

# **ADDENDUM NO. 2**

**April 28, 2022**

**BIDDING AND CONTRACT DOCUMENTS**

**FOR**

**SPIETH HALL ROOF REPLACEMENT AND  
MECHANICAL UPGRADE**

**PROJECT NO. 950599**

**CONTRACT NO. 950599-LF-2022-84**





The following changes, additions, or deletions shall be made to the following documents as indicated for this Project; and all other terms and conditions shall remain the same.

1. **ADVERTISEMENT FOR BIDS**

Replace the Advertisement for Bids with one included in this Addendum.

2. **SUPPLEMENTARY INSTRUCTIONS TO BIDDERS**

Replace Supplementary Instructions to Bidders with one included in this Addendum.

3. **INFORMATION AVAILABLE TO BIDDERS**

Replace Information Available to Bidders with one included in this Addendum.  
 Add Work Sequence narrative, Goss Engineering, 1 page, dated April 18, 2022.

4. **SPECIFICATIONS**

Replace Division 1 Specification TOC with one included in this Addendum.

Replace Specification Section 01014 Work Sequencing with one included in this Addendum.

Replace Specification Section 01 5200 Construction Facilities with one included in this Addendum.

5. **LIST OF DRAWINGS**

Replace List of Drawings with one included in this Addendum.

6. **DRAWINGS**

Replace existing Drawings with the ones issued in this Addendum.

SHEET NO.	TITLE	DATE
G0.1	TITLE SHEET	02/02/22
A0.1	(E) ROOF PLAN, SELECTIVE DEMOLITION	02/02/22
A0.2	(E) EXISTING PARTIAL BASEMENT FLOOR PLAN	02/02/22
A0.3	(E) EXISTING PARTIAL 1 <sup>ST</sup> FLOOR PLAN	02/02/22
A0.4	(E) EXISTING PARTIAL 2 <sup>ND</sup> FLOOR PLAN	02/02/22
A0.5	(N) ROOF PLAN	02/02/22
A0.6	DETAILS, NOTES AND SYMBOLS	02/02/22
S0.1	GENERAL NOTES	02/02/22
S2.1	ROOF FRAMING PLAN	02/02/22
S5.1	STRUCTURAL DETAILS	02/02/22
M0.1	SYMBOLS, DESIGNATION & ABBREVIATION	02/02/22
M0.2	MECHANICAL SCHEDULES	02/02/22
M1.1	FIRST FLOOR MECHANICAL PLAN	02/02/22
M1.2	SECOND FLOOR MECHANICAL PLAN	02/02/22
M1.3	ROOF MECHANICAL DEMOLITION PLAN	02/02/22
M2.3	ROOF MECHANICAL RECONSTRUCTION PLAN	02/02/22
M5.1	EXHAUST AIRFLOW DIAGRAM	02/02/22
M5.2	MECHANICAL DETAILS	02/02/22

M5.3	MECHANICAL DETAILS	02/02/22
M5.4	MECHANICAL DETAILS	02/02/22
<b><u>E0.1</u></b>	<b><u>SYMBOLS, DESIGNATIONS AND ABBREVIATIONS</u></b>	<del>02/02/22</del> <b><u>04/18/2022</u></b> <b><u>Addendum 2</u></b>
<b><u>E1.0</u></b>	<b><u>BASEMENT POWER DEMOLITION PLAN</u></b>	<del>02/02/22</del> <b><u>04/18/2022</u></b> <b><u>Addendum 2</u></b>
E1.1	FIRST FLOOR POWER PLAN	02/02/22
E1.2	SECOND FLOOR POWER PLAN	02/02/22
<b><u>E1.3</u></b>	<b><u>ROOF POWER DEMOLITION PLAN</u></b>	<del>02/02/22</del> <b><u>04/18/2022</u></b> <b><u>Addendum 2</u></b>
<b><u>E2.1</u></b>	<b><u>BASEMENT POWER RECONSTRUCTION PLAN</u></b>	<del>02/02/22</del> <b><u>04/18/2022</u></b> <b><u>Addendum 2</u></b>
E2.4	ROOF POWER RECONSTRUCTION PLAN	02/02/22
E5.1	ELECTRICAL DETAILS	02/02/22
<b><u>E6.1</u></b>	<b><u>SINGLE LINE DIAGRAM (DEMOLITION)</u></b>	<del>02/02/22</del> <b><u>04/18/2022</u></b> <b><u>Addendum 2</u></b>
<b><u>E6.2</u></b>	<b><u>SINGLE LINE DIAGRAM (RECONSTRUCTION)</u></b>	<del>02/02/22</del> <b><u>04/18/2022</u></b> <b><u>Addendum 2</u></b>

END OF ADDENDUM

## ADVERTISEMENT FOR BIDS

Subject to conditions prescribed by the University of California, Riverside, sealed bids for a lump sum contract are invited from ~~prequalified~~ contractors for the following Project:

### SPIETH HALL ROOF REPLACEMENT AND MECHANICAL UPGRADE

PROJECT NO.: **950599**

CONTRACT NO.: **950599-LF-2022-84**

UNIVERSITY OF CALIFORNIA, RIVERSIDE

RIVERSIDE, CALIFORNIA

**Scope Description:** Demolish and replace existing roof with new sprayed applied foam roof. Replace the existing exhaust in some areas of the roof with a new manifolded exhaust system. Replace existing indoor fan coil units at cold rooms 133 and 230. Replace outdoor rooftop condensing unit serving Cold Room 230. Existing condensing unit serving Cold Room 133 shall remain. Replace the existing indoor fan coil units and outdoor condensing units serving Cold Rooms 131, 132, 228, and 229 with new systems. Each Cold Room will be provided with a new programmable thermostat.

Estimated construction cost: \$1.8M

The successful Bidder must have the following State of California Contractor's license current and active at the time of submission of the Bid: **B, General Building**.

**Bidding and Contract Documents** will be made available at **2:00 PM, on Friday, April 15<sup>th</sup>, 2022**, and will be issued only from:

### **A&I Reprographics**

898 Via Lata, Suite L

Colton, CA 92324

Phone: (909) 514-0704

Fax: (909) 514-0754

[www.aandirepro.com](http://www.aandirepro.com)

Each set of Bidding and Contract Documents will require a non-refundable payment to **A&I Reprographics**. If paying by check, make your checks payable to "**A&I Reprographics**." Bidding and Contract Documents will be mailed/shipped at the requestor's expense.

### **MANDATORY PRE-BID CONFERENCE:**

A mandatory **Pre-Bid Zoom conference call** will take place on **Monday, April 25<sup>th</sup>, 2022**, beginning promptly at **1:30 PM** Only bidders who participate in the Zoom conference call and sign in, will be allowed to bid on the Project as prime contractors. Participants shall use the link provided to them to access the Zoom conference call. For further information, please contact the Project's Contract Administrator, **Mary Ramirez** at the email address listed below. ~~A site visit is not planned nor mandatory, but will be made available to the bidders by request only, to Mary Ramirez at [mary.ramirez@ucr.edu](mailto:mary.ramirez@ucr.edu).~~

A mandatory pre-bid job walk is scheduled for Wednesday, April 27<sup>th</sup> at 2 PM; this meeting is only for those who attend the zoom pre-bid meeting. Please meet at the south side (back side) of Spieth Hall (See attached Spieth Meeting Point-Map.) Attendees will be required to sign in to provide verification of their attendance. Please do not arrive late, once 2:05 PM strikes, the group will commence the site visit, no late attendees will be allowed.

**Any bidders who enters the Pre-Bid Conference after 1:40 PM will be precluded from bidding as a prime contractor and may only bid as a subcontractor. Subcontractors are not required to attend; however we encourage their attendance.**

## **BID DEADLINE**

Bids must be received at or before **2:00 PM, ~~Wednesday, May 11<sup>th</sup>, 2022~~, **Monday, May 16, 2022****, for furnishing all labor, materials, services, and equipment to complete the Work described below in accordance with the enclosed Bidding Documents. Due to COVID-19 restrictions, all bids will be received electronically only at the email address above; the low bidder must produce the original bid, bid bond, notary acknowledgement and surety notice within 24 hours of making an announcement of who the apparent low bidder is.

Bids are to be submitted to The Regents of the University of California ("University") **via email only** at:

Email: [mary.ramirez@ucr.edu](mailto:mary.ramirez@ucr.edu)

Immediately following the Bid Deadline, bids will be opened at the same location.

Bid Security in the amount of 10% of the Lump Sum Base Bid shall accompany each Bid. The Surety issuing the Bid Bond shall be, on the Bid Deadline, an admitted surety insurer (as defined in California Code of Civil Procedure Section 995.120).

Every effort will be made to ensure that all persons have equal access to contracts and other business opportunities with the University within the limits imposed by law or University policy. Each Bidder may be required to show evidence of its equal employment opportunity policy. The successful Bidder and its subcontractors will be required to follow the nondiscrimination requirements set forth in the Bidding Documents and to pay prevailing wage at the location of the work.

The work described in the contract is a public work subject to section 1771 of the California Labor Code. This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

No contractor or subcontractor may be listed on a Bid for this project (submitted on or after March 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded any portion of this project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA  
University of California, Riverside

Publication Dates: April 11, 2022 – April 22, 2022

## SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

1. Contract Time: As specified in Section 1 of the Bid Form.
2. List of Subcontractors (Bid Form Paragraph 9.0) and List of Changes in Subcontractors Due to Alternates (Bid Form Paragraph 10.0).

The default rule is that, if a Bidder lists one subcontractor for a Work Activity (such as “Electrical”) under Bid Form Paragraph 9.0 and a different subcontractor for the same Work Activity (such as “Electrical”) for the Alternate Work under Bid Form Paragraph 10.0 without reference to the Alternate, then it is deemed that the second subcontractor listed in Paragraph 10.0 will perform the Base Bid Work and the Alternate Work, unless the Bidder expressly writes otherwise.

A Bidder may list more than one subcontractor per trade, provided that the Work Activity to be performed by each listed subcontractor is adequately described on the spaces provided on the Bid Form, so that which subcontractor will perform which Work Activity can be determined.

For example, in case of Alternates, if a Bidder wants one subcontractor to perform the electrical Base Bid Work and another subcontractor to perform the electrical Alternate Work, then the Bidder should list the first subcontractor under Bid Form Paragraph 9.0 as performing the “Electrical” Work Activity, and list the second subcontractor under Bid Form Paragraph 10.0 (for listing changes in subcontractors due to Alternates) as performing the “Electrical Alt” or “Electrical Alt Work” or “Electrical Alt Only” or similarly to define the Alternate Work Activity separately to be performed.

3. Requests for clarification or interpretation of the Bidding Documents must be submitted in writing, and shall be addressed only to:

Mary Ramirez, Contracts Administrator  
Email: [mary.ramirez@ucr.edu](mailto:mary.ramirez@ucr.edu)  
Tel: 951.827.2528

**The deadline to submit requests for clarification or interpretation is on or before 2 PM, on ~~April 29<sup>th</sup>, 2022~~, Wednesday, May 4, 2022.**

4. The mandatory Zoom Pre-Bid Conference will be conducted at the time and location specified in the **ADVERTISEMENT FOR BIDS**, bound herein. (Attendance is mandatory). As evidence of attendance, bidders must sign the attendance sheet provided by University at the Zoom Pre-Bid Conference.

An Mandatory site visit will be held on Wednesday, April 27<sup>th</sup>, 2022 at 2 PM. Bidders can obtain a parking permit at the Information Kiosk located off West Campus Drive or at available permit dispenser located in Lot 6. (See attached Spieth Meeting Point Map). Subcontractors are not required to attend; however, we recommend that bidders attend with their subcontractors.

5. Bids must be received on or before the Bid Deadline and only at the location specified in the **ADVERTISEMENT FOR BIDS**.

6. Bids will be opened at the same location specified in the **ADVERTISEMENT FOR BIDS** for the receipt of bids.
7. Contractor will be assessed as liquidated damages the sum of **\$500.00** for each day the Work remains incomplete beyond the expiration of the Contract Time. After Substantial Completion, the rate for liquidated damages shall be reduced to the sum of **\$100.00** per day. See Article 5 of the Agreement for detailed requirements
8. Replace the existing Paragraph 1.4 with the following:
  - 1.4 The term "Bid Deadline" means the date and time on or before which Bids must be received, as designated in the **ADVERTISEMENT FOR BIDS** and which may be revised by Addenda.
9. Replace the existing Paragraph 3.1.1 with the following:
  - 3.1.1 Bidders may obtain complete sets of the Bidding Documents from the issuing office designated in the **ADVERTISEMENT FOR BIDS**.
10. Replace the existing Paragraph 3.5.1 with the following:
  - 3.5.1 Addenda will be issued only by University and only in writing. Addenda will be identified as such and will be mailed or delivered to all Planholders. At its sole discretion, the University may elect to deliver Addenda via facsimile or email to Planholders who have provided a facsimile number or email address for receipt of Addenda or communications.
11. Replace the existing Paragraph 3.5.3 with the following:
  - 3.5.3 Addenda will be issued such that Planholders should receive them no later than 72 hours prior to the Bid Deadline. Addenda withdrawing the request for Bids or postponing the Bid Deadline may be issued anytime prior to the Bid Deadline.
12. Replace the existing Paragraph 5.2.4 with the following:
  - 5.2.4 Bid Security will be returned after the contract has been awarded. Notwithstanding the preceding, if a Bidder fails or refuses, within **10** days after receipt of notice of selection, to sign the Agreement or submit to University all of the items required by the Bidding Documents, the University will retain that Bidder's Bid Security. If the Bid Security is in the form of a Bid Bond, the Bid Security will be retained until the University has been appropriately compensated; if the Bid Security is in the form of certified check, the University will negotiate said check and after deducting its damages, return any balance to Bidder.
- ~~13. Add the following as Paragraph 5.3.5:  
  
As specified in the **ADVERTISEMENT FOR BIDS**, the University has determined that bidders who submit bids for this Project must be prequalified.~~
14. Replace the existing Paragraph 5.4.4 with the following:
  - 5.4.4 Bids may not be modified, withdrawn, or canceled within **60** days after the Bid Deadline.



15. Replace the existing Paragraph 6.3.1 with the following:

6.3.1 University will have the right, but is not required, to waive nonmaterial irregularities in a Bid. If the University awards the Contract, it will be awarded to the responsible Bidder submitting the lowest responsive Bid as determined by University and who is not rejected by University for failing or refusing, within **10** days after receipt of notice of selection, to sign the Agreement or submit to University all of the items required by the Bidding Documents.

16. Replace the existing Paragraph 6.3.5 with the following:

6.3.5 University will select the apparent lowest responsive and responsible Bidder and notify such Bidder on University's form within **50** days (unless the number of days is modified in Supplementary Instructions to Bidders) after the Bid Deadline or reject all Bids. Within **10** days after receipt of notice of selection as the apparent lowest responsive and responsible Bidder, Bidder shall submit to University all of the following items:

- .1 Three originals of the Agreement signed by Bidder.
- .2 Three originals of the Payment Bond required under Article 11 of the General Conditions.
- .3 Three originals of the Performance Bond required under Article 11 of the General Conditions.
- .4 Certificates of Insurance on form provided by University required under Article 11 of the General Conditions.
- .5 Names of all Subcontractors, with their addresses, telephone and facsimile numbers, contact persons, portions of the Work and designation of any Subcontractor as a Small Business Enterprise (SBE), Disadvantaged Business Enterprise (DBE), Women-owned Business Enterprise (WBE) and Disabled Veteran Business Enterprise (DVBE) on the Report of Subcontractor Information form, along with a completed Self-Certification form, contained in the Exhibits. Evidence, as required by University, of the reliability and responsibility of the proposed Subcontractors such as statements of experience, statements of financial condition, and references.
- .6 Preliminary Contract Schedule as required under Article 3 of the General Conditions.
- .7 If Bidder wishes to utilize securities in lieu of retention beginning with the first Application for Payment, a completed Selection of Retention Options form accompanied by a completed Escrow Agreement for Deposit of Securities in Lieu of Retention and Deposit of Retention in the form contained in the Exhibits.
- .8 Cost Breakdown as required by Article 9 of the General Conditions.

17. Replace the existing Paragraph 6.3.7 with the following:

6.3.7 If Bidder submits three originals of the signed Agreement and all other items required to be submitted to University within **10** days after receipt of notice of selection as the apparent lowest responsive and responsible Bidder, and if all such items comply with the requirements of the

- Bidding Documents and are acceptable to University, University will award the Contract to Bidder by signing the Agreement and returning a signed copy of the Agreement to Bidder.
18. Replace the existing Paragraph 6.3.8 with the following:
- 6.3.8 If University consents to the withdrawal of the Bid of the apparent lowest responsive and responsible Bidder, or the apparent lowest responsive and responsible Bidder fails or refuses to sign the Agreement or submit to University all of the items required by the Bidding Documents, within **10** days after receipt of notice of selection, or that Bidder is not financially or otherwise qualified to perform the Contract, University may reject such Bidder's Bid and select the next apparent lowest responsible Bidder, until all Bids are exhausted, or reject all Bids. Any Bidder whose Bid is rejected because the Bidder has failed or refused, within **10** days after receipt of notice of selection, to sign the Agreement or submit to University all of the items required by the Bidding Documents, shall be liable to the University for all resulting damages.
19. The University has negotiated contracts with certain suppliers (listed in the "Information Available to Bidders") to supply materials to University construction projects. Bidders may be able to obtain favorable pricing from the listed suppliers for materials required for this Contract. Bidders are not obligated to obtain any required materials from the listed suppliers. Use of any of the listed suppliers is at the Bidder's risk, and the University does provide any warranties, express or implied, with respect to the listed suppliers, their products and/or services. In particular, University does not warrant that the listed suppliers, their products and/or services are suitable for this Project.
20. **PREVAILING WAGE INFORMATION:** A bidder can obtain the prevailing wage information through the internet at [www.dir.ca.gov](http://www.dir.ca.gov) or at <http://www.dir.ca.gov/DLSR/PWD>.

END OF SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

## **INFORMATION AVAILABLE TO BIDDERS**

The following information is made available for the convenience of bidders and is not a part of the Contract. The information is provided subject to the provisions of Article 3 of the General Conditions.

1. The University of California has contracts for materials, equipment and/or services with the suppliers listed on the Office of the President Procurement Services website at: <https://www.ucop.edu/procurement-services/for-suppliers/construction-supplier-resources.html>

General Contractors or others submitting bids for University construction projects may enter into agreements with these suppliers that utilize the pricing and terms contained in the University-supplier agreements. The university does not represent or warrant that materials/equipment/services of these suppliers meet the requirements of the University's construction contracts.

Use of such suppliers shall not relieve Contractor from its obligation to meet all contractual requirements in any contracts with the University. The university will not be a party to any agreements with such suppliers and accepts no performance obligations or liability with respect to such agreements.

2. Reports:
  - a. Comprehensive Asbestos, XRF-lead and PCB's Assessment with Asbestos Contamination by A-Tech Consulting, Inc., dated 12/22/2020.
  - b. Limited Asbestos survey by Envirocheck, dated 11/17/2020.

3. Record Documents and As-Built:

As-Built Drawings – CNAS  
As-Built Drawings – Life Sciences

4. **Work Sequencing:**

- a. **Work Sequencing Narrative – Goss Engineering**

END OF INFORMATION AVAILABLE TO BIDDERS



### Addendum #1 Work Sequence Narrative

To: Fernando Canon  
Senior Project Manager  
UCR Planning, Design & Construction  
1223 University Ave., Suite 240, Riverside, CA 92507

Project: UCR Spieth Roof Replacement & Mechanical Upgrade

Discipline: Electrical

By: Chrisly Latag

Date: April 18, 2022

The following is a narrative of the changes on Electrical sheets in regards to the Work Sequence of the Project.

#### **Electrical:**

##### Sheet E0.1:

1. Work Sequence added to sheet.

##### Sheet E1.0:

1. Revised note tag on existing motor control center 'MCC2'.
2. Revised demolition note 1, to cite work sequence of decommissioning of existing motor control center 'MCC3'.
3. Added demolition note 2 for motor control center 'MCC2'.

##### Sheet E1.3:

1. Added demolition note 4, for disconnection of existing mechanical power and control connections.
2. Addd note tag 4 to plan.

##### Sheet E2.1:

1. Updated the location of new Distribution Board 'DP-1'.
2. Updated the location of new VFD's.



##### Sheet E6.1:

1. In existing Distribution Panel 'DP', the existing 175AT/225AF circuit breaker serving existing motor control center 'MCC3', is to remain and be protected in-place.
2. In existing Distribution Panel 'DP', the existing spare 150AT/225AF circuit breaker shall be removed and replaced.

##### Sheet E6.2:

1. In existing Distribution Panel 'DP', the existing 175AT/225AF circuit shall be labelled as 'SPARE', as shown on reconstruction note 3.
2. Connection or routing to new Distribution Board 'DP-1' was revised to be served by a new 400A-3P circuit breaker from the existing 150A circuit breaker that was removed.



## SPECIFICATIONS

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#### Division 01 – General Requirements

<u>Initial Issue</u>	<u>Revision</u>	<u>Section #</u>	<u>Title</u>
		01 1100	Summary of Work
	<u>Addendum 2</u>	<u>01 0104</u>	<u>Work Sequence</u>
		01 1400	Work Restrictions
		01 2500	Product Options, Requirements & Substitution Procedures
		01 2613	Requests for Information & Instructions (RFI) Procedures
		01 3113	Coordination
		01 3119	Project Meetings
		01 3200	Document Control
		01 3216	Schedules
		01 3280	Electronic Data Transfer
		01 3300	Submittals
		01 3329.08	Buy Clean California Reporting
		01 3540	Environmental Mitigation
		01 3543	Environmental Procedures
		01 3544	Asbestos Abatement
		01 3546	Indoor Air Quality Procedures & Requirements
		01 4100	Regulatory Requirements
		01 4200	References
		01 4500	Quality Control
		01 4516	Contractor’s Quality Control Program
		01 5100	Temporary Utilities
	<u>Addendum 2</u>	<u>01 5200</u>	<u>Construction Facilities</u>
		01 5500	Vehicular Access and Parking
		01 5600	Temporary Barriers and Enclosures
		01 5639	Tree and Plant Protection

<u>Initial Issue</u>	<u>Revision</u>	<u>Section #</u>	<u>Title</u>
		01 5700	Temporary Controls
		01 5800	Temporary Signage
		01 6000	Product Requirements
		01 7100	Examination and Preparation
		01 7123	Field Engineering
		01 7329	Cutting and Patching
		01 7400	Cleaning and Waste Management
		01 7700	Contract Closeout
		01 7839	As-Built Documents
<b>Division 02 – Existing Conditions</b>			
		02 4119	Selective Demolition
<b>Division 03 – Concrete</b>			
		03 3000	Cast-In Place Concrete
<b>Division 05 – Metals</b>			
		05 5000	Metal Fabrications
<b>Division 07 – Thermal and Moisture Protection</b>			
		07 5700	Coated Foamed Roofing
		07 6200	Sheet Metal Flashing and Trim
		07 9200	Joint Sealants
<b>Division 09 – Finishes</b>			
		09 0190.93	Exterior Maintenance Repainting
		09 2400	Portland Cement Plastering
		09 9000	Painting and Coating
<b>Division 23 – Heating, Ventilating, and Air Conditioning (HVAC)</b>			
		23 0500	Common Work Results for HVAC
		23 0529	Hangers and Supports for HVAC Piping and Equipment

<u>Initial Issue</u>	<u>Revision</u>	<u>Section #</u>	<u>Title</u>
		<b>23 0548</b>	<b>Vibration and Seismic Controls for HVAC</b>
		<b>23 0553</b>	<b>Identification for HVAC</b>
		<b>23 0593</b>	<b>Testing, Adjusting, and Balancing for HVAC</b>
		<b>23 0900</b>	<b>Instrumentation and Controls</b>
		<b>23 3113</b>	<b>Metal Ducts</b>
		<b>23 3300</b>	<b>Air Duct Accessories</b>
		<b>23 3423</b>	<b>HVAC Power Ventilators</b>
		<b>23 3713</b>	<b>Diffusers, Registers, and Grilles</b>
		<b>23 8126</b>	<b>Split-System Air-Conditioning Units</b>
 <b>Division 26 – Electrical</b>			
		<b>26 0500</b>	<b>Common Work Results for Electrical</b>
		<b>26 0501</b>	<b>Minor Electrical Demolition</b>
		<b>26 0519</b>	<b>Low-Voltage Electrical Power Conductors and Cables</b>
		<b>26 0526</b>	<b>Grounding and Bonding for Electrical Systems</b>
		<b>26 0529</b>	<b>Hangers and Supports for Electrical Systems</b>
		<b>26 0533</b>	<b>Raceways and Boxes for Electrical Systems</b>
		<b>26 0553</b>	<b>Identification for Electrical Systems</b>
		<b>26 2416</b>	<b>Panelboards</b>
		<b>26 2726</b>	<b>Wiring Devices</b>
		<b>26 2813</b>	<b>Fuses</b>
		<b>26 2816</b>	<b>Enclosed Switches and Circuit Breakers</b>

END OF SPECIFICATIONS  
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## SECTION 01014 - WORK SEQUENCE

### 1.01 CONTINUITY OF BUILDING OPERATIONS

- A. The existing Spieth Hall HVAC system is currently and will continuously be in operation, and those functions shall not be interrupted except as specified and allowed herein. The Contractor shall coordinate the work to minimize any interference with operations of the building.

### 1.02 DETAILED OUTAGE PLAN

- A. In accordance with Division 1 and the General Conditions, the Contractor shall submit a detailed outage plan with a phased time schedule of its operations, describing and showing when and how long the work effort will require for each replacement work. The schedule shall meet the restrictions and conditions specified in the Contract Documents. The detailed outage plan shall also describe the Contractor's method of removing portions of the building HVAC system from service, the work to be completed during system interruption, and the said length of time required to complete said operation.
- B. This detailed outage plan shall be completed by the Contractor and ready for review within 10 calendar days after issuance of the Notice to Proceed. The plan will be reviewed by the University Representative for compliance with this section and evidence of ability to complete the effort within the contract completion date.
- C. All work shall be performed on a system-by-system basis. At any time, contractor can work on only one air handling system.
- D. The Contractor shall provide a daily report to the University Representative on the progress of the work.

### 1.03 HVAC SYSTEM SHUTDOWN AVAILABILITY

- A. Performance of the work shall be scheduled to minimize disruptions to existing building use and operation.
- B. All materials shall be on site prior to demolition.
- C. System shutdowns shall not exceed 12 consecutive hours, be coordinated with and approved by the University Representative, and no shutdown will be approved until all materials to complete the work are on the jobsite.
- D. In addition to the detailed outage plan specified herein, the Contractor shall notify the University, in writing, of the interruption of HVAC service to rooms, or space 30 working days prior to the shutdown. All shutdowns must be approved by the University's Representative prior to the start of work.



**1.04 IMPLEMENTATION REQUIREMENTS OF HVAC SYSTEM MODIFICATIONS**

- A. SUPPLY AIR SYSTEM (None)
  
- B. ROOF EXHAUST MANIFOLD
  - 1. Demolish the roof abandoned exhaust fans and ductwork first.
  - 2. Provide structural framing and electrical for two new exhaust fans.
  - 3. Provide new exhaust fan EFs and manifold ductwork. Install branch taps with balancing damper for the new connections. Leave damper at 60% open.
  - 4. Operate EF at 60% speed.
  - 5. Demolish existing operational roof exhaust fans and ductwork. Reconnect to main exhaust manifold. Roof ductwork replacement shall be accomplished one branch at a time. The replacement of a branch shall be completed before moving to the next branch. Fully close the isolation damper. Reset VFD speed and balance to cfm as indicated on plans.
  
- C. Cold Rooms
  - 1. The cold rooms operate independently. Contractor shall coordinate with UCR for the room shutdown. The room demolition and construction work shall be done on room-to-room basis.

**1.05 COORDINATION OF WORK**

- A. The Contractor shall permit entry to the site of the work by the University or other contractors performing work on behalf of the University. The Contractor shall afford to the University, other contractors and their employees, reasonable facilities and cooperation and shall arrange his work and dispose of his materials in such a manner as to not interfere with the activities of the University or others upon the site of the work. The Contractor shall join his work to that of others and perform his work in proper sequence in relation to that of others.
  
- B. If requested by the Contractor, the University shall arrange meetings with other contractors performing work on behalf of the University to plan coordination of construction activities. The University shall keep the Contractor informed of the planned activities of other contractors.

**\*\*\*END OF SECTION\*\*\***

## SECTION 01-5200

### CONSTRUCTION FACILITIES

#### PART 1 – GENERAL

##### 1.1. SUMMARY

- A. Section includes:
1. Summary
  2. Supervision and Security
  3. Maintenance
  4. Field Offices and Sheds
  5. First Aid Facilities
  6. Sanitary Facilities
  7. Storage
  8. Termination and Removal
  9. **Construction Lay Down Area**

##### 1.2. SUPERVISION AND SECURITY

- A. Staff Names: Within 15 days of commencement of construction operations, post a list of the Contractor's principal staff assignments, including the superintendent and other personnel in attendance at the Project Site. Identify individuals and their duties and responsibilities. List their addresses and telephone numbers.
1. Post copies of the list in the Project meeting room, the temporary field office, and each temporary telephone.
- B. Supervision: Enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
1. Security: Protection and security measures required by the University are considered minimum requirements. Provide additional measures as necessary and appropriate to the hazards of this Project. Employ all measures necessary to ensure the security of the Project site. Security measures provided by the University do not relieve the Contractor from responsibility for site security and protection of the work as required by the Contract Documents.
  2. Watchman: The University will not be providing security services for the Project. During all hours that Work is not being prosecuted, including weekends and holidays, furnish such watchman's services as Contractor may consider necessary to safeguard materials and equipment in storage on the Project site, including Work in place or in process of fabrication, against theft, acts of malicious mischief, vandalism, and other losses or damages. The University will not be liable for any loss or damage.
  3. Security Enclosure and Lockup: Install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security.
    - a. Where materials and equipment must be stored, and are of value or attractive for theft, provide a secure lockup. Enforce discipline in connection with the installation and release of material to minimize the opportunity for theft and vandalism.

### 1.3. MAINTENANCE

- A. Maintain facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements. Conditions of Use: Keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Relocate temporary services and facilities if required, as the Work progresses. Do not overload facilities or permit them to interfere with progress. Take necessary fire-prevention measures. Do not allow hazardous, dangerous, or unsanitary conditions, or public nuisances to develop or persist on-site.
- B. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation, and similar facilities on a 24-hour basis where required to achieve indicated results and to avoid possibility of damage.
- C. Protection: Prevent water-filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.

### 1.4. FIELD OFFICES AND SHEDS

- A. Locate field offices, storage sheds, and other temporary construction and support facilities for easy access, and as approved by the University's Representative, within the area of the site designated as "Limits of Work".
- B. Materials
  - 1. General: Provide new materials. If acceptable to the University's Representative, the Contractor may use undamaged, previously used materials in serviceable condition. Provide materials suitable for use intended.
  - 2. Lumber and Plywood:
    - a. For job-built temporary offices, partitions, shops, and sheds within the construction area, provide UL-labeled, fire-treated lumber and plywood for framing, sheathing, and siding.
    - b. For signs and directory boards, provide exterior-type, Grade B-B high-density concrete form overlay plywood of sizes and thickness indicated.
    - c. For vision barriers, provide minimum 3/8-inch-(9.5-mm-) thick exterior plywood.
    - d. For safety barriers, sidewalk bridges, and similar uses, provide minimum 5/8-inch-(16-mm-) thick exterior plywood.
  - 3. Roofing Materials: Provide UL Class A standard-weight asphalt shingles or UL Class C mineral-surfaced roll roofing on roofs of job-built temporary offices, shops, and sheds.
  - 4. Paint:
    - a. For job-built temporary offices, shops, sheds, fences, and other exposed lumber and plywood, provide exterior-grade acrylic-latex emulsion over exterior primer.
    - b. For sign panels and applying graphics, provide exterior-grade alkyd gloss enamel over exterior primer.
  - 5. Tarpaulins: Provide waterproof, fire-resistant, UL-labeled tarpaulins with flame-spread rating of 15 or less. For temporary enclosures, provide translucent, nylon-reinforced, laminated polyethylene or polyvinyl chloride, fire-retardant tarpaulins.

6. Water: Provide potable water approved by local health authorities.
7. Open-Mesh Fencing: Contractor shall install temporary construction fencing, and shall maintain the fencing in good order for the duration of the project until Substantial Completion.

#### C. Equipment

1. General: Provide new equipment. If acceptable to the University's Representative, the Contractor may use undamaged, previously used equipment in serviceable condition. Provide equipment suitable for use intended.
2. Water Hoses: Provide ¾-inch (19-mm), heavy -duty, abrasion-resistant, flexible rubber hoses 100 feet (30 m) long, with pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable shutoff nozzles at hose discharge.
3. Electrical Outlets: Provide properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-Volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground fault circuit interrupters, reset button, and pilot light for connection of power tools and equipment.
4. Electrical Power Cords: Provide grounded extension cords. Use hard-service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.
5. Lamps and Light Fixtures: Provide general service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered-glass enclosures where exposed to breakage. Provide exterior fixtures where exposed to moisture.
6. Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM, or another recognized trade association related to the type of fuel being consumed.
7. Fire Extinguishers: Provide hand-carried, portable, UL-rated, Class A fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable, UL-rated, Class ABC, dry-chemical extinguishers or a combination of extinguishers of NFPA-recommended classes for the exposures.
  - a. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure.
  - b. Comply with requirements of authorities having jurisdiction.

### 1.5. FIRST AID FACILITIES

- A. First Aid Supplies: Provide types and quantities required by referenced standards, the University's Representative, and as prudent for the conditions existing for the Work.

### 1.6. SANITARY FACILITIES

- A. Maintenance of Septic Tanks: Septic tanks are required to serve the Contractor's management offices. The contractor shall provide maintenance services to remove effluent on a regularly scheduled basis.

1. Maintain temporary toilets and septic tanks in a clean, sanitary condition. Following heavy use, restore normal conditions promptly.

- B. Temporary Toilet Units: Provide self-contained, single-occupancy toilet units of the chemical, aerated re-circulation, or combustion type. Provide units properly vented and fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material. Use of existing University sanitary facilities will not be permitted.

### 1.7. STORAGE

- A. Contractor's use of the Project site for the Work and storage is restricted to the areas designated on the Drawings or as approved by University's Representative (See Construction Laydown Area below). This area shall not be used or fenced until all materials to complete the project are available for storage. Contractor shall get permission from the University representative before using this area. Use of mechanical and electrical rooms for storage of materials or furniture is prohibited.

- B. Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.

1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.

2. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.

3. Deliver products to the site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.

4. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.

5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.

6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.

- a. Concrete slabs on grade and suspended floors have not been designed for heavy loading.

- b. Slabs on Grade: Do not subject slabs on grade to excessive loading by shoring, storage of materials, or operation of construction equipment unless adequately protected by planking designed to safely distribute loads. Maintain slabs and repair or replace damaged slabs at no additional cost to the University.

- c. Suspended Floors: Do not subject suspended slabs to construction loads greater than 40 psf unless adequate shoring and protection is provided. Retain a civil or structural engineer experienced in shoring design and registered in the State of California to design necessary temporary support systems.
  - 7. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.
  - 8. Immediately remove from the site materials and equipment that are damaged or do not comply with requirements of the Contract Documents.
  - 9. When handling and moving materials and equipment, protect all finished surfaces.
- C. Keep copies of manufacturer's specifications and instructions on site and available for reference.

#### 1.8. TERMINATION AND REMOVAL

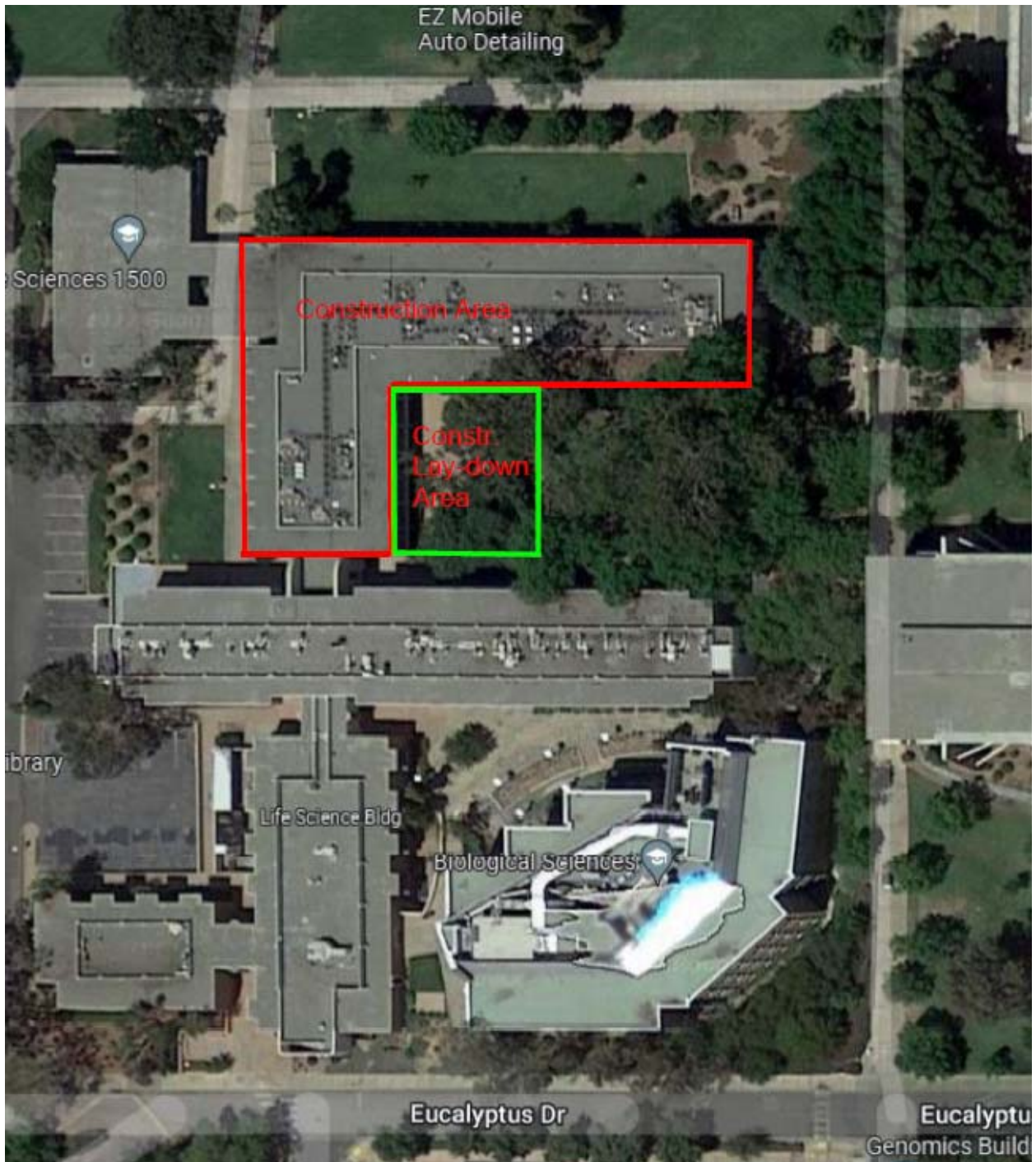
- A. Remove each temporary facility when the need has ended, when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.
- B. Materials and facilities that constitute temporary facilities are the Contractor's property. The University reserves the right to take possession of project identification signs.
- C. Repair or replace street paving, curbs, and sidewalks damaged by construction traffic.
- D. At Substantial Completion, clean and renovate any permanent facilities used during the construction period.
- E. After removal of temporary facilities, Contractor shall repair/replace all damaged concrete or brick. Space should be restored to original condition.

Contractor shall reinstall and/or repair any removed landscaping/irrigation on areas utilized during the construction period.

#### 1.9. **CONSTRUCTION LAY-DOWN AREA**

**Construction Laydown area shown below is diagrammatic. Contractor shall install fence in the concrete area in such a way that keeps pedestrian access to the basement and to the back of the building. Also, it should keep access to the bike racks.**





**Construction Lay-down Area**

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

### LIST OF DRAWINGS

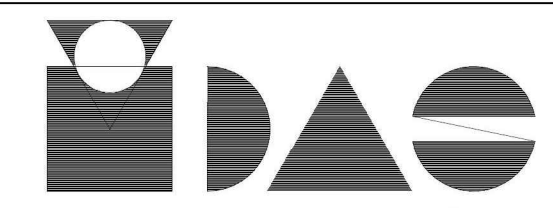
SHEET NO.	TITLE	DATE
G0.1	TITLE SHEET	02/02/22
A0.1	(E) ROOF PLAN, SELECTIVE DEMOLITION	02/02/22
A0.2	(E) EXISTING PARTIAL BASEMENT FLOOR PLAN	02/02/22
A0.3	(E ) EXISTING PARTIAL 1 <sup>ST</sup> FLOOR PLAN	02/02/22
A0.4	(E ) EXISTING PARTIAL 2 <sup>ND</sup> FLOOR PLAN	02/02/22
A0.5	(N) ROOF PLAN	02/02/22
A0.6	DETAILS, NOTES AND SYMBOLS	02/02/22
S0.1	GENERAL NOTES	02/02/22
S2.1	ROOF FRAMING PLAN	02/02/22
S5.1	STRUCTURAL DETAILS	02/02/22
M0.1	SYMBOLS, DESIGNATION & ABBREVIATION	02/02/22
M0.2	MECHANICAL SCHEDULES	02/02/22
M1.1	FIRST FLOOR MECHANICAL PLAN	02/02/22
M1.2	SECOND FLOOR MECHANICAL PLAN	02/02/22
M1.3	ROOF MECHANICAL DEMOLITION PLAN	02/02/22
M2.3	ROOF MECHANICAL RECONSTRUCTION PLAN	02/02/22
M5.1	EXHAUST AIRFLOW DIAGRAM	02/02/22
M5.2	MECHANICAL DETAILS	02/02/22
M5.3	MECHANICAL DETAILS	02/02/22
M5.4	MECHANICAL DETAILS	02/02/22
E0.1	SYMBOLS, DESIGNATIONS AND ABBREVIATIONS	02/02/22 <u>04/18/22</u> <b>Addendum 2</b>
E1.0	BASEMENT POWER DEMOLITION PLAN	02/02/22 <u>04/18/22</u> <b>Addendum 2</b>
E1.1	FIRST FLOOR POWER PLAN	02/02/22
E1.2	SECOND FLOOR POWER PLAN	02/02/22
E1.3	ROOF POWER DEMOLITION PLAN	02/02/22 <u>04/18/22</u> <b>Addendum 2</b>
E2.1	BASEMENT POWER RECONSTRUCTION PLAN	02/02/22 <u>04/18/22</u> <b>Addendum 2</b>
E2.4	ROOF POWER RECONSTRUCTION PLAN	02/02/22
E5.1	ELECTRICAL DETAILS	02/02/22
E6.1	SINGLE LINE DIAGRAM (DEMOLITION)	02/02/22 <u>04/18/22</u> <b>Addendum 2</b>
E6.2	SINGLE LINE DIAGRAM (RECONSTRUCTION)	02/02/22 <u>04/18/22</u> <b>Addendum 2</b>

END OF LIST OF DRAWINGS





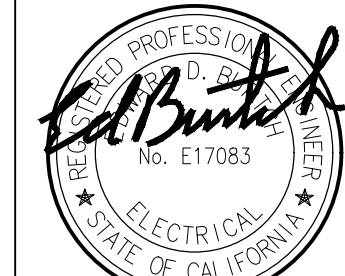
OFFICE OF PLANNING DESIGN & CONSTRUCTION  
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Tel: (951) 342-3135 Fax: (951) 342-3137

Architect's Data:

FILE NO.: 120-07-05



Architect's Stamp:

Consultants Stamp:

PROJECT TITLE  
**UCR SPIETH ROOF REPLACEMENT & MECHANICAL UPGRADE 100% CD - BUILDING PERMIT**

Table with 3 columns: REV #, DESCRIPTION, DATE. Includes entries for PLAN REVIEW and ADDENDUM #1.

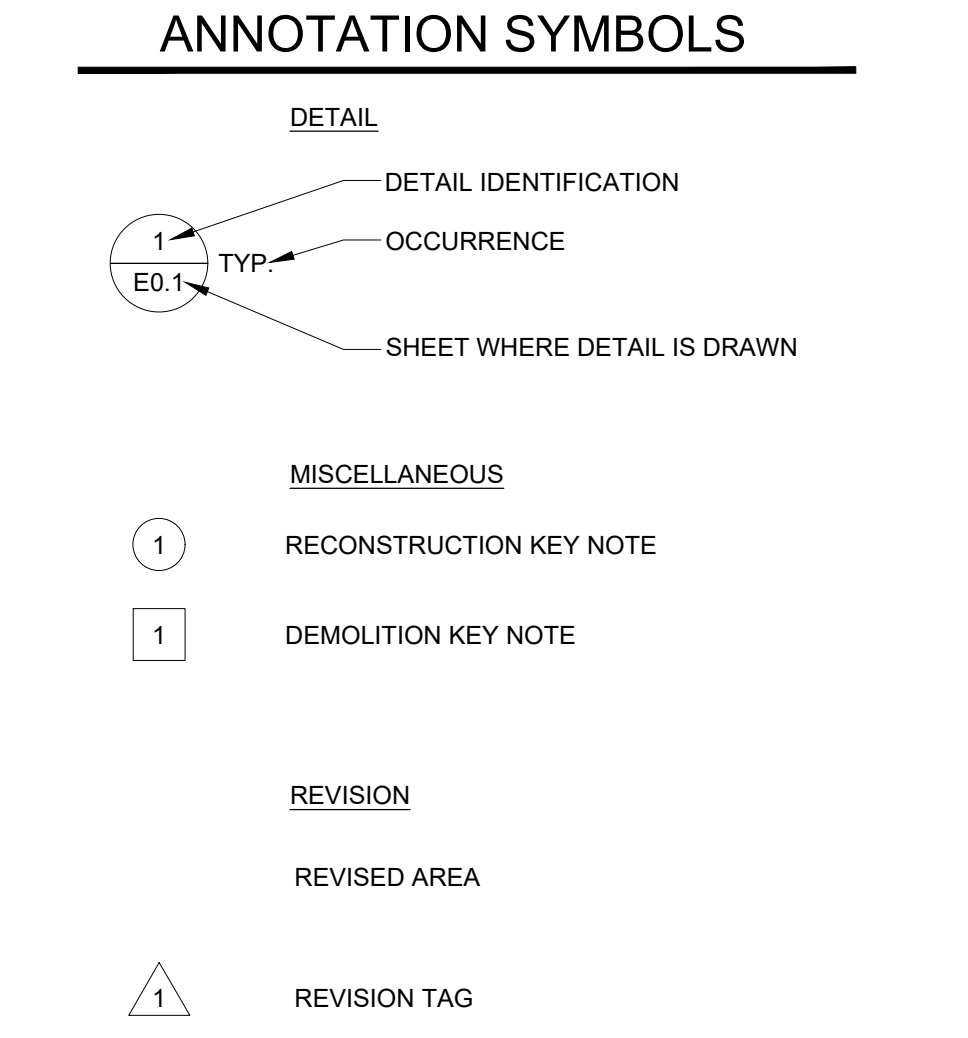
GOSS ENGINEERING  
255 East Rincon St., Suite 301  
Corona, CA 92879  
P 951.340.1977 | F 951.340.1090  
www.gossengineering.com

Consultants Data:  
Project Title  
**UCR SPIETH ROOF REPLACEMENT & MECHANICAL UPGRADE 100% CD ISSUED DATE: 02/02/22**

Table with 2 columns: Role, Name. Lists project manager FERNANDO CANON and other roles.

Drawing Name: **SYMBOLS, DESIGNATION AND ABBREVIATIONS**  
Sheet No.: **E0.1**  
OF

**WORK SEQUENCE**  
ELECTRICAL AND MECHANICAL WORKS FOR THE PROJECT SHALL BE IN PHASES.  
REFER TO PROJECT SPECIFICATIONS, DIVISION 1, SECTION 01014, FOR WORK SEQUENCE OR PHASING AND ADDITIONAL INFORMATION. THE ELECTRICAL CONTRACTOR SHALL ADHERE TO THE STATED SPECIFICATION SECTION AND ALL WORKS SHALL BE COORDINATED WITH MECHANICAL DRAWINGS.



**GENERAL NOTES**

- 1. ELECTRICAL CONTRACTOR SHALL PERFORM ELECTRICAL INSTALLATION WORK IN CONFORMANCE WITH THE 2019 EDITION OF THE CALIFORNIA ELECTRICAL CODE (CEC) AND ALL APPLICABLE CODES, ORDINANCES, REGULATIONS AND UNIVERSITY'S STANDARDS.
- 2. CONDUIT ROUTING AND OUTLET LOCATION AS SHOWN ON THE ELECTRICAL POWER PLAN ARE DIAGRAMMATIC IN NATURE. VERIFY FEASIBILITY OF THE INSTALLATION BEFORE COMMENCING THE JOB. ANY OBSERVATIONS TO THE EXECUTION OF THE WORK SHALL BE BROUGHT TO THE ATTENTION OF THE UNIVERSITY'S REPRESENTATIVE IMMEDIATELY.
- 3. PER SPECIFICATION SECTION "CONDUCTORS AND CABLES" a. CONDUCTOR MATERIAL APPLICATIONS: a.1 FEEDERS: COPPER, STRANDED FOR NO. 10 AWG AND LARGER a.2 BRANCH CIRCUITS: COPPER, STRANDED FOR NO. 10 AWG AND LARGER b. CONDUCTOR INSULATION AND MULTI-CONDUCTOR CABLE APPLICATIONS AND WIRING METHODS: b.1 BRANCH CIRCUITS CONCEALED IN CEILINGS, WALLS AND PARTITIONS: TYPE THHN-2-THWN-2, SINGLE CONDUCTORS IN RACEWAYS. b.2 BRANCH CIRCUITS CONCEALED IN CONCRETE, BELOW SLABS-ON-GRADE, AND UNDERGROUND: TYPE THHN-2-THWN-2, SINGLE CONDUCTORS IN RACEWAYS.
- 4. COORDINATE ALL WORK WITH OTHER CONSTRUCTION. NOTIFY THE UNIVERSITY'S REPRESENTATIVE OF ANY UNRESOLVED ISSUES THAT MAY DELAY INSTALLATION OF WORK.
- 5. MAINTAIN PROPER WORKING SPACE PER CALIFORNIA ELECTRICAL CODE (CEC), PARAGRAPH 110-26.
- 6. PROVIDE NECESSARY HARDWARE AND SUPPORTS AS REQUIRED FOR ELECTRICAL CONDUIT/WIRE NOT SCHEDULED FOR DEMOLITION PER CALIFORNIA ELECTRICAL CODE (CEC), PARAGRAPH 110-12.
- 7. CONNECTIONS TO VIBRATING EQUIPMENT AND SEISMIC SEPARATIONS: • LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN DRY INTERIOR LOCATIONS. • LIQUID-TIGHT FLEXIBLE STEEL CONDUIT IN AREAS EXPOSED TO WEATHER, DAMP LOCATIONS, CONNECTIONS TO TRANSFORMER ENCLOSURES, AND FINAL CONNECTIONS TO MOTORS. PROVIDE A SEPARATE INSULATED EQUIPMENT GROUNDING CONDUCTOR IN FLEXIBLE CONDUIT RUNS. MAXIMUM LENGTH SHALL BE SIX FEET UNLESS OTHERWISE NOTED.
- 8. EQUIPMENT OUTLETS, LIGHTING FIXTURES, CONDUIT, WIRE, AND CONNECTION METHODS IN HVAC AIR-PLenums SHALL BE APPROVED FOR USE IN PLENUMS AND SHALL CONFORM TO THE CEC.
- 9. ROUTE EXPOSED CONDUIT AND CONDUIT ABOVE ACCESSIBLE CEILING SPACES PARALLEL AND PERPENDICULAR TO WALLS AND ADJACENT PIPING. ARRANGE CONDUIT TO MAINTAIN HEADROOM AND TO PRESENT A NEAT APPEARANCE.
- 10. WHENEVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, GROUND FAULT PROTECTION SYSTEMS, ETC. (ALL MATERIALS), ARISES ON THE DRAWINGS OR SPECIFICATIONS, PROVIDE AND INSTALL ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS TO ENSURE COMPLETE AND OPERABLE SYSTEMS.
- 11. ALL RECESSED LIGHTING FIXTURES, SPEAKERS, RECEPTACLES, SWITCHES, ETC., MOUNTED IN THE FIRE RATED CEILINGS OR WALLS SHALL BE ENCLOSED WITH AN APPROVED ENCLOSURE CARRYING THE SAME FIRE RATING AS THE CEILING OR WALL.

**APPLICABLE STANDARDS**

2019 CALIFORNIA BUILDING CODE (CBC) PART 2, VOLUMES 1 AND 2, TITLE 24 (BASED ON 2018 INTERNATIONAL BUILDING CODE)  
2019 CALIFORNIA ELECTRIC CODE (CEC) PART 3, TITLE 24 (BASED ON 2017 NATIONAL ELECTRIC CODE)  
2019 CALIFORNIA MECHANICAL CODE (CMC) PART 4, TITLE 24 (BASED ON 2018 UNIFORM MECHANICAL CODE)  
2019 CALIFORNIA PLUMBING CODE (CPC) PART 5, TITLE 24 (BASED ON 2018 UNIFORM PLUMBING CODE)  
2019 CALIFORNIA FIRE CODE (CFC) PART 9, TITLE 24 (BASED ON 2018 INTERNATIONAL FIRE CODE)  
2019 CALIFORNIA ENERGY CODE PART 6, TITLE 24  
2019 CALIFORNIA REFERENCED STANDARD CODE PART 12, TITLE 24  
TITLE 19, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS  
PARTIAL LIST OF APPLICABLE NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARDS  
NFPA 13, 2019 EDITION - INSTALLATION OF SPRINKLER SYSTEMS (AMENDED BY CSFM)  
NFPA 14, 2019 EDITION - INSTALLATION OF STANDPIPE AND HOSE SYSTEMS (AMENDED BY CSFM)  
NFPA 17A, 2017 EDITION - WET CHEMICAL EXTINGUISHING SYSTEMS  
NFPA 24, 2019 EDITION - INSTALLATION OF PRIVATE FIRE SERVICE MAINS (AMENDED BY CSFM)  
NFPA 25, (2017 CALIFORNIA EDITION, BASED ON NFPA 25, 2011 EDITION) - INSPECTION, TESTING, & MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS  
NFPA 72, 2019 EDITION - NATIONAL FIRE ALARM AND SIGNALING CODE (AMENDED BY CSFM)  
NFPA 80, 2019 EDITION - FIRE DOORS AND OTHER OPENING PROTECTIVES  
REFER TO CBC CHAPTER 35 FOR ADDITIONAL STANDARDS NOT PROVIDED ON THIS LIST

**ABBREVIATIONS**

Table with 2 columns: Abbreviation, Description. Lists terms like AMPERE, BREAKER, CONDUIT, DISCONNECT, etc.

**LEGEND**

Table with 2 columns: ELECTRICAL SYMBOL, DESCRIPTION. Lists symbols for JUNCTION BOX WITH COVER, RACEWAY TRANSITION BOX OR CONNECTION POINT, etc.

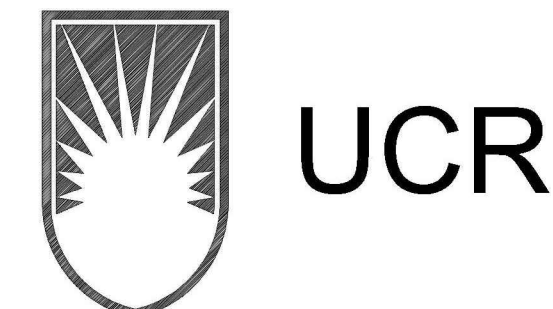
**LINE TYPES**

Table with 2 columns: Line Type, Description. Lists line types for WIRING SYSTEM ABOVE FLOOR LEVEL, WIRING SYSTEM IN OR UNDER FLOOR OR CONCEALED IN OR BEHIND STRUCTURE OR EQUIPMENT, etc.

**LEGEND**

Table with 2 columns: ELECTRICAL SYMBOL, DESCRIPTION. Lists symbols for SWITCH, FUSE, FUSED DISCONNECT SWITCH, COMBINATION MOTOR STARTER/DISCONNECT SWITCH, DISCONNECT SWITCH (NON-FUSED), DISCONNECT SWITCH (FUSED), RECESSED PANELBOARD, SURFACE MOUNTED PANELBOARD, DISTRIBUTION BOARD, GROUND CONNECTION, GROUND BUS BAR, MOTOR, CONDUIT types, DUPLEX RECEPTACLE, GFCI DUPLEX RECEPTACLE, SINGLE CIRCUIT DEDICATED OUTLET, DOUBLE DUPLEX (QUAD) RECEPTACLE, DEDICATED DUPLEX RECEPTACLE, DEDICATED GFCI DUPLEX RECEPTACLE, DOUBLE DUPLEX (QUAD) RECEPTACLE, 208V RECEPTACLE, CEILING MOUNTED DUPLEX RECEPTACLE.

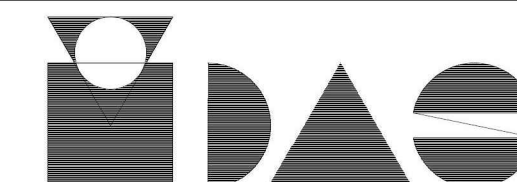




UNIVERSITY OF CALIFORNIA RIVERSIDE

OFFICE OF PLANNING DESIGN & CONSTRUCTION

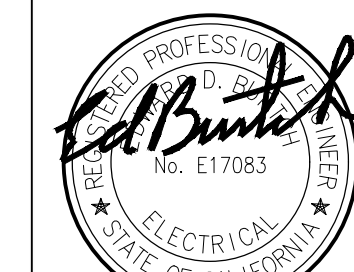
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Architect's Date:

FILE NO.: 120-07-05



Architect's Stamp:

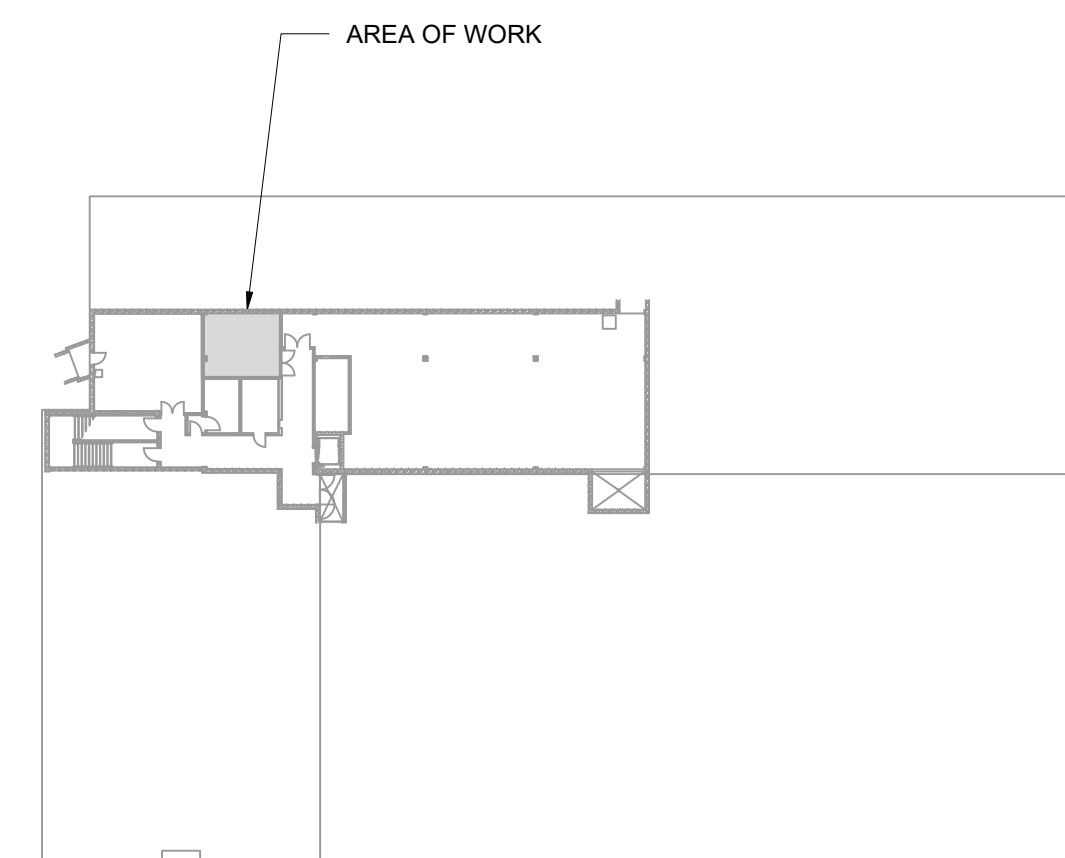
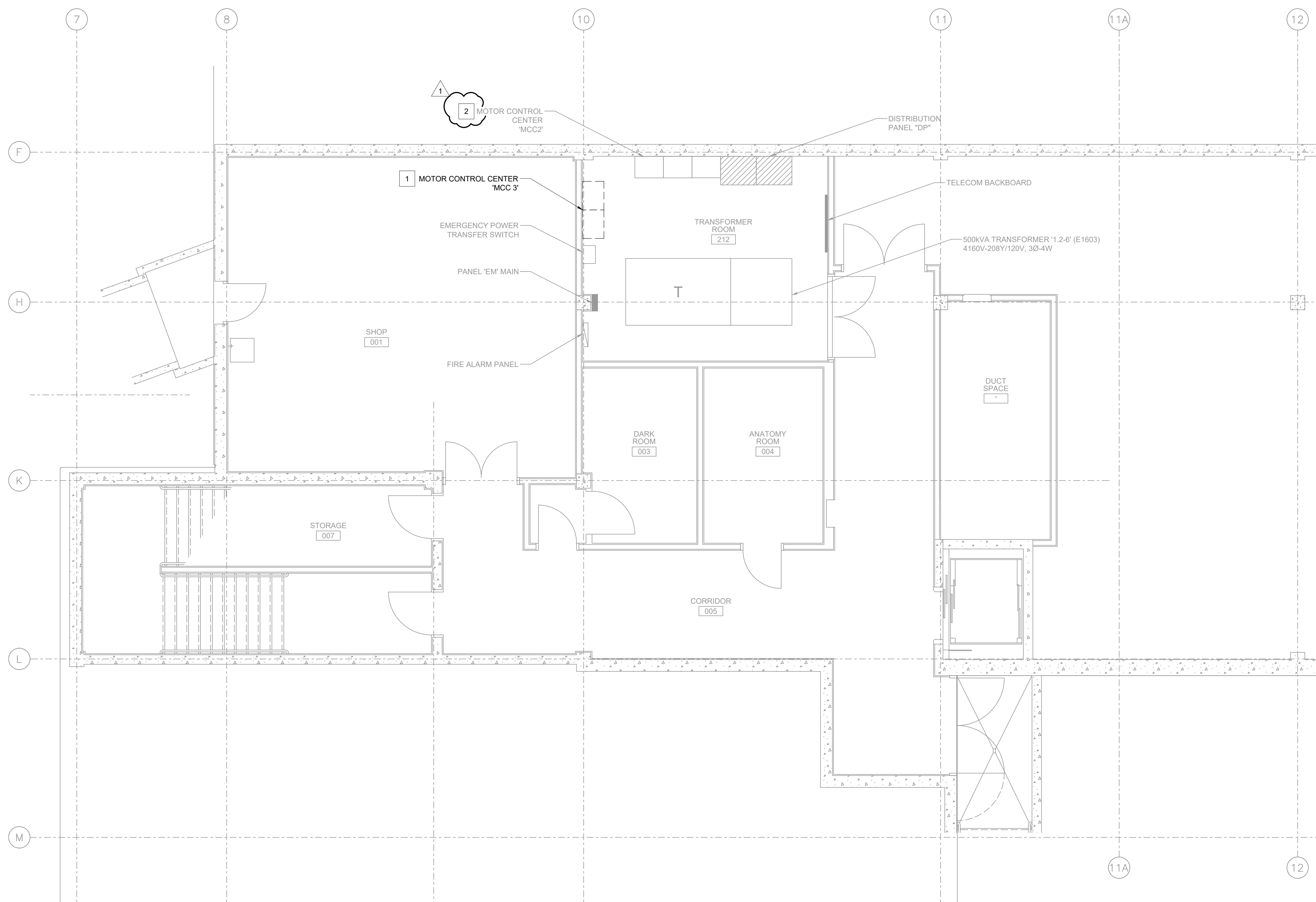
Consultants Stamp:

GENERAL NOTES:

- 1. ELECTRICAL ENGINEERING FOR THIS PROJECT IS BASED ON EXISTING DRAWINGS DATED JULY 29, 1957, AND A FIELD VISIT OF THE ELECTRICAL SYSTEM. IN CASE OF ANY DISCREPANCIES WITH EXISTING FIELD CONDITIONS, ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT DIFFERENCES AND NOTIFY THE ELECTRICAL ENGINEER FOR POSSIBLE REVISION TO THESE DOCUMENTS.
- 2. ANY ELECTRICAL AND/OR SIGNAL UTILITY SHUTDOWNS WITHIN THE AREA OF WORK SHALL BE COORDINATED AND SCHEDULED IN ADVANCE WITH THE UNIVERSITY'S REPRESENTATIVE.

DEMOLITION NOTES:

- 1 EXISTING MOTOR CONTROL CENTER "MCC 3" TO BE DEMOLISHED. DEMOLITION WORKS ON EXISTING "MCC 3" SHALL ONLY COMMENCE AFTER THE NEW DISTRIBUTION BOARD "DP-1" IS OPERATIONAL, AND THAT ALL MECHANICAL EQUIPMENT SERVED BY THE EXISTING "MCC 3" ARE COMPLETELY DECOMMISSIONED OR DISCONNECTED. SEE WORK SEQUENCE, ON SHEET E0.1, AND SINGLE LINE DIAGRAM ON SHEET E6.1 FOR MORE INFORMATION.
- 2 EXISTING MOTOR CONTROL CENTER "MCC 2" TO REMAIN AND BE PROTECTED -IN-PLACE.



LEGEND:  
 - - - - - REMOVE/DEMOLISH  
 \_\_\_\_\_ EXISTING

PROJECT TITLE  
**UCR**  
**SPIETH ROOF REPLACEMENT & MECHANICAL UPGRADE**  
**100% CD - BUILDING PERMIT**

REVISIONS

REV #	DESCRIPTION	DATE
A	PLAN REVIEW	12/15/21
B	PLAN REVIEW	01/31/22
1	ADDENDUM #1. WORK SEQUENCE.	04/18/22

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Consultants Data:  
 Project Title  
**UCR**  
**SPIETH ROOF REPLACEMENT & MECHANICAL UPGRADE**  
 100% CD ISSUED DATE: 02/02/22  
 UCR project manager  
**FERNANDO CANON**

scale	AS NOTED	sd approval	N/A
Drawn by	A. PEREZ	dd approval	EDB
Checked by	E. BURTON	cd approval	EDB
UCR project no.	950599	construction release	
CANN no.	P5323		

**1** BASEMENT POWER DEMOLITION PLAN

1/4"=1'-0"

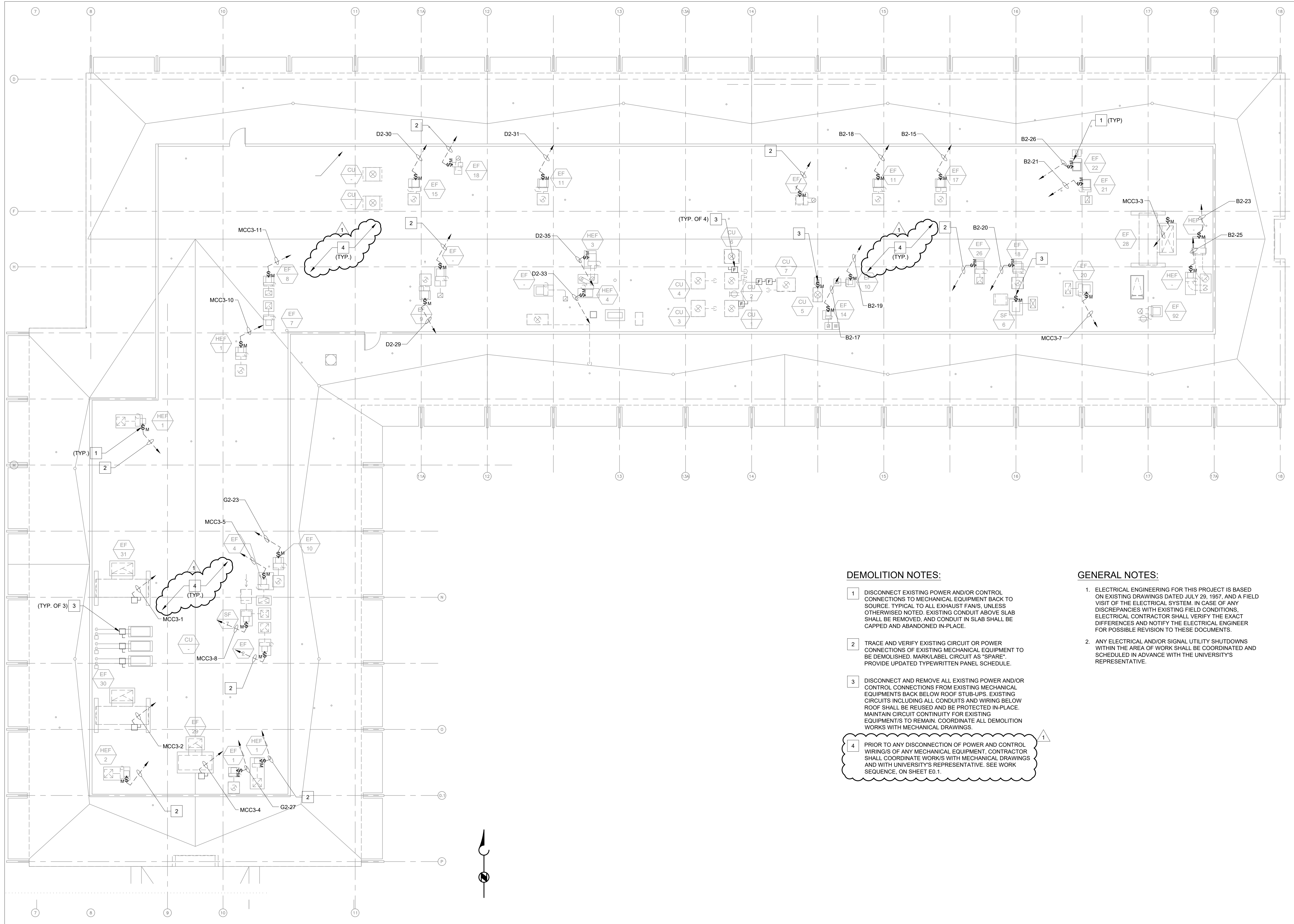
**0** KEY PLAN

N.T.S.

Drawing Name  
**BASEMENT POWER DEMOLITION PLAN**

Sheet No.  
**E1.0**  
OF

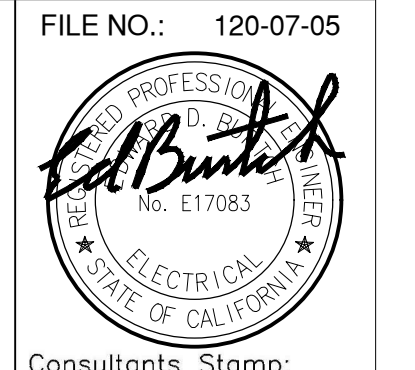




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 Architect's Date: FILE NO.: 120-07-05  
 Architect's Stamp: Consultants Stamp:



PROJECT TITLE  
**UCR  
 SPIETH ROOF REPLACEMENT  
 & MECHANICAL UPGRADE  
 100% CD - BUILDING PERMIT**

REV #	DESCRIPTION	DATE
A	PLAN REVIEW	12/15/21
B	PLAN REVIEW	01/31/22
1	ADDENDUM #1. WORK SEQUENCE.	04/18/22

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Project Title <b>UCR SPIETH ROOF REPLACEMENT &amp; MECHANICAL UPGRADE 100% CD ISSUED DATE: 02/02/22</b>	
UCR project manager <b>FERNANDO CANON</b>	
scale	AS NOTED sd approval N/A
Drawn by	A. PEREZ cd approval EDB
Checked by	E. BURCH cd approval EDB
UCR project no.	950599 construction release
CANN no.	P5323

Drawing Name: **ROOF POWER DEMOLITION PLAN** Sheet No. **E1.3**  
 OF

**DEMOLITION NOTES:**

- DISCONNECT EXISTING POWER AND/OR CONTROL CONNECTIONS TO MECHANICAL EQUIPMENT BACK TO SOURCE. TYPICAL TO ALL EXHAUST FAN/S, UNLESS OTHERWISE NOTED. EXISTING CONDUIT ABOVE SLAB SHALL BE REMOVED, AND CONDUIT IN SLAB SHALL BE CAPPED AND ABANDONED IN-PLACE.
- TRACE AND VERIFY EXISTING CIRCUIT OR POWER CONNECTIONS OF EXISTING MECHANICAL EQUIPMENT TO BE DEMOLISHED. MARK LABEL CIRCUIT AS "SPARE". PROVIDE UPDATED TYPEWRITTEN PANEL SCHEDULE.
- DISCONNECT AND REMOVE ALL EXISTING POWER AND/OR CONTROL CONNECTIONS FROM EXISTING MECHANICAL EQUIPMENTS BACK BELOW ROOF STUB-UPS. EXISTING CIRCUITS INCLUDING ALL CONDUITS AND WIRING BELOW ROOF SHALL BE REUSED AND BE PROTECTED IN-PLACE. MAINTAIN CIRCUIT CONTINUITY FOR EXISTING EQUIPMENTS TO REMAIN. COORDINATE ALL DEMOLITION WORKS WITH MECHANICAL DRAWINGS.
- PRIOR TO ANY DISCONNECTION OF POWER AND CONTROL WIRINGS OF ANY MECHANICAL EQUIPMENT, CONTRACTOR SHALL COORDINATE WORKS WITH MECHANICAL DRAWINGS AND WITH UNIVERSITY'S REPRESENTATIVE. SEE WORK SEQUENCE, ON SHEET E0.1.

**GENERAL NOTES:**

- ELECTRICAL ENGINEERING FOR THIS PROJECT IS BASED ON EXISTING DRAWINGS DATED JULY 29, 1957, AND A FIELD VISIT OF THE ELECTRICAL SYSTEM. IN CASE OF ANY DISCREPANCIES WITH EXISTING FIELD CONDITIONS, ELECTRICAL CONTRACTOR SHALL VERIFY THE EXACT DIFFERENCES AND NOTIFY THE ELECTRICAL ENGINEER FOR POSSIBLE REVISION TO THESE DOCUMENTS.
- ANY ELECTRICAL AND/OR SIGNAL UTILITY SHUTDOWNS WITHIN THE AREA OF WORK SHALL BE COORDINATED AND SCHEDULED IN ADVANCE WITH THE UNIVERSITY'S REPRESENTATIVE.

**1** **ROOF POWER DEMOLITION PLAN**  
 1/8"=1'-0"

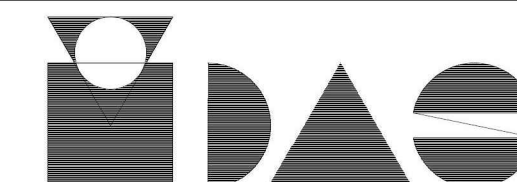




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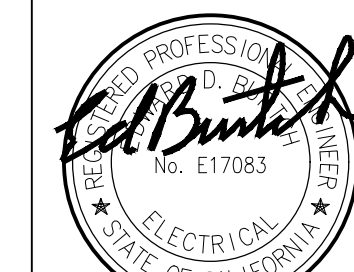
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Architect's Data:

FILE NO.: 120-07-05



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Consultants Stamp:

PROJECT TITLE  
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**SPIETH ROOF REPLACEMENT**  
**& MECHANICAL UPGRADE**  
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REVISIONS		
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 UCR project manager  
**FERNANDO CANON**

scale	AS NOTED	sd approval	N/A
Drawn by	A. PEREZ	dd approval	EDB
Checked by	E. BURCH	cd approval	EDB
UCR project no.	950599	construction release	
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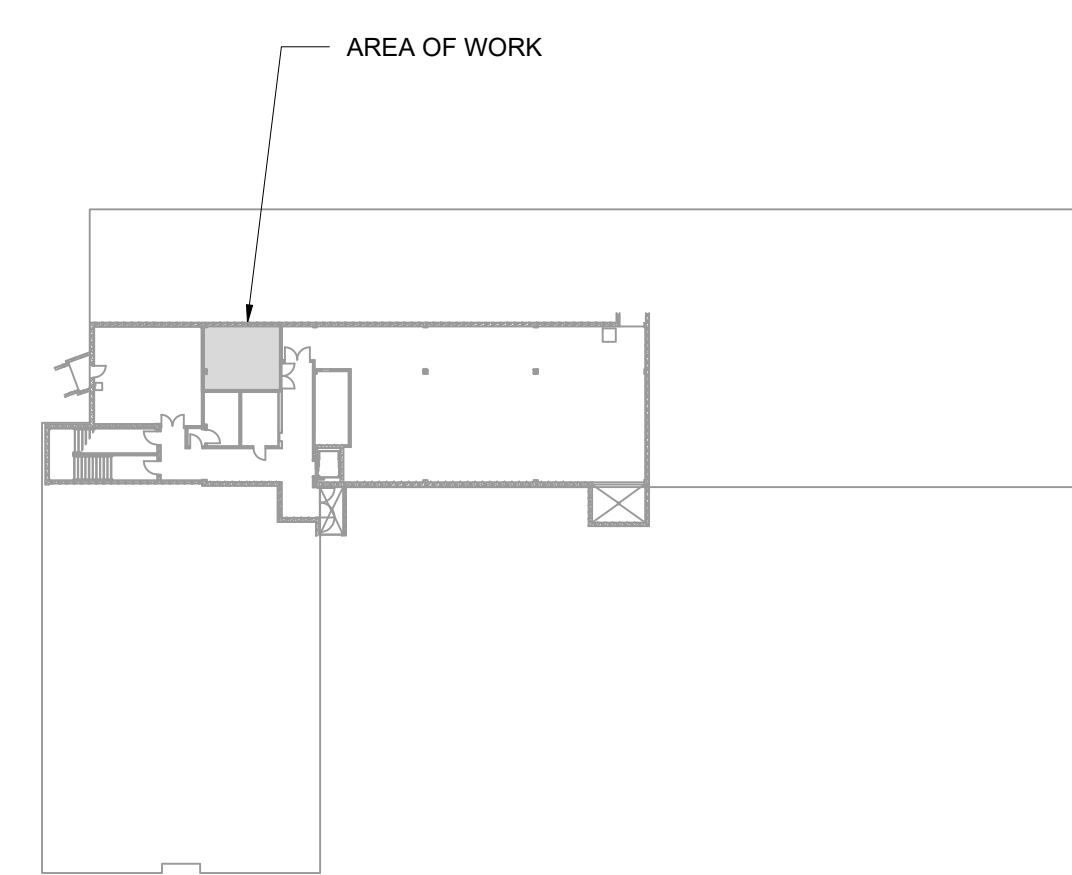
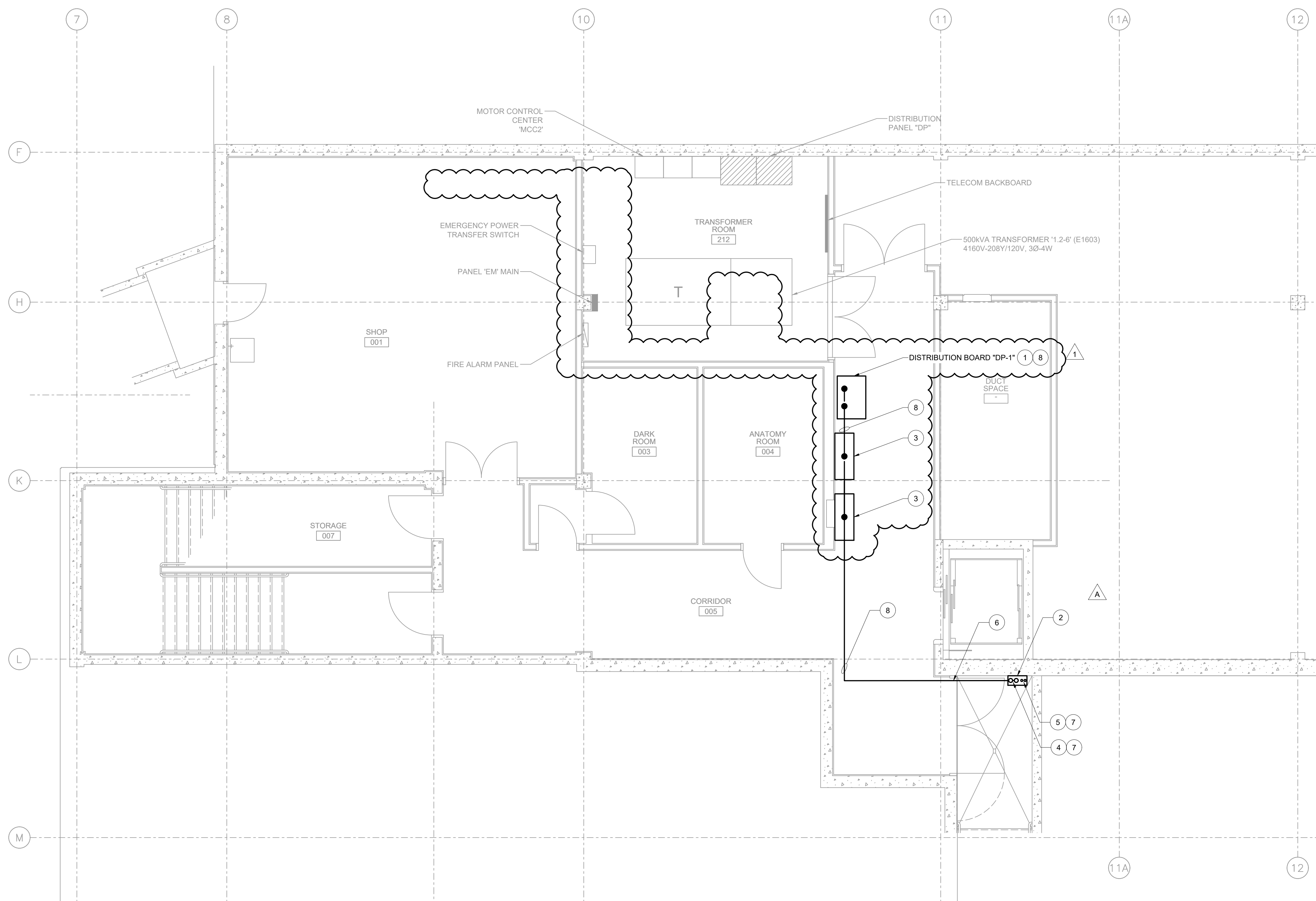
Drawing Name  
**BASEMENT POWER**  
**RECONSTRUCTION PLAN**  
 Sheet No.  
**E2.1**  
 OF

**GENERAL NOTES:**

1. THE EXISTING BUILDING INCLUDING PORTIONS OF THE RENOVATED AREA SHALL REMAIN IN SERVICE DURING THE CONSTRUCTION PHASE OF THIS PROJECT. ANY MODIFICATIONS TO THE EXISTING ELECTRICAL SYSTEMS THAT MAY REQUIRE THE TEMPORARY INTERRUPTION OF EXISTING SERVICES SHALL BE COORDINATED AND PRE-SCHEDULED WITH THE UNIVERSITY'S REPRESENTATIVE PRIOR TO STARTING ANY WORK.

**RECONSTRUCTION NOTES:**

- 1 NEW DISTRIBUTION BOARD "DP-1".
- 2 PROVIDE A 16" x 16" x 6" PULLBOX. SEE SPECIFICATIONS FOR ENCLOSURE TYPE.
- 3 NEW VFD, INSTALLED AND/OR MOUNTED BY MECHANICAL. WIRING TERMINATION BY ELECTRICAL. SEE SINGLE LINE DIAGRAM ON SHEET E6.2 FOR MORE INFORMATION. COORDINATE WORKS WITH MECHANICAL DRAWINGS.
- 4 (2) 2" C TO RISE UP TO ROOF LEVEL FOR EXHAUST FAN'S POWER CONDUCTORS. SEE SINGLE LINE DIAGRAM ON SHEET E6.2 FOR MORE INFORMATION.
- 5 (2) 3/4" C TO RISE UP TO ROOF LEVEL FOR EXHAUST FAN'S DISCONNECT SWITCH CONDUCTORS BACK TO THE NEW VFD'S.
- 6 SEE DETAIL 3 ON SHEET E5.1. EXTERIOR CONDUIT/S SHALL BE PAINTED TO MATCH EXISTING EXTERIOR WALL FINISH.
- 7 SEE DETAIL 1 ON SHEET E5.1. EXTERIOR CONDUIT/S SHALL BE PAINTED TO MATCH EXISTING EXTERIOR WALL FINISH. SEE SHEET E2.4 FOR CONTINUATION.
- 8 SEE SINGLE LINE DIAGRAM ON SHEET E6.2 FOR MORE INFORMATION.

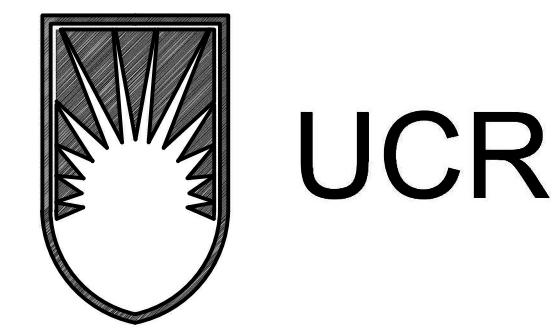


**LEGEND:**  
 — NEW  
 - - - EXISTING

**1**  
**BASEMENT POWER RECONSTRUCTION PLAN**  
 1/8" = 1'-0"

**0**  
**KEY PLAN**  
 N.T.S.

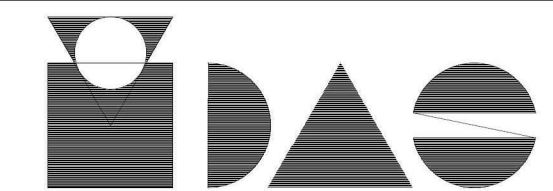




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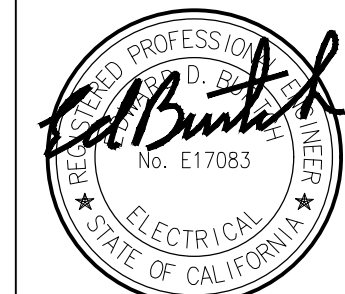
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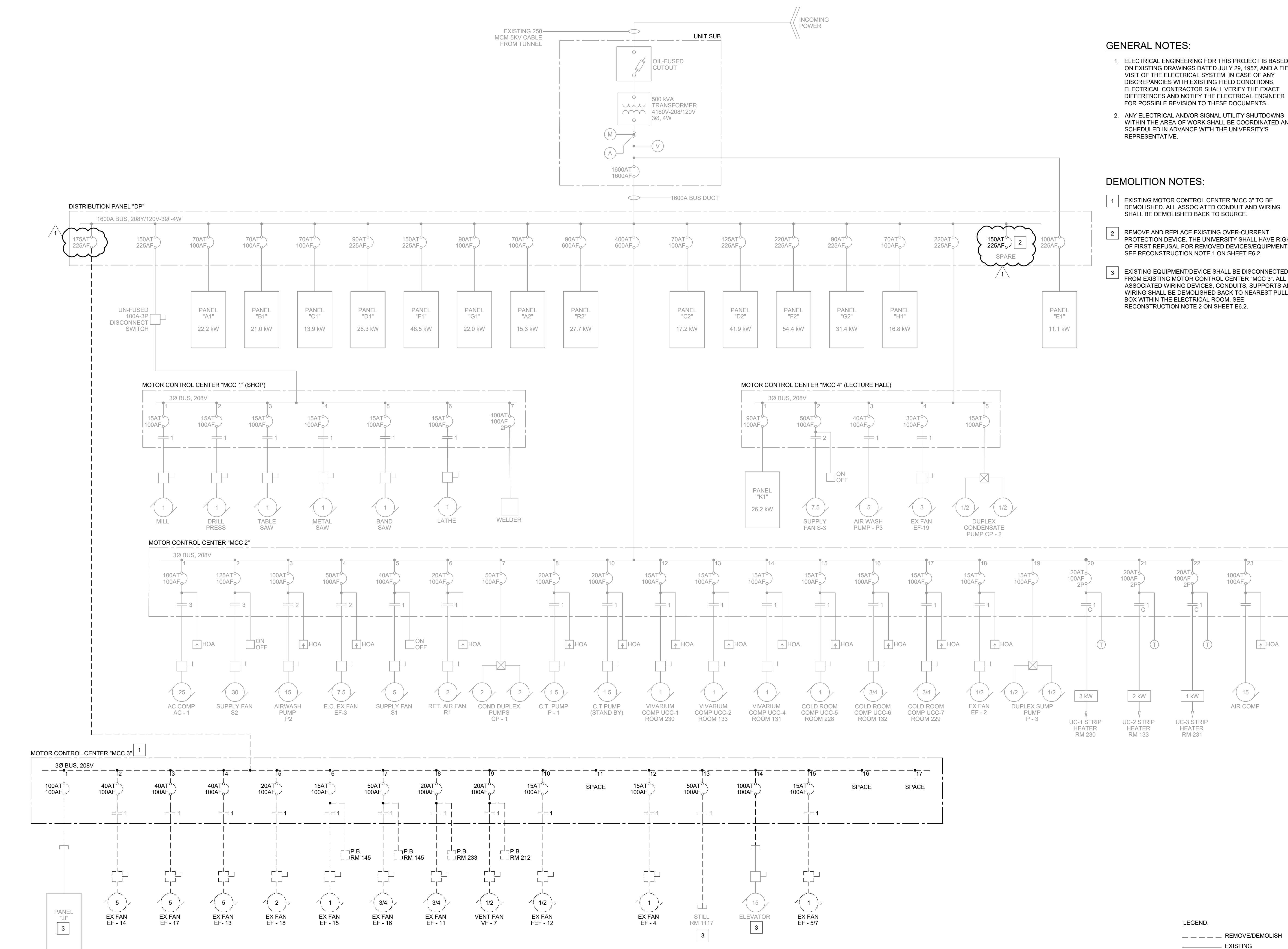
Consultants Stamp:

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2. ANY ELECTRICAL AND/OR SIGNAL UTILITY SHUTDOWNS WITHIN THE AREA OF WORK SHALL BE COORDINATED AND SCHEDULED IN ADVANCE WITH THE UNIVERSITY'S REPRESENTATIVE.

**DEMOLITION NOTES:**

1. EXISTING MOTOR CONTROL CENTER "MCC 3" TO BE DEMOLISHED. ALL ASSOCIATED CONDUIT AND WIRING SHALL BE DEMOLISHED BACK TO SOURCE.
2. REMOVE AND REPLACE EXISTING OVER-CURRENT PROTECTION DEVICE. THE UNIVERSITY SHALL HAVE RIGHT OF FIRST REFUSAL FOR REMOVED DEVICES/EQUIPMENTS. SEE RECONSTRUCTION NOTE 1 ON SHEET E6.2.
3. EXISTING EQUIPMENT/DEVICE SHALL BE DISCONNECTED FROM EXISTING MOTOR CONTROL CENTER "MCC 3". ALL ASSOCIATED WIRING DEVICES, CONDUITS, SUPPORTS AND WIRING SHALL BE DEMOLISHED BACK TO NEAREST PULL BOX WITHIN THE ELECTRICAL ROOM. SEE RECONSTRUCTION NOTE 2 ON SHEET E6.2.



PROJECT TITLE  
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UCR project manager	FERNANDO CANON		
scale	AS NOTED	sd approval	N/A
Drawn by	A. PEREZ	dd approval	EDB
Checked by	E. BURTCHE	cd approval	EDB
UCR project no.	950599	construction release	
CANN no.	P5323		

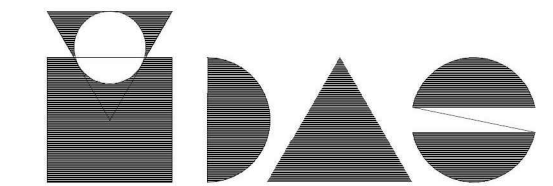




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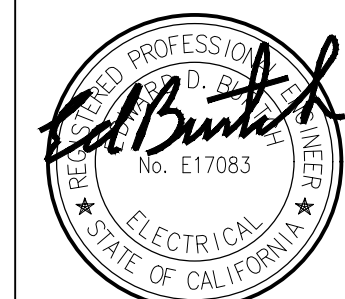
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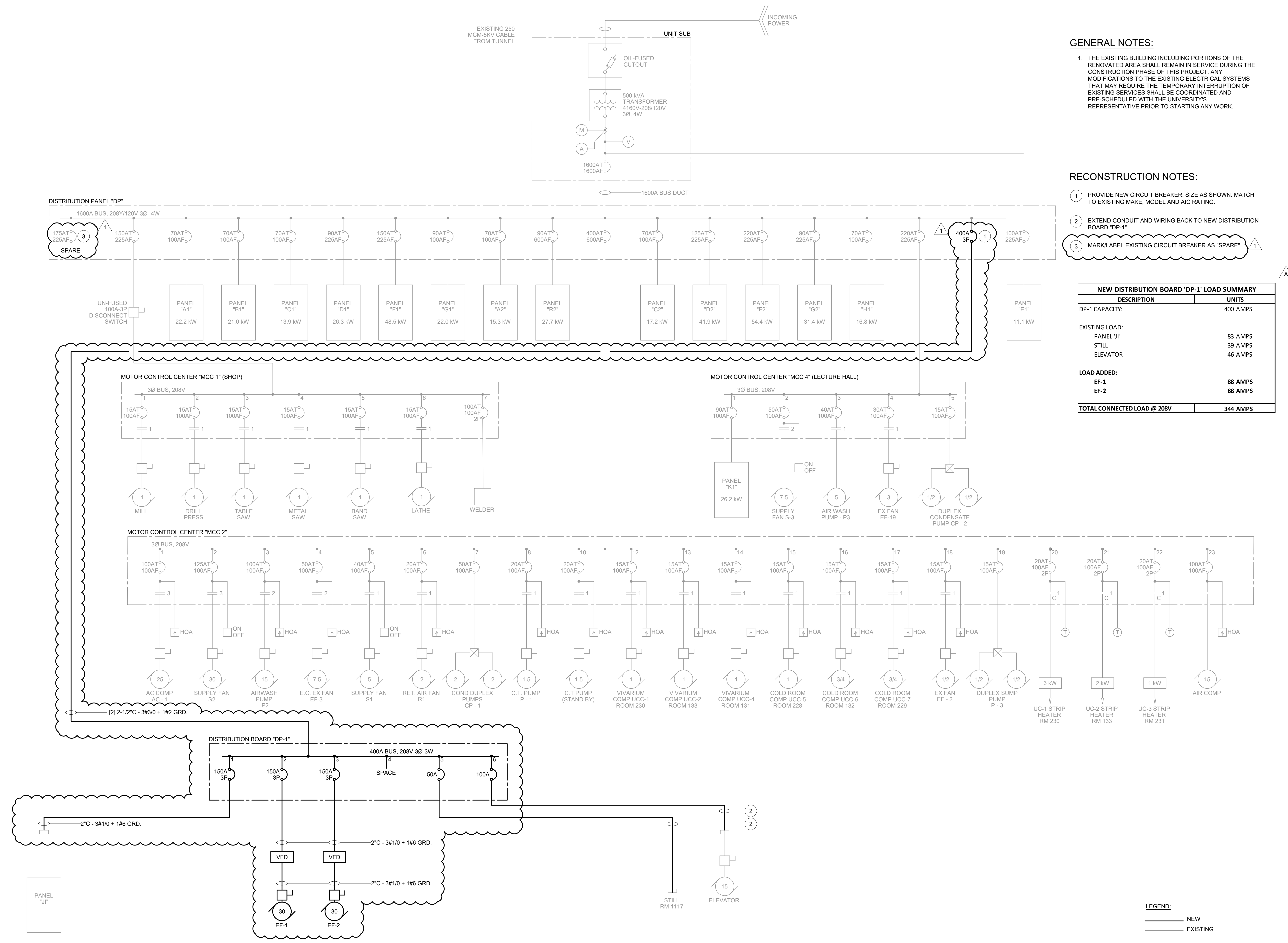
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**RECONSTRUCTION NOTES:**

- 1 PROVIDE NEW CIRCUIT BREAKER. SIZE AS SHOWN. MATCH TO EXISTING MAKE, MODEL AND AIC RATING.
- 2 EXTEND CONDUIT AND WIRING BACK TO NEW DISTRIBUTION BOARD "DP-1".
- 3 MARK/LABEL EXISTING CIRCUIT BREAKER AS "SPARE".

NEW DISTRIBUTION BOARD "DP-1" LOAD SUMMARY	
DESCRIPTION	UNITS
DP-1 CAPACITY:	400 AMPS
<b>EXISTING LOAD:</b>	
PANEL "J1"	83 AMPS
STILL	39 AMPS
ELEVATOR	46 AMPS
<b>LOAD ADDED:</b>	
EF-1	88 AMPS
EF-2	88 AMPS
<b>TOTAL CONNECTED LOAD @ 208V</b>	<b>344 AMPS</b>



**LEGEND:**  
 NEW  
 EXISTING

PROJECT TITLE  
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**FERNANDO CANON**

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UCR project no.	950599	construction release	
CANN no.	P5323		

Drawing Name  
**SINGLE LINE DIAGRAM**  
**(RECONSTRUCTION)**

Sheet No.  
**E6.2**  
 OF

**SINGLE LINE DIAGRAM (RECONSTRUCTION)**

N.T.S.