

The University of Texas MD Anderson Cancer Center
Exhibit A to Facilities Condition Assessment Agreement No. _____
Scope of Services

1) General

- a) Services Provider will conduct inspections to make a detailed comprehensive assessment of Owner's facilities as specified herein to produce an accurate analysis that identifies all systems and components thereof requiring maintenance or planned action. Thorough inspections will be required for all assigned facilities. Statistically implied data may not be substituted for the actual inspections. Generally, the assessment shall be based upon standards established in ASTM E2018-08. However, some elements may be more stringent than the ASTM Guidelines. Services Provider is required to disclose elements of work that exceed or do not meet the ASTM E2018-08 standards. The services shall also include a proposed means of correcting existing and anticipated future deficiencies or renewal costs, the estimated cost of correcting the deficiencies, and a plan to strategically and efficiently reduce the current list of facilities maintenance, renewal, and adaptation items.
- b) All Facilities Condition Assessments must be conducted in such a way and at such times as to avoid disrupting the on-going operations of the center. The fee for this work shall include working around Owner's ongoing operations. Normal working hours may vary and will be defined for each building type.
- c) The Facilities Condition Assessment will not include any disassembly or special testing equipment, but shall include a thorough visual inspection of all reasonably accessible equipment and building components. It is expected that the Services Provider will, for example, lift ceiling tiles in suspended ceilings, enter into air plenums, crawl under floors, and open access doors to reveal hidden equipment and building components that are integral to the Facilities Condition Assessment (as determined by Owner).
- d) Prior to the completion of the pilot phase of the Facilities Condition Assessment, Services Provider shall provide training to Owner's employees in each of the subsystems covered under the Facilities Condition Assessment. This training shall be accomplished by allowing these employees to work with Services Provider's inspectors for at least five (5) days each. Owner also reserves the right to accompany, work with or accompany and work with the Services Provider at any time during any of inspections associated with the Facilities Condition Assessment.
- e) Services Provider shall provide a "scrub report" at a point where a small percentage of the portfolio has been assessed. This report shall show data at the detailed level and shall allow demonstration of all summary level roll-ups. Owner shall be given an opportunity to review/comment/approve this report before additional assessments are performed.

- f) It is anticipated that the services to be provided under this Agreement will be spread over three fiscal years. However, Services Provider shall have the ability to accelerate the work to one year if required by Owner. Work under Owner's 2016 fiscal year will begin within 30 days of the execution of the Agreement.
- g) Services Provider shall establish an integrated program, systems, and procedures to provide Owner with a means to update the data and continue using it for developing facilities maintenance, renewal, and adaptation plans.
- h) Time is of the essence in the performance of Services Provider's duties. Failure of the Services Provider to notify Owner sufficiently in advance of Services Provider's inability to complete within the delivery schedule, shall grant Owner the option of terminating the Agreement or the Assessment Project, purchasing from the best available source, and charging the Services Provider the difference between the Contract price and actual purchase, if any, plus cost of handling. Notwithstanding the foregoing, Owner shall have no obligation to accept late performance or to waive timely performance by Services Provider.

2) Services Required

- a) The Facilities Condition Assessment shall focus on distinct building systems and the components thereof as agreed upon by Owner and shall be categorized accordingly, as set forth below. Each deficiency and project recommended to address a deficiency shall be identified within one of these categories. All reporting, summaries, totals, and models shall illustrate each of the categories individually. Additionally, all deficiencies and recommended projects noted shall reference the designated asset or room / building number as assigned within Owner's CMMS system or space management program (FMSpace).
- b) Owner's building systems generally include, but are not necessarily limited to, the following:
 - i) Site and Grounds
 - (1) Municipal Utilities: sanitary sewer, site drainage and storm water management
 - (2) Mechanical Utilities: water service(s), natural gas service and steam distribution
 - (3) Electrical Utilities: primary electrical service(s), transformers (internal), substations and distribution
 - (4) Exterior lighting systems
 - ii) Architectural
 - (1) Building exterior, windows (strategically sampled) and doors
 - (2) Roof
 - (3) Fire/life safety issues
 - iii) Mechanical Systems
 - (1) Boilers, heat exchangers, steam and condensate systems, pressure reducing stations, DA & receiver tanks

- (2) Chillers and cooling towers
 - (3) Plate & frame heat exchangers
 - (4) Process cooling equipment serving Imaging equipment and other specialty systems
 - (5) Pumps and piping
 - (6) Building automation controls (DDC and pneumatic)
 - (7) Air handlers and VAV/CV systems, including terminal units
 - (8) Package RTU and DX systems
 - (9) Exhaust and pressure controls for operating rooms, isolation rooms, laboratories, vivarium areas, etc.
 - (10) Air systems – supply, return, exhaust ductwork
 - (11) Precision cooling units/systems (Liebert, glycol chiller etc...)
 - (12) Exhaust fans rated greater than 3 HP.
 - (13) Fire protection systems and controls (smoke, fire, fire/smoke dampers)
- iv) Electrical Systems
- (1) Primary and secondary service gear
 - (2) Secondary switch gear
 - (3) Distribution panels (need to upgrade or relocate)
 - (4) Load centers
 - (5) Panel boards
 - (6) Emergency generators, fuel storage tanks
 - (7) Capacity to operate building on generator power
 - (8) Automatic transfer switches
 - (9) UPS systems
 - (10) Lightning protection, TVSS
 - (11) Transformers (supply and demand side)
 - (12) Fire detection and alarm systems
- v) Communication & Security Systems
- (1) Hazardous gases, alarms and monitors
 - (2) Nurse call & paging systems
- vi) Plumbing Systems
- (1) Sanitary and storm water piping systems including ejector pumps
 - (2) Grease interceptors
 - (3) Domestic hot and cold water piping, valves and insulation
 - (4) Domestic water booster pumps and break tanks
 - (5) Domestic water heaters and pumps
 - (6) Medical and laboratory gas systems
 - (7) Fire water storage tank, fire pumps, jockey pumps
 - (8) Standpipe riser systems
 - (9) Automatic sprinkler systems
 - (10) Fire protection systems:20 and 50 year inspection per NFPA 25
 - (11) Chilled water piping, insulation and valves

- (12) Outgoing sanitary sewer
- (13) Incoming water lines
- (14) Central water softening equipment
- (15) Central de-ionized water and reverse-osmosis water systems
- (16) Specialized systems (e.g. Liquitech, pneumatic tube (PEVCO))

vii) Conveyance

- (1) Elevators
- (2) Escalators

c) The results of each Facilities Condition Assessment shall also categorize each cited deficiency to align to one of the following types according to the definition provided below (or as otherwise agreed upon by Owner). All reporting, summaries, totals, and models must illustrate these four types of deficiency categories individually.

i) **Deferred Maintenance:** Refers to expenditures for maintenance activities which were not accomplished as a part of normal maintenance or capital repair which have accumulated to the point that facility deterioration is evident and could impair the proper functioning of the facility. Costs estimated for deferred maintenance projects should include compliance with applicable codes even if such compliance requires expenditures additional to those essential to affect needed repairs. Deferred maintenance projects represent catch up expenses.

ii) **Facilities Renewal:** This category is defined as the systematic renovation or replacement of building equipment or a subsystem that has reached the end of its predictable lifecycle. This would include such items as roof, HVAC equipment replacement, as well as piping domestic water and sewage, drainage systems, or Facility Refresh projects which address the aesthetic condition of the facility. The primary focus of this category is to maintain the ability of a facility to support the function for which it was originally intended.

iii) **Facilities Adaptation:** Expenditures required to adapt the physical plant to the evolving needs of the institution and to changing standards. These are expenditures in addition to normal maintenance. Examples include compliance with changing codes (e.g., ADA accessibility), facility alteration required by changed teaching or research methods, and improvements occasioned by the adoption of modern technology (e.g., addition of wireless networks).

iv) **Energy Conservation:** Energy conservation opportunities within the facilities are to be identified as projects. The estimated simple payback in years and the annual cost avoidance must be calculated and reported for each energy conservation project. All reporting, summaries, totals, and models must illustrate potential as well as realized energy savings.

- d) The Facilities Condition Assessment will identify building and life safety code deficiencies (i.e. ADA compliance, fire protection, occupancy and egress deficiencies, etc.). All applicable national and local codes must be utilized to determine these deficiencies. Each cited deficiency must include identification of the particular code/year edition/chapter/section of the building standard being violated. This is to include code issues that surface or will be triggered because of major building renovations. Due to the different ages of interconnected buildings on the campus, Services Provider must confirm the appropriate codes for each building and each floor.
- e) In addition to observed facilities deficiency conditions, Owner-supplied facility condition data shall be incorporated into the facility database, and subsequently incorporated into all analytical studies and reporting. All Owner-supplied facility condition data will be identified as such. This data may include:
 - i) Engineering studies
 - ii) Roofing inspections
 - iii) Hazardous materials audits
 - iv) Air and water quality studies
 - v) Accessibility studies
 - vi) Previous assessments
 - vii) Fire and Life-Safety studies
- f) All Facilities Condition Assessments shall include any actions anticipated within Owner's Fiscal Year 2016 through 2026 time frame. (Owner's fiscal years run from September through August.)
- g) All deficiencies must be ranked by Priority Class. At least four priority classes, in addition to "Code/Life Safety Violation" must be defined and must be approved by Owner.
- h) For each deficiency identified in the Facilities Condition Assessment, a means of correcting the condition shall be developed as a project. Each correction shall detail a full description of work required. Services Provider shall develop a cost estimate for each deficiency using the most recent version of R.S. Means Corporation's published construction and remodeling cost estimating data and format, and a regional adjustment factor provided by Owner. When appropriate, multiple correction options shall be developed indicating the range of possible corrective measures and the associated costs. If more than one approach is presented, only the cost for the preferred approach shall be used in preparing cost totals. A means of updating cost estimates shall be included.

- i) Each deficiency must include, and be sortable and group-able by the following fields:
 - i) Priority classification
 - (1) Severe – Items that require immediate action to remediate deficiencies in life safety, building and electrical codes, Joint Commission deficiencies or to return a facility to normal operation.
 - (2) Critical – Items that should be corrected within 2 years or less to maintain the integrity of the facility in order to mitigate rapid deterioration of the building, the development of safety hazards (potential life safety hazards) and intermittent interruption to operations.
 - (3) Moderate – Items that are functioning but that have surpassed their useful life cycle. These would fall into a 3-5 year replacement bracket, have a lower risk of negatively impacting operations than critical deficiencies and could be associated with contributing to future damage or higher costs if deferred.
 - (4) Recommended – Items that would bring the facility to a desired or recommended state, increase operational efficiency and reduce long term O&M costs. This also may include items that do not conform to existing codes, which are “grandfathered” in their existing condition and may require substantial renovation in the future to correct.
 - ii) Unique identifier, which is to be developed as a “smart tag” to be developed to include building number, year, month, issue identified and item (e.g. 100K.201410.001).
 - iii) Building System Category (Site, Exterior Structure, etc. consistent with paragraph 2) b), above.)
 - iv) Specific Building Code or Life Safety Code violation or application
 - v) Specific project extent (floor wide, item only, etc.)
 - vi) Building name/Building number – Building ID (using standard building definitions table provided by Owner)
 - vii) Occupancy
 - viii) Building type
 - ix) Building location
 - x) Type of correction
 - xi) Construction Specification Institute (CSI) Masterformat 2014 and Unifomat code where applicable

- xii) Estimated Cost of Repair, which shall include clarification as to what is and what is not included as part of the estimated repair cost
 - xiii) Deficiency type
 - xiv) Priority classification
 - xv) Equipment Asset Number – asset numbers from any asset included in the assessment shall be documented in the database.
- j) Each deficiency shall also have a detailed narrative description of each corrective project describing the condition needing to be corrected, the corrective action required, any affect the project may have on building occupancy and maintainability, and the likely reasons the original condition occurred.
 - k) Photographs shall be taken at each facility to record the general composition and visual condition of a deficiency. Photographs shall also be taken of major deficiencies where the photograph will assist in developing a plan of correction. Photographs shall be in an electronic format approved by Owner and linked to the assessment database. Photographs are to be cataloged with a numbering system that ties to the project identification.
 - l) All Facilities Condition Assessments shall include documentation in electronic format in drawing files representing the building plans and systems. The drawing file will be in the format of the currently employed version of the Owner’s design software. Refer to Owner’s Computer Aided Design Standards, attached hereto.
 - m) Drawings shall have identifying symbols added to illustrate the location of proposed corrective projects. Each project symbol should be able to connect to external data sources for the purpose of quick referral and amendment. All project symbols shall correspond to the unique project numbers recorded in the detailed project calculations.
 - n) Owner will provide master drawing floor plans and system plans in .dwg format for all facilities where such files currently exist. When such master drawings do not exist, or one is not complete, Services Provider shall create the master drawing. Such master drawing creation will be provided as an Additional Service.
 - o) All Facilities Condition Assessments shall be conducted at least to the component level, unless Owner agrees otherwise.
 - p) All Facilities Condition Assessments shall identify the estimated remaining useful life of all assets, subsystems and an estimated value of the subsystem as a percentage of the Current Replacement Value. Services Provider shall define all elements included in the Current Replacement Value.

- q) Each Facilities Condition Assessment shall include the development of a forecasting plan, which shall include:
 - i) Meeting with Owner staff to develop strategic forecasting plan priorities.
 - ii) Development of two (2) separate forecasting plan scenarios for Owner review.
 - iii) Thorough training of Owner's personnel on modifying Services Provider developed plans and creating new plans.
- 3) Throughout the implementation of an Assessment Project, upon completion of an Assessment Project or at Owner's discretion, Services Provider shall confer with Owner and shall provide input and guidance to Owner regarding the optimization of Owner's operations and maintenance staff, practices, procedures, or any combination thereof, to enhance Owner's ability to utilize Assessment Project findings to develop long-term maintenance strategies, project long-term capital expenditure plans, and to adjust maintenance staffing, when and as needed, to efficiently maintain facilities throughout their expected life cycles.
- 4) Exclusions
 - a) This Facilities Condition Assessment will not address the condition of scientific equipment, moveable furniture or moveable equipment.
 - b) This Facilities Condition Assessment does not include asbestos inspection. However, when it is apparent that building repair will require attending to asbestos abatement, consideration must be given to the effect of the asbestos abatement on the repair cost. The survey shall also incorporate areas identified by Owner as containing asbestos.
 - c) This Facilities Condition Assessment will not include any digging or demolition.