**50% CONSTRUCTION DOCUMENT (50% CD) CHECKLIST**

The following checklist itemizes the minimum requirements for the 50% Construction Document deliverable. The FP&C project manager must provide this checklist to the A/E team at the start of every major project and large minor project, to ensure the A/E is aware of these content requirements. This checklist should be considered the basic level of required documentation. If additional requirements are identified in the Owner’s Project Requirements (OPR) document, they must also be addressed in the 50% Construction Document deliverable. If the deliverable is not complete, the FP&C project manager should note why documents are missing, or require the A/E to provide the proper documents for review prior to the recommendation of payment for 50% Construction Document services.

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|  | **ADMINISTRATION/GENERAL** |
|  | Basis of Design (updated from DD phase) |
|  | Space Summary and Area Calculation |
|  | Quality Control statement (statement from the Architect and Engineer describing what steps that have taken to ensure the quality of the documents, compliance with the UCF Standards, and compliance with the UCF Professional Services Guide) |
|  | Data, reports, drawings, and other documents related to environmental permitting requirements |
|  | Updated 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 |
|  | 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 50% CD phase |
|  | UCF Comment spreadsheet with responses from previous phase, indicating specific location of where all UCF comments have been addressed. Responses such as “will address on future drawings” are unacceptable. |
|  | UCF Standards Critical Needs Checklist |
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|  | **SPECIFICATIONS** |
|  | Updated Table of Contents identifying all contemplated technical and non-technical specifications |
|  | Project-specific technical and non-technical specs, including UCF-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 |
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|  | **SITE & UTILITIES** |
|  | Survey of the site, which shall illustrate and identify all items on the UCF “Survey Scope of Work” document |
|  | 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 * waste management (dumpsters) * Hardscaping (sidewalks, pavers, etc.), seat walls, and other sites 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 |
|  | Updated site utilities plan(s) that indicate materials/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 |
|  | Updated paving, grading, and drainage plan, including schedule of storm water 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 |
|  | Updated map or drawing to illustrate the Future Land Use and Future Building Sites, if applicable |
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|  | **BUILDING/ARCHITECTURE** |
|  | Updated floor plans for each proposed level with room numbers provided by SPAA |
|  | Dimensioned roof plans showing all slopes, drainage, materials, roof-mounted equipment (if any), penetrations, hatches or ladders |
|  | Updated life safety plans |
|  | 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, damp proofing, 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 |
|  | Case work and millwork details |
|  | Updated color/finishes selections to illustrate the color and type of interior finishes |
|  | Finalized demolition plans for renovation/rehabilitation projects |
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|  | **STRUCTURAL** |
|  | Structural 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 an special conditions such as moment connections |
|  | Final Threshold Inspection plan, if applicable |
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|  | **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. Rough-ins or receptacles within fixed furnishings, or floor boxes for fixed or moveable furnishings must be identified. |
|  | Details, enlarged plans, and schedules as needed to illustrate circuitry, pathways, wiring systems(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 fixtures 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 – delegated sprinkler design is not permitted |
|  | 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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|  | **TELECOMMUNICATIONS, AUDIO/VISUAL, SECURITY** |
|  | Revised and further detailed telecommunications floor plans, including layout of telecomm rooms, vertical and horizontal distribution, 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, in compliance with OIR requirements |
|  | Updated and further detailed security plans and equipment schedules/details, in compliance with CS&T requirements |
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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, contractor-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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**End of 50% Construction Documents Checklist**