



**ARIZONA STATE UNIVERSITY -
EXHIBIT A – SCOPE OF SERVICES FOR DESIGN PROFESSIONAL
TO STANDARD FROM AGREEMENT BETWEEN OWNER AND DESIGN
PROFESSIONAL**

March 16, 2016 Edition

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EXHIBIT A

SCOPE OF SERVICES FOR DESIGN PROFESSIONAL

THIS EXHIBIT A - SCOPE OF SERVICES FOR DESIGN PROFESSIONAL is an exhibit to the Arizona State University Standard Form Agreement Between Owner and Design Professional dated Month Day, Year, for Project No. - _____.

Section 1 General Project

1.1 Project Description. The project addresses _____

1.2 Construction Budget. The proposed construction budget for this Project is approximately _____ dollars (\$_____). Design Professional fees, land acquisition costs, parking relocation reserve costs and other similar costs are not part of the project construction budget.

Section 2 Construction Manager at Risk Services

2.1 The services of the Construction Management at Risk (CM@Risk) are anticipated to begin in Month Day, Year with a GMP anticipated to be submitted prior to Month Day, Year.

Section 3 Project Schedule/Schedule of Milestones

3.1 Below is a list of preliminary dates for completion of each subphase of this project. Delivery of all documents and services by DP for each subphase are required as follows:

- | | |
|----|-----------------|
| a) | Month Day, Year |
| b) | Month Day, Year |

3.2 DP shall inform Owner in writing as soon as possible, at any time during the project, of any expected delays to any subphase completion dates.

Section 4 Professional Services Requirements

4.1 General Information.

4.1.1 The DP services under the DP Agreement shall include the requirements for all services described in the Standard Form Agreement Between Owner and Design Professional, this "Exhibit A - Scope of Services for Design Professional," and DP's Proposal attached as Exhibit C to the DP Agreement.

4.2 Investigation of Existing Conditions.

4.2.1 DP shall review any available record documents/as-built drawings at ASU offices

relative to the existing site, building and adjacent utility infrastructure. Copies of pertinent drawings, if available, will be provided by the Owner for the use of and when requested by the DP.

4.2.2 DP shall review any available record documents/as-built drawings at the City, County, other municipalities, utility companies, and other similar agencies relative to existing site conditions.

4.2.3 DP shall perform site visits to verify adequacy of record drawings/as-built drawings for use in site demolition and design documentation.

4.3 Meetings and Communication.

4.3.1 DP shall be responsible for including ample time and travel in their fee proposal to address the meeting requirements described in the Standard Form Agreement Between Owner and Design Professional and this “Exhibit A - Scope of Services for Design Professional” for this project. This project is an important project for ASU and will require a generous amount of meetings for the DP to gain input, and for all stakeholders, as described below, to share information and maintain a clear understanding of project and the process. DP will attend the meetings with the following:

- a) Owner Project Management staff and the user department to determine specific user requirements, to review project progress, and to engage in an exchange of ideas for the purpose of developing the project design.
- b) Community representatives to continue established inclusive and supportive relationships.
- c) Owner Project Management staff, and user representatives for coordination meetings during all project phases, design through construction. Meetings will be held weekly unless waived in writing by the Owner.

4.3.2 All communications on the project shall be with designated Owner Project Manager. Any meetings or communication with other Owner representatives shall be coordinated through the Owner Project Manager. In the event that the Owner Project Manager is not able to attend a meeting between DP and other representatives, the DP shall provide in writing to the Owner Project Manager minutes of the items discussed, actions required, or any other documents reasonably requested by the Owner, to keep the Owner Project Manager informed of any discussions held.

4.3.3 At a minimum, the following meetings shall have DP involvement. Responsibility to lead the meeting or issue meeting minutes is noted. Additional meetings may be required by Owner, or required as a normal course of business, and shall not be additionally compensated by the Owner to the DP unless agreed to in advance in writing by the Owner, and unless the scope of such meetings could not have reasonably been expected given the scope of the project.

<u>Meeting</u>	<u>Lead</u>	<u>Frequency</u>	<u>Issue Minutes</u>
Kickoff	Owner	One	DP
Plan Review	Owner	Bi-weekly	DP
Final Presentation	DP	One	Owner
Others as required by Owner	TBD	TBD	TBD

4.4 Design Responsibilities.

4.4.1 The design of this Project should create an appropriate identity for ASU that _____ while respecting the context of the adjacent campus districts, the surrounding vocabulary of architectural language and the precepts contained in the ASU Campus Master Plan.

4.4.2 The DP shall consult with the Owner on all aspects of the design through the Owner Project Manager, as well as with other Owner entities.

4.4.2.1 It is the DP's responsibility to schedule, lead, present, document, and otherwise manage all meetings associated with the design of the project.

4.4.2.2 The design of the project is the responsibility of the DP, based upon its professional expertise, augmented by direction and input received from Owner

4.4.2.3 The DP shall be responsible for design conforming to the Owner design standard located in the [ASU Project Guidelines](#)

4.4.2.4 The DP shall be responsible for coordination with the [Governing jurisdiction](#) which is campus and location dependent.

4.4.2.5 DP shall design the project in such a manner that the completion of project is in compliance with the following codes. When reference is made to "this code" it shall mean all the codes listed in ASU's Technical Standards Division 1 is included in [ASU Project Guidelines](#).

4.4.3 DP is responsible for obtaining coordination of design by all applicable professional disciplines including, but not limited to:

- a) Complete civil (including surveying & drainage analysis)
- b) Architectural
- c) Acoustical
- d) Landscaping (including irrigation)
- e) Structural
- f) Mechanical
- g) Plumbing (including the performance design and specification of the addressable fire sprinkler system along with the architectural control of fire sprinkler head locations)
- h) Electrical engineering (including telecommunications)
- i) Interior design (including FF&E)
- j) Cost estimating services for each phase.

4.4.4 DP is responsible for sustainable and environmentally responsible design.

4.4.4.1 Design shall be responsive to the climate and environment in a way that minimizes energy consumption, yet creates a comfortable environment for staff and visitors.

4.4.4.2 Design shall demonstrate an understanding of the setting.

4.4.4.3 Facility shall be an exhibit of sustainability achievement in this climate.

4.4.4.4 Required sustainability and LEED certification goals are as follows:

New Construction – LEED NC Silver, where practical.

Renovations – LEED TI Silver, where practical.

Sustainability goals are found in [Sustainable Design Guidelines](#).

4.5 Intentionally omitted.

4.6 Design Review Submittals.

4.6.1 The DP shall provide the following submittals for review by the Owner:

a) Program Development Submittal	x Copies *electronic
b) Conceptual Design Submittal	x Copies
c) Schematic Design Submittal	x Copies
d) Design Development Submittal	x Copies
e) Construction Documents Submittal	x Copies
f) Final Submittal	x Copies
g) Reproducible Drawings and Specifications	x Copies

4.7 Intentionally omitted.

4.8 Intentionally omitted.

Section 5 Fee Proposal and Contract Management

5.1 Professional Fees.

5.1.1 See Standard Form Agreement Between Owner and Design Professional - Article 6 and “Exhibit B – Schedule of Payments” for specific information.

5.1.1.1 The proposal for DP services includes the requirements for all services described in the Standard Form Agreement Between Owner and Design Professional (Construction Manager at Risk Edition), and this “Exhibit A - Scope of Services for Design Professional”.

5.1.1.2 The DP proposal shall be provided in a format acceptable to the Owner.

5.1.1.3 “Exhibit C – DP Proposal” shall include a fee schedule to list hourly rates for prime and sub consultants, for principals and staff, as a basis for additional services, if required.

5.1.3 Reimbursable Expenses. See Standard Form Agreement Between Owner and Design Professional - Article 4.

5.1.4 Invoices. The standard AIA G605 form, or equivalent, should be used, and all supporting documentation attached.

All invoices must be submitted directly to CPMG, one of the below addresses:

Email Address:

PM: email

CC DM: email

Courier Address:

Arizona State University

c/o Project Manager

1551 S. Rural Rd.

Tempe, AZ 85281

Mailing Address:

Arizona State University

c/o Project Manager

P.O. Box B875512

Tempe, AZ 85287

ATTACHMENT 1

CONSTRUCTION DRAWINGS REQUIREMENTS FOR ARIZONA STATE UNIVERSITY

As part of Basic Services, the DP will also provide construction drawings in AutoCAD format on electronic media and in paper format on full-size sheets for all (but not limited to) architectural, mechanical, electrical, plumbing, roof and site plans. All plans of all disciplines are required to complete the set of accepted deliverables.

STANDARDS

The following is a list of the in-house UFRM drawing standards for ASU.

- I. All digital formats delivered on cd-rom.
- II. Formatted for Windows XP.
- III. AutoCAD version 2010 or newer.
- A. All drawings are to be in full scale (1'-0"=1'-0"), on disk.
- B. **NO** uneditable blocks should be used when in-putting the drawing. This applies to user-defined blocks, and not the pre-defined blocks indigenous to AutoCAD.
- C. Layering conventions can be originally generated according to bidder's in-house standards.
- D. Exterior elevations do not need to concur with any UFRM drawing Requirements. The bidder's in-house standards are acceptable for Exterior Elevation Documents.
- E. Use of the AIA layering standard will be accepted.
- F. Use of the National CAD Standard will be accepted.

I. Identification

- A. Since more layers may be required for different disciplines, further definition is needed to describe that layer and may be added after the discipline identification.
- B. Layering should be reduced to small amounts of graphic information.

II. Specific Drawings Required with Suggested Layers

- A. Reflected Ceiling Plan
 1. Ceiling grid on layer CEILGRID (white).
 2. Light fixtures on layer FIXT (yellow).

3. Heating, Ventilation and Air Conditioning (HVAC) equipment on layer HVAC (cyan).
4. Smoke detectors, fire alarm equipment and exit signs on layer FIRE (red).
5. Sprinkler systems on layer SPRINKLE (blue).
6. Special systems such as Public Address (PA), Audio, etc. on layer PA (magenta).

B. Mechanical Plan

1. Registers on layer REG (yellow).
2. Controls on layer CONTROL (cyan).
3. Diffusers on layer DIF (yellow).
4. Ductwork on layer DUCT (white).
5. Exhaust on layer EXH (green).
6. Vents on layer VENT (yellow).

C. Plumbing Plan

1. Hot water lines on layer HW (red).
2. Cold water lines on layer CW (blue).
3. Sewer on layer SWR (magenta).
4. Fixtures on layer FIXT (green).
5. All process piping on layers befitting material transported through pipe. All process piping layers in cyan [i.e. pipes carrying acids on layer ACID (cyan)].
6. Fire sprinkler lines on layer FIRESPR (yellow).

D. Electrical

1. Telecommunications on layer TELE (cyan).
2. Computer on layer COMP (cyan).
3. Fire Alarms on layer FAL (red).
4. All 120 V power on layer 120 (green).
5. All circuits greater than 120 V on layer 120PLUS (yellow).
6. Intercom on layer INTCOM (blue).
7. Switches and lighting fixtures on layer SX (white).
8. Special systems (including security systems) on layer SS (magenta).

E. Roof Plan

1. Roof drains, overflow drains, scuppers and slope lines on layer RDR (cyan).
2. Slope arrows on layer SLAR (white).
3. Roof vents on layer RVENT (red).
4. Plumbing and exhaust vents on layer PVENT (red).
5. Mechanical equipment on layer MECH (magenta).
6. HVAC on layer HVAC (magenta).
7. Skylights on layer SKLITE (yellow).

8. Walking surfaces on layer WALK (white).
9. Smoke Hatches on layer SMHATCH (blue).
10. Access Hatches on layer ACCHATCH (blue).
11. Antennae and other special equipment on layer SPEQ (green).

F. Site Utilities (Civil)

1. Electric on layer ELEC (yellow).
2. Telephone on layer TELE (cyan).
3. Gas on layer GAS (red).
4. Water on layer H₂O (blue).
5. Storm sewer on layer STRM (magenta).
6. Fire lines and hydrant locations on layer FIRE (green).

G. Site

1. Buildings on layer BLDG (green).
2. Sidewalks on layer WALK (white).
3. Miscellaneous structures on layer MSTR (blue).
4. Walls and fences on layer FNCE (yellow).
5. Curb and gutter on layer C&G (cyan).
6. Irrigation on layer IRR1 (blue).
7. Vegetation (including plants, trees, shrubs and *all* landscaping) on layer VEG (green).
8. Parking on layer PARK (yellow).
9. Site lighting on layer SITELITE (white).
10. Fountains and any special features on layer FNT (blue).

H. Survey (TOPO)

1. Property/Boundary lines on layer BOUND (cyan).
2. Easements on layer EASE (cyan).
3. Centerlines on layer CL (blue).
4. Index contours @ 10' increments on layer INDEX (yellow).
5. Intermediate contours @ 2' increments on layer INTER (magenta).
6. Spot elevations on layer SPOT (white).
7. Building footprints on layer BLDG (red).
8. Dimensions on layer DIM (white).
9. Other topographic features on layer TOPO (green).

I. The layers listed below are to be used for the Architectural Floor Plans, Structural Plans and Roof Plans as applicable. Enlargements of partial plans are not required.

1. Construction grids on layer KP_GRID (YELLOW).
 - a. Including construction lines used to further define building elements (i.e., center lines, major axis lines). Lines of symmetry should be phantom linetype (magenta).
2. Columns on layer KP_COL (COLOR 144).
3. Exterior walls on layer KP_EXT-WALL (COLOR 252).

- a. Exterior windows, walks and exterior features are to be COLOR 40.
4. Interior walls on layer KP_INT-WALL (COLOR 102).
 - a. Interior windows, counters and interior features are to be COLOR 40.
5. All doors on KP_DOOR (COLOR 40).
6. Dimensions on layer DIM (YELLOW).
7. Stairs and elevators on layer KP_STAIR (COLOR 134).
 - a. Includes ramps.
8. Lines, arrows and text showing direction of stairway (i.e., UP, DN) on layer KP_STAIRDIR (white).
9. Restroom fixtures, toilet partitions, sinks and drinking fountains on layer KP_BATH (COLOR 214).
10. Fire-Hose cabinets on layer KP_FHC (RED).
11. Room numbers on layer KP_RMNO (white) — per CPM 317.
12. Room use on layer KP_RMNAME (white).
13. Room Net Assignable Square Feet (NASF) on layer KP_SQFT (white) — per CPM 316.

ATTACHMENT 2

“AS-BUILT” AND “RECORD DRAWINGS” REQUIREMENTS FOR ARIZONA STATE UNIVERSITY

The CM@Risk will deliver a complete set of redlined “As-Built” drawings to the DP who shall review them for accuracy and approval.

The DP will use the “As-Built” drawings provided by the CM@Risk to produce and deliver a set of reproducible Project “Record Drawings” to Arizona State University.

The intent of these guidelines is to enable the University to collect, archive, and use at a later date digital copies of Record Drawings for any construction project. These projects include (but are not limited to) new construction, renovations, additions, utility work, and interiors work.

Arizona State University considers it very important to maintain accurate records of new work for several reasons:

- Accurate information (e.g. underground utilities and tunnels) for future projects.
- Accurate base drawings for future projects, enabling consultants to modify existing drawings instead of creating new drawings from field measurements.
- Accurate data for campus map information system and GIS mapping.

The DP is responsible for verifying the accuracy of all drawings. The digital copies will match the hard copies. Appropriate notation should be attached (Record Drawings) or detached (official stamps) from each drawing. There should be an overall consistency in the format of the Record Drawings as further described below.

FORMAT:

Drawings: All drawings shall be submitted in an AutoCAD .DWG format.

Graphics: Preferred formats for graphics (photos, sketches, renderings, etc.) to be .jpg and .pdf.

Paper: 2 (two) full size paper sets of plans.

CONTENT OF RECORD DRAWINGS DIGITAL SUBMISSION:

In addition to the 2 (two) full size hard copies of the entire updated “Record Drawings” set, a digital copy of each sheet in the set, and a list of each sheet by page number with the contents of the sheet and the name of any images that are attached shall be provided.

RECORD DRAWINGS LABEL:

- Revision dates should be updated for each submission in the title block (with the last date being the date of the Record Drawings submission).
- “RECORD DRAWINGS” should be clearly seen in bold letters along the bottom of the sheet or near the title block on the right side of the sheet.

DIGITAL RECORD DRAWINGS:

- The electronic copies of the Record Drawings should be usable in AutoCAD 2010. The drawings themselves don’t need to be drawn in this release, but should be compiled in AutoCAD 2000 or newer. Usable is defined as being able to easily identify the file needed, open it, select the appropriate layout tab (representing one sheet from the hardcopy set), and send it to the plotter without have to assign proxy graphics, reconnect (and find) External References (referred to as xrefs from here forward) and raster images, or find a missing .ctb or .stb (plot style tables) file.

- Each sheet should be set up on a layout tab of its own in paper space. Each layout tab should be renamed with the sheet number represented on it. Any unused layout tabs should be deleted.
- All xrefs files must be included. Any xrefs no longer needed in a drawing should be “detached” and not just “unloaded”.
- In order to prevent missing raster images, before burning the digital files to a compact disc, place all raster images in the same folder as the file into which they are referenced.
- When the disc is opened, files should be available either in the root folder or in the first folder. In other words, one shouldn’t have to open 2 or more folders to find a file.
- The file with pen weights (.ctb or .stb file) should be included on the disc along with any other non-standard font or shape files.

All files should be burned to discs. In addition to the disc(s), a binder(s) should contain an index as described below and an 8 ½ X 11” set of the record drawings.

INDEX OF SHEETS IN RECORD DRAWINGS SET:

Included in the binder should be an index created in Excel or Word listing .DWG files, the sheet numbers that each file contains (if more than one), the contents of each sheet, and a list of all raster images and OLE (object linking and embedding) images inserted into a drawing.

Since many images may be used in several drawings, the consultant may provide a coding system listing all images with a corresponding letter or numerical code.

For Example:

<u>Sheet numbers</u>	<u>Contents of sheet</u>	<u>Image References</u>
A9.01	Enlarged floor plan, first floor	
A9.02	Enlarged floor plan, second floor	
A9.03	Enlarged floor plan, third floor	
A9.04	Enlarged floor plan, fourth floor	
A10.01	Details-Entry	

The binding of the binder and the disc label should contain the following information:

Arizona State University - Building Number, Project Number, and Project name,
Firm name and contact information, Discipline (Architectural, Mechanical, Landscape, etc.),

RECORD DRAWINGS date of the Record Drawings submission.