**APPENDIX 5-1**

**Deliverable Requirements**

**The following tables itemize the minimum requirements for each significant design deliverable. This list shall be reviewed during negotiation of the Agreement and adjusted as needed for the needs and demands of each project. This includes “early release packages,” the requirements for which should be itemized in an additional table within this document.**

**Basis of Design (BOD)**

*NOTE: Since the BOD is a “living document” that is to be updated at each phase of design, and throughout construction as needed, the items delineated in the BOD should evolve from suggested, proposed, or estimated components to actual components. See 5.01 for more information.*

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| **Administrative/General** | |
|  | General project description, including functions and users to be housed in the facility |
|  | Relevant user and occupancy data - # of occupants, # of users, hours of operation, special needs, etc. |
|  | Acknowledgement of relevant Campus Master Plan elements & policies and site/building design strategies for compliance therewith |
|  | A listing of environmental permits that will be required (e.g., DEP or Water Management District) |
|  | Itemization of applicable codes & standards |
|  | Summary of the means and strategies for maximizing energy conservation, efficiency, and cost savings; implementing sustainable design measures; and obtaining LEED certification … including ideas considered, but not pursued or implemented  *NOTE: Projects less than 5,000 gross SF shall comply with the requirements of the Florida Energy Conservation Manual.*  *NOTE: Major projects shall use DOE energy modeling twice during design, possibly accompanied by one or more life-cycle cost analyses, as the basis and rationale for design decisions.* |
|  | Special needs or conditions related to the facility’s use, function, or performance and the means of meeting those needs or dealing with those conditions |
|  | Future expansion or construction to be accommodated, if any |
|  | Other narratives, data, or other documentation as needed to convey design strategies that will satisfy the goals & requirements outlined in the Facilities Program and OPR |
|  | Listing of all building elements or systems proposed to be design-delegated or partially design-delegated to the Builder. |
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| **Sitework and Distributed Utilities** | |
|  | Qualitative and quantitative description of existing site conditions and constraints |
|  | Design strategies for sitework, traffic & circulation, parking, site utilities, landscaping, hardscape, exterior lighting |
|  | Utilities demand schedule that indicates the design (maximum) demand, estimated peak demand, and estimated daily usage (as applicable) for the following utilities, using the units indicated:   * Electricity KVA and estimated monthly consumption * Steam lbs/hr * Chilled Water gpm and tons * Natural Gas CFH * Fire Flow (interior) gpm * Fire Flow (exterior) gpm * Irrigation gpd * Sanitary gpm (peak flow and average daily flow) * Domestic Water gpm (peak flow and average daily flow) * Storm SF or Acres of net new impervious area   Also provide:   * a comparison of these demand quantities with those estimated in the facilities program or prior design submittals * confirmation of sufficient source and distribution capacity & pressure to serve the facility being designed * supporting documentation, such assumptions, calculations, and load analysis table(s) |
|  | General design approach for serving the building with chilled water, steam and/or heating hot water, potable and fire water, sanitary sewer, telecommunications (copper and/or fiber), and cable TV, as needed |
|  | General design approach for stormwater management, including Low-Impact Development (LID) principles & techniques |
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| **Architectural and Building Envelope** | |
|  | Description of the style and character of the exterior architecture |
|  | Description of building envelope system types & materials – including walls, roofs, and floors-at-grade – with associated R-values for each |
|  | Narrative overview of the interior architectural character, including a description of major interior architectural materials, assemblies, and finishes |
|  | General description of building circulation, egress, and means of horizontal & vertical conveyance |
|  | Complete listing of – and strategies for compliance with – applicable building, life safety, and accessibility codes, standards, and restrictions |
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| **Structural** | |
|  | Outline of existing conditions, design loads, and other relevant assumptions, information, or special conditions or requirements |
|  | Description of major structural systems – foundations, slabs, framing, roof, etc. – and their respective materials and components |
|  | Analysis of geotechnical survey results and design strategies for adhering to the survey’s findings and recommendations (see Chapter 4 for subsurface/ geotechnical survey requirements) |
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| **Systems – M/E/P, Fire Protection, BAS** | |
|  | Descriptions of – and design parameters for – heating, air conditioning, ventilation/exhaust, piping, plumbing, waste, fire sprinkler, power (primary and emergent), fire alarm, lighting (interior and exterior), grounding, and lightning protection systems. For example:   * indoor and wet/dry bulb design temperatures (summer and winter) * relative humidity requirements * outdoor air requirements * ventilation, filtration, and dehumidification requirements * watts per SF for lighting * BTU per SF for overall energy consumption * electric load and characteristics for building equipment, lighting, convenience outlets, special tools & equipment * essential or emergency power loads, requirements * uses and demand for hot water * water supply and demand figures for fire sprinkler system * “U” / “R” factor for building envelope components |
|  | General design approach for each system. For example:   * medium and means for building heating (steam, hot water, forced warm air, unit heaters, etc.) and cooling (chilled water, direct expansion, etc.) * description of proposed air conditioning system(s), such as custom air handling units, variable air volume (VAV), fan coil units, etc. * HVAC zoning requirements * means of complying with the requirements of ASHRAE 62.1 and ASHRAE 55 for ventilation and thermal comfort * means of supplying hot water (steam conversion, HHW, solar, etc.) * fire detection and alarm system(s) |
|  | Assumptions and strategies for usage, demand, diversification, energy efficiency, and acoustic control |
|  | Strategies for efficiently cooling elevator equipment rooms, telecomm/server rooms, and other spaces with unusual cooling or heating demands |
|  | Narrative summary of the requirements and strategies for metering and Building Automation System controls, including reporting, measurement & verification, sequence(s) of operations, and estimated # of points |
|  | Narrative description of sprinkler system type (wet or dry), plus volume & pressure criteria and identification of special systems (carbon dioxide, foam, etc.) |
|  | Special needs – grease traps, e.g. |
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| **Systems – Telecommunications, Audio/Visual, Security** | |
|  | Narrative summary of needs for voice and data outlets for both occupants & users and building systems; wireless access goals & requirements; confirmation of VOIP versus non-VOIP |
|  | Narrative description of the structured cabling system; general strategies and requirements for entrance and “satellite” telecomm rooms; delineation of contractor-furnished and Owner-furnished equipment |
|  | Outline of CATV needs and available/proposed source(s) |
|  | Narrative description of audio/visual requirements, equipment, and controls by space type, along with confirmation of equipment & systems to be provided and installed as part of construction |
|  | Narrative description of security needs, including access control, CCTV, and special requirements |
|  |  |
| **Laboratory / Research Specialties** | |
|  | Narrative explanation of each research space type (general lab, process-specific lab, cleanroom, vivarium, etc.), with a summary of the science and research each is intended to support |
|  | List(s) of the tools and equipment to be used in each research space type, along with explanations of their utilities or process systems demands and delineation of each as Owner Furnished Owner Installed, Owner Furnished Contractor Installed, or Contractor Furnished Contractor Installed |
|  | Description of the sensitivity of the research to be performed and/or the tools & equipment supporting such research to “contaminants” (e.g., vibration, noise, electromagnetic or radio frequency interference) and the proposed means & measures for mitigating or eliminating same |
|  | Identification and quantification (sizing) of house utilities and other piped gases to be provided in labs |
|  | Identification of lab exhaust systems (including chemical fume hoods), characterized as general, solvent, or hazardous |
|  | General descriptions of the lab casework to be provided (a) as part of construction and (b) by the Owner |
|  | Hazardous materials inventory (complete listing of all hazardous chemicals, gases, and other materials to be used) |
|  | Special needs or considerations such as acid waste neutralization |

**Conceptual Schematic Design (CSD)**

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| --- | --- |
| **Administrative/General** *(see “Requirements Common to All Design Phases,” Chapter 5)* | |
|  | Basis of Design (*initial or updated from Program Verification phase*) |
|  | Space Summary and Area Calculation |
|  | Quality Control statement |
|  | A listing of codes with which the project design will comply |
|  | Data, reports, drawings, and other documents related to environmental permitting requirements |
|  | Updated Campus Master Plan checklist |
|  | Geotechnical survey |
|  | If Section 267.061(2) F.S. is applicable to the project, a statement that the Department of State (Division of Historical Resources) has been contacted and that any conflicts between the project and conservation or historical interests of the Department have been or are being resolved |
|  | Appendix – Owner directives, meeting minutes and correspondence, graphical data, functional diagrams, benchmarking data (if any), current design schedule, project team roster, and other relevant information or documents from the CSD phase |
| **Campus Master Plan (CMP) / Site / Utilities** | |
|  | Topographic survey of the site, which shall meet the standards of F.A.C. 61G17-6. Survey shall illustrate and identify:   * existing benchmarks and horizontal control on site referenced to UF horizontal and vertical datum. Horizontal and vertical control to be established in areas that are not likely to be disturbed by proposed construction. * existing grades/contours and key spot elevations. Contour interval 1 foot. Spot elevations on high/low points. Paved/hard surface elevations displayed to 0.01’, unpaved/soft surface elevations displayed to 0.1’. Sufficient shots to allow for adequate project design based on project data request from UF. * elevation of bodies of water with date of observation listed * the 100-year flood plain on the project site based on flood study mapping provided by UF Physical Plant Division * adjacent buildings (with building number, FFE, and entries noted), streets (by name), circulation paths, curb & gutter, hardscape, light fixtures, site furnishings, signage, and other above-ground structures and features within survey project limits or that are anticipated to effect design of the project site * location, size, type, UF designation (e.g. structure name), and invert elevations (as appropriate) of all piping, mains, sewers, poles, wires, hydrants, and manholes upon, over, or beneath the site (or adjacent to the site if within the limits of the survey) as identified by UF prior to starting survey; utilize as-built drawings, and line locates though UF Physical Plant Division * existing trees 3” or more in diameter, with size (DBH in inches), species by common and botanical name, and relative health/condition as supplied by UF Arborist and **illustrate full canopy to “drip line.”** (a single canopy line is sufficient for tree groupings with a continuous canopy around the perimeter of the grouping) * areas of significant landscaping * existing conservation areas, areas of archeological significance, and other environmental constraints based on existing information as supplied by UF or as called for in the survey proposal |
|  | Conceptual site plan, including:   * (for each preliminary concept) building footprint and orientation, or alternatives for same that illustrate optimization of accessibility, shading, and other building performance measures * general concepts for site demolition and tree impact, site use, and site development * conceptual provisions for accessibility, circulation of pedestrians and bicycles, service & emergency access, parking (if any), and waste management & recycling facilities * projected paths for utilities infrastructure and stormwater management structures * relevant information from the survey, including existing trees and utilities   *NOTE: Illustrate existing features with different tonal qualities or line types from new* |
|  | A map or drawing to illustrate the Future Land Use and Future Building Sites identified in the adopted Campus Master Plan relative to the site and design concept. |
| **Building / Architecture** | |
|  | For each preliminary concept, floor plans – or floor plan options – for each level  *NOTE: For renovations, illustrate existing to remain and existing to be removed or renovated* |
|  | For each preliminary concept, identification of all stairs, elevators, and equipment/support spaces |
|  | For each preliminary concept, at least two sections, perpendicular to each other at same scale as plan/block diagrams, to establish vertical control |
|  | Exterior elevations and/or renderings to illustrate massing, scale, and context |
|  | For additions or renovations, measured drawings showing existing and proposed facilities in their relative arrangement and relationship |
|  |  |
| **Structural** | |
|  | {CSD requirements covered by BOD} |
|  |  |
| **Systems – M/E/P, Fire Protection, BAS** | |
|  | {CSD requirements covered by BOD and “CMP / Site / Utilities”} |
|  |  |
| **Systems –Telecommunications, Audio/Visual, Security** | |
|  | {CSD requirements covered by BOD and “CMP / Site / Utilities”} |
|  |  |
| **Structural** | |
|  | {CSD requirements covered by BOD} |
|  |  |
| **Laboratory / Research Specialties** | |
|  | {CSD requirements covered by BOD} |
|  |  |
| **Furnishings** | |
|  | Tabular or narrative description of the types of furnishings & equipment to be:   * furnished & installed by the builder OR Owner-furnished, builder-installed * Owner-furnished and Owner-installed |
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**Advanced Schematic Design (ASD)**

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| **Administrative/General** *(see “Requirements Common to All Design Phases,” Chapter 5)* | |
|  | Basis of Design (*updated from CSD phase*) |
|  | Space Summary and Area Calculation |
|  | ASHRAE 90.1-compliant energy models for baseline and proposed facility, including executive summary and all output & input data |
|  | Quality Control statement |
|  | Data, reports, drawings, and other documents related to environmental permitting requirements |
|  | Updated Campus Master Plan checklist |
|  | Appendix – Owner directives, meeting minutes and correspondence, graphical data, functional diagrams, current design schedule, project team roster, and other relevant information or documents from the ASD phase |
| **Specifications** | |
|  | Table of Contents identifying all contemplated technical and non-technical specs in CSI format  *NOTE: UF prefers telecommunications, security, and audio/visual systems to be specified in Division 17* |
|  | Draft technical specifications for materials, systems, and equipment known to be settled … for example, elevators |
|  |  |
| **CMP / Site / Utilities** | |
|  | Topographic and geotechnical surveys if not included with CSD submittal – see above |
|  | Updated site plan, including:   * building footprint & orientation * existing and proposed grades/contours * provisions for accessibility, circulation, and parking (if any) * site development work related to service & loading; traffic, circulation, and parking of emergency, service, and other vehicles; pedestrian & bicycle facilities; ADA accessibility; and waste management * relevant information from the survey, including existing trees and utilities   *NOTE: Illustrate existing features with different tonal qualities or line types from new* |
|  | Schematic site demolition and tree impact plans, if applicable, that illustrate all removals of natural or manmade features; include a tree removal table that itemizes the quantity, species, size, and health of all trees proposed to be removed |
|  | Schematic site utilities plan(s) to illustrate the routing, size, and types of utility distribution and stormwater collection structures |
|  | Schematic landscaping/planting plan |
|  | Updated map or drawing to illustrate CMP Future Land Use and Future Building Sites – see above |
| **Building / Architecture** | |
|  | Updated floor plans for each level indicating all net assignable and net non-assignable spaces, including horizontal and vertical circulation, M/E/P/FP/T support spaces, janitorial and waste/recycling areas, and loading areas/docks |
|  | Preliminary roof plan(s) to generally illustrate slopes, materials, drainage, etc. |
|  | Preliminary life safety plans (no smaller than 1/16” scale) indicating class of construction, occupancy classification(s), paths of egress, exit widths, smoke partitions, fire ratings for walls, doors, and other openings, smoke control systems, rated assembly details, and a listing of codes with which the design will comply |
|  | At least two sections, transverse and longitudinal at same scale as floor plans, to establish vertical control and illustrate interior spaces and volumetric proportions |
|  | Preliminary definition of interior partition types and materials |
|  | Exterior elevations of all building sides to establish vertical control and illustrate materials, fenestrations, and openings |
|  | Updated exterior renderings and/or perspectives to illustrate massing, scale, context, materials, and general appearance |
|  | Schematic demolition plans for renovation/rehabilitation projects |
|  |  |
| **Structural** | |
|  | Structural framing plans at the same scale as floor plans that indicate primary vertical and horizontal structure, including schematic foundation plan |
|  | Identification of any special conditions or provisions, such as deep (pile) foundations or moment connections |
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| **Systems – M/E/P, Fire Protection, BAS** | |
|  | Mechanical plans at the same scale as the floor plans showing the size, material, and routing of HVAC and piping systems, plus the schematic layout of primary equipment and mechanical rooms |
|  | Preliminary/outline sequence(s) of operations for BAS/EMCS controls |
|  | Electrical (power) plans at the same scale as floor plans showing primary and secondary power distribution, locations and schematic arrangement of primary equipment (transformers, switchgear, etc.), and location and layout of electrical rooms and panelboards |
|  | Schematic electrical plans for fire alarm and lighting systems |
|  | Plumbing plans at same scale as floor plans showing horizontal and vertical collection and distribution systems (including roof drains), primary equipment, and chases |
|  | Fire protection plans at same scale as floor plans showing pipe entry to building and major equipment, such as fire pump and backflow preventers  *NOTE: Design Professional shall determine source, availability, and adequacy of fire protection water supply by obtaining test data from UF PPD (or applicable off-campus entity) on flow and pressure of existing or proposed water supply systems* |
|  | Sprinkler system design criteria |
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| **Systems – Telecommunications, Audio/Visual, Security** | |
|  | Telecommunications floor plans showing primary (entrance) and secondary telecomm rooms, vertical and horizontal distribution, and work area outlets |
|  | Preliminary audio/visual plans and equipment schedules/details |
|  | Preliminary security plans and equipment schedules/details |
|  |  |
| **Laboratory / Research Specialties** | |
|  | Schematic lab floor plans and lab casework schedules |
|  | Schematic illustrations of lab exhaust strategies, house gas/utility storage and distribution, and a draft hazardous materials inventory where such will be used |
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| **Furnishings** | |
|  | Preliminary furnishings plan(s) |
|  | Updated tabular or narrative descriptions of F&E to be contractor-installed and those to be Owner-installed |

**Design Development (DD)**

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| **Administrative/General** *(see “Requirements Common to All Design Phases,” Chapter 5)* | |
|  | Basis of Design (*updated from ASD phase*) |
|  | Space Summary and Area Calculation |
|  | Life-Cycle Cost Analysis |
|  | Quality Control statement |
|  | Data, reports, drawings, and other documents related to environmental permitting requirements |
|  | Updated Campus Master Plan checklist |
|  | Draft Measurement & Verification Plan (if applicable) |
|  | Appendix – Owner directives, meeting minutes and correspondence, graphical data, functional diagrams, current design schedule, project team roster, and other relevant information or documents from the DD phase |
| **Specifications** | |
|  | Updated Table of Contents identifying all contemplated technical and non-technical specs |
|  | Draft (outline) technical specifications in 3-part, CSI format |
|  | Draft project-specific list of O&M documents, Owner training, attic stock, and other closeout requirements to be specified in the CDs using Owner’s “Closeout Deliverables Matrix” |
| **CMP / Site / Utilities** | |
|  | Updated site plan, including:   * building footprint & orientation * provisions for pedestrian & bicycle circulation and facilities; ADA accessibility; traffic, circulation, and parking of emergency, service, and other vehicles; building service & loading; and waste management * hardscaping (sidewalks, pavers, etc.), seatwalls, and other site amenities & furnishings * relevant information from the survey, including existing trees and utilities   *NOTE: Illustrate existing features with different tonal qualities or line types from new* |
|  | Site demolition and tree impact plans, if applicable, that illustrate all removals of natural or manmade features; include an updated tree removal table that itemizes the quantity, species, size, and health of all trees proposed to be removed |
|  | Site utilities plan(s) to illustrate the routing from point of connection, size, and types of utility distribution structures, including fire protection specialties (hydrants, post indicator valves, fire department connections, etc.)  *NOTE: Such utility plans may be separated by discipline (‘C’, ‘P’, ‘FP’, ‘M’, ‘E’, ‘T’) or combined* |
|  | Preliminary site lighting plan |
|  | Schematic paving, grading, and drainage plan |
|  | Updated landscaping/planting plan |
|  | Preliminary plans for erosion and sedimentation control and compliance |
|  | Updated map or drawing to illustrate the Future Land Use and Future Building Sites – see above |
| **Building / Architecture** | |
|  | Updated floor plans for each proposed level with preliminary room numbers provided by UF FPC |
|  | Roof plans showing all slopes, drainage, materials, and roof-mounted equipment (if any) |
|  | Updated life safety plans – see above |
|  | Updated exterior elevations of all building sides |
|  | Updated exterior renderings, perspectives, and/or models |
|  | Renderings of all significant public spaces, including exterior public plazas and primary entry lobbies to accurately portray scale, context, finishes, and light sources |
|  | Transverse and lateral building sections indicating finished floor elevation of each level, floor-to-floor heights, vertical circulation, and interior space relationships |
|  | Preliminary sections through stairs and elevator shafts |
|  | Preliminary roof details |
|  | Preliminary wall sections and details as needed to identify building envelope materials, waterproofing and fireproofing, and construction |
|  | Updated and refined details & definitions for interior partitions |
|  | Preliminary schedules and details for interior and exterior openings (windows, doors, louvers) |
|  | Preliminary reflected ceiling plans to illustrate ceiling heights and materials |
|  | Preliminary finish schedule to identify wall, ceiling, floor, and base materials by room |
|  | Preliminary color/finishes boards to illustrate the color and type of interior finishes |
|  | Updated demolition plans for renovation/rehabilitation projects |
|  |  |
| **Structural** | |
|  | Structural “title sheet” with design criteria and loads, construction notes, etc. |
|  | Revised and further detailed foundation plan, including preliminary schedule(s) for footings, grade beams, stem walls, piles, etc. |
|  | Revised and further detailed horizontal framing/slab plans that indicate type, size, length, and spacing of principal members; size and elevation of slabs; size and framing details for slab openings, etc. |
|  | Revised and further detailed vertical framing plans that indicate type, size, length, and spacing of principal members and components |
|  | Preliminary roof framing plans, including draft truss schedule if applicable |
|  | Preliminary structural building sections, transverse and longitudinal |
|  | Schedules for columns, beams, shear walls |
|  | Typical/standard construction details for structural systems, components, connections |
|  | Further development of any special conditions such as moment connections |
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| **Systems – M/E/P, Fire Protection** | |
|  | Revised and further detailed mechanical plans for HVAC and piping systems, equipment, and mechanical rooms |
|  | Preliminary riser diagrams |
|  | Preliminary mechanical schedules for equipment (AHUs, FCUs, fans, etc.) and fixtures (diffusers, louvers, etc.) |
|  | Refined sequence(s) of operations for BAS/EMCS controls |
|  | Revised and further detailed electrical (power) plans and riser diagrams to illustrate primary and secondary power distribution, equipment, panelboards, and electrical rooms |
|  | Preliminary power plans to indicate convenience, equipment, floor boxes, and special-purpose receptacles |
|  | Revised and further detailed electrical plans for fire alarm, lighting, and lighting control systems |
|  | Preliminary schedules for panelboards, lighting fixtures, other electrical equipment |
|  | Preliminary details for grounding, lightning protection, and emergency power systems |
|  | Revised and further detailed plumbing plans illustrating waste, domestic hot and cold water, (roof) stormwater, equipment, and chases |
|  | Revised and further detailed fire sprinkler plans, including fire pump, backflow preventer(s), risers, standpipes, hose cabinets |
|  | Revised sprinkler system design criteria and preliminary hydraulic calculations |
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| **Systems – Telecommunications, Audio/Visual, Security** | |
|  | Revised and further detailed telecommunications floor plans, including layout of telecomm rooms, vertical and horizontal distribution, work area outlets, and floor boxes  *NOTE: Identify work area outlets to be installed at or within fixed furnishings, or floor boxes for fixed or moveable furnishings (classroom seating, modular office furniture, etc.)* |
|  | Updated and further detailed audio/visual plans and equipment schedules/details |
|  | Updated and further detailed security plans and equipment schedules/details |
|  |  |
| **Laboratory / Research Specialties** | |
|  | Revised and further detailed lab floor plans |
|  | Plans illustrating lab exhaust equipment, ductwork, and load/capacity parameters |
|  | Preliminary fume hood schedule with location, size, type of hood, etc. |
|  | Preliminary P&ID drawings for distributed gases and utilities (de-ionized water, clean dry air, vacuum, etc.) |
|  | Lab casework schedule(s) |
|  | Revised and further detailed hazardous materials inventory correlated with life safety plans and occupancy classifications |
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| **Furnishings** | |
|  | Updated furnishings plan(s), with distinctions made between fixed and moveable, and between those to be provided and installed (or Owner-furnished, builder-installed) as part of construction and those provided by the Owner after construction |
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**60% Construction Documents (CDs)**

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| **Administrative/General** *(see “Requirements Common to All Design Phases,” Chapter 5)* | |
|  | Basis of Design (*updated from DD phase*) |
|  | Space Summary and Area Calculation |
|  | Quality Control statement |
|  | Data, reports, drawings, and other documents related to environmental permitting requirements |
|  | Finalized Campus Master Plan checklist |
|  | Updated Measurement & Verification Plan (if applicable) |
|  | Finalized project-specific list of closeout deliverables, including O&M documents, Owner training, and attic stock |
| **Specifications** | |
|  | Table of Contents identifying all contemplated technical and non-technical specs |
|  | Project-specific technical and non-technical specs, including UF-provided non-technical specifications and identification of proposed additive and deductive alternates |
|  | Updated project-specific list of O&M documents, Owner training, attic stock, and other closeout requirements to be specified in the CDs using Owner’s “Closeout Deliverables Matrix” |
|  | Draft special/threshold inspection plan for threshold buildings |
| **CMP / Site / Utilities** | |
|  | Finalized site plan (see above)  *NOTE: Site plan shall be drawn at a 1:1 scale and referenced to the State Plane Coordinate System (1983 Adjustment). It shall be drawn in two dimensions (not 3D) with all entities having the Z-coordinates set to zero. The building footprint and ground (or first) floor finished floor elevation shall be referenced to at least one of the benchmarks established in the UF Vertical Control System. Information regarding the UF Vertical Control System may be obtained from the PPD A/E Department.* |
|  | Site demolition and tree impact plans, if applicable, that illustrate all removals of natural or manmade features; include an updated tree removal table that itemizes the quantity, species, size, and health of all trees proposed to be removed |
|  | Updated site utilities plan(s) that indicate material/structure type, size, depth, and conflicts. Complex areas with multiple utilities, stacked piping, and/or conflicts shall be illustrated using plan & profile drawings.  *NOTE: Such utility plans may be separated by discipline (‘C’, ‘P’, ‘FP’, ‘M’, ‘E’, ‘T’) or combined* |
|  | Updated site lighting plan, coordinated with landscape plan |
|  | Updated paving, grading, and drainage plan, including schedule of stormwater structures (new and existing) |
|  | Updated landscaping/planting plan, with hardscape materials and site features & fixtures indicated |
|  | Preliminary landscape irrigation plan, with connection(s) to water source(s) indicated |
|  | Updated plans for erosion and sedimentation control and compliance |
| **Building / Architecture** | |
|  | Updated floor plans for each proposed level with room numbers provided by UF FPC |
|  | Dimensioned roof plans showing all slopes, drainage, materials, roof-mounted equipment (if any), penetrations, hatches or ladders |
|  | Updated life safety plans – see above |
|  | Updated exterior elevations of all building sides |
|  | Updated exterior renderings, perspectives, and/or models |
|  | Renderings of all significant public spaces, including exterior public plazas and primary entry lobbies to accurately portray scale, context, finishes, and light sources |
|  | Transverse and lateral building sections indicating finished floor elevation of each level, floor-to-floor heights, vertical circulation, and interior space relationships |
|  | Updated sections through stairs and elevator shafts (both directions), plus floor-by-floor plans for each stair |
|  | Updated roof details |
|  | Updated building envelope sections and details as needed to identify the composition, dimensions, and construction of all exterior walls |
|  | Details for flashing, waterproofing, dampproofing, and fireproofing |
|  | Details and enlarged elevations for cast stone or architectural precast, stucco, metal wall panels, and other exterior finishes |
|  | Updated schedules and details for openings (windows, doors) |
|  | Updated and refined details & definitions for interior partitions |
|  | Updated reflected ceiling plans to illustrate ceiling heights, materials, and M/E/P/AV fixtures |
|  | Updated finish schedule to identify wall, ceiling, floor, and base materials by room |
|  | Dimensioned interior elevations and fixture/accessory schedules for all restrooms |
|  | Casework and millwork details |
|  | Updated color/finishes boards to illustrate the color and type of interior finishes |
|  | Finalized demolition plans for renovation/rehabilitation projects |
|  |  |
| **Structural** | |
|  | Structural “title sheet” with design criteria and loads, construction notes, etc. |
|  | Revised and further detailed foundation plan, including schedule(s) for footings, grade beams, stem walls, piles, etc. |
|  | Revised and further detailed horizontal framing/slab plans that indicate type, size, length, and spacing of principal members; size and elevation of slabs; size and framing details for slab openings, etc. |
|  | Revised and further detailed vertical framing plans that indicate type, size, length, and spacing of principal members and components |
|  | Updated roof framing plans, including truss schedule if applicable |
|  | Updated structural building sections, transverse and longitudinal |
|  | Updated schedules for columns, beams, shear walls |
|  | Refined construction details for structural systems, components, connections |
|  | Further development of any special conditions such as moment connections |
|  |  |
| **Systems – M/E/P, Fire Protection** | |
|  | Revised and further detailed mechanical plans for HVAC and piping systems, equipment, and mechanical rooms, including ductwork |
|  | Updated mechanical schedules for equipment (AHUs, FCUs, fans, etc.) and fixtures (diffusers, louvers, etc.) |
|  | Above-ceiling sections for typical and congested areas to illustrate ceiling, structure (including fireproofing), piping (including insulation), ductwork, and other utilities and systems |
|  | Refined sequence(s) of operations for BAS/EMCS controls |
|  | Revised and further detailed electrical (power) plans and riser diagrams to illustrate primary and secondary power distribution, equipment, panelboards, and electrical rooms |
|  | Preliminary power plans to indicate convenience, equipment, and special-purpose receptacles  *NOTE: Identify rough-ins or receptacles at or within fixed furnishings, or floor boxes for fixed or moveable furnishings (classroom seating, modular office furniture, etc.)* |
|  | Details, enlarged plans, and schedules as needed to illustrate circuitry, pathways, wiring system(s), conductors, receptacles, switches, and exit signs |
|  | Revised and further detailed electrical plans for fire alarm, lighting, and lighting control systems |
|  | Updated schedules for panelboards, lighting fixtures, other electrical equipment |
|  | Refined details for grounding, lightning protection, and emergency power systems |
|  | Revised and further detailed plumbing plans illustrating waste, domestic hot and cold water, (roof) stormwater, equipment, and chases |
|  | Plumbing fixture schedule |
|  | Revised and further detailed fire sprinkler plans, including fire pump, backflow preventer(s), risers, standpipes, hose cabinets, sprinkler coverage, and protection for sprinkler pipes and heads located in unconditioned spaces |
|  | Illustration(s) showing typical mounting heights for switches, receptacles, alarm devices, card readers, thermostats, and other wall-mounted devices |
|  | Updated hydraulic calculations |
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| **Systems – Telecommunications, Audio/Visual, Security** | |
|  | Revised and further detailed telecommunications floor plans, including layout of telecomm rooms, vertical and horizontal distribution, floor boxes, and work area outlets  *NOTE: Identify work area outlets to be installed at or within fixed furnishings, or floor boxes for fixed or moveable furnishings (classroom seating, modular office furniture, etc.)* |
|  | Updated and further detailed audio/visual plans and equipment schedules/details |
|  | Updated and further detailed security plans and equipment schedules/details |
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| **Laboratory / Research Specialties** | |
|  | Revised and further detailed lab floor plans |
|  | Plans illustrating lab exhaust equipment, ductwork, and load/capacity parameters |
|  | Updated fume hood schedule with location, size, type of hood, etc. |
|  | Updated P&ID drawings for distributed gases and utilities (de-ionized water, clean dry air, vacuum, etc.) |
|  | Lab casework schedule(s) |
|  | Revised and further detailed hazardous materials inventory correlated with life safety plans and occupancy classifications |
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| **Furnishings** | |
|  | Updated furnishings plan(s), with distinctions made between fixed and moveable, and between those to be provided and installed (or Owner-furnished, builder-installed) as part of construction and those provided by the Owner after construction |
|  | For lab/research spaces, clear indication of research/lab tools and equipment |
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**100% Construction Documents (CDs)**

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| --- | --- |
| **Administrative/General** *(see “Requirements Common to All Design Phases,” Chapter 5)* | |
|  | Basis of Design (*updated from 60% CDs phase*) |
|  | Space Summary and Area Calculation |
|  | Quality Control statement |
|  | Data, reports, drawings, and other documents related to environmental permitting requirements |
|  | Updated Measurement & Verification Plan (if applicable) |
|  | Draft Commissioning Plan |
|  | Owner-provided Facilities Classification for Energy Consumption form – completed and signed by the (mechanical) engineer of record |
|  | AutoCAD (DWG) copies of the site plan and floor plans |
| **Specifications** | |
|  | Table of Contents identifying all technical and non-technical specs |
|  | Revised and finalized technical and non-technical specs, including identification of closeout deliverable requirements from “Closeout Deliverables Matrix” |
|  | Finalized project-specific list of O&M documents, Owner training, attic stock, and other closeout requirements specified in the CDs using Owner’s “Closeout Deliverables Matrix” |
|  | Finalized special/threshold inspection plan for threshold buildings |
| **CMP / Site / Utilities** | |
|  | Finalized site plan (see above)  *NOTE: Site plan shall be drawn at a 1:1 scale and referenced to the State Plane Coordinate System (1983 Adjustment). It shall be drawn in two dimensions (not 3D) with all entities having the Z-coordinates set to zero. The building footprint and ground (or first) floor finished floor elevation shall be referenced to at least one of the benchmarks established in the UF Vertical Control System. Information regarding the UF Vertical Control System may be obtained from the PPD A/E Department.* |
|  | Finalized site demolition and tree impact plans, if applicable (see above) |
|  | Finalized site utilities plan(s) – see above |
|  | Finalized site lighting plan, plus photometric analysis |
|  | Finalized paving, grading, and drainage plan (see above) |
|  | Finalized landscaping/planting plan, with hardscape materials and site features & fixtures indicated |
|  | Finalized and fully detailed landscape irrigation plan, coordinated with electrical for irrigation controller power |
|  | Updated plans for erosion and sedimentation control and compliance |
| **Building / Architecture** | |
|  | Finalized dimensioned floor plans (see above), including dimensions of any non-right angles, spring points for arcs, radii, etc. |
|  | Finalized roof plans (see above) |
|  | Finalized life safety plans (see above), along with UL-listed fire rating details |
|  | Finalized exterior elevations |
|  | Finalized exterior renderings, perspectives, and/or models |
|  | Finalized renderings of all significant public spaces, including exterior public plazas and primary entry lobbies to accurately portray scale, context, finishes, and light sources |
|  | Finalized building sections (see above) |
|  | Finalized sections through stairs and elevator shafts |
|  | Finalized floor-by-floor stair plans, dimensioned |
|  | Finalized roof details |
|  | Final exterior wall sections and details, fully dimensioned |
|  | Finalized details and enlarged elevations for all exterior finishes, such as cast stone, architectural precast, stucco, and metal wall panels |
|  | Finalized details for flashings, waterproofing, dampproofing, and fireproofing |
|  | Finalized schedules and details for openings (windows, doors) |
|  | Finalized details & definitions for interior partitions |
|  | Finalized reflected ceiling plans (see above) |
|  | Finalized finish schedule to identify wall, ceiling, floor, and base materials by room |
|  | Dimensioned interior elevations and fixture/accessory schedules for all restrooms |
|  | Casework and millwork details |
|  | Updated color/finishes boards to illustrate the color and type of interior finishes |
|  | Finalized demolition plans for renovation/rehabilitation projects |
|  | Signage and graphics plans including room identification and numbering, directional, way-finding, HAZMAT, and ADA or other signage required by code |
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| **Structural** | |
|  | Structural “title sheet” with design criteria and loads, construction notes, etc. |
|  | Finalized foundation plan, including complete schedule(s) for footings, grade beams, stem walls, piles, etc. |
|  | Finalized horizontal framing/slab plans that indicate type, size, length, and spacing of principal members; size and elevation of slabs; size and framing details for slab openings, etc. |
|  | Final detailed vertical framing plans that indicate type, size, length, and spacing of principal members and components |
|  | Finalized roof framing plans, including draft truss schedule if applicable |
|  | Finalized schedules for columns, beams, shear walls |
|  | Finalized structural building sections, transverse and longitudinal |
|  | Finalized construction details for structural systems, components, connections |
|  | Complete development and detailing of any special conditions such as moment connections |
|  | Illustration of control joints |
|  | Identification and detailing of sleeves through structure, if any |
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| **Systems – M/E/P, Fire Protection** | |
|  | Revised and further detailed mechanical plans for HVAC and piping systems, equipment, and mechanical rooms, including ductwork |
|  | Updated mechanical schedules for equipment (AHUs, FCUs, fans, etc.) and fixtures (diffusers, louvers, etc.) |
|  | Finalized above-ceiling sections for typical and congested areas (see above) |
|  | Refined sequence(s) of operations for BAS/EMCS controls |
|  | Revised and further detailed electrical (power) plans and riser diagrams to illustrate primary and secondary power distribution, equipment, panelboards, and electrical rooms |
|  | Finalized power plans to indicate convenience, equipment, and special-purpose receptacles  *NOTE: Identify rough-ins or receptacles at or within fixed furnishings, or floor boxes for fixed or moveable furnishings (classroom seating, modular office furniture, etc.)* |
|  | Details, enlarged plans, and schedules as needed to illustrate circuitry, pathways, wiring system(s), conductors, receptacles, switches, and exit signs |
|  | Finalized and further detailed electrical plans for fire alarm, lighting, and lighting control systems |
|  | Finalized schedules for panelboards, lighting fixtures, other electrical equipment |
|  | Finalized details for grounding, lightning protection, and emergency power systems |
|  | Finalized plumbing (see above) |
|  | Finalized plumbing fixture schedule |
|  | Complete and finalized fire sprinkler plans, plus finalized hydraulic calculations |
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| **Systems – Telecommunications, Audio/Visual, Security** | |
|  | Finalized telecommunications floor plans, including layout of telecomm rooms, vertical and horizontal distribution, and work area outlets  *NOTE: Location of wireless access points shall be determined by UF OIT or HealthNet*  *NOTE: Identify work area outlets to be installed at or within fixed furnishings, or floor boxes for fixed or moveable furnishings (classroom seating, modular office furniture, etc.)* |
|  | Finalized audio/visual plans and equipment schedules/details |
|  | Finalized security plans and equipment schedules/details |
|  |  |
| **Laboratory / Research Specialties** | |
|  | Finalized lab floor plans |
|  | Plans illustrating lab exhaust equipment, ductwork, and load/capacity parameters |
|  | Finalized fume hood schedule with location, size, type of hood, etc. |
|  | Finalized P&ID drawings for distributed gases and utilities (de-ionized water, clean dry air, vacuum, etc.) |
|  | Finalized lab casework schedule(s) |
|  | Finalized hazardous materials inventory correlated with life safety plans and occupancy classifications |
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| **Furnishings** | |
|  | Finalized furnishings plan(s), with distinctions made between fixed and moveable, and between those to be provided and installed (or Owner-furnished, builder-installed) as part of construction and those provided by the Owner after construction |
|  | For lab/research spaces, clear indication of research/lab tools and equipment |
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