Office of University Architects
for Facilities Planning
UNIVERSITY OF GEORGIA

UGA DESIGN & CONSTRUCTION
SUPPLEMENTAL GENERAL REQUIREMENTS & STANDARDS
CHANGES FROM APRIL 30, 2018 VERSION TO APRIL 30, 2020 VERSION

Introduction – Design & Construction Supplemental General Requirements & Standards

- Third paragraph Edited: "The first section, Supplemental General Requirements focuses on" to "The first section, Supplemental General Requirements, focuses on."

00 00 02 – Terms

- Edited: " "Campus" " to "Campus."
- Footer Edited: "Page 1 of 3" to "00 00 02-1."

00 00 04 – Environmental

- 1.A. Removed underlining from "Clean Water Act, Georgia Water Quality Control Act, and Georgia Soil Erosion and Sedimentation Act:"
- 1.A.i. Edited: "…or the State of Georgia, and storm water inlets and storm drainage associated with the Project may drain directly…" to "…or the State of Georgia. Storm water inlets and storm drainage associated with the Project may drain directly…"
- 1.A.iv. Edited: "is" to "are."
- 1.A.v. Edited: "BMP's" to "BMPs."
- 1.B. Edited: Removed Underlining.
- 1.B.v. Edited: Removed highlighting.
- 1.C. Edited: Removed underling.
- 1.C.iii. Edited: Removed highlighting.
- 1.D. Edited: Removed underlining.

00 00 07 – Design Professional Design Process Requirements

- 1.F. Edited: "narratives" to "narrative with supplemental drawings"
- 1.G. Edited: "narratives" to "drawings"

00 00 08 – Design Professional Documentation Requirements & Deliverables

- 1.C.vi. Added: "Should multiple building numbers exist for different zones of phases of a building, these shall be clearly indicated on the key plan as well."
- 1.C.vii. Added: "and approved by the Project Manager."
- 1.C.viii. Edited: "size" to "type."
- 1.D.iii. Edited: "insure" to "ensure"
- 1.D.iv. Added: "All electronic (.pdf) specifications shall be tabbed and bookmarked, with individual sections hyperlinked back to their listing in the table of contents."
- 1.D.v. Edited: "UGA Milestone Deliverables: The following list documents minimum UGA deliverable drawing sets for OUA and FMD use in reviewing milestone submissions. All deliverables shall be submitted in electronic format to the Project Manager, who will then distribute contents to reviewing entities. For the intermediate milestone submittals, the

percentage complete may vary per project and one of these percentages may also be the GMP set.

a. **Site Evaluation & Planning Services** – PDF drawings, specifications, and narratives (as applicable, per direction by Project Manager)
b. **Schematic Design** – PDF drawings, specifications, narratives, Facility Performance Checklist (see 01 81 00), MEP Design Concepts (Narratives and supplemental drawings), Network Drop Spreadsheet*, Dining Services documents (if applicable, see 1.D.vii)
c. **Design Development** – PDF drawings, specifications, narratives, Facility Performance Checklist (see 01 81 00), MEP Design Concepts (Narratives and supplemental drawings), Network Drop Spreadsheet*, Dining Services documents (if applicable, see 1.D.vii)
d. **Additional Intermediate Milestones** (as directed by Project Manager) - PDF drawings, specifications, narratives, Facility Performance Checklist (see 01 81 00), MEP Design Concepts (Narratives and supplemental drawings), Network Drop Spreadsheet*, **Dining Services documents (if applicable, see 1.D.vii)
e. **100% Construction Documents** - PDF and CAD files, specifications, narratives, Facility Performance Checklist (see 01 81 00), Network Drop Spreadsheet*, ***Dining Services documents (if applicable, see 1.D.viii) **plus** two (2) full size sets of drawings and specifications are required for UGA Fire Safety. Submit the two sets of drawings and specifications with two copies of the completed "UGA Fire Safety Form 354" to the Project Manager who will forward to UGA Fire Safety. See section 01 41 26.03 Permit Requirements – Construction Permits. If permitted through State Fire Marshal, then one set is required for UGA Fire Safety.
f. **Closeout** – Refer to 01 77 00 – Project Closeout."

- 1.D.vi. Edited and added: "For projects requiring full Commissioning, the Design Professional shall submit a Commissioning Basis of Design document during the schematic design phase which will be updated with each new design submission."
- 1.D.vii. Added: "Prior to issuance of Design Development-level documents, the FMD Building Inventory shall have an opportunity to review and request corrections to the proposed room numbering on the plans."
- 1.D.viii. Added: "*"
- 1.D.ix. Added: "** If the project includes food preparation that will require a health department permit, for schematic design, the Design Professional shall email a pdf of the site plan, floor plan with food service area and nearest restrooms, and any food equipment layout related information to the Project Manager. The Project Manager will send the file to ESD for review."
- 1.D.x. Added: "***For 100% Construction Documents, the Design Professional shall prepare one full size set that only includes the information as required in 01 41 26.06 Food Service and forward to the Project Manager who will send it to ESD and also provide a pdf set of that corresponding set for review. Pending any comments, once ready to be submitted for permitting, the Design Professional provide 5 sets of hardcopy sets and one searchable pdf including equipment cut sheets to the Project Manager. This shall include one full bound set of specifications."

- 1.D.xi. Added: "Simplified Floor Plan: Within 10 days at the issuance of 100% or "For Construction" Documents, the Design Professional is required to prepare simplified project floor plans (if any). The simplified floor plans shall be a 2D AutoCAD drawing and shall only contain the layers and associate attributes listed in the chart below. The electronic AutoCAD (.dwg) file shall be submitted via e-mail to the Project Manager."
- Table: Deleted: "bathroom stalls" from AR-FEATURE row
- Table: Added: The AR-REST-PART row
- Table: Added: The AR-REST-FIXT row

00 00 09 – Room & Space Numbering

- 3.E. and 3.C. Edited: Moved "*The actual number of rooms requiring the use of four-digit room numbering will vary, depending upon how many numbers are skipped and also the number of suites vs. rooms requiring non-suffixed numbers." From the bottom of 3.E. to the bottom of 3.C.
- 3.E. Edited: Removed underline from "Four digit numbers."

00 00 10 – BIM Requirements

- 4.6. Edited: "insure" to "ensure"

00 00 13 – Designing Learning Environments

- Throughout section. Edited: "insure" to "ensure"

00 31 31.14 – Seimic Investigations Infomation

- 1.A. Edited: "August 19, 2014" to "January 15, 2020"
- 1.B. Edited: "The following table presents seismic design values interpolated from applicable seismic hazard maps from the building code as well as values determined by the probabilistic seismic hazard analysis performed for this report: <updated chart>"

01 29 00 – Payment Procedures Separate subsections for OUA/FMD)

- 1.B. Edited: "form" to "electronic registration"
- 1.B. Edited: changed website to " https://onesource.uga.edu/news/vendor_registration_information/ "
- 1.D.i. Edited: "send a draft version of" to "email a .pdf copy of"
- 1.D.i. Deleted: "either electronically or in hard copy"
- 1.D.ii Edited: "Within three days of receipt of the Application for Payment, the Design Professional will either approve the Application for Payment and forward to invoiceoua@uga.edu as well as the Project Manager, or will provide comments to be addressed by the Contractor."
- 1.D.iii. Edited: "Once all comments are addressed to the satisfaction of the Design Professional and Project Manager, the Design Professional will sign and forward a .pdf copy of the pay application and supporting information to invoiceoua@uga.edu and the Project

Manager, also copying in the Contractor. The OUA office will then upload the electronic pay application to DocuSign for approval and signature by the Project Manager."

- 1.F. Added: "Application for Payment Procedure for contracts held by GSFIC:
  i. Submit per GSFIC requirements"
- 1.G. Added: "Application for Payment Procedure for Design Professional, Consultant, and Purchase Order work:
  i. Submit .pdf format invoices to invoiceoua@uga.edu and Project Manager"

01 35 13.02 – Special Project Procedures – Roofing & Hot Work

- 1.C.ii.b.2). Edited: "insure" to "ensure"

01 41 26.02 – Local Utility Information and Locate

- 1.E.i. Edited: "The contractor's attention is directed to the fact that there are active utilities within the work area." to "The Contractor shall use caution as there may be active utilities in the work area."

01 41 26.05 – Rock Removal

- UGA Blasting Checklist (Continued). Edited: "insure" to "ensure"

01 41 26.06 – Dining Services

- Footer Edited: "01 41 00.06" to "01 41 26.06."

01 58 00 – UGA Campus Signage Standards

- 1.D. Added: "(FacilitiesInquiries@uga.edu)."
- 2.B.ii.a. Edited: "seraph" to "serif."
- 4.C.i.a. Edited: "seraph" to "serif."
- 4.C.iii.b.2). Edited: "seraph" to "serif."
- 4.C.iii.b.4). Edited: "seraph" to "serif."
- 5.A.i. Edited: "Temporary signage is defined as signage that is erected for a period of no more than 30 days and must conform to temporary sign design standards with review and approval for design and placement by UGA Marketing and Communications in accordance with the Outdoor Temporary Signage policy. Requests for temporary signage should be directed to UGA Marketing and Communications at temporarysignage@uga.edu or otherwise adhere to the Temporary Banner signage policy below."

01 58 13 – Temproary Project Signage

- 1.A. Edited: "The Contractor shall install an official Project Construction Sign at a location agreed upon with the Owner. The sign shall be installed prior to beginning construction on site. The cost shall be included in the Contractor Overhead Cost or Base Bid. The sign shall be a 4'x8' sheet of plywood with black lettering and white background and adhere to the

template provided at the link below. The Contractor shall provide a proof to the Owner for review and approval prior to fabrication."

- 1.B.i. Edited: "Note: in the case of projects administered by FMD, the bottom line of the Project Construction Sign shall state: "Administered by the Facilities Management Division" as directed by Project Manager."
- 1.B.ii. Edited: "For Georgia State Financing and Investment Commission (GSFIC) funded projects, include among the listed parties."

01 74 19 – Construction Waste Management & Disposal

- 1.C. Deleted: "(this includes contacting UGA's recycling coordinator to determine what materials can be re-purposed on campus)."

01 77 00 – Project Closeout

- 1.D.v. Edited: "by Multivista, unless directed otherwise by project manager" to "by a third party company, unless directed otherwise by project manager."
- 1.G.iii.c. Edited: "Simplified Site and Building Plan indicating Emergency Utility Shut off devices"
- 1.G.iii.d Edited: "Finish Schedule including color samples and codes for each coating and color used on the project."
- 1.G.iii.e Edited: "Light Fixture Schedule"
- 1.G.vi Edited: Site and Utility Plan: Within 30 days of Material Completion, the Contractor shall provide a layered site plan drawing per the OUA Standards to indicate site and utility conditions as constructed. Updates to the Record Drawings to document any field modifications or an as-built survey of site utilities and other features is required to fulfill this closeout documentation. A Simplified Site Plan CAD template including the relevant site features as layers can be downloaded here: https://www.architects.uga.edu/standards .
    a. The submitted site plans shall be an AutoCAD (.dwg) file 2007 release or later. All survey information shall be included in the drawing as an External Reference and should be submitted as a separate (.dwg) file. All submitted drawings drawing shall be referenced to NAD 83 State plane coordinates system or to a suitable state plane coordinate system depending on its location. The electronic AutoCAD (.dwg) drawing file shall be submitted via e-mail to the Project Manager.
    b. As-built site information shall also provide the size and layout of stormwater management appurtenances including, but not limited to, storm and footer drain laterals.

- Checklist Edited:

		CONTRACTOR CLOSEOUT DELIVERABLES FOR OUA PROJECT			
		Full Size Printed Drawing Set	**Half Size Printed Drawing Set**	**Digital Files**	**Other**
CONTRACTOR	**Contractor Marked-up Construction Documents**	0 - For OUA 01 - For FMD 0 - For End-User	01 - For OUA 0 - For FMD 0 - For End-User	1 - For OUA 1 - For FMD 1 - For End-User	
	Contractor Marked-up Project Manual & Specifications	0 - For OUA 01 - For FMD 0 1- For End-User		1 - For OUA 1 - For FMD 1 - For End-User	
	Shop Submittals & Construction Submittals	0 - For OUA 01 - For FMD 0 - For End-User		1 - For OUA 1 - For FMD 1 - For End-User	
	Operations & Maintenance Manuals	0 - For OUA 01 - For FMD 0 - For End-User		1 - For OUA 1 - For FMD 1 - For End-User	
	Fire Marshal Approved Permit Drawings (Originals)	0 - For OUA 01 - For FMD 0 - For End-User			
	Test & Balance Report	0 - For OUA 01 - For FMD 0 - For End-User		1 - For OUA 1 - For FMD 1 - For End-User	

		CONTRACTOR CLOSEOUT DELIVERABLES FOR FMD PROJECT			
		Full Size Printed Drawing Set	**Half Size Printed Drawing Set**	**Digital Files**	**Other**
CONTRACTOR	**Contractor Marked-up Construction Documents**	0 1- For FMD 0 - For End-User		1- For FMD 1 - For End-User	
	Contractor Marked-up Project Manual & Specifications	0 1- For FMD 0 - For End-User		1- For FMD 1 - For End-User	
	Shop Submittals & Construction Submittals	0 1- For FMD 0 - For End-User		1- For FMD1 - For End-User	
	Operations & Maintenance Manuals	0 1- For FMD 0 - For End-User		1- For FMD 1 - For End-User	
	Fire Marshal Approved Permit Drawings (Originals)	0 - For OUA 01 - For FMD 0 - For End-User			
	Test & Balance Report	0 1- For FMD 0 - For End-User		1- For FMD 1 - For End-User	

		DESIGN PROFESSIONAL DELIVERABLES FOR OUA AND FMD PROJECTS			
		Full Size Printed Drawing Set	**Half Size Printed Drawing Set**	**Full Digital Files on USB~~CD~~, DVD, or Portable Hard Drive**	**Other**
Design Professional	**Design Professional Electronic Files Record Documents Construction Drawings and Project Manual**	~~01~~ - For OUA ~~01~~ - For FMD 0 - For End-User	~~01~~ - For OUA 0 - For FMD 0 - For End-User	1 - For OUA 1 - For FMD 1 - For End-User	

01 81 00 – Facility Performance Requirements

- 1.C. Deleted: "Based on experience, capital improvement projects that meet the intent and requirement of UGA Design & Construction Standards generally achieve Leadership in Energy & Environmental Design (LEED) Gold level certification or equivalent, Silver or equivalent at a minimum."
- 1.E.i. Edited: "ASHRAE Standard 90.1 – 2010 with exception of programmable power receptacles" to "International Energy Conservation Code (IECC) – 2015 with Georgia Supplement and Amendments (most up to date adopted amendments)."
- 1.E.ii. Added: "Design Professional shall submit a model output summary and live model to UGA for review with each major design submission and as required to obtain energy savings rebates."
- 1.E.iii. Added: "Design Professional shall submit a model output summary and live model to UGA with each major design submission and as required to obtain energy savings rebates."
- 1.E.iv. Added: "For partial renovation projects, the Design Professional shall submit an output summary and associated files from a ComCheck analysis (lighting only)."
- 1.E.vi. Edited: "Metering of utilities shall be reviewed with the Project Manager at the Design Phase Kickoff meeting. For new construction and full building renovation projects, metering of all utilities (electricity, natural gas, steam, and chilled water) shall be provided at the building level and sub-metering of building systems as needed to isolate, manage and optimize building energy use at the system level. See section 23 05 19 Meters & Gauges. In addition, new utility meters shall be connected to the building automated system. Metering requirements for partial renovation projects shall be reviewed on a project-by-project basis."
- 1.F.i. Edited: "of meeting up to 10% of the project's energy demand." to "of meeting up to 5% of the project's predicted annual electrical and/or thermal energy consumption."
- 1.F.ii. Deleted
- Checklist (Added/Edited):
    - Title number: "01 81 00" deleted from top of checklist

  - Energy Performance:
    - Edited: “20%” to “10%”
    - Edited: “completed” to “submitted to owner”
  - Georgia Power Rebates :
    - Added: “to Georgia Power”
- Header photo. Edited: changed to new school logo

01 91 13 – General Commissioning Requirements

- 1.D.i. Edited: “authority/agent” to “Provider” and “CxA” to “CxP”
- 1.D.ii Edited: “Management. The CxP is hired by the Owner directly. The CxP directs and coordinates the commissioning activities and the reports to the Project Manager. All members of the commissioning team work together to fulfill their contracted responsibilities and meet the objectives of the Contract Documents. The CxP shall include in its Commissioning Plans a project specific list of roles and responsibilities to be discussed and agreed to during the commissioning kickoff meeting. The CxP’s responsibilities are the same regardless of who contracted the CxP.
- 1.D.iii. Edited: all “CxA” to “CxP” and “scoping” to “kickoff”
- 1.E.iii.c. Edited: “Pre-functional Start-up: Coordinate with various subcontractors start-up performance tests. Oversee all start-up tests and ensure that pre-functional performance and checklists are completed, and all deficiencies resolved. CxP shall review Controls Contractor self-created Pre-functional checklist and include items in the CxP checklist that are not duplications.”
- 1.E.iii.d. Edited: “The CxP shall be responsible for coordinating with the drive manufacturer / vendor controls contractor and the TAB agency to ensure that VSDs are adjusted so that harmonic frequencies are skipped.”
- 1.E.iv.a. Edited: “Warranty Review and Seasonal Testing: Coordinate and supervise seasonal or deferred testing and deficiency corrections and provide the final testing documentation for the commissioning record and O&M manuals.”
- 1.E.iv.b. Edited: “The CxP shall meet on campus with the appropriate facilities and maintenance personnel (FMD for Athens campus; designated facility managers for other campuses) to review building systems and the Systems Manual.”
- 1.F. Edited: “CxA” to “CxP”
- 1.F. Edited:
  - “Systems commissioned by the CxP may include the following:
    i. Building Envelope Systems (refer to 01 81 00 Facility Performance Requirements)
    ii. Building Automation Systems (BAS), including links to remote monitoring and control sites and integration to other systems (refer to Building Automation and Temperature Control Systems 23 09 23.
    iii. Plumbing Systems

iv. Lighting Controls
v. HVAC Systems
vi. Laboratory Control Systems, including integration to the building automation system HVAC Equipment and Systems
vii. Energy Recovery Equipment and Systems
viii. Smoke Evacuation Systems
ix. Water Reclaim Systems
x. Utility Metering Systems
xi. Emergency Power Systems
xii. Other systems as required by individual project scope."

02 22 00 – Existing Conditions Assessment

- 1.B Edited: "at" to "prior to"
- 1.C Added: "The Design Professional shall, as part of the design process, engage an entity to perform a video documentation of existing sanitary sewer lines beneath the building footprint extending to the nearest manhole to ascertain condition and identify any deficiencies requiring correction. Any recommendations for repair or correction shall be discussed with the UGA PM and incorporated into the Construction Documents as agreed upon."

03 00 00 – General Concrete Requirements

- 1.C. Added: "carried out in"

07 41 20 – Steel Standing Seam Sheet Metal Roofing

- 2.A.iv.a. Edited: "insure" to "ensure"

08 10 00 – Doors and Frames

- 2.B. Edited: "Knock down door frames (factory pre-finished steel door frames which are delivered to the site in pieces for field assembly) are allowed in certain cases with UGA Project Manager approval."
- 2.F.iii.b. Added: "Plastic Laminate is also acceptable"

08 51 13 – Aluminum Windows

- 2.A.iv. Edited: "Security screens shall be level 5 rating." to "Security screens shall be security level 5 rating at operable windows with grade-level access."

08 71 00 – Door Hardware

- 1.B. Added: "and cores."
- 1.C. Added: "For Housing projects, the contractor and hardware vendor shall coordinate with the Project Manager and the Housing key shop."

- 2.A. Added: "and Cores."
- 2.E.i. Added: "; however, for housing this product shall be LCN9542SR or equal."
- 2.O.i.b. Added: "Equal to Schlage AD-200 (for housing)."

09 60 00 – Flooring

- 2.D. Edited: "Resilient flooring shall have the following characteristics:
  i. Luxury Vinyl Tile (LVT) shall have a minimum wear layer thickness of 30 mil
  ii. LVT in dark colors or possessing a heavily directional pattern is discouraged."
- 2.E. Edited: "For resilient wall base, prefabricated corners shall not be used."

09 91 23 – Interior Painting

- 2.D.iv. Added: "Variations may be requested for Housing-specific projects."

11 53 13 – Laboratory Fume Hoods

- Header. Edited: Changed logo to new logo
- 1.D. Added: "Cup sinks shall be located at the rear of the cabinet. For ADA hoods, locate one sink to the front of the cabinet (rotate sink sideways)."
- 2.A.ii. Added: "Airfoil at face of fume hood shall be curved. However, in cases where ADA compliance is required, then the flat airfoil is necessary.
- 2.A.iii. Added: Moved 3.B. to 2.A.iii. "For constant volume hoods, with a dedicated exhaust fan, the exhaust fan shall be selected to for stable operation at 60 feet per minute and 80 feet per minute with the vertical sash at 18" above the work surface and the horizontal sashes closed. The Design Professional shall submit fan curves to the Project Manager for review indicating the fan operating duty point(s) at the cfm associated with 60 fpm and 80 fpm."
- 2.A.v. Added: "After Testing, Adjusting, Balancing (TAB) of HVAC systems is complete,"
- 2.A.v.1. Edited: "Constant Volume Hood
  a. Set the vertical sash height at 18", fully close the horizontal sashes (if combination sashes utilized), and manually modulate the fan speed to achieve an average face velocity of 60 and 80 feet per minute (confirm intended face velocity with design). If seeking to utilize combination sash type fume hood, DP and/or Construction firm must first obtain UGA PM approval.
  b. Use of combination sash fume hoods in the project shall require advance approval by UGA PM.
  c. The hood shall be tested with the vertical sash fully closed and the horizontal sashes fully open (in the working position). The fan speed shall be maintained from step one.
  d. The test shall include all three components of ASHRAE testing to include, visual (smoke), tracer gas, and face measurement.
  e. Hood shall be tested to failure in order to identify lowest face velocity at which the hood passes visual smoke testing. Face velocity shall be reduced from design face velocity in

increments of 10 fpm until failure. Hood failure testing procedure shall include placing boxes inside the hood and assigning an individual to walk past the hood during testing to simulate an "as used" test condition."

- 2.A.v.2.b. Added: "Use of combination sash fume hoods in the project shall require advance approval by UGA PM."
- 2.A.v.2.d. Added: "Hood shall be tested to failure in order to identify lowest face velocity at which the hood passes visual local challenge testing."
- 2.A.v.3. Edited: "The contractor shall complete UGA's standard test report, including the following:
    a. Testing shall identify lowest face velocity at which the hood is capable of passing airflow visualization (local challenge) testing within +/- 2 feet per min. Each face velocity at which the test was performed shall be documented along with the corresponding VFD speed (%) and pass/fail record.
- 2.B. Added: "The fume hood shall be provided with a vertical rising sash. Combination sashes shall be provided when specified by the Project Manager."
- 2.F. Added: "All utility service piping serving fume hoods shall be provided with shut off valves located external to the fume hood in an accessible location. Service shut off valves shall not be located in hood casework utility chases."
- 3.A.i.3. Edited: "The Face velocity shall be set up for between 60 and 80 **feet per minute** by manually modulating the exhaust fan VFD speed dial for dedicated fan hoods or adjusting exhaust valve. The face velocity shall be determined by UGA and the design team.
- 3.A.ii.2. Edited: "For all vertical sash positions up to 18" above the work surface, the Face velocity shall be maintained at **60 feet per minute** by automatically modulating the laboratory controls."

12 00 00 – General Furnishings Requirements

- 1.A.vi. Added: "26 00 00 – General electrical Requirements"

12 93 23 – Trash, Litter, and recycling receptables

- 2.E.iv. Deleted.
- Graphic at bottom deleted.

12 93 43.13 – Site Seating

- 2. Edited: "PRODUCTS
    A. "This product has sole source approval and the manufacture is:
        i. TimberForm by Columbia Cascade
            a. Palmetto Recreation Equipment, LLC.
            b. Address: 1052 Peninsula Drive, Prosperity, South Carolina 29127
            c. Office Phone: 888-214-5253
            d. Website: www.timberform.com

B. Model
   i. Model Number: 2806-6 – Renaissance Bench with Armrests
   ii. "Backless" Renaissance bench may be used where appropriate. Coordinate with Project Manager.
C. Size
   i. Length: 6 Feet
D. Finish/Color
   i. Color-Coated Steel / Black Suede
E. Special Features
   i. Permanent Surface Mount
F. Note
   i. Anchors to be provided by Contractor."

- Graphic added at the end of section 2.

12 93 43.53 – Site Tables

- Added section in its entirety

13 21 00 – Pre-Fabricated Controlled Environment Rooms

- 2.H.i. Edited: "dehumidfication" to "dehumidification."
- 2.H.i Added: "DP shall confirm any tolerance/dead band requirements for both temperature and humidity with UGA PM at the start of the project."
- 2.H.vi. Added: "Requirements for reviewing temperature and humidity historical trend data shall be confirm with the UGA PM at the start of the project."
- 2.J.v. Edited: "Coaxial condenser selected" to "Coaxial or shell and tube condenser shall be selected."
- 2.K.vi.a. Edited: "Electric heat" to "Hot gas only."

14 20 00 – Elevators

- 1.C Added: "All elevators are to be traditional traction or hydraulic elevators as necessitated by the individual project requirements, with a traditional machine room. Machine Room Less elevators are not allowable without an express, approved variance signed by OUA or FMD Associate Vice President."
- 3.D.i Edited: "Contractor shall furnish maintenance and callback service for twelve (12) months after Material Completion, as part of the Cost of the Work or Bid. This service shall include adjustments, lubrication, cleaning, supplies, and parts to keep the equipment in proper operation. Contractor shall provide a sign-in sheet to be dated and signed by the technician conducting the maintenance service. Overtime callbacks shall be included in maintenance service at no cost to the Owner." to "Elevator maintenance will be performed by the UGA elevator maintenance contractor under an already established contract held directly by UGA FMD. No maintenance responsibilities are required to be included otherwise."

21 00 00 – General Fire Suppression Requirements

- 1.D. Added: "Dry pipe systems shall be Nitrogen Generation Corrosion Inhibiting System. This system shall be designed to service call Dry and/or Pre-action fire protection systems.
    i. The Nitrogen Generation System shall be provided with air compressor and a Nitrogen Generation System controls cabinet.
    ii. The integral controls shall include the following as a minimum:
        a. Shall have local human machine interface (HMI).
        b. Shall monitor leak rate, hours of operation of the nitrogen generator, time in air bypass mode, generator pressure, current status of nitrogen generator, maintenance schedules, provide service reminders, and alarms.
        c. The control system shall be BACNET compatible.
    iii. The system shall be started by an authorized factory representative.
    iv. Basis of design shall be South-Tek or an approved equal.**"**

22 00 00 – General Plumbing Requirements

- 1.K. Added: "Strategy for supplying deionized water shall be reviewed with UGA PM to determine if a building, regional, or point of use system is to be used. Also need to confirm required water purity levels (1 MΩ, 18 MΩ, etc.).
- 1.L. Added: "If a point of use DI system is utilized, review with UGA PM to determine if a floor drain is needed."
- 1.M. Added: "For projects incorporating DI loops design professional shall incorporate the below detail:"
- 1.M. Added: Graphic at end of section

22 10 00 – Plumbing Piping

- 2.A. Edited: " Under slab sanitary sewer piping shall be PVC. Buried sanitary sewer piping from 5 feet outside the building shall be ductile iron piping. Above-grade sanitary sewer piping shall be cast iron pipe with cast iron fittings."
- 2.B. Added: "All sanitary mains leaving the building and under the slab 4" and larger shall be camera-ed at the end of the warranty period."
- 2.D. Edited: "Water piping above grade" to "Domestic water piping above grade."
- 2.G. Added: "Strategy for supplying deionized water shall be reviewed with UGA PM to determine if a building, regional, or point of use system is to be used."
- 2.H. Added: "In addition, the required water purity levels shall be confirmed (1 MΩ, 18 MΩ, etc.)."
- 2.I. Added: "If a point of use DI system is utilized, review with UGA PM to determine if a floor drain is needed."

22 40 00 – Plumbing Fixtures

- 2.C. Deleted: "SanaGloss finish" deleted throughout Section C
- 2.C.iii. Edited: "Toto CT705EN(G)" to "American Standard A2257101020"
- 2.C.iv. Edited: "Toto CT705EN(G)" to "American Standard A2257101020"

23 00 00 – General Mechanical Requirements (HVAC)

- 1.C.vii. Edited: "insure" to "ensure"
- 1.C.vii. Edited: "zero flow" to "zero-flow"
- 1.C.xxiv. Edited: "Provide start-up reports for all new major equipment to UGA PM from factory authorized technician at start-up, but no later than two weeks after equipment start-up."

23 05 19 – Meters and Gauges

- 1.A.iv. Added: "23 65 00 – Cooling Towers"
- 2.F. Edited: "Digital temperature indicators across all chiller heat exchangers shall be equal to Weiss Instruments or equal approved. Provide models that can send analog signal to front end. Solar or light powered devices shall not be provided. ACC Water Meters: For projects located in Athens-Clarke County that incorporate a cooling tower, separate water meters shall be provided as required to interface with Athens Clarke County for the purpose of obtaining evaporation credits for sewer credits. The meters shall be Neptune model number T-10 with R450 MIU registers. The meters must be purchased from Athens Clarke County Utilities (Contractor shall be required to coordinate meter purchase and installation with ACC PUD Meter Management Division and FMD Energy Services). These meters are for billing purposes and do not replace makeup and/or blowdown meters necessary for tower chemical treatment systems."

23 09 23 – Building Automation and Temperature Control System (BAS)

- 1.H. Added: "Daily, Monthly and Annual Consumption and peak demand data shall be stored in historical trend database for a period of 2 years for all main utility meters and sub-meters."
- 1.I. Edited: "Campus standard sequences modified as required for project-specific considerations, shall be incorporated into each project, all variations from the standard sequences shall be discussed with the UGA project manager. Sequences of Operation shall be formatted as shown below at end of this section."
- 1.K. Added: ", FCUs,"
- 2.H Added: "Differential Pressure tubing shall be constructed of ¼" hard copper. Blowdown piping shall be run to the closest floor drain."
- After section 3. Added:

Office of University Architects
for Facilities Planning
UNIVERSITY OF GEORGIA

"MINIMUM REQUIREMENTS CHECKLIST TO BE USED BY CONSULTANTS AND CONTRACTORS FOR SEQUENCE OF OPERATIONS ON HVAC PROJECTS

Address these questions during 10% or 35% design stage (helps with coordination, cost estimates, etc.)

SEQUENCES OF OPERATION

Start/Stop:

1. How is the equipment energized?
2. Is other equipment interlocked?
3. Auxiliary contacts needed?
4. Coordinated with electrical?

Safeties:

1. Are smoke detectors required?
2. Are safety t'stats required?
3. Miscellaneous safety interlock?
4. Emergency stop switch?
5. Fail safe position

Temperature Control:

1. Proper fail safe position of controlled devices.
2. On a rise or fall of control setpoint?
3. Mixed air limiting controller?
4. Economizer control?

Humidity Control:

1. Fail safe position?
2. Control point?
3. Control high limit?

Pressure Control:

1. Fail safe position?
2. Control point?

Miscellaneous or Special Control:

1. Emergency Power Supply
2. Output indication
3. Remote communications
4. Relief air"

23 21 13 – Hydronic Piping

- 2.D. Edited: "Grooved piping systems shall not be used on chilled water or heating hot water without variance approval. Grooved piping systems shall not be used on open system, cooling tower condenser water piping."

- 2.H. Added: "Pipe sizing ranges shall not exceed 4 fps maximum for pipe sizes 2" and less and pressure losses shall be sized for no greater than 4 ft/100 ft for pipe sizes larger than 2"."

23 25 00 – HVAC Water Treatment

- 1.B.ii. Edited: "Contact persons are: John Mayfield, (404) 558-9695, jmayfiel@nch.com."
- 1.B.iii. Added: "Mark Vandiver, (404) 394-5841, mark.vandiver@chemaqua.com"
- 2.A.i. Edited: "Controllers: Chemical feed and conductivity controller shall be equal to Chem Aqua aquaDART The aquaDART Water Treatment Control employ **D**irect **A**nalysis and **R**esponse **T**echnology (**DART**) to continuously monitor and adjust the water treatment program based on changing system demands. Real-time sensors are used to directly measure the cycles, inhibitor and oxidizing biocide concentrations, and other key parameters that determine scale, corrosion, and microbiological control. Custom control software continuously regulates blowdown and chemical feed, based on changes in system demand, and immediately communicates upset conditions. This system (including the pumps) shall be mounted and pre-piped to a hard synthetic backboard. Flow assembly should include a 4 station corrosion coupon rack (3 for steel and 1 for copper) and shall be piped in 1-inch schedule 80 PVC pipe. Ball valve cut off at inlet and outlet of board. The controllers shall be provided with a BACNET card and shall interface with the DDC."
- 2.A.ii. Added: "Oxidizing chemical pumps shall be equipped with de-gassing heads."
- 2.A.iv.a. Edited: "Primary Biocide shall be a non-oxidizing biocide controlled via a biocide timer built into the aquaDART controller. Controller will send 120 volts to the biocide pump at a pre-determined time and duration. Dosages will vary depending on system size, load, etc.
- 2.A.iv.b. Edited: "Secondary Biocide shall be an oxidizing biocide controlled via a biocide timer and ORP built into the aquaDART controller. Controller will send 120 volts to the biocide pump at a pre-determined time and duration. Dosages will vary depending on system size, load, etc."
- 2.A.v. Edited: "Blow-Down Solenoid Valve: Provide a solenoid valve appropriately sized for the system blow-down and installed separately of the chemical feed system piping. 120 volt coil assembly shall be wired from solenoid to coil. The solenoid Valve shall be appropriately sized by the Design Professional. Model will depend on size of system and blow-down requirements."
- 2.A.vii. Edited: "Water Meters: An appropriately sized make-up water meter shall be provided and installed in the cooling tower make-up water line and the blowdown water line. Meter shall have a 100 gal/contact pulse contactor that will send a dry-contact pulse signal to the aquaDart Controller which can actuate the inhibitor feed and can allow for feed proportionate to load. Provide Meters equal to Pulsa MTR series."
- 2.A.viii. Edited: "ACC Water Meters: See section 23 05 19."
- 2.A.ix. Edited: "Chemical Feed Tanks: Chemical Feed tanks shall be Peabody double wall containment tanks or equal and be minimum 10 gallons and maximum 120 gallons in capacity and should be sized according to the system size and requirements. Provide transmitting electronic sensors for each tank, shall be capable of being configured for gallons or % level."
- 2.D. Deleted

- 2.E. Deleted
- 3.A. Added: "The aquaDART controller shall calculate cycles of concentration, system conductivity and make-up water conductivity, totalize make-up water and tower blowdown, and report all via BACNEt to the BMS."
- 3.E. Edited: "Provide the following for new and renovated condenser water system installations:
  i. The site shall be visited quarterly during the warranty period by the water treatment company and evaluation report submitted to include:
  ii. Microbiological testing for aerobic and anaerobic bacteria.
  iii. Provide minimum of 2 legionella tests per visit."

23 64 16.16 – Water-Cooled Water Chillers

- 1.D. Deleted

23 65 00 – Cooling Towers

- 1.A.ii. Added: "23 05 19 – Meters and Gauges"
- 2.M. Edited: "Cooling Tower Make-up and Blowdown water shall be metered with meters purchased from ACC Public Utilities Refer to section 23 05 19 for details."

23 73 00 – Indoor Central-Station Air-Handling Units

- 1.C.i. Deleted
- 1.C.ii. Deleted
- 2.A.ii. Added: "Outer wall shall be min. 16 gauge G-90 galvanized steel and inner wall shall be min. 20 gauge G-90 Galvanized steel. Coil and humidifier sections shall have 20 gauge 304 stainless steel inner walls.."
- 2.A.iii. Added: "Air handling units shall be factory assembled and shipped to the site in as few sections as reasonably possible. Shipping sections to be clearly shown on all submittals for approval. Contractors to coordinate with jobsite requirements."
- 2.A.iv. Added: "Floor shall be constructed of 0.125" thick aluminum treadplate."
- 2.A.v. Added: "Structure shall be fully welded. Deflection shall be no more than L/240 of panel length +/- 10" static pressure. Manufacturer shall perform a factory deflection test on at least one unit."
- 2.A.vii. Added: "Heating and"
- 2.A.vii.b. Added: "Tube bends shall be constructed of return bend fittings that are the same thickness or greater than the coil tube."
- 2.A.vii.d. Deleted: "that are 100% outside air."
- 2.A.vii.f. Added: "Cooling coil casings, supports, and tie off walls to be stainless steel construction."
- 2.A.ix.c. Edited: "78" to "72."

- 2.A.ix.d. Edited: "78" to "72."
- 2.A.xiii. Added: "If a filter is directly upstream of a coil, access may be provided through the filter rack and not a separate section, if mechanical room space requirements are not adequate for a separate access section."
- 2.A.xiv.d. Edited: "78" to "72."
- 2.A.xiv.e. Edited: "78" to "72."
- 2.A.xiv.f. Edited: "Every access door on the AHU that allows persons to see the UV lights shall have a lock out tag out safety." to "AHU shall incorporate automatic shut-off for UV when access doors to UV section are opened. However, shut-off device shall not be screw type."
- 2.A.xvi. Added: "Base rails shall be a welded structural steel assembly to form a rigid, unitized support structure. Base rail s shall be constructed of structural tubular steel, structural C Channel members, or structural I beam members and shall be coated with rust-inhibiting paint. Formed galvanized steel is not acceptable for the base rails."
- 2.A.xviii. Added: "Fan wheels shall be constructed of aluminum and double thickness airfoil blades."
- 2.A.xvili.c. Added: "If the manufacturer cannot provide this data, they shall allow 0.5" loss in total static pressure calculation for the fan selection."
- 2.A.xviii.d. Added: "(or ceramic bearings)."

23 74 00 – Packaged Outdoor HVAC Equipment

- 1.D. Added: "Direct Expansion systems above 5 tons that do not have inverter compressors shall be supplied complete with APR Control valve by Rawal Industries to allow system to operate without short cycling under low load conditions and allow modulation to reduce fan speed. The device shall be capable of maintaining constant discharge temperature without cycling. Installation of the device shall not void warranty/guarantee on equipment. Only manufacturers who comply with this shall be listed in the specifications. DP is responsible for confirming this in writing with the manufacturer. Factory start-up shall be specified. TAB agency shall check and verify correct piping installation, that all manual valves are in the correct position, that the systems operates without short cycling and shall document the TEV and HGBV start-up settings (note factory settings may not necessarily prevent short cycling)."

23 81 29 – Variable Refrigerant Flow HVAC Systems

- 3.F.v. Deleted: "shall be"

26 00 00 – General Electrical Requirements

- 1.E.i. Edited: "FMD will supply and install 15 kV cables and associated splice kits and termination kits, and 2-hole compression lugs for transformer primary spaces. On new building projects, the Design Professional will include concrete duct banks for medium

voltage primary to the utility transformer in their design documents if new medium voltage primary has to be routed to the new utility transformer." to read: "In some cases, FMD will supply and install 15 kV cables and associated splice kits and termination kits, and 2-hole compression lugs for transformer primary spaces (coordinate with Project Manager and FMD based upon project requirements and conditions). On new building projects, the Design Professional will include concrete duct banks for medium voltage primary to the utility transformer or loop feed switch and the associated pads for the utility equipment in their design documents."

- 1.F. Added: "Lighting plans shall be furnished to show all lighting fixture layouts including emergency lights with circuits, switches, wire and conduit sizes indicated. Lighting plans showing only lighting fixture layout are not acceptable. Lighting panelboard schedules and lighting fixture schedules shall be furnished. The Lighting Fixture Schedule shall include for each fixture: fixture designation (A, B, A1, B1, X1, X2, OA, OB, etc.); fixture description; manufacturer(s); complete manufacturer(s') part number(s); lamp type / number of lamps (if not LED); lumen output for LED lighting fixtures; operating voltage; operating wattage or volt-amps; mounting type; mounting height; specific remarks or notes for individual fixtures (if required). If all lighting fixtures associated with a project are 4000K LED, a general note within the Lighting Fixture Schedule will suffice for the lamp type and color temperature columns."
- 1.G. Added: "Prior to installation of electrical appurtenances, contractor shall coordinate a meeting at the project site involving the electrical subcontractor, Design Professional, UGA Project Manager, and OUA Interiors to review the furniture layout plan(s) and coordinate electrical appurtenance locations with the plan prior to installation of outlets, switches, etc. that may conflict with the furniture layout."

26 05 14 – Medium Voltage Cable Installation – Outside Contractor

- 1.A.j Edited: "2014" to "Latest version adopted"

26 05 19 – Low-Voltage Electrical Power Conductors and Cables

- 2.D. Added: "All conductor connections/terminations for </= 480V AC equipment shall be mechanically secure and electrically "solid" such as wire nuts, crimped full ring bolt-on terminals, split-bolt connectors, and bolted lugs. "Stab" or spring-loaded connectors are not acceptable. All such connectors shall be properly insulated for 600V AC. All motor junction box connections shall be insulated connectors by Burndy, Cooper, Ilsco, Polaris, Thomas & Betts, or other approved equal."

26 05 26 – Grounding and Bonding for Electrical Systems

- 1.C. Edited: "The building main water service pipe shall not be used solely as the main grounding electrode. Dependent upon project requirements, "grid" may be as simple as a three ground rod triad with each ground rod buried a minimum 2'-0" below finished grade and spaced 10'-0" apart horizontally forming an equilateral triangle, or a ground ring consisting of a buried bare, tinned copper grounding conductor connected to ground rods spaced 20'-0" on center around the perimeter of the building, and all vertical structural steel

columns, re-bars of the foundation, incoming water service pipe within 5'-0" of its building entrance, etc."

- 1.D. Edited: "All grounding connections that are buried in the ground shall have exothermic welds." to read: "All grounding connections between grounding electrodes and grounding electrode conductors shall have exothermic welds."
- 1.G. Edited: "One of the perimeter steel columns in new buildings shall be bonded"
- 1.K. Edited: "All motors driven by VSD's (VFD's) shall have shaft grounding rings, and shall be grounded to their source ground with no more than 25 ohms in resistance measurement."
- 1.M. Added: "All grounding electrode connections to equipment shall be with a 2-hole lug."

26 05 43 – Underground Ducts and Raceways for Electrical Systems

- 2.A. Edited: "All medium voltage duct banks shall be 6-inch diameter schedule 40-Type EB PVC transitioning to galvanized rigid steel at turn-up or turn-down elbows to include vertical members penetrating grade, with minimum 3 inches of 3000 p.s.i. or greater concrete encased around the exterior of the duct bank, and 3 inches of concrete between the outer circumference of each conduit." to read: "All medium voltage duct banks for main feeders shall be 6-inch diameter (minimum conduit size may be minimum 5 inch diameter for other cases) schedule 40-Type EB PVC transitioning to galvanized rigid steel at turn-up or turn-down elbows to include vertical members penetrating grade, with minimum 3 inches of 3000 p.s.i. or greater concrete encased around the exterior of the duct bank, and 3 inches of concrete between the outer circumference of each conduit."
- 2.C. Edited: "Provide and install two (2) 200 lb. test nylon pull strings in each empty conduit leaving a minimum of 4 feet excess for each pull-string at each end." to read: "Provide and install 1250 lb. test polyester pull tape in each empty conduit leaving a minimum of 4 feet excess for each pull-string at each end."
- 2.D. Edited: "All elbows shall exceed the minimum radii to which the conduit can be bent without mechanically degrading the performance of the conduit per manufacturer recommendations." to read: "The largest practicable radii for commercially available conduit elbows shall be used, and in all cases shall exceed the minimum radii to which the conduit can be bent without mechanically degrading the performance of the conduit per manufacturer recommendations."
- 2.E Added: "Concrete duct banks shall be natural (unpainted and untinted) concrete color."

26 24 13 – Switchgears and Switchboards

- 2.D. Added: "Design Professional shall coordinate with FMD Engineering via the Project Manager for case-specific needs."
- 1.J. Edited: "Acceptable manufacturers are Schneider / Square D, Eaton / Cutler-Hammer, and General Electric (GE)." to "Acceptable manufacturers are Schneider / Square D, Eaton / Cutler-Hammer, and ABB/General Electric (ABB/GE)." References to GE to include ABB (which has bought GE's switchgear business).

26 24 16 – Panelboards

- 1.G. Edited: "Acceptable manufacturers are Schneider / Square D, Eaton / Cutler-Hammer, and General Electric (GE)." to "Acceptable manufacturers are Schneider / Square D, Eaton / Cutler-Hammer, and ABB/General Electric (ABB/GE)." References to GE to include ABB (which has bought GE's switchgear business).

26 24 19 – Motor-Control Centers

- 2.C. Edited: Control voltage to be either 120V or 277V.
- 2.E. Edited: "Horizontal main bus shall be fully rated for MCC and non-tapered."
- 2.H. Deleted: "VSDs (or VFDs – Variable Frequency Drives) shall not be mounted in the MCC."

26 32 00 – Packaged Generator Assemblies

- 1.C. Added: "All new packaged generator installations require coordination of variances and EPA certifications. This coordination shall be initiated by the UGA Project Manager during the design phase with UGA Environmental Safety Division's Environmental Affairs Program (706) 542-5801 and shall involve the Design Professional."
- 2.A. Added: "without Board of Regents approval."
- 2.C. Edited: "Transfer swtiches shall be 3 pole (non switching neutral)." to read: "Transfer switches installed in conjunction with new generator installations shall be 4-pole (switching neutral)."
- 2.F. Added: "Packaged generator assemblies shall be by Caterpillar, Cummins, Kohler, or Onan."

26 51 00 – Interior Lighting

- 1.C. Deleted: "Lighting plans shall be furnished to show all lighting fixture layouts including emergency lights with circuits, switches, wire and conduit sizes indicated. Lighting plans showing only lighting fixture layout are not acceptable. Lighting panelboard schedules and lighting fixture schedules shall be furnished. The Lighting Fixture Schedule shall include for each fixture: fixture designation (A, B, A1, B1, X1, X2, OA, OB, etc.); fixture description; manufacturer(s); complete manufacturer(s') part number(s); lamp type / number of lamps (if not LED); lumen output for LED lighting fixtures; operating voltage; operating wattage or volt-amps; mounting type; mounting height; specific remarks or notes for individual fixtures (if required). If all lighting fixtures associated with a project are 4000K LED, a note within the Lighting Fixture Schedule will suffice for the lamp type and color temperature columns."

26 56 13 – Lighting & Pole Standards

- 1.B. Added: "Concrete pole bases shall extend minimum 6 inches above finished grade."
- 2.B. Cutsheets updated
- 2.C. Added: "Concrete pole bases shall extend minimum 6 inches above finished grade."

27 00 00 – General Communications Requirements

- 1.N.ii. Edited: "insure" to "ensure"

27 11 16 – Communications Cabinets, Racks, Frames, and Enclosures

- 2.A.i.b. Edited: "Siemon RS3 Series Racks with built-in vertical cable management, p/n RS3-07-S."
- 2.A.i.c. Added: "Siemon standard rack 19" x 7', p/n RS1-07-S."

27 11 19 – Communications Termination Blocks and Patch Panels

- 2.A.ii.a. Edited: "Red" to "Orange"

27 11 23 – Communications Cable Management and Ladder Rack

- 2.A.i.c. Edited: "Siemon RS3 Series Horizontal Cable Managers p/n RS3-RWM 2" to "Siemon Horizontal Cable Managers p/n HCM-4-2U and HCM-4-4U."

27 13 33 – Communications Coaxial Backbone Cabling

- 2.A.ii.a. Edited: "PCT Compression connectors p/n DRS-6" to "Belden Snap n Seal RG6 p/n FSNS6PLQ or equal"

27 13 43.43 – Cable Services Cabling

- 2.B.ii. Edited: "PCT p/n DRS-6" to "Belden Snap n Seal RG6 p/n FSNS6PLQ or equal"

27 41 00.01 – Audio Visual Control System

- 2.A. Edited: "insure" to "ensure"

28 13 00 – Security and Access Control

- 1.C. Edited: "The security contractor must be a certified Genetec Synergis installer and have completed formal, documented training through UGA Access Control Group prior to being awarded a contract to perform work on UGA's campus. All programming must be completed by the contractor at the direction of UGA Access Control group. The security contractor must provide a valid Genetec training certificate prior to installation. Sub-contracting of Genetec equipment installation is not permitted."

28 13 00.01 – Security and Access Control – Legacy System

- 1.C. Edited: "Operational Security Systems, Inc. (404-352-0025)" to "Convergint Technologies, LLC (770-840-7007)"
- 1.G. Edited: "OSS" to "Convergint"
- 3.A. Edited: "OSS" to "Convergint"

28 31 00 – Fire Detection & Alarm

- 1.C. Added: "The fire alarm shall be programmed so that the silencing of the alarm allows for the visual notifications to remain on and in 'alarm' mode while muting audible alarms."
- 1.D. Edited: "All fire alarm cable shall be placed within fire alarm conduit which shall be red in color. Any variance regarding this shall be reviewed and specifically approved by the UGA AVP at FMD or OUA.
- 1.E. Added: "No fire alarm devices shall be mounted on the exterior of the building; if Design Professional believes that exterior-mounted fire alarm devices are required by code, the Design Professional shall bring this to the attention of the Project Manager for further discussion."
- 1.F. Added: "It is UGA's preference that ceiling mounted horns and/or strobes and smoke detectors be utilized wherever possible in lieu of wall-mounted devices."
- 2.A. Edited: "Silent Knight" to "Farenhyt"

32 12 16 – Asphalt Paving

- Title and number confirmed

32 14 16.13 – Brick Unit and Porous Paving

- 3.D. Edited: "insure" to "ensure"

32 17 23 – Pavement Markings

- 2.A. Edited: "All arrows, hashes, stop bars, and roadway centerline markings shall be made using thermoplastic paint. All roadway edge lines, bicycle lane markings, and other parking space pavement marking paint for asphalt or porous concrete shall be water-borne traffic paint (without glass beads) that meets applicable sections of the Georgia Department of Transportation (GDOT) specification 870.2.02.
- 3.B. Added: "Contractor shall ensure that the manufacturer-required asphalt cure time is achieved prior to application of pavement markings (typical cure time is +/- 30 days)."

32 92 00 – Plants

- 3.O.ii. Edited: "insure" to "ensure"

33 00 00 – General Utilities Requirements

- 1.A.ii. Edited: "Gages" to "Gauges"
- 1.K. Added: "All modified or new sanitary and storm mains shall be camera-ed at the end of the project and the video submitted as part of the close-out documents."

33 42 00 - Downspout Conveyance Pipes

- Added section in its entirety

33 71 19 – Electrical Underground Ducts and Manholes

- 2.A.vii. Added: “grade”
- 2.B.i. Added: “grade”
- 3.A. Edited: “2’-0”” to “5’-0””