

Goodwyn Mills Cawood 11 North Water Street Suite 19290 Mobile, Alabama 36602 T 251.460.4006 F 251.460.4423

FASCIMILE TRANSMITTAL COVER SHEET

DATE: April 24, 2025

TO: Doris Furr

FROM: Planholder

PROJECT: JACKSON MEDICAL CENTER ROOF REPLACEMENT

THE CITY OF JACKSON HEALTH CARE AUTHORITY

GMC PROJECT NO. AMOB250003

RE: ADDENDUM NO. 2 AND ACKNOWLEDGEMENT OF RECEIPT OF ADDENDUM NO. 2

ACKNOWLEDGEMENT OF RECEIPT:

PLEASE PRINT RECIPIENT'S NAME, FIRM, AND DATE RECEIVED.

THEN FAX BACK TO (251) 460-4423 or EMAIL doris.furr@gmcnetwork.com
FOR OUR RECORDS AND TO ACKNOWLEDGE YOUR RECEIPT OF THIS ADDENDUM.

NAME	(PLEASE I	<u>PRINT)</u>	
FIRM	(PLEASE PF	RINT)	
DATE	RECEIVED	(PLEASE PRINT)	

JACKSON MEDICAL CENTER ROOF REPLACEMENT

ADDENDUM NUMBER 2

April 24, 2025

PROJECT:

JACKSON MEDICAL CENTER ROOF REPLACEMENT
THE CITY OF JACKSON HEALTH CARE AUTHORITY
GMC PROJECT NO. AMOB250003

AD2-1 CLARIFICATIONS / RFI RESPONSES / ADDITIONS / ETC.:

- A. Bidders shall acknowledge receipt of the Addendum in writing, as provided on the Acknowledgment Receipt.
- B. The following Contractors have been Prequalified to Bid this work. No other bidders' proposals will be accepted.
 - Bond Construction, LLC
 - Garner and Associates Roofing and Facility Services, LLC
 - Mid-Western Commercial Roofers, Inc.
 - Standard Roofing of Montgomery, Inc.
 - Thomas Roofing Company, Inc.
 - Roofing Solutions, LLC
- C. Clarifications: The new 208/120-volt 3 phase 600A panelboard is to be provided by the Owner and installed and connected by the electrical contractor. The electrical contractor shall include all costs associated with the unloading and installation of the new gear. The electrical contractor shall reconnect all existing loads to new gear. The electrical contractor shall provide and install all new conduit and conductors as required for the reconnection.

AD2-2 ISSUED SPECIFICATIONS:

Section 07 54 19 – PVC Membrane Roof

AD2-3 ISSUED DRAWINGS:

E1.01 – FIRST FLOOR PLAN EXISTING/DEMOLITION

E2.01 - FIRST FLOOR PLAN NEW WORK

E3.01 – ELECTRICAL DETAILS AND SCHEDULES

E3.02 - RISER DIAGRAMS AND SCHEDULES

AD2-4 ATTACHMENTS:

A. Addendum No. 2 Received Response form

END OF ADDENDUM

PREPARED BY

Goodwyn Mills Cawood, LLC 11 North Water Street, Suite 19290 Mobile, Alabama 36602 T 251.460.4006 F 251.460.4223



SECTION 07 54 19

PVC MEMBRANE ROOFING

PART 1- GENERAL

1.1 SECTION INCLUDES

- A. Adhered system with PVC roofing membrane.
- B. Insulation, flat and tapered.
- C. Vapor retarder.
- D. Deck sheathing.
- E. Flashings.
- F. Roofing cant strips, stack boots, roofing expansion joints, and walkway pads.

1.2 RELATED REQUIREMENTS

- A. Section 05 31 00 Steel Decking: Product requirements for acoustical insulation for deck flutes, for placement by this section.
- B. Section 06 10 00 Rough Carpentry: Wood nailers and curbs.
- C. Section 07 62 00 Sheet Metal Flashing and Trim: Counterflashings and reglets.
- D. Section 07 72 00 Roof Accessories: Roof-mounted units; prefabricated curbs.
- E. Division 22 Plumbing Specialties: Roof drains.

1.3 REFERENCE STANDARDS

- A. ASTM C 1177/C 1177M Standard Specification for Glass Mat Gypsum Substrate for Use as Sheathing; 2008.
- B. ASTM C 1289 Standard Specification for Faced Rigid Cellular Polyisocyanurate Thermal Insulation Board; 2008.
- C. ASTM D 4434 Standard Specification for Poly (Vinyl Chloride) Sheet Roofing; 2009.
- D. ASTM E 1980 Standard Practice for Calculating Solar Reflectance Index of Horizontal and Low-Sloped Opaque Surfaces; 2001.
- E. FM DS 1-28 Wind Design; Factory Mutual Research Corporation; 2007.
- F. NRCA ML104 The NRCA Roofing and Waterproofing Manual; National Roofing Contractors Association; Fifth Edition, with interim updates.
- G. UL (RMSD) Roofing Materials and Systems Directory; Underwriters Laboratories Inc.; current edition.

1.4 PERFORMANCE REQUIREMENTS

- A. General: Provide all labor, materials, tools, equipment, and supervision necessary to install a watertight, membrane roofing and base flashing system with compatible components that will not permit the passage of liquid water and will withstand wind loads, thermally induced movement, and exposure to weather without failure as specified herein and as indicated on the drawings in accordance with the manufacturer's most current specifications and details.
- B. FM Listing: Provide membrane, base flashings, and component materials that meet requirements of FM 4450 and FM 4470 as part of a roofing system and that are listed in FM's "Approval Guide" for Class 1 or noncombustible construction, as applicable. Identify materials with FM markings.
 - 1. Roofing system and warranty shall comply with the following: (Refer to Structural Drawings, General Notes, etc., for additional information and requirements regarding wind loads).
 - 2. Fire/Windstorm Classification: Class 1A-110.
 - 3. Hail Resistance Rating: SH.
- C. Project Site Wind Load: Comply with code and warranty requirements, but no less than 140 mph wind load, unless a higher wind load is otherwise required by code or authorities having jurisdiction.
- D. Contractor shall provide Manufacturer's Wind Testing showing actual tested pressures as being in compliance with ASCE 7-06. Extrapolation of pressures will not be accepted.
- E. All Perimeter Sheet Metal Details shall meet wind uplift requirements per ANSI-SPR ES-1.
- F. The roofing contractor shall be fully knowledgeable of all requirements of the contract documents and shall make themselves aware of all job site conditions that will affect their work.
- G. The roofing contractor shall confirm all given information and advise the building owner, prior to bid, of any conflicts that will affect their cost proposal.

1.5 SUBMITTALS

- A. See Section 01 33 00 Submittal Procedures, for submittal procedures. Product Data: Provide data indicating membrane materials, flashing materials, insulation, vapor retarder, surfacing, and fasteners.
- B. Specimen Warranty: For approval.
- C. Shop Drawings: Provide shop drawing of roof plan with joint or termination detail conditions, and conditions of interface with other materials. Provide full shop drawings of manufacturer approved details for all penetration types and detailed flashing conditions specific to this project. Provide gutter and downspout details and all edge flashing conditions.
- D. Walkway Pads: Type as recommended by membrane manufacturer. Provide and install walkway pads whether shown or not on the roof plan; Pads shall be placed in a path from the roof access point to each RTU and around each unit where maintenance will occur.

Pads shall be a minimum 80 mills 3'x3' and spaced a maximum of 1" apart.

- E. Contractor shall provide a taper insulation plan to scale showing ¼" per foot slope. No areas shall trap water or provide any pooling or ponding conditions.
- F. Samples for Verification: Submit two samples 6 x 6 inches in size illustrating insulation.
- G. Manufacturer's Installation Instructions: Indicate membrane seaming precautions and perimeter conditions requiring special attention.
- H. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.
- I. Manufacturer's Field Reports: Manufacturer representative shall visit the site a minimum of 2 times a week and provide written reports with photo documentation indicating procedures followed, ambient temperatures, humidity, wind velocity during application, and supplementary instructions given and report any quality issues observed. Reports shall be distributed to the Contractor and Architect on the same day of the site visit.
- J. Warranty: Submit manufacturer and installer warranty and ensure forms have been completed in Owner's name and registered with manufacturer.
- K. Upon completion of the installed work, submit copies of the manufacturer's final inspection to the specifier prior to the issuance of the manufacturer's warranty.

1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
- B. Installer Qualifications: Company specializing in performing the work of this section:
 - 1. With minimum 5 years documented experience.
 - 2. Approved by membrane manufacturer.
- C. Certification: The roofing manufacturer shall be required to provide written documentation certifying that the roof design provided complies with the performance requirements for that particular system, as set forth in IBC Chapter 15 in Section 1504; This certification shall be included in other required submittals and be attached to completed and executed manufacturer's roofing warranty provided at Project Closeout.
 - 1. The written documentation from the roofing manufacturer shall also certify that roofing design and system provided comply with the requirements specified and the manufacturer's requirements for the roofing system provided.
 - E. **Pre-Roofing Conference**: A pre-roofing conference is required before any roofing materials are installed. This conference shall be conducted by a representative of the Architect and attended by representatives of the Owner, General Contractor, Roofing Contractor, Roof Deck Manufacturer (if applicable), and the Roofing Materials Manufacturer (if warranty is required of this manufacturer). HVAC, Plumbing and Electrical sub-contractors.
 - 1. The pre-roofing conference is intended to clarify demolition (for renovation or re-

roofing projects) and application requirements for work to be completed before roofing operations can begin. This would include a detailed review of the specifications, roof plans, roof deck information, flashing details, and approved shop drawings, submittal data, and samples. If conflict exists between the specifications and the Manufacturer's requirements, this shall be resolved. If this pre-roofing conference cannot be satisfactorily concluded without further inspection and investigation by any of the parties present, it shall be reconvened at the earliest possible time to avoid delay of the work. In no case should the work proceed without inspection of all roof deck areas and substantial agreement on all points.

- 2. The following are to be accomplished during the conference:
 - Review all Factory Mutual and Underwriters Laboratories requirements listed in the specifications and resolve any questions or conflicts that may arise.
 - b. Establish trade-related job schedules, including the installation of roof-mounted electrical, and mechanical equipment.
 - c. Establish schedule and work methods that will prevent damage to the interior of the building including dust protection roof.
 - d. Establish roofing schedule and work methods that will prevent damage to the roof.
 - e. Require that all roof penetrations and walls be in place prior to installing the roof.
 - f. Establish those areas on the job site that will be designated as parking, work, and storage areas for roofing operations.
 - g. Establish weather and working temperature conditions to which all parties must agree.
 - h. Establish acceptable methods of protecting the finished roof if any trades must travel across or work on or above any areas of the finished roof.
 - Confirm with the building maintenance staff locations of equipment that is no longer in service and can be removed from the roof or walls and penetrations can be sealed or roofed over.
- 3. The Architect shall prepare a written report indicating actions taken and decisions made at this pre-roofing conference. This report shall be made a part of the project record and copies furnished the Contractor, and Owner.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver products in manufacturer's original containers, dry, undamaged, with seals and labels intact.

- B. Coordinate deliveries with building maintenance staff.
- C. Store products in weather protected environment, clear of ground and moisture and per the manufacturer's written recommendations.
- D. Ensure storage and staging of materials does not exceed static and dynamic loadbearing capacities of roof decking.
- E. Protect foam insulation from direct exposure to sunlight.
- F. Any materials which are found to be damaged shall be removed and replaced and the contractors expense.

1.8 FIELD CONDITIONS

- A. Do not apply roofing membrane during unsuitable weather.
- B. Do not apply roofing membrane when ambient temperature is below 40 degrees F (5 degrees C).
- C. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
- E. Schedule applications so that no partially completed sections of roof are left exposed at end of workday.
- F. Follow manufacturer's written recommendations for application of roofing system.

1.9 WARRANTY

- A. See Section 0177 00 Closeout Submittals for additional warranty requirements.
- B. Manufacturer's System, Labor and Materials, and Wind Warranty: Provide manufacturer's standard "No Dollar Limit" (NDL) Full-Service Warranty Agreement, including wind-load rider, flashing endorsement, signed by an authorized representative of PVC roofing system manufacturer, on form published with current product literature as of date of Contract Documents.
 - Warranty shall cover, in part, wind damage, leakage or failure caused by improper workmanship or materials, to include insulation, insulation adhesives, fasteners, membrane adhesives, field membranes, flashing membranes, and sheet metal work.
 - 2. Warranty Period: Manufacturer's standard 20-year "NDL" warranty, maximum of one renewal period.
 - 3. Warranty shall have no provision for 'blanket voiding', defined as a situation where Manufacturer can permanently void the entire future warranty obligations (not just a situational coverage).
 - 4. Warranty shall not charge Owner for leak investigation or storm event inspection costs for any reason.
 - 5. Warranty shall not require a maintenance program as a condition of its warranty.

- 6. Warranty shall not exclude liability for manufacturer's design support and site inspections required by these specifications.
- 7. Warranty is allowed to be modified into specification compliance by rider, signed by manufacturer's full-time employee.
- 8. Installer shall provide Owner with a five (5) year warranty covering edge to edge roofing system installation and water tightness.
- C. Special Project Warranty: Roofing Installer's warranty, on warranty form in the front-end documents, signed by roofing Installer, covering Work of this Section, in which roofing Installer agrees to repair or replace components of membrane roofing that fail in materials or workmanship within the following warranty period:
 - 1. Warranty Period: Five years from date of Substantial Completion.
- D. Standard manufacturer's roofing warrantees and guarantees which contain language regarding the governing of the warrantees and guarantees by any state other than the State of Alabama, must be amended to exclude such language, and substituting the requirement that the Laws of the State of Alabama shall govern all such warrantees and guarantees.
- E. The manufacturer of the roofing must submit a letter to the Owner certifying that the entire roofing assembly is compatible and complete as required for warranty requirements.

1.10 JOB SITE PROTECTION

- A. The roofing contractor shall adequately protect building, paved areas, service drives, lawn, shrubs, trees, etc. from damage while performing the required work. Provide canvas, boards, and sheet metal (properly secured) as necessary for protection and remove protection material at completion. The contractor shall repair or be responsible for costs to repair all property damaged during the roofing application.
- B. During the roofing contractor's performance of the work, the building owner will continue to occupy the existing building. The contractor shall take precautions to prevent the spread of dust and debris, particularly where such material may sift into the building. The roofing contractor shall provide labor and materials to construct, maintain and remove necessary, temporary enclosures to prevent dust or debris in the construction area(s) from entering the remainder of the building.
- C. Do not overload any portion of the building, by either use of or placement of equipment, storage of debris, or storage of materials.
- D. Protect against fire and flame spread. Maintain proper and adequate fire extinguishers.
- E. Take precautions to prevent drains from clogging during the roofing application. Remove debris at the completion of each day's work and clean drains, if required. At completion, test drains to ensure the system is free running and drains are watertight. Remove strainers and plug drains in areas where work is in progress. Install flags or other telltales on plugs. Remove plugs each night and screen drain.
- F. Store moisture susceptible materials above ground and protect with waterproof coverings.
- G. Remove all traces of piled bulk material and return the job site to its original condition

upon completion of the work.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. PVC Membrane Materials:
 - 1. Duro-Last Roofing, Inc.; www.duro-last.com.
 - 2. IB Roof Systems; www.ibroof.com.
 - 3. Johns Manville Corporation; www.jm.com.
 - 4. Sika Sarnafil, Inc; www.sarnafilus.com.
 - 5. Versico Roofing Systems; www.versico.com
 - 6. Substitutions: See Section 01600 Product Requirements.

B. Insulation:

- 1. Atlas Roofing Corporation: www.atlasroofing.com.
- 2. GAF Materials Corporation: www.gaf.com.
- 3. Dow Chemical Co: www.dow.com.
- 4. Owens Corning Corp: www.owenscorning.com.
- 5. Substitutions: See Section 01600 Product Requirements.

2.2 ROOFING - UNBALLASTED APPLICATIONS

- A. PVC Membrane Roofing: One ply membrane, fully adhered, over cover board, over insulation over roof decking
- B. Roofing Assembly Requirements:
 - Solar Reflectance Index (SRI): 78, minimum, calculated in accordance with ASTM E 1980.
 - a. Field applied coating may not be used to achieve specified SRI.
 - 2. Roof Covering External Fire-Resistance Classification: UL Class Δ
 - 3. Wind Uplift: Comply with UL-90. Factory Mutual classifications are not required on this project.
 - 4. Insulation Thermal Value (R), minimum: R-25; provide insulation of thickness required.
- C. Acceptable Insulation Types Constant Thickness Application:
 - 1. Minimum 2 layers of polyisocyanurate board.

2.3 ROOFING MEMBRANE AND ASSOCIATED MATERIALS

- A. Membrane:
 - 1. Material: Polyvinyl chloride copolymer alloy or ethylene interpolymer complying with ASTM D 4434.
 - 2. Reinforcing: Both internal fabric and backing.
 - 3. Thickness: 60 mil, 0.060 inch (1.5 mm) minimum.
 - 4. Sheet Width: Factory fabricated into largest sheets possible.

- 5. Solar Reflectance: 0.75, minimum, initial, and 0.65, minimum, 3-year, certified by Cool Roof Rating Council.
- 6. Thermal Emissivity: 0.80, minimum, initial, and 0.79, minimum, 3-year, certified by Cool Roof Rating Council.
- 7. Color: White.
- 8. Basis of Design: Sarnafil G410-15 feltback, 60 mil, thermoplastic membrane with fiberglass reinforcement and a factory applied 9 oz. felt backing.
- B. Seaming Materials: As recommended by membrane manufacturer.
- C. Vapor Retarder: Reinforced Kraft paper laminate complying with requirements of fire rating classification; compatible with roofing and insulation materials.
 - Fire-retardant adhesive.
- D. Flexible Flashing Material: Material recommended by membrane manufacturer.

2.4 COVER BOARD

- A. Applied over insulation: Glass mat face gypsum panels, ASTM C 1177/C 1177M, fire resistant type, 1/4 inch (6 mm) thick.
 - 1. Products:
 - Equal to Georgia Pacific DensDeck® Prime roof board, with the following characteristics:
 - 1) Weight: 1.15 1.25 lb/sq. ft.
 - 2) Surfacing: Fiberglass mat with non-asphaltic coating.
 - 3) Flexural Strength, Parallel (ASTM C473): 40 lbf, minimum.
 - 4) Flute Span (ASTM E661): 2-5/8 inches.
 - 5) Permeance (ASTM E96): Not more than 50 perms.
 - 6) R-Value (ASTM C518): Not less than 0.28.
 - 7) Water Absorption (ASTM C1177): Less than 10 percent of weight."

2.5 INSULATION

A. EPS: (Expanded Polystyrene) – A closed-cell lightweight expanded polystyrene (EPS) that meets ASTM C578, Type I. Nominal density of 1.0 lbs/cubic ft (pcf) available in 4' x 4' or 4' x 8' sizes with thickness from 1/4" to 40". Custom lengths, widths and tapered boards as required. Specified beneath cover board.

2.6 ACCESSORIES

- A. Stack Boots: Prefabricated flexible boot and collar for pipe stacks through membrane; same material as membrane.
- B. Cant and Edge Strips: Wood fiberboard, compatible with roofing materials; cants formed to 45-degree angle where required by roofing manufacturer.
- C. Sheathing Adhesive: Non-combustible type, for adhering gypsum sheathing to metal deck.
- D. Sheathing Joint Tape: Paper type, 8" wide, self-adhering.

- E. Insulation Fasteners: Appropriate for purpose intended and approved by roofing manufacturer.
 - 1. Length as required for thickness of insulation material and penetration of deck substrate, with metal washers.
- F. Membrane Adhesive: As recommended by membrane manufacturer.
- G. Surface Conditioner for Adhesives: Compatible with membrane and adhesives.
- H. Thinners and Cleaners: As recommended by adhesive manufacturer, compatible with membrane.
- I. Sealants: As recommended by membrane manufacturer.
- J. Walkway Pads: Type as recommended by membrane manufacturer. Provide walkway pads whether shown or not on the roof plan; Pads shall be placed in a path to each RTU and around each unit where maintenance will occur. Pads shall be a minimum 80 mills 3'x3' and spaced a maximum of 1" apart.
- K. Roof Expansion Joints: Equivalent to Johns Manville Expand-O-Flash PVC EJ/WC expansion joint covers:
 - Flexible, weather-proof exterior covers for expansion joint openings with closedcell foam rod support.
 - 2. Bellows Width: 4".
 - 3. Color: White.
 - 4. Joint Filler: Provide flexible vapor barrier with fire safing insulation.

PART 3 - EXECUTION

3.1 INSTALLATION - GENERAL

- A. Perform work in accordance with NRCA Roofing and Waterproofing Manual and manufacturer's instructions.
- B. Do not apply roofing membrane during unsuitable weather.
- C. Do not apply roofing membrane when ambient temperature is outside the temperature range recommended by manufacturer.
- D. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is expected or occurring.
- E. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.
- F. Coordinate the work with installation of associated counter flashings installed by other sections as the work of this section proceeds.

3.2 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work.
- B. Verify deck is supported and secure.

- C. Verify deck is clean and smooth, flat, free of depressions, waves, or projections, properly sloped and suitable for installation of roof system.
- D. Verify deck surfaces are dry and free of snow or ice.
- E. Verify that roof openings, curbs, and penetrations through roof are solidly set, and cant strips are in place.

3.3 HOLLOW CORE PLANK PREPARATION

- A. Install deck sheathing on deck:
 - 1. Lay with long side at right angle to any flutes; stagger end joints; provide support at ends.
 - 2. Cut sheathing cleanly and accurately at roof breaks and protrusions to provide smooth surface.
 - 3. Adhere deck sheathing to hollow core planks as recommended by manufacturer. Metal fasteners are not to be used with hollow core planks.
 - 4. Tape joints.

3.4 VAPOR RETARDER AND INSULATION - UNDER MEMBRANE

- A. Apply vapor retarder to deck surface with adhesive in accordance with manufacturer's instructions.
 - 1. Extend vapor retarder under cant strips and blocking to deck edge.
 - 2. Install flexible flashing from vapor retarder to air seal material of wall construction, lap and seal to provide continuity of the air barrier plane.
- B. Ensure vapor retarder is clean and dry, continuous, and ready for application of insulation.
- C. Attachment of Insulation:
 - 1. Mechanically fasten insulation to deck in accordance with roofing manufacturer's instructions and Factory Mutual requirements.
- D. Lay subsequent layers of insulation with joints staggered minimum 6 inch (150 mm) from joints of preceding layer.
- E. On metal deck, place boards parallel to flutes with insulation board edges bearing on deck flutes.
- F. Lay boards with edges in moderate contact without forcing. Cut insulation to fit neatly to perimeter blocking and around penetrations through roof.
- G. Do not apply more insulation than can be covered with membrane in same day.

3.5 MEMBRANE APPLICATION

- A. Roll out membrane, free from wrinkles or tears. Place sheet into place without stretching.
- B. Shingle joints on sloped substrate in direction of drainage.
- C. Fully Adhered Application: Apply adhesive to substrate at rate as recommended by manufacturer. Fully embed membrane in adhesive except in areas directly over or within

- 3 inches (75 mm) of expansion joints. Fully adhere one roll before proceeding to adjacent rolls.
- D. Overlap edges and ends and seal seams by heat welding, minimum 3 inches (75 mm). Seal permanently waterproof.
- E. At intersections with vertical surfaces:
 - 1. Extend membrane over cant strips and up a minimum of 4 inches (100 mm) onto vertical surfaces.
 - 2. Fully adhere flexible flashing over membrane and up to nailing strips.
- F. Around roof penetrations, seal flanges and flashings with flexible flashing.
- G. Coordinate installation of roof drains and sumps and related flashings.
- H. Install roof mounted expansion joints in strict accordance with Manufacturer's instructions.

3.6 FIELD QUALITY CONTROL

- A. See Section 01 40 00 Quality Requirements, for general requirements for field quality control and inspection.
- B. Require site attendance of roofing and insulation material manufacturers daily during installation of the Work.

3.7 CLEANING

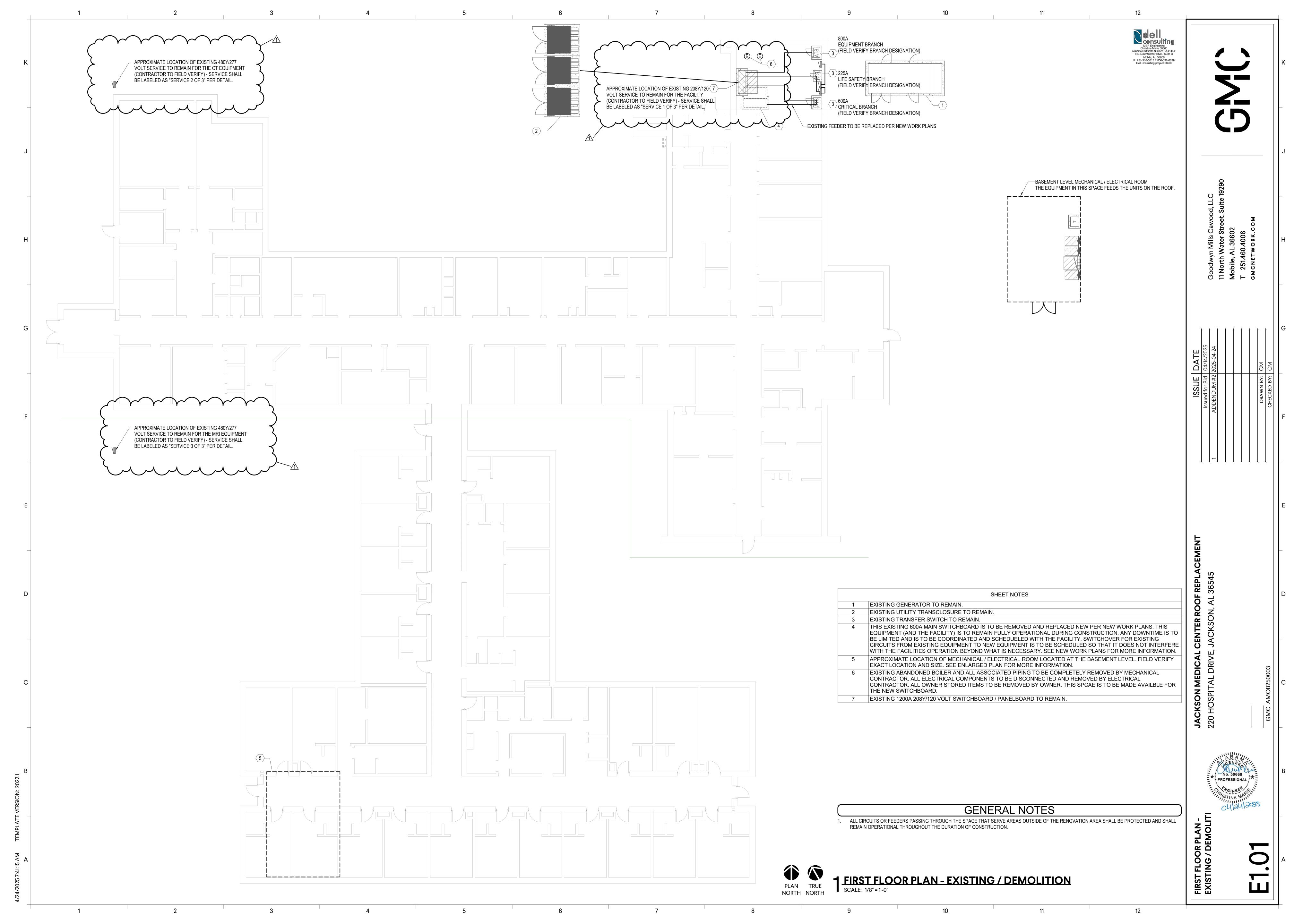
- A. Remove bituminous markings from finished surfaces.
- B. In areas where finished surfaces are soiled by work of this section, consult manufacturer of surfaces for cleaning advice and conform to their documented instructions.
- C. Repair or replace defaced or damaged finishes caused by work of this section.

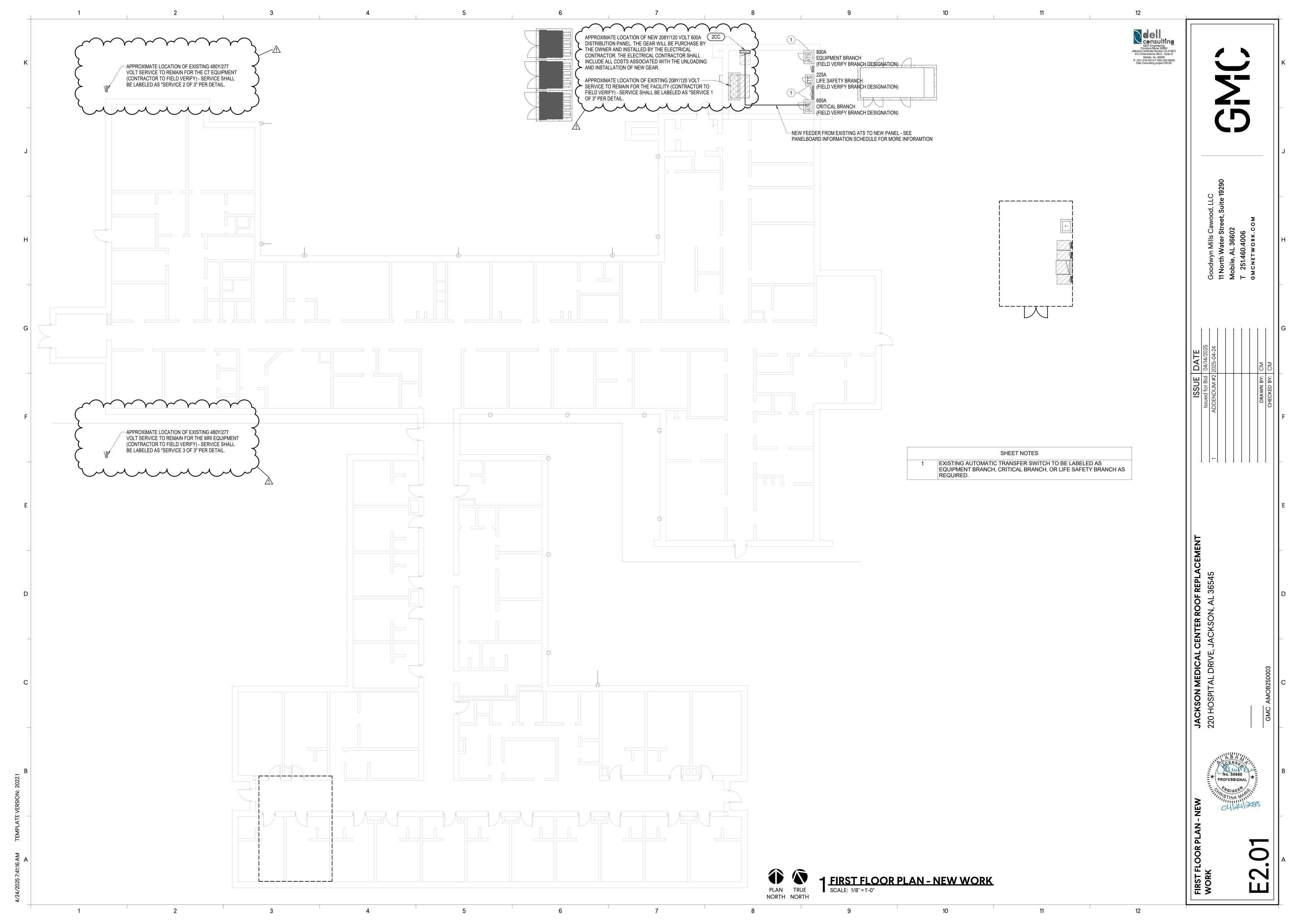
3.8 PROTECTION

- A. Protect installed roofing and flashings from construction operations.
- B. Where traffic must continue over finished roof membrane, protect surfaces using durable materials.

END OF SECTION

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ACCEPTABLE

ACCEPTABLE

ACCEPTABLE

NOT

ACCEPTABLE

____1/2" TEXT

AHU-15

FROM PANEL 4M1

EXAMPLE MECHANICAL **EQUIPMENT**

DISCONNECT

LABEL

4PA

480Y/277V

FROM 4MD

EXAMPLE

PANELBOARD/SWITCHBOARD

LABEL

___1/4" TEXT

─_1/2" TEXT

——1/4" TEXT

TO GROUND

TO GROUND

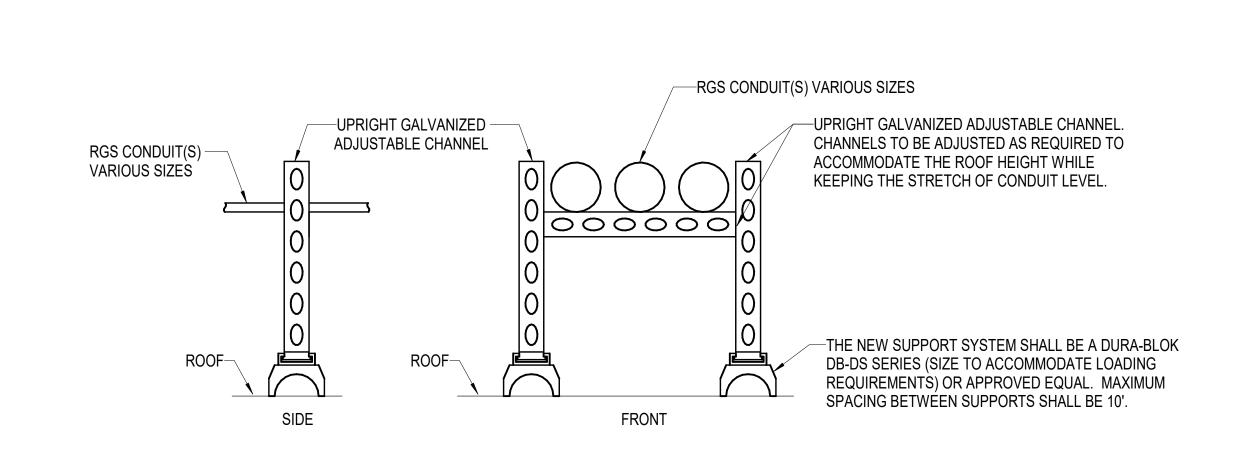
A B A MANANA NO. 50660 PROFESSIONAL VGINEER STINA MA

3

SWITCHBOARD SCHEDULE MARK: EXISTING SWITCHBOARD LOAD DESCRIPTION **NOTES** POLES ER SUBPANEL 19.2 kVA | 19.2 kVA 2 MAINTENANCE SUBPANEL 19.2 kVA WASHING MACHINE 11.1 kVA | 11.1 kVA | 11.1 kVA 4 ER A/C 100 A 11.1 kVA | 11.1 kVA | 11.1 kVA 5 DRYER 30 A 2.8 kVA 6 OCCUPIED 2.8 kVA 2.8 kVA 7 OCCUPIED 1.4 kVA 1.4 kVA 8 ADMIN HALL SUBPANEL 100 A 9.6 kVA 9.6 kVA 9 DIETARY HALL SUBPANEL 9.6 kVA 9.6 kVA 10 KITCHEN EXHAUST FAN 3.3 kVA 3.3 kVA 3.3 kVA 1 KITCHEN SUBPANEL (EXTERIOR) 9.6 kVA 12 DISHWASHER 3.3 kVA 60 A 3.3 kVA 3.3 kVA TOTAL LOAD: 232 kVA TOTAL AMPS: Not.

\leftarrow														
· ·) PANELBOARD SCHEDULE													
$\vdash \prec$	MARK: 2CC													
CKT)	LOAD	BREAKER		PHASE (kVA)		PHASE (kVA)		VA)	BREAKER		LOAD	CKT		
#	DESCRIPTION	Р	TRIP	Α	В	С	Α	В	С	TRIP	P	DESCRIPTION	#	
1	ER SUB PANEL	2	200 A	16.6			2.5			30 A	2	OCCUPIED	2	
3	PROVIDE NEW 3#3/0, #6G 2-1/2" CONDUIT				16.6			2.5		30 A Z	-	PROVIDE NEW 2#10, #10G 3/4" CONDUIT	4	
5 〈	WASHING MACHINE PROVIDE NEW 3#1, #6G 1-1/2" CONDUIT		100 A			9.6			9.6	100 A 3		ER A/C	6	
7				9.6			9.6				3	PROVIDE NEW 4#1, #6G 1-1/2" CONDUIT	8	
9_					9.6			9.6				1 1. CVIDE INEVV 4π 1, που 1-1/2 CONDOIT	10	
11)	SPARE	1	20 A			0.0			8.3	100 A	2	ADMIN HALL SUB PANEL	12	
13	OCCUPIED PROVIDE NEW 2#12, #12G 3/4" CONDUIT		15 A	1.3			8.3			100 A	4	PROVIDE NEW 3#1, #6G 1-1/2" CONDUIT	14	
15					1.3			0.0		20 A	1	SPARE	16	
17	DIETARY HALL SUB PANEL	2	100 A			8.3			0.0	20 A	1	SPARE	18	
19	PROVIDE NEW 3#1, #6G 1-1/2" CONDUIT		100 A	8.3			2.9					KITCHEN EXHAUST FAN	20	
21	KITCHEN SUB PANEL (EXTERIOR)		100 A		8.3			2.9		30 A	3	PROVIDE NEW 3#10, #10G 3/4" CONDUIT	22	
23	PROVIDE NEW 3#1, #6G 1-1/2" CONDUIT	2	100 A			8.3			2.9			TROVIDE NEW 3#10, #100 3/4 CONDOTT	24	
25)	DRYER - NEW 2#10, #10G 3/4" CONDUIT MAINTENANCE SUB PANEL PROVIDE NEW 3#3/0, #6G 2-1/2" CONDUIT		30 A	2.9			5.8					DISLIMACHED	26	
27			200 A		16.6			5.8		60 A	3	DISHWASHER PROVIDE NEW 3#4, #8G 1-1/4" CONDUIT	28	
29						16.6			5.8			PROVIDE NEW 3#4, #6G 1-1/4 CONDOIT		
31)	SPARE	1	20 A	0.0			0.0			20 A	1	SPARE	32	
33	SPARE	1	20 A		0.0			0.0		20 A	1	SPARE	34	
35	SPARE	1	20 A			0.0			0.0	20 A	1	SPARE	36	
37	SPARE	1	20 A	0.0			0.0			20 A	1	SPARE	38	
39	SPARE	1	20 A		0.0			0.0		20 A	1	SPARE	40	
41	SPARE	1	20 A			0.0			0.0	20 A	1	SPARE	42	
	/						1	1	ı	1	-			

TOTAL KVA: \$\phi\$ A: \frac{67.8}{67.8} \$\phi\$ B: \frac{73.2}{73.2} \$\phi\$ C: \frac{69.5}{69.5} HIGH \$\phi\$ (AMPS): \frac{612 A}{584.1 A} D LOAD (KVA): 210.4 TOTAL LOAD (AMPS): \frac{584.1 A}{67.8} TOTAL CONNECTED LOAD (KVA): 210.4 CREATE A DIRECTORY TO INDICATE INSTALLED LOADS. INDICATE LOAD TYPE (REC, LTG, AHU-1, ETC), AND ROOM NO. SERVED FOR EVERY BRANCH... NOTES: PROVIDE PANEL WITH 100% RATED MAIN BREAKER SURE PANEL LOADS ARE BALANCED UPON COMPLETION OF PROJECT



CONDUIT ROUTING ON TOP OF ROOF DETAIL

208Y/120 VOLT SERVICE DISCONNECT "1 OF 3"

480Y/277 VOLT SERVICE

DISCONNECT "3 OF 3"

208Y/120 VOLT SERVICE DISCONNECT "1 OF 3" IS PROVIDING POWER TO THE FACILITY. SERVICE DISCONNECT "1 OF 3" IS LOCATED ON THE NORTH SIDE OF THE FACILITY IN THE ELECTRICAL ROOM.

480Y/277 VOLT SERVICE DISCONNECT "2 OF 3" IS

PROVIDING POWER TO THE CT EQUIPMENT.

____1/2" TEXT

____1" TEXT

480Y/277 VOLT SERVICE

DISCONNECT "2 OF 3"

208Y/120 VOLT SERVICE DISCONNECT "1 OF 3" IS PROVIDING POWER TO THE FACILITY. SERVICE DISCONNECT "1 OF 3" IS LOCATED ON THE NORTH SIDE OF THE FACILITY IN THE ELECTRICAL ROOM.

480Y/277 VOLT SERVICE DISCONNECT "3 OF 3" IS PROVIDING POWER TO THE MRI EQUIPMENT. SERVICE DISCONNECT "2 OF 3" IS LOCATED ON

THE WEST SIDE OF THE FACILITY.

____1/2" TEXT

SERVICE DISCONNECT "2 OF 3" IS LOCATED ON THE NORTHWEST CORNER OF THE FACILITY.

480Y/277 VOLT SERVICE DISCONNECT "2 OF 3" IS PROVIDING POWER TO THE CT EQUIPMENT SERVICE DISCONNECT "2 OF 3" IS LOCATED ON THE NORTHWEST CORNER OF THE FACILITY.

480Y/277 VOLT SERVICE DISCONNECT "3 OF 3" IS PROVIDING POWER TO THE MRI EQUIPMENT. SERVICE DISCONNECT "2 OF 3" IS LOCATED ON THE WEST SIDE OF THE FACILITY.

____1/2" TEXT

EXAMPLE SERVICE EQUIPMENT LABEL

ALL THREE SERVICES ARE TO BE IDENTIFIED AND LABELED AS PART OF THIS PROJECT. ENGRAVED PLASTIC TAG WITH WHITE LETTERS ON RED BACKGROUND. TAG SHALL HAVE ALL EDGES BEVELED AND SMOOTH. SECURE TAG WITH 2 CHROME (STAINLESS STEEL FOR WET OR DAMP LOCATIONS) SCREWS, ADHESIVE BACKING, TAPE, ETC IS NOT ALLOWED. TAG SHALL BE AS LARGE AS REQUIRED TO FIT APPROPRIATE TEXT. (CONTRACTOR SHALL VERIFY LOCATIONS OF THREE SERVICES PRIOR TO MAKING TAGS AND ADJUST LOCATIONS AS REQUIRED).

TYPICAL SRVICE EQUIPMENT LABELING DETAIL

3 TYPICAL EQUIPMENT LABELING DETAIL
NOT TO SCALE

CONDUCTOR-

CONDUCTOR-

CONDUIT-

CONDUCTOR

1 BEND REQUIREMENTS

NOT TO SCALE

CRITICAL BRANCH

EXAMPLE ATS LABEL

`2PA

208Y/120V

FROM XFMR TPA

EXAMPLE

PANELBOARD/SWITCHBOARD

LABEL

____1/4" TEXT

<--1/2" TEXT

1/4" TEXT

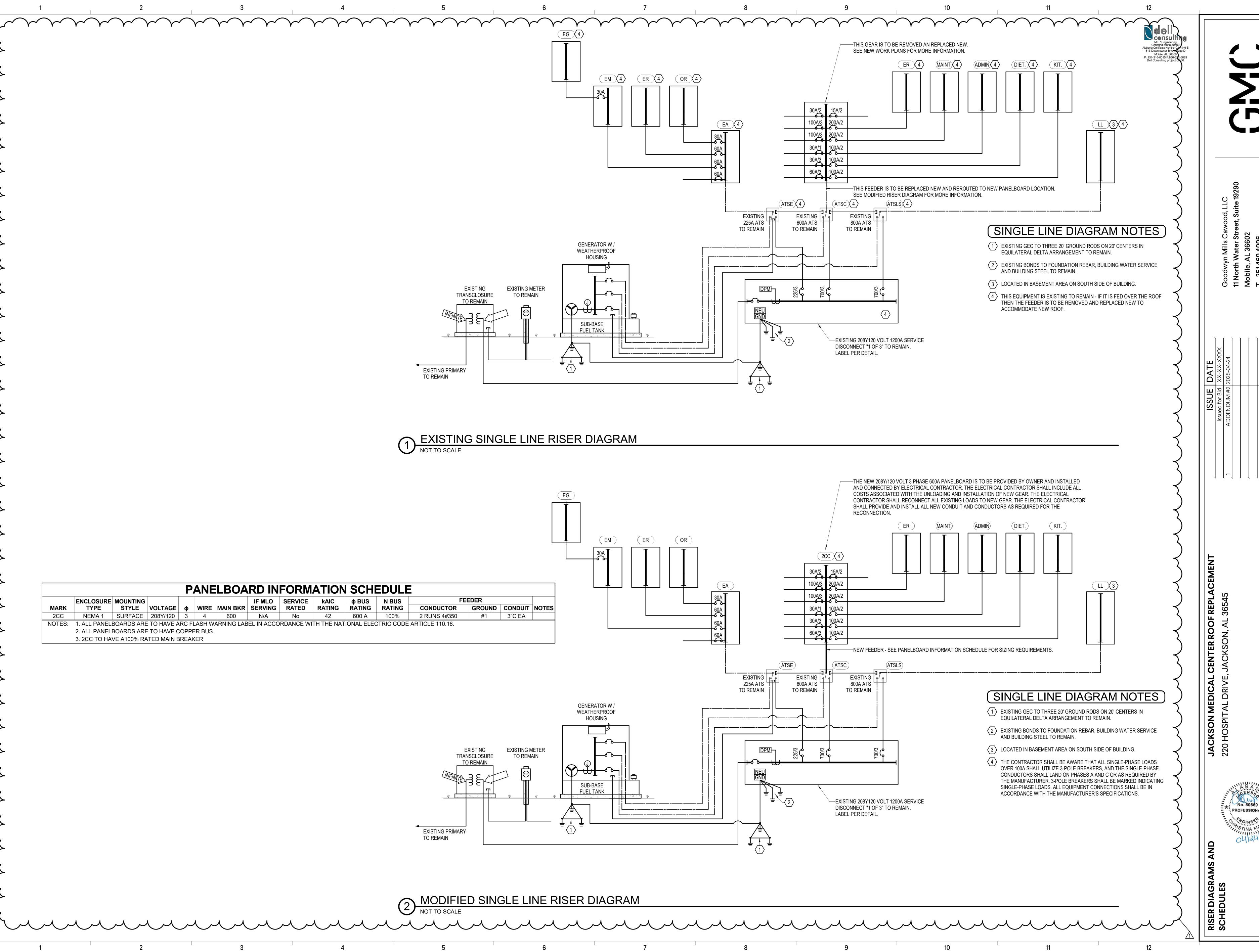
1.5"

ENGRAVED PLASTIC TAG WITH BLACK LETTERS ON WHITE BACKGROUND (RED BACKGROUND

FOR EMERGENCY EQUIPMENT). TAG SHALL HAVE ALL EDGES BEVELED AND SMOOTH. SECURE

TAG WITH 4 CHROME (STAINLESS STEEL FOR WET OR DAMP LOCATIONS) SCREWS, ADHESIVE

BACKING, TAPE, ETC IS NOT ALLOWED. DIMENSIONS ARE MINIMUM, TAG SHALL BE LARGER AS REQUIRED TO FIT APPROPRIATE TEXT.



PROFESSIONAL