



**UGA DESIGN & CONSTRUCTION
SUPPLEMENTAL GENERAL REQUIREMENTS & STANDARDS
CHANGES FROM SEPTEMBER 16, 2013 VERSION TO JANUARY 16, 2015 VERSION**

00 00 03 – Modifications to General Requirements for BOR Contracts

- 1.E.iv. Added: For projects in Athens-Clarke County
- 1.E.v. Deleted: A University of Georgia Official of Fire Safety Hot Work Permit is required.
Added: See 01 35.02 Special Project Procedures – Roofing & Hot Work.

00 00 07 – Design Professional Design Process Requirements

- 1.C. Added: The engineer shall request preliminary testing and validation of existing conditions and/or existing system performance to include measurement of existing HVAC system water-flows and air-flows, pot-holding of underground utilities, measurement/metering of power usage as required to minimize construction delays and ensure final system performance. The testing should be performed before completion of the construction documents.

00 00 08 – Design Professional Documentation Requirements & Deliverables

- 1.A.v. Added: 01 41 26.06 – Food Service
- 1.A.vii. Added: 27 00 00 – General Communications Requirements
- 1.A.viii. Added: 01 81 00 – Facility Performance Requirements
- 1.D.iii. Deleted: as separate files for each drawing sheet/specification section.
Added: all drawing PDF files shall be “flattened” so individual layers can no longer be manipulated to insure data is protected.
- 1.D.iv. Added: For the 75% and/or 95% Construction Documents the percentage complete may vary per project and one of these percentages may also be the GMP set.
- 1.D.v. Added: Network Drop Spreadsheet: Refer to 27 00 00 – General Communications Requirements for template information and requirements.
- 1.D.v. Deleted: extraneous error in table
Added: updated Deliverables for FMD Project Table
Added: Network Drop Spreadsheet to Deliverables for OUA Project Table
Added: Network Drop Spreadsheet to Deliverable for FMD Project Table
Added: 01 81 00 Facility Performance Checklist MEP Design Concepts – Narratives, Network Drop Spreadsheet, Food Service** to Deliverable for OUA Project Table
Added: 01 81 00 Facility Performance Checklist MEP Design Concepts – Narratives, Network Drop Spreadsheet, Food Service** to Deliverable for FMD Project Table
Added: *If project will be permitted through UGA Fire Safety, then two sets 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.
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.



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00 31 31.14 – Seismic Investigations Information

New

00 73 01 – Sole Source / Sole Brand

New (never posted with previous versions)

01 14 00 – Work Restrictions

1.B. Added: For projects in Athens-Clarke County

01 14 13 – Access to Site – Right of Entry

1.B. Added: For projects in Athens-Clarke County

01 29 00 – Payment Procedures

1.C. Added: Prior to the Design Professional receiving full compensation for Schematic Design and Design Development/Preliminary Design the requirements of 01 81 00 shall be met and the 01 81 00 Facility Performance Requirements Checklist submitted.

1.D.iv. Added: Complete 01 74 19 Construction Waste Management & Disposal Report and include with monthly Application for Payment.

01 35 13.01 – Special Project Procedures – Utility & Systems Outages

1 B. Added: For projects in Athens-Clarke County

1.C.i. Added: For projects in Athens-Clarke County

01 35 46 – Indoor Air Quality Procedures – During Construction

1.B. Added: Tobacco Free

- i. In accordance with the Tobacco and Smoke-Free Campus Policy of the Board of Regents of the University System of Georgia, the use of all forms of tobacco products is prohibited on property owned, leased, rented, in the possession of, or in any way used by the University. "Tobacco Products" is defined as cigarettes, cigars, pipes, all forms of smokeless tobacco, clove cigarettes and any other smoking devices that use tobacco such as hookahs or simulate the use of tobacco such as electronic cigarettes. Further, this policy prohibits any advertising, sale, or free sampling of tobacco products on University property unless specifically stated for research purposes. This prohibition includes but is not limited to all areas indoors and outdoors, buildings and parking lots owned, leased, rented or otherwise by the University. The use of tobacco products is prohibited in all vehicles—private or public—located on University property. Additionally, all events hosted by the University or by outside groups on behalf of the University shall be tobacco-free. Failure to comply with this policy by contractor or its subcontractors shall constitute a material breach of these terms.

01 41 26.06 – Food Service

New



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01 55 19 – Temporary Parking Areas

1.B. Added: For projects in Athens- Clarke County:

Added: However, the Contractor may park some (around 10) vehicles within the designated construction site that do not require permits. Abuse of this free parking allowance may result in the UGA Parking Services requiring the purchase of permits or immediate reduction of parked vehicles. Parking spaces directly adjacent to the project site are not guaranteed.

1.C. A permit is not required for parking construction related vehicles and/or personal vehicles driven by those working on the construction site within the staging area. It is ultimately up to the Contractor to decide how to utilize available space within their staging area.

01 58 13 – Temporary Project Signage

1.A. Added:

THE UNIVERSITY OF GEORGIA
The Board of Regents of the University System of Georgia
Project Name
(Project Number)
Name of Contractor or Logo
Name of Design Professional or Logo
Administered by the Office of University Architects for Facilities Planning

- i. 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.
For Georgia State Financing and Investment Commission (GSFIC) funded projects, include GSFIC logo.

01 74 19 – Construction Waste Management & Disposal

Entire section replaced with new version.

01 77 00 – Project Closeout

1.A.iii. Added: 01 74 19 – Construction Waste Management & Disposal

1.H. Added: “Copy to be in Closeout” for “Provide completed 01 74 19 Construction Waste Management Checklist” on Contractor & Project Manager Project Close-Out Checklist

01 81 00 – Facility Performance Requirements

3.A. Added: The Design Professional shall complete the Facility Performance Requirement Checklist located at the end of this section. This checklist is intended to assist UGA with tracking completion of sustainable design and facility performance requirements. Each project is required to address all aspects of the Standards whether included in this checklist or not. The Design Professional completes as much as possible as for the Schematic Design deliverable and shall fully complete for the Design Development deliverable. See 01 29 00.

Added: Facility Performance Requirements Checklist

04 00 00 – General Masonry Requirements

2.C. Added: For reference, the following are brick palettes utilized on past projects at the UGA Main Campus in Athens

- i. Pharmacy School Addition:
Jenkins Brick Company



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Salisbury, Modular

Montgomery Plant

HBS Grade SW

FBS Grade SW

Fay brick

ii. Paul D. Coverdell Center and Coliseum Training Facility:

Pine Hall Brick

Wirecut F/R Modular

Run #1349

Type FBS

Grade SW

iii. Miller Learning Center and Science Learning Center:

Cherokee

07 00 00 – General Thermal and Moisture Protection Requirements – Roof Drains & Roofs

2.A. Added: All thru-wall flashing shall be stainless steel backplate with 40 mil rubberized asphalt peel and stick over the top for a seamless system.

2.A. Deleted: Except for Metal Building Systems, galvanized metal may not be included in the roof system. Only 24- gauge minimum before coating products with a Kynar coated finish, copper, or stainless steel are allowed.

07 31 13 – Asphalt Shingles

2.D.i. Added: Self-adhesive membrane manufactured from elastomeric blend of asphalt with polyethylene film intended for use as shingle underlayment at transitions, roof-wall intersections, eaves, rakes and similar roof perimeters and around penetrations. Membrane shall be installed at all walls adjacent to roofing and at all penetrations. Minimum thickness 40 mils, minimum 36 inch wide rolls. High temperature formulation.

07 54 23 – Thermoplastic-Polyolefin (TPO) Roofing

2.A. Added: cold applied

2.D. Added: A protection board is required to be provided between the insulation and the TPO membrane, regardless of whether or not it is required to obtain the roof warranty.

07 71 23.13 – Gutter and Debris Guards

1.C. Added: If conductor drains are utilized, they shall have guards to prevent pigeons from nesting.

08 71 00 – Door Hardware

2.F.i.a. Deleted: Equal to

2.F.i.b. Deleted: Equal to

2.F.i.c. Added: Sargent

09 00 00.01 – Custodial Storage

New

09 30 00 – Tiling

1.A.iii. Added: 09 00 00.01 Custodial Storage



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09 68 00 – Carpeting

1. A.iv. Added: 12 48 26 – Entrance Carpet Tile

09 91 23 – Interior Painting

- 2.C.ii. Deleted: Duron Paint Company
- 2.C.ii. Added: PPG Paints
- 2.C.iii. Deleted: ICI Dulux
- 2.C.iv. Deleted: Pittsburgh Paints
- 2.C.v. Deleted: Porter Paint Company

10 14 00 – Signage

- 1.B. Deleted: Grounds Department Sign Shop

10 28 00 – Toilet, Bath, and Laundry Accessories

- 2.C. Added: The Optiserv 86500 is typically utilized and the Optiserv Accent 76600 is for areas that require a more compact dispenser.
- 2.C.ii. Added: OptiServ Accent 76600
 1. Manufacturer:
 - a. Wausau Paper: www.wausaupaper.com
 2. Model:
 - a. Wausau Bay West Silhouette OpticServ Hands-Free
 - b. Product Number: 76600
 - c. Website: http://www.wausaupaper.com/product_type/optiserv-accent-roll-towel-dispensers/
 3. Size: 12-3/16" x 12-5/8" x 7-1/2"
 4. Weight: 5.65 lbs.
 5. Color and Material: Standard is plastic in Black Translucent
 6. Special Features: ADA Title III Compliant
 7. Notes:
 - a. Design Professional is to coordinate final selection with Project Manager.
 - b. See additional pages in section for manufacturer data sheet.

10 44 00 – Fire Protection Specialites

- 2.A. Added: Fire Extinguisher Cabinets
 - ii. Semi-recessed fire extinguisher cabinets are preferred verses flush cabinets.
 - iii. For semi-recessed cabinets, provide "FIRE EXTINGUISHER" decal on both sides of cabinet that are perpendicular to wall.
 - iv. For flush cabinets, provide "FIRE EXTINGUISHER" three-dimensional sign above the cabinet to allow identification of cabinet from a distance.

11 53 13 – Laboratory Fume Hoods

- 3.A.i.3. Added: 60 feet per minute
- 3.A.i.3. Added: for dedicated fan hoods or adjusting exhaust valve.
- 3.A.ii.2. Added: 60 feet per minute
- 3.B. Added: "Roof Curb for Exhaust Fan Typical Detail"



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12 46 33 – Interior Waste Receptacles

New

12 48 26 – Entrance Carpet Tile

New

12 93 23 – Trash, Litter, and Recycling Receptacles

1.A. Added: Related sections:

- i. 01 81 00 – Facility Performance Requirements

12 93 46.13 – Ash Receptacles

Deleted

13 21 00 – Pre-Fabricated Environmental Rooms

New

14 20 00 – Elevators

2.A.ii. Deleted: Schindler Elevator Corporation

2.A. Added: Otis Elevator Company and Genesis Elevator Company

22 00 00 – General Plumbing Requirements

1.E. Added:

- i. Provide a valve at each floor in branch line serving that floor (provide 2 valves if system is looped).
- ii. Provide a valve in hot and cold water at entry to each bathroom and at each fixture.
- iii. Provide a valve in each service (water, gas, comp air, etc.) at entry to each laboratory and at each lab bench, fume hood, and at terminations for equipment. Valves shall be readily accessible, grouped together and located in lockable valve cabinet(s) at entry to the lab.
- iv. Design Professional shall determine need for any application specific additional valves that may be required and show these on the plans.

22 07 00 – Plumbing Insulation

1.B. Deleted: All hot, cold, and tempered water piping shall be insulated.

Added: All hot and tempered water piping shall be insulated. Cold water piping insulation is not mandatory, but should be provided if required by project conditions.

22 40 00 – Plumbing Fixtures

1.A.iv. Added: 09 00 00.01 – Custodial Storage

2.A. Added: Sensor actuated flush valves and faucets are not allowed. If the Design Professional feels that circumstances for a particular project warrant sensor actuated flush valves, the Design Professional shall discuss with Project Manager and determine if a variance request should be submitted.

2.B.i. Added: (If allowed)

2.B.v. Added: (If allowed)

2.B.ix. Added: Water Coolers / Bottle filling Station: Wall mounted electric drinking fountain shall be complete filtered bi-level dual fountain cooler and bottle filling station, ADA compliant, no touch sensor activation on bottle filler, cooler shall have push bar activation, water filter,



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flexible bubblers, refrigerated unit, 8 GPH of 50F water at 90F ambient and 80F inlet water, lead free design; Equal to Elkay LZSTL8WSLK. (Single Unit: Elkay EZH2O model # LZS8WSLK) Provide 17 gauge, chrome plated cast brass P-trap with cleanout and flexible 1/2" supply with wheel handle angle valve.

23 00 00 – General Mechanical Requirements (HVAC)

1.C.iii. Deleted: Design Professional shall be present during and oversee the training provided.

23 05 23 – General-Duty Valves for HVAC Piping

1.B.i.b. Deleted: bathroom, laboratory

1.B.i.b.1. Deleted: If floor area is greater than 5,000 sq.ft., divide floor area into sections of not greater than 5,000 sq.ft. and provide isolation valve for each section.

1.B.i.b.1. Added:

- 1) Provide a valve at each floor in branch line serving that floor (provide 2 valves if system is looped a la Lamar Dodd).
- 2) Provide a valve in at entry to mechanical room on each service.
- 3) Provide a valve on each branch line to a heating coil or group of heating coils. If the branch to a single heating coil is less than 25 feet then the isolating valve at the coil valve cluster will suffice. If longer than 25 feet then provide valve at coil and at branch.
- 4) Design Professional shall determine need for any application specific additional valves that may be required and show these on the plans.

2.B. Added: 6 inches and greater in size

23 05 29 – Hangers and Supports for HVAC Piping and Equipment

1.C. Added: "Trapeze Hanger Insulation Detail"

23 05 53 – Identification for HVAC Piping & Equipment

3.E.i. Deleted: Sanitary

3.E.i. Added: Exposed Sanitary DMV

3.E.i. Notes.1. Added: PVC finish types are to be provided in mechanical rooms and plants only. Steam and condensate in steam vaults shall be finished with stainless steel jackets.

3.E.i. Notes.2.i. Deleted: (See color palette provided below)

23 09 23 – Building Automation & Temperature Control Systems (BAS)

1.A.i. Added: 00 73 01 – Sole Source/Sole Brand

1.L. Added: Where Differential pressure sensors are provided and installed in hydronic systems, line sized ball valves shall be provided for isolation (no needle valves).

Q.i.p. Added: Control drawings shall be linked to the graphics, allowing the user to verify intended sequence of operations for all controlled equipment.

Q.ii.e. Added: "Global" Building heating and cooling set-points shall be indicated at this level and shall be able to be modified for all associated building systems.

S.i.c. Added: Programming function should accept multiple concurrent users, without 'bumping' a current user offline when an additional user logs on. Further, only one user can have access to a specific system at a time for programming purposes.

S.i.d. Added: Graphical programming shall be with live graphic function blocks in a continuous program without opening multiple screens.

S.ii. Added:

- a. Edit capabilities should be available on programming pages



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- b. Programming pages should be graphical representations of live programming, i.e. pages should show actual data values as they change.
 - c. Over-ride capabilities should be directly accessible from programming pages.
 - d. Troubleshooting capabilities for each component should be confined to a single page.
- T.i.b. Added: Web client should be accessible via multiple browser systems other than Internet Explorer. System shall support unlimited simultaneous users at no additional cost to owner.
- T.i.e. Added: All trend data, including historical trend data shall utilize an Oracle database. Trend data whether current or historical shall be readily available to user through the web browser.
- 2.A. Added: This is a sole source of equipment by Automated Logic Corporation: 770-429-3000 and procured through Automated Logic – Georgia: 770-421-3280. For renovation projects that utilize a different brand, the decision to change to Automated Logic Corporation or modify the existing system will be made on a case by case basis.
- i. The Contractor shall contract with Automated Logic Georgia as a direct sub-contractor.
 - ii. Automated Logic Georgia shall not, for example, be in a sub-subcontract relationship with the mechanical subcontractor.
- 2.I. Added: Measuring station shall be capable of continuously monitoring the airflow volume of the duct served and electronically transmitting a signal linear to the airflow volume, Airflow measuring devices shall be of the insertion type, or built into ductwork to suit the system configuration and shall be capable of measuring velocity over the range 375 to 7000 FPM with +/- 2% accuracy. Devices shall be selected by the manufacturer or authorized representative, and installed in accordance with the manufacturer's installation instructions and recommendations, Standard Materials shall be aluminum bars with aluminum and ABS or aluminum sensors. Support bars over one foot in length shall be supported on both ends; in corrosive air streams, sensors and support bars, shall be of corrosion resistant materials. Velocity sensors shall not be affected by dust, lint, temperature, pressure, or humidity. The sensors shall be passive in nature, with no active parts within the air stream. The output from individual sensors shall be linear with respect to airflow velocity and shall be capable of sensing airflow in one direction only. The velocity sensors shall not require calibration. The transmitter shall provide a scale-able output over the full range of control of the unit, via on-board adjustments. The output signal of the transmitter shall be industry standard electronic signals, selectable on-board via jumpers or switches, for 4-20ma, 1-5vdc or 2-10vdc. Power requirement for the transmitter shall be 24VAC or DC. The device and associated controls shall be native Bacnet compatible Measurement system accuracy shall be plus or minus 2% of volumetric airflow rate. Turndown capability shall be at least 15:1.
- 2.J. Added: The airflow measuring device shall be Vortek VT series (IAQ 2000 for outdoor sensor) manufactured by Tek-Air Systems or approved equal.
- 2.K. Added: Basis of design for Actuators shall be Belimo.
- 3.G. Added: Controls drawings shall be laminated and bound and placed within a pocket inside each control panel.

23 21 13 – Hydronic Piping

- 2.E. Deleted: couplings shall be equal to Watts and Epco (rated for 300F on hot water).
Added: unions shall not be used. Dielectric flanges and insulating kits may be used and shall be rated for 300F degrees at 150 psig minimum.
- 3.C. Added: if required
- 3.E. Deleted: schedule 40 and 80
Added: All welds in underground piping to be ultrasonically tested.



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3.G. Added: G. A third party testing firm shall perform Ultrasonic testing of 100% of the full penetration welds for all underground piping. Fillet welds shall be tested using a dye penetrant. Contractor shall be responsible for all labor, material and travel expenses involved in the re-inspection and retesting of any welds found to be unacceptable.

23 22 13 – Steam & Condensate Heating Piping

3.B.v. Added: The Contractor shall pressure test the steam and condensate piping. A third party testing firm shall be hired by the owner to perform Ultrasonic testing of 100% of the full penetration welds. Fillet welds shall be tested using a dye penetrant. Contractor shall be responsible for all labor, material, and travel expenses involved in the re-inspection and retesting of any welds found to be unacceptable.

3.B.vi. Added: Steam pipe in vaults shall be insulated with cellularglass and covered with stainless steel jacketing.

23 22 16 – Steam & Condensate Heating Piping Specialties

2.K.ii. Added: vaults. All steam trap assemblies located in steam vaults shall be threaded (not welded) and shall consist of the following components: two bucket steam traps in parallel with individual strainers and check valves. A total of 6 isolation valves shall be provided.

23 25 00 – HVAC Water Treatment

2.C. Added: for open loop and closed loop systems.

2.D. Added: Provide corrosion coupon test rack upstream to include three test stations for steel and one for copper for both closed loop and open loop systems.

3.B. Deleted: to include three test stations for steel and 1 for copper.

3.D. Added: Mount bypass feeder on house-keeping pad or steel stand.

23 31 13 – Duct Work

Title changed to Duct Work

1.F. Added: For renovation projects where the existing ductwork to be utilized in the new design, the ductwork shall be pressure tested to verify air leakage. If leakage is excessive, than remedial action shall be taken.

1.H. Added: downstream of terminal units.

1.L. Moved to 23 09 23 – 2.I

1.M. Moved to 23 09 23 – 2.J

23 52 00 – Heating Boilers

New

23 64 16.16 – Water-Cooled Water Chillers

1.B. Added: For any water-cooled chiller above 300 tons, selection must be based upon life cycle costs analysis for at least 10 entering separate conditions accounting for varying entering condenser water temperatures and anticipated capacity operating points. The life cycle analysis shall account for anticipated maintenance costs, first cost, and energy costs over the life of the machine.

2.A.ii. Deleted: McQuay

2.A.ii. Added: Daiken

2.A.iii. Deleted: Trane



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2.E. Added: Provide hand-off-auto switch (HOA located on the BAS control panel itself and labeled “chiller command” for the purpose of isolating the chiller from the BAS).

2.F. Added: Condenser water Cooled VFDs shall be provided with dual strainers installed in the cooling medium piping as required to ensure that the VFD heat exchanger does not clog up.

23 74 00 – Packaged Outdoor HVAC Equipment

New

27 00 00 – General Communications Requirements

A.i. Added: 00 00 08 – Design Professional Documentation Requirements & Deliverables

Added: 00 73 01 – Sole Source / Sole Brand

1.J.viii. Added: Network Drop Spreadsheet: At the end of this section see sample template for Network Drop Counts. Design Professional shall submit this as an Excel spreadsheet at each milestone design phase review. Refer to 00 00 08 – Design Professional Documentation Requirements & Deliverables.

1.K.viii. Added: For major renovations and new construction, the Design Professional shall consult with the Project Manager and EITS to determine if VOIP is appropriate for the particular project. VOIP requires the End-User to commit to the EITS Gold Network Support Partnership level which is an on-going cost once the facility is complete. Additionally, VOIP handsets shall be accommodated within the Project Budget or provided by the End-User.

Added: Template for Network Drop Counts

27 11 19 – Communications Termination Blocks & Patch Panels

2.A.ii. Added: Patch panel cables:

a. In an effort to easily identify one particular low voltage system connection from another where they are terminated on patch panel fields in Telecommunication Rooms, the following color-coding scheme of the exterior jacket of the various system patch cables shall be utilized. This scheme utilizes specific jacket colors for patch cords used between patch panels and switch ports to better and more quickly identify the various types of applications supported over the connection. The jacket color of the horizontal cabling from the patch panel to the low voltage connection will be blue in color for all systems regardless of the service provided by the system. It is only necessary to color-code the patch cabled used in the cross-connect fields of the Telecommunication rooms.

The color coding system is as follows:

Blue = Data, White = Voice/VOIP, Yellow = Wireless, Green = A/V, Red = Camera/Security

27 41 00.01 – Audio-Visual Control System

1.A.i. Added: 00 73 01 Sole Source/Sole Brand

2.A. Added: (by Harman)

2.A. Added: This is a sole brand (see section 00 73 01 Sole Source/Sole Brand).

28 31 00 – Fire Detection & Alarm

New (never posted with previous versions)

33 00 00 – General Utilities Requirements



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1.F. Added: The engineer shall provide underground profile drawings of all utilities to be installed on campus (steam, chilled water electrical duct bank, sewer, storm, etc.) clearly indicating depths existing underground utilities.

1.G. Added: Where utility excavation will be required, the engineer shall specify “maximum limits of excavation” and shall calculate anticipated rock and unsuitable soil allowances. In addition, the engineer shall specify that the contractor provide “unit prices” for rock, and unsuitable soils.

33 60 00 – Hydronic and Steam Energy Utilities

3.A. Added: Contractors shall coordinate with FMD welding shop (706-542-7593) before entering steam pits

33 71 19 – Electrical Underground Ducts & Manholes

2.B. Added: Refer to drawing at end of this section.

Added: Schematic drawings for reference.