AGREEMENT for FACILITIES CONDITION ASSESSMENT SERVICES on PROJECTS OF LIMITED SCOPE

This Agreement is made as of ______, 20 (the "Effective Date"), by and between:

The Owner: The University of Texas MD Anderson Cancer Center c/o Sourcing and Contract Management 7007 Bertner Avenue, Suite 11.2339 Houston, TX 77030

and

The Services Provider:

This Agreement is for the provision of facilities condition assessment services ("FCA Services") for facilities condition assessment projects ("Assessment Projects") of limited scope, to be performed on a non-exclusive, indefinite quantity basis, as requested by the Owner in accordance with the terms of this Agreement. Services Provider represents that Services Provider has the knowledge, ability, skills and resources to provide such services in accordance with the terms and requirements of this Agreement.

The Owner and the Services Provider agree as follows:

ARTICLE 1

TERM OF AGREEMENT

1.01 **Initial Term:** This initial term of this Agreement shall begin on the Effective Date and shall expire twenty-four (24) months after that date unless renewed or terminated in accordance with the terms of the Agreement.

1.02 **Renewal Option:** The Owner has the option to renew this Agreement for two (2) twenty-four (24) month periods upon written notice to the Services Provider at least sixty (60) days prior to the expiration of the initial or any subsequent term.

ARTICLE 2 MAXIMUM AUTHORIZED CONTRACT SUM

2.01 **Maximum Contract Sum:** The overall maximum value of this contract is indefinite, subject to the contractual authority delegated by The University of Texas System Board of Regents to the Owner. Allowable fees for each specifically authorized Assessment Project will be established in an "Authorization to Commence Work" issued by Owner. Invoices for authorized work performed by the Services Provider shall not exceed the fees established for any portion of authorized work. Established fee amounts shall not be increased except by written amendment to a previously issued Authorization to Commence Work executed by the Owner and the Services Provider.

2.02 **No Minimum Amount of Work:** Owner makes no representations regarding the amount or type of services, if any, that Services Provider will be asked to provide to Owner during the term(s) of this Agreement. It is expressly understood that the Owner is under no obligation to request any services from Services Provider and no minimum amount of work is required or contemplated under this Agreement. All service requests will be made by the Owner on an as-needed basis, subject to future agreement on the scope of the work and the fee.

ARTICLE 3

SCOPE OF WORK

3.01 **In General:** The Services Provider agrees to provide FCA Services on a per-project basis as requested by the Owner in accordance with the terms of this Agreement and the Scope of Services, attached as Exhibit A and incorporated herein.

3.02 **Project Scope:** The specific scope of work for each Assessment Project shall be determined in advance and in writing between the Owner and the Services Provider.

3.03 **Project RFP:** The Owner shall prepare a Project Request for Proposal ("Project RFP") identifying the Assessment Project and describing, in general, the intended scope and character of the project, the preliminary cost estimate and schedule for the Assessment Project, and the basic services to be provided by the Services Provider for the Assessment Project.

3.04 **Project Proposal:** In response to a Project RFP, the Services Provider shall provide Owner with a written Project Proposal. The Project Proposal shall include the following:

- a. A narrative description of Services Provider's understanding of the Assessment Project scope of work;
- b. A detailed statement of the basic and additional services anticipated for the Assessment Project, including a list of deliverables;
- c. A description of particular phases of the scope of the work, if applicable;
- d. A Fee Proposal detailing:
 - 1. the total fee for providing the basic services expressed as a "Not to Exceed" amount;
 - 2. the total fee for providing additional services expressed as a "Not to Exceed" amount; and
 - 3. the total anticipated amount for reimbursable expenses;
- e. A proposed date to commence the work;
- f. A list of all consultants, persons and firms that Services Provider proposes to use in the performance of Services Provider's scope of work;
- g. A schedule of hourly billing rates for any consultants that Services Provider proposes to use in the performance of Services Provider's scope of work;
- h. A HUB Subcontracting plan, if required;
- i. Any qualifications or conditions applicable to the Project Proposal; and
- j. A summary statement of the amount of all previous proposals entered into under this Agreement to date.

3.05 **Project Proposal Review:** The Owner and the Services Provider shall review Services Provider's Project Proposal and negotiate any changes, clarifications or modifications thereto. The Services Provider shall submit a revised Project Proposal incorporating any changes, clarifications or modifications made in the review process. The Owner may accept, reject or seek modification of any Project Proposal.

3.06 **Notice to Proceed**: Upon approval of a Project Proposal by the Owner, the Owner shall issue a written Notice to Proceed. The Notice to Proceed authorizes the Services Provider to begin the work identified in the Project Proposal on the date specified in the Notice to Proceed. The Notice to Proceed shall include a Purchase Order number specific to the Assessment Project.

ARTICLE 4

SERVICES PROVIDER'S GENERAL SERVICES AND RESPONSIBILITIES

4.01 **Project Manager:** The Services Provider shall manage the Services Provider's services and administer any Assessment Project authorized pursuant to this Agreement. The Services Provider shall provide and/or coordinate the basic services necessary and reasonably inferable for the complete performance of any Assessment Project authorized pursuant to this Agreement.

4.02 **Standard of Care:** Services Provider agrees to use its best professional efforts, skill, judgment, and abilities to perform Services Provider's services in an expeditious and timely manner as is consistent with professional standards of care and the orderly progress of any Assessment Project authorized pursuant to this Agreement. Services Provider shall at all times provide a sufficient number of qualified personnel to accomplish Services Provider's services within the time limits set forth in the schedule.

4.03 **Compliance with Laws:** Services Provider shall endeavor to perform Services Provider's Services in compliance with all applicable national, federal, state, municipal, and State of Texas laws, regulations, codes, ordinances, orders and with those of any other body having jurisdiction over the Assessment Project.

4.04 **Existing Conditions:** Services Provider shall use reasonable efforts to verify the accuracy and suitability of any drawings, plans, sketches, instructions, information, requirements, procedures, requests for action, and other data supplied to Services Provider by Owner, or any other party, that Services Provider uses for the Assessment Project.

4.05 **Correction of Work:** Services Provider's services shall be reasonably accurate and free from material errors or omissions. Upon notice, Services Provider shall promptly correct any known or discovered error, omission, or other defect without any additional cost or expense to Owner.

4.06 **Phasing:** The Services Provider shall not proceed beyond any previously authorized phase of the work for an Assessment Project unless authorized by the Owner in writing, except at the Services Provider's own financial risk. Applicable phases of the scope of work shall be identified in the Project Proposal.

4.07 **Representative:** Services Provider shall designate a representative primarily responsible for Services Provider's services under this Agreement. The designated representative shall act on behalf of Services Provider with respect to all phases of Services Provider's services and shall be available as required for the benefit of any Assessment Project and the Owner. The designated representative shall not be changed without prior approval of the Owner, which approval shall not be unreasonably withheld.

4.08 **Documentation:** The Services Provider shall fully document its Assessment Project activities, in drawings, reports or other methods as appropriate to the scope of work and as identified in the Project Proposal. The Services Provider shall bear the cost of providing all plans, specifications and other documents used by the Services Provider and its consultants.

ARTICLE 5 THE OWNER'S RESPONSIBILITIES

5.01 **Project Program:** The Owner shall provide a Project RFP setting forth the Owner's description of the Assessment Project scope; schedule; objectives, characteristics and constraints; and a description of the basic services to be provided by the Services Provider for the Assessment Project.

5.02 **Representative:** The Owner designates its Executive Director of Facilities Planning, Design and Construction as its representative authorized to act in the Owner's behalf with respect to the Assessment Project. The Owner designates its Executive Director of Facilities Planning, Design and Construction or her or his designee as its representative for the purpose of administering this Agreement.

5.03 **Special Information:** The Owner shall furnish available property, boundary, easement, right-of-way, topographic and utility surveys; plans and specifications; and special data and conditions relevant to the Assessment Project. Owner shall furnish other special investigations of the Assessment Project site or facilities as requested by the Services Provider and as reasonably necessary for the Assessment Project. Services Provider shall exercise reasonable care in relying upon this information in the performance of its services under this Agreement. Owner makes no warranties or representations as to the accuracy or suitability of information provided to the Services Provider by the Owner or by others.

5.04 **Entry on Land:** The Owner shall assist Services Provider in gaining entry to state owned or controlled property as necessary for Services Provider to perform its services under this Agreement.

5.05 **Administrative Services:** The Owner shall furnish_all legal, accounting, auditing and insurance counseling services that it requires for the Assessment Project.

5.06 **Review of Work:** The Owner will review the Services Provider's documents at the completion of each stage of development as described in the Project Proposal. Owner's review comments or decisions regarding the documents will be furnished to the Services Provider in a reasonably prompt manner. The Owner will notify the Services Provider in writing of any material error or omission or other defect in the Assessment Project or any conflict in the contract documents that the Owner becomes aware of, but Owner shall have no obligation or duty to investigate whether such faults, defects, or conflicts exist.

5.07 **Time for Response:** The Owner shall furnish required information and services and shall render approvals and decisions as expeditiously as necessary for the orderly progress of the Services Provider's services and of the Work.

ARTICLE 6 ACCEPTANCE OF WORK

6.01 **Owner's Satisfaction:** All work performed under this Agreement shall be completed to the satisfaction of the Owner's representative assigned to the Assessment Project. The Owner's representative shall decide all questions regarding Services Provider's performance under the Agreement and such decisions shall be final and conclusive.

6.02 **Correction of Work:** Should Services Provider's services not conform to the requirements of this Agreement and the Project Proposal as determined by the Owner's representative, Owner may order the Services Provider to re-perform such services at no additional expense to the Owner or deduct the fees for such services from any other fees payable to the Services Provider.

6.03 **Liability:** Owner's approval or acceptance of Services Provider's services will not release Services Provider from any liability for such services because Owner is, at all times, relying upon Services Provider's skill and knowledge in performing Services Provider's services.

ARTICLE 7 COMPENSATION FOR SERVICES RENDERED

7.01 **Owner's Approval Required:** Owner agrees to pay Services Provider for those services rendered at Owner's specific request, in advance and in writing.

7.02 **Scheduled Billing Rates:** Attached as Exhibit B, and incorporated herein, is Services Provider's Schedule of Billing Rates, including hourly billing rates and/or per service billing rates as applicable. The Billing Rates include all costs for any identified services and the Services Provider shall not be entitled to any additional compensation for providing those services. The Schedule of Billing rates shall remain in full force and effect for the term of this Agreement, including all renewal periods.

7.03 **Basic Service:** For Basic Services rendered in connection with any Assessment Project authorized pursuant to this Agreement, Services Provider shall be compensated on an hourly rate basis or on a per-service fee basis in accordance with Services Provider's Project Proposal, up to the maximum "Not to Exceed" amount approved in Owner's "Authorization to Commence Work.".

7.04 Additional Services: Additional Services are services not identified or reasonably inferable as Basic Services included in a Project Proposal. Additional Services shall be provided only if authorized or confirmed in writing by the Owner. For approved Additional Services provided in connection with any Assessment Project authorized by this Agreement, Services Provider shall be compensated on an hourly rate basis or on a per-service fee basis in accordance with Services Provider's Additional Services Proposal, up to the maximum "Not to Exceed" amount approved in Owner's "Authorization to Commence Work."

7.05 **Consultant Costs:** Unless approved in advance by the Owner, Services Provider shall pay for all consultant services and costs associated with Services Provider's services under this Agreement, whether Basic Services or Additional Services, out of his fees. Owner is not responsible for any such consultant fees or costs unless otherwise agreed to in writing.

ARTICLE 8 REIMBURSABLE EXPENSES

8.01 **Reimbursable Expenses:** Reimbursable Expenses are in addition to compensation for Basic and Additional Services. Reimbursable Expenses recoverable by the Services Provider under this Agreement are limited to the following:

- a. Expenses in connection with out-of-state travel, including coach class air fare and reasonable living expenses, as directed and approved in advance and in writing by the Owner;
- b. Expenses in connection with in-state travel, including reasonable travel and living expenses, for Services Provider's employees and consultants when an Assessment Project is located more than 50 miles from the place where they are usually and customarily assigned, but only as directed and approved in advance and in writing by Owner;
- c. Fees paid for securing approval of authorities having jurisdiction over any particular Assessment Project;

- d. Expenses of reproductions, printing, collating, postage and handling of Drawings, Specifications, Reports and other documents or other project related work product, but excluding plotting costs of drawings, reproductions for the use of Services Provider and Services Provider's consultants as well as up to three (3) review sets as necessary for progressive reviews by Owner in accordance with the Project Proposal.
- e. Communication expenses such as long distance telephone, facsimile transmissions, express charges and postage that are directly attributable to the Assessment Project;
- f. Disbursements made by the Services Provider under approved subcontracts;
- g. Reasonable costs for rental or use of special equipment, tools, and electronic data processing equipment required in connection with the Assessment Project if approved in advance and in writing by Owner;
- h. Expense of any additional insurance coverage or limits, requested by the Owner excluding professional liability and errors and omissions insurance required under Basic Services of this Agreement that exceed those normally carried by the Services Provider and the Services Provider's consultants.

8.02 **Compensation for Reimbursable Expenses:** The Services Provider and its employees and consultants, shall be compensated for the actual, out-of-pocket, reasonable costs for all approved Reimbursable Expenses that are incurred solely and directly in connection with the performance of the Services Provider's services and duties under this Agreement or in the interest of any particular Assessment Project.

8.03 **Proposal Costs Not Recoverable:** Services Provider is solely responsible for any expenses or costs, including expenditures of time, incurred by the Services Provider and its employees and consultants in the development of Project Proposals or Additional Services Proposals. Such expenses or costs are not Reimbursable Expenses.

ARTICLE 9 INVOICING

9.01 **Monthly Invoices:** Services Provider shall submit a monthly record or invoice of services performed under this Agreement identifying all fees earned and reimbursable expenses incurred in the previous month. Invoices shall be submitted in a format approved by the Owner and must contain at least the following information:

- a. Assessment Project Name and Work Order Number;
- b. Owner's Agreement Number;
- c. Services Provider's Tax Identification Number;
- d. Name of Project Manager;
- e. Identification of billing period, by calendar month, to which the invoice applies;
- f. Itemized description of services provided including the names, billing rates and amount of time per task expended by all persons who performed services on the Assessment Project during the billing period.
- g. Completion status of Assessment Project by percentage;
- h. Total amount of invoice;
- i. Total amount of prior invoices and maximum contract sum;
- j. Copy of all receipts in support of any reimbursable expenses invoiced;

9.02 **Limited to Allowable Fee Amount:** It is the responsibility of Services Provider not to provide services or submit invoices that exceed the allowable fee amount established for any specific Assessment Project in the "Authorization to Commence Work" issued by Owner. Services provided, and/or expenses incurred that exceed the allowable fee amount for any specific Assessment Project without Owner's written consent will be at Services Provider's financial risk and Owner shall not be obligated to pay for any such services or expenses.

9.03 **Prompt Payment:** For purposes of Texas Government Code § 2251.021(a)(2), the date the performance of service is completed is the date when the Owner's representative approves the invoice. Payment of invoices shall be made within 30 days of Owner's approval.

9.04 **Invoice Submittal:** Invoices shall be submitted to:

MD Anderson Cancer Center Accounts Payable – Box 199 P.O. Box 301401 Houston, TX 77230-1401

9.05 **Exceptions to Payment:** Regardless of any other provision of this Agreement, Owner shall not be obligated to make any payment requested by Services Provider under this Agreement if any of the following conditions precedent exist:

- a. Services Provider is in breach or default under this Agreement;
- b. The requested payment includes services not performed in accordance with this Agreement; provided, however, payment shall be made on the balance of the services that are performed in accordance with this Agreement;
- c. The total of Services Provider's invoices exceed the allowable fee amount;
- d. Services Provider has failed to make payments promptly to consultants or other third parties used in connection with the services for which Owner has made payment to Services Provider;
- e. Services Provider becomes insolvent, makes a general assignment of its rights or obligations for the benefit of its creditors, or voluntarily or involuntarily files for protection under the bankruptcy laws; or
- f. If Owner, in its good faith judgment, determines that the balance of unpaid compensation is insufficient to complete the services required under this Agreement for the specific Assessment Project for which the invoice was submitted.

9.06 **Partial Payment:** No partial payment by Owner shall constitute or be construed as final acceptance or approval of any services or as a release of any of Services Provider's obligations or liabilities with respect to such services.

9.07 **Subcontractor (Consultant) Payment:** Services Provider shall promptly pay all bills for labor and material performed and furnished by others in connection with the performance of the services.

9.08 **Final Payment and Release:** The acceptance by Services Provider or Services Provider's successors of final payment under this Agreement, shall constitute a full and complete release of Owner from any and all claims, demands, and causes of action whatsoever that Services Provider or Services Provider's successors have or may have against Owner pursuant to this Agreement except those

claims specifically identified in writing by Services Provider as unsettled at the time of the final request for payment.

ARTICLE 10 SERVICES PROVIDER'S ACCOUNTING RECORDS

Services Provider shall maintain records of costs, expenses and billings pertaining to services performed under this Agreement in accordance with generally accepted accounting principles. Such records shall be available to the Owner or the Owner's authorized representative at mutually convenient times for a period of at least three (3) years after expiration or termination of this Agreement. Owner shall have the right to audit and to verify the details set forth in Services Provider's billings, certificates, and statements, either before or after payment. The terms of this paragraph shall survive any termination of the Agreement.

ARTICLE 11 OWNERSHIP AND USE OF DOCUMENTS

11.01 All documents prepared by the Services Provider are instruments of service and shall remain the property of the Services Provider. The Owner shall be permitted to retain copies, including reproducible copies, of all documents prepared by the Services Provider for information and reference in connection with the Owner's use and maintenance of its facilities. Owner shall have an irrevocable, fully paid-up perpetual license and right, which shall survive the termination of this Agreement, to use the documents, including the originals thereof, and the ideas and designs contained therein, for any purpose.

11.02 Submission or distribution to meet official regulatory requirements or for other purposes in connection with an Assessment Project is not to be construed as publication in derogation of the Services Provider's rights.

ARTICLE 12

TERMINATION OF AGREEMENT; TERMINATION OF ASSESSMENT PROJECT

12.01 **Termination for Cause:** This Agreement, any Assessment Project implemented pursuant to the terms of this Agreement, or both may be terminated by either party upon ten (10) days written notice should the other party fail substantially to perform in accordance with its terms through no fault of the terminating party and such failure is not fully cured prior to the expiration of the notice period. If a termination for cause under this section is later determined to be improper, the termination shall automatically convert to a termination for convenience under section 12.02 and Services Provider's recovery for termination shall be strictly limited to the compensation allowable under section 12.02

12.02 **Termination for Convenience:** This Agreement, any Assessment Project implemented pursuant to the terms of this Agreement, or both may be terminated for convenience by the Owner in whole or in part, upon at least ten (10) days written notice to the Services Provider.

12.03 **Compensation:** In the event of termination not the fault of the Services Provider, the Services Provider shall be entitled to compensation for all services satisfactorily performed to the termination date, together with approved Reimbursable Expenses then due, provided Services Provider delivers to Owner statements, accounts, reports and other materials as required for payment along with all reports, documents and other materials prepared by Services Provider prior to termination.

ARTICLE 13 DISPUTE RESOLUTION

13.01 To the extent that it is applicable, the dispute resolution process provided for in Chapter 2260 of the Texas Government Code shall be used by the Project Services Provider to resolve any claim for breach of contract made by Project Services Provider that is not resolved in the ordinary course of business between Project Services Provider and Owner.

13.02 Alternative Dispute Resolution Process. Owner may establish a dispute resolution process to be utilized in advance of that outlined in Tex. Gov't Code, Chapter 2260.

13.03 Nothing herein shall hinder, prevent, or be construed as a waiver of Owner's right to seek redress on any disputed matter in a court of competent jurisdiction.

13.04 In any litigation between the Owner and the Project Services Provider arising from this Agreement or this Project, neither party will be entitled to an award of legal fees or costs in any judgment regardless which one is deemed the prevailing party.

13.05 Nothing herein shall waive or be construed as a waiver of the State's sovereign immunity.

13.06 Neither the occurrence of an event giving rise to a breach of contract claim nor the pendency of a claim constitute grounds for the suspension of performance by Project Services Provider, in whole or in part. Owner and Project Services Provider agree that any periods set forth in this Agreement for notice and cure of defaults are not waived, delayed, or suspended by Chapter 2260 or this section.

13.07 In accordance with Chapter 2260, the Owner designates its <u>Vice President and</u> <u>Chief Financial Officer</u> as its representative for the purpose of reviewing Services Provider's claim(s) and negotiating with Services Provider in an effort to resolve such claim(s).

ARTICLE 14 INSURANCE

14.01 **Insurance:** For services performed on Owner's premises, the Services Provider shall furnish to Owner Certificates of Insurance as set forth below prior to the commencement of any work hereunder and shall maintain such coverage during the full term of the Agreement.

Worker's Compensation	Statutory Limits
Employer's Liability	\$100,000 each occurrence
	\$300,000 aggregate
Comprehensive General Liability	
-Bodily Injury	\$300,000 each person
	\$500,000 each occurrence
-Property Damage	\$300,000 each occurrence
Comprehensive Auto Liability	
Bodily Injury	\$300,000 each person
	\$500,000 each occurrence
Property Damage	\$300,000 each occurrence

14.02 **Professional Liability Insurance:** The Architect shall carry such professional liability and errors and omissions insurance-covering the services provided by the Architect and any and all consultants, as acceptable to and approved by the Owner. The fees for such insurance shall be at the expense of the Architect.

14.03 **Notice of Cancellation:** Required insurance shall not be cancelable without thirty (30) days prior written notice to Owner.

14.04 **Policy Review:** Upon request the Services Provider shall furnish complete sets of its insurance policies to Owner for review.

ARTICLE 15 INDEMNITY

The Services Provider shall hold Owner, The University of Texas System, and the Regents, officers, agents and employees of both institutions harmless and free from any loss, damage or expense arising out of any occurrence relating to this Agreement or its performance and shall indemnify Owner and The University of Texas System, their Regents, officers, employees, customers, agents, successors and assigns against any damage or claim of any type arising from the negligent or intentional acts or omission of the Services Provider, its employees, agents and/or assigns.

ARTICLE 16 HISTORICALLY UNDERUTILIZED BUSINESSES

The Owner has adopted Rider 104-A, Policy on Utilization of Historically Underutilized Business ("Policy"), incorporated herein. Services Provider, as a material provision of the Agreement, must comply with the requirements of the Policy and adhere to any HUB Subcontracting Plan submitted with Services Provider's Proposal. No changes to the HUB Subcontracting Plan can be made by the Services Provider without the prior written approval of the Owner in accordance with the Policy.

ARTICLE 17 MISCELLANEOUS PROVISIONS

17.01 **Appointment of Representative:** Owner may designate a representative to act partially or wholly for Owner in connection with this Agreement. Services Provider shall coordinate its services solely through the designated representative.

17.02 **Independent Contractor:** Services Provider acknowledges that it is engaged as an independent contractor and that Owner shall have no responsibility to provide Services Provider or its employees with transportation, insurance or other fringe benefits normally associated with employee status. Services Provider is responsible for all income taxes required by applicable law.

17.03 **Confidentiality:** The Services Provider shall treat any Owner supplied information or information pertaining to Owner's business as confidential and shall not disclose any such information to others except as necessary for the performance of this Agreement or as authorized by the Owner in writing.

17.04 **Successors and Assigns.** The Owner and the Services Provider, respectively, bind themselves, their partners, successors, assigns and legal representatives to the other party to the terms and conditions of this Agreement. This Agreement is a personal service contract for the services of Services Provider, and Services Provider's interest in this Agreement, duties hereunder and/or fees due hereunder may

not be assigned or delegated to a third party without written consent of Owner. The benefits and burdens of this Agreement are, however, assignable by Owner.

17.05 **Subcontracting:** The Services Provider agrees not to subcontract any part of the work without the prior written consent of Owner. If subcontracting is permitted, the Services Provider must identify the subcontractor(s) to Owner prior to any subcontractor beginning work. Submission and approval of a Historically Underutilized Businesses (HUB) Subcontractor Plan is considered consent under this Article.

17.06 **Loss of Funding:** Performance by Owner under this Agreement may be dependent upon the appropriation and allotment of funds by the Texas State Legislature (the "Legislature") and/or allocation of funds by the Board of Regents of The University of Texas System (the "Board"). If the Legislature fails to appropriate or allot the necessary funds, or the Board fails to allocate the necessary funds, then Owner shall issue written notice to Services Provider and Owner may terminate this Agreement without further duty or obligation hereunder. Services Provider acknowledges that appropriation, allotment, and allocation of funds are beyond the control of Owner.

17.07 **Open Records:** All information, documentation and other material submitted by the Services Provider may be subject to public disclosure under the Public Information Act, Texas Government Code Chapter 552.

17.08 **Family Code Child Support Certification:** Pursuant to Section 231.006, *Texas Family* Code, the Services Provider certifies that it is not ineligible to receive the award of or payments under this Agreement and acknowledges that this Agreement may be terminated and payment may be withheld if this certification is inaccurate.

17.09 **Tax Certification:** If Services Provider is a taxable entity as defined by Chapter 171, Texas Tax Code ("Chapter 171"), then Services Provider certifies that it is not currently delinquent in the payment of any taxes due under Chapter 171, or that Services Provider is exempt from the payment of such taxes, or that Services Provider is an out-of-state taxable entity that is not subject to those taxes, whichever is applicable.

17.10 **Payment of Debt or Delinquency to the State:** Pursuant to Sections 2107.008 and 2252.093, *Texas Government Code*, Services Provider agrees that any payments owing to Services Provider under this Agreement may be applied directly toward any debt or delinquency that Services Provider owes the State of Texas or any agency of the State of Texas regardless of when it arises, until such debt or delinquency is paid in full

17.11 **Taxes:** The University of Texas System is a tax exempt State of Texas Agency under Chapter 151, Texas Tax Code and an institution of higher education. Services Provider shall avail itself of all tax exemptions applicable to Services Provider's work or expenses.

17.12 **Eligibility Certification.** Pursuant to Section 2155.004, *Texas Government Code*, Services Provider certifies that the individual or business entity named in this Agreement is not ineligible to receive the award of or payments under this Agreement and acknowledges that this Agreement may be terminated and payment withheld if this certification is inaccurate.

17.13 **Captions:** The captions of paragraphs in this Agreement are for convenience only and shall not be considered or referred to in resolving questions of interpretation or construction.

17.14 **Severability:** Should any provisions(s) of this Agreement be held invalid or unenforceable in any respect, that provision shall not affect any other provisions and this Agreement shall be construed as if the invalid or unenforceable provision(s) had not been included.

17.15 **Waivers:** No delay or omission by either party in exercising any right or power provided under the provisions of this Agreement shall impair any such right or power or be construed to be a waiver of the right or power. A written waiver granted by either of the parties of any provision of this Agreement shall not be construed as a future waiver of that provision or a waiver of any other provision of the Agreement.

17.16 **Force Majeure:** No party shall be liable or responsible to the other for any loss or damage or for any delays or failure to perform under this Agreement due to causes beyond its reasonable control, including, but not limited to, acts of God, employee strikes, epidemics, war, riots, flood, fire, sabotage, terrorist acts or any other circumstances of like character.

17.17 **Governing Law:** This Agreement shall be construed, interpreted and applied in accordance with the laws of the State of Texas without regard for choice of law principles. All obligations of the parties created hereunder are enforceable in Harris County, Texas.

17.18 **Entire Agreement.** This Agreement constitutes the sole and only agreement between the parties with respect to the services contracted for and supersedes any prior understandings, written or oral. No modification, alteration or waiver of this Agreement or any of its provisions shall be effective unless in writing and signed by both parties. No course of prior dealings, no usage of trade, and no course of performance shall be used to modify, supplement or explain any terms used in this Agreement.

17.19 Ethics Matters/No Financial Interest. Services Provider and its employees, agents, representatives, subcontractors and consultants have read and understand Owner's Conflicts of Interest Policy available at http://www.mdanderson.org/about-us/compliance-program/conflict-of-interest-policy-no.-adm0255.pdf, Owner's Standards of Conduct Guide available at http://www.mdanderson.org/about-us/compliance-program/conflict-of-interest-policy-no.-adm0255.pdf, Owner's Standards of Conduct Guide available at http://www.mdanderson.org/about-us/compliance-program/conflict-of-interest-policy-no.-adm0255.pdf, Owner's Standards of Conduct Guide available at http://www.mdanderson.org/about-us/compliance-program/do-the-right-thing.pdf, and applicable state ethics laws and rules available at www.utsystem.edu/ogc/ethics. Neither Services Provider nor its employees, agents, representatives subcontractors, or consultants will assist or cause Owner's employees to violate Owner's Conflicts of Interest Policy, provisions described by Owner's Standards of Conduct Guide, or applicable state ethics laws or rules. Services Provider represents and warrants that no member of the Board has a direct or indirect financial interest in the transaction that is the subject of this Agreement.

ARTICLE 18 NOTICES

18.1 All notices, consents, approvals, demands, requests or other binding communications under this Agreement shall be in writing. Written notice may delivered in person to the designated representative of the Services Provider or Owner; mailed by U. S. mail to the last known business address of the designated representative; or transmitted by fax machine to the last know business fax number of the designated representative. Mail notices are deemed effective three business days after the date of mailing. Fax notices are deemed effective the next business day after faxing.

18.2 The initially designated representatives of the parties for receipt of notices are as follows. Either party may change their designated representative for receipt of notices by written notice.

(1)	If to Owner:	Weldon Gage Vice President and Chief Financial Officer 1515 Holcombe Blvd., Box 1495 Houston, TX 77030
(2)	With Copies to:	Bill Bailey Executive Director, Facilities Finance 6900 Fannin, Suite FHB11.1022 Houston, TX 77030 Email: bbailey@mdanderson.org
(3)	If to Services Provider:	 Email:

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BY SIGNING BELOW, the Services Provider has executed and bound itself to this Agreement as of the day of the year first above written. The Agreement shall become effective only upon the execution of the Agreement by both parties and the issuance of a Purchase Order by Owner to the Services Provider. Change orders, additional services, amendments, modifications, deletions or other changes to the Agreement, if any, shall become effective only upon the issuance of a Purchase Order by the Owner to the Services Provider. Only Supply Chain Management is authorized to award official agreements and issue Purchase Orders binding an Owner.

SEAL:	[Services Provider's Name]
WITNESS:	
By:	By:
Name:	Name:
Title:	Title:
	Date:
CONTENT APPROVED:	THE UNIVERSITY OF TEXAS M. D. ANDERSON CANCER CENTER (Owner)
Office of Vice President Operations and Facilities Management	Sourcing And Contract Management
By: (original signature)	By:(original signature)
Name: Spencer Moore Title: Vice President for Operations and Facilities Management	Name: Paul St. Amant Title: Associate Vice President, Supply Chain Services
Date:	Date:

EXHIBITS

- Exhibit A Scope of Services
- Exhibit B Services Provider's Schedule of Billing Rates
- Exhibit C Initial [Additional Services] Proposal
- Exhibit D Authorization to Commence Work
- Exhibit E Form of Invoice
- Exhibit F Rider 104-A; Policy on Utilization of Historically Underutilized Businesses
- Exhibit G Respondent's Letter of HUB Commitment
- Exhibit H Rider 105; Vendor Affirmations
- Exhibit I Rider 106; Premises Rules
- Exhibit J Rider 107; Travel Policy
- Exhibit K Rider 117; Compliance with Institutional Policies
- Exhibit L Sales Tax Exemption Certificate
- Exhibit M Owner's Computer-Aided design Standard
- Exhibit N Execution of Offer

Exhibit A

Scope of Services

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 Uniformat 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.
- 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.

Exhibit B

Services Provider's Schedule of Billing Rates

Exhibit C

Initial [Additional Services] Proposal

EXHIBIT C

INITIAL PROJECT ADDITIONAL SERVICES PROPOSAL

Name of Agreement: Agreement for Facilities Condition Assessment Services

MD Anderson Master Agreement Number: (Enter Agreement number from top of page 1)

Purchase Order Number: (Applies to Additional Services Only)

Project Number: _____

ProjectName:

Date Month dd, yyyy

To: Owner's Representative: Street Address: City, State, Zip:

From: Services Provider:
Street Address:
City, State, Zip:

Please refer to the Agreement dated 20 between MD Anderson Cancer Center ("Owner") and the undersigned ("Services Provider") as amended to the date hereof (such agreement as so modified and amended being hereafter called the "Agreement") pursuant to which Services Provider is to perform certain services. The terms, which are defined in the Agreement, shall have the same meanings when used in this letter.

1. Owner has requested the performance of the services described below which Services Provider deems to be Initial Project (Additional) Services.

[INSERT DESCRIPTION OF SERVICES OR ATTACH APPROVED PROPOSAL TO WORK ORDER]

Services Provider

By:	_
Name:	
Title:	
Date:	

Current Assessment Project Summary

ORIGINAL PURCHASE ORDER AMOUNT:	\$
Previous Additions:	\$
Previous Deductions:	\$
NET BALANCE OF PURCHASE ORDER AMOUNT:	\$
THIS Addition/(Deduction):	\$
ADJUSTED PURCHASE ORDER AMOUNT:	\$

Exhibit D

Authorization to Commence Work



Making Cancer History®

Facilities Planning Design and Construction T 713-792-2207 F 713-563-4888 Unit 0703 6900 Fannin St. Floor 10 Houston, Texas 77030-3800

AUTHORIZATION TO COMMENCE WORK

Date:	Month	dd,	уууу
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- **To:** Services Provider
- Attn: [Enter Name of Services Provider's Project Manager]
- From: [Enter name and position of Owner's Representative leading assessment] and Owner's Representative
- Ref.:
 Authorization to Commence Work

 MD Anderson Assessment Project Name:
 ______]

 MD Anderson Agreement No.
 _______] for Facilities Condition Assessment Services

 Services Provider's Project Proposal No.:
 ______]

Pursuant to the terms of the referenced MD Anderson Agreement, MD Anderson hereby authorizes, effective [Month dd, yyyy], [enter name of Services Provider as it appears in the Agreement] (Services Provider) to begin providing certain Facilities Condition Assessment services as set forth in MD Anderson's Project RFP dated [Month dd, yyyy] and Services Provider's Project Proposal No. [_____].

Please be advised that the MD Anderson Purchase Order Number specific to this Assessment Project is

Please do not hesitate to contact me if you have any questions concerning this Assessment Project.

Copy: [Enter copy recipients or filing directions as appropriate.]

Exhibit E

Form of Invoice

[To be submitted on Services Provider's letterhead.]

Date: Month dd, yyyy

- To: The University of Texas MD Anderson Cancer Center Facilities Planning, Design and Construction 1515 Holcombe Blvd, FHB – Unit 703 Houston, Texas 77030
- Attn: [Enter Name of Owner's Representative for the Assessment Project]
- From: [Enter name and position of Services Provider's Project Manager leading assessment] and Project Manager

STATEMENT FOR FACILITIES CONDITION ASSESSMENT SERVICES

 Ref.:
 MD Anderson Assessment Project Name: [_____]

 MD Anderson Agreement No. [_____] for Facilities Condition Assessment Services

 MD Anderson Purchase Order No.: [____]

STATEMENT FOR ARCHITECTURAL/ENGINEERING SERVICES

Statement No. ____ for the period beginning [Month dd, yyyy] and ending [Month dd, yyyy]

for services provided in accordance with the Agreement referenced above.

Professional Liability Insurance Policy expiration date:

I. BASIC SERVICES

Services Performed to Date: Amount Previously Billed

deduct <u>\$</u>____

Net Amount Due This Statement

\$

II.ADDITIONAL SERVICESServices Performed to Date:(Append Supplemental Material)

				- - -	Гotal Earned	
Fee Basis	Amou	nt		Complet	e	To Date
(fee percentage as		\$		%		\$
established in Art.	14.)	\$		%		\$
for Basic Services)		\$		%		\$
		\$				
led	deduct	<u>\$</u>	_			
Net Amount Due This Statement			\$			
	Fee Basis (fee percentage as established in Art. for Basic Services) led	<u>Fee Basis</u> Amou (fee percentage as established in Art. 14.) for Basic Services) led deduct	Fee Basis Amount (fee percentage as \$ established in Art. 14.) \$ for Basic Services) \$ \$ \$ led deduct \$ Statement \$	Fee Basis Amount (fee percentage as \$ established in Art. 14.) \$ for Basic Services) \$ led deduct \$ Statement \$	Fee Basis Amount Complet (fee percentage as \$ % established in Art. 14.) \$ % for Basic Services) \$ % led deduct \$ Statement \$ \$	Total Earned Fee Basis Amount Complete (fee percentage as \$ % established in Art. 14.) \$ % for Basic Services) \$ % led deduct \$ Statement \$ \$

III. CONSULTANT COSTS

	IV.	REIMBURSABLE EXPENSES
--	-----	------------------------------

Expenses to Date (Append Supplemental Material)

					Total Earned
	Туре	Amount		Multiplier	<u> </u>
Date					
	Travel	\$	1.0		\$
	Reproduction/Postage	e \$	1.0		\$
	Other	\$	1.0		<u>\$</u>
	Sub-Total				\$
	Amount Previously Bil	led deduct	<u>\$</u>		
	Net Amount Due This S	Statement			\$

RECAPITULATION

			Net Amount Due <u>This Statement</u>	Total Earned <u>To Date</u>
I.	BASIC SERVICES		\$	\$
II.	ADDITIONAL SERVICES		\$	\$
III.	CONSULTANT COSTS		\$	\$
IV.	REIMBURSABLE EXPENSES		\$	\$
	TOTAL AMOUNT EARNED THIS STATEMENT			
	TOTAL AMOUNT PREVIOUSLY BILLED deduct	<u>\$</u>		
	TOTAL AMOUNT DUE THIS STATEMENT		<u>\$</u>	\$

I certify that the above Statement is correct and now due.

Signature

Title

Date

(Supplemental material shall include:

- 1.. tabulation of hourly compensation by name, hours & pay rate:
- 1.. by the firm
- 1.. by consultants
- 1.. receipts for reimbursable expenses
- 1.. other substantiating information

Approved by MD Anderson Representative:

Signature

Date

Accounting Review:

Initial & Date

FINAL PAYMENT CERTIFICATION AND LIEN WAIVER

The Architect certifies that all persons, consultants and firms who supplied services to it in connection with this Project have been fully paid for their services or work items, or that they will be fully paid immediately upon receipt of this payment, and that there are no other outstanding debts, obligations or claims related to this Project for which the Owner may be liable or for which the Architect will look to the Owner for additional payment. This payment constitutes full and final payment to the Architect and its consultants for all services provided for this Project and the Owner is not obligated to make any more payments on their behalf.

In consideration of the payment herewith made, the undersigned does fully and finally release and hold harmless Owner from any and all claims, liens or right to claim or lien, arising out of this Project under any applicable bond, law or statue.

Signature

Date

FINAL HUB PLAN

The HUB Plan form for final payment is included with this Final Payment Request. Yes____No ____

ATTACHMENT 1 TO EXHIBIT D

HUB Subcontracting Plan (HSP) Prime Contractor Progress Assessment Report

This form mu	st be com	pleted an	nd submit	ted to the	contract	ting ageno	cy <u>each</u> n	nonth to a	locument o	compliand	ce with yo	ur HSP.
Contract/Requisition Number:					Date of Award: Object Code: (mm/dd/yyyy) (Agency Use Only)							
Contracting Agency	y/University	Name:										
Contractor (Company) Name: State of Texas VID #:												
Point of Contact:								Phone a	#:			
Reporting Period: (Check only one Month)	🗌 - Jan.	🗌 - Feb.	🗌 - Mar.	🗌 - Apr.	🗌 - May	🗌 - Jun.	🗌 - Jul.	🗌 - Aug.	🗌 - Sept.	🗌 - Oct.	🗌 - Nov.	🗌 - Dec.
Total Contract Amo	ount Paid thi	s Reporting	g Period to (Contractor:	\$							

Report HUB and Non-HUB subcontractor information

Subcontractor's Name	Subcontractor's VID or HUB Certificate Number	Total Contract \$ Amount from HSP with Subcontractor	Total \$ Amount Paid This Period to Subcontractor	Total Contract \$ Amount Paid to Date to Subcontractor	Object Code (agency use only)
		\$	\$	\$	
		\$	\$	\$	
		\$	\$	\$	
		\$	\$	\$	
		\$	\$	\$	
		\$	\$	\$	
		\$	\$	\$	
		\$	\$	\$	
	TOTALS:	\$	\$	\$	
Signature:	Ti	tle:	·	Date:	
Printed	Ph	one			

mileu	Flione
Name:	No.
Exhibit F

Rider 104-A; Policy on Utilization of Historically Underutilized Businesses

Exhibit G

Services Provider's Letter of HUB Commitment

Exhibit H

Rider 105; Vendor Affirmations

Exhibit I

Rider 106; Premises Rules

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F.

G.

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If this Agreement requires Contractor's presence on MD Anderson's premises, buildings, grounds, facilities, or campus, whether owned, leased or otherwise controlled by MD Anderson (collectively, "MD Anderson's campus"), Contractor represents and warrants that it will ensure that its representatives, agents, employees, and permitted subcontractors are aware of, fully informed about and in full compliance with Contractor's obligations under the following rules:

- A. Contractor (and its representatives, agents, employees and permitted subcontractors) will comply with all applicable MD Anderson rules and policies, including, without limitation, those related to environmental quality, safety, fire prevention, noise, information security, and architectural barriers issued by MD Anderson's Department of Environmental Health and Safety, (713) 792-2888, and those that restrict the use of alcohol on MD Anderson's campus.
- B. MD Anderson is a smoke-free institution. Smoking, or use of smokeless tobaccos, is prohibited throughout MD Anderson's campus.
- C. Contractor will have the right to access only those areas in MD Anderson's campus that are public areas or areas that it is necessary for Contractor to access in order to provide the products and perform the services under this Agreement. Cellular telephones and two-way radios are prohibited in some areas of MD Anderson's campus and Contractor affirms, certifies, and warrants that its representatives, agents, employees, and permitted subcontractors will abide by such prohibitions.
- It is the policy of MD Anderson to maintain a safe D. environment free from violence on MD Anderson's campus. Any direct or indirect threats or acts of violent behavior are prohibited. Violence includes, but is not limited to, intimidating, threatening, or hostile behavior; physical or verbal abuse; harassment, stalking, vandalism, arson, sabotage, use of weapons, possession of weapons on institutional property, the threat of any of the above, or any other act inconsistent with MD Anderson's campus violence policy. Intentionally bringing a prohibited weapon including a licensed, concealed handgun on MD Anderson's campus is a violation of MD Anderson's campus violence policy. Furthermore, any violation of a law prohibiting violence and violent behavior (including, but not limited to, the violation of Section 37.125 of the Texas Education Code or of Section 46.03 of the Texas Penal Code) also constitutes a violation of MD Anderson's campus violence policy. Violators of MD Anderson's campus violence policy or of any law prohibiting violence or violent behavior may be removed from or refused further access to MD Anderson's campus. Contractor represents and warrants that Contractor and all of its representatives, agents, employees, and permitted subcontractors will comply with MD Anderson's campus violence policy and all laws prohibiting

violence and violent behavior. MD Anderson reserves the right to pursue criminal or civil actions against violators of MD Anderson's campus violence policy or of any law prohibiting violence and violent behavior. Contractor will remove from the performance of any work under this Agreement any Contractor representative, agent, employee, or permitted subcontractor that MD Anderson, in its sole discretion, finds has violated MD Anderson's campus violence policy or any law prohibiting violence and violent behavior.

- Contractor will ensure all personnel sent to work at MD Anderson's campus that have direct patient care/contact under this Agreement will be able to show proof of a tuberculosis screening having been completed within ninety (90) calendar days prior to starting work at MD Anderson's campus and every two years thereafter. Contractor will also be able to show proof that these same personnel do not have active tuberculosis. Contractor will ensure all personnel with direct patient care/contact will be able to show proof of current immunization to influenza and proof of immunization or immunity to varicella (chicken pox) prior to active duty at MD Anderson. Records of screenings, vaccinations, immunity and related reports will be made immediately available to M.D. Anderson upon request. This paragraph does not apply to contractors deemed by MD Anderson to not have direct patient care/contact.
- Contractor will be solely responsible for ensuring that all of its agents, employees, personnel, permitted subcontractors, or representatives abide by the provisions set forth in this Rider 106.
- The University of Texas Police Department ("UTPD") & Security Equipment:

The UTPD is the law enforcement agency of record for all property and premises owned, leased, or otherwise under the control of MD Anderson. The UTPD will be notified in matters relating to the following:

- Reporting of criminal incidents, including those occurring to or involving Contractor property and personnel if the incident occurs on MD Anderson campus;
- 2. The investigation of crimes, including those involving Contractor's property and personnel, if the incident occurs on MD Anderson campus; and
- 3. Reporting of security problems.
- H. Contractor will not retain the services of outside guard or law enforcement services in connection with work on MD Anderson's campus without the specific prior written approval of the Chief of the UTPD.
 - Contractor will not install or operate any system intended to electronically control access and/or detect and report intrusion, hold-up or duress on any MD Anderson property, any MD Anderson leased premises or any premises otherwise under the control of MD Anderson. Where such systems are required due to the nature of the Contractor's operation, the UTPD will be responsible for approval, design and installation. Once approved by UTPD, the system's cost will be Contractor's responsibility.

Ρ.

- Installation by Contractor of any security system is J. subject to the review and approval of UTPD. If Contractor desires to install an electronic security system in accordance with the terms of this Agreement, Contractor will contact the UTPD -Crime Prevention Component of UTPD at (713) 792-2890 and request that UTPD establish design criteria for the application. Contractor will provide written evidence of the estimated cost of the electronic security system to the Technical Services Component of UTPD located at 7777 Knight Road and, if the electronic security system is approved by UTPD, the Technical Services Component of UTPD will coordinate the installation of the approved system. Upon written approval of the UTPD Chief, Contractor may use a commercial installation company to install the electronic security system under the coordination of the UTPD.
- K. All security related systems must be monitored and controlled by the UTPD and UTPD must be the primary monitoring station. If Contractor utilizes the services of a commercial alarm company or a proprietary alarm monitoring station, the system may report to such location after first transmitting the alarm to the UTPD.
- L. Contractor is responsible for the performance of the persons Contractor assigns to provide services for MD Anderson on MD Anderson's campus. Contractor will not knowingly assign individuals to provide services on MD Anderson's campus who have a history of violent, unacceptable, or grossly negligent behavior or who have a felony conviction. Prior to supplying labor services under this Agreement, MD Anderson may require Contractor to provide a list identifying the individuals that may be assigned to MD Anderson along with a letter signed by an appropriate officer of Contractor that affirms compliance with this Rider. Contractor will revise such letter each time there is a change in Contractor's personnel assigned to MD Anderson's campus, but in any case, annually on the anniversary date of this Agreement.
- M. Contractor will ensure that all individuals assigned by Contractor to perform services on MD Anderson's campus will display in plain view a photo identification badge provided by MD Anderson while on MD Anderson's campus.
- N. Contractor will retain resumes of all Contractor's employees assigned to this project. Contractor will ensure the proper maintenance of these documents for a minimum of one (1) year after contract completion. Contractor will maintain all documentation, including the results of any background checks, during the term of this Agreement.
- O. MD Anderson will have the right to reject any individual(s) that Contractor offers to assign to MD Anderson's account for any reason. In addition, if Contractor and/or its personnel fail to abide by

these Premises Rules, MD Anderson will have the right to deny Contractor and its personnel access to MD Anderson's campus.

MD Anderson will not be obligated to pay for labor hours supplied by any individual(s) upon whom a background check and records check is not completed or who fails to meet the standards described in this Rider. Exhibit J

Rider 107; Travel Policy

Rider 107 TRAVEL POLICY

All travel and expense costs will be calculated as follows:

- 1. Vendor must use regular coach (state rate or corporate rate, whichever is lower) air transportation for travel in excess of 200 miles, unless otherwise agreed by MD Anderson. In order to maximize discounted airfares, Vendor, with the cooperation of MD Anderson, will schedule on-site visits far enough in advance to take advantage of most advance-purchase offers. In the event meetings or on-site visits are cancelled by MD Anderson, the Vendor may charge for any advance-purchase cancellation penalties imposed by the airline.
- 2. Corporate or state, whichever is lower, rate discounts will be used for hotel accommodations.
- 3. Maximum billable amount per person per day for meals will be \$36.00. Departing from MD Anderson prior to 12:01 p.m. negates any billing for meals for that day. Meal expenses are reimbursable for vendors who travel 50 miles or more, and stay overnight.
- 4. Rental cars will be the least expensive, air-conditioned, automatic transmission, mid-size car available to the vendor under corporate rate programs. Full coverage collision insurance may be used for rental cars, but personal protection plans will not be reimbursed.
- 5. Ground transportation, parking costs and tolls may be invoiced at cost.
- 6. Personal automobile mileage charges will be computed based upon actual miles to and from the appropriate office to and from the client facility. Mileage charges will be invoiced at the standard mileage rate recognized by the State of Texas at the time of invoicing.
- 7. Miscellaneous expenses (i.e., tips, transfers, etc.) will be invoiced at not-to-exceed \$5.00 per person per day, if deemed reasonable.

All travel or miscellaneous expenses must receive prior written approval by the Project Coordinator. Vendor will <u>not</u> be reimbursed for expenses which do not receive this prior written approval.

All travel or miscellaneous expenses must be submitted with an original receipt. All approved expenses will be reimbursed at "actual cost" only. Vendor will <u>not</u> be reimbursed for expenses which are not accompanied by original receipts.

Exhibit K

Rider 117; Compliance with Institutional Policies



RIDER 117 Institutional Policies

In accordance with the education requirements set forth in Section 6032 of the Deficit Reduction Act of 2005 (Act), MD Anderson has implemented, and Contractor agrees to abide by, the following policies, as may be subsequently amended, that are available at: <u>http://www.mdanderson.org/about-us/doing-business/vendors-and-suppliers/index.html.</u>

- 1. Fraud, Waste, and Abuse Policy
- 2. Hospital Compliance Plan
- 3. Non-Retaliation Policy

Exhibit L

Sales Tax Exemption Certificate

Correctiver 01-339 (Back) Correctiver 01-339 (Back) Correctiver 01-339 (Back) Correctiver 01-339 (Back) Correctiver 01-339 (Back)

Texas Sales and Use Tax Exemption Certification This certificate does not require a number to be valid.

Advance (Ofreed & number DO Davies Device much and		Phone (Area code and	number)
1515 Heleombo Divid Unit 0196			3) 745-6873
ty State ZIP code			5) 745-0075
Houston, TX 77030			
		·	
I the nurchaser named above, claim an even	ntion from navment of sales an	d use taxes (for the i	ourchase of taxable
items described below or on the attached orde	er or invoice) from:		
Seller:			
Street address:	City, State, Z	/IP code:	
Description of items to be purchased or on the atta	ached order or invoice:		
Purchaser claims this exemption for the following r			
EXEMPT UNDER SUBCHAPTER H. SEC.	. 151.309 GOVERNMENTAL E TATE OF TEXAS	NTITIES.	
FEDERAL I.D. 74-6001118; TEXAS TAXP	AYER I.D. 35065065068		
·			
I understand that I will be liable for payment of all s the provisions of the Tax Code and/or all applicable	tate and local sales or use taxes wi e law.	hich may become due	for failure to comply wit
l understand that it is a criminal offense to give an ex	emption certificate to the seller for ta	axable items that I know	, at the time of purchase
	n this certificate, and depending on t	he amount of tax evade	d, the offense may rang
will be used in a manner other than that expressed in from a Class C misdemeanor to a felony of the sec	cond degree.		
will be used in a manner other than that expressed in from a Class C misdemeanor to a felony of the sec	cond degree.		Dete
will be used in a manner other than that expressed in from a Class C misdemeanor to a felony of the sec	Title		Date

Sales and Use Tax "Exemption Numbers" or "Tax Exempt" Numbers do not exist.

This certificate should be furnished to the supplier. Do not send the completed certificate to the Comptroller of Public Accounts.

Exhibit M

Owner's Computer-Aided Design Standard

THE UNIVERSITY OF TEXAS Market Alexandree A

Making Cancer History®

CAD Standards Manual

Contents

Section I	Introduction
Section II	Purpose and Application
1.0	Language
2.0	Key Terms
3.0	Software
Section III	CAD File Management
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2.0	Project Sheet Name Convention
3.0	Project Delivery
4.0	File Translation
5.0	Project Source Data
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Appendix A	MD Anderson CAD Standard Layers

Section I Introduction

The University of Texas M.D. Anderson Cancer Center (MD Anderson) maintains Computer Aided Design (CAD) drawings of all the facilities it owns or leases. These drawings are used for planning, design, space management, and maintenance of the facilities. The department of Facilities Administration is responsible for maintaining the drawings and the standards used to develop the drawing files.

In order to maintain an up-to-date record of data and graphics, External and Internal Design Professionals and Construction Companies are required to provide CAD drawings as part of their services. Per Divisional Policy ADM1122, The Document Authority (MD Anderson Project Manager or their representative) must obtain mission critical documents throughout the project. They are provided a Managed Document Checklist which they maintain to confirm mission critical documents are obtained per level of agreement and contract language.

In this document, the requirements for the CAD drawings are outlined to obtain a high quality, uniform set of documents that can easily be integrated into the MD Anderson system.

The layer names and line weights in the M.D. Anderson Cancer Center Standards are developed based on the guidelines of the United States National CAD Standard.

The following CAD Standards are effective as of January 1, 2015 and are subject to change. This manual is a continuously developing document and most of the standards established will not vary. However, in some instances, deviation may be accepted as explained within this document.

Management of the MD Anderson CAD Standards document which includes application of current information, distribution, development, and general maintenance, is performed through the MD Anderson CADD Manager (MD Anderson-CSM). All sources providing design and consulting services shall obtain and verify a current dated revision of this document before returning drawings to M.D. Anderson. MD Anderson-CSM refers to:

Shane Weissinger Tel: (713) 563-6752 Fax: (713) 563-1805 Email: saweissi@mdanderson.org

Section II Purpose and Application

The purpose of this manual is to describe the "system of standards" (Standards) that allow the MD Anderson mission groups, their business partners, and consultant firms, to make informed decisions on CAD related procedures and policies.

This manual is intended to specify the content and quality of the CAD drawing files delivered to, and maintained by MD Anderson.

This manual is not intended to describe "how to" do CAD work.

- 1.0 Language
 - 1.1 In this document the recommendations for a course of action are made with varying degrees of emphasis. As a rule;
 - 1.1.1 "may"- indicates a possible course of action
 - 1.1.2 "should" indicates a preferred course of action
 - 1.1.3 "shall" indicates a course of action where deviation is not allowed without written authority from MD Anderson-CSM.

2.0 Key Terms

- 2.1 "Record As Built" Reflecting the exact condition of the building as constructed
- 2.2 "AutoCAD" CAD software from Autodesk
- 2.3 "CAD" Computer Aided Drafting.
- 2.4 "CD" Construction Documents
- 2.5 "DD" Design Development
- 2.6 "DWG" AutoCAD file format.
- 3.0 Software
 - 3.1 The primary design software for M.D. Anderson is AutoCAD based and includes AutoCAD Architecture and AutoCAD MEP.
 - 3.2 If this document is more than 6 months old please contact the MD Anderson-CSM for possible changes to the version supported information.
 - 3.3 As of March 1, 2015 the currently applied software is the 2014 version.

Section III CAD File Management

- 1.0 File Name Convention
 - 1.1 File names are applied to support identification and document management requirements for MD Anderson. The intent of the file name is to reflect the sheet and subject information that the file represents.
 - 1.2 Drawing file names should, at minimum, consist of:
 - 1.2.1 Sheet number for the project
 - 1.2.2 Sheet title
 - 1.2.3 MD Anderson project number (optional)



- 2.0 Project Sheet Name Convention
 - 2.1 All Project sheets shall follow the standard format described in the National CAD Standard. An example is below.



- 2.2 The first one (1) alpha character denotes discipline. See Table III.3 (verify) for discipline value list.
- 2.3 The next one (1) numeric character describes sheet type. See Table III.4 (verify).
- 2.4 The next two (2) numeric characters denote the sheet sequence in the project set. Valid number values are "01" through "99".
- 2.5 The next three (3) optional user defined alphanumeric characters are for use with supplemental drawings or phased work.

		Sheet Type Designators
0	General	Cover, Index, Legend, Abbreviations, Code, Locations, Fire/Evacuation, ADA General Notes,
1	Plans	Floor, Partial Floor, Demo, RCP, Roof, Foundation, Site, MEP
2	Elevations	Exterior, Interior, MEP
3	Sections	Building, Wall
1	Large	Enlarged Floor, Toilet Plan, Stair Plan/Sections, Casework
-	Scale	Elevations/Sections
5	Details	Site, Foundation, Roof, Ceiling, Column, Wall, Partition Types, Door, Window, MEP
6	Schedules Diagrams	Room Finish, Door, Window, MEP
7	Other	
8	Other	
9	3D	Isometrics, Perspectives, Photographs

3.0 Project Delivery

- 3.1 Consultants and related business partners are required to produce CAD drawings for any new construction or alterations/additions to existing facilities.
- 3.2 Project construction CAD drawings including floor plans, MEP systems, other systems, and Site Information (as applicable) shall be provided to the MD Anderson project manager during the project.
 - 3.2.1 Graphics representing the physical world shall be present in the model space.
 - 3.2.2 Graphics in model space must align to the same project origin point from file to file.
- 3.3 Project "Record As-Built" CAD drawings shall be provided upon completion of the project to the MD Anderson project manager.
- 3.4 Project "Record As-Built" CAD drawings shall include, at a minimum, all drawings that comprise the CD set.
- 3.5 Projects requiring the subject information to be divided into sections on multiple sheets shall have a single CAD file representing the complete discipline subject information for each floor level provided, in addition to the CAD files for each sheet.
- 3.6 Each sheet shall be submitted in a separate CAD file.
- 3.7 All reference files shall be bound to sheet files.
- 3.8 Projects that utilize reference drawings shall include all reference files with each project delivery.

- 3.9 Projects using object linking and embedding (OLE) shall provide the reference files. The use of OLE should be avoided if possible.
- 3.10 Projects that utilize font, linetype, and shape files not defined by this manual shall include such files in the project delivery.
- 3.11 Expected CAD drawing delivery schedule table follows:

1	DD Floor Plans / Site Plans	Within 7 days of approval of the DD drawings
2	CD Floor Plans / Site Plans	Within 7 days of approval of the CD drawings
3	"Record As Built" drawings	Within 30 days of project completion prior to final payment.

- 3.12 CAD drawing files shall be delivered to MD Anderson using one of the following:
 - 3.12.1 CD-ROM or DVD-ROM
 - 3.12.2 E-Mail transfer (under 2 MB only)
 - 3.12.3 Other delivery media may be used with approval of the MD Anderson-CSM
- 3.13 Project delivery media shall be clearly identified with external labels, a delivery index, and the appropriate electronic delivery description file stored on each media item.
- 3.14 The description information shall include:
 - 3.14.1 Project identification (Name and MD Anderson Number)
 - 3.14.2 Drawing List with drawing description
 - 3.14.3 Associated support files and their support role
- 4.0 File Translation
 - 4.1 Drawing Deliverables
 - 4.1.1 MD Anderson recognizes that many of its design and construction firms do not use the same version of drawing authoring software. MD Anderson expects that service providers who work with other file formats will submit DWG formatted CAD files upon project closeout that are fully compliant with all of the standards outlined herein, and which have no significant loss of drawing entities or project data that can result from standard CAD file translation procedures.
 - 4.1.2 All DWG files and CAD drawing entities submitted at the end of a project must be able to be manipulated using standard AutoCAD drafting procedures. Non-compliance with this policy may result in the rejection of CAD files submitted at project closeout in addition to delayed rendering of final project payment. DXF files will not be accepted at project closeout as a substitution for DWG CAD file deliverables.

- 4.2 Translation Testing Recommended
 - 4.2.1 For firms translating their native CAD file format into DWG format concerned about delivering compliant CAD files to MD Anderson upon project closeout, it is strongly recommended that thorough file translation testing be conducted early in the development of the project. This will assure early detection of file conversion issues, if any, and allow for corrective measures to be taken before the project closeout period.
- 5.0 Project Source Data
 - 5.1 MD Anderson provides consultants and related business partners with copies of drawing files for reference only with no liability for their accuracy of the data for purposes of building construction.
 - 5.2 All consultants shall be required to carry out the normal standard of site investigations as required by their profession and in accordance with their conditions of contract.

Section IV CAD File Development

- 1.0 General Drawing Requirements
 - 1.1 All drawings final output should be on D size, 24" x 36", paper. Other standard sizes may be used in accordance with requirements described in later headings.
 - 1.2 The English language shall be used on all drawings, sketches, charts, and associated documents.
 - 1.3 All title blocks shall be of MD Anderson standard design layout.
 - 1.4 All drawings shall use MD Anderson standard layers and linetypes as described in later sections of this manual.
 - 1.5 Revisions to drawing data shall be identified by a revision cloud.
 - 1.5.1 One revision triangle with identification number corresponding to the revision number shall be placed in the cloud line.
 - 1.5.2 A description for the revision number shall be entered in the title block revision history.
 - 1.6 Space Inventory requirements for building floor plans.
 - 1.6.1 All room numbers and the useable floor area in square feet shall be noted on floor plans.
 - 1.6.2 A polyline shall outline the room along the inside face of the walls.
 - 1.6.3 The polyline shall be drawn on a separate layer, as indicated in the layer list.
- 2.0 Drawing Titleblock
 - 2.1 MD Anderson approved titleblocks are available
 - 2.1.1 In house through standard drawing templates and menu tools
 - 2.1.2 Externally under Supplemental Resources on the Owners Design Guidelines website
 - 2.2 The standard titleblocks developed for MD Anderson utilize features available in the AutoCAD 2009 version and up to current design software.
 - 2.2.1 The use of "Fields" for attribute values allows for automated titleblock information control and integration into other software features like the Project Navigator.



Figure 4

2.3	Title Block	k Area: That portion of a sheet containing project, client,
		designer, sheet identification and sheet management
		information. Title block area consists of several data blocks.
	2.3.1	Group ID – Institution Logo, Department logo, Name, Address,
		contact numbers
	2.3.2	Designer ID – Designers name and registration number,
		Professional seals, Issue Type and Date
	2.3.3	Project ID – Project description provided by the project
		manager
	2.3.4	Issue Information – Chronological issue of, and revisions to,
		the sheet.
		2.3.4.1 The initial entry shall be placed at the bottom of the
		issue list with subsequent entries placed above each
		previous entry.
		2.3.4.2 Two columns describe the issue information:
		Revision/Issue and Date.
	2.3.5	Management – Information generally used for project filing,
		record keeping, or other project management information.
		2.3.5.1 Information includes Project Number, Project
		Location, Drafter's and Checker's identification.
	2.3.6	Sheet Information – Type of information presented on the
		sheet.

- 2.3.7 Sheet ID Sheet Type designator, Sheet sequence, Total sheets with the set
- 2.4 Production Data Area: That portion of the sheet containing file and plotting information. Two pieces of information make up this area.
 2.4.1 File Information Layout name, File name, File location 2.4.2 Plot Information Plot by, Plot device, Last plotted date
- 2.5 Production data is typically covered with the binding strip once a project sheet set has been assembled.

Section V Layers

1.0 Requirements

1.1 Layers are based on the AIA CAD Layer Guidelines found in the United States National CAD Standard.



- 1.1.1 There are four defined layer name data fields:
 - 1.1.1.1 Discipline Designator required, one (1) character
 - 1.1.1.2 Major Group required, four (4) character
 - 1.1.1.3 two Minor Group optional, four (4) character
 - 1.1.1.4 Status optional, one (1) character
- 1.2 All components of the drawing subject to service shall be drawn on layers to allow an accurate transfer of data to MD Anderson.
- 1.3 Layer requirements not met by the layer list provided shall be addressed through the MD Anderson -CSM.
- 2.0 Color and Linetype
 - 2.1 Layer color shall be assigned as defined in the layer list.
 - 2.2 Linetypes shall comply with linetype name and graphics indicated for each layer.
 - 2.3 Consistent color and linetype is necessary to convey system information when viewing and plotting the CAD file.
 - 2.4 Object property definitions should be set to "ByLayer". Properties of objects should not be forced.
 - 2.5 Linetype requirements not met by the linetype list provided shall be addressed through the MD Anderson -CSM.
 - 2.6 A customized ACAD.lin file is available with AutoCAD line type definitions for MD Anderson custom linetypes.
 - 2.6.1 This file is available under Supplemental Resources on the on the Owners Design Guidelines website.
 - 2.7 Linetypes of object shall be set to "ByLayer".
 - 2.8 Linetype scale should be set to "1" for all drawing objects.
 - 2.9 The system variables LTSCALE, PSLTSCALE, and MSLTSCALE should all be set to 1, allowing for proper display of lines in both Model and Paper Space.
- 3.0 Lineweight and Plot Styles
 - 3.1 MD Anderson "Master" Existing Condition drawings use AutoCAD "Style Based" plotting (using stb files). This allows the plotted output to be controlled by lineweight and plot style.

- 3.2 Lineweight and plot style shall be assigned as defined in the layer list.
- 3.3 Lineweight and plot style of objects shall be "ByLayer".
- 3.4 Drawings are intended to be plotted using the "AEC Standard" plot style table for black and white plots and the "AEC Standard Color" plot style table for color Plots. (To date, these files have not been modified from the AutoCAD supplied files provided with the 2009 version.)
- 3.5 Consistent lineweight and plotstyle is necessary to provide consistent plotted output.
- 4.0 Layer List
 - 4.1 MD Anderson layers are primarily taken as supplied by the vertical AutoCAD Architecture and MEP software.
 - 4.2 Where necessary MD Anderson has modified or added to meet the needs of the business while following the standard identified in this manual.
 - 4.3 See Appendix A for the MD Anderson CAD Standard Layers.

Section VI Content

- 1.0 Requirements
 - 1.1 Content (symbols, blocks, styles, devices, and other objects) should be used in creating drawings.
 - 1.2 Where MD Anderson specifies a particular block or object it should be used.
 - 1.2.1 The application of MD Anderson standard Content will be determined on a project by project basis.
 - 1.3 Available standard Content from MD Anderson are identified in the Standard Content Matrix below.
 - 1.3.1 Files are located under Supplemental Resources on the Owners Design Guidelines web site.

Standard Content Matrix

Discipline	AutoCAD 2D	AutoCAD Object (for ACA/MEP)	Revit Family	
General	Yes	None	N/A	
Architectural	Yes	Yes	N/A	
Interiors	Yes	None	N/A	
Fire Protection	Yes	Yes	N/A	
Mechanical	Yes	None	N/A	
Plumbing	Yes	Yes	N/A	
Electrical	Yes	Yes	N/A	
Telecommunications	Yes	None	N/A	
Security	Yes	None	N/A	

Section VII Settings

2.0 Requirements

1.1 Settings are used to establish the basic drawing format. While the specific settings shown are for AutoCAD, the intent is to provide consistent graphic output.

3.0 Settings

- 1.1 Text Style
 - 1.3.2 Fonts used shall be standard AutoCAD or Windows installed.
 - 1.1.1 Size shall be minimum 3/32" plotted at full scale.
- 1.2 Drawing Units
 - 1.3.3 Unit are Inches
 - 1.3.4 Type is Architectural
 - 1.3.5 Precision is 1/256"
 - 1.3.6 Angle Type is Decimal Degree
 - 1.3.7 Direction for Angle is Counter Clockwise
- 1.3 Drawing Units Other
 - 1.3.1 Civil and Site should use the units as needed for their disciplines.

Appendix A MD Anderson CAD Standard Layers

Layer list can be found in a separate file located under Supplemental Resources on the Owners Design Guidelines web site.

				I elecommu	nication
Annotation					
LayerName	Color	Linetype	LW	PlotStyle	Description
T-Anno-Attr	220	Continuous	18	Full Saturation	Telecommunication, Annotation, Attribute
T-Anno-Matc	7	Phantom	50	Full Saturation	Telecommunication, Annotation, Match Lines
T-Anno-Note	2	Continuous	25	Full Saturation	Telecommunication, Annotation, Note
T-Anno-Nplt	80	Continuous	35	50 Percent	Telecommunication, Annotation, Non-plotting Information
T-Anno-Refr	80	Continuous	35	50 Percent	Telecommunication, Annotation, External Reference Files
T-Anno-Revs-1	233	Continuous	50	Full Saturation	Telecommunication, Annotation, Revision 1 Cloud & Tag on Drawing
T-Anno-Schd	-	Continuous	18	Full Saturation	Telecommunication, Annotation, Schedules Format
Communication					
LayerName	Color	Linetype	L	PlotStyle	Description
T-Com-Devc	111	Continuous	25	Full Saturation	device: Telecommunication
T-Com-Wire	111	Continuous	25	Full Saturation	wire & conduit: Telecommunication
Data					
LayerName	Color	Linetype	LW	PlotStyle	Description
T-Dat-Devc	113	Continuous	50	Full Saturation	device: Data, or multi-purpose
T-Dat-Wire	113	Continuous	50	Full Saturation	wire & conduit: Data, or multi-purpose
Demolition					
LayerName	Color	Linetype	L	PlotStyle	Description
T-Demo	133	Hidden2	50	Full Saturation	Telecommunication, Demolition, Objects, All objects
T-Demo-Notes	4	Hidden2	35	Full Saturation	Telecommunication, Demolition, Notes, Demolition Notes

				Architec	itural
Door					
LayerName	Color	Linetype	LW	PlotStyle	Description
A-Door	31	Continuous	25	Full Saturation	Doors
A-Door-Iden	132	Continuous	35	Full Saturation	Door tags
Equipment					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
A-Eqpm	06	Continuous	18	Full Saturation	Equipment
A-Eqpm-Accs	-	Hidden2	18	Full Saturation	Architectural, Equipment, Access,
A-Eqpm-Iden	132	Continuous	35	Full Saturation	Equipment tags
A-Eqpm-Ovhd	-	Hidden2	18	Full Saturation	Architectural, Equipment, Overhead
Floor					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
A-Flor-Case	31	Continuous	25	Full Saturation	Casework
A-Flor-Case-Uppr	31	Hidden	25	Full Saturation	Architectural, Casework, Upper Cabinets (if using lines)
A-Flor-Evtr	172	Continuous	35	Full Saturation	Elevators
A-Flor-Evtr-Bank-Iden	173	Continuous	50	Full Saturation	Elevator Bank Identification (large tag in lobby)
A-Flor-Evtr-Iden	173	Continuous	50	Full Saturation	Elevator Identification (small tag at each elevator door)
A-Flor-Fenc	113	C-fence2	50	Full Saturation	Chain-link fence used inside as a partition
A-Flor-Hidn	-	Hidden	18	Full Saturation	Architectural, Hidden Objects
A-Flor-Hral	10	Continuous	18	Full Saturation	Stair handrails
A-Flor-Levl	200	Continuous	18	Full Saturation	Architectural, Floor, Level Change, Ramp, Pit, Depression
A-Flor-Misc	30	Continuous	18	Full Saturation	Architectural, Floor, Miscellaneous
A-Flor-Patt	8	Continuous	35	50 Percent	Architectural, Hatch Pattern, For Floor Plan
A-Flor-Spcl	06	Continuous	18	Full Saturation	Architectural, Specialties, Toilet Accessories and Grab bars
A-Flor-Strs	31	Continuous	25	Full Saturation	Stairs
A-Flor-Strs-Iden	30	Continuous	18	Full Saturation	Stair Identification
A-Flor-Tptn	120	Continuous	18	Full Saturation	Architectural, Toilet Partitions
Glazing					
LayerName	Color	Linetype	LW	PlotStyle	Description
A-Glaz	151	Continuous	25	Full Saturation	Windows
A-Glaz-Curt	52	Continuous	35	Full Saturation	Curtain Walls

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				Architec	tural
Glazing					
LayerName	Color	Linetype	ΓW	PlotStyle	Description
A-Glaz-Curt-Unit	51	Continuous	25	Full Saturation	Curtain Wall Units
A-Glaz-Sill	50	Continuous	18	Full Saturation	Window Sills
Roof					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
A-Roof	130	Continuous	18	Full Saturation	Rooflines
A-Roof-Levl	142	Continuous	35	Full Saturation	Roof, Level Changes, hip or valley
A-Roof-Otln	5 L	Continuous	50	Full Saturation	Roof outline
A-Roof-Patt	80	Continuous	35	50 Percent	Roof, Hatch Pattern
A-Roof-Slab	12	Continuous	35	Full Saturation	Roof Slabs
Section					
LayerName	Color	Linetype	LV	PlotStyle	Description
A-Sect-Bldg	-	Continuous	18	Full Saturation	Architectural, Section, Buillding,
A-Sect-Bldg-Patt	80	Continuous	35	50 Percent	Architectural, Section, Buillding, Hatch Pattern
Wall					
LayerName	Color	Linetype	LW	PlotStyle	Description
A-Wall	113	Continuous	50	Full Saturation	Walls
A-Wall-Head	21	Continuous	25	Full Saturation	Architectural, Wall Header (for RCP if using lines)
A-Wall-Move	112	Continuous	35	Full Saturation	Architectural, Wall, Moveable Partitions
A-Wall-Patt	8	Continuous	35	50 Percent	Architectural, Wall, Hatch Pattern
A-Wall-Prht	72	Continuous	35	Full Saturation	Architectural, Wall, Partial Height (if using lines)

				Electri	Gal
Annotation					
LayerName	Color	Linetype	LV	PlotStyle	Description
E-Anno-Dims	~	Continuous	18	Full Saturation	Electrical, Annotation, Dimensions
E-Anno-Iden	с С	Continuous	35	Full Saturation	Electrical, Annotation, Identifications
E-Anno-Matc	7	Phantom	50	Full Saturation	Electrical, Annotation, Match Lines
E-Anno-Note	2	Continuous	25	Full Saturation	Electrical, Annotation, Note
E-Anno-Nplt	8	Continuous	35	50 Percent	Electrical, Annotation, Non-plotting Information
E-Anno-Refr	8	Continuous	35	50 Percent	Electrical, Annotation, Attritute, External Reference Files
E-Anno-Revs-1	233	Continuous	50	Full Saturation	Electrical, Annotation, Revision 1 Cloud & Tag on Drawing
E-Anno-Schd	~	Continuous	18	Full Saturation	Electrical, Annotation, Schedules Format
Clock					
LayerName	Color	Linetype	LV	PlotStyle	Description
E-CIk-Devc	91	Continuous	25	Full Saturation	Electrical device system: Clock
E-CIk-Wire	93	Continuous	50	Full Saturation	Electrical wire & conduit system: Clock
Closed Circuit TV					
LayerName	Color	Linetype	LV	PlotStyle	Description
E-Cct-Devc	151	Continuous	25	Full Saturation	Electrical device system: Closed Circuit TV
E-Cct-Wire	153	Continuous	50	Full Saturation	Electrical wire & conduit system: Closed Circuit TV
Data					
LayerName	Color	Linetype	LV	PlotStyle	Description
E-Dat-Tray	113	Continuous	50	Full Saturation	Electrical cable tray system: Data
Demolition					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
E-Demo	133	Hidden2	50	Full Saturation	Electrical, Demolition, Objects, All objects
E-Demo-Note	4	Hidden2	35	Full Saturation	Electrical, Demolition, Notes, All electrical demolition notes
Detail					
LayerName	Color	Linetype	LV	PlotStyle	Description
E-Detl	122	Continuous	35	Full Saturation	Electrical, Detail, Details/Sections/Elevations

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				Electri	cal
Energy Mgmt					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
E-Ens-Devc	153	Continuous	50	Full Saturation	Electrical device system: Energy Management System
E-Ens-Wire	153	Continuous	50	Full Saturation	Electrical wire & conduit system: Energy Management System
Intercom					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
E-Int-Devc	131	Continuous	25	Full Saturation	Electrical device system: Intercom
E-Int-Wire	133	Continuous	50	Full Saturation	Electrical wire & conduit system: Intercom
Lighting					
LayerName	Color	Linetype	LV	PlotStyle	Description
E-Ltg-Circ	91	Continuous	25	Full Saturation	Electrical, Lighting, Circuits, Pline and Circuit ID
E-Ltg-Cnum	231	Continuous	25	Full Saturation	Electrical, Lighting Circuit Number
E-Ltg-Devc	152	Continuous	35	Full Saturation	Electrical device system: Lighting
E-Ltg-Devc-Emer	53	Continuous	50	Full Saturation	Electrical, Lighting, Emergency
E-Ltg-Devc-Exit	153	Continuous	50	Full Saturation	Electrical device system: Lighting Exit
E-Ltg-Devc-Swtch	191	Continuous	25	Full Saturation	Electrical device system: Lighting Switches
E-Ltg-Patt	200	Continuous	18	Full Saturation	Electrical, Lighting, Hatch Pattern
E-Ltg-Tag	230	Continuous	18	Full Saturation	Electrical, Lighting, Iden, type, or other tags
E-Ltg-Wire-Exit	111	Continuous	25	Full Saturation	Electrical wire & conduit system: Lighting Exit
Nurse Call					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
E-Nur-Devc	131	Continuous	25	Full Saturation	Electrical device system: Nurse call
E-Nur-Wire	133	Continuous	50	Full Saturation	Electrical wire & conduit system: Nurse call
Power					
LayerName	Color	Linetype	L	PlotStyle	Description
E-Pwr-Anno-Crit	7	Continuous	18	Full Saturation	Electrical Riser, Annotation: Critical branch
E-Pwr-Anno-Emer	7	Continuous	18	Full Saturation	Electrical Riser, Annotation: Emergency branch
E-Pwr-Anno-Eqpm	7	Continuous	18	Full Saturation	Electrical Riser, Annotation: Equipment branch
E-Pwr-Anno-Life	7	Continuous	18	Full Saturation	Electrical Riser, Annotation: Life Safety branch
E-Pwr-Anno-Nrml	7	Continuous	18	Full Saturation	Electrical Riser, Annotation: Normal branch

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				Electri	cal
Power					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
E-Pwr-Circ	91	Continuous	25	Full Saturation	Electrical, Power, Circuits, Pline and Circuit ID
E-Pwr-Devc	151	Continuous	25	Full Saturation	Electrical device system: Power
E-Pwr-Devc-Crit	58	Continuous	50	Full Saturation	Electrical Riser, One-line, Devices: Critical branch
E-Pwr-Devc-Emer	233	Continuous	50	Full Saturation	Electrical Riser, One-line, Devices: Emergency branch
E-Pwr-Devc-Eqpm	103	Continuous	50	Full Saturation	Electrical Riser, One-line, Devices: Equipment branch
E-Pwr-Devc-Life	13	Continuous	50	Full Saturation	Electrical Riser, One-line, Devices: Life Safety branch
E-Pwr-Devc-Nrml	133	Continuous	50	Full Saturation	Electrical Riser, One-line, Devices: Normal branch
E-Pwr-Devc-Site	1	Continuous	25	Full Saturation	Electrical, Power, Devices, Site
E-Pwr-Eqpm-Othr	100	Hidden2	18	50 Percent	Other Disciplines Powered Equipment
E-Pwr-Patt	200	Continuous	18	Full Saturation	Electrical, Power, Hatch Pattern
E-Pwr-Tag	220	Continuous	18	Full Saturation	Electrical, Power, Iden, type, or other tags
E-Pwr-Wire-Crit	95	Continuous	18	Full Saturation	Electrical Riser, One-line, Wire: Critical branch
E-Pwr-Wire-Emer	230	Continuous	18	Full Saturation	Electrical Riser, One-line, Wire: Emergency branch
E-Pwr-Wire-Eqpm	100	Continuous	18	Full Saturation	Electrical Riser, One-line, Wire: Equipment branch
E-Pwr-Wire-Life	10	Continuous	18	Full Saturation	Electrical Riser, One-line, Wire: Life Safety branch
E-Pwr-Wire-Nrml	130	Continuous	18	Full Saturation	Electrical Riser, One-line, Wire: Normal branch
E-Pwr-Wire-Site-Undr	11	Continuous	25	Full Saturation	Electrical, Site, Underground Electrical Lines,
Security					
LayerName	Color	Linetype	LW	PlotStyle	Description
E-Sec-Devc	131	Continuous	25	Full Saturation	Electrical device system: Security
E-Sec-Wire	131	Continuous	25	Full Saturation	Electrical wire & conduit system: Security
Standard, Generic, or N	Aisc.				
LayerName	Color	Linetype	LV	PlotStyle	Description
E-Std-Devc	1	Continuous	25	Full Saturation	Electrical Devices
E-Std-Jbox	31	Continuous	25	Full Saturation	Electrical device layer key: Junction Box
E-Std-Panl	31	Continuous	25	Full Saturation	Electrical device layer key: Panel
E-Std-Swch	110	Continuous	18	Full Saturation	Electrical device layer key: Switch
E-Std-Tray	32	Continuous	35	Full Saturation	Cable Tray, all types or multi-purpose

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				FIre	
Annotation					
LayerName	Color	Linetype	L	PlotStyle	Description
F-Anno-Legn	231	Continuous	25	Full Saturation	Fire,Lifesafety Legends
F-Anno-Note	7	Continuous	25	Full Saturation	Notes, leaders, etc.
Demolition					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
F-Demo	5	Hidden	50	Full Saturation	Fire, Demolition, Graphic information
F-Demo-Note	ъ С	Hidden	50	Full Saturation	Fire, Demolition, Text & Notes
Egress					
LayerName	Color	Linetype	L	PlotStyle	Description
F-Exit	-	Continuous	18	Normal	Exit path marking, Exit locations
Protection					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
F-Prot-Eqpm	06	Continuous	18	Full Saturation	Fire system equip, Fire Extinguishers
F-Prot-Exit	с С	Continuous	18	Normal	Fire Protection - Exit Symbol, major and minor
F-Prot-Exit-Discharge	7	Continuous	18	Normal	Fire Protection - Exit Symbol, Discharge only
F-Prot-Exit-Horiz	5	Continuous	18	Normal	Fire Protection - Exit Symbol, Horizontal Exit
F-Prot-Exit-Interior	5 2	Continuous	18	Normal	Fire Protection - Exit Symbol, from Interior
F-Prot-Exit-Space	35	Continuous	18	Normal	Fire Protection - Exit Symbol, from Space
F-Prot-Iden	30	Continuous	18	Full Saturation	Fire, Fire Protection, Identification, tag
F-Prot-Occ-AHC	40	Continuous	18	Normal	Fire Protection - Occupancy, AHC (Ambulatory Health Care)
F-Prot-Occ-Assembly	140	Continuous	18	Normal	Fire Protection - Occupancy, Assembly
F-Prot-Occ-HC	254	Continuous	18	Normal	Fire Protection - Occupancy, Health Care
F-Prot-Occ-Stor	201	Continuous	18	Normal	Fire Protection - Occupancy, Storage
Standard, Generic, or M	lisc.				
LayerName	Color	Linetype	ΓW	PlotStyle	Description
F-Std-Devc	30	Continuous	18	Full Saturation	Electrical device layer key: Fire Detection
F-Std-Devc	30	Continuous	18	Full Saturation	Electrical device layer key: Fire Notification
F-Std-Devc	31	Continuous	25	Full Saturation	Electrical device layer key: Fire Safety
F-Std-Pipe	183	Continuous	50	Full Saturation	Fire Sprinkler pipe - unknown

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				Fire	
Standard, Generic, or M	lisc.				
LayerName	Color	Linetype	LW	PlotStyle	Description
F-Std-Sprn	91	Continuous	25	Full Saturation	Fire Protection mvpart layer key: Sprinkler Horizontal Sidewall
F-Std-Sprn	91	Continuous	25	Full Saturation	Fire Protection mvpart layer key: Sprinkler Pendant
Wall					
LayerName	Color	Linetype	LW	PlotStyle	Description
F-Wall-1hr-FB	9	1HR-FB	18	Normal	Fire Protection, Fire Barrier, 1 Hour (Chartpak line)
F-Wall-1hr-FS	22	1HR-FS	18	Normal	Fire Protection, Fire-Smoke Barrier, 1 Hour (Chartpak line)
F-Wall-1hr-SB	5	1HR-SB	18	Normal	Fire Protection, Smoke Barrier (Chartpak line)
F-Wall-2hr-FB	с С	2HR-FB	18	Normal	Fire Protection, Fire Barrier, 2 Hour (Chartpak line)
F-Wall-2hr-FS	-	2HR-FS	18	Normal	Fire Protection, Fire-Smoke Barrier, 2 Hour (Chartpak line)
F-Wall-30m-FB	134	30M-FB	18	Normal	Fire Protection, Fire Barrier, 30 Minute(Chartpak line)
F-Wall-4hr-FB	30	4HR-FB	18	Normal	Fire Protection, Fire Barrier, 4 Hour (Chartpak line)
F-Wall-Smok-Tght	37	HIDDEN	18	Normal	Fire Protection, Smoke-tight partition (Chartpak line)
F-Wall-Suite	4	HIDDEN	18	Normal	Fire Protection, Suite partition (Chartpak line)

				Gener	ral
Annotation					
LayerName	Color	Linetype	L	PlotStyle	Description
G-Anno-Dims	210	Continuous	18	Full Saturation	Dimensions (AutoCAD points)
G-Anno-Matc	214	Aec_Match	70	Full Saturation	Match Lines
G-Anno-Note	231	Continuous	25	Full Saturation	Notes, leaders, etc.
G-Anno-Nplt	142	Continuous	35	Full Saturation	Sheet View Viewport
G-Anno-Nplt	142	Continuous	35	Full Saturation	Construction Line
G-Anno-Revs	71	Continuous	25	Full Saturation	Revisions
G-Anno-Schd	231	Continuous	25	Full Saturation	Schedule tables
G-Anno-Seal	4	Continuous	35	Full Saturation	General, Title Block, Professional Seal
G-Anno-Titl	232	Continuous	35	Full Saturation	Drawing title text
G-Anno-Titl-Grid	5	Continuous	50	Full Saturation	General, Title Block, Drawing Grid
G-Anno-Ttlb	213	Continuous	50	Full Saturation	Border and title block
G-Anno-Ttlb-Brdr	155	Continuous	100	Full Saturation	Border for MDA titleblock
G-Anno-Ttlb-Disc	191	Continuous	25	Full Saturation	General, Title Block, Architect/Engineer Information
G-Anno-Ttlb-Note	4	Continuous	35	Full Saturation	General, Title Block, Note: Incomplete document
G-Anno-Ttlb-Nplt	80	Continuous	35	Full Saturation	General, Title Block, outline
G-Anno-Ttlb-Pric	с С	Continuous	35	Full Saturation	General, Title Block, Note: Pricing
G-Anno-Ttlb-Revw	4	Continuous	35	Full Saturation	General, Title Block, Note: Review
G-Anno-Ttlb-Text	190	Continuous	18	Full Saturation	General, Title Block, Text
G-Anno-Ttlb-Wnfc	80	Continuous	35	50 Percent	General, Title Block, Note: Not For Construction
G-Anno-Ttls	140	Continuous	18	Full Saturation	General, Title Block, Sheet Title text
G-Anno-Vprt	8	Continuous	35	50 Percent	General, Layout, Viewport
Area					
LayerName	Color	Linetype	L	PlotStyle	Description
G-Area-Iden	171	Continuous	25	Full Saturation	Room tags
G-Area-Spce	32	Continuous	35	Full Saturation	Space objects
Elevation					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
G-Elev	111	Continuous	25	Full Saturation	Elevations
G-Elev	111	Continuous	25	Full Saturation	Elevations (2D)

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				Gener	al
Elevation					
LayerName	Color	Linetype	LW	PlotStyle	Description
G-Elev-Patt	ω	Continuous	35	50 Percent	Elevation, Hatch Pattern
Plan					
LayerName	Color	Linetype	LW	PlotStyle	Description
G-Plan	233	Continuous	50	Full Saturation	General, Key Plan, Project Area Outline
G-Plan-Nrth	с С	continuous	35	Full Saturation	General, Key Plan, North arrow
G-Plan-Patt	200	Continuous	18	Full Saturation	General, Key Plan, Project Area Hatch Pattern
Section					
LayerName	Color	Linetype	L	PlotStyle	Description
G-Sect	20	Continuous	18	Full Saturation	Miscellaneous sections
G-Sect	20	Continuous	18	Full Saturation	Sections (2D)
G-Sect-Patt	8	Continuous	35	50 Percent	Section, Enlarged, Hatch Pattern
Site					
LayerName	Color	Linetype	ΓW	PlotStyle	Description
G-Site	21	Continuous	25	Full Saturation	General, Site Map, Map
Standard, Generic, or N	disc.				
LayerName	Color	Linetype	LW	PlotStyle	Description
G-Std-Anno-Labl	231	Continuous	25	Full Saturation	Label
G-Std-Bgrd-Scrn	80	Continuous	25	50 Percent	General background layer key: Screened Objects
G-Std-Bgrd-Scrn-Nplt	ω	Continuous	25	50 Percent	General background layer key: Screened Non-Plot Objects

				Interi	or
Annotation					
LayerName	Color	Linetype	LV	PlotStyle	Description
I-Anno-Dims	120	Continuous	18	Full Saturation	Interior, Annotation, Dimensions
I-Anno-Legn	7	Continuous	50	Full Saturation	Interior, Annotation, Legends
I-Anno-Note	120	Continuous	18	Full Saturation	Interior, Annotation, Notes
I-Anno-Nplt	8	Continuous	35	50 Percent	Interior, Annotation, Non-plottable Information
I-Anno-Ttlb	7	Continuous	50	Full Saturation	Interior, Annotation, Title block
Area					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
I-Area-Occp	4	Continuous	35	Full Saturation	Interior, Area, Occupant's name
I-Area-Patt	7	Continuous	25	Full Saturation	Interior, Area, Hatch Pattern
I-Area-Pttl	7	Continuous	50	Full Saturation	Interior, Area, Occupant's Position Title & Dept. Name
I-Area-Sqft	-	Continuous	18	Full Saturation	Interior, Area, Square Footage
Door					
LayerName	Color	Linetype	L	PlotStyle	Description
I-Door	7	Continuous	50	Full Saturation	Interior, Door
Floor					
LayerName	Color	Linetype	LV	PlotStyle	Description
I-Flor	200	Continuous	18	Full Saturation	Interior, Floor, Finish Changes
I-Flor-Case	7	Continuous	50	Full Saturation	Interior, Floor, Casework
Furniture					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
I-Furn	33	Continuous	25	Full Saturation	Furniture, General and moveable
I-Furn-Fixd	~	Continuous	25	Full Saturation	Interior, Furniture, Fixed
I-Furn-Hidn	50	HIDDEN2	18	Full Saturation	Interior, Furniture, Hidden Object
I-Furn-Iden	211	Continuous	25	Full Saturation	Furniture tags
I-Furn-Misc	റ	Continuous	18	50 Percent	Interior, Furniture, Interior Accessories
I-Furn-Orgn	30	Continuous	18	Full Saturation	Interior, Furniture, Original Location Text
I-Furn-Patt	200	Continuous	18	Full Saturation	Interior, Furniture, Hatch Pattern
I-Furn-Relc	30	Continuous	18	Full Saturation	Interior, Furniture, Relocated

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Dr		Description	Interior, Furniture, From Warehouse		Description	Interior, Wall
Interio		PlotStyle	Full Saturation		PlotStyle	Full Saturation
		ΓW	25		ΓM	50
		Linetype	Continuous		Linetype	Continuous
		Color	с С		Color	7
	Furniture	LayerName	I-Furn-Ware	Wall	LayerName	I-Wall

				Lab Plan	ning
Annotation					
LayerName	Color	Linetype	L	PlotStyle	Description
B-anno-dims	~	Continuous	18	Full Saturation	Lab Planning, Annotation, Dimensions
B-anno-legn	7	Continuous	25	Full Saturation	Lab Planning, Annotation, Legends
B-anno-note	7	Continuous	25	Full Saturation	Lab Planning, Annotation, Notes
B-anno-revs-1	235	Continuous	100	Full Saturation	Lab Planning, Annotation, Revision 1 Cloud & Tag on Drawing
B-anno-revs-2	235	Continuous	100	Full Saturation	Lab Planning, Annotation, Revision 2 Cloud & Tag on Drawing
Architecture					
LayerName	Color	Linetype	L	PlotStyle	Description
B-Arch-Note	7	Continuous	25	Full Saturation	Lab Planning, Architectural, Note, Notes
Area					
LayerName	Color	Linetype	LV	PlotStyle	Description
B-Area	7	Continuous	25	Full Saturation	Lab Planning, Annotation, Boundary
B-Area-Patt	7	Continuous	25	Full Saturation	Lab Planning, Annotation, Hatch Pattern
B-Area-Sqft	4	Continuous	35	Full Saturation	Lab Planning, Annotation, Square Feet
Casework					
LayerName	Color	Linetype	L	PlotStyle	Description
B-Case-Fixd	31	Continuous	25	Full Saturation	Lab Planning, Casework, Fixed,
B-Case-Mobl	41	Continuous	25	Full Saturation	Lab Planning, Casework, Mobile,
B-Case-Mobl-Orgn	51	Continuous	25	Full Saturation	Lab Planning, Casework, Mobile, Original location
B-Case-Mobl-Relc	63	Continuous	50	Full Saturation	Lab Planning, Casework, Mobile, Relocated to this location
B-Case-Note	7	Continuous	25	Full Saturation	Lab Planning, Casework, Note, Notes
B-Case-Undr	œ	Hidden	18	50 Percent	Lab Planning, Casework, Under, Underneath, hidden line
Ceiling					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
B-CIng-Misc	61	Continuous	25	Full Saturation	Lab Planning, Ceiling, Miscellaneous Elements, Miscellaneous Elem
Communication					
LayerName	Color	Linetype	L	PlotStyle	Description
B-Comm	с С	Continuous	35	Full Saturation	Lab Planning, Communication, Outlets,
B-Comm-Note	7	Continuous	25	Full Saturation	Lab Planning, Communication, Note, Notes

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				Lab Plan	ning
Demolition					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
B-Demo	11	Hidden2	18	Full Saturation	Lab Planning, Demolition, Objects, Common objects for Floor and C
B-Demo-Note	11	Continuous	18	Full Saturation	Lab Planning, Demolition, Notes, Notes
Detail					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
B-Detl-Note	7	Continuous	25	Full Saturation	Lab Planning, Detail, Note, Notes
Door					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
B-Door	31	Continuous	25	Full Saturation	Lab Planning, Door, Interior,
Electric					
LayerName	Color	Linetype	ΓW	PlotStyle	Description
B-Elec	91	Continuous	35	Full Saturation	Lab Planning, Electrical,
B-Elec-Clng	111	Continuous	35	Full Saturation	Lab Planning, Electrical, Ceiling Elements, Elements, Lights, Power,
B-Elec-Flor	71	Continuous	35	Full Saturation	Lab Planning, Electrical, Floor Elements,
B-Elec-Note	7	Continuous	25	Full Saturation	Lab Planning, Electrical, Note, Notes
Equipment					
LayerName	Color	Linetype	ΓW	PlotStyle	Description
B-Eqpm	ъ С	Continuous	25	Full Saturation	Lab Planning, Equipment, Free Standing,
B-Eqpm-Note	7	Continuous	25	Full Saturation	Lab Planning, Equipment, Note, Notes
Floor					
LayerName	Color	Linetype	ΓW	PlotStyle	Description
B-Flor-Misc	180	Continuous	25	Full Saturation	Lab Planning, Floor, Miscellaneous Elements, Miscellaneous Elemen
Furniture					
LayerName	Color	Linetype	LW	PlotStyle	Description
B-Furn	S	Continuous	50	Full Saturation	Lab Planning, Furniture,
B-Furn-Note	7	Continuous	25	Full Saturation	Lab Planning, Furniture, Note, Notes
Mechanical					
LayerName	Color	Linetype	L	PlotStyle	Description

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				Lab Plan	ning
Mechanical					
LayerName	Color	Linetype	LW	PlotStyle	Description
B-Mech	21	Continuous	35	Full Saturation	Lab Planning, Mechanical,
B-Mech-Note	7	Continuous	25	Full Saturation	Lab Planning, Mechanical, Note, Notes
Plumbing					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
B-Plum	231	Continuous	18	Full Saturation	Lab Planning, Plumbing,
B-Plum-Flor	230	Continuous	18	Full Saturation	Lab Planning, Plumbing, Floor Elements, Floor Elements
B-Plum-Note	7	Continuous	25	Full Saturation	Lab Planning, Plumbing, Note, Notes
Wall					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
B-Wall	က	Continuous	35	Full Saturation	Lab Planning, Wall,

			door		
cape		Descriptior	Plants - out		
Lands		PlotStyle	Full Saturation		
		LW	35		
		Linetype	Continuous		
		Color	72		
	Site	LayerName	L-Site-Plnt		

				Mechan	ical
Air Handling Unit					
LayerName	Color	Linetype	L	PlotStyle	Description
M-Ahu-Eqpm	94	Continuous	70	Full Saturation	Mechanical mvpart layer key: Air Handling Unit
Annotation					
LayerName	Color	Linetype	LW	PlotStyle	Description
M-Anno-Matc	7	Phantom	50	Full Saturation	Mechanical, Annotation, Match Lines
M-Anno-Nplt	80	Continuous	35	50 Percent	Mechanical, Annotation, Non-plotting Information
M-Anno-Refr	80	Continuous	35	50 Percent	Mechanical, Annotation, External Reference Files
M-Anno-Revs-1	233	Continuous	50	Full Saturation	Mechanical, Annotation, Revision 1 Cloud & Tag on Drawing
M-Anno-Schd	-	Continuous	18	Full Saturation	Mechanical, Annotation, Schedules Table
Boiler					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
M-Blr-Eqpm	94	Continuous	70	Full Saturation	Mechanical mvpart layer key: Boilers
Chilled Water					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
M-Chw-Eqpm	91	Continuous	25	Full Saturation	Mechanical pipe system: Equipment
M-Chw-Pipe-Primary-Retn	4	Continuous	25	Full Saturation	Mechanical pipe system: Chilled Water - Primary Return
M-Chw-Pipe-Primary-Sup	ъ С	Continuous	25	Full Saturation	Mechanical pipe system: Chilled Water - Primary Supply
M-Chw-Pipe-Retn	7	Continuous	25	Full Saturation	Mechanical pipe system: Chilled Water - Return
M-Chw-Pipe-Secondary-R	122	Continuous	25	Full Saturation	Mechanical pipe system: Chilled Water - Secondary Return
M-Chw-Pipe-Secondary-S	190	Continuous	25	Full Saturation	Mechanical pipe system: Chilled Water - Secondary Supply
M-Chw-Pipe-Supp	81	Continuous	25	Full Saturation	Mechanical pipe system: Chilled Water - Supply
Chiller					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
M-Chr-Eqpm	91	Continuous	25	Full Saturation	Mechanical mvpart layer key: Chiller
Cold Deck					
LayerName	Color	Linetype	ΓW	PlotStyle	Description
M-Cld-Duct-Supp	141	Continuous	25	Full Saturation	Mechanical duct system: Supply Air - Cold Deck

				Mechan	ical
Condensate					
LayerName	Color	Linetype	LW	PlotStyle	Description
M-Cnd-Pipe	13	Continuous	50	Full Saturation	Mechanical pipe system: Steam - Condensate Return
M-Cnd-Pipe-High	7	Continuous	25	Full Saturation	Mechanical pipe system: Steam - Condensate Return - High Pressur
M-Cnd-Pipe-Low	7	Continuous	25	Full Saturation	Mechanical pipe system: Steam - Condensate Return - Low Pressur
M-Cnd-Pipe-med	11	Continuous	25	Full Saturation	Mechanical pipe system: Steam - Condensate Return - Medium Pres
M-Cnd-Pipe-Pump	31	Continuous	25	Full Saturation	Mechanical, Condensate Piping, Steam Pumped, Condensate Piping
Condenser Water					
LayerName	Color	Linetype	LW	PlotStyle	Description
M-Cdw-Pipe	113	Continuous	50	Full Saturation	Mechanical pipe system: Condenser Water
Controls					
LayerName	Color	Linetype	LV	PlotStyle	Description
M-Cnt	21	Continuous	25	Full Saturation	Mechanical, Control System
Damper					
LayerName	Color	Linetype	LW	PlotStyle	Description
M-Dpr-Devc-Aban	-	Continuous	35	Full Saturation	Abandoned Damper symbol for Safety drawings
M-Dpr-Devc-Fire	9	Continuous	70	Full Saturation	Fire Damper symbol for Safety drawings
M-Dpr-Devc-Fsmo	40	Continuous	35	Full Saturation	FireSmoke Damper symbol for Safety drawings
M-Dpr-Devc-Smok	4	Continuous	35	Full Saturation	Smoke Damper symbol for Safety drawings
M-Dpr-Devc-VCtr	11	Continuous	35	Full Saturation	Volume Control Damper symbol for Safety drawings
Demolition					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
M-Demo-Hvac	153	Hidden	50	Full Saturation	Mechanical, Demolition, Objects, HVAC
M-Demo-Hvac-Note	31	Continuous	25	Full Saturation	Mechanical, Demolition, Notes, HVAC
M-Demo-Pipe	153	Hidden	50	Full Saturation	Mechanical, Demolition, Objects, Piping
M-Demo-Pipe-Note	31	Continuous	25	Full Saturation	Mechanical, Demolition, Notes, Piping
Exhaust					
LayerName	Color	Linetype	L	PlotStyle	Description
M-Exhs-Duct	221	Continuous	25	Full Saturation	Mechanical duct system: Exhaust
M-Exhs-Eqpm	1	Continuous	25	Full Saturation	Mechanical, Exhaust System, Equipment
TI ALL ALL ALL ALL ALL ALL ALL ALL ALL AL					

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				Architac	
				Architec	sural
Annotation					
LayerName	Color	Linetype	L	PlotStyle	Description
A-Anno-Adac	~	Hidden	18	Full Saturation	Architectural, Annotation, ADA Accessibility
A-Anno-Matc	7	Phantom	50	Full Saturation	Architectural, Annotation, Match Lines
A-Anno-Nplt	80	Continuous	35	50 Percent	Architectural, Annotation, Non-plotting Information
A-Anno-Refr	80	Continuous	35	50 Percent	Architectural, Annotation, Reference, Attach AFP External Reference
A-Anno-Revs-1	233	Continuous	50	Full Saturation	Architectural, Annotation, Revision 1 Cloud & Tag on Drawing
A-Anno-Scal	7	Continuous	25	Full Saturation	Architectural, Annotation, Graphic Scale
A-Anno-Scrn	250	Continuous	25	50 Percent	Annotation, screened
Ceiling					
LayerName	Color	Linetype	L	PlotStyle	Description
A-CIng	13	Continuous	50	Full Saturation	Ceiling lines, plines, soffits, hard ceiling
A-CIng-Grid	72	Continuous	35	Full Saturation	Ceiling grids
A-CIng-Grid-Main	133	Continuous	50	Full Saturation	Ceiling grid "mains" - if noted.
A-CIng-Misc	21	Continuous	25	Full Saturation	Ceiling, Miscellaneous Elements
A-CIng-Patt	80	Continuous	35	50 Percent	Ceiling, Hatch Patterns
Demolition					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
A-Demo	1	Hidden2	25	Full Saturation	Demolition, Objects, Common objects for Floor and Ceiling
A-Demo-Note	11	Continuous	25	Full Saturation	Architectural, Demolition, Notes
Detail					
LayerName	Color	Linetype	LW	PlotStyle	Description
A-Detl		Continuous	18	Full Saturation	Architectural, Detail Plan/Sect, Details
A-Detl-Patt	8	Continuous	35	50 Percent	Architectural, Detail Plan/Sect, Hatch Pattern

The University of Texas M. D. Anderson Cancer Center

Operations and Facilities Management Division

				Mechan	ical
Exhaust					
LayerName	Color	Linetype	L	PlotStyle	Description
M-Exhs-Term-Grill	11	Continuous	25	Full Saturation	Mechanical, Exhaust System, Grill (Diffuser?)
Heat Exchanger					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
M-Hex-Eqpm	94	Continuous	70	Full Saturation	Mechanical mvpart layer key: Heat Exchanger
Heating Hot Water					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
M-Hhw-Eqpm	201	Continuous	25	Full Saturation	Mechanical, Heating Hot Water, Equipment
M-Hhw-Pipe	183	Continuous	50	Full Saturation	Mechanical pipe system: Heating Hot Water
M-Hhw-Pipe-Retn	171	Continuous	25	Full Saturation	Mechanical pipe system: Heating Hot Water - Return
M-Hhw-Pipe-Supp	231	Continuous	25	Full Saturation	Mechanical pipe system: Heating Hot Water - Supply
Hot Deck					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
M-Hot-Duct-Supp	141	Continuous	25	Full Saturation	Mechanical duct system: Supply Air - Hot Deck
HVAC					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
M-Hvac-Iden	с С	Continuous	35	Full Saturation	Mechanical, HVAC, Identification Tags
M-Hvac-Note	2	Continuous	25	Full Saturation	Mechanical, HVAC, Notes
M-Hvac-Pipe-Iden	с С	Continuous	35	Full Saturation	Mechanical, HVAC, Piping, Identification Tags
M-Hvac-Pipe-Note	2	Continuous	25	Full Saturation	Mechanical, HVAC, Piping, Notes
Louver					
LayerName	Color	Linetype	L	PlotStyle	Description
M-Lvr-Eqpm	94	Continuous	50	Full Saturation	Mechanical mvpart layer key: Louver Extruded
Stairs					
LayerName	Color	Linetype	ΓW	PlotStyle	Description
M-Strs-Duct-Supp	11	Continuous	25	Full Saturation	Mechanical, HVAC, Supply Ductwork, Stairwell Pressurization
Standard, Generic, or M	Aisc.				
LayerName	Color	Linetype	Γ	PlotStyle	Description

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Standard, Generic, or	Misc.				
LayerName	Color	Linetype	L	PlotStyle	Description
M-Std-Dpr	153	Continuous	50	Full Saturation	HVAC Damper, adjust system as needed
M-Std-Duct-OAir	123	Continuous	50	Full Saturation	Mechanical duct system: Outdoor Air - Standard Layer
M-Std-Duct-Retn	71	Continuous	25	Full Saturation	Mechanical duct system: Return Air - Standard Layer
M-Std-Duct-Supp	141	Continuous	25	Full Saturation	Mechanical duct system: Supply Air - Standard Layer
M-Std-Eqpm	201	Continuous	25	Full Saturation	Mechanical, Equipment
M-Std-Misc	21	Continuous	25	Full Saturation	Mechanical, Misc
M-Std-Pipe-Drain	231	Continuous	25	Full Saturation	Mechanical pipe system: Drain
M-Std-Term-Diff	151	Continuous	25	Full Saturation	Mechanical mvpart layer key: Diffusers
M-Std-Term-Grill	11	Continuous	25	Full Saturation	Mechanical mvpart layer key: Grilles
Steam					
LayerName	Color	Linetype	ΓW	PlotStyle	Description
M-Stm-Pipe-High	11	Continuous	25	Full Saturation	Mechanical pipe system: Steam - High Pressure
M-Stm-Pipe-Low	1	Continuous	25	Full Saturation	Mechanical pipe system: Steam - Low Pressure
M-Stm-Pipe-Med	11	Continuous	25	Full Saturation	Mechanical pipe system: Steam - Medium Pressure

				Plumb	ing
Annotation					
LayerName	Color	Linetype	LW	PlotStyle	Description
P-Anno-Iden	က	Continuous	35	Full Saturation	Plumbing, Annotation, Identifications
P-Anno-Matc	7	Phantom	50	Full Saturation	Plumbing, Annotation, Match Lines
P-Anno-Note	7	Continuous	25	Full Saturation	Plumbing, Annotation, Note,
P-Anno-Nplt	80	Continuous	35	50 Percent	Plumbing, Annotation, Non-plotting Information
P-Anno-Refr	80	Continuous	35	50 Percent	Plumbing, Annotation, External Reference Files
P-Anno-Revs-1	233	Continuous	50	Full Saturation	Plumbing, Annotation, Revision 1 Cloud & Tag on Drawing
P-Anno-Schd	-	Continuous	18	Full Saturation	Plumbing, Annotation, Schedules - Lines
Condensate					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
P-Cnd-Pipe-Drain	173	Continuous	50	Full Saturation	Plumbing pipe system: Condensate Drain
De-ionized (DI) Water					
LayerName	Color	Linetype	LW	PlotStyle	Description
P-Diw-Pipe-Supp	31	Continuous	25	Full Saturation	Plumbing pipe system: Deionized Water - Supply
Demolition					
LayerName	Color	Linetype	L	PlotStyle	Description
P-Demo	43	Hidden	50	Full Saturation	Plumbing, Demolition, All Objects
P-Demo-Note	31	Continuous	25	Full Saturation	Plumbing, Demolition, Notes
Distilled Water (Sterile?)					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
P-Stw-Pipe	53	Continuous	50	Full Saturation	Plumbing pipe system: Distilled Water
Domestic Cold Water					
LayerName	Color	Linetype	Z	PlotStyle	Description
P-Dcw-Eqpm	61	Continuous	25	Full Saturation	Plumbing equipment: Domestic Cold Water
P-Dcw-Pipe	61	DCW2	25	Full Saturation	Plumbing pipe system: Domestic Cold Water
Domestic Hot Water					
LayerName	Color	Linetype	L	PlotStyle	Description
P-Dhw-Eqpm	201	Continuous	25	Full Saturation	Plumbing, Domestic Hot Water, Equipment

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				amura	Bu
Domestic Hot Water					
LayerName	Color	Linetype	L	PlotStyle	Description
P-Dhw-Pipe	71	DHW2	25	Full Saturation	Plumbing pipe system: Domestic Hot Water
P-Dhw-Pipe-Rcrc	71	DHWC	25	Full Saturation	Plumbing pipe system: Domestic Hot Water - Recirc
P-Dhw-Pipe-Supp	73	DHW2	50	Full Saturation	Plumbing pipe system: Domestic Hot Water - Supply
Drain					
LayerName	Color	Linetype	LW	PlotStyle	Description
P-Drn-Fixt	91	Continuous	25	Full Saturation	Plumbing mvpart layer key: Drain Floor
P-Drn-Fixt	91	Continuous	25	Full Saturation	Plumbing mvpart layer key: Drain Roof Round
Laboratory Gas					
LayerName	Color	Linetype	LW	PlotStyle	Description
P-Lab-Pipe-Air	21	Continuous	25	Full Saturation	Plumbing, Laboratory, Air
P-Lab-Pipe-Vacm	191	Continuous	25	Full Saturation	Plumbing, Laboratory, Vacuum, Laboratory, Vacuum
Medical Gas					
LayerName	Color	Linetype	LW	PlotStyle	Description
P-Med-Eqpm	201	Continuous	25	Full Saturation	Plumbing, Medical Gas, Equipment
P-Med-Pipe-Air	1	Continuous	25	Full Saturation	Plumbing, Medical Gas, Air
P-Med-Pipe-C02	143	Continuous	50	Full Saturation	Plumbing pipe system: Medical Gas - Carbon Dioxide
P-Med-Pipe-CAir-Supp	143	Continuous	50	Full Saturation	Plumbing pipe system: Medical Gas - Compressed Air Supply
P-Med-Pipe-N2O	143	Continuous	50	Full Saturation	Plumbing pipe system: Medical Gas - Nitrous Oxide
P-Med-Pipe-Nitro	143	Continuous	50	Full Saturation	Plumbing pipe system: Medical Gas - Nitrogen
P-Med-Pipe-Oxyg	141	Continuous	25	Full Saturation	Plumbing pipe system: Medical Gas - Oxygen
P-Med-Pipe-Vacm	61	Continuous	25	Full Saturation	Plumbing, Medical Gas, Vacuum
Natural Gas					
LayerName	Color	Linetype	LW	PlotStyle	Description
P-Nat-Pipe	151	Continuous	25	Full Saturation	Plumbing pipe system: Natural Gas
Plumbing					
LayerName	Color	Linetype	L	PlotStyle	Description
P-Snk-Fixt	94	Continuous	70	Full Saturation	Plumbing mvpart layer key: Fixture Sink Floor
-					

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				Plumb	ing
Reverse Osmosis Water					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
P-Row-Pipe	223	Continuous	50	Full Saturation	Plumbing pipe system: Reverse Osmosis Water
P-Row-Pipe-Rcrc	221	Continuous	25	Full Saturation	Plumbing pipe system: Reverse Osmosis Water - Recirc
P-Row-Pipe-Supp	221	Continuous	25	Full Saturation	Plumbing pipe system: Reverse Osmosis Water - Supply
Sanitary					
LayerName	Color	Linetype	LW	PlotStyle	Description
P-San-Eqpm	21	Continuous	25	Full Saturation	Plumbing, Sanitary, Equipment, Sanitary, Equipment
P-San-Fixt	131	Continuous	25	Full Saturation	Plumbing fixtures
P-San-Pipe-Drain	231	Continuous	25	Full Saturation	Plumbing pipe system: Sanitary Sewer - Drain
P-San-Pipe-Drain-Acid	231	Continuous	25	Full Saturation	Plumbing pipe system: Sanitary Sewer - Acid Waste
P-San-Pipe-Vent	231	V2	25	Full Saturation	Plumbing pipe system: Sanitary Sewer - Vent
P-San-Pipe-Vent-Acid	231	V2	25	Full Saturation	Plumbing pipe system: Sanitary Sewer - Acid Vent
Soft Water					
LayerName	Color	Linetype	L	PlotStyle	Description
P-Sfw-Pipe	243	Continuous	50	Full Saturation	Plumbing pipe system: Soft Water
Storm					
LayerName	Color	Linetype	L	PlotStyle	Description
P-Sto-Pipe-Drain	51	Continuous	25	Full Saturation	Plumbing pipe system: Storm Drain
P-Sto-Pipe-Oflow	53	Continuous	50	Full Saturation	Plumbing pipe system: Storm Overflow
Tepid (Water)					
LayerName	Color	Linetype	LW	PlotStyle	Description
P-Tep-Pipe	73	Continuous	50	Full Saturation	Plumbing pipe system: Tepid water (for emergency shower, eye was

				Structu	ural
Annotation					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
S-Anno-Brek	230	continuous	18	Full Saturation	Structural, Annotation, Break lines for round and square
S-Anno-Dims	~	Continuous	18	Full Saturation	Structural, Annotation, Dimensions with associated text
S-Anno-Logo	51	Continuous	25	Full Saturation	Structural, Annotation, WPMA standard logo
S-Anno-Refr	80	Continuous	35	50 Percent	Structural, Annotation, Attach SCR External References
S-Anno-Symb	111	Continuous	25	Full Saturation	Structural, Annotation, Symbols like the elevation marker
S-Anno-Text	7	Continuous	25	Full Saturation	Structural, Annotation, Standard text for plans and details
S-Anno-Ttlb	231	Continuous	25	Full Saturation	Structural, Annotation, Title blocks and borders
Architecture					
LayerName	Color	Linetype	Γ	PlotStyle	Description
S-Arch-Edge	~	phantom2	18	Full Saturation	Structural, Architectural edges
Beam					
LayerName	Color	Linetype	ΓW	PlotStyle	Description
S-Beam	12	Continuous	35	Full Saturation	Structural Beams
S-Beam-Lgag	33	Continuous	50	Full Saturation	Structural, Beam, Light gage steel beam
S-Beam-Steh	74	Dashed	70	Full Saturation	Structural, Beam, Steel beams dashed
S-Beam-Stel	134	Continuous	20	Full Saturation	Structural, Beam, Steel beams & CMU Lintels
S-Beam-Wood	33	Continuous	50	Full Saturation	Structural, Beam, Wood framing beams
Brace					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
S-Brac	21	Hidden	25	Full Saturation	Structural, Bracing, Bracing
S-Brac-Frah	76	dashed	140	Full Saturation	Structural, Bracing, Steel frame Bracing
Columns					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
S-Cols	51	Continuous	25	Full Saturation	Columns
S-Cols	51	Continuous	25	Full Saturation	Structural Columns
S-Cols-Brce	31	DASHED	25	Full Saturation	Structural Braces
S-Cols-Conh	192	Hidden2	35	Full Saturation	Structural, Column, Concrete columns below slab
S-Cols-Patt	10	Continuous	18	Full Saturation	Structural, Column, Column hatching for precast

				Structu	ıral
Columns					
LayerName	Color	Linetype	L	PlotStyle	Description
S-Cols-Prec	173	Continuous	50	Full Saturation	Structural, Column, Precast concrete columns above slab
Concrete					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
S-Conc-Bynd	2	Continuous	25	Full Saturation	Structural, Concrete, Concrete edge beyond
S-Conc-Edge	212	Continuous	35	Full Saturation	Structural, Concrete, Concrete edge
S-Conc-Edgh	က	Hidden	35	Full Saturation	Structural, Concrete, Concrete edge hidden
S-Conc-Pats	8	Continuous	35	50 Percent	Structural, Concrete, Concrete shading
S-Conc-Patt	30	Continuous	18	Full Saturation	Structural, Concrete, Concrete hatching (grout)
S-Conc-Sect	213	Continuous	50	Full Saturation	Structural, Concrete, Concrete edge in section
Detail					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
S-Detl-Iden	133	Continuous	50	Full Saturation	Structural, Detail, Detail Title large text and linework
S-Detl-Text	7	Continuous	25	Full Saturation	Structural, Detail, Detail title small text
Foundation					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
S-Fndn-Crtn	-	continuous	18	Full Saturation	Structural, Foundation, Carton Forms
S-Fndn-Edge	193	continuous	50	Full Saturation	Structural, Foundation, Foundation edges
S-Fndn-Edgh	ю	hidden	35	Full Saturation	Structural, Foundation, Foundation edges hidden
S-Fndn-Pats	30	continuous	18	Full Saturation	Structural, Foundation, Grade level screened hatching
S-Fndn-Pieh	151	hidden	25	Full Saturation	Structural, Foundation, Pier objects
S-Fndn-Pilh	131	hidden2	25	Full Saturation	Structural, Foundation, Pile objects
Grid					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
S-Grid	190	CENTER	18	Full Saturation	Column Grids
S-Grid-Dims	7	continuous	25	Full Saturation	Structural, Column Grid, Grid dimensions
S-Grid-Iden	191	Continuous	25	Full Saturation	Plan grid bubbles
Joist					
LayerName	Color	Linetype	LV	PlotStyle	Description

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				Structu	Jral
Joist					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
S-Jois-Lgag	52	Continuous	35	Full Saturation	Structural, Joist, Light gage steel joist
S-Jois-Stel	113	Divide2	50	Full Saturation	Structural, Joist, Steel joist
S-Jois-Wood	52	Continuous	35	Full Saturation	Structural, Joist, Wood framing joist
Lightgage					
LayerName	Color	Linetype	L	PlotStyle	Description
S-Lgag-Bynd	110	continuous	18	Full Saturation	Structural, Light Gage, Light gage steel edge beyond
S-Lgag-Edge	71	continuous	25	Full Saturation	Structural, Light Gage, Light gage steel edge
S-Lgag-Edgh	20	hidden2	18	Full Saturation	Structural, Light Gage, Light gage steel edge hidden
S-Lgag-Patt	130	continuous	18	Full Saturation	Structural, Light Gage, Light gage steel hatching
S-Lgag-Sect	112	continuous	35	Full Saturation	Structural, Light Gage, Light gage steel edges in section
Masonry					
LayerName	Color	Linetype	L	PlotStyle	Description
S-Masn-Bynd	31	continuous	25	Full Saturation	Structural, Masonry, Masonry edges beyond
S-Masn-Edge	52	continuous	35	Full Saturation	Structural, Masonry, Masonry edges
S-Masn-Edgh	2	hidden	25	Full Saturation	Structural, Masonry, Masonry edges hidden
S-Masn-Pats	8	continuous	35	50 Percent	Structural, Masonry, Masonry linework shaded
S-Masn-Patt	30	continuous	18	Full Saturation	Structural, Masonry, Masonry hatching
S-Masn-Sect	93	continuous	50	Full Saturation	Structural, Masonry, Masonry edge in section
Precast					
LayerName	Color	Linetype	LV	PlotStyle	Description
S-Prec-Bynd	20	Continuous	18	Full Saturation	Structural, Concrete, Precast, Concrete edge beyond
S-Prec-Edge	132	Continuous	35	Full Saturation	Structural, Concrete, Precast, Concrete edge
S-Prec-Edgh	2	Hidden	25	Full Saturation	Structural, Concrete, Precast, Concrete edge hidden
S-Prec-Patt	152	Continuous	35	Full Saturation	Structural, Concrete, Precast, Concrete hatching (grout)
S-Prec-Sect	173	Continuous	50	Full Saturation	Structural, Concrete, Precast, Concrete edge in section
Section					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
S-Sect-Boun	173	dashed	50	Full Saturation	Structural, Section, Section Mark boundary (dashed)

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				Structu	នេះ
Section					
LayerName	Color	Linetype	ΓM	PlotStyle	Description
S-Sect-Mark	171	Continuous	25	Full Saturation	Structural, Section, Section Mark linework and text
Slab					
LayerName	Color	Linetype	L	PlotStyle	Description
S-Slab	192	Continuous	35	Full Saturation	Slab
S-Slab-Expj	06	continuous	18	Full Saturation	Structural, Slab, Expansion joints
S-Slab-Join-Scrn	137	continuous	70	50 Percent	Structural, Slab, Joint lines on plan (shaded)
S-Slab-Opng	190	Continuous	18	Full Saturation	Structural, Slab, Opening indication ("x")
S-Slab-Rbar	152	continuous	35	Full Saturation	Structural, Slab, Plan related Rebar (no plines)
S-Slab-Slop	130	continuous	18	Full Saturation	Structural, Slab, Slab slope line
S-Slab-Stri	252	hidden	50	50 Percent	Structural, Slab, Slab strip zones (shaded)
S-Slab-Tend	94	continuous	70	Full Saturation	Structural, Slab, Plan related tendons (no plines)
Truss					
LayerName	Color	Linetype	L	PlotStyle	Description
S-Trus-Stel	154	Continuous	70	Full Saturation	Structural, Truss, Truss object linework

chibus	Description		Default Non-Plotting Layer		Jescription	Archibus Room Numbers
System or Ar	PlotStyle D	Full Saturation 0	Full Saturation D		PlotStyle D	Full Saturation A
	LW	18	140		LW	35
	Linetype	Continuous	Continuous		Linetype	Continuous
	Color	7	7		Color	7
	LayerName	0	Defpoints	Archibus	LayerName	RM\$TXT

Exhibit N

Execution of Offer