (ROM) of the LOA in sufficient detail to demonstrate its inclusiveness and the proposed level of quality throughout all aspects of the LOA.
- (f) Submittals will be subject to a commissioning design review. As part of supporting this review, the Design Team will review and respond to the Commissioning Review comments. As necessary, the Architect/Engineers and their subconsultants will attend a meeting to review and discuss the Commissioning Review comments.

**Revisions.** The Architect/Engineer will make modifications to the Phase I Design Documents as may be required to obtain approval of the City and submit to the City the set of revised Phase I Design Documents.

### **3. PHASE II SERVICES: CONTRACT DOCUMENTS**

Architect/Engineer will proceed with the Phase II Contract Documents for a LOA upon the City's written approval of the Phase I Design for such LOA and upon City's written authorization to proceed. Documents suitable for solicitation of competitive construction bids, for incorporation into a contract for construction of the LOA, and will make clarifications and revisions necessary to obtain the building permit. Contract Documents are those Documents prepared for the purpose of obtaining bids and guiding the construction of the LOA. Contract Documents will generally include but not be limited to the following:

- (a) Drawings of plans, elevations, sections and details defining the dimensions and spatial relationships of all elements of the LOA.
- (b) A written Project Manual, which includes bidding requirements, sample forms, conditions of the construction contract and specifications. The City will provide the Architect/Engineer bidding requirements, sample forms and conditions of the construction contract for Architect/Engineer's inclusion in the Project Manual. Specifications will define the general requirements for the LOA, written descriptions of the technical nature of materials, equipment, construction systems, standards and workmanship. The Architect/Engineer will not include in either the general requirements or in other technical specification sections requirements that conflict with the bidding requirements, sample forms and conditions of the construction contract provided by the City. Dollar allowances will not be used in the Project manual.

- (c) To the extent practicable for each item that requires a specific designation, the Architect/Engineer will specify the products of at least three manufacturers of each material and manufactured item acceptable for use in the LOA.
- (d) The specifications will also provide means by which the successful bidder can submit for approval products other than those specified which it considers equivalent to those specified in quality, including durability, serviceability, design, appearance, function, finish, performance, size and weight. The Architect/Engineer will advise the City as to whether or not products other than those listed in the specifications are equivalent to the products listed, and meet or exceed the minimum performance requirements.
- (e) The Architect/Engineer will attend review conferences with the Director and such others as the Director may designate to obtain the City's approval of the development of the Contract Documents.
- (f) The Architect/Engineer will advise the City of any adjustments to previous estimates of Construction Cost indicated by changes in the requirements or general market conditions.
- (g) The Architect/Engineer will, on behalf of the City, file all applications and Documents necessary to obtain approval from any and all governmental authorities having jurisdiction over the Project. This will include, but not be limited to, submittal of drawings to the Texas Department of Licensing and Regulations, TAS/ADA Architectural Barriers Section for review, and Building Permit application. The Architect/Engineer will provide the City with copies of Proof of Submission and Proof of Inspection filings.
- (h) The Architect/Engineer and Architect/Engineer's subcontractors will attend the Pre-Bid Conference and respond to bidders' questions. If required, the Architect/Engineer will issue Addenda to the Contract Documents during the bid period as necessary to respond to bidders' questions and to make clarifications. The Architect/Engineer will evaluate bids and bidders only when the City requests such evaluations in writing.
- (i) A written Project Manual, which includes bidding requirements, sample forms, conditions of the construction contract and specifications, will be submitted with every monthly invoice. The City will provide the Architect/Engineer bidding requirements, sample forms and conditions of the construction contract for Architect/Engineer's inclusion in the Project Manual. Specifications will define the general requirements for the LOA, written descriptions of the technical nature of materials, equipment, construction systems, standards and workmanship. The Architect/Engineer will not include in either the general requirements or in other technical specification sections requirements that conflict with the bidding requirements, sample forms and conditions of the construction contract provided by the City. Dollar allowances will not be used in the LOA manual.

**Procurement/ Bid Process.**

The Architect/Engineer will participate in the Procurement process during the bidding and selection of the Contractor as required.

#### 4. PHASE III SERVICES: CONSTRUCTION

- A. The Architect/ Engineer will provide professional services during construction to assist in obtaining a completed Project in accordance with the purpose and intent of the Construction Documents. Architect/ Engineer will proceed with the Phase III Construction Services upon receipt of the City's written authorization to proceed. These services include, but are not limited to, the following:
- (1) The Architect/Engineer will present recommendations to the City as to the advisability of, or the need for, any of the Additional Services set out in **Section 2.6** thereof; and, upon the City's approval of such services will plan and supervise such Additional Services in relation to the Architect/Engineer's other tasks.
  - (2) Unless otherwise provided in this Contract, the Architect/Engineer will provide limited administration of the construction contract as set forth below.
  - (3) The Architect/Engineer will be a consultant of the City during Phase III Construction Services, and will advise and consult with the City. Instructions to the Contractor by the City will also be sent to the Architect/Engineer. The Architect/Engineer will have authority to act on behalf of the City only to the extent provided in this Contract.
  - (4) The Architect/Engineer will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed in writing by the City and the Architect/Engineer, to become generally familiar with the progress and quality of the work and to determine, in general, if the work is proceeding in a manner indicating that the work when completed will be in accordance with the Contract Documents. The Architect/Engineer will furnish to the City written reports of its on-site observations regarding the progress and quality of the work. However, the Architect/Engineer will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the work. On the basis of such on-site observations, the Architect/Engineer will keep the Director informed of the progress and quality of the work, and will notify the City immediately in writing, of any defects and deficiencies in the Contractor's work and work that is not performed in accordance with Contract Documents.
  - (5) The Architect/Engineer will review the Commissioning Provider's Site Observation Reports, and address any identified need for further clarification of intent.
  - (6) The Architect/Engineer will further support the Commissioning Process in the following ways:
    - (a) Respond to Commissioning RFIs within two weeks of posting on the Commissioning Management Portal.

- (b) Regularly review the Commissioning Provider's Log of Submittal Comments during scheduled Construction Progress Meetings, and respond to comments or questions regarding Commissioning requirements that need to be addressed.
  - (c) During Owner Training, provide a one to two-hour session to HAS O&M staff describing the primary concepts in Basis of Design narrative and the reasons for any deviations from it. A quarter portion of the time allotted for presentation will be reserved for questions from the audience. A provision in the specifications will be inserted to account for this presentation in the CM's management of the training program.
- (7) The Architect/Engineer will not have control or charge of and will not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work, which are solely the Contractor's responsibility under the construction contract. Except as otherwise provided herein, the Architect/Engineer will not be responsible for the Contractor's schedules or failure to carry out the work in accordance with the Contract Documents. Except as otherwise provided herein, the Architect/Engineer will not have control over or charge of acts or omissions of the Contractor, the Contractor's subcontractors, or the Contractor's agents or employees, or of any other persons performing any portions of the work.
- (8) The Architect/Engineer will at all times have access to the work wherever it is in preparation or progress.
- (9) The Architect/Engineer will attend conferences at the City site with the City representatives and such others as the City may designate, to assist the City in the administration of the Contract.
- (10) When requested by the City, the Architect/Engineer will assist the City in determining the amounts owing to the Contractor based on Architect/Engineer's on-site observations and on evaluations of the Contractor's Architect/Engineer Services, Contract applications for payment, and will recommend to the Director issuance of Contractor in such amounts, as provided in the Contract Documents.
- (11) The Architect/Engineer's approval of the Contractor's application for payment will constitute the Architect/Engineer's representation to the City that based upon the Architect/Engineer's on-site observations as provided in **Section 2.4.5** and upon the data comprising the Contractor's application for payment, that the work has progressed to the point indicated; and that, to the best of the Architect/Engineer's knowledge, information and belief, the quality of the work is in accordance with the Contract Documents. The foregoing representations are subject to an evaluation of the work for conformance with the Contract Documents upon Substantial Completion, to the results of any subsequent test required by or performed under the Contract Documents, to minor deviations from the Contract Documents correctable prior to completion, and to specific qualifications expressed by the Architect/Engineer. The

Architect/Engineer's approval of the Contractor's application for payment will further constitute a representation that the Contractor is entitled to payment in the amount certified. However, the Architect/Engineer's approval of the Contractor's application for payment will not be a representation that the Architect/Engineer has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the work, (2) reviewed copies of requisitions received from subcontractors and material suppliers and other data requested by the City to substantiate the Contractor's right to payment or (3) ascertained how or for what purpose the Contractor has used money previously paid pursuant to the Contract.

- (12) The Architect/Engineer will interpret the requirements of the Contract Documents. The Architect/Engineer will render interpretations necessary for the proper execution or progress of the work to the City with reasonable promptness upon written request of either the City or the Contractor; and, if requested by the City, will render written advice to the City within a reasonable time, on all claims, disputes and other matters in question between the City and the Contractor relating to the execution or progress of the work or interpretation of the Contract Documents.
- (13) Interpretations and advice of the Architect/Engineer will be consistent with the intent of, be reasonably inferable from the Contract Documents, and will be in written or graphic form. When making such interpretations and giving such advice, the Architect/Engineer will not show partiality to either City or the Contractor and will not be liable for the result of any interpretation or advice so rendered in good faith.
- (14) The Architect/Engineer will recommend to the City to reject work which does not conform to the Contract Documents. Whenever the Architect/Engineer considers it necessary or advisable for the implementation of the intent of the Contract Documents, the Architect/Engineer will recommend to the Director, to require special inspection or testing of the work in accordance with the provisions of the Contract Documents, whether or not such work be then fabricated, installed or completed. However, neither this authority of the Architect/Engineer nor a decision made in good faith either to exercise or not to exercise such authority will give rise to a duty or responsibility of the Architect/Engineer to the Contractor, Contractor's subcontractors, material and equipment suppliers, their agents or employees or other persons performing portions of the work.
- (15) The Architect/Engineer will review and recommend approval to the City or take other appropriate action upon Contractor's submittals such as shop drawings, product data and samples, but only for the limited purpose of checking for conformance information given and the design concept expressed in the Contract Documents. The Architect/Engineer's action will be taken with such reasonable promptness as to cause no delay in the construction of the LOA by the City or by separate contractors, while allowing sufficient time in the Architect/Engineer's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other



details such as dimensions and quantities or for substantiating instructions for installation or performance of equipment or systems designed by the Contractor, all of which remain the responsibility of the Contractor to the extent required by the Contract Documents. The Architect/Engineer's review will not constitute approval of safety precautions or, unless otherwise specifically stated by the Architect/Engineer, of construction means, methods, techniques, sequences or procedures. The Architect/Engineer's approval of a specific item will not indicate approval of an assembly of which the item is a component. When professional certification of performance characteristics of materials, systems or equipment is required by the Contract Documents, the Architect/Engineer will be entitled to rely upon such certification to establish that the materials, systems or equipment will meet the performance criteria required by the Contract Documents.

- (16) The Architect/Engineer will submit to the Director a schedule of colors and finishes for the LOA which the Architect/Engineer has selected from approved submittals. Wherever practicable, Architect/Engineer will supplement schedule of colors and finishes with color chips, swatches and samples. Provided the Contractor has submitted in a timely manner acceptable samples of products he proposes to use, the Architect/Engineer will submit a schedule of colors and finishes with sufficient lead time to permit a thirty (30) day review/approval period without risk of delay and the timely incorporation of the finishes, materials and similar items with other aspects of the LOA. During the review period, the Architect/Engineer will confer with the City and such others as the City may designate and make adjustment to the schedule of colors and finishes as necessary to obtain approval by the City.
- (17) The Architect/Engineer will review Contractor's requests and make recommendations to the City. When requested by the Director, the Architect/Engineer will prepare change orders for the Director's approval and execution in accordance with the Contract Documents, and will have authority, with the concurrence of the Director, to order minor changes in the work which do not involve an adjustment in the construction contract amount or an extension of the construction contract time for completion and which are not inconsistent with the intent of the Contract Documents. For the purpose of this section, "construction contract amount" will be that amount and "construction contract time" for completion will be that period as they appear in the Contract Documents initially or as they will have been lawfully and legitimately amended under the terms of that contract at the time of such Contractor's request.
- (18) The Architect/Engineer will conduct inspections to determine and recommend to the Director the dates of Substantial Completion and the date of final completion, and will receive and forward to the Director for the Director's review, written warranties, guarantees, releases, operating instructions and maintenance manuals, keys, equipment data and related documents required by the Contract Documents and assembled by the Contractor, and will approve the Contractor's application for final payment upon compliance with the requirements of the Contract Documents.

- (19) The extent of the duties, responsibilities, and limitations of authority of the Architect/Engineer will not be restricted, modified or extended without written notice by the City to the Architect/Engineer and Contractor.
- (20) Architect/Engineer will continuously update the Model to include RFI's, HAS requested changes, changes provided by the Construction Contractor, HAS Shared Parameters values, coordination with existing conditions, and other design modifications affecting the Model. After receiving the As-Built drawings and As-Built Models from the Construction Contractor, the Architect/Engineer will update the BIM Design Model to deliver the final Record Model to HAS as part of project closeout documents. Prior to final payment of Phase III Construction Services, the Architect/Engineer will furnish to the City the Record Documents, including reproducible drawings, stamped "AS BUILT" Revit Model, AUTOCAD files, PDF and any file option, but not limited to a hard drive or a flash drive depending on the project size. The digital files will reflect all changes in the work including changes in scope made during construction. The Architect/Engineer will be able to rely on the accuracy of such changes and other information supplied by the Contractor and will not be required to perform studies to determine the completeness of such recorded changes, if any, supplied by the Contractor.

## **5. PHASE IV SERVICES: POST-CONSTRUCTION**

The Architect/Engineer will inspect the project site in the company of the Contractor, and the City or such others as the City may designate, no less than thirty (30) days and no more than forty-five (45) days prior to the expiration of the one-year general construction warranty established in the Contract Documents. On or before the 7th day after such inspection, the Architect/Engineer will furnish the City a written report identifying items which require repair or replacement under the general construction warranty provisions of the Contract Documents.

## **6. BIM PROVISIONS**

### **Definitions**

- i. Design Model: Model created and developed by the Architect/Engineer and used to develop the project design.
  - ii. Construction Model: Model created by the construction team from the Design Model and used to develop and fulfill the construction needs
  - iii. As-Built Model: Model prepared by the construction team and will be used to show on-site changes to the original Construction Model
  - iv. Record Model: Model reflecting As-Built conditions at the prescribed level of development (LOD), prepared by the Architect/Engineer from the Design Model and must reflect on-site changes noted in the As-Built Models and associated As-Built Drawings.
- B. Architect/ Engineer will use BIM technologies and methods to create Project design and record models, documents and drawings; respecting HAS CAD/Geospatial Standards and HAS BIM Standards when required by the Director. BIM execution

plan will explain in detail the Project BIM utilization. Requirements by the Director may include, but is not limited to the following:

- (1) Meet the standards prevailing in the current Houston Airport System Design Standards Manual. All projects submitted by the Architect/Engineer will comply with the current HAS' Design Standards Manual, unless a variance is formally approved by the Change Review Committee.
- (2) BIM projects will comply with the HAS BIM Standard Manual.
- (3) BIM Model will meet the HAS Shared Parameters requirements and all HAS BIM requirements as well. BIM Model will contain all HAS required parameters as a minimum, accurately, comprehensively, and available for delivery to the EAMS. The Architect/Engineer will create, share with its consultants, and update the HAS Shared Parameters in the BIM Design Model and Record Model.
- (4) The Architect/Engineer will input and update in the BIM Model, the components the equipment barcodes generated by HAS.
- (5) Meet the requirements prevailing in the current Houston Airport System Shared Parameters. Their primary purpose is to capture project information for the building lifecycle and end-user applications. The HAS Shared Parameters are standardized parameters, provide value naming and Asset Naming Conventions, and help avoid confusing information and losing crucial data. As a minimum requirement, BIM Model will contain all HAS required parameters accurately, comprehensively, and available for delivery to the HAS EAMS.
- (6) At regular predetermined intervals throughout the design and construction phases, HAS will require the Architect/Engineer to submit BIM Model and/or CADD/Geospatial in HAS' EDMS as contract deliverables, as determined by requirements in the HAS BIM Standards Manual. EDMS submissions will comply with the current HAS BIM Standards Manual.
- (7) Design Models will be submitted electronically at each deliverable milestone in their native authoring format plus in a PDF format as any prescribed deliverable format. All supporting files including, but not limited to, MEP analysis, building performance, LEED calculation, GIS analysis tools, AIRTOP Terminal, Life Cycle Analysis, and other documents to create design submittal will be submitted in their native authoring format along with a PDF format as well. The Design Model will be authored, maintained, and kept accurate at all times by the Architect/Engineer during the design phases. The Architect/Engineer in collaboration with the team, will coordinate the Design Model in order to eliminate or minimize conflicts between design elements. Before every transmittal, the Architect/Engineer will coordinate the Design Models and check for clashes between model elements using the interference check tool. The Architect/Engineer will be responsible for presenting and documenting interference checks/clashes and resolutions during the design phases. The Architect/Engineer will oversee the review of interference checking reports and note areas that require further coordination or redesign.
- (8) Record Model: also known as a BIM Handover Model, is a digital representation of a building or infrastructure project that documents its completed state,

incorporating all As-Built information and relevant data required for Operation and Maintenance throughout the building's lifecycle. The Model is prepared by the Architect/Engineer from the Design Model and must reflect onsite changes, deviations, and feedback noted in the As-Built Models and associated As-Built Drawings at the prescribed level of development (LOD). The Record Model must, at a minimum, contain the HAS required systems information, comply with the HAS BIM requirements, and the HAS BIM Standard Manual. The Record Model will contain the same LOD and level of information as prescribed in the Design and Construction Model. Otherwise, it should be noted in the BPxP.

- (9) Any documents created by the Architect/Engineer or its subcontractors for the Work will become the property of the City upon their creation. In the event this transfer of ownership is ineffective for any reason, the City is hereby granted an irrevocable, non-exclusive, perpetual, royalty-free license to use said documents in conjunction with the Project. This provision will be in all contracts awarded by the Architect/Engineer, and the Architect/Engineer will require the provision in all contracts of lower tiers. BIM is a product of collaboration with many data types input from different sources. The City will take ownership of the final Model output and the BIM data contained in the Model. It includes, but is not limited to BIM Model, Construction Documents, renderings, calculations, Revit families, CAD files, Facility Data, videos, design tools, drawings, specifications, simulations of building and Model performances, etc. The City will have exclusive rights to use, edit, reproduce any portion, share with other stakeholders, modify, or transmit the BIM Model and its contents for Model re-use, avoidance of re-work, maintenance, operation, and future renovations.
- (10) The EDMS will be used by the Architect/Engineer and other Project participants as the medium for and repository for, but not be limited to, the following: formal communications (such as letters, memoranda, transmittals); notices; meeting minutes; emails in pdf format; records of project performance (e.g. daily reports, monthly reports, technical queries (TQ), requests for information (RFI), change and variation requests, change and variation orders, deficiency notice (DN), non-conformance report (NCR), non-compliance notice (NCN), photographs, videos, recordings, method statements, workflow processes, all submittals and deliverables, and documentation related to tracking and resolution of issues, risks, and actions). Note, also recommend including verbiage that indicates the EDMS is as dictated by management and the Work is produced in the City's EDMS
- (11) All notices required or permitted hereunder will be in writing and will be deemed received when actually received or no later than the day after the notice has been posted in HAS' electronic document management system ("EDMS"), whichever is earlier. If HAS' EDMS is not operable and Architect/Engineer otherwise agree, the parties may send notice via or by hand delivery to the other party. If transmittal is via the United States Postal Service, receipt of the notice will be deemed to have occurred on the third day following deposit in a United States Postal Service post office or receptacle with proper postage affixed (certified mail, return receipt requested) addressed to the other party at the address prescribed in the preamble hereof or at such other address as the receiving party may have theretofore prescribed by notice to the sending party.

## **7. CONSTRUCTION COSTS DEFINITION**

- (1) The Construction Cost will be the actual cost to the City of all elements of the LOA designed or specified by the Architect/Engineer.
- (2) Estimates of Construction Cost will include (1) the cost, at current market rates, of labor and materials furnished by the City, (2) equipment designed, specified, selected or specially provided for by the Architect/Engineer, (3) City building permit fees, and (4) a reasonable allowance for the cost of construction, including the Contractor's overhead and profit. In addition, a reasonable allowance for contingencies will be included for market conditions at the time of bidding.
- (3) Construction Cost does not include the compensation of the Architect/Engineer and the Architect/Engineer's subcontractors, the cost of the land, rights-of-way, or other costs which are the responsibility of the City as provided in **Article 3**.

## **8. RESPONSIBILITY FOR CONSTRUCTION COST**

A. Evaluations of the City's LOA budget, preliminary estimates of Construction Cost and detailed estimates of Construction Costs, if any, prepared by the Architect/Engineer, represent the Architect/Engineer's best judgment as a design professional familiar with the construction industry. It is recognized, however, that neither the Architect/Engineer nor the City has control over the cost of labor, materials or equipment, over the Contractor's methods of determining bid prices, or over competitive bidding or market conditions. Accordingly, the Architect/Engineer cannot and does not warrant or represent that bids will not vary from the LOA budget proposed, established or approved by the City, if any, or from any estimates of Construction Cost or evaluation prepared by the Architect/Engineer.

- (1) When a Maximum Total Construction Cost is established as a condition of this Contract in **Section 2.1.6** or at any time prior to the taking of bids, the Architect/Engineer will be permitted to include contingencies for design, bidding and price escalation, to determine what materials, equipment, component systems and types of construction are to be included in the Contract Documents, and, with written approval of the Director, to make reasonable adjustments in the scope of the LOA, or to include in the Contract Documents alternate bids to adjust the Construction Cost to the specified Maximum Total Construction Cost.
- (2) If bidding has not commenced within 6 months after the Architect/Engineer submits the Contract Documents to the City, any LOA budget or Maximum Total Construction Cost may, when warranted in the opinion of the Director, be adjusted to reflect any change in the general levels of prices in the construction industry between the date of submittal of the Contract Documents to the City and the date on which bid proposals are sought.

## **9. EXPENSES**

### **A. DIRECT PERSONNEL EXPENSE**

Direct Personnel Expense is defined as the direct salaries of the Architect/Engineer and all of the Architect/Engineer's personnel directly engaged on the LOA, plus the portion of the cost of their mandatory and customary contributions and benefits related

thereto, such as employment taxes and other statutory employee benefits, insurance, sick leave, holidays, vacations, pensions and similar contributions and benefits. For the purpose of this Contract the cost of such contributions and benefits is established as equal to **25%** direct salaries. Direct salary rates for the duration of this contract are shown on **Exhibit A** attached hereto and, by reference, incorporated.

## **B. REIMBURSABLE EXPENSES**

A maximum amount for each Reimbursable Expense will be proposed by the Architect/Engineer at the time that services requiring such expenses are requested by the Director and will be negotiated and agreed upon by the Architect/Engineer and the City prior to the expenses being incurred. The compensation for each such Reimbursable Expense will never exceed this agreed upon maximum amount. If authorized in advance in writing by the City, Reimbursable Expenses will be paid in addition to for Basic and Additional Services and include actual expenditures made by the Architect/Engineer and the Architect/Engineer's employees and subcontractors, including any sales tax Architect/Engineer is legally required to pay, in the interest of the LOA while performing services requested by the City. The City may approve the following reimbursable expenses:

(a) If authorized in advance by the Director, the expense of travel costs in connection with out-of-town travel to and from point outside the greater Houston area by representatives of the Architect/Engineer, not to exceed the amounts established in the City's then current travel reimbursement policy for its employees, long distance communications, and fees paid for securing approval of authorities having jurisdiction affecting the LOA;

(b) Expense of reproductions, postage and handling of drawings, specifications and other Documents, excluding reproductions for the office use of the Architect/Engineer and the Architect/Engineer's subcontractors, two (2) sets of Submittal Documents required by this Contract for the Phase I reviews by Director, two (2) sets of Submittal Documents required by this Contract for the Phase II reviews by Director, plus not more than two (2) sets containing corrections or revisions required by the City as a result of Phase I or Phase II reviews;

(c) If authorized in advance by the Director, the expense of overtime work requiring higher than regular rates.

(d) If authorized in advance by the Director, the expense of renderings, models and mock-ups.

(e) If authorized in advance by the Director, the expense of filing documents for governmental approval under Sections 2.2.1(e) and 2.3.6, except for building permits, required for the Project.

### C. ADDITIONAL SERVICES.

A. The following Additional Services will be performed by the Architect/Engineer, if authorized by the City, in addition to Architect/Engineer's Basic Services and will be paid for by the City as provided for in **Section 7.6** of this Contract, in addition to the compensation for Basic Services. Additional Services will only be provided when necessary and related to the purposes of this Contract, when authorized in writing by the City, and when sufficient funding has been allocated for such services.

(1) Additional Services may include, but is not limited to, the following:

- (a) Providing analyses of the City's needs, and programming the requirements of the LOA beyond the scope of services provided in **Section 2.2.2**.
- (b) Providing financial, feasibility or other special studies related to an LOA.
- (c) Providing planning surveys, site evaluations, environmental studies or comparative studies of prospective sites, and preparing special surveys, studies and submissions required for approvals of governmental authorities or others having jurisdiction over the Project related to an LOA.
- (d) Providing services relative to future facilities, systems and equipment which are not intended to be constructed during the Phase III Construction Services.
- (e) Providing services to investigate existing conditions or facilities or to make measured drawings thereof, or to verify the accuracy of drawings or other information furnished by the City.
- (f) Preparing Documents for alternate, separate or sequential bids or providing extra services in connection with bidding, negotiation or construction prior to the completion of the Phase II Construction Documents, when requested by the City.
- (g) Providing detailed estimates of Construction Cost beyond the scope of estimate of Construction Cost based on current area, volume, or similar unit costs as required in **Sections 2.2.3(e), 2.3.5 and 2.3.7**; and providing analyses of owning and operating costs, or detailed quantity surveys or inventories of material, equipment and labor.
- (h) Providing interior design and other similar services required for or in connection with the selection, procurement or installation of furniture, furnishings and related equipment. (i) Providing services for planning leased tenant or rental spaces.
- (j) Making revisions in drawings, specifications or other Documents when such revisions are inconsistent with written approvals or instructions previously given, or during work, making revisions to the Contract Documents required by the enactment or revision of codes, laws or regulations subsequent to the preparation of such Documents or due to other causes not within the control of the Architect/Engineer.

- (k) Preparing drawings, specifications and supporting data and providing other services in connection with a change to approved Phase II Contract Documents to the extent that such services are in excess of the Basic or other Additional Services required of the Architect/Engineer pursuant to this Contract and provided such changes are not necessitated by an act of error and/or omission of the Architect/Engineer. In the event a change order is caused by an act of error and/or omission of the Architect/Engineer, the Architect/Engineer will be required to prepare such drawings and specification and supporting data at no expense to the City.
- (l) Making investigations, surveys, valuations, inventories or detailed appraisals of existing facilities and services required in connection with construction performed by the City.
- (m) Providing consultation concerning replacement of any work damaged during construction by fire or any other cause not under the Architect/Engineer's control, and furnishing services as may be required in connection with the replacement of such work.
- (n) Providing services made necessary by the default of the Contractor, or by major defector deficiencies in the work of the Contractor, or by failure of performance of either the City or Contractor under the contract for construction.
- (o) Providing extensive assistance in the utilization of any equipment or system such as initial start-up or testing, adjusting and balancing, preparation of operation and maintenance manuals, training personnel for operation and maintenance, and consultation during operation.
- (p) Providing services of subcontractors for other than the normal Architect/Engineer services, and civil Design Consulting, structural Design Consulting, mechanical Design Consulting and electrical Design Consulting services for the LOA.
- (q) Providing additional construction phase services in the event that (i) the number of calendar days stipulated in the Contract Documents for Substantial Completion is exceeded due to no fault of the Architect/Engineer or (ii) the number of calendar days allowed for Substantial Completion under the Contract Documents is increased beyond the time period in Section 7.5.1 by change order due to no fault of the Architect/Engineer.
- (r) Providing inspection of the LOA in the company of the Contractor, and the City, or such others as the City may designate, no less than thirty (30) days and no more than forty-five (45) days prior to expiration of any special LOA warranty, but after expiration of the one-year general construction warranty established in the Contract Documents. On or before the seventh (7th) day after such inspection, the Architect/Engineer will furnish the Director a written report enumerating items which require repair or replacement under the special LOA warranty provisions of the Contract Documents.



- (s) Providing land survey services to supplement any legal description and site information provided by the City and to include, but not be limited to, as applicable to the LOA, grades of streets, alleys, pavements and adjoining property; rights-of-way, restrictions, easements, encroachments, deed restrictions and contours of the site, locations, dimensions and complete data pertaining to existing buildings, other improvements and trees; and information concerning available services and utility lines both public and private, above and below grade, including inverts and depths in accordance with LOA requirements. The Architect/Engineer will commission a survey to be prepared by a registered land surveyor acceptable to the Director. The survey will be signed and sealed by the registered land surveyor.
  - (t) Providing geotechnical investigation and Design Consulting services required for the design  
the LOA. Such services may include, as applicable to the LOA, test borings, test pits, soil bearing values, percolation tests, and similar investigations and Design Consulting services with reports and appropriate recommendations in accordance with the LOA requirements. The Architect/Engineer will commission a geotechnical investigation to be completed by a registered geotechnical subcontractor acceptable to the Director. The geotechnical report and appropriate recommendations will be signed and sealed by the registered geotechnical Architect/Engineer.
  - (u) Providing Cultural Resource Reconnaissance or Surveying services as defined in the **General Rules of Practice and Procedures, Chapter 41 of the Texas Antiquities Committee**, to supplement the site information provided by the City and to identify potential historic or prehistoric sites in LOA areas to be affected by improvements planned as part of the LOA. The reconnaissance will be conducted in accordance with procedures promulgated by the Texas Antiquities Committee in conformance with the Antiquities Code of Texas and signed by a professional archaeologist acceptable to the Texas Antiquities Committee and the Director. For the purposes of this Contract, the Director or his delegate is authorized to approve the archaeologist's permit applications for such Cultural Resource Reconnaissance or Surveys on behalf of the City.
  - (v) Providing data processing and photographic production techniques when used in connection with another Additional Service.
  - (w) Providing other professional services beyond the scope of Basic Services of this Contract which are necessary and related to the purposes of this Contract.
- (2) Whenever the Architect/Engineer, in the course of performing Basic Services, is required to present recommendations to the Director with respect to the advisability of, or the need for, any Additional Service, such recommendation will include a recommended scope for the Additional Services and the recommended fee and expenses. If the Architect/Engineer recommends subcontract services, the recommendation will also include the names of the subcontractor(s) recommended by the Architect/Engineer. A maximum fee for each such subcontractor's service will be proposed by the Architect/Engineer at the time Additional Services requiring such expenses are requested by the City and will

be negotiated and agreed upon by the Architect/Engineer and the City prior to the expense being incurred. The compensation for each such subcontractor's service expense will never exceed this agreed upon maximum amount.

#### **D. TIME**

A. The Architect/Engineer will perform Basic and Additional Services as expeditiously as is consistent with professional skill and care, and the orderly progress of the work. Upon issuance of the LOA, the Architect/Engineer will submit for City's approval a calendar schedule of Architect/Engineer's services not exceeding the time limits set out in the LOA, and which will include allowances for periods of time required for City's review and for approval of submissions by authorities having jurisdiction over a project related to a LOA. Time limits established by this schedule approved by Director will not, except for reasonable cause, be exceeded by Architect/Engineer or by the City.

B. Upon receipt of written authorization from the City to proceed, the Architect/Engineer agrees to perform the services and furnish to the City items called for in **Section 2.5** (Phase IV Post-Construction Services) of this Contract within the time specified in **Section 2.5.2** of this Contract.

C. Extensions of any of the time-of-performance commitments by the Architect/Engineer as set out in an LOA will be granted only by the City, in written form, and will have the same force and effect as the time-of-performance commitments originally stated herein.

The Architect/Engineer acknowledges and agrees that any services it provides to the City after the completion date established in the LOA schedule, unless an extension of time has been granted, will be deemed to be gratuitously provided, and the City will have no obligation to pay for such services unless the City Council approves an agreement to do so in its sole discretion.