Project Name: **UNIVERSITY OF CALIFORNIA, MERCED**
CLASSROOM AND OFFICE BUILDING 1 RENOVATION
Project No.: **908078**

ADDENDUM NO. 1

to the

CONTRACT DOCUMENTS

March 18, 2020

I. Bidder acknowledges that it is the Bidder's responsibility to ascertain whether any Addenda have been issued and if so, to obtain copies of such Addenda. Bidder therefore agrees to be bound by all Addenda that have been issued for this bid.

This Addendum forms a part of the Contract Documents and modifies the original Bidding Documents. The following changes, additions, or deletions shall be made to the following documents as indicated and all other Contract Documents shall remain the same.

II. CLARIFICATIONS

A. PRE-BID QUESTIONS – Questions received from bidders and responses are as follows:

1. Q. Please provide specifications for Division 22 – Plumbing.

   A. Specification Section 22 – Plumbing is included in this Addendum.

2. Q. Please provide locations, if any, indicating where the signage form sheet ID8.10 & ID8.11.

   A. Sheet ID8.10 & ID8.11 are for Reference Only.

3. Q. Detail 2 and 5 on Sheet ID7.01 calls out for the wall to receive Branding at the Dean's Office Corridor and at Corridor 1C5. Detail 2 illustrates branding "per UCMerced." Please confirm that branding will be provided by the owner.

   A. Branding is OFOI.

4. Q. Reference: ID5.01, ID5.02, ID5.03 – Please confirm flooring will not be needed in the following rooms: 123, 132A, 1C5, 255, and the area outside of the Dean's Suite 261.

   A. Flooring only required outside of area 261.

5. Q. Can you please provide fire sprinkler As-builts for COB1?

   A. Fire Sprinkler as-builds will be provided

6. Q. Can you confirm if the fire sprinkler drops in the building are whips or hard piped?

   A. Hard piped.

7. Q. NOT ISSUED

   A.

4. Q. Reference 10 14 01, ID8.10, ID8.11 – Please provide message schedule and construction drawings of the code required signage.

A. Code required signage is that identification required by code; label above fire extinguisher cabinet, door label at the fire riser, electrical room etc. Contractor to determine per the code what is necessary.

9. Q. Reference ID8.06 – Please provide specification for interior aluminum framing for solid doors.

A. Wilson Partition. Specifications are included within this Addendum.

10. Q. Reference: 13/ID7.02, Room 345. Please confirm if the aluminum storefront framed is fabricated out of 450 framing.

A. Room 345 doesn't have new framing, the one showed on the elevation is existing.

11. Q. Door frames #127, 2C8A, 208, are called out as hollow metal. Please confirm if you want these frames to be provided by Wilson Partition?.

A. Yes, frames shall be provided by Wilson Partition.

12. Q. Reference: 1/ID7.02 – Room 302 and 304 are shown as 450 aluminum storefront. These openings are in the same room as door 302 and 304. Are the windows on detail 1 on ID7.02 considered 450 Storefront?

A. 2 equal floor to ceiling interior storefront for each room. Revised elevation of detail 1 on ID7.02 in this Addendum.

13. Q. Reference: ID5.01, ID5.02, ID5.03, 6/ID7.03, 5/ID7.03, 3/ID7.03, 2/ID7.03, 1/ID7.03, 8/ID7.01 – Floor plans indicates rubber base for all areas that will require floor base. On the other hand, the elevation plan for the following rooms call out for Wood Base (WB-01): 380 Office Corridor, 3rd floor corridor, front office corridor, 302/304 South Elevation, and 239. Please confirm if we will need to provide wood base or rubber base for the following locations: 380, Office Corridor3rd floor corridor, front office corridor, 302/304 South Elevation, and 239.

A. Corridors are wood base, and inside the rooms that are in scope are rubber base. Bidders would need to review the elevations, all of which have base tags. All room that have rubber base are indicated on sheet ID5 series. Otherwise they are wood base..

III. BIDDING/CONTRACT DOCUMENTS AND DIVISION 1 SPECIFICATIONS

1. Advertisement for Bids – Last Day to submit RFI's is Tuesday, March 24, 2020 from Tuesday, March 17, 2020. Extend the bid date from Thursday, March 26 to Thursday, April 2, 2020. No time of submission change. Revised included in this addendum.

2. Supplementary Instruction to Bidders – Last Day to submit RFI's is Tuesday, March 24, 2020 from Tuesday, March 17, 2020. Extend the bid date from Thursday, March 26 to Thursday, April 2, 2020. No time of submission change. Revised included in this addendum.

3. Bid Form – Revised bid date from March 26, 2020 to April 2, 2020.

4. Specification Section 084114 Interior Aluminum Storefronts included in this addendum.

5. Specification Section(s) Division 22- Plumbing, 22 0000 Plumbing, 22 1000 Plumbing Piping and Valves, 22 4700 Drinking Fountains and Water Coolers included in this addendum.

6. Specification Section 23 3000 Duct Accessories included in this addendum.

V. DRAWINGS

NEW SHEETS ADDED ON ADDENDUM #1

ARCHITECTURE DRAWINGS LIST

ID0.00	COVER SHEET	1. Added ID8.09, E1.02B and E3.02B sheets on Electrical set drawings
ID0.3.02	2ND FLOOR LIFE SAFETY PLAN (REFERENCE ONLY)	1. Revised Occupancy of corridors and compartment areas. Removed S door and added a double flush
ID0.3.03	3RD FLOOR LIFE SAFETY PLAN (REFERENCE ONLY)	1. Revised Occupancy of corridors and room. No additional fixture needed
ID1.01	1ST FLOOR DEMOLITION PLAN	Added note for repair/replacement of floor boxes located on stage of room 102
ID1.03	2ND FLOOR DEMOLITION PLAN	1. Room 241 remaining wall 2. Room 241 changed swing of door 3. Demo S door 4. Demo wall on room 261 5. Remain entry wall and door of room 261
ID1.04	2ND FLOOR RCP DEMOLITION PLAN	1. Remain room 241 RCP 2. Patch and repair ceiling of S door location
ID2.01	1ST FLOOR PARTITION PLAN	1. Removed drinking fountain from scope 2. Added note for repair/replacement of floor boxes located on stage of room 102
ID2.02	2ND FLOOR PARTITION PLAN	1. Changed swing of 2C8A door 2. Added 241 door 3. Added AV on existing wall of room 241 4. Created a 261A room 5. Added AV on existing wall of room 261A 6. Added elevation of new 261A room 7. Added 2C2 double flush door 8. Added detail for new 2C2 door 9. Added A2CD rated wall 10. Added S2KK rated wall 11. 259 became an open office 12. 239 changed name to focus room
ID3.02	2ND FLOOR REFLECTED CEILING PLAN	1. Modified RCP of 259,261 and 261A room 2. Remain room 241 RCP
ID5.02	2ND FLOOR FINISH PLAN	1. Remain room 241 finishes 2. Added finishes on 259,262 and 261A room

ID6.02	2ND FLOOR FURNITURE PLAN (REFERENCE ONLY)	1. Updated furniture on 241,259,262 and 261A room
ID7.01	INTERIOR ELEVATIONS 1ST AND 2ND FLOOR	1. Elevation 5/ID7.01 - Added AV dimension and note 2. Elevation 6/ID7.01 hanged Room name to focus room 3. Elevation 7/ID7.01 added AV dimension and note 4. Elevation 7/ID7.01 hanged Height of WC-01 5. Elevation 8/ID7.01 Changed Height of WC-01 6. Elevation 9/ID7.01 added AV dimension and note 7. Elevation 9/ID7.01 Changed Height of WC-01 8. Elevation 10/ID7.01 Changed Height of WC-01 9. Elevation 12/ID7.01 Added AV dimension and note 10. Elevation 12/ID7.01 Changed Height of WC-01 11. Added Av note and legend
ID7.02	INTERIOR ELEVATIONS 3RD FLOOR	1. Elevation 1/ID7.02 -Interior aluminum storefront 2. Elevation 2/ID7.02 -Interior aluminum storefront with wood door 3. Elevation 3/ID7.02 -Changed Height of WC-01 4. Elevation 4/ID7.02 -Added AV dimension and note 5. Elevation 5/ID7.02 -Changed Height of WC-01 6. Elevation 8/ID7.02 -Changed Height of WC-01 7. Elevation 9/ID7.02 -Added AV dimension and note 8. Elevation 10/ID7.02 -Added AV dimension and note 9. Elevation 10/ID7.02 Changed Height of WC-01 10. Elevation 11/ID7.02 Changed Height of WC-01 11. Elevation 13/ID7.02 -Added AV dimension and note 12. Added Av note and legend
ID7.03	INTERIOR ELEVATIONS 3RD FLOOR	1. Elevation 7/ID7.03 -Changed Height of WC-01 2. Elevation 8/ID7.03 -Changed Height of WC-01 3. Elevation 9/ID7.03 -Changed Height of WC-01 4. Added Av note and legend
ID7.04	INTERIOR ELEVATIONS 3RD FLOOR	1. Elevation 1/ID7.04 -Changed Height of WC-01 2. Elevation 2/ID7.04 -Added AV dimension and note 3. Elevation 2/ID7.04 -Changed Height of WC-01 4. Elevation 3/ID7.04 -Changed Height of WC-01
ID8.00	PARTITION TYPES	1. S2KK partition detail reference 2nd floor new rated wall
ID8.01	PARTITION HEAD AND BASE DETAILS	
ID8.06	DOOR DETAILS, TYPES AND SCHEDULE	1. Added J4 detail for new double rated door 2. Added double rated flush door
ID8.09	AV DETAILS (REFERENCE ONLY)	1. AV details for reference

MECHANICAL

M0.01	SYMBOLS, SCHEDULES, LEGENDS, AND GENERAL NOTES	1. Revised airflow set points of DDV-210, Revised airflow set points of DDV-266 2. Added FSD schedule
M1.02C	SECOND FLOOR MECHANICAL DEMOLITION PLAN	1. Extended demolition of (e) ductwork for new FSD installation
M1.02D	SECOND FLOOR MECHANICAL DEMOLITION PLAN	1. Removed demolition scope of work to fit new
M2.02C	SECOND FLOOR MECHANICAL PLAN	1. Added FSDs and DDV to fit new configuration of offices

M2.02D	SECOND FLOOR MECHANICAL PLAN	1. Shortened length of linear return air grille, removed any new mechanical work from office 241
M6.01	DETAILS	1. Added FSD installation detail
M7.01	CONTROLS AND DIAGRAMS	1. Revised FSD control diagram

ELECTRICAL

E0.01	SYMBOL LEGEND, GENERAL NOTES, ABBREVIATONS, DRAWING INDEX	1. Revised description for Lutron Vive system symbols. 2. Revised description for data outlet. 3. Revised description for A/V outlet. 4. Revised description for flush mounted floor box for furniture system. 5. Added symbol legend for fire/smoke damper, fire alarm relay module, ""FSR"" A/V box with devices, flush mounted floor box for power, and flush mounted floor box for data. 6. Revised Drawing Index.
E0.02	SINGLE LINE DIAGRAM	1. Added Exit Sign in Lighting Fixture Schedule. 2. Updated Title 24 compliance forms.
E0.03	TITLE 24, LIGHTING FIXTURE SCHEDULE	1. Added Exit Sign in Lighting Fixture Schedule. 2. Updated Title 24 compliance forms.
E0.03 ALT 2	TITLE 24 - ALTERNATE 2	
E0.04	PANEL SCHEDULES	1. Updated schedule for "4L2A" section 3, "4L3A" section 1, and "4L3A" section 2.
E1.01A	FIRST FLOOR AREA A ELETRICAL DEMOLITION PLAN	1. Revised Sheet Note No.2, 3, 4 & 7. 2. Revised work in room 127.
E1.02B	SECOND FLOOR AREA B ELETRICAL DEMOLITION PLAN	1. Added work at existing digital sign.
E1.02C	SECOND FLOOR AREA C ELETRICAL DEMOLITION PLAN	1. Revised work per new space layout. 2. Revised sheet notes.
E1.02D	SECOND FLOOR AREA D ELETRICAL DEMOLITION PLAN	1. Revised work per new space layout. 2. Revised sheet notes.
E1.03A	THIRD FLOOR AREA A ELETRICAL DEMOLITION PLAN	1. Revised work at existing floor boxes. 2. Revised Sheet Note No.7 & 8. 3. Deleted General Note No.4.
E1.03B	THIRD FLOOR AREA B ELETRICAL DEMOLITION PLAN	1. Revised work at existing floor boxes. 2. Added work in room 345. 3. Revised Sheet Note No.5, 6, 7 & 8. 4. Deleted General Note No.4.
E1.03C	THIRD FLOOR AREA C ELETRICAL DEMOLITION PLAN	1. Revised work at existing floor boxes. 2. Revised Sheet Note No.1, 4 & 5.
E2.01A	FIRST FLOOR AREA A ELETRICAL NEW PLAN	
E2.02C	SECOND FLOOR C AREA C ELETRICAL NEW PLAN	1. Revised work per new space layout. 2. Revised sheet notes.
E2.02D	SECOND FLOOR D AREA D ELETRICAL NEW PLAN	1. Revised work per new space layout. 2. Revised sheet notes.
E2.03A	THIRD FLOOR AREA A ELETRICAL NEW PLAN	1. Added Sheet Note No.8.

E2.03B	THIRD FLOOR AREA B ELETRICAL NEW PLAN	1. Added Sheet Note No.9.
E2.03C	THIRD FLOOR AREA C ELETRICAL NEW PLAN	1. Added Sheet Note No.4.
E2.03A ALT 2	THIRD FLOOR AREA A NEW LIGHTING PLAN - ALTERNATE 2	1. Revised symbol descriptions. 2. Revised General Notes No. 1 & 2. 3. Revised Sheet Notes No.4.
E2.03B ALT 2	THIRD FLOOR AREA B NEW LIGHTING PLAN - ALTERNATE 2	1. Revised symbol descriptions. 2. Revised General Notes No. 1 & 2.
E2.03C ALT 2	THIRD FLOOR AREA C NEW LIGHTING PLAN - ALTERNATE 2	1. Revised symbol descriptions. 2. Revised General Notes No.1 & 2. 3. Revised Sheet Notes No.3.
E3.01A	FIRST FLOOR AREA A NEW POWER & SIGNAL PLAN	1. Deleted one fourplex receptacle in room 132A. 2. Relocated a ""FSR"" A/V box from facing room 127 to facing corridor. 3. Deleted two fourplex receptacles and two data outlets from new wall in room 127. 4. Added new data outlet in northwest corner in room 127. 5. Revised work at ""FSR"" A/V box on east wall. 6. Revised Sheet Notes No.1 & 2 and Added No.3.
E3.01C	FIRST FLOOR AREA C NEW POWER & SIGNAL PLAN	1. Deleted work at drinking fountain. 2. Updated sheet notes.
E3.02A	SECOND FLOOR AREA A NEW POWER & SIGNAL PLAN	1. Revised Sheet Notes No.2.
E3.02B	SECOND FLOOR AREA B NEW POWER & SIGNAL PLAN	1. Added new work.
E3.02C	SECOND FLOOR AREA C NEW POWER & SIGNAL PLAN	1. Revised work per new space layout. 2. Revised sheet notes.
E3.02D	SECOND FLOOR AREA D NEW POWER & SIGNAL PLAN	1. Revised work per new space layout. 2. Revised sheet notes.
E3.03A	THIRD FLOOR AREA A NEW POWER & SIGNAL PLAN	1. Deleted ceiling mounted WAP outlets and added wall mounted WAP outlet. 2. Deleted new floor mounted poke-thru devices. 3. Revised work at existing flush mounted floor boxes. 4. Added empty conduit pathway in ceiling space. 5. Revised work at ""FSR"" A/V boxes. 6. Revised sheet notes.
E3.03B	THIRD FLOOR AREA B NEW POWER & SIGNAL PLAN	1. Relocated ceiling mounted WAP outlet in room 380. 2. Added ceiling mounted WAP outlet in Colloquy and Break Room. 3. Added wall mounted WAP outlets in open office. 4. Deleted new floor mounted poke-thru devices. 5. Revised work at existing flush mounted floor boxes. 6. Added empty conduit pathway in ceiling space. 7. Revised work at ""FSR"" A/V box. 8. Added ""FSR"" A/V box in Colloquy. 9. Revised circuiting in Break Room. 10. Revised sheet notes.
E3.03C	THIRD FLOOR AREA C NEW POWER & SIGNAL PLAN	1. Delete one ceiling mounted WAP outlet in Meeting and relocated the second outlet. 2. Revised work at existing flush mounted floor boxes.

Revised work at ""FSR"" A/V box in Meeting and in Huddle rooms.
3. Added ""FSR"" A/V box new main stairs.
4. Added junction box for loud speakers in Meeting.
5. Added card reader outside Meeting.
6. Deleted card reader outside the room next to the electrical room.
7. Revised sheet notes.

PLUMBING

P-1.01 FIRST FLOOR DEMOLITION AND NEW WORK PLUMBING PLAN

VI. ATTACHMENTS

1	Advertisement for Bid	2	Supplementary Instruction to Bidders
3	Bid Form	4	Drawings Per List
5	Fire Protection As-Built	6	Specification Sections: 08 4114, 22 000, 22 1000, 22 4700, 23 3000

UNIVERSITY OF CALIFORNIA, MERCED

By: University of California, Merced
University's Representative

_____
Fran Telechea
Executive Director
Planning, Design & Construction

End of Addendum No. 1

ADVERTISEMENT FOR BIDS

Classroom and Office Building 1 Renovation (COB1)
PROJECT NO.: 908078
UNIVERSITY OF CALIFORNIA, MERCED

DESCRIPTION OF PROJECT:
The project will provide space renovations to offices and support spaces located in the Classroom Office Building 1 (COB1) 1st Flr, 2nd Flr and 3rd Flr on the UC Merced campus. The design will reconfigure spaces in COB1, providing new administrative spaces, huddle spaces, upgrade conference room, expand IT Department, and update finishes. This project will reconfigure selected portions of approximately ***23,060*** assignable square feet of spaces while the remaining building and spaces are expected to be fully operational. The Work will include coordination with University furniture vendor, demolition of existing framed walls, frame new walls, doors & hardware, electrical modifications, HVAC and fire sprinkler adjustments, and finishes. The project is projected to be complete is August 2020 for start of fall semester.

Prequalified General Contractors:

Project Completion: July 24, 2020

Estimated construction cost: $3,000,286.00

Bidding documents will be available at the University's ShareFile site at http://rfp-rfq.ucmerced.edu/ for electronic download: hardcopy bidding documents will not be provided by the University. Bid Results will be available on our website at http://rfp-rfq.ucmerced.edu/ .

Bidding Documents will be made available March 3, 2020.

A **NON-MANDATORY** Pre-Bid Conference will be conducted on **Tuesday, March, 10, 2020 beginning promptly at 10:00 AM**. Participants shall meet at 5200 N. Lake Rd, Merced, CA 95343, UC Merced Campus, COB1 Lobby. Parking permits are required throughout campus and are available at yellow dispenser at the LeGrand and North Bowl.

If you need accommodations related to disabilities, please call Fran Telechea @ 209-201-8174 at least 3 working days prior to Pre-Bid Conference/Project Site Visit or Bid Opening.

Requests for clarification or interpretation of the Bidding Documents must be in writing and received by **Tuesday, March ~~17,~~ 24, 2020 at 4:00 P.M.** Questions received after the above-noted deadline may be answered at the discretion of the University's Representative. Questions may be emailed to:

Fran Telechea – University of California, Merced
Email: ftelechea@ucmerced.edu

Revisions, additions or deletions will be made by written addenda issued by UC Merced Planning, Design & Construction.

Bids will be received only at:

Hand & Overnight delivery only:	**Attn: Fran Telechea** **Planning, Design & Construction** **University of California, Merced** **655 W. 18th Street,** **Merced, CA 95340**
Bid must be received before:	**2:00 PM** **Thursday, April 2, 2020** **Addendum #1** ~~**Thursday, March 26, 2020**~~
Bid Opening at:	**University of California, Merced** **655 W. 18th Street,** **Merced, CA 95340**

Bid Security in the amount of 10% of the Anticipated Contract Amount 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)."

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 rates at the location of the work.

The successful Bidder will be required to have the following California current and active contractor's license at the time of submission of the Bid: A or B

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.

No contractor or subcontractor, regardless of tier, may be listed on a Bid for, or engage in the performance of, any portion of this project, unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 and 1771.1.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

The successful Bidder shall pay all persons providing construction services and/or any labor on site, including any University location, no less than the UC Fair Wage (defined as $13 per hour as of 10/1/15, $14 per hour as of 10/1/16, and $15 per hour as of 10/1/17) and shall comply with all applicable federal, state and local working condition requirements.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
University of California, Merced
July 12, 2018

THE UNIVERSITY OF CALIFORNIA IS AN AFFIRMATIVE ACTION/EQUAL OPPORTUNITY EMPLOYER.

SUPPLEMENTARY INSTRUCTIONS TO BIDDERS

1. Requests for clarification or interpretation of the Bidding Documents must be in **writing** and received by **Tuesday, March ~~17~~ 24, 2020** at **4:00 P.M.** Questions received after the above-noted deadline may be answered at the discretion of the University's Representative. **Questions shall be E-Mailed:**

   Fran Telechea - University of California, Merced
   Email : ftelechea@ucmerced.edu

Revisions, additions or deletions will be made by written addenda issued by Planning, Design & Construction only.

2. A **NON-MANDATORY** Pre-Bid Conference will be conducted on **Tuesday, March 10, 2020** beginning promptly at 10:00 am. Participants shall meet at 5200 N. Lake Rd, Merced, CA 95343, UC Merced Campus, at Classroom and Office Building 1 lobby . Parking permits are required throughout campus and are available at the yellow dispenser at LeGrand and North Bowl.

   If you need accommodations related to disabilities, please call Fran Telechea @ 209-201-8174 at least 3 working days prior to Pre-Bid Conference/Project Site Visit or Bid Opening.

4. Bids will be received on or before the Bid Deadline and only at:

Hand or Overnight Delivery Only	Attn: Fran Telechea University of California, Merced 655 West 18th Street Merced California 95340

5. Bids will be opened at:

2:00 PM
Thursday, April 2, 2020 **Addendum #1**
~~Thursday, March 26, 2020~~
655 West 18th Street
Merced California 95340

6. If Contractor fails to meet Substantial Completion milestones as described in the summary of work 01 11 10 part Contractor shall be assessed liquidated damages in the amount of $1,500.00 per day for each calendar day following the specified date of Substantial Completion for that phase where the Work remains incomplete (Saturdays, Sundays, and holidays included).

7. Contract Time: Completion date July 24, 2020.

8. Addenda will be issued only by University and only in writing. Addenda will be identified as such and will be emailed to all Prequalified Bidders.

ADDENDUM #1

BID FORM

FOR: CLASSROOM AND OFFICE BUIDING 1 (COB1)

UNIVERSITY OF CALIFORNIA

MERCED

MERCED CALIFORNIA

APRIL 2, 2020

BID TO: PLANNING, DESIGN & CONSTRUCTION
UNIVERSITY OF CALIFORNIA MERCED
5200 N. LAKE ROAD
MERCED, CALIFORNIA 95344
209-201- 8174

BID FROM: _____
(Name of Bidder)

_____
(Address)

_____ , _____ _____
(City) (State) (Zip Code)

_____
(Telephone Number)

_____
(Date Bid Submitted)

Note: All portions of this Bid Form must be completed and the Bid Form must be signed before the Bid is submitted. Failure to do so will result in the Bid being rejected as non-responsive.

1. 0 BIDDER'S REPRESENTATIONS

Bidder, represents that a) Bidder and all Subcontractors, regardless of tier, has the appropriate current and active Contractor's licenses required by the State of California and the Bidding Documents; b) it has carefully read and examined the Bidding Documents for the proposed Work on this Project; c) it has examined the site of the proposed Work and all Information Available to Bidders; d) it has become familiar with all the conditions related to the proposed Work, including the availability of labor, materials, and equipment; e) Bidder and all Subcontractors, regardless of tier, are currently registered with the California Department of Industrial Relations pursuant to California Labor Code Section 1725.5 and 1771.1. Bidder hereby offers to furnish all labor, materials, equipment, tools, transportation, and services necessary to complete the proposed Work on this Project in accordance with the Contract Documents for the sums quoted. Bidder further agrees that it will not withdraw its Bid within 60 days after the Bid Deadline, and that, if it is selected as the apparent lowest responsive and responsible Bidder, that it will, within 10 days after receipt of notice of selection, sign and deliver to University the Agreement in triplicate and furnish to University all items required by the Bidding Documents. If awarded the Contract, Bidder agrees to complete the proposed Work no later than July 24, 2020 after the date of commencement specified in the Notice to Proceed.

2.0 ADDENDA

Bidder acknowledges that it is Bidder's responsibility to ascertain whether any Addenda have been issued and if so, to obtain copies of such Addenda from University's Facility at the appropriate address stated on Page 1 of this Bid Form. Bidder therefore agrees to be bound by all Addenda that have been issued for this Bid.

3.0 NOT USED

4.0 LUMP SUM BASE BID

$ | | , | | | | , | | | | . | | |

(Place figures in appropriate boxes.)

Bidder includes in the Lump Sum Base Bid the following allowances: $13,000 for 1ST Floor stage investigation and corrections.

5.0 SELECTION OF APPARENT LOW BIDDER

Refer to the Instructions to Bidders for selection of apparent low bidder.

6.0 UNIT PRICES

The quantities set forth in the Unit Prices are estimates in Section 01 22 00. University does not represent that the actual quantity of any Unit Price item will equal the Estimated Quantity stated below. University will perform the extension of the Unit Price times the respective Estimated Quantity.

Unit Price 1: Patch drywall and paint

Estimated Quantity of units: 5,000 sq/ft

$ ☐☐☐ , ☐☐☐ . ☐☐ Per sq/ft

(Place Unit Price figures in appropriate boxes.)

Unit Price 2: Remove and replace damaged ceiling tiles

Estimated Quantity of units: 750 sq/ft

$ ☐☐☐ , ☐☐☐ . ☐☐ Per sq/ft

(Place Unit Price figures in appropriate boxes.)

7.0 DAILY RATE OF COMPENSATION FOR COMPENSABLE DELAYS

Bidder shall determine and provide below the daily rate of compensation for any Compensable Delay caused by University at any time during the performance of the Work.

$ ☐☐ , ☐☐☐ . ☐☐ X 10 multiplier

(Place figures in appropriate boxes.)

Failure to fill in a dollar figure or a value of zero for the daily rate for Compensable Delay shall render the bid non-responsive. The dollar figure shall be greater than 1.

The daily rate shown above will be the total amount of Contractor entitlement for each day of Compensable Delay caused by University at any time during the performance of the Work and shall constitute payment in full for all delay costs, direct or indirect (including, without limitation, compensation for all extended home office overhead and extended general conditions), of the Contractor and all subcontractors, suppliers, persons, and entities under or claiming through Contractor on the Project. The number of days of Compensable Delay shown as a "multiplier" above is not intended as an estimate of the number of days of Compensable Delay anticipated by the University. The University will pay the daily rate of compensation only for the actual number of days of Compensable Delay, as defined in the General Conditions; the actual number of days of Compensable Delay may be greater or lesser than the "multiplier" shown above. Bidder shall not bid less than zero dollars for the daily rate (i.e., the daily rate cannot be a negative number).

8.0 ALTERNATES

In order for a Bid to be responsive, Bidder must submit an additive bid, a deductive bid, or a "no change" bid, for each Alternate listed below. The failure to do so shall result in the Bid being rejected as non-responsive. The failure to quote an amount, unless the bidder marks the "no change" box, will result in the bid being rejected as non-responsive. Full Alternate description in Section 01 23 00.

Add Alternate 1: Remove and replace the carpet in the designated area shown on Sheet ID5.03.

$ | | | , | | | | , | | | | . | | |

Add Alternate 2: T24 Lighting Upgrade of 3rd Floor as shown on Sheet E0.03 ALT2

$ | | | , | | | | , | | | | . | | |

9.0 LIST OF SUBCONTRACTORS

Bidder will use Subcontractors for the Work:

Yes ____

If "yes", provide in the spaces below (a) the name, the location of the place of business, and the California contractor license number of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the state of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of 1 percent of the prime contractor's total bid, (b) the portion of the work which will be done by each subcontractor. The prime contractor shall list only one subcontractor for each such portion as is defined by the prime contractor in its bid.

	Subcontractor		
Portion of the Work Activity (e.g. electrical, mechanical, concrete)	Name of Business	Location of Business (City)	License No.

(Note: Add additional pages if required.)

10.0 LIST OF CHANGES IN SUBCONTRACTORS DUE TO ALTERNATES

The information below must be provided for all changes in first-tier Subcontractors if University selects Alternates. List changes in Subcontractors only for those portions of the Work valued in excess of one-half of 1 percent of prime contractor's total bid.

	Subcontractor			
Alternate No.	Portion of the Work Activity (e.g. electrical, mechanical, concrete)	Name	Location (City)	License No.

(Note: Add additional pages if required.)

11.0 BIDDER INFORMATION

TYPE OF ORGANIZATION:

_____
(Corporation, Partnership, Individual, Joint Venture, etc.)

IF A CORPORATION, THE CORPORATION IS ORGANIZED UNDER THE LAWS OF:

THE STATE OF _____.
(State)

NAME OF PRESIDENT OF THE CORPORATION:

_____
(Insert Name)

NAME OF SECRETARY OF THE CORPORATION:

_____
(Insert Name)

IF A PARTNERSHIP, NAMES OF ALL GENERAL PARTNERS:

_____
(Insert Names)
_____

CALIFORNIA CONTRACTORS LICENSE(S):

_____	_____	_____
(Classification)	(License Number)	(Expiration Date)

(For Joint Venture, list Joint Venture's license and licenses for all Joint Venture partners.)

12.0 REQUIRED COMPLETED ATTACHMENTS

The following documents are submitted with and made a condition of this Bid:

1. Bid Security in the form of _____
(Bid Bond or Certified Check)

13.0 DECLARATION

I, _____ , hereby declare that I am the
(Printed Name)

_____ of _____
(Title) (Name of Bidder)

submitting this Bid Form; that I am duly authorized to execute this Bid Form on behalf of Bidder; and that all information set forth in this Bid Form and all attachments hereto are, to the best of my knowledge, true, accurate, and complete as of its submission date.

I further declare that this bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I declare, under penalty of perjury, that the foregoing is true and correct and that this declaration was executed at: _____(Name of City if within a City, otherwise Name of County),

in the State of _____, on _____.
(State) (Date)

_____
(Signature)

CLASSROOM OFFICE BUILDING(S) 1 RENOVATION

Merced, California

UC Merced Project No.
908078

Owner
University of California Merced

Architect
Solomon Cordwell Buenz

MEP/FP Engineers
Gayner Engineers

03.18.2020

ADDENDUM #1
VOLUME 1

SCB

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The following listed documents comprise the project manual for the project listed above. Where numerical sequence of sections is interrupted, such interruptions are intentional.

The complete Project Manual for this project consists of this entire Volume, which must not be separated for any reason. The Architect and Owner disclaim any responsibility for any assumptions made by a contractor or subcontractor who does not receive a complete Project Manual, including all sections listed in the Table of Contents.

All Division 01 Sections are a part of and apply to each and every Section of the Project Manual Specifications.

VOLUME 1

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SECTION 08 4114

INTERIOR ALUMINUM STOREFRONTS

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. Partition System
2. Door Frames

B. Related Sections: Requirements that relate to this section are included but not limited to the section below.

1. Division 01 Section “LEED Requirements”.
2. Division 07 Section “Interior Joint Sealants”.
3. Division 08 Section “Door Hardware” for hardware requirements.
4. Division 08 Section “Interior Glazing” for glass requirements.

1.2 ADMINISTRATIVE REQUIREMENTS

A. Pre-installation Meetings:

1. Pre-Installation Conferences: Contractor to conduct meetings at site per the requirements of Division 01 Section “Project Meetings”, with installer and all other trades involved prior to fabrication and start of Work. Familiarize installer with conditions at site and related Work.

1.3 ACTION SUBMITTALS

A. Product Data: Describe the properties of items to be used in the Work. Include the following.

1. Fabrication methods.
2. Finishing.
3. Accessories.

B. Shop Drawings: Show fabrication and installation of the Work. Include the following.

1. Elevations.
2. Detail sections of typical composite members.
3. Hardware mounting heights.
4. Anchorages and reinforcements.
5. Movement provisions.
6. Glazing details.

C. Samples:

1. Initial Selection: Furnish manufacturer's complete color selection showing full range of colors and finish characteristics. Furnish the following.

   a. Material as requested by Architect.

2. Verification: Furnish materials to be used with labels indicating colors, finish characteristics, and locations of the Work. Samples will be reviewed for color and appearance only. Furnish the following.

   a. Extrusions: 12 inch (304.8 mm) long of each finish selected.
   b. Sheet or Plate: 12 inch (304.8 mm) square in range of finish selected.

1.4 INFORMATIONAL SUBMITTALS

A. Sustainability Submittals: Refer to Division 01 Section "LEED Requirements" for sustainability Submittal requirements.

B. Test and Evaluation Reports:

1.5 CLOSEOUT SUBMITTALS

A. Submit the following.

1. Record documents.
2. Sustainable design closeout documentation.

1.6 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with all applicable requirements of the laws, codes, ordinances and regulations authorities having jurisdiction. Obtain necessary approvals from all such authorities.

B. Qualifications:

1. Contractor: Contractor is responsible for quality control of the Work.
2. Manufacturer: A firm experienced in successfully producing work similar to that indicated for this Project, with a record of successful in-service performance, and with sufficient production capacity to produce required units without causing delay in the Work.
3. Installer: An installer trained in the use of the materials and equipment to be employed in the Work.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Deliver and Acceptance Requirements: Deliver materials in manufacturer's original packaging with label indicating pertinent information identifying the item.

B. Storage and Handling Requirements: Store materials in accordance with manufacturer's instructions in a protected dry location off ground. Do not open packaging nor remove labels until time of installation.

1.8 PROJECT CONDITIONS

A. Ambient Conditions: Proceed with the Work in accordance with manufacturer's requirements and instructions and any agreements or restrictions of the Pre-Construction Conference.

B. Project Conditions: Field measure at location of the Work prior to preparation of the shop drawings. Include measurements of adjacent construction to which the Work must fit. Coordinate construction to ensure that actual opening dimensions correspond to fabricated dimensions of the Work.

1. Where field measurements cannot be made without delaying the Work, guarantee dimensions and proceed with fabrication of products without field measurements. Coordinate construction to ensure that actual opening dimensions correspond to guaranteed dimensions.

PART 2 – PRODUCTS

2.1 PERFORMANCE

A. Design Criteria:

1. General:

a. Provide work in compliance with specified standards, performance requirements, material selections, and requirements of this and related sections.
b. Provide work to withstand thermal movement, design wind pressure, gravity loads, seismic loads, and movement of building structure without failure. Work to remain watertight, airtight and free from defects.

A.) Refer to performance requirements below.

c. Regulations: Conform with the requirements of the applicable Building Code as it pertains to engineering, design, fabrication and installation of system.

2. Safety Glazing Standard: Where safety glass is indicated or required by authorities having jurisdiction, provide type of products indicated which comply

with ANSI Z 97.1 and testing requirements of 16 CFR Part 1201 for category II materials.

a. Subject to compliance with requirements, permanently mark safety glass with SGCC certification label or another certification agency acceptable to authorities having jurisdiction.

3. Performance Requirements

A.) General Performance: Aluminum-framed systems shall withstand the effects of the following performance requirements without failure due to defective manufacture, fabrication, installation, or other defects in construction. Failure includes the following:

1.) Deflection exceeding specified limits.
2.) Thermal stresses transferring to building structure.
3.) Framing members transferring stresses, including those caused by thermal and structural movements to glazing.
4.) Noise or vibration created by wind and by thermal and structural movements.
5.) Loosening or weakening of fasteners, attachments, and other components.
6.) Sealant failure.

B.) Delegated Design: Design aluminum-framed systems, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

C.) Structural Loads:
1.) Seismic Performance: Storefront window system assemblies shall withstand the effects of earthquake motions determined according to ASCE/SEI 7-16 Chapter 13 and the 2019 California Building Code.
a.) The term "withstand" means "the unit will remain in place without separation of any parts from the device when subjected to the seismic forces specified."
b.) Storefront window system assembly design and installation shall accommodate relative displacement per ASCE/SEI 7-16 Chapter 13.5.9 without breakage or dislodgement.

D.) Deflection of Framing Members, Deflection Normal to Wall Plane: Limited to edge of glass in a direction perpendicular to glass plane shall not exceed L/175 of the glass edge length for each individual glazing lite or an amount that restricts edge deflection of individual glazing lites to 3/4 inch, whichever is less.

2.2 MATERIALS – GENERAL

A. Single Source Responsibility:

1. Obtain work from a single manufacturer.

B. Sustainable Requirements:

1. Provide materials to comply with the requirements of Section 01 8113 “LEED Requirements”.

2.3 MATERIALS

A. Aluminum: Provide alloy and temper and finish as required to produce the Work.

1. Plate and Sheet: ASTM B 209, 6061-T6
2. Extruded Bars, Rods, Wire, Shapes, and Tubes: ASTM B221, 6063-T52

B. Glass and Glazing: Refer to Division 08 Section “Interior Glazing” for requirements.

C. Miscellaneous:

1. Fasteners: Aluminum, nonmagnetic stainless steel, or other materials warranted by the manufacturer to be noncorrosive and compatible with aluminum components, hardware, anchors and other components.
2. Brackets and Reinforcement: Where feasible, provide high-strength aluminum brackets and reinforcements; otherwise provide nonmagnetic stainless steel or hot-dip galvanized steel complying with ASTM A 386.

2.4 FABRICATION

A. General:

1. Sizes of door and frame units, and profile requirements, are indicated on drawings. Variable dimensions are indicated, with maximum and minimum dimensions required to achieve design requirements and coordination with other work.
2. Prefabrication: Before shipment to the project site, complete fabrication, assembly, finishing, hardware application, and other work to the greatest extent possible. Disassemble components only as necessary for shipment and installation.

    a. Preglaze door and frame units to greatest extent possible.
    b. Do not drill and tap for surface-mounted hardware items until time of installation at project site.
    c. Perform fabrication operations, including cutting, fitting, forming, drilling and grinding of metal work to prevent damage to exposed finish surfaces. For hardware, perform these operations prior to application of finishes.

3. Fasteners: Conceal fasteners wherever possible.
4. Brackets and Reinforcements:

    a. Reinforcement: Where fasteners screw-anchor into aluminum less than 0.125" thick, reinforce the interior with aluminum or nonmagnetic stainless steel to receive screw threads, or provide standard noncorrosive pressed-in splined grommet nuts.

5. Welding: Comply with AWS recommendations; grind exposed welds smooth and restore mechanical finish.
6. Reinforcing: Install reinforcing as required for hardware and necessary for performance requirements, sag resistance and rigidity.
7. Dissimilar Metals: Separate dissimilar metals with zinc chromate primer, bituminous paint, or other separator that will prevent corrosion.
8. Continuity: Maintain accurate relation of planes and angles, with hairline fit of contacting members.

    a. Uniformity of Finish: Abutting extruded aluminum members shall not have an integral color or texture variation greater than half the range indicated in the sample pair submittal.

B. Storefront Framing System:

1. Provide inside-outside matched resilient flush-glazed storefront framing system with provisions for glass replacement.
2. Basis-of-Design Product:

    a. Subject to compliance with requirements, the design is based on one of the following manufacturer’s product.

        A.) Wilson Partitions “Projected Profile”

C. Hardware:

1. Refer to Division 08 section “Door Hardware” for requirements.

D. Glazing:

1. Division 08 Section “Interior Glazing” for glass requirements.

2.5 FINISHES

A. General: Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations relative to applying and designating finishes.

B. Aluminum:

1. Anodized Finish:

a. Class I, Clear Anodic Finish: AA-M12C22A41 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.018 mm or thicker) complying with AAMA 611.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Verification of Conditions: Examine and correct conditions of area to receive the Work prior to installation.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Install system in accordance with manufacturer’s printed installation instructions, submittals, applicable industry standards, and governing regulatory requirements for the Work.

1. Set units plumb, level, and true to line, without warp or rack of framing members, doors, or panels. Provide proper support and anchor securely in place.
2. Separate aluminum and other corrodible metal surfaces from sources of corrosion of electrolytic action at points of contact with other materials. Comply with requirements specified under paragraph "Dissimilar Materials" in the Appendix to AAMA 101-85.

B. Frames:

1. Drill and tap frames and apply surface-mounted hardware items.
2. Comply with hardware manufacturer's instructions and template requirements.
3. Use concealed fasteners wherever possible.

C. Glass:

1. Refer to Division 08 Section "Interior Glazing" for installation of glass and other panels indicated to be glazed into doors and framing, and not preglazed by manufacturer.

3.3 CLEANING

A. At the end of each work day, remove unused materials, debris and containers from the site.

B. Construction Waste Management:

1. At the end of each work day, recycle or dispose of unused material, debris and containers in accordance with Division 01 Section “Construction Waste Management and Disposal.”

3.4 PROTECTION

A. Protect the Work so it will not deteriorate or be damaged. Remove protection at time of Substantial Completion.

END OF SECTION

SECTION 22 00 00

PLUMBING

PART 1 - GENERAL

1.1 SUMMARY

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to the Work of this Section.

B. This Section specifies the basic requirements of all Contractor- supplied and installed equipment. This Section applies to all sections included in Division 22 and those Sections in Division 23 that refer to this Section.
   1. Section 221000 – Plumbing Piping and Valves
   2. Section 222000 – Plumbing Specialties
   3. Section 224000 – Plumbing Fixtures

C. Related Sections:
   1. Section 211000 – Water-Based Fire Suppression Systems
   2. Division 23 – HVAC
   3. Division 25 – Building Automation System
   4. Division 26 – Electrical
   5. Division 33 – Utilities

D. Provide materials and system modifications as indicated on the Drawings.
   1. After modifications, systems shall be complete and fully operable unless indicated otherwise.
   2. Interpret the word "provide" to mean "furnish, deliver, and install ready for use".

E. Provide all seismic restraints required by code and this Specification, for all equipment, pipe, and materials furnished under this section. The Contractor is responsible for the design of the restraints and for proof of adequacy of the restraints and shall submit seismic calculations prepared by a registered Structural Engineer for review.

F. Provide all necessary rigging equipment and manpower to set equipment and materials in place and to remove demolished equipment and materials from the site. See Division 01 for details.

G. Provide cutting and patching as required for execution of Work performed under this Section unless specifically provided for under other Sections.

H. Coordinate with Work performed by other Sections in order to accommodate the requirements of this Section and to ensure adequate space and proper location for all necessary Work of the Contract, whether or not Work is under this Section. Coordination Drawings for mechanical, plumbing, fire protection, electrical, and telecommunication systems for review are required.

I. Coordination with other trades including lab equipment supplier for a complete installation of the work in Division 22 and the Sections in Division 23 that refer to this Section.

J. Repair or replace, to the approval of the Architect, any damage to Work of this Section, damage caused by leaks or breaks in systems of this Section, and damage caused by Work of this Section to the University's satisfaction, and shall be at no additional cost to the University.

K. Prepare and submit Material Submittals, Shop Drawings, As-Built Drawings, and Maintenance Manuals in accordance with Division 1.

1.2 WORK INCLUDED:

A. Provide and locate all sleeves, hangers, supports, and openings:
1. Provide, to cause no delay, all required concrete inserts, sleeves, etc., before concrete is poured.
2. Be responsible for correct location and installation of same.

B. Piping insulation.

C. Piping identification and valve tags.

D. Escutcheons.

E. Excavation, trenching, and backfilling required for this Section.

F. Fireproofing penetrations through fire rated barriers (Coordinate with Division 07).

1.3 CODES AND STANDARDS

A. Comply with applicable sections of State and local codes, laws, ordinances, rules and regulations of authorities having jurisdiction.

B. 2019 California Building Code

C. 2019 California Fire Code

D. 2019 California Plumbing Code

E. ADAAG – Americans with Disability Act Accessibility Guidelines

F. AGA – American Gas Association

G. ANSI – American National Standards Institute

H. ARI – Air Condition and Refrigeration Institute

I. ASHRAE – American Society of Heating, Refrigeration, and Air Conditioning Engineers

J. ASME – American Society of Mechanical Engineers

K. ASSE – American Society of Sanitary Engineers

L. ASTM – American Society for Testing and Materials

M. AWS – American Welding Society

N. AWWA – American Water Works Association

O. CAGI – Compressed Air and Gas Institute

P. California Code of Regulations (Title 24)

Q. Cal OSHA – California Occupational Safety Health Administration

R. California Proposition 65

S. CGA – Canadian Gas Association

T. CGA – Compressed Gas Association

U. CSA – Canadian Standards Association

V. DSA – Department of State Architects

W. FM – Factory Mutual Global

X. Hydraulic Institute

Y. IAPMO – International Association of Plumbing and Mechanical Officials

Z. Lead Contamination Act

AA. NEMA – National Electrical Manufacturers Association

BB. NFPA – National Fire Protection Association
    1. NFPA 54 – Fuel Gas System

CC. NSF – National Sanitation Foundation

DD. PDI – Plumbing Drainage Institute

EE. SDWA – Federal Safe Drinking Water Act

FF. SMACNA – Sheet Metal and Air Conditioning Contractors National Association

GG. UL – Underwriters Laboratories, Inc.

1.4 GENERAL REQUIREMENTS

A. All labor, materials, and workmanship shall be in full accordance with the latest State and local codes, regulations, and authorities having jurisdiction. Strictly conform to the requirements of California Building Code, and California Plumbing Code. Should there be any direct conflict between the Drawings and/or Specifications and the above rules and regulations, the more stringent rules and regulations shall take precedence; however, when the indicated materials, workmanship, arrangement or construction is for a superior quality or capacity to that required by the above rules and regulations, the Drawings and/or Specifications shall take precedence. Rulings and interpretations of enforcing agencies shall be considered a part of the regulations.

B. Pay all fees and obtain all permits necessary for the completion and inspection of this work and notify the University's Representative when this work will be ready for any necessary or required inspection.

C. Examine the site and/or premises, compare with the Drawings and Specifications, and determine the conditions under which the work will be performed. Examine and be responsible for all conditions, elevations, and measurements, which may affect the work. No allowance will subsequently be made for extra expense due to failure to make such examination, or due to failure to discover conditions or such other difficulties visually observed during the visit, which will affect this work.

D. Consider space requirements for all Work indicated in the Contract Document and subsequent Drawings before installing any portion of the Work. Space conflicts which occur during or after installation of Work caused by failure to consider all such requirements shall be resolved by the Contractor as approved by the Architect and at the Contractor's expense.
   1. Where apparatus and equipment have been indicated on the Drawings, dimensions have been taken from typical equipment of the class indicated. Carefully check the Drawings to see that the equipment will fit into the spaces provided.
   2. Extreme accuracy of data given herein and on the Drawings is not guaranteed. All scaled and figured dimensions are approximate and are given for estimate purposes only. Before proceeding with any Work, carefully check and verify all dimensions, sized, etc.
   3. The Drawings and Specifications are for assistance and guidance only, and exact locations, distances, and elevations are governed by actual site conditions. All piping shall be routed in strict coordination within ceiling and wall spaces, and with architectural features of the building. All applicable and pertinent details shall be strictly followed and complied with.

E. The work has been indicated on the Drawings in such positions as possible to fit and accommodate work of the other trades, and the general arrangement and location of piping, apparatus, etc., of this work are shown diagrammatically on the Drawings primarily for clarity. Changes may be necessary to accommodate other trades' work. Should it be necessary to deviate from arrangement or location indicated in order to conform to architectural and structural conditions, or due to interference with other work, make such deviations as offsets, rises, and drops in piping that may be necessary, whether shown or not, without extra expense to the University.

F. Allow a minimum of 6" clear below all pipes to allow installation of the ceiling and lights. Provide proper clearances for access to and service of all equipment and items requiring adjustment including shutoff valves.

G. No utilities passing through directly above electrical panels shall be permitted, unless otherwise indicated on plans.

H. The Drawings and Specifications do not undertake to list every item that will be installed. When an item is necessary for the satisfactory operation of the systems or is required by the equipment manufacturer, law, ordinance or rule, furnish without change in cost. Work called for in the Specifications but not on the Drawings, or vice versa, shall be done as though required by both. Lack of specific mention of any work necessary for proper completion of the work in the Specifications and/or Drawings, shall not lessen this Section's responsibility or entail any change in cost.

I. Follow manufacturers' directions in all cases where manufacturers of articles used, furnish directions covering points not shown on the Drawings or specified herein. Manufacturers' directions do not take precedence over the Drawings and Specifications. Where manufacturers' directions are in conflict with the Drawings and Specifications, submit to the University for clarification before installing the work.

J. Where equipment is furnished by others, verify dimensions and the correct locations of this equipment before proceeding with the roughing-in of connections.

K. Should the Contractor at any time discover a discrepancy between engineering and architectural Drawings, whether with respect to a significant variance between location, variation in quantity, or violation of code requirements, notify the University’s Representative for clarification and do not proceed with the work affected until clarification has been made.

L. Do not permit or cause any work to be covered or enclosed until it has been inspected, tested, and approved by the University’s Representative, and authority having jurisdiction. Should any of the work be enclosed or covered before inspection and test, this Section shall, at its own expense, uncover the work; and, after it has been inspected, tested and approved, make all repairs with such materials as may be required to restore this work and that of other trades to its original and proper condition.

M. Be responsible for damage to any of this work before acceptance. Securely cover all openings, both before and after setting into place, to prevent obstructions in the pipes and breakage. Should any piping become damaged, restore it to its original condition and finish before final acceptance without change in Contract cost.

N. Repair any damage to the premises and/or equipment occasioned by this work. Repair all damage to any part of the premises caused by leaks or breaks in pipes or equipment furnished or installed for a period of one (1) year after date of acceptance.

O. All work shall comply with University’s EH&S requirements.

P. Special inspections shall be per California Building Code. Contractor shall be responsible to coordinate special inspection work with Division 01.

1.5 RULES AND REGULATIONS

A. As specified in Division 01 and as follows.

B. Provide all work and materials in full accordance with the latest rules of the organizations listed in Division 01 and in other Sections of Division 22, and with any prevailing rules and regulations pertaining to adequate protection and/or guarding of any moving parts, or otherwise hazardous locations.

C. Whenever the Drawings and Specifications require something which will violate the regulations, the regulations shall govern. Review the Drawings and Specifications, and request from the University clarification or revision of any portion of the work in violation of the rules or regulations prior to installing the work. Any necessary installation alteration required for compliance shall be made at no additional cost to the University.

D. Whenever the Drawings and Specifications require larger sizes, or higher standards than are required by the regulations, the Drawings and Specifications shall govern.

E. Whenever there is conflicting information, the larger sizes or higher standard shall be the base of the work.

F. Strictly conform to the requirements of the National Fire Protection Association, California Electrical Code, California Building Code, California Mechanical Code, California Plumbing Code, OSHA, Fire Marshal, California Industrial Commission's Safety Orders, and insurance underwriters' requirements. All expenses required shall be borne under this Contract.

1.6 SUBMITTALS

A. Submit Shop Drawings, Design Calculations, Coordination Drawings, Product Data, and Certifications as specified in Division 01 and as follows.

B. Refer to Division 22 Sections and Division 23 Sections for specified submittals as appropriate.

C. Organize the submittals in the same sequence in which they appear by specification sections, articles, and sub-articles.

D. Provide complete information confirming all features specified in the submittals. Include catalog cuts, sketches, and/or bulletins indicating the performance characteristics and certified performance curves with operating point indicated, features of equipment, weight of the unit, auxiliaries, specialties, or accessories furnished, roughing-ins or anchor diagrams, templates, and manufacturer's installation instruction.
   1. Reference all listings to Paragraphs to which they are applicable and submit in brochure form.
   2. Identify each item by manufacturer, brand, trade name, number, size, rating, or whatever other data is necessary to properly identify and check materials and equipment.

3. For any material specified as ASTM, Federal Specifications or trade standards, furnish the manufacturer's or vendor's certification that the material furnished for the Work does in fact equal or exceed such specifications.

E. Submittals for products, materials, or area of work must be complete; piecemeal submittals will not be accepted.

F. Submittals will be checked for general compliance of specifications only. Be responsible for deviations from Drawings or Specifications, and for errors or omissions of any sort in submittals.

G. Submit drawings of equipment spaces showing substituted equipment prior to installation.

H. Approval of equipment shall not be construed as authorizing any deviations from the approved contract documents unless the University has directed the specific deviations.

1.7 MATERIALS

A. Materials and equipment shall be those of major and reputable manufacturers with ability to render competent and thorough local organizations, and to expeditiously provide spare parts.

B. In addition to material and equipment specified, also provide incidental materials required to effect complete installation. Such incidental materials include solders, tapes, calkings, mastics, gaskets, etc.

C. Valves, piping specialties, escutcheons, and access panels shall be of same manufacturer throughout installation, even though they may be provided by different sub-contractors.
1. First approved submittal in each category will establish required manufacturer for each subsequent submittal.
2. All subcontractors of this Division shall reach mutual agreement as to manufacturer prior to processing submittals purchase orders.

1.8 RECORD DRAWINGS

A. As specified in Division 01 and as follows.

B. Upon completion of the work, submit to the University sets of all "As-Built" Drawings required by the University for proper operation and location of all piping furnished under this Section. All as-built and record drawings shall be submitted in AutoCad format and hard copies.

C. Prepare and submit Project Record Drawings (As-Built Drawings) of the completed plumbing installation showing all piping above and below grade, all drains and cleanouts, backflow prevention devices, and all other equipment. Drawings shall be at the same scale, or greater, as the Contract Drawings.

D. Record Drawings shall clearly indicate any changes in dimensions, elevations, locations, sizes, offsets, and valves. Invert elevations shall include below floor and below grade piping.

1.9 OPERATIONS AND MAINTENANCE DATA MANUALS

A. Upon completion of the work, submit Operating and Maintenance Manuals as specified in Division 01 and as follows.

B. Include all instruction sheets, bulletins and all pertinent information required by the University for proper maintenance and operation of each and every piece of equipment furnished. Bind this information in a cloth hardcover, adjustable loose-leaf 3-ring binder, typed and indexed into sections labeled for easy reference. Do not include information that does not concern equipment actually furnished.

C. Provide a complete written narrative type itemized description of operating, and maintenance procedures for any non-standard field-erected systems.

D. Each manual shall contain the following:
1. List of all equipment with equipment tag numbers, manufacturers' names, model numbers, performance ratings, individual part numbers, and local representatives.

E. After completion of testing and balancing and acceptance testing operations, instruct the University in the operation, adjustment and maintenance of the installed systems for a minimum of 8 man-hours, unless the University agrees to a shorter period.
1. Submit three (3) copies of certificates signed by the University, attesting to their having been instructed.

1.10 SCHEDULING AND SEQUENCING

A. Cooperate with other trades in putting this installation in place at a time when space required is accessible, and in such a manner that all other work in this space may be installed as shown on the Drawings. Schedule work and cooperate with other trades to avoid delays, interferences, and unnecessary work, conforming to the construction schedule, making the installation when and where directed.

B. Coordinate work with the project's phasing of the scope of work.

C. No system shutdown shall be permitted without the expressed written approval from the University's Representative. Give the College's Representative fourteen (14) days notice, in writing of need to shut off existing utility services or equipment interruptions. The University's Representative shall set the exact time for and execute shutdown. The request shall state what systems are to be shutdown, what areas will be affected, how long the period will be, and what contingency plan is provided if the work cannot be completed within the specified time. This procedure must be established and followed in order to provide the University's Representative with the least amount of service interruption and the least amount of disturbance for the users of the affected areas.

1.11 DELIVERY, STORAGE, AND HANDLING

A. Comply with pertinent provisions of Division 01 and as follows.

B. Equipment furnished by the Contractor: Specific provisions for delivery and storage locations, as well as handling, protection, and security measures shall be included in the Contract Documents.

C. Inspect materials and equipment at time of arrival.

D. Use all means necessary to protect shipped materials and equipment before, during, and after installation against damage from improper handling or storage and to protect the installed Work and materials of all other trades.

E. In the event of damage, immediately make all repairs and replacements necessary to the approval of the Architect and at no additional cost to the University.

1.12 REVIEW OF CONSTRUCTION

A. Work may be reviewed at any time by representatives of Architect, University, and regulating authorities.

B. Advise Architect that Work is ready for review at the following times:
1. Prior to concealment of any Work.
2. When requirements of Contract have been completed.
3. Prior to installation of suspended ceiling.

C. Work shall not be concealed without University's consent or Agency's final review, where applicable.

D. Maintain on job a set of approved Specifications and Drawings for use by the University's Representatives and Inspector of Record.

1.13 WARRANTY

A. As specified in Division 01 and as follows.

B. Provide the University with one year written warranty after date of beneficial occupancy against defective equipment and/or workmanship in accordance with Division 01.

C. Where extended warranties are available the University shall be given the option of accepting or rejecting such warranty.

1.14 QUALITY ASSURANCE

A. Qualifications of personnel: Use qualified and competent installers in the execution of this portion of the Work in accordance with Division 01.

B. Contractors Qualifications: The Contractor shall be a California licensed contractor with a valid State of California license in the installation of plumbing systems, and the same company shall have been in the business of installing plumbing systems for a minimum of 5 years.

C. The Contractor shall provide certification in accordance with the Code of Federal Regulations, Title 49, Part 192 for all personnel who will be performing welding work for fusion welded polyethylene piping system.

D. Products shall be from manufacturer's regularly engaged in the manufacturing of plumbing products, and product data are in published plumbing catalogs.

E. Any materials or equipment installed without the approval of the University's Representative shall be subject to immediate removal without additional costs to the University.

F. Start-Up: Manufacturer's authorized representative shall provide start-up services, including all adjustments, and instruction to University's operating personnel.

PART 2 - PRODUCTS

2.1 GENERAL

A. As specified in Division 1 and as follows.

B. Materials and equipment shall be full weight, new, standard in every way (unless otherwise specified) and the best quality of their respective kinds. Two manufacturer's names and model or accessory numbers are generally shown for each piece of equipment, unless indicated otherwise as "no known equal".

C. Products and materials of the same type shall be uniform throughout the installation. When of the same type, shall be of the same manufacturer.

D. Where the manufacturer's name is not repeated preceding the model or accessory number in the succeeding respective paragraph(s), it shall be understood that the numbers are shown respectively with the aforementioned manufacturer's names.

E. Refer to the Division 22 and Division 23 Sections for specified manufacturers.

F. In the event of a conflict between plans and specifications and the manufacturer's recommendations, notify the Architect and the University's representative immediately.

2.2 PIPING SUPPORTS AND ANCHORS

A. As specified in Section 230529.

2.3 CORROSION PROTECTION

A. 8-mil thick polyethylene wrap.

B. Cold-applied Tape Coating:
   1. Tapecoat CT and TC primer, Polyken 930 and 1027 primer, or equal, minimum 35-mil thick polyethylene film tape with primer, conforming to AWWA C209.

C. Fire-Rated Barrier Penetrations:
   1. As specified in Division 07, and as follows.
   2. Firestop assemblies shall be Hilti, 3M, SpecSeal, or equal.
   3. In compliance with California Building Code, Sections 712.3 for penetrations through rated wall assemblies; Section 712.4 for penetrations through fire rated floor/ceiling and roof/ceiling.
   4. Assemblies shall be listed in latest edition of UL “Fire Resistance Directory” for Through- Penetration of Firestop Devices. Assemblies shall suit the type of wall or floor construction, and type of piping material for the through penetration condition.
   5. Through Interior Walls, Floors, and Ceilings:
      a. For sizes up to 6” diameter: Adjus-to-Crete, KC Scott AMI, or equal, 24-gauge hot-dipped galvanized sheet metal with lock seam joints or ½” inch overlap sleeves.
      b. For 8” and larger sizes: Hot dipped galvanized Schedule 40 steel pipe sleeves.

2.4 ACCESS PANELS

A. As specified in Division 01, and as follows.

B. Provide stainless steel frame and panel for installation in ceramic finish walls.

C. Provide rated assembly for rated wall installations.

2.5 ESCUTCHEON PLATES

A. Split ring type, chromium-plated steel plates with brass set screw to hold escutcheon securely in place.

B. Split ring type, chromium-plated steel plates with hinge and springs.

C. Brasscraft, Dearborn Brass, or equal, shallow chrome-plated one-piece escutcheons for piping rough-ins at face of wall.

2.6 COLOR CODING OF PIPES

A. MSI, Brady, Seton, or equal, conforming to ASME A13.1.
   1. For pipe sizes less than 6”: Coiled plastic pipe markers consisting of pipe content and arrows indicating direction of flow.

2. For pipe sizes larger than 6": Strap-on plastic pipe markers consisting of pipe content and arrows indicating direction of flow.
3. Self-adhesive pipe markers consisting of pipe content and arrows indicating direction of flow. Provide at each end of each marker 2-1/4 inch wide self-sticking clear tape around the periphery of pipe or insulation to further secure the marker.
4. Arrows and marker letters shall be placed immediately adjacent to each other with the same size and color.

B. Minimum Length of Color Field and Size of Letters:

Outside Diameter of Pipe or Covering (inches)	Minimum Length of Color Field (inches)	Minimum Size of Letters (inches)
½ to 1¼	8	½
1½ to 2	8	¾

C. Colors:

SERVICE	COLOR OF BACKGROUND	COLOR OF LETTER
Drinking Cold Water	Green	White
Drinking Hot Water	Yellow	Black
Sanitary Sewer and Vent	Green	White

2.7 PIPING INSULATION

A. As specified in Section 230700, and as follows.

B. Owens-Corning Fiberglas ASJ/SSL-II, Johns Manville "Micro-Lok", Certain-Teed, or equal, UL listed, two-piece fiberglass piping insulation, 4.2 lbs. per cubic foot density, with flame spread not over 25 and smoke developed not over 50 and vapor barrier jacket with pressure sensitive sealing lap adhesive.
1. For system temperature above 105°F, the thermal conductivity of insulation shall be between 0.24 and 0.28 (BTUH-in)/(hr.-ft^2-deg.F).

C. Nomaco FlexTherm, Armacell, RBX Insultube, or equal, UL listed, flexible elastomeric, closed-cell, mold-resistant with vapor permeability rated at less than 0.1 perm–inch, tubular pipe insulation conforming to ASTM C-534. Seams shall be self-sealing or sealed with approved adhesive.

PART 3 - EXECUTION

3.1 GENERAL

A. No piece of equipment or trim shall support the weight of any pipe.

B. Provide sleeves wherever pipes are run through walls and beams to allow large enough openings for the passage of the pipe and pipe insulation when required. Sleeves shall be of sufficient size to allow for contraction and expansion of pipe.

C. Furnish and install insulating unions or insulating flanges as hereinbefore specified at all connections of ferrous and nonferrous piping. Insulating devices shall completely isolate metal-to-metal contacts between dissimilar metals.

D. Provide supports and seismic bracing for piping system in accordance with California Building Code. Utilize seismic coefficient and importance factor identified on the structural drawings. Provide calculations prepared by a structural engineer registered in the State of California, showing compliance of any bracing systems and devices used.

E. Firestop all pipe penetrations through fire rated floors, walls, ceilings, and/or roof.

F. Schedule in writing and a minimum of 2 week in advance, with the University's Representative for utility shut-downs.

G. Coordinate phasing of work. All areas not scheduled to be in construction shall remain fully functional.

H. Securely bolt in place to building structures, all equipment, hangers, etc.

I. Control panels shall have minimum 3.5 feet clearance in front of the knobs of the control panel, all in accordance with National Electric Code. Provide contacts for building's EMCS where applicable.

3.2 CORROSION PROTECTION

A. For un-insulated copper pipe in contact with cement or through ferrous pipe sleeves, wrap pipe with two layers of heavy plastic protective tape. Finish wrapping flush with floor.

B. Cold-applied Tape Coatings:
   1. Installation shall be per AWWA C209 requirements and manufacturer's recommendations.
   2. Apply tape spirally wrapped around pipe and lapping as to provide the specified minimum applied thickness.
   3. Apply coal tar coating over the tape system, and wrap with polywrap and seal ends.

3.3 ACCESS PANELS

A. Provide access panels for valves, trap primers, funnel drains, and water hammer arresters behind inaccessible ceiling and walls.

B. Coordinate with Architect for exact locations of access panels.

3.4 ESCUTCHEON PLATES

A. Escutcheon plates shall be securely held in position allowing enough clearance to care for expansion and shall have sufficient size to cover the opening around the pipe.

3.5 STENCILING AND IDENTIFICATION

A. As specified in Division 01, and as follows.

B. Manufacturer's nameplate, name or trademark shall be permanently affixed to all equipment and material furnished under this Work. Nameplates of Contractor or distributor are not acceptable.
   1. Manufacturer’s nameplate shall identify model number, performance data, electrical characteristics, serial number, etc.

C. Format and numbering system of tags and labels shall be per University’s direction, or at minimum, per Contract Document. Do not proceed with labeling without approval from the University.

D. Identify all scheduled equipment including pumps, tanks, etc with engraved plastic labels with royal blue background and 1/2" high white lettering. Attach to equipment with stainless steel screws. Adhesive labels and decals are not acceptable.

E. Identify all valves: Shutoff valves, branch valves, balancing valves, check valves, drain valves, vent valves, control valves, pressure regulating valves, pressure relief valves, etc. Affix tags to valve with brass link chain.
   1. MSI, Seton, or equal, 1½”-inch diameter or square18 gauge brass discs with 3/8-inch high letters blackened and cut in.
   2. Valve tags shall indicate valve numbers, service, normally closed (NC) or normally open (NO).

F. Identify all exposed piping and insulation with pipe markers and secure markers in place every 20 feet on mains at maximum, at risers on each floor, at all branch take-offs, adjacent to valves or cocks, and where piping enters or leaves a concealed space.
   1. “Exposed piping and insulation” means where exposed to view from the floor, ladder, above accessible ceilings, accessible shafts or other furred spaces.

G. All pipe markers shall be installed after finish painting is complete.

H. Install pipe markers in accordance with the manufacturer’s directions. For adhesive type, pipe markers shall completely cover the circumference of the pipe and overlap itself and attach circumferential color coded direction arrows overlapping one end of the marker.

I. Apply protective coating of clear epoxy over identification labels in corrosive areas.

J. All labels and stencils shall be located visually accessible so can be easily identified.

K. Warning signs shall be placed on all machines driven by electric motors which are controlled by fully automatic starters per Section 3320, Article 7, Subchapter 7, General Industry Safety Orders, Title 8, California Administrative Code.

L. Directories:
   1. Provide a computer file database, in a format agreeable to the University, for documenting valve tags and equipment stencils:

a. Include valve numbers, locations, types of service, and specific duty whether “normally open” or “normally close,” of all tagged valves.
b. Include equipment stencils, locations, and types of service, of all tagged equipment.

2. Submit a preliminary copy of the valve schedule to the University for approval.
3. Attach a printed copy of a complete valve schedule in all Operation and Maintenance Manuals.

3.6 INSULATION

A. As specified in Division 23 and as follows.

B. Insulate all domestic hot water piping, including run-outs to fixtures.

3.7 CLEANING

A. Thoroughly clean piping and equipment to be insulated, and remove rust, plaster, and dirt before insulation is applied.

B. Pipe and equipment to be painted:
1. Clean all piping, and equipment, exposed to view in complete structure, by removing rust, plaster, and dirt by wire brushing.
2. Remove grease, oil and similar materials by wiping with clean rags and suitable solvents.

C. Remove from site all packing cartons, scrap materials and other rubbish resulting from operations under this Section.

D. Any piece of equipment or part of a system, which malfunctions or is damaged due to failure or neglect to observe this paragraph, shall be repaired or replaced by the Contractor to the satisfaction of the University.

3.8 COMPLETION

A. The Work hereunder will not be reviewed for final acceptance until operations and maintenance data, manufacturer's literature, valve directories, piping identification code directory, and nameplates specified herein have been approved and properly posted in the building, and final cleaning has been completed.

B. When the installation is complete and adjustments specified herein have been made, operate the systems for a period of one week, during which time demonstrate to the Architect that systems are completed and operating in conformance with these Specifications.

END OF SECTION

SECTION 22 10 00

PLUMBING PIPING AND VALVES

PART 1 - GENERAL

1.1 WORK INCLUDED

A. The work includes, but is not necessarily limited to, the furnishing and installing of all plumbing work, as shown and noted on the Drawings and specified herein. It is not necessarily all inclusive. At completion of work, all systems shall be continuous, operational, and functioning in the proper manner. This section shall be responsible for determining all items and quantities required.
   1. Sanitary soil, waste, and vent piping system, including indirect waste piping, and final connections to the on-site waste system.
   2. Domestic cold water piping system
   3. Domestic hot water and including piping insulation.
   4. Coordinate electrical requirements for this work with electrical section.
   5. Coordination between this Section and architectural, structural, and civil work.
   6. Pipe hanger and support devices, and seismic bracing of piping and equipment.
   7. Pressure testing of installed piping and existing portions.
   8. Cleaning and flushing of all piping systems.
   9. Sterilization of potable cold and hot water piping systems.
   10. Furnish and install all metal fabrications required for piping and equipment supports.
   11. All rigging, hoisting, transportation, and associated work necessary for placement of all equipment in the final location shown.

B. Related Work Specified Elsewhere
   1. 22 47 00 – Drinking Fountain
   2. 22 00 00 - Plumbing
   3. Division 23 – HVAC
   4. Division 26 – Electrical

1.2 CODES AND STANDARDS

A. As specified in Section 220000.

1.3 GENERAL REQUIREMENTS

A. As specified in Section 220000 and as follows.

B. All materials, including but not limited to pipes, fittings, valves, etc., installed for potable water system for human consumption shall be lead-free, in accordance with Safe Drinking Water Act, Proposition 65, and NSF 61G.

C. Solution used for system disinfection and sterilization shall be discharged in an approved manner per local ordinances and EH&S requirements. Contractor shall be responsible for managing, storing, and removing discharged solution to an approved hazardous waste management station off-site.

1.4 ELECTRICAL REQUIREMENTS

A. As specified in Section 220000.

1.5 SCHEDULING AND SEQUENCING

A. As specified in Section 220000.

1.6 SUBMITTALS

A. As specified in Section 220000.

B. Product Data:
1. Submit the following manufacturers' product data for review:
2. Piping, fittings, and valves.
3. Sterilization and sanitization procedures.

1.7 MATERIALS

A. As specified in Section 220000.

1.8 OPERATION AND MAINTENANCE DATA MANUALS

A. As specified in Section 220000.

1.9 DELIVERY, STORAGE, AND HANDLING

A. As specified in Section 220000 and as follows.

B. Materials are not listed for potable water use shall be store separately from materials for potable water system.

C. “Specially cleaned” materials shall be clearly identified and stored in a separate location, and shall be protected from being contaminated. Any “clean” materials and components that are contaminated or suspected of being contaminated must be re-cleaned in accordance with CGA 4.1.

D. Protect all piping from entrance of foreign materials with temporary caps, or covering. Complete all sections of piping, or cap at end of shift. Maintain all temporary piping end caps until next connection of piping or completion of rough-in and connect.

E. Provide temporary protective coating on steel and cast iron valves.

1.10 TESTING AND SYSTEM ACCEPTANCE

A. As specified in Section 220000.

1.11 WARRANTY

A. As specified in Section 220000.

1.12 QUALITY ASSURANCE

A. As specified in Section 220000 and as follows.

B. Installation of flange gaskets shall be in strict conformance to the gasket manufacturer's recommendations including bolt pattern and torquing requirements.

C. All valves shall have ratings stamped on the valve bodies.

D. All valves shall be full-port, unless otherwise herein specified.

E. All pipes shall be marked with the names or trademarks of the manufacturers and type of pipes.

F. Cleaning, passivation, and/or disinfection of systems shall be performed by company that is qualified and regularly engaged in sterilization work.

PART 2 - PRODUCTS

2.1 MATERIALS OF CONSTRUCTION

A. As specified in Section 220000 and Section 230500.

2.2 HOT, COLD WATER PIPING

A. Above Grade: Type "L" copper tubing with wrought copper solder-joint fittings.
   1. For 2” size and smaller: Lead-free soldered joints.
   2. For 2-1/2” size and larger: Silver-brazed joints.

B. Provide dielectric unions for all connections between ferrous and copper piping.

2.3 DRAINAGE PIPING AND FITTINGS

A. Sanitary Drainage Piping and Fittings:
   1. Cast Iron Soil Pipe and Fittings: CISPI 301 or ASTM A-888 standard weight hubless soil pipe and fitting. All pipe and fittings shall be marked with CISPI’s collective trademark or receive prior approval be the engineer of record. Joints for hubless pipe and fittings: CISPI 301 and shall conform to the manufacturer’s installation instructions and local code requirements. Anaco “Husky SD 4000,

Clamp-All 125, Tyler WB, MG Couplings, or equal, comply with FM 1680, Class 1.

2. Copper Vent Piping and Fitting (Above floor): ASTM B306 DWV type copper tubing and ANSI B16.23A cast bronze solder-joint drainage type fitting. Provide Mission, or equal, CISPI 310 adaptor coupling with neoprene gasket and stainless steel shield with two bands. Use only as permitted by local ordinances.
3. Condensate Drainage Piping and Fittings
   a. ASTM B88 hard drawn deoxidized, Type M copper tubing with wrought copper wyes and long radius fittings.

2.4 FITTINGS

A. Copper tubing for water service: Hard drawn deoxidized water service tubing conforming to ASTM B88, Type “L” and Type “K” as specified herein.

B. Fittings for Copper Water Tubing: ANSI B16.22, wrought copper solder-joint fitting.

C. Flanges for Copper Tubing: ASME B16.24 cast copper alloy.

D. Soft Copper Tubing: Soft Annealed ASTM B88, Type “K” tubing, and ANSI B16.22 fitting.

E. Threaded to Solder Adaptors: As specified for solder type fittings.

F. Solder: Harris, Engelhard, or equal, ASTM B32 lead-free solder for all water piping.

G. Harris, Engelhard, or equal, BCuP filler material for brazing of copper fitting joints.

H. Steel Pipe: ASTM A53, Schedule 40 black steel or galvanized piping.

I. Fittings for Steel Piping: Malleable iron threaded fitting conforming to ANSI B16.3, and Schedule 40 steel fitting for butt welding conforming to ASTM A234, OR ASME B16.9.

J. Drainage Fittings for Steel Piping: ANSI B16.12 threaded cast iron drainage type.

2.5 VALVES

A. Water Valves for Potable Water Systems: In compliance with Section 1417 of SDWA, and NSF-61G Standards.
   1. Ball Valves, 2" Size and Under: Nibco T-685-80-LF, Milwaukee UPBA-475B, Red and White, Apollo, Kitz, or equal, threaded ends, 600 PSI WOG, 150 PSI, two-piece bronze body with bronze trim and full port chrome-plated ball.
   2. Butterfly Valves, 2-1/2” and larger: Watts DBF-03, Nibco LD-2020-3-LF, Danfoss Flomatic, or equal, ductile iron, lug style body, with molded-in EPDM liner, stainless steel disc, extended neck, and lever-lock handle, 200 PSI.

2.6 UNIONS AND DIELECTRIC FITTINGS

A. Unions for Steel Pipe:

1. 2” size and smaller: Malleable iron, ground joint pattern, brass to iron seat, female threaded-end connections, 150 PSI.
2. 2-1/2” size and larger: Standard 150 PSI flanges with gaskets and bolts.

B. Unions for Copper Tubing: Solder joint ends, cast bronze, ASTM B62 and ANSI B16.18.

C. Copper to Ferrous Connections: Epco, Vallet, or Ecoff dielectric pipe unions, threaded or flanged as required with gaskets rated at 250 PSIG.

2.7 PIPING SUPPORTS AND ANCHORS

A. As specified in Section 230529.

2.8 INSULATION

A. As specified in Section 220000.

2.9 SLEEVES

A. As specified in Section 220000.

2.10 STENCILING, IDENTIFICATION, AND COLOR CODING OF PIPES

A. As specified in Section 220000.

2.11 ESCUTCHEON PLATES

A. As specified in Section 220000.

2.12 CORROSION PROTECTION

A. As specified in Section 220000.

PART 3 - EXECUTION

3.1 GENERAL

A. See Section 220000, Section 230500, and as follows.

B. Domestic Hot and Cold Water piping shall be sized and installed in accordance with 2016 Edition of California Plumbing Code.

C. Sanitary Waste and Sanitary Vent piping systems shall be sized and installed in accordance with 2016 Edition of California Plumbing Code.

D. Check all piping runs before hand with all other trades. Run piping to maintain proper clearance for maintenance and to clear opening in exposed areas. Run piping in strict coordination with existing mechanical piping, ducts and equipment, structural and architectural conditions. Piping shall be concealed in designated ceiling spaces, and wall spaces, unless otherwise noted for exposed installation. Where work of other trades prevents installation of the piping as shown on the Drawings, reroute piping at no extra cost. Verify all inverts and pitched lines before starting work.

E. Install all exposed piping parallel to or at right angles with building walls and tight to walls or ceilings wherever possible, except where otherwise shown on the Drawings. Install all piping below the bottom of beam elevations; provide sleeves as required. Install no-hub coupling bands with screws as far back as possible behind pipes.

F. Install all piping free from traps and air pockets and true to line and grade.

G. Where exposed pipes pass through furred walls and suspended ceiling, fit in all finished rooms and conspicuous locations with escutcheon plates. Escutcheon plates must be securely held in position allowing enough clearance to care for expansion and shall be sufficient size to cover the opening around the pipe.

H. Support all pipe from the building structure so that there is no apparent deflection in pipe runs. Piping or equipment shall be immobile and shall not be supported or hung by wire, rope, plumber's tape or blocking of any kind. Do not support piping from ducts, other pipes, conduit, or any materials except building structure.

I. Piping support spacing shall comply with CPC Tables 3-2 and 12-3, and as noted in table below. Bracing and seismic restraints shall be per CBC and as specified in Section 230529. Hanger rods and spacing shall be as follows, at minimum:

Schedule of Hanger Rods and Spacings*

Pipe Size (Inches)	Min. Rod Size (Inches)	Spacing (Feet)			
		Copper Tubing	Hubless Cast Iron Pipe	Steel Pipe	Plastic Pipe
1 & Smaller	3/8	5	--	6	3
1-1/4	3/8	6	--	8	4
1-1/2 to 2	3/8	6	**	9	4
2-1/2 to 3	1/2	10	**	10	4
4 - 6	5/8	10	**	10	4

*Each branch of piping over 3 feet long shall have a separate hanger.
** Every other joint, unless over 4 feet, then support each joint.

J. Insulate where copper tubing comes in contact with ferrous material with double wrapped heavy vinyl tape.

K. No valve and no piece of equipment or trim shall support the weight of any pipe. Support piping independently at pumps and the like so that its weight will not be supported by the equipment.

L. Install all valves, vents, traps, cleanouts and other trim in accessible locations.

M. Make all changes in direction with fittings, unless otherwise herein specified.

N. Wherever changes in sizes of piping occur, make such changes with reduced fittings, as the use of face bushings will not in general be permitted. Install eccentric reducing fittings where necessary to provide free drainage of lines.

O. Unless otherwise noted, install water supply and return piping with straight side of eccentric fittings at top of pipe.

P. Install a union on downstream side of threaded-end valves, cocks, equipment and at other points where required for disassembly or where shown.

Q. Furnish and install insulating unions or insulating flanges as hereinbefore specified at all connections of ferrous and nonferrous piping. Insulating devices shall completely isolate metal-to-metal contacts between dissimilar metals.

R. Unless otherwise noted, provide threaded joints on steel piping 2 inches and smaller, and welded joints on black steel piping 2-1/2 inches and larger.

S. Close all openings in pipes with appropriate caps, plugs, or covers during progress of the Work to preclude introduction of undesirable materials.

T. At completion of work, no piping exhibiting rust will be accepted.

3.2 SANITARY WASTE AND VENT, AND STORM DRAINAGE PIPING

A. Cast iron no-hub soil pipe and fittings.

B. All sanitary waste piping from urinals shall be cast iron piping and fittings.

C. Sanitary vent piping above grade shall be cast iron piping with hubless fittings and standard stainless steel and neoprene gasket coupling. DWV copper may be used only as permitted by Code.

3.3 SANITARY SOIL, WASTE, VENT, HOT AND COLD WATER BRANCH PIPING SIZES

A. See Fixture Schedule on drawing for connection sizes.

B. Drainage piping and Vent piping systems shall be installed in accordance with California Plumbing Code. Minimum pipe slope shall be ¼” per 1’-0”.

C. Do not run 1" size for flushometers longer than 3'-0", then increase to 1-1/4" size.

D. 1/2" horizontal suspended branch lines shall not be longer than 5'-0".

3.4 INSULATION

A. As specified in Section 220000.

3.5 CORROSION PROTECTION

A. As specified in Section 220000.

3.6 ESCUTCHEON PLATES

A. As specified in Section 220000.

3.7 STENCILING AND IDENTIFICATION

A. As specified in Section 220000.

3.8 VALVE TAGS

A. As specified in Section 220000.

3.9 CLEANING

A. As specified in Section 220000 and as follows.

B. All field cut pipe ends shall be squared and reamed to full bore of piping to remove all burrs and chips. Follow the installation instruction for each fitting manufacturer when assemble joints.

C. Thoroughly clean, flush, and drain all drainage and water piping systems of any nature of piping contaminants such as cuttings, filings, lubrication, rust, scale, grease, solder, flux, debris with clean water prior to testing.

3.10 VALVE INSTALLATION

A. As specified in Section 230500 and as follows.

B. Valve handles of piping in concealed ceiling spaces shall be installed in horizontal position such that handles clear ceiling tiles. No valve handles shall be installed below the horizontal axis of the valve.

C. Provide handle extensions for all valves under insulation and exterior cladding.

D. All drain valves shall be located above accessible areas.

3.11 ADJUSTMENT

A. Check valve positions to ensure all on-off valves are either completely open or completely close.

B. Lock all balancing valves in position after system balancing is complete.

3.12 TESTING

A. Before conducting tests, valve-off or disconnect any equipment and apparatus which may be damaged by the test pressures higher than normal working pressures.

B. All testing shall be witnessed and approved by the Owner's Representative and local authority.

C. Sanitary Waste and Vent Piping: Test and prove tight with 10 feet head of water, in accordance with the California Plumbing Code.

D. Storm Drainage Piping shall be tested the same as for sanitary waste and vent piping.

E. Hot and Cold Water: Test and prove tight hydrostatically at a pressure of 150 PSI.

F. Final pressures at the end of test period shall be not more than that caused by expansion or contraction of the test medium due to the temperature changes.

G. Apply tests for a minimum period of two (2) hours, or as noted above, or until tests are complete, in the opinion of the inspecting authority.

H. Work may be tested in sections, if necessary, for convenience. In this case, test of last section shall include all connection between previously tested sections and section under test.

I. Furnish all labor and all other utilities required to make tests. Install pressure gauges as required for test.

J. When the various systems are completed, run operation tests to demonstrate proper operating conditions. Run these tests under the observation of the Owner's Representative. Operate the water systems through all cycles of operation for this period of 8 hours. Instruct the Owner's operators during this period. Perform operations tests under actual service conditions.

K. Should any piece of equipment, apparatus, material, or work fail in any of these tests, immediately remove and replace by perfect material, and re-test the portion of the work replaced.

3.13 DISINFECTION OF POTABLE WATER SYSTEMS

A. Bennett Marine Utility, Inc, Water Chemists, or equal.

B. At completion of the testing and adjusting and before potable water systems are put into use, they shall be sterilized in accordance with the current edition of AWWA C651 and the procedures specified below.
   1. Chlorination Method:
      a. Fill systems with potable water and chlorine at a rate to maintain a minimum chlorine concentration of 50 ppm in the entire systems. Retain solution in systems for 24 hours. Cycle all valves during this period.
      b. Test for the residual concentration in systems at the end of 24 hours. A minimum concentration of 50 ppm of chlorine is required at all chosen sampling points.
      c. After approval to proceed, flush systems with potable water to remove the chlorine solution until the chlorine level in the discharge water is the same as that of the flushing water.
   2. Bacteriologic Test:
      a. After flushing is complete, fill systems with potable water. Samples of water shall be taken 3 days after the systems are re-filled and to a certified laboratory for qualitative and quantitative bacteriologic analysis. Bacteriologic analysis must include Coliform bacteria test.
      b. The system shall remain out of service until the results of the bacteriologic tests are approved.

C. Submit a preliminary copy of disinfection procedures for Owner's review. Test shall not be started prior to an approval from the Owner's Representative.

D. Until sterilization of the water system has been made, provide signage at all water outlet locations stating the water system has not been sterilized and shall not be used for human consumption.

E. This Section shall furnish and install all valves, outlets, and devices required by the sterilization Sub-Contractor to complete the disinfection work.

F. Upon a satisfactory completion of all sterilization procedures, Contractor shall submit a copy of the disinfection report, bacteriologic test report, and a certificate of acceptance to the Owner.

END OF SECTION

SECTION 22 47 00

DRINKING FOUNTAINS AND WATER COOLERS

PART 1 - GENERAL

1.1 WORK INCLUDED

A. This Section includes the following:
   1. Drinking fountains.
   2. Fixture supports.

1.2 RELATED WORK AND REQUIREMENTS

A. General Conditions Division 01.

B. Section 22 00 00 - Plumbing Specialties.

C. Section 22 10 00 - Plumbing Piping.

1.3 DEFINITIONS

A. Accessible Drinking Fountain and Water Cooler: Fixture that can be approached and used by people with disabilities.

B. Drinking Fountain: Fixture with bubbler for delivering stream of water for drinking.

C. Fitting: Device that controls flow of water into or out of fixture.

D. Fixture: Drinking fountain or water cooler, unless one is specifically indicated.

E. Water Cooler: Electrically powered fixture for generating and delivering cooled drinking water.

1.4 SUBMITTALS

A. See Section 23 05 00 – Basic Mechanical Materials and Methods.

B. Product Data: Include rated capacities; shipping, installed, and operating weights; furnished specialties; and accessories for each type of fixture indicated.

C. Shop Drawings: Diagram power, signal, and control wiring and differentiate between manufacturer-installed and field-installed wiring.

D. Maintenance Data: For fixtures to include in maintenance manuals specified in Division 1.

1.5 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in the California Electric Code, NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

B. Regulatory Requirements: Comply with requirements in ICC A117.1, "Accessible and Usable Buildings and Facilities"; Public Law 90-480, "Architectural Barriers Act"; and Public Law 101-336, "Americans with Disabilities Act" as well as the California building code (CBC); about fixtures for people with disabilities.

C. NSF Standard: Comply with NSF 61, "Drinking Water System Components--Health Effects," for fixture materials that will be in contact with potable water.

D. ARI Standard: Comply with ARI 1010, "Self-Contained, Mechanically Refrigerated Drinking-Water Coolers," for water coolers and with ARI's "Directory of Certified Drinking Water Coolers" for type and style classifications.

E. Lead-free requirement: California AB1953, lead-free brass fitting.

1.6 COORDINATION

A. Coordinate roughing-in and final fixture locations, and verify that fixtures can be installed to comply with original design and referenced standards.

1.7 EXTRA MATERIALS

A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
   1. Filter Cartridges: Equal to 20 percent of amount installed for each type and size indicated, but not less than 10 of each.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Products: Subject to compliance with requirements, provide one of the products specified in other Part 2 articles.

B. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified in other Part 2 articles.

2.2 DRINKING FOUNTAIN WITH ELECTRIC WATER COOLER

A. Drinking Fountain: Accessible, duel level receptors, wall-hanging fixture made of stainless steel, and complies with Safe Drinking Water Act and certified to comply with NSF/ANSI 61 and California AB1953. Water Cooler shall be complete with bottle filling

station mounted over high level receptor. Bottle filling station shall be sensor operated. Bottle filler shall have a filter, and a 1.1 GPM fill rate.

1. Products:
    a. Metal Drinking Fountains:
        1) Elkay Manufacturing Co. No Exceptions. to be consistent with other drinking fountains within the building.
2. See Plumbing Fixture Schedule on Drawing for specification.

B. Bottle Filler: in wall, filtered, wheel chair accessible up or filling station, 16 gauge Type 304 stainless steel cabinet. Electric sensor operated with 30 seconds timeout, 0.5 GPM flow rate - 2,500 gallon capacity. 3 years warranty.
1. Elkay.

2.3 FIXTURE SUPPORTS

A. Off-Floor, Plumbing Fixture Supports: ASME A112.6.1M, water-cooler carriers. Include vertical, steel uprights with feet and tie rods and bearing plates with mounting studs matching fixture to be supported.
1. Manufacturers:
    a. Haws
    b. Josam Co.
    c. Smith, Jay R. Mfg. Co.
    d. Zurn.
    e. Or equal.

B. Supports for Accessible Fixtures: Include rectangular, vertical, steel uprights instead of steel pipe uprights.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine roughing-in for water and waste piping systems to verify actual locations of piping connections before fixture installation. Verify that sizes and locations of piping and types of supports match those indicated.

B. Examine walls and floors for suitable conditions where fixtures are to be installed.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLICATIONS

A. Use mounting frames for recessed water coolers, unless otherwise indicated.

B. Set remote water coolers on floor, unless otherwise indicated.

C. Use chrome-plated brass or copper tube, fittings, and valves in locations exposed to view. Plain copper tube, fittings, and valves may be used in concealed locations.

3.3 INSTALLATION

A. Install floor supports affixed to building substrate and attach wall-hanging fixtures, unless otherwise indicated.

B. Install mounting frames affixed to building construction and attach recessed water coolers to mounting frames, unless otherwise indicated.

C. Install fixtures level and plumb.

D. Install water-supply piping with shutoff valve on supply to each fixture to be connected to water distribution piping. Use ball, gate, or globe valve. Install valves in locations where they can be easily reached for operation. Refer to Section 23 05 23"Valves" for general-duty valves.

E. Install trap and waste piping on drain outlet of each fixture to be connected to sanitary drainage system.

F. Install pipe escutcheons at wall penetrations in exposed, finished locations. Use deep-pattern escutcheons where required to conceal protruding pipe fittings. Refer to Division 15 Section "Basic Mechanical Materials and Methods" for escutcheons.

G. Seal joints between fixtures and walls and floors using sanitary-type, one-part, mildew-resistant, silicone sealant. Match sealant color to fixture color. Refer to Division 07 for sealant and installation requirements.

3.4 CONNECTIONS

A. Piping installation requirements are specified in other Division 22 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Connect water supplies from water distribution piping to fixtures.

C. Connect drain piping from fixtures to drainage piping.

D. Ground equipment.
   1. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

3.5 FIELD QUALITY CONTROL

A. Water-Cooler Testing: After electrical circuitry has been energized, test for compliance with requirements. Test and adjust controls and safeties.

B. Repair or replace malfunctioning units. Retest as specified above after repairs or replacements are made.

C. Report test results in writing.

3.6 ADJUSTING

A. Adjust fixture flow regulators for proper flow and stream height.

B. Adjust water-cooler temperature settings.

3.7 CLEANING

A. After completing fixture installation, inspect unit. Remove paint splatters and other spots, dirt, and debris. Repair damaged finish to match original finish.

B. Clean fixtures, on completion of installation, according to manufacturer's written instructions.

END OF SECTION

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SECTION 23 30 00

DUCT ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

A. Work included in this section: materials, equipment, fabrication, installation and tests in conformity with applicable codes and authorities having jurisdiction for the following:
   1. Access Doors
   2. Balancing Dampers
   3. Backdraft Dampers
   4. Fire and Smoke Dampers
   5. Sound Attenuators
   6. Drain Pans
   7. Belt Guards
   8. All duct accessories except, where integral with manufactured piece of equipment.

B. Related Sections
   1. Section 23 05 00 – Basic Mechanical Materials and Methods

1.2 QUALITY ASSURANCE

A. Fire, smoke, and fire/smoke dampers shall be UL listed and constructed in accordance with UL Standard 555 Fire Dampers and UL Standard 555S.

B. Demonstrate operation of smoke dampers to authorities having jurisdiction and University's representative as part of life safety testing.

C. Access doors shall be UL labeled.
   1. Damper pressure drop and leakage ratings shall be based on tests and procedures performed in accordance with AMCA 500 - Test Methods for Louvers, Dampers and Shutters.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Named manufacturer model numbers used as example of item and establish minimum level of quality and minimum standard options. Equivalent models of listed manufacturers are acceptable.

B. Access Doors, Ducts
   1. Ventfabrics, Inc.
   2. Duo Dyne, Corporation

3. Ruskin Mfg. Company
4. PCI Industries – Pottorff
5. Ductmate
6. Or equal

C. Access Doors, Plenum
1. Ventfabrics, Inc.
2. Duo Dyne, Corporation
3. Elgen Manufacturing Company
4. Or equal

D. Multi-blade Volume Dampers
1. Ruskin Manufacturing Company
2. Air Balance Inc.
3. American Warming and Ventilating Inc.
4. Johnson Controls
5. PCI Industries - Pottorff
6. Or equal

E. Multi-blade Volume Dampers
1. Ruskin Manufacturing Company
2. Air Balance Inc.
3. Greenheck
4. PCI Industries - Pottorff
5. Or equal

F. Damper Hardware
1. Ventfabrics, Inc.
2. Duo Dyne, Corporation
3. Young Regulator Company
4. Or equal

G. Combination Fire Damper and Smoke Dampers
1. Ruskin Manufacturing Company
2. Air Balance Inc.
3. PCI Industries - Pottorff
4. Or equal

H. Sound Traps (Attenuators)
1. Vibro-Acoustics
2. Industrial Acoustics, Inc.
3. Gale Noise Control
4. Tempmaster Corporation
5. Environments Elements Corporation, Koppers Company
6. Or equal

2.2 DUCT ACCESS DOORS

A. In accordance with SMACNA Duct Construction Manuals, except as indicated in the Drawings

B. In ductwork
   1. Construction
      a. Galvanized steel
      b. Rating same as duct pressure class
      c. Where duct is insulated
         1) Fiberglass insulation, thickness to match duct insulation installed R-value, see 23 07 00 – Mechanical Insulation
         2) Double wall
      d. Removable type with safety chain linking door permanently to frame
      e. Positive seal polyethylene gasket
      f. Paired progressive cam-locks, quantity as required for tight, low leakage fit
      g. No tools required for opening and closing
   2. Size
      a. 20 inches x 14 inches unless otherwise indicated in the Drawings
      b. Ducts less than 16 inches: one dimension 20 inches; other dimension 2 inch less than duct width
      c. Larger sizes where required for access
   3. Provide in following locations
      a. Coils in ducts (including at VAV terminals)
         1) Entering side for heating coils
      b. Automatic dampers: linkage side
      c. Smoke dampers, fire dampers, and combination fire/smoke dampers.
      d. Smoke detection heads
      e. At the top of each lined duct riser accessible from the fan room floor (for inspection of duct liner)
      f. Fan bearings enclosed in ducts
      g. Motors, actuators or other accessories that require access or service inside ducts
      h. Outdoor air plenums as required to clean plenum from dirt and debris.
      i. Where otherwise indicated on the Drawings

2.3 DAMPERS

A. Volume Dampers
   1. Conform to requirements of SMACNA HVAC Duct Construction Standards.
   2. General
      a. Blades of same material as duct where damper is located
      b. Damper Hardware
         1) Ventlok 400 and 4000 series or equal; for low pressure systems 2 inch SMACNA pressure class and less
         2) Ventlok HiVel hardware or equal; for greater than 2 inch SMACNA pressure class
      c. Actuating quadrants typical for single and multi-blade dampers; provide closed bearing on opposite end from quadrant to prevent air leakage: Ventlok No. 609 or equal
      d. Bearing at one end of damper rod: Ventlok No. 609 or equal
      e. Sealed bushings installed at both ends to avoid duct leakage
      f. Accessible quadrant at other end of damper rod
         1) With lever and lock screw: Ventlok No. 635 or equal
         2) Insulated ducts

a) Quadrants mounted on collar to clear insulation
b) Ventlok Nos. 637, 638, or 639 or equal
c) Selection based on insulation thickness

g. For dampers above non-removable ceilings and without ceiling access panels provide Ventlok No. 677 or equal concealed damper regulator
1) With paintable cover plate
2) Required interconnecting hardware

3. Single blade dampers
a. Galvanized steel ductwork: galvanized steel, except as indicated in the Drawings
b. Blade: Two gages heavier than duct gage, or 18 gage, whichever is lighter
4. Where access to damper operators on ducts is not possible, provide remote operators, Ventlok #666, Elgen, or equal, with paintable finish steel cover and screws and waterproof gasketing. Cover shall be oversized to lap finished surface 3/8" all around. Provide extended control rods and/or Young #917, Ventlok #680, or equal, miter gears for making right angle turns. Submit samples.
a. As an option to the above mechanical remote volume damper operators, the contractor may propose to use remote balancing systems consisting of 9- to 12-volt damper actuator, remote plug-in access port, wiring, and portable 9- to 12-volt hand-held controller. Greenheck, RBD, Young Regulator EBD, or equal.

B. Automatic Dampers
1. Refer to Section 23 73 27 – Air Handling Units dampers provided with factory packaged air handling equipment.

C. Backdraft dampers
1. Construction
a. Extruded aluminum construction
b. Vinyl blade edge seals
c. Maximum pressure drop: 0.10 in. w.g.
2. Ruskin Series BD2/A1 or equal

2.4 COMBINATION FIRE AND SMOKE DAMPERS (FSD)

A. Summary

1. Damper shall close upon the presence of heat via a re-settable link and spring mechanism or upon presence of smoke using an external signal and electric actuator. Unit shall be complete with casing, airfoil blades, seals, re-settable thermal link, 120V operation, and be suitable for remote control.

2. Submit California Fire Marshal and UL listings.

B. Fire ratings (test conditions and label) per UL Standard 555

1. 250 degrees Fahrenheit minimum

2. 1-1/2 hour fire rating, unless otherwise indicated in the Drawings

C. Performance

1. **Pressure drop shall not exceed 0.08" w.g. for a 48" x 24" damper section operating at 2,000 fpm face velocity**

D. Factory sleeve

E. Damper

1. **Parallel blade**
2. **Leakage class as scheduled, minimum Class 2, rated per UL 555S**
3. **120 volt actuator**
4. **Locate damper in sleeve starting at approximately 3" from end of the sleeve opposite the damper actuator end. (Damper shall be installed with this end protruding 3 inches out from inside surface of wall.)**

F. Controls

1. **Heat-actuated electric release**
2. **Controlled closure to prevent duct and HVAC component damage**
3. **Integral disconnect**
4. **Electric actuator sized with maximum torque capacity rated for the specific damper size and style (submit supporting information),**
5. **Status end switches: None required**

G. Type

1. **Typical application: Ruskin FSD60.**
2. **The Contractor shall verify all conditions to make sure that access to dampers, access panels, and actuators can be maintained. Report any conditions to the University's Representative where vertical blade dampers are considered impractical, before ordering or installation.**
3. **Round ducts: Ruskin FSDR25 round damper.**
4. **Provide out-of-partition combination and fire smoke damper, Pottorff FSD-142OP for installation behind sidewall supply registers or exhaust grilles.**
5. **At grilles: Ruskin G-style or FSD60FA.**
6. **Stainless steel ductwork: Stainless steel construction.**
7. **Electric actuator to be arranged to have the damper normally open with power to the actuator and closed without power to the actuator for fail-safe purposes.**
8. **165 deg. F re-settable link using the electric actuator for dry applications.**
9. **Wet exhaust systems: 212 deg F control.**

H. Coordinate work with Fire Alarm.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Coordinate with work of other trades

B. Install duct accessories in accordance with manufacturer's written installation instructions

C. See Section 23 31 13 – Ducts

D. Volume dampers
   1. Provide at locations indicated on the Drawings
      a. Volume dampers shall be installed as far away from air outlets as functionally reasonable to avoid noise in the occupied space.
      b. Provide also in wyes and spin-ins to outlets whether indicated on the Drawings or not, except
         1) Where dampers are not indicated on the Drawings above inaccessible ceilings
         2) To sidewall outlets in exposed ducts (opposed blade dampers in outlets shall be provided)
   2. Additional locations where dampers appear to be required for balancing, place request for information with Engineer prior to construction.
   3. For ductwork exposed to occupant view, volume damper handles shall be on top of duct or otherwise concealed from occupant view.

E. Fire and fire/smoke dampers

1. Provide in ducts and openings as indicated in the Drawings

2. Provide access door in duct adjacent to each in location where damper may be inspected and internal fusible link or fire-stat may be replaced

3. Install duct smoke detector provided by Division 26 if required; see Division 26.

F. Control dampers
   1. Field mounted control dampers installed with concealed linkage shaft accessible on side of damper with space for direct-coupled actuator
   2. Actuator installation: See Section 23 09 00 – Energy Management & Control Systems

G. Install belt guards at all exposed belts

3.2 SOUND TRAPS (ATTENUATORS)

A. Install as detailed on the drawings or in accordance with manufacturer's directions.

B. Bolt sound traps together as required to form one assembly.

C. Install continuous metallic nosing at air inlet side.

D. Connect to ductwork with joints specified for the duct pressure class.

E. After installation, measure the pressure drop through each soundtrap. If pressure drop exceeds design losses, including accounted-for system effects, replace the soundtraps and/or modify the inlet and/or discharge conditions.

3.3 MOUNTING AND ALIGNMENT

A. Install all accessories to prevent air leakage.

B. Install closed bearing end on all damper blades that penetrate duct to prevent air leakage.

C. Support extra weight of duct accessories. See Section 23 05 48 – Mechanical Sound, Vibration and Seismic Control

3.4 INSPECTION

A. Verify that adequate clearance between duct accessories and adjacent walls or equipment is available to permit maintenance and repairs.

3.5 PRE-OPERATING CHECKS

A. Before operating duct accessories: Set all components in normal operating condition

3.6 TESTING AND ADJUSTING

A. Before operating duct accessories see Section 01 91 00 – Commissioning

B. Complete the Pre-Functional Checklist, Section 23 97 00 – Mechanical Commissioning, Part 4.

C. After starting duct accessories
   1. Check for noise and leakage; repair as required at no additional cost to the University
   2. Operation test: Test each piece of equipment to show that it will operate in accordance with requirements.

D. See Section 23 05 93 – Testing, Adjusting, and Balancing

E. See Section 23 97 00 – Mechanical Commissioning.

END OF SECTION

CLASSROOM AND OFFICE BUILDING 1 RENOVATION

UNIVERSITY OF CALIFORNIA, MERCED

UC MERCED PROJECT NUMBER:
908078

Architect
Solomon Cordwell Buenz

MEP/FP Engineer
Gayner Engineering

ADDENDUM #1
03.18.2020

EXISTING CONDITIONS ASSUMED TO BE IN COMPLIANCE WITH ACCESSIBIITY STANDARDS AND LIFE SAFETY REQUIREMENTS.
REFERENCE DSA PROJECT APPLICATION #02 104941 AND UNIVERSITY OF CALIFORNIA MERCED FIRE MARSHAL PROJECT #900100/A3343

DRAWING INDEX

SHEET NUMBER	SHEET DESCRIPTION
ARCHITECTURE	
ID0.00	COVER SHEET
ID0.1.0	CODE MATRICES AND NOTES
ID0.2.0	HATCH, ANNOTATION SYMS., MOUNT. LOCATIONS, & ABBREVIATIONS
ID0.3.01	1ST FLOOR LIFE SAFETY PLAN (REFERENCE ONLY)
ID0.3.02	2ND FLOOR LIFE SAFETY PLAN (REFERENCE ONLY)
ID0.3.03	3RD FLOOR LIFE SAFETY PLAN (REFERENCE ONLY)
ID0.4.1	GENERAL NOTES
ID0.4.2	GENERAL NOTES
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ID1.04	2ND FLOOR RCP DEMOLITION PLAN
ID1.05	3RD FLOOR DEMOLITION PLAN
ID1.06	3RD FLOOR RCP DEMOLITION PLAN
ID2.01	1ST FLOOR PARTITION PLAN
ID2.02	2ND FLOOR PARTITION PLAN
ID2.03	3RD FLOOR PARTITION PLAN
ID3.01	1ST FLOOR REFLECTED CEILING PLAN
ID3.02	2ND FLOOR REFLECTED CEILING PLAN
ID3.03	3RD FLOOR REFLECTED CEILING PLAN
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ID6.01	1ST FLOOR FURNITURE PLAN (REFERENCE ONLY)
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ID8.02	PARTITION AND TRANSITION DETAIS
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ID8.04	CEILING DETAILS
ID8.05	DETAILS
ID8.06	DOOR DETAILS, TYPES AND SCHEDULE
ID8.10	SIGN TYPES (REFERENCE ONLY)
ID8.11	SIGN TYPES (REFERENCE ONLY)
ID9.01	ENLARGED BREAK ROOM ELEVATIONS AND DETAILS

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M0.03	TITLE 24 DOCUMENTATION
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M1.02D	SECOND FLOOR MECHANICAL DEMOLITION PLAN
M1.03A	THIRD FLOOR MECHANICAL DEMOLITION PLAN
M1.03C	THIRD FLOOR MECHANICAL DEMOLITION PLAN
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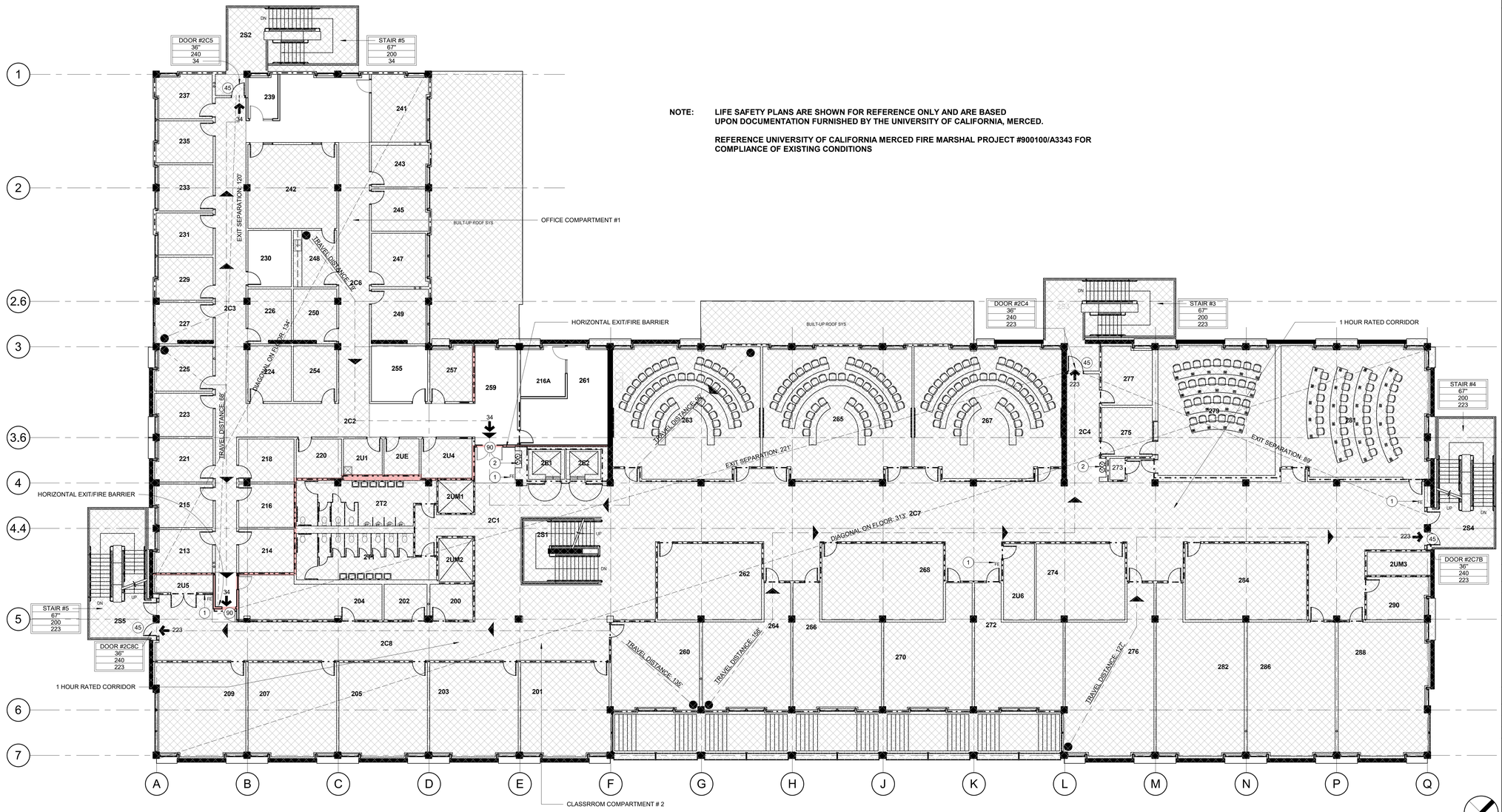
E1.01A	FIRST FLOOR AREA A ELETRICAL DEMOLITION PLAN
E1.02B	SECOND FLOOR AREA B ELETRICAL DEMOLITION PLAN
E1.02C	SECOND FLOOR AREA C ELETRICAL DEMOLITION PLAN
E1.02D	SECOND FLOOR AREA D ELETRICAL DEMOLITION PLAN
E1.03A	THIRD FLOOR AREA A ELETRICAL DEMOLITION PLAN
E1.03B	THIRD FLOOR AREA B ELETRICAL DEMOLITION PLAN
E1.03C	THIRD FLOOR AREA C ELETRICAL DEMOLITION PLAN
E2.01A	FIRST FLOOR AREA A ELETRICAL NEW PLAN
E2.02C	SECOND FLOOR C AREA C ELETRICAL NEW PLAN
E2.02D	SECOND FLOOR D AREA D ELETRICAL NEW PLAN
E2.03A	THIRD FLOOR AREA A ELETRICAL NEW PLAN
E2.03B	THIRD FLOOR AREA B ELETRICAL NEW PLAN
E2.03C	THIRD FLOOR AREA C ELETRICAL NEW PLAN
E2.03A ALT 2	THIRD FLOOR AREA A NEW LIGHTING PLAN - ALTERNATE 2
E2.03B ALT 2	THIRD FLOOR AREA B NEW LIGHTING PLAN - ALTERNATE 2
E2.03C ALT 2	THIRD FLOOR AREA C NEW LIGHTING PLAN - ALTERNATE 2
E3.01A	FIRST FLOOR AREA A NEW POWER & SIGNAL PLAN
E3.01C	FIRST FLOOR AREA C NEW POWER & SIGNAL PLAN
E3.02A	SECOND FLOOR AREA A NEW POWER & SIGNAL PLAN
E3.02B	SECOND FLOOR AREA B NEW POWER & SIGNAL PLAN
E3.02C	SECOND FLOOR AREA C NEW POWER & SIGNAL PLAN
E3.02D	SECOND FLOOR AREA D NEW POWER & SIGNAL PLAN
E3.03A	THIRD FLOOR AREA A NEW POWER & SIGNAL PLAN
E3.03B	THIRD FLOOR AREA B NEW POWER & SIGNAL PLAN
E3.03C	THIRD FLOOR AREA C NEW POWER & SIGNAL PLAN
PLUMBING	
P-0.01	SYMBOL LEGEND, ABBREVIATONS, DRAWING INDEX AND SCHEDULES
P-1.01	FIRST FLOOR DEMOLITION AND NEW WORK PLUMBING PLAN
P-1.02	SECOND FLOOR DEMOLITION AND NEW WORK PLUMBING PLAN
P-1.03	THIRD FLOOR DEMOLITION AND NEW WORK PLUMBING PLAN
F-1.01	FIRST FLOOR OVERALL FIRE PROTECTION PLAN
F-1.02	SECOND FLOOR OVERALL FIRE PROTECTION PLAN
F-1.03	THIRD FLOOR OVERALL FIRE PROTECTION PLAN



NOTE: **LIFE SAFETY PLANS ARE SHOWN FOR REFERENCE ONLY AND ARE BASED UPON DOCUMENTATION FURNISHED BY THE UNIVERSITY OF CALIFORNIA, MERCED.**

REFERENCE UNIVERSITY OF CALIFORNIA MERCED FIRE MARSHAL PROJECT #900100/A3343 FOR COMPLIANCE OF EXISTING CONDITIONS

1 2ND FLOOR PLAN

SCALE: 3/32" = 1'-0"

FIRE LIFE SAFETY LEGEND

HATCH DENOTES AREA OF EXISTING LIFE/SAFETY PLAN NOT IMPACTED BY SCOPE OF PROJECT

DOOR TAG

DOOR #
WIDTH
CAPACITY
0

DOOR WIDTH
0.15/DOOR WIDTH = MAX OCCUPANT LOAD
OCCUPANT LOAD

STAIR TAG

STAIR #
WIDTH
CAPACITY
0

STAIR WIDTH
0.3/STAIR WIDTH = MAX OCCUPANT LOAD
OCCUPANT LOAD

EGRESS PATH

TRAVEL DISTANCE TO AN EXIT (EXTERIOR DOOR, EXIT PASSAGEWAY, ENCLOSED STAIR, HORIZONTAL EXIT, OR EXTERIOR EXIT STAIRWAY)

XX DIRECTION OF EGRESS — EXIT CAPACITY

1 HR CONSTRUCTION

2 HR CONSTRUCTION

CONCRETE CONSTRUCTION

FE — FIRE EXTINGUISHER

EXIT SIGN

(#) — # MINUTE-RATED DOOR

EXIT SEPARATION - 1ST FLOOR

LONGEST DIAGONAL ON FLOOR 173'

1/2 OF LONGEST DIAGONAL (BUILDING IS FULLY SPRINKLED) 86' -6"

EXIT SEPARATION BETWEEN EXIT STAIR ENTRY DOORS 118' AND 86'

REQUIRED NUMBER OF EXITS FOR 1270 OCCUPANTS BASED ON CBC SECTION 1006.3.2 = 4 EXIT REQUIRED (14 EXITS PROVIDED)

REQUIRED EGRESS WIDTH 1270 X 0.15 = **191 REQUIRED (792" PROVIDED)** REFERENCING CBC 1005.1

EXIT SEPARATION - 2ND FLOOR

LONGEST DIAGONAL ON FLOOR 313'

1/2 OF LONGEST DIAGONAL (BUILDING IS FULLY SPRINKLED) 156'- 6"

EXIT SEPARATION BETWEEN EXIT STAIR ENTRY DOORS 89' AND 132'

REQUIRED NUMBER OF EXITS FOR 765 OCCUPANTS BASED ON CBC SECTION 1006.3.2 = 3 EXIT REQUIRED (4 EXITS PROVIDED)

REQUIRED EGRESS WIDTH 765X 0.15 = **115 REQUIRED (216" PROVIDED)** REFERENCING CBC 1005.1

EXIT SEPARATION - 3RD FLOOR

LONGEST DIAGONAL ON FLOOR 243'

1/2 OF LONGEST DIAGONAL (BUILDING IS FULLY SPRINKLED) 121'- 6"

EXIT SEPARATION BETWEEN EXIT STAIR ENTRY DOORS 286'

REQUIRED NUMBER OF EXITS FOR 350 OCCUPANTS BASED ON CBC SECTION 1006.3.2 = 2 EXIT REQUIRED (2 EXITS PROVIDED)

REQUIRED EGRESS WIDTH 350 X 0.15 = **53 REQUIRED (72" PROVIDED)** REFERENCING CBC 1005.1

LIFE SAFETY NOTES

1. FIRE EXTINGUISHER LOCATION
2. DRINKING FOUNTAINS

2ND FLOOR LIFE SAFETY ROOM SCHEDULE

ROOM NUMBER	NAME	OCCUPANCY CLASSIFICATION	LOAD FACTOR	AREA	OCCUPANT LOAD
200	ADVISING	B	100	86 SF	1
201	CLASSROOM	B	20	444 SF	23
202	ADVISING	B	100	86 SF	1
203	CLASSROOM	B	20	444 SF	23
204	ADVISING	B	100	302 SF	4
205	CLASSROOM	B	20	444 SF	23
207	CLASSROOM	B	20	444 SF	23
209	CLASSROOM	B	20	444 SF	23
213	OFFICE	B	100	127 SF	2
214	ADVISING	B	100	132 SF	2
215	OFFICE	B	100	128 SF	2
216	OFFICE	B	100	132 SF	2
218	OFFICE	B	100	132 SF	2
220	COPY	MECH/STORAGE	300	99 SF	1
221	OFFICE	B	100	128 SF	2
223	OFFICE	B	100	128 SF	2
224	OFFICE	B	100	133 SF	2
225	OFFICE	B	100	134 SF	2
226	OFFICE	B	100	125 SF	2
227	OFFICE	B	100	116 SF	2
229	OFFICE	B	100	130SF	2
230	MAIL	MECH/STORAGE	300	135 SF	2
231	OFFICE	B	100	126SF	2
233	OFFICE	B	100	138SF	2
235	OFFICE	B	100	126SF	2
237	OFFICE	B	100	134SF	2

ROOM NUMBER	NAME	OCCUPANCY CLASSIFICATION	LOAD FACTOR	AREA	OCCUPANT LOAD
239	FOCUS ROOM	B	100	60 SF	1
241	DEAN`S OFFICE	B	100	215 SF	3
242	CONFERENCE ROOM	B	15	403 SF	27
243	OFFICE	B	100	123 SF	2
245	OFFICE	B	100	123 SF	2
247	OFFICE	B	100	162 SF	2
248	OFFICE	B	100	135 SF	2
249	OFFICE	B	100	156 SF	2
250	OFFICE	B	100	125 SF	2
254	OFFICE	B	100	133 SF	2
255	HUDDLE	B	100	163 SF	2
2UA	IDF	MECH/STORAGE	300	113 SF	1
257	OFFICE	B	100	128 SF	2
259	OPEN OFFICE	B	100	129 SF	2
260	CLASSROOM	B	20	430 SF	22
261	OFFICE	B	100	351 SF	4
261A	HUDDLE	B	15	120SF	8
262	CLASSROOM	B	20	435 SF	22
263	CLASSROOM	A-3	FIXED SEAT	1019 SF	45
264	CLASSROOM	B	20	480 SF	24
265	CLASSROOM	A-3	FIXED SEAT	1054 SF	45
266	CLASSROOM	B	20	480 SF	24
267	CLASSROOM	A-3	FIXED SEAT	1036 SF	45
268	CLASSROOM	B	20	507 SF	25
270	CLASSROOM	B	20	480 SF	24

ROOM NUMBER	NAME	OCCUPANCY CLASSIFICATION	LOAD FACTOR	AREA	OCCUPANT LOAD
272	CLASSROOM	B	20	480 SF	24
273	DEPOSIT	MECH/STORAGE	300	15 SF	1
274	CLASSROOM	B	20	270 SF	19
275	OFFICE	B	100	139 SF	2
276	CLASSROOM	B	20	705 SF	35
277	BREAK OUT	B	15	165 SF	11
279	VIDEO CONF.	A-3	FIXED SEAT	861 SF	30
281	VIDEO CONF.	A-3	FIXED SEAT	1045 SF	30
282	CLASSROOM	B	20	705 SF	35
284	CLASSROOM	B	20	509 SF	26
286	CLASSROOM	B	20	648 SF	32
288	CLASSROOM	B	20	647 SF	32
290	OFFICE	B	100	140 SF	2
2U1	JANITOR	MECH/STORAGE	300	84 SF	1
2UE	ELECTRICAL	MECH/STORAGE	300	77 SF	1
2U5	FIRE RISER CLOSET	MECH/STORAGE	300	35 SF	
2U6	ELECTRICAL	MECH/STORAGE	300	130 SF	1
TOTAL:					765

OFFICE COMPARTMENT # 1

OCC. TYPE	#OCC.
OFFICE	68
CONFERENCE	27
MECH/STORAGE	6
TOTAL:	101

CLASSROOM COMPARTMENT # 2

OCC. TYPE	#OCC.
CLASSROOM	451
OFFICE	21
FIXED SEATS	190
MECH/STORAGE	2
TOTAL:	664

COMPORTAMENT # 1 REFUGE AREA CAPACITY

101 OCCUPANTS X 1/3 = 34 PER EXIT (3)

101 OCC. X 3 SF PER OCC. = 303 SF REQUIRED
303 SF < 1,822 SF AVAILABLE

COMPORTAMENT # 2 REFUGE AREA CAPACITY

664 OCCUPANTS X 1/3 = 223 OCC PER EXIT (3)

664 OCC. X 3 SF PER OCC. = 1,992 SF REQUIRED
1,992 SF <6,346 SF AVAILABLE

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UNIVERSITY OF CALIFORNIA MERCED

NO.	DATE	DESCRIPTION
2	03/18/2020	Addendum #1

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT Timothy M. Stevens C-26150 09-30-2021 STATE OF CALIFORNIA

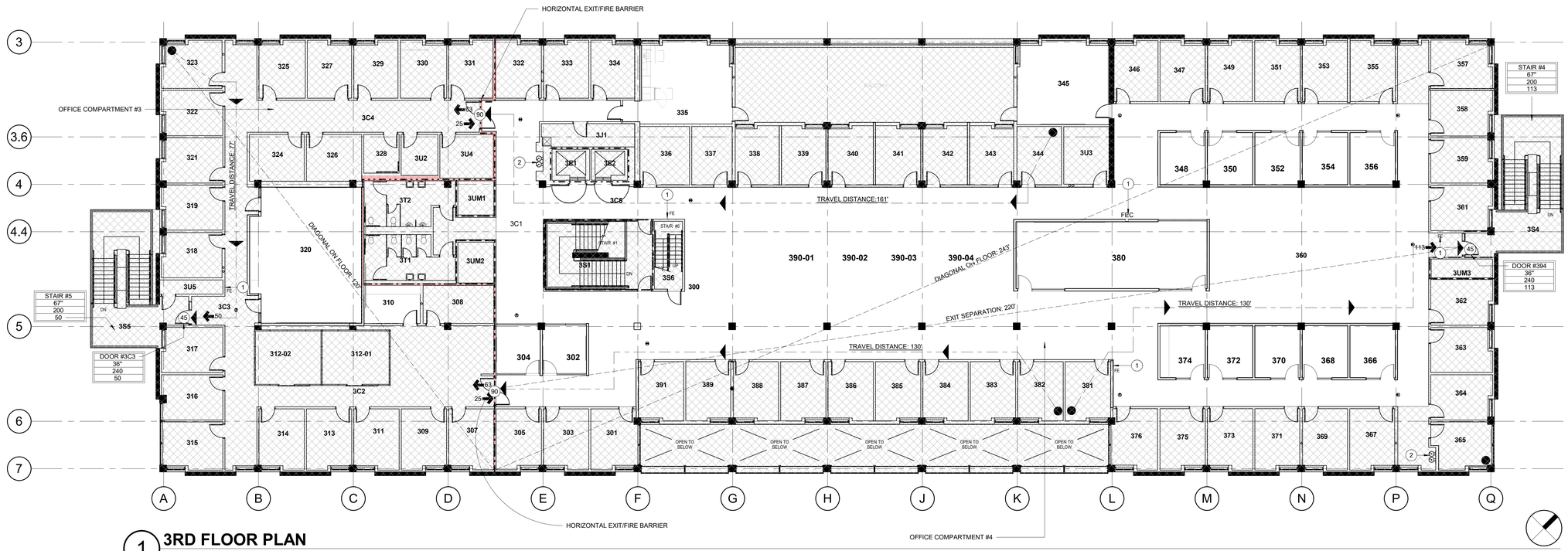
2ND FLOOR LIFE SAFETY PLAN (REFERENCE ONLY)

Drawn By: AC
Checked By: MP/PW
Project Number: 2019031

Sheet Number: ID0.3.02

NOTE: **LIFE SAFETY PLANS ARE SHOWN FOR REFERENCE ONLY AND ARE BASED UPON DOCUMENTATION FURNISHED BY THE UNIVERSITY OF CALIFORNIA, MERCED.**

REFERENCE UNIVERSITY OF CALIFORNIA MERCED FIRE MARSHAL PROJECT #900100/A3343 FOR COMPLIANCE OF EXISTING CONDITIONS



1 3RD FLOOR PLAN

SCALE: 3/32" = 1'-0"

FIRE LIFE SAFETY LEGEND

HATCH DENOTES AREA OF EXISTING LIFE/SAFETY PLAN NOT IMPACTED BY SCOPE OF PROJECT

DOOR TAG

DOOR #
WIDTH
CAPACITY
0

DOOR WIDTH
0.15/DOOR WIDTH = MAX OCCUPANT LOAD
OCCUPANT LOAD

STAIR TAG

STAIR #
WIDTH
CAPACITY
0

STAIR WIDTH
0.3/STAIR WIDTH = MAX OCCUPANT LOAD
OCCUPANT LOAD

EGRESS PATH

TRAVEL DISTANCE TO AN EXIT (EXTERIOR DOOR, EXIT PASSAGEWAY, ENCLOSED STAIR, HORIZONTAL EXIT, OR EXTERIOR EXIT STAIRWAY)

XX — DIRECTION OF EGRESS — EXIT CAPACITY

1 HR CONSTRUCTION

2 HR CONSTRUCTION

CONCRETE CONSTRUCTION

FE FIRE EXTINGUISHER

EXIT SIGN

(#) # MINUTE-RATED DOOR

EXIT SEPARATION - 1ST FLOOR

LONGEST DIAGONAL ON FLOOR 173'

1/2 OF LONGEST DIAGONAL (BUILDING IS FULLY SPRINKLED) 86' -6"

EXIT SEPARATION BETWEEN EXIT STAIR ENTRY DOORS 118' AND 86'

REQUIRED NUMBER OF EXITS FOR 1270 OCCUPANTS BASED ON CBC SECTION 1006.3.2 = 4 EXIT REQUIRED (14 EXITS PROVIDED)

REQUIRED EGRESS WIDTH 1270 X 0.15 = **191 REQUIRED (792" PROVIDED)** REFERENCING CBC 1005.1

EXIT SEPARATION - 2ND FLOOR

LONGEST DIAGONAL ON FLOOR 313'

1/2 OF LONGEST DIAGONAL (BUILDING IS FULLY SPRINKLED) 156'- 6"

EXIT SEPARATION BETWEEN EXIT STAIR ENTRY DOORS 89' AND 132'

REQUIRED NUMBER OF EXITS FOR 765 OCCUPANTS BASED ON CBC SECTION 1006.3.2 = 3 EXIT REQUIRED (4 EXITS PROVIDED)

REQUIRED EGRESS WIDTH 765X 0.15 = **115 REQUIRED (216" PROVIDED)** REFERENCING CBC 1005.1

EXIT SEPARATION - 3RD FLOOR

LONGEST DIAGONAL ON FLOOR 243'

1/2 OF LONGEST DIAGONAL (BUILDING IS FULLY SPRINKLED) 121'- 6"

EXIT SEPARATION BETWEEN EXIT STAIR ENTRY DOORS 286'

REQUIRED NUMBER OF EXITS FOR 350 OCCUPANTS BASED ON CBC SECTION 1006.3.2 = 2 EXIT REQUIRED (2 EXITS PROVIDED)

REQUIRED EGRESS WIDTH 350 X 0.15 = **53 REQUIRED (72" PROVIDED)** REFERENCING CBC 1005.1

LIFE SAFETY NOTES

1. FIRE EXTINGUISHER LOCATION
2. DRINKING FOUNTAINS

3RD FLOOR LIFE SAFETY ROOM SCHEDULE

ROOM NUMBER	NAME	OCCUPANCY CLASSIFICATION	LOAD FACTOR	AREA	OCCUPANT LOAD
300	OPEN OFFICE(WAITING)	B	100	200 SF	2
301	OFFICE	B	100	138 SF	2
302	HUDDLE	B	100	125 SF	8
303	OFFICE	B	100	135 SF	2
304	HUDDLE	B	100	125 SF	8
305	OFFICE	B	100	135 SF	2
307	OFFICE	B	100	135 SF	2
308	FILING	MECH/STORAGE	300	156 SF	1
309	OFFICE	B	100	135 SF	2
310	COPY	MECH/STORAGE	300	125 SF	1
311	OFFICE	B	100	135 SF	2
312-01	OPEN OFFICE	B	100	200 SF	2
312-02	OPEN OFFICE	B	100	200 SF	2
313	OFFICE	B	100	135 SF	2
314	OFFICE	B	100	135 SF	2
315	OFFICE	B	100	137 SF	2
316	OFFICE	B	100	134 SF	2
317	OFFICE	B	100	131 SF	2
318	OFFICE	B	100	131 SF	2
319	OFFICE	B	100	130 SF	2
320	CONFERENCE	A-3	15	705 SF	47
321	OFFICE	B	100	130 SF	2
322	OFFICE	B	100	131 SF	2
323	OFFICE	B	100	133 SF	2
324	OFFICE	B	100	131 SF	2
325	OFFICE	B	100	134 SF	2
326	OFFICE	B	300	131 SF	2
327	OFFICE	B	100	134 SF	2
328	SHOWER	B	300	79 SF	1
329	OFFICE	B	100	134 SF	2

ROOM NUMBER	NAME	OCCUPANCY CLASSIFICATION	LOAD FACTOR	AREA	OCCUPANT LOAD
330	OFFICE	B	100	134 SF	2
331	OFFICE	B	100	134 SF	2
332	OFFICE	B	100	134 SF	2
333	OFFICE	B	100	134 SF	2
334	OFFICE	B	100	134 SF	2
335	BREAK ROOM	A-3	15	407 SF	21
336	OFFICE	B	100	130 SF	2
337	OFFICE	B	100	130 SF	2
338	OFFICE	B	100	133 SF	2
339	OFFICE	B	100	133 SF	2
340	OFFICE	B	100	133 SF	2
341	OFFICE	B	100	133 SF	2
342	OFFICE	B	100	133 SF	2
343	OFFICE	B	100	133 SF	2
344	OFFICE	B	100	133 SF	2
345	COLLOQUY SPACE	A-3	20	379 SF	26
346	OFFICE	B	100	129 SF	2
347	OFFICE	B	100	133 SF	2
348	OFFICE	B	100	120 SF	2
349	OFFICE	B	100	133 SF	2
350	OFFICE	B	100	120 SF	2
351	OFFICE	B	100	133 SF	2
352	OFFICE	B	100	120 SF	2
353	OFFICE	B	100	133 SF	2
354	OFFICE	B	100	120 SF	2
355	OFFICE	B	100	133 SF	2
356	OFFICE	B	100	120 SF	2
357	OFFICE	B	100	139 SF	2
358	OFFICE	B	100	136 SF	2
359	OFFICE	B	100	135 SF	2

ROOM NUMBER	NAME	OCCUPANCY CLASSIFICATION	LOAD FACTOR	AREA	OCCUPANT LOAD
360	OPEN OFFICE	B	100	430 SF	5
361	OFFICE	B	100	135 SF	2
362	OFFICE	B	100	136 SF	2
363	OFFICE	B	100	136 SF	2
364	OFFICE	B	100	136 SF	2
365	OFFICE	B	100	140 SF	2
366	OFFICE	B	100	137 SF	2
367	OFFICE	B	100	133 SF	2
368	OFFICE	B	100	120 SF	2
369	OFFICE	B	100	133 SF	2
370	HUDDLE	B	15	120 SF	9
371	OFFICE	B	100	133 SF	2
372	HUDDLE	B	15	120 SF	9
373	OFFICE	B	100	133 SF	2
374	COPY	MECH/STORAGE	300	120 SF	1
375	OFFICE	B	100	136 SF	2
376	OFFICE	B	100	135 SF	2
380	LAB	A-3	15	656 SF	48
381	OFFICE	B	100	137 SF	2
382	OFFICE	B	100	137 SF	2
383	OFFICE	B	100	137 SF	2
384	OFFICE	B	100	137 SF	2
385	OFFICE	B	100	137 SF	2
386	OFFICE	B	100	137 SF	2
387	OFFICE	B	100	137 SF	2
388	OFFICE	B	100	137 SF	2
389	OFFICE	B	100	137 SF	2
390-01	OPEN OFFICE	B	100	200 SF	2
390-02	OPEN OFFICE	B	100	200 SF	2
390-03	OPEN OFFICE	B	100	200 SF	2

ROOM NUMBER	NAME	OCCUPANCY CLASSIFICATION	LOAD FACTOR	AREA	OCCUPANT LOAD
390-04	OPEN OFFICE	B	100	200 SF	2
391	OFFICE	B	100	137 SF	2
3J1	JANITOR	MECH/STORAGE	300	46 SF	1
3J1	STORAGE	MECH/STORAGE	300	44 SF	1
3U4	IDF	MECH/STORAGE	300	120 SF	1
3T1	WOMEN RESTROOM	ACESSORY		189 SF	
3T2	MEN RESTROOM	ACESSORY		172 SF	
3U2	ELECTRICAL	MECH/STORAGE	300	82 SF	1
3U3	ELECTRICAL	MECH/STORAGE	300	131 SF	1
TOTAL:					350

OFFICE COMPARTMENT # 3

OCC. TYPE	#OCC.
OFFICE	46
CONFERENCE	47
MECH/STORAGE	5
TOTAL:	98

COMPORTAMENT # 3 REFUGE AREA CAPACITY

98 OCCUPANTS X 1/2 = 49 OCC TO STAIR
98 OCCUPANTS X 1/2 = 49 OCC TO COMP. #4
(25 TO EACH DOOR)

161 + 116 = 277 OCC. X 3 SF PER OCC. = 831 SF REQUIRED
831 SF < 1,470 SF AVAILABLE

OFFICE COMPARTMENT # 4

OCC. TYPE	#OCC.
BREAK ROOM	21
LAB	48
HUDDLE/COLLOQY	60
OFFICE	119
MECH/STORAGE	4
TOTAL:	252

COMPORTAMENT # 4 REFUGE AREA CAPACITY

252 OCCUPANTS X 1/2 = 126 OCC TO STAIR
252 OCCUPANTS X 1/2 = 126 OCC TO COMP. #3
(63 TO EACH DOOR)

49+ 252 = 301 OCC. X 3 SF PER OCC. = 903 SF REQUIRED
903 SF < 5,820 SF AVAILABLE

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UNIVERSITY OF CALIFORNIA MERCED

NO.	DATE	DESCRIPTION
2	03/18/2020	Addendum #1

CLASSROOM AND OFFICE BUILDING 1 RENOVATION

UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT — Timothy M. Stevens — C-26150 — 09-30-2021 — STATE OF CALIFORNIA

3RD FLOOR LIFE SAFETY PLAN (REFERENCE ONLY)

Drawn By: AC
Checked By: MP/PW
Project Number: 2019031

Sheet Number: ID0.3.03

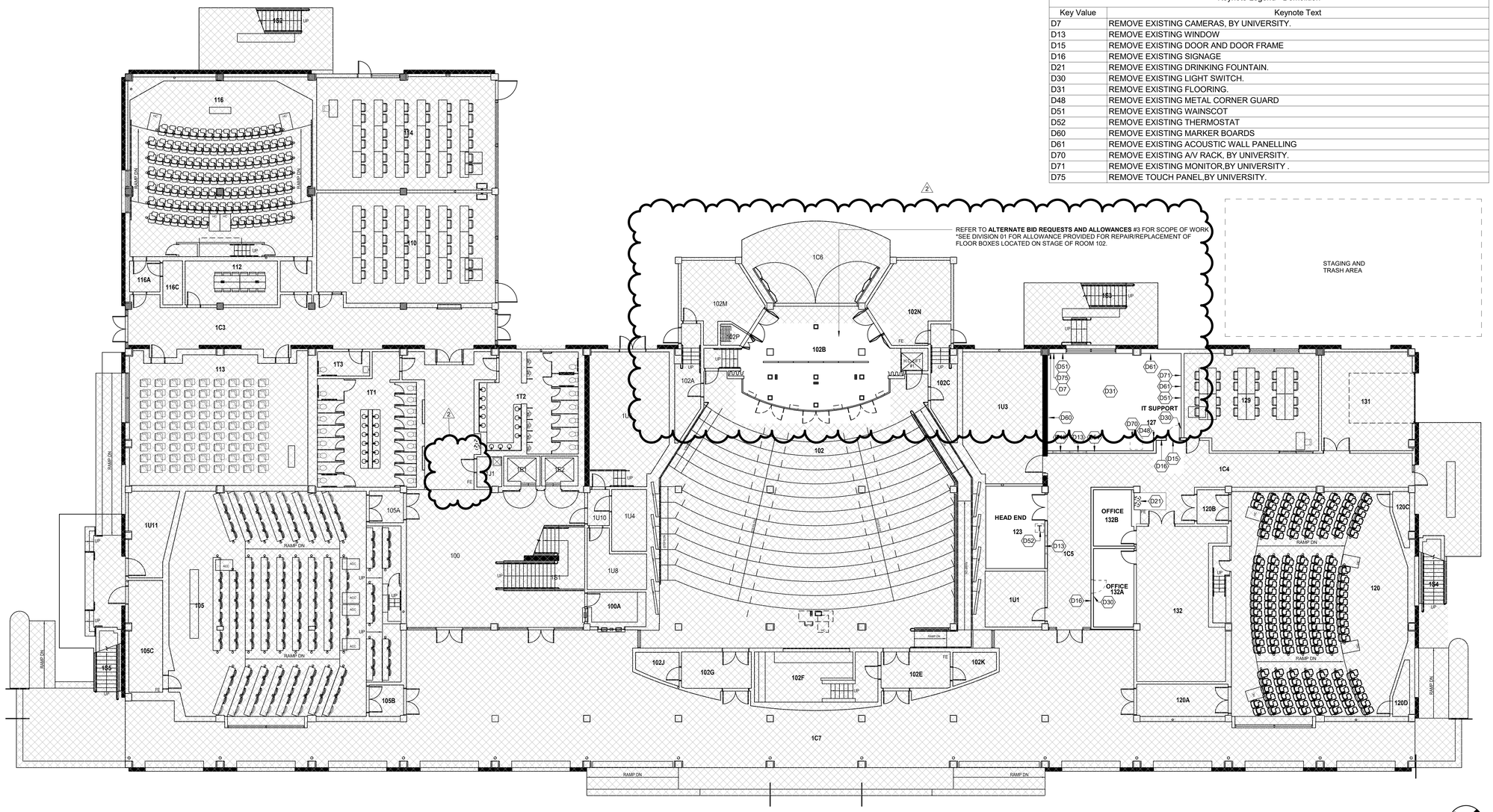
Keynote Legend - Demolition	
Key Value	Keynote Text
D7	REMOVE EXISTING CAMERAS, BY UNIVERSITY.
D13	REMOVE EXISTING WINDOW
D15	REMOVE EXISTING DOOR AND DOOR FRAME
D16	REMOVE EXISTING SIGNAGE
D21	REMOVE EXISTING DRINKING FOUNTAIN.
D30	REMOVE EXISTING LIGHT SWITCH.
D31	REMOVE EXISTING FLOORING.
D48	REMOVE EXISTING METAL CORNER GUARD
D51	REMOVE EXISTING WAINSCOT
D52	REMOVE EXISTING THERMOSTAT
D60	REMOVE EXISTING MARKER BOARDS
D61	REMOVE EXISTING ACOUSTIC WALL PANELLING
D70	REMOVE EXISTING A/V RACK, BY UNIVERSITY.
D71	REMOVE EXISTING MONITOR,BY UNIVERSITY .
D75	REMOVE TOUCH PANEL,BY UNIVERSITY.

PLAN LEGEND

- DEMOLISHED WALLS
- EXISTING ELECTRICAL DUPLEX OUTLET
- DEMOLISHED ELECTRICAL DUPLEX OUTLET
- DEMOLISHED THERMOSTAT
- EXISTING THERMOSTAT
- EXISTING SINGLE SWITCH
- DEMOLISHED SINGLE SWITCH
- NEW CASEWORK
- EXISTING FLOOR & WALL FINISH TO REMAIN
- EXISTING PARTITION
- EXISTING DOOR & FRAME TO BE REMOVED & SALVAGED FOR POTENTIAL REUSE
- EXISTING INTERIOR GLAZING TO BE REMOVED

REFER TO **ALTERNATE BID REQUESTS AND ALLOWANCES** #3 FOR SCOPE OF WORK
*SEE DIVISION 01 FOR ALLOWANCE PROVIDED FOR REPAIR/REPLACEMENT OF FLOOR BOXES LOCATED ON STAGE OF ROOM 102.

STAGING AND TRASH AREA



1 1ST FLOOR DEMOLITION PLAN

SCALE: 3/32" = 1'-0"

DEMOLITION PLAN GENERAL NOTES

1. DEMOLITION INCLUDES THE REMOVAL AND DISPOSAL OF ALL DEMOLISHED MATERIALS. PERFORM ALL DEMOLITION WORK THAT MAY BE REQUIRED OR NECESSARY TO A FULL AND COMPLETE EXECUTION OF THE WORK, WHETHER OR NOT SHOWN OR SPECIFIED. THE EXACT EXTENT OF DEMOLITION MAY NOT BE SHOWN ON DRAWINGS.
2. DEMOLITION DOCUMENTATION INDICATES THE INTENDED EXTENT OF DEMOLITION. PRIMARILY THE REMOVAL OF FINISHES, PARTITIONS, ELECTRICAL DEVICES, DOOR ASSEMBLIES AND MILLWORK.
3. THE CONTRACTOR SHALL VISIT THE SITE TO EXAMINE THE EXISTING AND SURROUNDING CONDITIONS, AND ALL RECORD DRAWINGS, AND ISSUE PRE-BID RFI'S FOR RESPONSE.
4. DEMOLITION PLANS MAY NOT BE ACCURATE IN ALL DETAILS; CONTRACTOR IS TO VERIFY CONDITIONS IN THE FIELD PRIOR TO SUBMITTING BID. NO ADDITIONAL FUNDS WILL BE PROVIDED FOR DISCOVERY OF VERIFIABLE CONDITIONS AFTER WORK HAS BEEN AWARDED.
5. REFER TO ENGINEERING DOCUMENTATION FOR ADDITIONAL INFORMATION UNLESS OTHERWISE NOTED.
6. THE UNIVERSITY'S REPRESENTATIVE HAS NO KNOWLEDGE OF AND SHALL NOT BE HELD LIABLE FOR ANY HAZARDOUS MATERIALS ON THE JOBSITE. IF HAZARDOUS MATERIALS ARE DISCOVERED DURING CONSTRUCTION, ISOLATE THE AFFECTED AREA AND CONTACT THE UNIVERSITY'S REPRESENTATIVE FOR FURTHER INSTRUCTIONS BEFORE PROCEEDING.
7. COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS PERTAINING TO SAFETY OF PERSONS, PROPERTY AND ENVIRONMENTAL PROTECTION.
8. PROVIDE AND MAINTAIN FIRE PROTECTION, BARRICADES, LIGHTING, AND GUARDRAILS AS REQUIRED BY APPLICABLE CODES AND REGULATIONS TO PROTECT OCCUPANTS OF BUILDING.
9. PROVIDE AND MAINTAIN SAFE EXIT PATH FOR OCCUPANTS THROUGH DEMOLITION AREAS. PROVIDE TEMPORARY DOORS, EXIT SIGNAGE AND ILLUMINATION TO MAINTAIN THE EXIT PATH. DO NOT OBSTRUCT THE EXIT PATH WITH CONSTRUCTION MATERIALS OR DEBRIS.
10. DURING DEMOLITION THE AREA OF WORK WILL BE OCCUPIED AND FUNCTIONAL. COORDINATE WITH UNIVERSITY REPRESENTATIVE PRIOR TO SCHEDULING SELECTIVE DEMOLITION.
11. DURING DEMOLITION THE ADJACENT SPACE AND FLOORS ABOVE AND BELOW WILL BE OCCUPIED AND FULLY FUNCTIONAL. PROTECT EXISTING ADJACENT SPACES AND CORRIDORS FROM DAMAGE. REMOVE CONSTRUCTION DEBRIS FROM OCCUPIED SPACES AS THE WORK PROGRESSES. PROVIDE PROTECTION TO EXISTING WALL AND FLOOR SURFACES WITHIN OCCUPIED SPACES. COORDINATE WITH UNIVERSITY REPRESENTATIVE REGARDING ANY ELECTRICAL, HVAC, TELEPHONE/DATA OR SECURITY SYSTEM SERVICE INTERRUPTIONS.
12. PROVIDE DUST PROTECTION/SEPARATION AT ADJACENT OCCUPIED SPACE, AND AT OPENINGS TO THE BUILDING CORRIDOR DURING ALL PHASES OF WORK.
13. THE CONTRACTOR SHALL PROTECT ALL EXISTING CONDITIONS TO REMAIN THROUGHOUT THE DURATION OF DEMOLITION WORK.
14. REMOVE DEBRIS AS WORK PROGRESSES. KEEP THE PREMISE BROOM CLEAN AND ACCESSIBLE AT THE END OF EVERY DAY.
15. MAINTAIN ALL EXISTING SERVICES IN USE AT ALL TIMES UNLESS WRITTEN PERMISSION IS OBTAINED FROM UNIVERSITY REPRESENTATIVE, PRIOR TO THE INTERRUPTION OF ANY SERVICE. COORDINATE INTERRUPTION OF SERVICES WITH UNIVERSITY REPRESENTATIVE PRIOR TO INTERRUPTING ANY SERVICE, OR PERFORM SUCH WORK ON OFF HOURS WHEN CLIENT WILL NOT BE AFFECTED BY THE INTERRUPTION. PERMANENTLY RECONNECT ANY SERVICE INTERRUPTED BY DEMOLITION OR ALTERATION WORK, WITHIN AND OUTSIDE THE SCOPE OF WORK.
16. WHERE EXISTING PARTITIONS CONTAIN ELECTRICAL OUTLETS OR SWITCHES, COORDINATE DEMOLITION OF PARTITIONS WITH ELECTRICAL CONTRACTOR. ALL ELECTRICAL TERMINATIONS TO BE PERFORMED BY ELECTRICAL CONTRACTOR. REFER TO DIVISION 01 FOR SERVICE INTERRUPTION REQUEST PROCESS.
17. WHERE EXISTING ELECTRICAL EQUIPMENT IS DESIGNATED TO BE REMOVED, IT SHALL BE COMPLETELY REMOVED WITH ALL ASSOCIATED BOXES, SUPPORTS AND DEVICES. ALL WIRING AND CONDUIT SHALL BE REMOVED COMPLETELY BACK TO THE FIRST ITEM LEFT UNAFFECTED BY REMOVAL. CONDUIT THAT IS BURIED OR OTHERWISE INACCESSIBLE SHALL BE ABANDONED. IN SUCH CASE CONTRACTOR SHALL PULL ALL WIRE FROM THE CONDUIT AND REMOVE ALL ITEMS PROTRUDING FROM THE FINISHED SURFACE.
18. WHERE SYSTEMS FURNITURE HAS BEEN REMOVED, THE FLOOR IN-FEEDS TO BE REMOVED. ALL WIRING AND CONDUIT SHALL BE REMOVED.
19. AT PENETRATIONS OF FIRE RATED WALL, CEILING, FLOOR OR ROOF, CONSTRUCTION, COMPLETELY SEAL VOIDS WITH FIRE RATED FIRE RESISTANT MATERIAL, FULL THICKNESS OF THE CONSTRUCTION ELEMENT TO MAINTAIN FIRE RATING OF CONSTRUCTION ELEMENT IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
20. UNLESS NOTED OTHERWISE, WHERE DEMOLITION OCCURS ALL VINYL, RUBBER, AND/OR WOOD BASE ARE TO BE REMOVED.
21. UNLESS NOTED OTHERWISE EXISTING FIRE DEPARTMENT CONNECTIONS, HOSE CABINETS, FIRE EXTINGUISHERS AND FIRE HOSE RACKS TO REMAIN. COORDINATE WITH ENGINEERING DRAWINGS FOR RELOCATION OF ANY EXISTING FIRE DEPARTMENT CONNECTIONS.
22. IN AREA OF SCOPE, AT EXISTING PARTITIONS, COLUMN ENCLOSURE AND PERIMETER WALL SURFACE TO REMAIN, UNLESS OTHERWISE NOTED, REMOVE ANY EXISTING WALL COVERING, WALL PAPER OR OTHER WALL SURFACE TO LEAVE DRYWALL SURFACE SUITABLE FOR PREPARATION AND PAINTING.
23. DEMOLITION TO INCLUDE REMOVAL OF ABANDONED HANGERS, BRACKETS, SCREWS, CONNECTORS, CONDUIT, DUCTWORK, METAL PARTITION TRACK AND ANY OTHER UNUSED ITEMS SECURED TO THE UNDERSIDE OF THE SLAB.
24. CONFIRM WITH UNIVERSITY REPRESENTATIVE WHERE DEMOLITION OCCURS, ITEMS TO BE SALVAGED AND HELD AT PROJECT SITE FOR UNIVERSITY REPRESENTATIVE'S NOTIFICATION.
25. UNLESS NOTED OTHERWISE, ALL CEILING GRIDS, CEILING TILE, DRYWALL CEILINGS, CEILING MOUNTED DEVICES, EXIT SIGNS AND DIFFUSERS ARE TO BE REMOVED. REFER TO ENGINEERING DOCUMENTS FOR ADDITIONAL INFORMATION. ALL ELECTRICAL TERMINATIONS TO BE PERFORMED BY ELECTRICAL CONTRACTOR.
26. UNLESS NOTED OTHERWISE, ALL BASE BUILDING FINISHES ARE TO REMAIN.
27. REFER TO SHEETS ID1.02, ID1.04, AND ID1.06 FOR AREAS OF CEILING GRID TO BE DEMOLISHED.
28. CONTRACTOR TO PROVIDE PHASED DEMOLITION PLAN TO UNIVERSITY REPRESENTATIVE FOR APPROVAL, PRIOR TO COMMENCEMENT OF WORK.
29. BUILDING TO REMAIN IN OPERATION DURING ALL PHASES OF PROJECT.
30. WHERE INTERIOR GLAZING AND DOORS ARE REMOVED IN PARTITIONS WHICH ARE TO REMAIN, PATCH, REPAIR AND INFILL VOIDS IN WALL AS A RESULT OF GLAZING OR DOOR REMOVAL, WITH IDENTICAL WALL COMPOSITION AND FINISHES UNLESS NOTED OTHERWISE.
31. REMOVE WALLS, DOORS, DOOR FRAMES AND HARDWARE WHERE SHOWN DASHED. DISCONNECT AND REMOVE RECEPTACLES, TELE/DATA, SENSORS, ALARMS AND SWITCHES WITHIN THEM. GENERAL CONTRACTOR IS RESPONSIBLE FOR ELECTRICAL DISCONNECT.
32. ALL AUDIO VISUAL EQUIPMENT REMOVED AS A RESULT OF DEMOLITION TO BE SALVAGED AND RETURNED TO OWNER. GENERAL CONTRACTOR TO CONFIRM WITH UNIVERSITY REPRESENTATIVE WHICH SALAVAGED EQUIPMENT IS TO BE RE-INSTALLED
33. PATCH AND PAINT WITH PT-01 U.N.O ALL WALLS WITH DAMAGE, U.O.N.

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NO.	DATE	DESCRIPTION
2	03/18/2020	Addendum #1

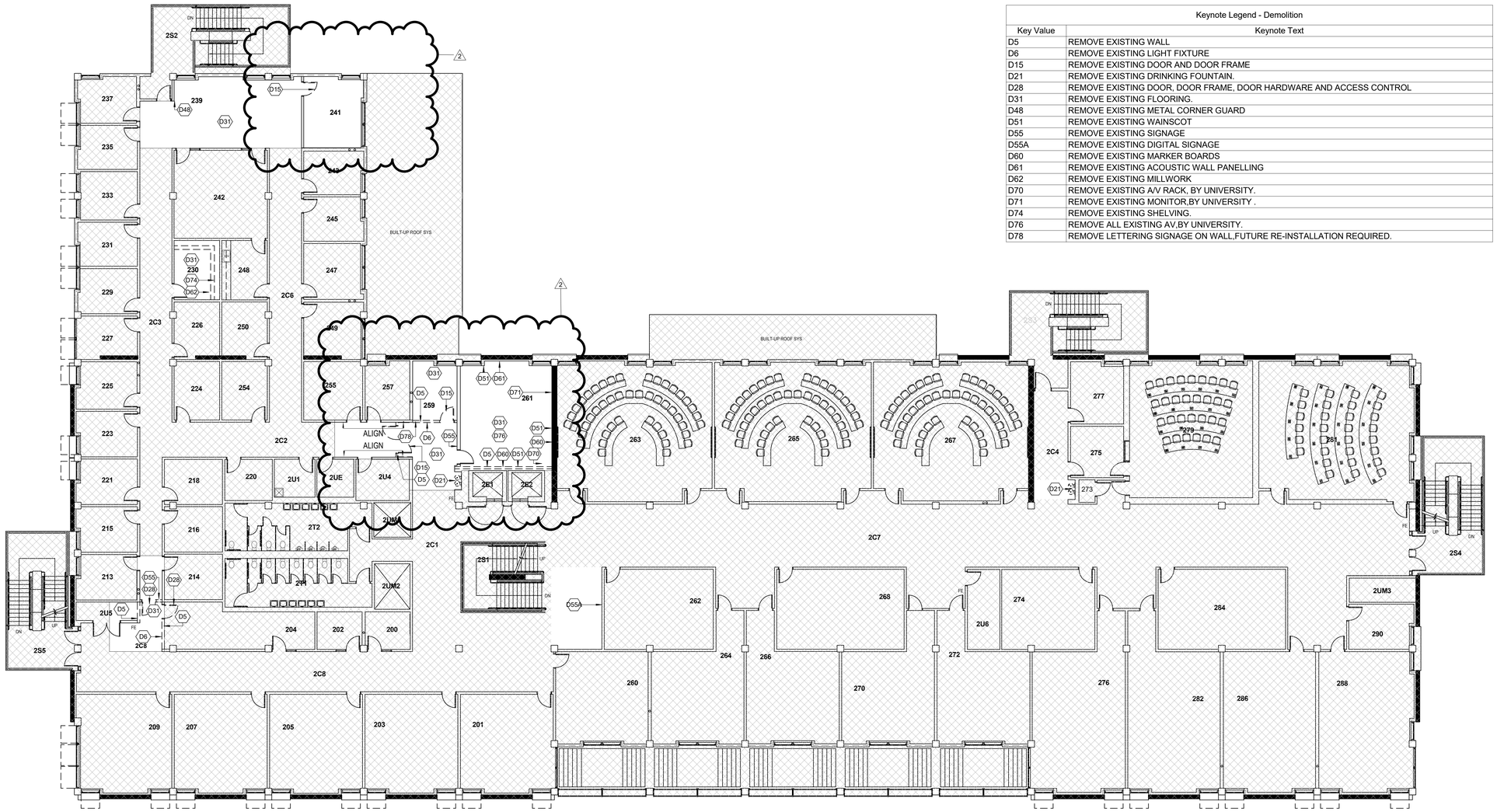
CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT
Timothy M. Stevens
C-28150
09-30-2021
STATE OF CALIFORNIA

1ST FLOOR DEMOLITION PLAN

Drawn By: AC
Checked By: MP/PW
Project Number: 2019031

Sheet Number: ID1.01



1 **2ND FLOOR DEMOLITION PLAN**

SCALE: 3/32" = 1'-0"

Keynote Legend - Demolition	
Key Value	Keynote Text
D5	REMOVE EXISTING WALL
D6	REMOVE EXISTING LIGHT FIXTURE
D15	REMOVE EXISTING DOOR AND DOOR FRAME
D21	REMOVE EXISTING DRINKING FOUNTAIN.
D28	REMOVE EXISTING DOOR, DOOR FRAME, DOOR HARDWARE AND ACCESS CONTROL
D31	REMOVE EXISTING FLOORING.
D48	REMOVE EXISTING METAL CORNER GUARD
D51	REMOVE EXISTING WAINSCOT
D55	REMOVE EXISTING SIGNAGE
D55A	REMOVE EXISTING DIGITAL SIGNAGE
D60	REMOVE EXISTING MARKER BOARDS
D61	REMOVE EXISTING ACOUSTIC WALL PANELLING
D62	REMOVE EXISTING MILLWORK
D70	REMOVE EXISTING A/V RACK, BY UNIVERSITY.
D71	REMOVE EXISTING MONITOR,BY UNIVERSITY .
D74	REMOVE EXISTING SHELVING.
D76	REMOVE ALL EXISTING AV,BY UNIVERSITY.
D78	REMOVE LETTERING SIGNAGE ON WALL,FUTURE RE-INSTALLATION REQUIRED.

PLAN LEGEND

- DEMOLISHED WALLS
- EXISTING ELECTRICAL DUPLEX OUTLET
- DEMOLISHED ELECTRICAL DUPLEX OUTLET
- DEMOLISHED THERMOSTAT
- EXISTING THERMOSTAT
- EXISTING SINGLE SWITCH
- DEMOLISHED SINGLE SWITCH
- NEW CASEWORK
- EXISTING FLOOR & WALL FINISH TO REMAIN
- EXISTING PARTITION
- EXISTING DOOR & FRAME TO BE REMOVED & SALVAGED FOR POTENTIAL REUSE
- EXISTING INTERIOR GLAZING TO BE REMOVED

DEMOLITION PLAN GENERAL NOTES

1. DEMOLITION INCLUDES THE REMOVAL AND DISPOSAL OF ALL DEMOLISHED MATERIALS. PERFORM ALL DEMOLITION WORK THAT MAY BE REQUIRED OR NECESSARY TO A FULL AND COMPLETE EXECUTION OF THE WORK, WHETHER OR NOT SHOWN OR SPECIFIED. THE EXACT EXTENT OF DEMOLITION MAY NOT BE SHOWN ON DRAWINGS.
2. DEMOLITION DOCUMENTATION INDICATES THE INTENDED EXTENT OF DEMOLITION. PRIMARILY THE REMOVAL OF FINISHES, PARTITIONS, ELECTRICAL DEVICES, DOOR ASSEMBLIES AND MILLWORK.
3. THE CONTRACTOR SHALL VISIT THE SITE TO EXAMINE THE EXISTING AND SURROUNDING CONDITIONS, AND ALL RECORD DRAWINGS, AND ISSUE PRE-BID RFI'S FOR RESPONSE.
4. DEMOLITION PLANS MAY NOT BE ACCURATE IN ALL DETAILS; CONTRACTOR IS TO VERIFY CONDITIONS IN THE FIELD PRIOR TO SUBMITTING BID. NO ADDITIONAL FUNDS WILL BE PROVIDED FOR DISCOVERY OF VERIFIABLE CONDITIONS AFTER WORK HAS BEEN AWARDED.
5. REFER TO ENGINEERING DOCUMENTATION FOR ADDITIONAL INFORMATION UNLESS OTHERWISE NOTED.
6. THE UNIVERSITY'S REPRESENTATIVE HAS NO KNOWLEDGE OF AND SHALL NOT BE HELD LIABLE FOR ANY HAZARDOUS MATERIALS ON THE JOBSITE. IF HAZARDOUS MATERIALS ARE DISCOVERED DURING CONSTRUCTION, ISOLATE THE AFFECTED AREA AND CONTACT THE UNIVERSITY'S REPRESENTATIVE FOR FURTHER INSTRUCTIONS BEFORE PROCEEDING.
7. COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS PERTAINING TO SAFETY OF PERSONS, PROPERTY AND ENVIRONMENTAL PROTECTION.
8. PROVIDE AND MAINTAIN FIRE PROTECTION, BARRICADES, LIGHTING, AND GUARDRAILS AS REQUIRED BY APPLICABLE CODES AND REGULATIONS TO PROTECT OCCUPANTS OF BUILDING.
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11. DURING DEMOLITION THE ADJACENT SPACE AND FLOORS ABOVE AND BELOW WILL BE OCCUPIED AND FULLY FUNCTIONAL. PROTECT EXISTING ADJACENT SPACES AND CORRIDORS FROM DAMAGE. REMOVE CONSTRUCTION DEBRIS FROM OCCUPIED SPACES AS THE WORK PROGRESSES. PROVIDE PROTECTION TO EXISTING WALL AND FLOOR SURFACES WITHIN OCCUPIED SPACES. COORDINATE WITH UNIVERSITY REPRESENTATIVE REGARDING ANY ELECTRICAL, HVAC, TELEPHONE/DATA OR SECURITY SYSTEM SERVICE INTERRUPTIONS.
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18. WHERE SYSTEMS FURNITURE HAS BEEN REMOVED, THE FLOOR IN-FEEDS TO BE REMOVED. ALL WIRING AND CONDUIT SHALL BE REMOVED.
19. AT PENETRATIONS OF FIRE RATED WALL, CEILING, FLOOR OR ROOF, CONSTRUCTION, COMPLETELY SEAL VOIDS WITH FIRE RATED FIRE RESISTANT MATERIAL; FULL THICKNESS OF THE CONSTRUCTION ELEMENT TO MAINTAIN FIRE RATING OF CONSTRUCTION ELEMENT IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
20. UNLESS NOTED OTHERWISE, WHERE DEMOLITION OCCURS ALL VINYL, RUBBER, AND/OR WOOD BASE ARE TO BE REMOVED.
21. UNLESS NOTED OTHERWISE EXISTING FIRE DEPARTMENT CONNECTIONS, HOSE CABINETS, FIRE EXTINGUISHERS AND FIRE HOSE RACKS TO REMAIN. COORDINATE WITH ENGINEERING DRAWINGS FOR RELOCATION OF ANY EXISTING FIRE DEPARTMENT CONNECTIONS.
22. IN AREA OF SCOPE, AT EXISTING PARTITIONS, COLUMN ENCLOSURE AND PERIMETER WALL SURFACE TO REMAIN, UNLESS OTHERWISE NOTED, REMOVE ANY EXISTING WALL COVERING, WALL PAPER OR OTHER WALL SURFACE TO LEAVE DRYWALL SURFACE SUITABLE FOR PREPARATION AND PAINTING.
23. DEMOLITION TO INCLUDE REMOVAL OF ABANDONED HANGERS, BRACKETS, SCREWS, CONNECTORS, CONDUIT, DUCTWORK, METAL PARTITION TRACK AND ANY OTHER UNUSED ITEMS SECURED TO THE UNDERSIDE OF THE SLAB.
24. CONFIRM WITH UNIVERSITY REPRESENTATIVE WHERE DEMOLITION OCCURS, ITEMS TO BE SALVAGED AND HELD AT PROJECT SITE FOR UNIVERSITY REPRESENTATIVE'S NOTIFICATION.
25. UNLESS NOTED OTHERWISE, ALL CEILING GRIDS, CEILING TILE, DRYWALL CEILINGS, CEILING MOUNTED DEVICES, EXIT SIGNS AND DIFFUSERS ARE TO BE REMOVED. REFER TO ENGINEERING DOCUMENTS FOR ADDITIONAL INFORMATION. ALL ELECTRICAL TERMINATIONS TO BE PERFORMED BY ELECTRICAL CONTRACTOR.
26. UNLESS NOTED OTHERWISE, ALL BASE BUILDING FINISHES ARE TO REMAIN.
27. REFER TO SHEETS ID1.02, ID1.04, AND ID1.06 FOR AREAS OF CEILING GRID TO BE DEMOLISHED.
28. CONTRACTOR TO PROVIDE PHASED DEMOLITION PLAN TO UNIVERSITY REPRESENTATIVE FOR APPROVAL, PRIOR TO COMMENCEMENT OF WORK.
29. BUILDING TO REMAIN IN OPERATION DURING ALL PHASES OF PROJECT.
30. WHERE INTERIOR GLAZING AND DOORS ARE REMOVED IN PARTITIONS WHICH ARE TO REMAIN, PATCH, REPAIR AND INFILL VOIDS IN WALL AS A RESULT OF GLAZING OR DOOR REMOVAL, WITH IDENTICAL WALL COMPOSITION AND FINISHES UNLESS NOTED OTHERWISE.
31. REMOVE WALLS, DOORS, DOOR FRAMES AND HARDWARE WHERE SHOWN DASHED. DISCONNECT AND REMOVE RECEPTACLES, TELE/DATA, SENSORS, ALARMS AND SWITCHES WITHIN THEM. GENERAL CONTRACTOR IS RESPONSIBLE FOR ELECTRICAL DISCONNECT.
32. ALL AUDIO VISUAL EQUIPMENT REMOVED AS A RESULT OF DEMOLITION TO BE SALVAGED AND RETURNED TO OWNER. GENERAL CONTRACTOR TO CONFIRM WITH UNIVERSITY REPRESENTATIVE WHICH SALAVAGED EQUIPMENT IS TO BE RE-INSTALLED
33. PATCH AND PAINT WITH PT-01 U.N.O ALL WALLS WITH DAMAGE, U.O.N.

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NO.	DATE	DESCRIPTION
2	03/18/2020	Addendum #1

CLASSROOM AND OFFICE BUILDING 1 RENOVATION

UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT Timothy M. Stevens C-26150 09-30-2021 STATE OF CALIFORNIA

2ND FLOOR DEMOLITION PLAN

Drawn By: AC

Checked By: MP/PW

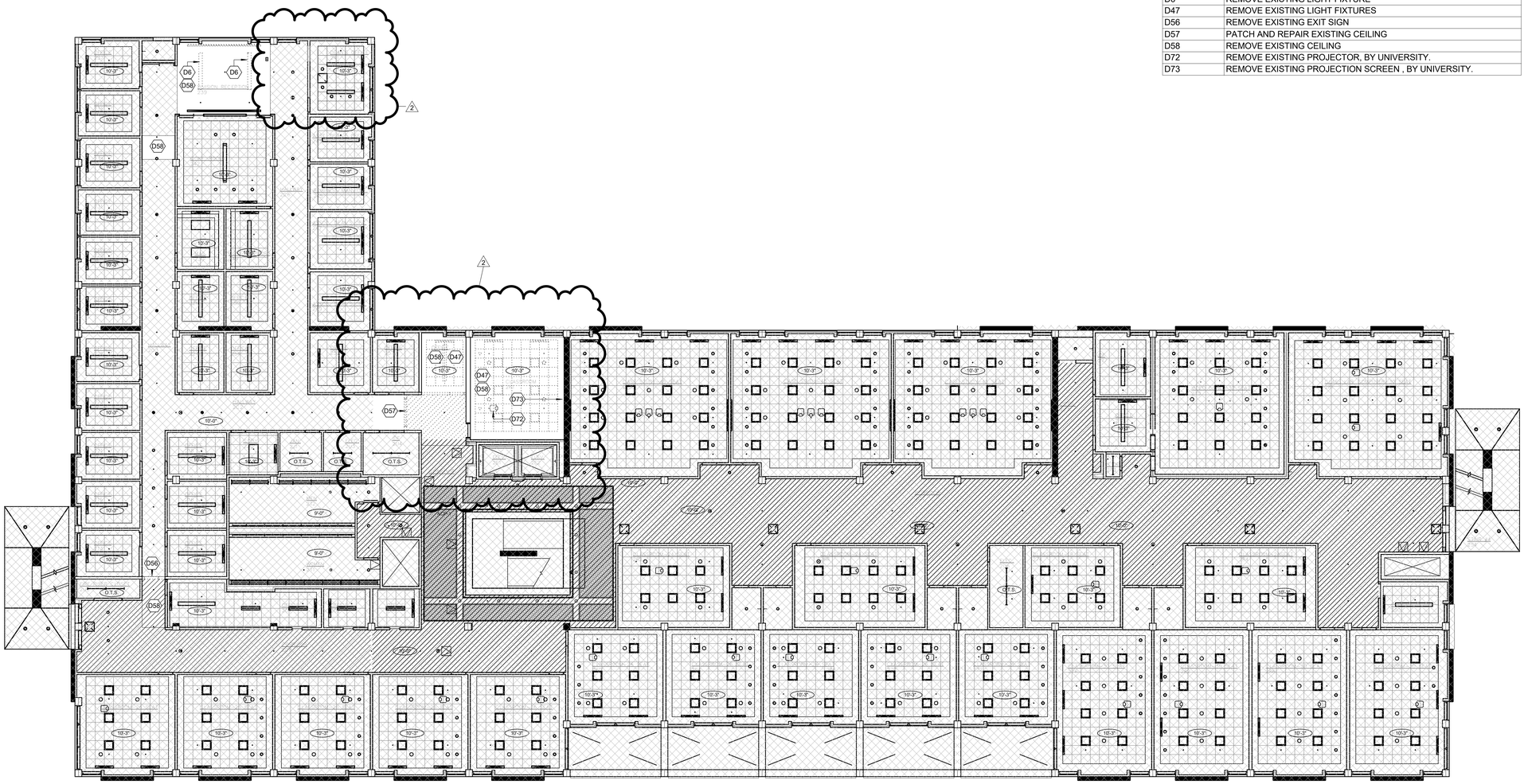
Project Number: 2019031

Sheet Number: ID1.03

Keynote Legend - Demolition	
Key Value	Keynote Text
D6	REMOVE EXISTING LIGHT FIXTURE
D47	REMOVE EXISTING LIGHT FIXTURES
D56	REMOVE EXISTING EXIT SIGN
D57	PATCH AND REPAIR EXISTING CEILING
D58	REMOVE EXISTING CEILING
D72	REMOVE EXISTING PROJECTOR, BY UNIVERSITY.
D73	REMOVE EXISTING PROJECTION SCREEN , BY UNIVERSITY.

RCP DEMO LEGEND

- DEMOLISHED WALLS
- EXISTING PARTITION
- EXISTING CEILING FINISH TO REMAIN. AREA NOT IN SCOPE OF WORK



1 2ND FLOOR RCP DEMOLITION PLAN

SCALE: 3/32" = 1'-0"

DEMOLITION RCP GENERAL NOTES

1. SEE SHEET ID0.2.0 FOR ADDITIONAL NOTES AND ABBREVIATIONS.
2. ALL CEILINGS AND LIGHT FIXTURES TO REMAIN, TYP., U.N.O BRACING TO REMAIN AT EXISTING CEILING HEIGHT PARTITIONS SCHEDULED TO REMAIN. FOR NOTED DEMOLITION, REMOVE ALL WIRING AND SUPPORTS, CLEAN & PREPARE FOR NEW WORK.
3. SEE ENGINEER`S DRAWINGS FOR ADDITIONAL INFORMATION REGARDING REMOVAL OF MEP DEVICES. CONTRACTOR TO COORDINATE EXTENT OF DEMOLITION OF CEILINGS WITH ENGINEER'S DEMOLITION DRAWINGS AND DESIGN DRAWINGS.
4. WHERE INDICATED REMOVE ALL SUSPENDED CEILING TILES AND GRID(INCLUDING SUPPORTS AND HANGERS) THROUGHOUT THE AREA OF WORK. REMOVE, REUSE OR MODIFY EXISTING SUPPORTS AND HANGERS AS REQUIRED BY THE WORK.
5. REMOVE EXISTING CEILING TILES WHERE DEMOLITION AND NEW CONSTRUCTION OCCUR AND STORE FOR LATER RE-USE. ALL-BROKEN, PARTIAL, STAINED, OR DAMAGED TILES SHALL BE DISCARDED.
6. SALVAGE EXISTING COMPLIANT FIRE ALARMS DEVICES, EXIST SIGNS, LIGHTING AND HVAC DEVICES THAT ARE SCHEDULED FOR REMOVAL FOR REUSE, U.O.N
7. REMOVE ALL EXISTING LIGHT FIXTURES AND LENSES (WHERE NOTED) AND STORE FOR FUTURE USE. ALL RELOCATED FIXTURES TO BE IN FULL OPERATING ORDER.
8. PROTECT EXISTING WINDOW COVERING DURING DEMOLITION AND CONSTRUCTION ACTIVITY, REPORT NON-SERVICABLE OR DEMAGED LOCATIONS TO OWNER WHERE OCCURS PRIOR TO START OF WORK.
9. REMOVE ABANDONED PLENUM RATED TELEPHONE AND DATA CABLING WHERE DIRECTED BY UNIVERSITY REPRESENTATIVE AND/OR APPLICABLE OWNERS DATA/TELECOM ENDOR/SUBCONTRACTOR.
10. DUE TO CONCEALED CONDITIONS NO ATTEMPT HAS BEEN MADE TO DISTINGUISH BETWEEN FULL HEIGHT, THROUGH GRID AND CEILING HEIGHT PARTITIONS, INCLUDE DEMOLITION OF PARTITION RELATED ASSEMBLIES ABOVE THE CEILING PER AS-BUILT FIELD CONDITIONS WHERE PARTITIONS ARE SHOWN TO BE REMOVED.
11. ALL AUDIO VISUAL EQUIPMENT REMOVED AS A RESULT OF DEMOLITION TO BE SALVAGED AND RETURNED PER INSTRUCTION OF UNIVERSITY REPRESENTATIVE.

REFLECTED CEILING LEGEND

SYMBOL	CEILING TYPES
	OPEN TO STRUCTURE
	ACT-1 - 2 x 2 CEILING TILE AND GRID
	GWB - GYPSUM BOARD CEILING OR SOFFIT
	1 HOUR FIRE RATED CEILING
	FABRIC WRAPPED PANEL CEILING ACP-1
0'-0"	CEILING HEIGHT ABOVE FINISH FLOOR

SYMBOL	CEILING POWER & MISCELLANEOUS CEILING EQUIPMENT
	RECESSED HVAC SLOT DIFFUSER
	HVAC DIFFUSER
	ACCESS PANEL
	FLUSH CEILING SPEAKER CENTERED IN CEILING TILE UNLESS OTHERWISE NOTED
	CEILING MOUNTED PROJECTOR
25	PROJECTION SCREEN
	FLUSH IN CEILING
	SPRINKLER HEAD
	SMOKE DETECTOR
	CEILING MOUNTED JUNCTION BOX
S	CEILING MOUNTED SPEAKER - 1/ID8.09
W	WALL MOUNTED WAP
EM	EMERGENCY LIGHTING WALL PACK
	EXIT SIGN, ARROW WHEN APPLICABLE
AV	AUDIO VISUAL OUTLET IN CEILING
	DATA OUTLET IN CEILING
	SINGLE OUTLET IN CEILING
	DUPLEX OUTLET IN CEILING
	DUPLEX SEPERATE CIRCUIT OUTLET IN CEILING
	DOUBLE DUPLEX OUTLET IN CEILING
	DOUBLE DUPLEX SEPERATE CIRCUIT OUTLET IN CEILING
	CEILING MOUNTED CAMERA

SYMBOL	LIGHT FIXTURE TYPES
	2x2 RECESSED LIGHT FIXTURE
	LINEAR DIRECT/INDIRECT PENDANT LIGHT FIXTURE
	RECESSED DOWN LIGHT
	RECESSED WALL WASHER
	RECESSED SQUARE DOWNLIGHT
	RECESSED SQUARE WALL WASHER
	TRACK LIGHT
	WALL SCONCE
	LINEAR WALL SCONCE - VERTICAL
	LINEAR WALL SCONCE - HORIZONTAL
	TRIP OR TASK LIGHT

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CLASSROOM AND OFFICE BUILDING 1 RENOVATION

UNIVERSITY OF CALIFORNIA, MERCED

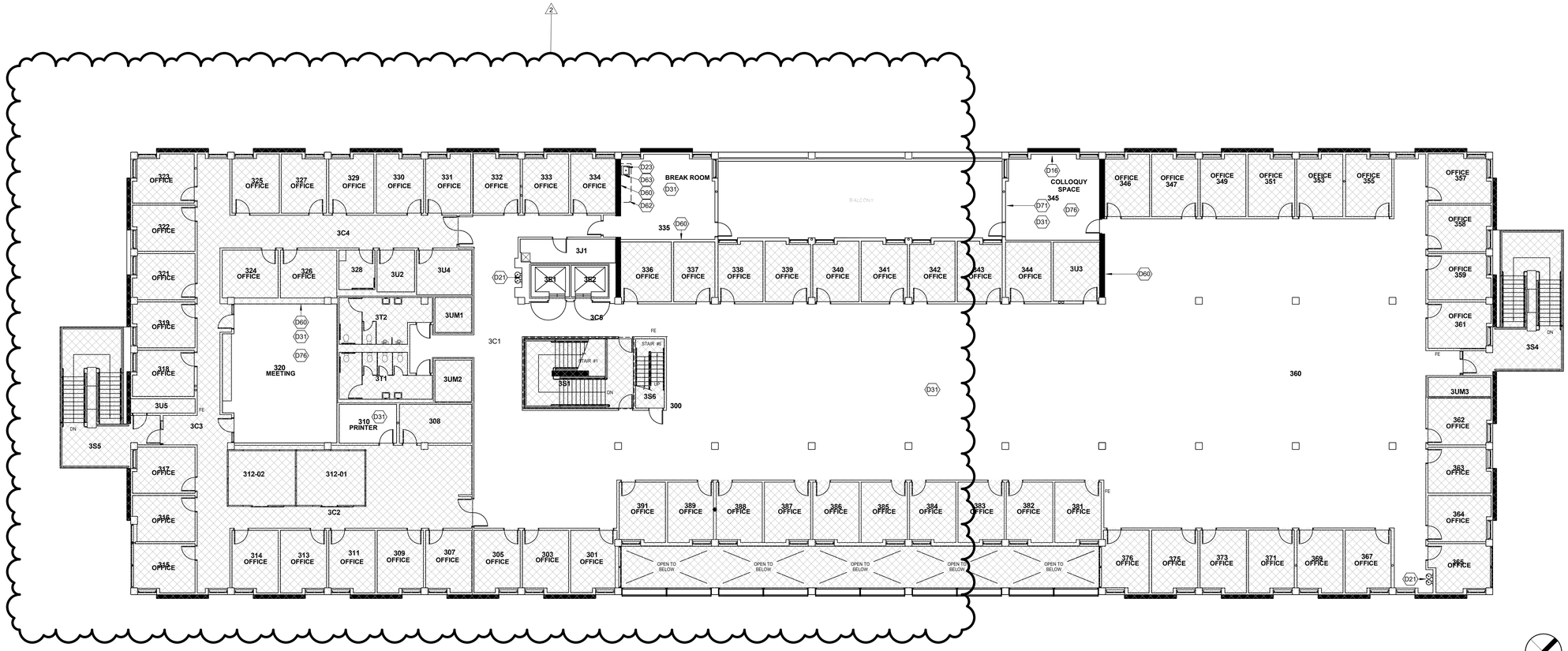
LICENSED ARCHITECT Timothy M. Stevens C-26150 09-30-2021 STATE OF CALIFORNIA

2ND FLOOR RCP DEMOLITION PLAN

Drawn By: AC
Checked By: MP/PW
Project Number: 2019031

Sheet Number: ID1.04

Keynote Legend - Demolition	
Key Value	Keynote Text
D16	REMOVE EXISTING SIGNAGE
D21	REMOVE EXISTING DRINKING FOUNTAIN.
D23	REMOVE EXISTING SINK.
D31	REMOVE EXISTING FLOORING.
D60	REMOVE EXISTING MARKER BOARDS
D62	REMOVE EXISTING MILLWORK
D63	REMOVE EXISTING PAPER TOWEL DISPENSER
D71	REMOVE EXISTING MONITOR,BY UNIVERSITY .
D76	REMOVE ALL EXISTING AV,BY UNIVERSITY.



1 **3RD FLOOR DEMOLITION PLAN**

SCALE: 3/32" = 1'-0"

DEMOLITION PLAN GENERAL NOTES

1. DEMOLITION INCLUDES THE REMOVAL AND DISPOSAL OF ALL DEMOLISHED MATERIALS. PERFORM ALL DEMOLITION WORK THAT MAY BE REQUIRED OR NECESSARY TO A FULL AND COMPLETE EXECUTION OF THE WORK, WHETHER OR NOT SHOWN OR SPECIFIED. THE EXACT EXTENT OF DEMOLITION MAY NOT BE SHOWN ON DRAWINGS.
2. DEMOLITION DOCUMENTATION INDICATES THE INTENDED EXTENT OF DEMOLITION. PRIMARILY THE REMOVAL OF FINISHES, PARTITIONS, ELECTRICAL DEVICES, DOOR ASSEMBLIES AND MILLWORK.
3. THE CONTRACTOR SHALL VISIT THE SITE TO EXAMINE THE EXISTING AND SURROUNDING CONDITIONS, AND ALL RECORD DRAWINGS, AND ISSUE PRE-BID RFTS FOR RESPONSE.
4. DEMOLITION PLANS MAY NOT BE ACCURATE IN ALL DETAILS; CONTRACTOR IS TO VERIFY CONDITIONS IN THE FIELD PRIOR TO SUBMITTING BID. NO ADDITIONAL FUNDS WILL BE PROVIDED FOR DISCOVERY OF VERIFIABLE CONDITIONS AFTER WORK HAS BEEN AWARDED.
5. REFER TO ENGINEERING DOCUMENTATION FOR ADDITIONAL INFORMATION UNLESS OTHERWISE NOTED.
6. THE UNIVERSITY'S REPRESENTATIVE HAS NO KNOWLEDGE OF AND SHALL NOT BE HELD LIABLE FOR ANY HAZARDOUS MATERIALS ON THE JOBSITE. IF HAZARDOUS MATERIALS ARE DISCOVERED DURING CONSTRUCTION, ISOLATE THE AFFECTED AREA AND CONTACT THE UNIVERSITY'S REPRESENTATIVE FOR FURTHER INSTRUCTIONS BEFORE PROCEEDING.
7. COMPLY WITH APPLICABLE LOCAL, STATE AND FEDERAL CODES AND REGULATIONS PERTAINING TO SAFETY OF PERSONS, PROPERTY AND ENVIRONMENTAL PROTECTION.
8. PROVIDE AND MAINTAIN FIRE PROTECTION, BARRICADES, LIGHTING, AND GUARDRAILS AS REQUIRED BY APPLICABLE CODES AND REGULATIONS TO PROTECT OCCUPANTS OF BUILDING.
9. PROVIDE AND MAINTAIN SAFE EXIT PATH FOR OCCUPANTS THROUGH DEMOLITION AREAS. PROVIDE TEMPORARY DOORS, EXIT SIGNAGE AND ILLUMINATION TO MAINTAIN THE EXIT PATH. DO NOT OBSTRUCT THE EXIT PATH WITH CONSTRUCTION MATERIALS OR DEBRIS.
10. DURING DEMOLITION THE AREA OF WORK WILL BE OCCUPIED AND FUNCTIONAL. COORDINATE WITH UNIVERSITY REPRESENTATIVE PRIOR TO SCHEDULING SELECTIVE DEMOLITION.
11. DURING DEMOLITION THE ADJACENT SPACE AND FLOORS ABOVE AND BELOW WILL BE OCCUPIED AND FULLY FUNCTIONAL. PROTECT EXISTING ADJACENT SPACES AND CORRIDORS FROM DAMAGE. REMOVE CONSTRUCTION DEBRIS FROM OCCUPIED SPACES AS THE WORK PROGRESSES. PROVIDE PROTECTION TO EXISTING WALL AND FLOOR SURFACES WITHIN OCCUPIED SPACES. COORDINATE WITH UNIVERSITY REPRESENTATIVE REGARDING ANY ELECTRICAL, HVAC, TELEPHONE/DATA OR SECURITY SYSTEM SERVICE INTERRUPTIONS.
12. PROVIDE DUST PROTECTION/SEPARATION AT ADJACENT OCCUPIED SPACE, AND AT OPENINGS TO THE BUILDING CORRIDOR DURING ALL PHASES OF WORK.
13. THE CONTRACTOR SHALL PROTECT ALL EXISTING CONDITIONS TO REMAIN THROUGHOUT THE DURATION OF DEMOLITION WORK.
14. REMOVE DEBRIS AS WORK PROGRESSES. KEEP THE PREMISE BROOM CLEAN AND ACCESSIBLE AT THE END OF EVERY DAY.
15. MAINTAIN ALL EXISTING SERVICES IN USE AT ALL TIMES UNLESS WRITTEN PERMISSION IS OBTAINED FROM UNIVERSITY REPRESENTATIVE, PRIOR TO THE INTERRUPTION OF ANY SERVICE. COORDINATE INTERRUPTION OF SERVICES WITH UNIVESRITY REPRESENTATIVE PRIOR TO INTERRUPTING ANY SERVICE, OR PERFORM SUCH WORK ON OFF HOURS WHEN CLIENT WILL NOT BE AFFECTED BY THE INTERRUPTION. PERMANENTLY RECONNECT ANY SERVICE INTERRUPTED BY DEMOLITION OR ALTERATION WORK, WITHIN AND OUTSIDE THE SCOPE OF WORK.
16. WHERE EXISTING PARTITIONS CONTAIN ELECTRICAL OUTLETS OR SWITCHES, COORDINATE DEMOLITION OF PARTITIONS WITH ELECTRICAL CONTRACTOR. ALL ELECTRICAL TERMINATIONS TO BE PERFORMED BY ELECTRICAL CONTRACTOR. REFER TO DIVISION 01 FOR SERVICE INTERRUPTION REQUEST PROCESS.
17. WHERE EXISTING ELECTRICAL EQUIPMENT IS DESIGNATED TO BE REMOVED, IT SHALL BE COMPLETELY REMOVED WITH ALL ASSOCIATED BOXES, SUPPORTS AND DEVICES. ALL WIRING AND CONDUIT SHALL BE REMOVED COMPLETELY BACK TO THE FIRST ITEM LEFT UNAFFECTED BY REMOVAL. CONDUIT THAT IS BURIED OR OTHERWISE INACCESSIBLE SHALL BE ABANDONED. IN SUCH CASE CONTRACTOR SHALL PULL ALL WIRE FROM THE CONDUIT AND REMOVE ALL ITEMS PROTRUDING FROM THE FINISHED SURFACE.
18. WHERE SYSTEMS FURNITURE HAS BEEN REMOVED, THE FLOOR IN-FEEDS TO BE REMOVED. ALL WIRING AND CONDUIT SHALL BE REMOVED.
19. AT PENETRATIONS OF FIRE RATED WALL, CEILING, FLOOR OR ROOF, CONSTRUCTION, COMPLETELY SEAL VOIDS WITH FIRE RATED FIRE RESISTANT MATERIAL, FULL THICKNESS OF THE CONSTRUCTION ELEMENT TO MAINTAIN FIRE RATING OF CONSTRUCTION ELEMENT IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
20. UNLESS NOTED OTHERWISE, WHERE DEMOLITION OCCURS ALL VINYL, RUBBER, AND/OR WOOD BASE ARE TO BE REMOVED.
21. UNLESS NOTED OTHERWISE EXISTING FIRE DEPARTMENT CONNECTIONS, HOSE CABINETS, FIRE EXTINGUISHERS AND FIRE HOSE RACKS TO REMAIN. COORDINATE WITH ENGINEERING DRAWINGS FOR RELOCATION OF ANY EXISTING FIRE DEPARTMENT CONNECTIONS.
22. IN AREA OF SCOPE, AT EXISTING PARTITIONS, COLUMN ENCLOSURE AND PERIMETER WALL SURFACE TO REMAIN, UNLESS OTHERWISE NOTED, REMOVE ANY EXISTING WALL COVERING, WALL PAPER OR OTHER WALL SURFACE TO LEAVE DRYWALL SURFACE SUITABLE FOR PREPARATION AND PAINTING.
23. DEMOLITION TO INCLUDE REMOVAL OF ABANDONED HANGERS, BRACKETS, SCREWS, CONNECTORS, CONDUIT, DUCTWORK, METAL PARTITION TRACK AND ANY OTHER UNUSED ITEMS SECURED TO THE UNDERSIDE OF THE SLAB.
24. CONFIRM WITH UNIVERSITY REPRESENTATIVE WHERE DEMOLITION OCCURS, ITEMS TO BE SALVAGED AND HELD AT PROJECT SITE FOR UNIVERSITY REPRESENTATIVE'S NOTIFICATION.
25. UNLESS NOTED OTHERWISE, ALL CEILING GRIDS, CEILING TILE, DRYWALL CEILINGS, CEILING MOUNTED DEVICES, EXIT SIGNS AND DIFFUSERS ARE TO BE REMOVED. REFER TO ENGINEERING DOCUMENTS FOR ADDITIONAL INFORMATION. ALL ELECTRICAL TERMINATIONS TO BE PERFORMED BY ELECTRICAL CONTRACTOR.
26. UNLESS NOTED OTHERWISE, ALL BASE BUILDING FINISHES ARE TO REMAIN.
27. REFER TO SHEETS ID1.02, ID1.04, AND ID1.06 FOR AREAS OF CEILING GRID TO BE DEMOLISHED.
28. CONTRACTOR TO PROVIDE PHASED DEMOLITION PLAN TO UNIVERSITY REPRESENTATIVE FOR APPROVAL, PRIOR TO COMMENCEMENT OF WORK.
29. BUILDING TO REMAIN IN OPERATION DURING ALL PHASES OF PROJECT.
30. WHERE INTERIOR GLAZING AND DOORS ARE REMOVED IN PARTITIONS WHICH ARE TO REMAIN, PATCH, REPAIR AND INFILL VOIDS IN WALL AS A RESULT OF GLAZING OR DOOR REMOVAL, WITH IDENTICAL WALL COMPOSITION AND FINISHES UNLESS NOTED OTHERWISE.
31. REMOVE WALLS, DOORS, DOOR FRAMES AND HARDWARE WHERE SHOWN DASHED. DISCONNECT AND REMOVE RECEPTACLES, TELE/DATA, SENSORS, ALARMS AND SWITCHES WITHIN THEM. GENERAL CONTRACTOR IS RESPONSIBLE FOR ELECTRICAL DISCONNECT.
32. ALL AUDIO VISUAL EQUIPMENT REMOVED AS A RESULT OF DEMOLITION TO BE SALVAGED AND RETURNED TO OWNER. GENERAL CONTRACTOR TO CONFIRM WITH UNIVERSITY REPRESENTATIVE WHICH SALAVAGED EQUIPMENT IS TO BE RE-INSTALLED
33. PATCH AND PAINT WITH PT-01 U.N.O ALL WALLS WITH DAMAGE, U.O.N.

PLAN LEGEND

- DEMOLISHED WALLS
- EXISTING ELECTRICAL DUPLEX OUTLET
- DEMOLISHED ELECTRICAL DUPLEX OUTLET
- DEMOLISHED THERMOSTAT
- EXISTING THERMOSTAT
- EXISTING SINGLE SWITCH
- DEMOLISHED SINGLE SWITCH
- NEW CASEWORK
- EXISTING FLOOR & WALL FINISH TO REMAIN
- EXISTING PARTITION
- EXISTING DOOR & FRAME TO BE REMOVED & SALVAGED FOR POTENTIAL REUSE
- EXISTING INTERIOR GLAZING TO BE REMOVED

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NO.	DATE	DESCRIPTION
2	03/18/2020	Addendum #1

CLASSROOM AND OFFICE BUILDING 1 RENOVATION

UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT Timothy M. Stevens C-35150 09-30-2021 STATE OF CALIFORNIA

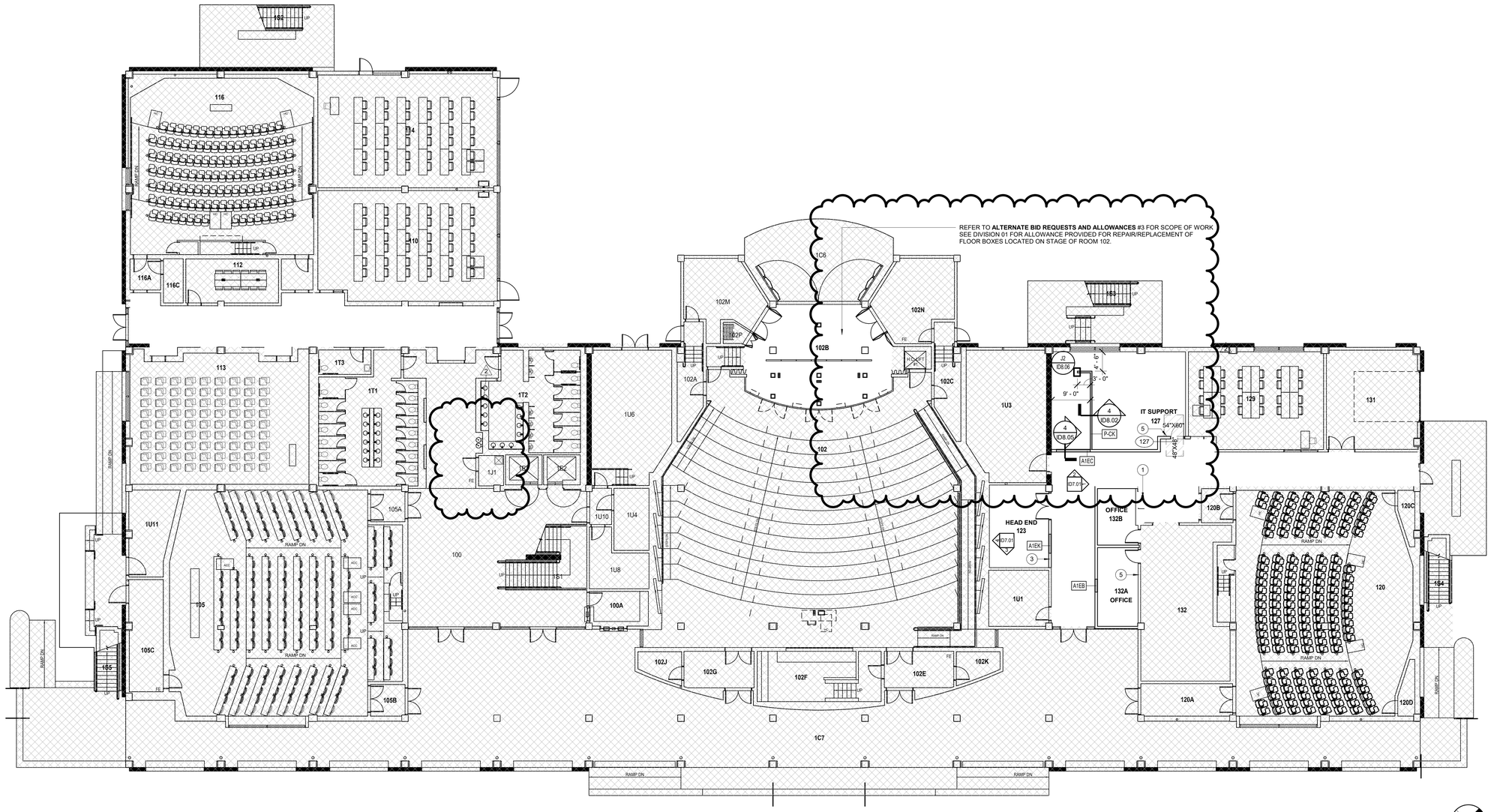
3RD FLOOR DEMOLITION PLAN

Drawn By: AC

Checked By: MP/PW

Project Number: 2019031

Sheet Number: ID1.05



1 1ST PARTITION FLOOR PLAN

SCALE: 3/32" = 1'-0"

LEGEND:

- AREA IN SCOPE OF WORK
- AREA NOT IN SCOPE OF WORK
- EXISTING PARTITION
- NEW PARTITION

FLOOR PLAN KEY NOTES

1. NEW DRINKING FOUNTAINS WITH BOTTLE FILLER,S.P.D
2. REINSTALL CARD READER
3. REINSTALL SALVAGED THERMSOTAT
4. REINSTALL SALVAGED SIGNAGE
5. REINSTALL SALVAGED SWITCH
6. REINSTALL FIRE EXTINGUISHER
7. REINSTALL SALVAGED DOOR HARDWARE AND ACCESS CONTROL

PARTITION PLAN GENERAL NOTES

1. DURING CONSTRUCTION THE AREA OF WORK WILL BE OCCUPIED. ADJACENT FLOORS AND TENANT SPACES WILL BE OCCUPIED.

2. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE CURRENT BUILDING CODE AND ALL APPLICABLE CODES AND ORDINANCES. THE CONTRACTOR SHALL ARRANGE FOR REQUIRED INSPECTIONS BY AUTHORITIES AT THE PROPER TIME DURING PROGRESS OF THE WORK.

3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND ALL DIMENSIONING PRIOR TO THE COMMENCEMENT OF WORK OR ORDERING OF MATERIAL.

CROSS REFERENCING / DIMENSIONS

4. REFER TO "ID0" SHEET SERIES FOR ADDITIONAL NOTES AND ABBREVIATIONS.

5. REFER TO SHEET ID8.00 FOR PARTITION TYPES, DETAILS AND EXTENT OF FRAMING.

6. PARTITIONS DIMENSIONED TO FINISH FACE U.N.O.

7. DIMENSIONS DENOTED BY ABBREVIATIONS "SP" AND "EP" DENOTE A SPECIAL "START POINT" AND "END POINT".

8. ALL VERTICAL DIMENSIONS ARE NOTED FROM TOP OF FINISHED FLOOR (A.F.F.).

9. UNLESS NOTED OTHERWISE, NEW PARTITIONS ARE EITHER ON THE BUILDING MODULE OR ALIGNED WITH AN EXISTING ELEMENT TO REMAIN.

10. THE ARCHITECTURAL DIMENSIONS SHALL GOVERN THE PLACEMENT OF ELECTRICAL, MECHANICAL, OR PLUMBING DEVICES WHERE INDICATED.

11. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL GOVERN. DETAILS SHALL GOVERN OVER PLANS AND ELEVATIONS. LARGE SCALE DETAILS SHALL GOVERN OVER SMALL SCALE DETAILS. WRITTEN SPECIFICATIONS SHALL GOVERN OVER ALL. IF DISCREPANCIES ARE FOUND IN CONTRACT DOCUMENTS, NOTIFY UNIVERSITY REPRESENTATIVE FOR CLARIFICATION PRIOR TO PROCEEDING WITH CONSTRUCTION.

12. CONTRACTOR TO LAYOUT ALL CHALK LINES FOR FIELD INSPECTIONS AND WRITTEN APPROVAL BY UNIVERSITY REPRESENTATIVE AND OWNER PRIOR TO CONSTRUCTION. NOTIFY UNIVERSITY REPRESENTATIVE FOR FORMAL REVIEW AND APPROVAL OF PARTITION LAYOUT PRIOR TO INSTALLATION OF TRACK AND STUD FRAMING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DIMENSIONS AS INDICATED ON THE DRAWINGS. ALL PARTITIONS THAT MEET A MULLION ARE TO ALIGN WITH WINDOW MULLION. NOTIFY UNIVERSITY REPRESENTATIVE OF DISCREPANCIES PRIOR TO START OF WORK. WHERE HOLD DIMENSIONS CANNOT BE MAINTAINED THE UNIVERSITY REPRESENTATIVE SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF THE WORK.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING CONTRACT DOCUMENTS, FIELD CONDITIONS, AND DIMENSIONS FOR ACCURACY AND CONFIRMING THAT THE WORK IS BUILDABLE AS SHOWN BEFORE PROCEEDING WITH THE CONSTRUCTION. IF THERE ARE ANY QUESTIONS REGARDING THESE OR OTHER COORDINATION ISSUES, THE CONTRACTOR SHALL SUBMIT THEM IN WRITING TO THE UNIVERSITY REPRESENTATIVE AND IS RESPONSIBLE FOR OBTAINING A WRITTEN CLARIFICATION FROM THE UNIVERSITY REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK IN QUESTION OR RELATED WORK. THE DIMENSIONS AND WORK NOTED ON THESE DRAWINGS ARE INDICATED FOR DESIGN INTENT. IF THE INSTALLATION OF ELECTRICAL, MECHANICAL, PLUMBING, OR FIRE PROTECTION WORK INTERFERES WITH THIS INTENT, THE UNIVERSITY REPRESENTATIVE SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH CONSTRUCTION.

14. WHERE CONFLICTS OCCUR WITH RESPECT TO BASE BUILDING AND INSTALLATION OF NEW WORK THE CONTRACTOR SHALL NOTIFY THE UNIVERSITY REPRESENTATIVE PRIOR TO PROCEEDING WITH CONSTRUCTION. WHERE NEW CONSTRUCTION ABUTS BASE BUILDING WORK OR EXISTING WORK AND THE FINISH SURFACES APPEAR TO ALIGN, SURFACES SHALL BE CONSTRUCTED WITHOUT A VISIBLE JOINT UNLESS NOTED OTHERWISE. PROVIDE A CONSTRUCTION JOINT WHERE ABUTTING EXISTING BUILDING STRUCTURE.

15. MECHANICAL AND ELECTRICAL INFORMATION INDICATED ON ARCHITECTURAL DRAWINGS IS FOR REFERENCE AND LOCATION PURPOSES ONLY. UNLESS OTHERWISE INDICATED, REFER TO MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR INFORMATION PERTAINING TO THOSE TRADE.

PARTITIONS

16. USE TYPE "X" GWB ON ALL FIRE RATED PARTITIONS, U.N.O. ISOLATE PARTITION FRAMING AND WALL FURRING WHERE IT ABUTS STRUCTURE, EXCEPT AT FLOOR, TO PREVENT TRANSFER OF LOADING IMPOSED BY STRUCTURAL MOVEMENT. INSTALL SLIP-TYPE JOINTS AT HEAD OF ASSEMBLIES THAT AVOID AXIAL LOADING OF ASSEMBLY AND LATERALLY SUPPORT ASSEMBLY. USE DEEP-LEG DEFLECTION TRACK WHERE REQUIRED. PROVIDE BRACING OF PARTITIONS AT DOORS AND WINDOWS; REFER TO PARTITION TYPES.VERIFY WITH ID8.01 SHEET.

17. INFILL PARTITIONS SHALL MATCH THE ADJACENT PARTITION FOR BOTH CONSTRUCTION, THICKNESS AND FIRE RATING.

18. FIRE SAFE PENETRATIONS AT RATED PARTITIONS PER APPLICABLE UL ASSEMBLY. REFER TO ID8 SHEET SERIES FOR DETAILS.

19. MAINTAIN INTEGRITY OF EXISTING UL FIRE RATED ASSEMBLIES FOR ALL PENETRATIONS.

20. PROVIDE BLOCKING AS REQUIRED AT LOCATIONS INCLUDING, BUT NOT LIMITED TO; GRAB BARS, SHELVING, OVERHEAD CABINETS, TOILET ROOM ACCESSORIES, WALL MOUNTED EQUIPMENT, ETC.

21. REFER TO PLUMBING FIXTURE SCHEDULE AND EQUIPMENT SCHEDULE FOR SPECIFICATIONS OF PLUMBING FIXTURES AND EQUIPMENT.

22. ALL FIRE EXTINGUISHER CABINETS SHALL BE FULLY RECESSED WITH TRIM. REFER TO FIRE PROTECTION DOCUMENTS FOR SPECIFICATIONS AND SIGNAGE DOCUMENTS FOR ADDITIONAL INFORMATION.

23. FLOOR SLAB TO BE FLUSH AND SMOOTH FOR INSTALLATION OF NEW SCHEDULED FINISHES. PROVIDE FLOOR PREP AS REQUIRED FOR PROPER INSTALLATION OF VCT AND CARPET FLOORING OR OTHER SCHEDULED FINISH TO PREVENT IMPERFECTIONS TELEGRAPHING THROUGH MATERIAL. COORDINATE FLOOR PREP MATERIAL WITH FINISH MATERIAL MANUFACTURER REQUIREMENTS. FLOORS SHALL BE LEVEL AND FREE OF IRREGULARITIES TO ASSURE THAT WHEN DOOR FRAMES ARE SET THEY ARE AT A CONSISTENT DIMENSION FROM THE CEILING. WITH NO GAPS BETWEEN THE BOTTOM OF THE DOOR FRAME AT THE SLAB AFTER FLOOR FINISHES ARE INSTALLED. CHANGES IN THE FLOOR HEIGHT SHALL BE GRADUALLY RAISED AND TROWELED TO CREATE A RAMP LIKE EFFECT. ALL MODIFICATION TO THE FLOOR SHALL BE MADE WITH A HIGH QUALITY, NON-CRUMBLING LATEX BASE FLASHING COMPOUND.

24. GENERAL CONTRACTOR TO VERIFY ALL FLOOR LEVELING TO MEET LEASE REQUIREMENTS. OR A MINIMUM FLOOR LEVELING OF 1/2" OVER 10'-0". NOTIFY UNIVERSITY REPRESENTATIVE AND OWNER IF FLOOR CONDITIONS DO NOT MEET MINIMUM CRITERIA. REFER TO "GENERAL NOTES" FOR ADDITIONAL INFORMATION.

25. NO BASE BUILDING SHAFT AREAS SHALL BE PENETRATED IN CONJUNCTION WITH WORK.

26. PATCH AND REPAIR ALL REMAINING PARTITIONS AFTER DEMOLITION. COORDINATE WITH DEMOLITION PLANS. PERIMETER/EXTERIOR WINDOW BLINDS ARE EXISTING TO REMAIN. GENERAL CONTRACTOR TO PROTECT AND KEEP CLEAN.

27. PROVIDE TRIMLESS ACCESS PANELS AS INDICATED AND AT ALL REQUIRED LOCATIONS, TYPICAL. GENERAL CONTRACTOR TO SUBMIT SAMPLE FOR UNIVERSITY REPRESENTATIVE'S APPROVAL.

28. REFER TO ENGINEER DOCUMENTS FOR ADDITIONAL INFORMATION. GENERAL CONTRACTOR TO NOTIFY UNIVERSITY REPRESENTATIVE IN WRITING OF ANY DISCREPANCY BETWEEN DOCUMENTS PRIOR TO WORK.

29. REFER TO EQUIPMENT PLAN FOR ITEMS TO BE PROVIDED BY GENERAL CONTRACTOR AND ADDITIONAL INFORMATION.

30. FINAL CONSTRUCTION CLEAN TO BE PROVIDED AT THE END OF CONSTRUCTION. FINAL CLEAN TO BE PROVIDED TWO DAYS PRIOR TO MOVE IN. DATE TO BE APPROVED BY PROJECT MANAGER. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

31. CONTRACTOR TO COORDINATE SCHEDULING OF WORK WITH FURNISHINGS CONTRACTOR.

32. CONTRACTOR TO COORDINATE WORK AND PHASING OF WORK WITH UNIVERSITY OF CALIFORNIA, MERCED VOICE AND DATA VENDORS.

33. INSTALL CONTROL JOINTS AT ALL LOCATIONS AS INDICATED ON DRAWINGS AND ACCORDING TO ASTM C 840 AND IN SPECIFIC LOCATIONS APPROVED BY UNIVERSITY REPRESENTATIVE FOR VISUAL EFFECT. CONTROL JOINT SPACING SHALL NOT EXCEED THE LATEST PUBLISHED EDITION OF THE US GYPSUM CORPORATION'S DESIGN STANDARDS OR 30 FEET ON CENTER, WHICHEVER IS LESS. SHOULD ADDITIONAL JOINTS BE REQUIRED IN ADDITION TO THOSE SHOWN ON DRAWINGS, CONTRACTOR SHALL PROVIDE THESE ADDITIONAL JOINTS IN A PATTERN AS APPROVED BY THE UNIVERSITY REPRESENTATIVE AT NO ADDITIONAL COST.

34. TAPER SMOOTH BOTTOM OF DRYWALL WITH 4" BLADE FOR BASE INSTALLATION.

35. ALL PARTITIONS TO RECEIVE A WALLCOVERING OR SPECIALTY FINISH ARE TO RECEIVE A LEVEL (5) FINISH PRIOR TO INSTALLATION OF FINAL FINISH MATERIAL. REFER TO FINISH PLAN FOR ADDITIONAL INFORMATION.

36. REFER TO DOOR SCHEDULE FOR SCOPE AT EXISTING DOORS TO REMAIN.

37. ALL GYPSUM BOARD REVEALS, CORNERS OR TRANSITIONS TO BE FORMED WITH FINISH BEADS. ALL BEADS ARE TO BE TAPED, DRYWALL COMPOUND APPLIED AND SANDED SMOOTH.

38. PROTECT EXISTING PARTITIONS, DOORS, CEILINGS, LIGHT FIXTURES, OUTLETS, AND FURNISHINGS AT AREAS WITHOUT DEMOLITION OR NEW CONSTRUCTION WORK. PROTECT EXISTING CEILING TO REMAIN FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION.

39. PROVIDE DUST PROTECTION/SEPARATION AT OPENINGS TO THE BUILDING CORRIDOR DURING ALL PHASES OF WORK.

40. MATERIALS SHALL BE NEW, UNUSED AND OF THE QUALITY CONSISTENT WITH THE REMAINDER OF THE WORK. MANUFACTURED MATERIALS AND EQUIPMENT SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATION AND INSTRUCTIONS UNLESS NOTED OTHERWISE.

41. GC TO PROVIDE FIBERGLASS OR ACOUSTICAL SOUND ATTENUATION IN ALL PARTITIONS.

42. GC TO PROVIDE PUTTY PADS AT ELECTRICAL BACK BOXES. SEE DTL 14/ID8.03.

43. ALL CONVECTOR LOCATIONS PERPENDICULAR TO PARTITIONS TO BE SOUND INSULATED.

44. REMOVE ALL SIGNAGE LOCATED ON GLASS.

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NO.	DATE	DESCRIPTION
2	03/18/2020	Addendum #1

CLASSROOM AND OFFICE BUILDING 1 RENOVATION

UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT Timothy M. Stevens C-28150 09-30-2021 STATE OF CALIFORNIA

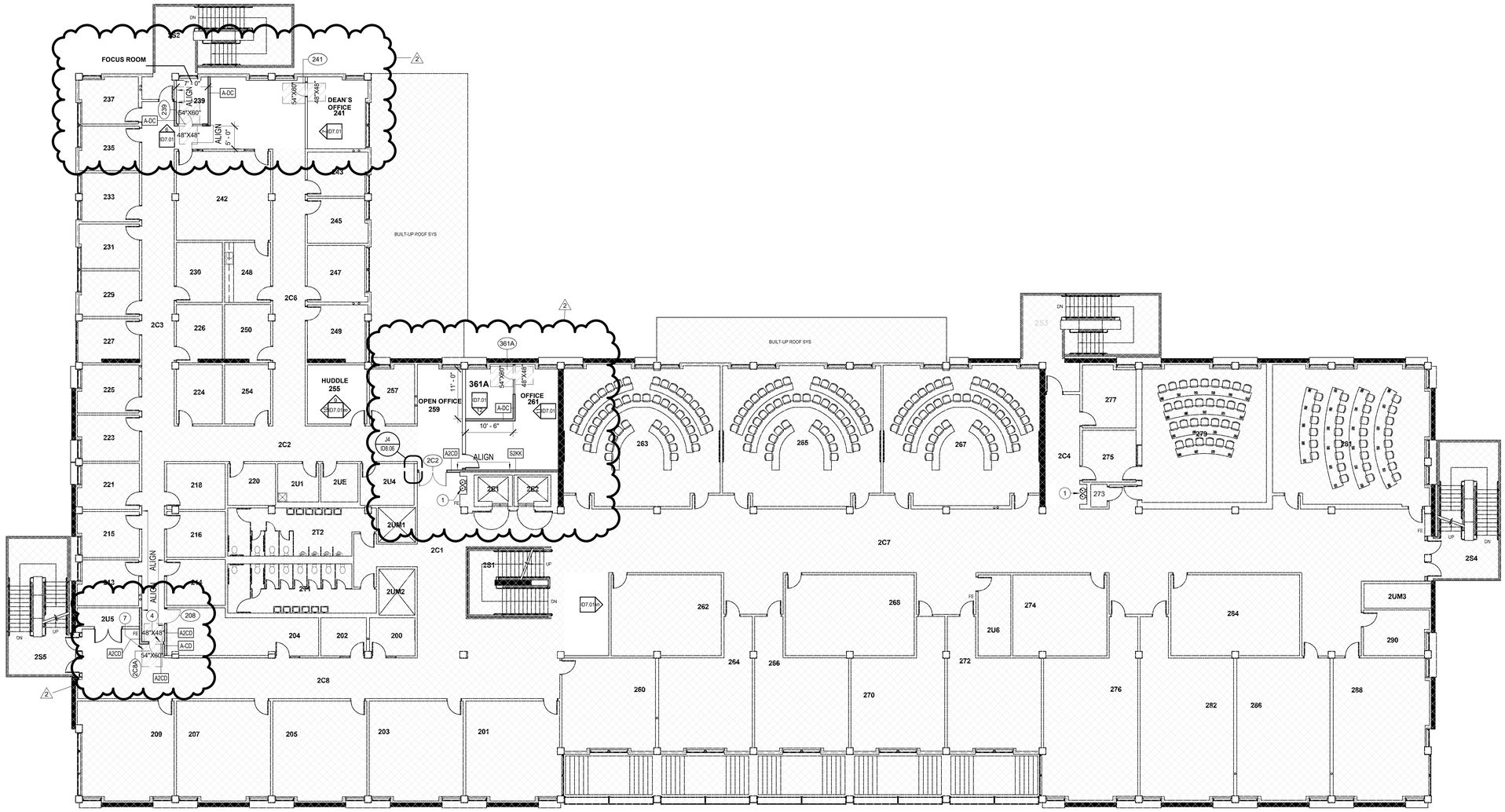
1ST FLOOR PARTITION PLAN

Drawn By: AC

Checked By: MP/PW

Project Number: 2019031

Sheet Number: ID2.01



1 2ND PARTITION FLOOR PLAN

SCALE: 3/32" = 1'-0"

LEGEND:

- AREA IN SCOPE OF WORK
- AREA NOT IN SCOPE OF WORK
- EXISTING PARTITION
- NEW PARTITION

FLOOR PLAN KEY NOTES

1. NEW DRINKING FOUNTAINS WITH BOTTLE FILLER,S.P.D
2. REINSTALL CARD READER
3. REINSTALL SALVAGED THERMSOTAT
4. REINSTALL SALVAGED SIGNAGE
5. REINSTALL SALVAGED SWITCH
6. REINSTALL FIRE EXTINGUISHER
7. REINSTALL SALVAGED DOOR HARDWARE AND ACCESS CONTROL

PARTITION PLAN GENERAL NOTES

1. DURING CONSTRUCTION THE AREA OF WORK WILL BE OCCUPIED. ADJACENT FLOORS AND TENANT SPACES WILL BE OCCUPIED.

2. ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH THE CURRENT BUILDING CODE AND ALL APPLICABLE CODES AND ORDINANCES. THE CONTRACTOR SHALL ARRANGE FOR REQUIRED INSPECTIONS BY AUTHORITIES AT THE PROPER TIME DURING PROGRESS OF THE WORK.

3. THE CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND ALL DIMENSIONING PRIOR TO THE COMMENCEMENT OF WORK OR ORDERING OF MATERIAL.

CROSS REFERENCING / DIMENSIONS

4. REFER TO "ID0" SHEET SERIES FOR ADDITIONAL NOTES AND ABBREVIATIONS.

5. REFER TO SHEET ID8.00 FOR PARTITION TYPES, DETAILS AND EXTENT OF FRAMING.

6. PARTITIONS DIMENSIONED TO FINISH FACE U.N.O.

7. DIMENSIONS DENOTED BY ABBREVIATIONS "SP" AND "EP" DENOTE A SPECIAL "START POINT" AND "END POINT".

8. ALL VERTICAL DIMENSIONS ARE NOTED FROM TOP OF FINISHED FLOOR (A.F.F.).

9. UNLESS NOTED OTHERWISE, NEW PARTITIONS ARE EITHER ON THE BUILDING MODULE OR ALIGNED WITH AN EXISTING ELEMENT TO REMAIN.

10. THE ARCHITECTURAL DIMENSIONS SHALL GOVERN THE PLACEMENT OF ELECTRICAL, MECHANICAL, OR PLUMBING DEVICES WHERE INDICATED.

11. DO NOT SCALE DRAWINGS. DIMENSIONS SHALL GOVERN. DETAILS SHALL GOVERN OVER PLANS AND ELEVATIONS. LARGE SCALE DETAILS SHALL GOVERN OVER SMALL SCALE DETAILS. WRITTEN SPECIFICATIONS SHALL GOVERN OVER ALL. IF DISCREPANCIES ARE FOUND IN CONTRACT DOCUMENTS, NOTIFY UNIVERSITY REPRESENTATIVE FOR CLARIFICATION PRIOR TO PROCEEDING WITH CONSTRUCTION.

12. CONTRACTOR TO LAYOUT ALL CHALK LINES FOR FIELD INSPECTIONS AND WRITTEN APPROVAL BY UNIVERSITY REPRESENTATIVE AND OWNER PRIOR TO CONSTRUCTION. NOTIFY UNIVERSITY REPRESENTATIVE FOR FORMAL REVIEW AND APPROVAL OF PARTITION LAYOUT PRIOR TO INSTALLATION OF TRACK AND STUD FRAMING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING DIMENSIONS AS INDICATED ON THE DRAWINGS. ALL PARTITIONS THAT MEET A MULLION ARE TO ALIGN WITH WINDOW MULLION. NOTIFY UNIVERSITY REPRESENTATIVE OF DISCREPANCIES PRIOR TO START OF WORK. WHERE HOLD DIMENSIONS CANNOT BE MAINTAINED THE UNIVERSITY REPRESENTATIVE SHALL BE NOTIFIED PRIOR TO COMMENCEMENT OF THE WORK.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING CONTRACT DOCUMENTS, FIELD CONDITIONS, AND DIMENSIONS FOR ACCURACY AND CONFIRMING THAT THE WORK IS BUILDABLE AS SHOWN BEFORE PROCEEDING WITH THE CONSTRUCTION. IF THERE ARE ANY QUESTIONS REGARDING THESE OR OTHER COORDINATION ISSUES, THE CONTRACTOR SHALL SUBMIT THEM IN WRITING TO THE UNIVERSITY REPRESENTATIVE. AND IS RESPONSIBLE FOR OBTAINING A WRITTEN CLARIFICATION FROM THE UNIVERSITY REPRESENTATIVE BEFORE PROCEEDING WITH THE WORK IN QUESTION OR RELATED WORK. THE DIMENSIONS AND WORK NOTED ON THESE DRAWINGS ARE INDICATED FOR DESIGN INTENT. IF THE INSTALLATION OF ELECTRICAL, MECHANICAL, PLUMBING, OR FIRE PROTECTION WORK INTERFERES WITH THIS INTENT, THE UNIVERSITY REPRESENTATIVE SHALL BE NOTIFIED PRIOR TO PROCEEDING WITH CONSTRUCTION.

14. WHERE CONFLICTS OCCUR WITH RESPECT TO BASE BUILDING AND INSTALLATION OF NEW WORK THE CONTRACTOR SHALL NOTIFY THE UNIVERSITY REPRESENTATIVE PRIOR TO PROCEEDING WITH CONSTRUCTION. WHERE NEW CONSTRUCTION ABUTS BASE BUILDING WORK OR EXISTING WORK AND THE FINISH SURFACES APPEAR TO ALIGN, SURFACES SHALL BE CONSTRUCTED WITHOUT A VISIBLE JOINT UNLESS NOTED OTHERWISE. PROVIDE A CONSTRUCTION JOINT WHERE ABUTTING EXISTING BUILDING STRUCTURE.

15. MECHANICAL AND ELECTRICAL INFORMATION INDICATED ON ARCHITECTURAL DRAWINGS IS FOR REFERENCE AND LOCATION PURPOSES ONLY. UNLESS OTHERWISE INDICATED, REFER TO MECHANICAL AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR INFORMATION PERTAINING TO THOSE TRADE.

PARTITIONS

16. USE TYPE "X" GWB ON ALL FIRE RATED PARTITIONS, U.N.O. ISOLATE PARTITION FRAMING AND WALL FURRING WHERE IT ABUTS STRUCTURE, EXCEPT AT FLOOR, TO PREVENT TRANSFER OF LOADING IMPOSED BY STRUCTURAL MOVEMENT. INSTALL SLIP-TYPE JOINTS AT HEAD OF ASSEMBLIES THAT AVOID AXIAL LOADING OF ASSEMBLY AND LATERALLY SUPPORT ASSEMBLY. USE DEEP-LEG DEFLECTION TRACK WHERE REQUIRED. PROVIDE BRACING OF PARTITIONS AT DOORS AND WINDOWS; REFER TO PARTITION TYPES.VERIFY WITH ID8.01 SHEET.

17. INFILL PARTITIONS SHALL MATCH THE ADJACENT PARTITION FOR BOTH CONSTRUCTION, THICKNESS AND FIRE RATING.

18. FIRE SAFE PENETRATIONS AT RATED PARTITIONS PER APPLICABLE UL ASSEMBLY. REFER TO ID8 SHEET SERIES FOR DETAILS.

19. MAINTAIN INTEGRITY OF EXISTING UL FIRE RATED ASSEMBLIES FOR ALL PENETRATIONS.

20. PROVIDE BLOCKING AS REQUIRED AT LOCATIONS INCLUDING, BUT NOT LIMITED TO: GRAB BARS, SHELVING, OVERHEAD CABINETS, TOILET ROOM ACCESSORIES, WALL MOUNTED EQUIPMENT, ETC.

21. REFER TO PLUMBING FIXTURE SCHEDULE AND EQUIPMENT SCHEDULE FOR SPECIFICATIONS OF PLUMBING FIXTURES AND EQUIPMENT.

22. ALL FIRE EXTINGUISHER CABINETS SHALL BE FULLY RECESSED WITH TRIM. REFER TO FIRE PROTECTION DOCUMENTS FOR SPECIFICATIONS AND SIGNAGE DOCUMENTS FOR ADDITIONAL INFORMATION.

23. FLOOR SLAB TO BE FLUSH AND SMOOTH FOR INSTALLATION OF NEW SCHEDULED FINISHES. PROVIDE FLOOR PREP AS REQUIRED FOR PROPER INSTALLATION OF VCT AND CARPET FLOORING OR OTHER SCHEDULED FINISH TO PREVENT IMPERFECTIONS TELEGRAPHING THROUGH MATERIAL. COORDINATE FLOOR PREP MATERIAL WITH FINISH MATERIAL MANUFACTURER REQUIREMENTS. FLOORS SHALL BE LEVEL AND FREE OF IRREGULARITIES TO ASSURE THAT WHEN DOOR FRAMES ARE SET THEY ARE AT A CONSISTENT DIMENSION FROM THE CEILING, WITH NO GAPS BETWEEN THE BOTTOM OF THE DOOR FRAME AT THE SLAB AFTER FLOOR FINISHES ARE INSTALLED. CHANGES IN THE FLOOR HEIGHT SHALL BE GRADUALLY RAISED AND TROWELED TO CREATE A RAMP LIKE EFFECT. ALL MODIFICATION TO THE FLOOR SHALL BE MADE WITH A HIGH QUALITY, NON-CRUMBLING LATEX BASE FLASHING COMPOUND.

24. GENERAL CONTRACTOR TO VERIFY ALL FLOOR LEVELING TO MEET LEASE REQUIREMENTS. OR A MINIMUM FLOOR LEVELING OF 1/2" OVER 10'-0". NOTIFY UNIVERSITY REPRESENTATIVE AND OWNER IF FLOOR CONDITIONS DO NOT MEET MINIMUM CRITERIA. REFER TO "GENERAL NOTES" FOR ADDITIONAL INFORMATION.

25. NO BASE BUILDING SHAFT AREAS SHALL BE PENETRATED IN CONJUNCTION WITH WORK.

26. PATCH AND REPAIR ALL REMAINING PARTITIONS AFTER DEMOLITION. COORDINATE WITH DEMOLITION PLANS. PERIMETER/EXTERIOR WINDOW BLINDS ARE EXISTING TO REMAIN. GENERAL CONTRACTOR TO PROTECT AND KEEP CLEAN.

27. PROVIDE TRIMLESS ACCESS PANELS AS INDICATED AND AT ALL REQUIRED LOCATIONS, TYPICAL. GENERAL CONTRACTOR TO SUBMIT SAMPLE FOR UNIVERSITY REPRESENTATIVE'S APPROVAL.

28. REFER TO ENGINEER DOCUMENTS FOR ADDITIONAL INFORMATION. GENERAL CONTRACTOR TO NOTIFY UNIVERSITY REPRESENTATIVE IN WRITING OF ANY DISCREPANCY BETWEEN DOCUMENTS PRIOR TO WORK.

29. REFER TO EQUIPMENT PLAN FOR ITEMS TO BE PROVIDED BY GENERAL CONTRACTOR AND ADDITIONAL INFORMATION.

30. FINAL CONSTRUCTION CLEAN TO BE PROVIDED AT THE END OF CONSTRUCTION. FINAL CLEAN TO BE PROVIDED TWO DAYS PRIOR TO MOVE IN. DATE TO BE APPROVED BY PROJECT MANAGER. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

31. CONTRACTOR TO COORDINATE SCHEDULING OF WORK WITH FURNISHINGS CONTRACTOR.

32. CONTRACTOR TO COORDINATE WORK AND PHASING OF WORK WITH UNIVERSITY OF CALIFORNIA, MERCED VOICE AND DATA VENDORS.

33. INSTALL CONTROL JOINTS AT ALL LOCATIONS AS INDICATED ON DRAWINGS AND ACCORDING TO ASTM C 840 AND IN SPECIFIC LOCATIONS APPROVED BY UNIVERSITY REPRESENTATIVE FOR VISUAL EFFECT. CONTROL JOINT SPACING SHALL NOT EXCEED THE LATEST PUBLISHED EDITION OF THE US GYPSUM CORPORATION'S DESIGN STANDARDS OR 30 FEET ON CENTER, WHICHEVER IS LESS. SHOULD ADDITIONAL JOINTS BE REQUIRED IN ADDITION TO THOSE SHOWN ON DRAWINGS, CONTRACTOR SHALL PROVIDE THESE ADDITIONAL JOINTS IN A PATTERN AS APPROVED BY THE UNIVERSITY REPRESENTATIVE AT NO ADDITIONAL COST.

34. TAPER SMOOTH BOTTOM OF DRYWALL WITH 4" BLADE FOR BASE INSTALLATION.

35. ALL PARTITIONS TO RECEIVE A WALLCOVERING OR SPECIALTY FINISH ARE TO RECEIVE A LEVEL (5) FINISH PRIOR TO INSTALLATION OF FINAL FINISH MATERIAL. REFER TO FINISH PLAN FOR ADDITIONAL INFORMATION.

36. REFER TO DOOR SCHEDULE FOR SCOPE AT EXISTING DOORS TO REMAIN.

37. ALL GYPSUM BOARD REVEALS, CORNERS OR TRANSITIONS TO BE FORMED WITH FINISH BEADS. ALL BEADS ARE TO BE TAPED, DRYWALL COMPOUND APPLIED AND SANDED SMOOTH.

38. PROTECT EXISTING PARTITIONS, DOORS, CEILINGS, LIGHT FIXTURES, OUTLETS, AND FURNISHINGS AT AREAS WITHOUT DEMOLITION OR NEW CONSTRUCTION WORK. PROTECT EXISTING CEILING TO REMAIN FROM DAMAGE DURING DEMOLITION AND CONSTRUCTION.

39. PROVIDE DUST PROTECTION/SEPARATION AT OPENINGS TO THE BUILDING CORRIDOR DURING ALL PHASES OF WORK.

40. MATERIALS SHALL BE NEW, UNUSED AND OF THE QUALITY CONSISTENT WITH THE REMAINDER OF THE WORK. MANUFACTURED MATERIALS AND EQUIPMENT SHALL BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATION AND INSTRUCTIONS UNLESS NOTED OTHERWISE.

41. GC TO PROVIDE FIBERGLASS OR ACOUSTICAL SOUND ATTENUATION IN ALL PARTITIONS.

42. GC TO PROVIDE PUTTY PADS AT ELECTRICAL BACK BOXES. SEE DTL 14/ID8.03.

43. ALL CONVECTOR LOCATIONS PERPENDICULAR TO PARTITIONS TO BE SOUND INSULATED.

44. REMOVE ALL SIGNAGE LOCATED ON GLASS.

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NO.	DATE	DESCRIPTION
2	03/18/2020	Addendum #1

CLASSROOM AND OFFICE BUILDING 1 RENOVATION

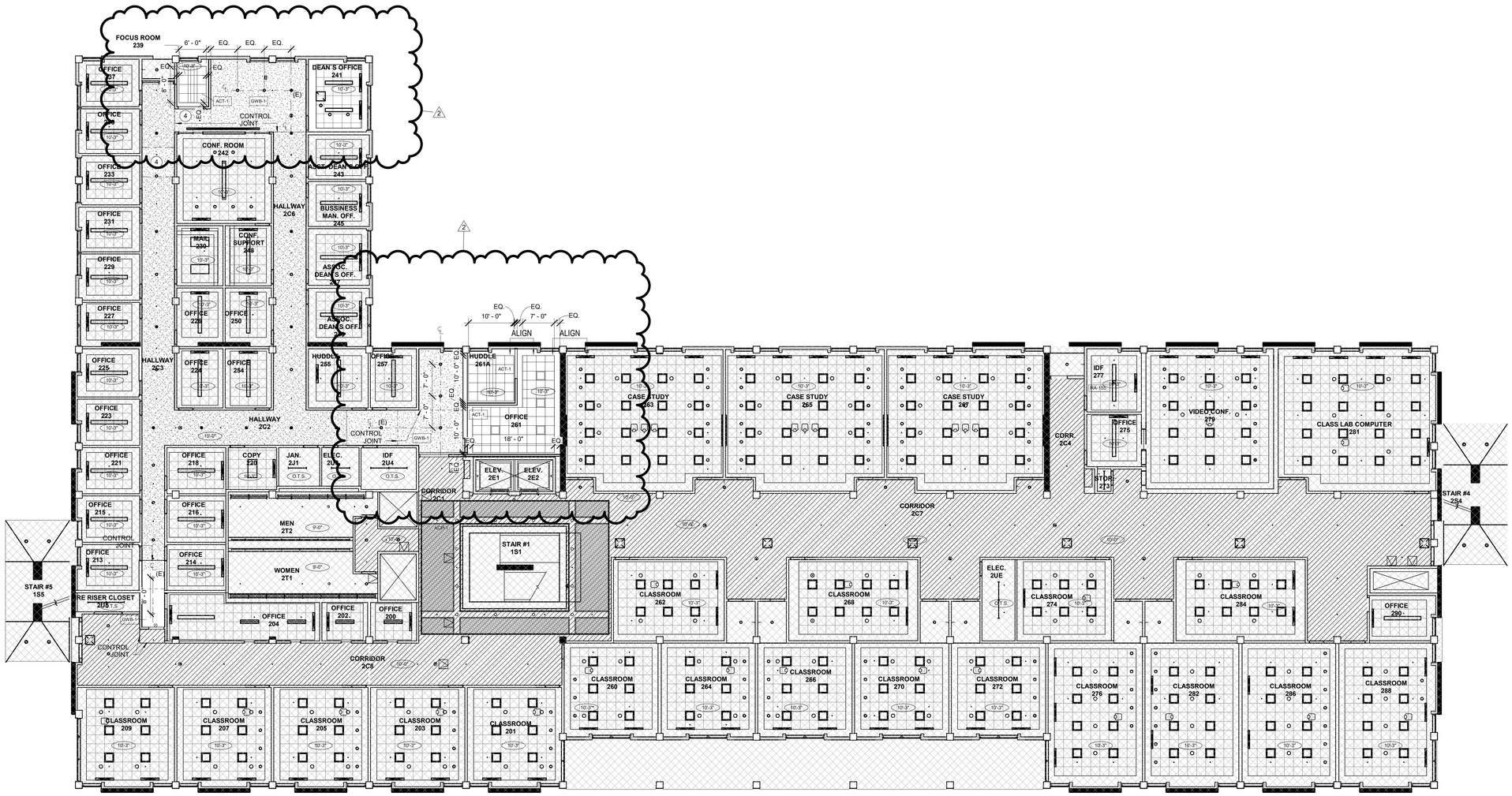
UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT Timothy M. Stevens C-26150 09-30-2021 STATE OF CALIFORNIA

2ND FLOOR PARTITION PLAN

Drawn By: AC
Checked By: PM/PD (edit this)
Project Number: 2019031

Sheet Number: ID2.02



1 2ND FLOOR REFLECTED CEILING PLAN

SCALE: 3/32" = 1'-0"

REFLECTED CEILING LEGEND

SYMBOL	CEILING TYPES
	OPEN TO STRUCTURE
	ACT-1 - 2 x 2 CEILING TILE AND GRID
	GWB - GYPSUM BOARD CEILING OR SOFFIT
	1 HOUR FIRE RATED CEILING
	FABRIC WRAPPED PANEL CEILING ACP-1
0'-0"	CEILING HEIGHT ABOVE FINISH FLOOR

SYMBOL	CEILING POWER & MISCELLANEOUS CEILING EQUIPMENT
	RECESSED HVAC SLOT DIFFUSER
	HVAC DIFFUSER
	ACCESS PANEL
	FLUSH CEILING SPEAKER CENTERED IN CEILING TILE UNLESS OTHERWISE NOTED
	CEILING MOUNTED PROJECTOR
PS	PROJECTION SCREEN
	FLUSH IN CEILING
	SPRINKLER HEAD
	SMOKE DETECTOR
	CEILING MOUNTED JUNCTION BOX
S	CEILING MOUNTED SPEAKER - 1/ID8.09
W	WALL MOUNTED WAP
EXIT	EMERGENCY LIGHTING WALL PACK
	EXIT SIGN, ARROW WHEN APPLICABLE
AV	AUDIO VISUAL OUTLET IN CEILING
D	DATA OUTLET IN CEILING
	SINGLE OUTLET IN CEILING
	DUPLEX OUTLET IN CEILING
	DUPLEX SEPERATE CIRCUIT OUTLET IN CEILING
	DOUBLE DUPLEX OUTLET IN CEILING
	DOUBLE DUPLEX SEPERATE CIRCUIT OUTLET IN CEILING
	CEILING MOUNTED CAMERA

SYMBOL	LIGHT FIXTURE TYPES
	2x2 RECESSED LIGHT FIXTURE
	LINEAR DIRECT/INDIRECT PENDANT LIGHT FIXTURE
	RECESSED DOWN LIGHT
	RECESSED WALL WASHER
	RECESSED SQUARE DOWNLIGHT
	RECESSED SQUARE WALL WASHER
	TRACK LIGHT
	WALL SCONCE
	LINEAR WALL SCONCE - VERTICAL
	LINEAR WALL SCONCE - HORIZONTAL
	TRIP OR TASK LIGHT

LEGEND:

- AREA IN SCOPE OF WORK
- AREA NOT IN SCOPE OF WORK
- (E) EXISTING
- (S) SMOKE DETECTOR

REFLECTED CEILING PLAN KEYED NOTES

1. U.N.O. EXISTING CEILING FINISH AND FIXTURES TO REMAIN. WHERE DAMAGED, REPLACE CEILING TILES TO MATCH EXISTING
2. RELOCATE SALVAGED PROJECTOR
3. RELOCATE SALVAGED FIRE ALARM DEVICE
4. REINSTALL CEILING AND DEVICES, FIXTURES, EQUIPMENT AND ACCESS PANELS IN CEILING TO MATCH CONDITIONS PRIOR TO DEMOLITION U.N.O.

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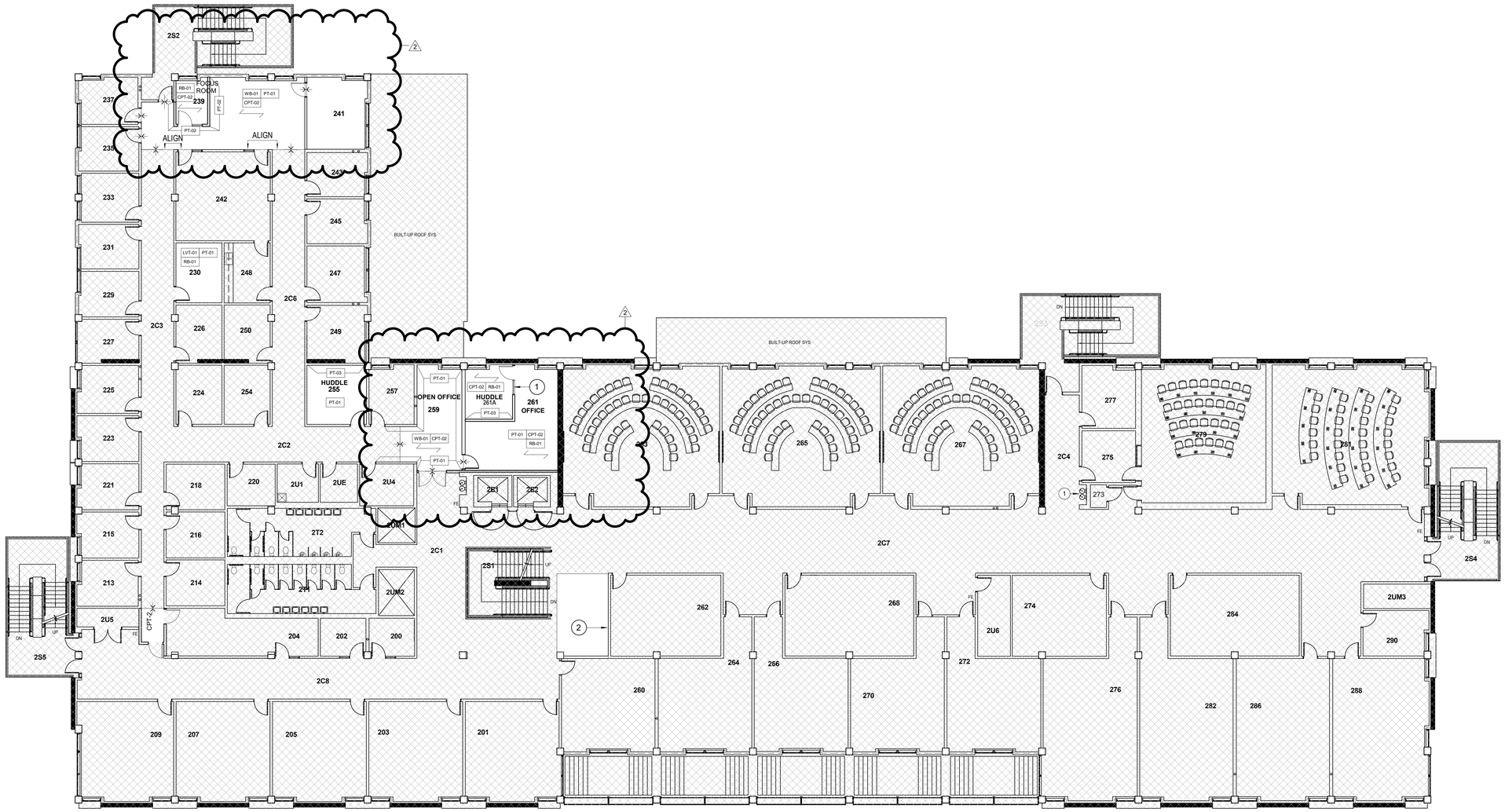
CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT Timothy M. Stevens C-26150 09-30-2021 STATE OF CALIFORNIA

2ND FLOOR REFLECTED CEILING PLAN

Drawn By: AC
Checked By: MP/PW
Project Number: 2019031

Sheet Number: **ID3.02**



1 2ND FLOOR PLAN

SCALE: 3/32" = 1'-0"

LEGEND:

AREA IN SCOPE OF WORK

AREA NOT IN SCOPE OF WORK

FINISH PLAN KEYED NOTES

1. GLAZING FILM, SEE ELEVATION
2. PATCH AND REPAIR WALL
3. LEVEL 5 DRYWALL FINISH

FINISH PLAN GENERAL NOTES

1. ALL WALLS ARE TO BE PAINTED PT-01 EGGSHELL FINISH, UNLESS NOTED OTHERWISE. REFER TO SHEET ID5.00 FOR FINISH SCHEDULE.

2. ALL WALLS TO RECEIVE BASE WB-01 UNLESS NOTED OTHERWISE. REFER TO SHEET ID5.00 FOR FINISH SCHEDULE.

3. RESILIENT BASE IS TO BE 4" HIGH, UNLESS OTHERWISE NOTED. RESILIENT BASE IS TO BE FURNISHED FROM A CONTINUOUS ROLL AND INSTALLED WITH NO JOINTS. IF LENGTH TO BE INSTALLED IS GREATER THAN THE LENGTH OF THE LARGEST ROLL, PLACE JOINTS EQUIDISTANT FROM EACH END.

4. ALL RESILIENT BASE PROVIDED AT CARPETED AREAS AND HARD SURFACE FLOORING IS TO BE STRAIGHT BASE,UNLESS NOTED OTHERWISE.

5. ALL FLOORS TO RECEIVE CARPET CPT-02, UNLESS NOTED OHTERWISE. REFER TO SHEET ID5.00 FOR FINISH SCHEDULE.

6. WALL SURFACES CONCEALED BY MILLWORK, CABINETRY ARE TO BE TAPED, DRYWALL COMPOUND APPLIED, SANDED SMOOTH AND PRIMED.

7. PROVIDE FINISH COAT OF PAINT AT ALL EXPOSED WALL SURFACE AREAS BEHIND APPLIED MILLWORK, FILE CABINETS, PANELS, ETC. DUE TO REVEALS, JOINTS OPENINGS, END CONDITIONS, ETC.

8. PAINT ALL ACCESS PLATES, PANELS, BOXES, COVERS, ETC. TO MATCH ADJACENT PAINTED SURFACE.

9. FLOORING FINISH MATERIALS ARE TO BE INSTALLED PRIOR TO MILLWORK AND ARE TO EXTEND UNDER ALL MILLWORK.

10. MAINTAIN UNIFORMITY OF CARPET DIRECTION AND LAY PILE THROUGHOUT PROJECT AREA. REFER TO FINISH SCHEDULE FOR DIRECTION OF CARPET PATTERN.

11. PROVIDE TRANSITION STRIP BETWEEN ALL DISSIMILAR MATERIALS. SUBMIT SAMPLE TO ARCHITECT FOR APPROVAL. REFER TO DETAILS ON SHEET ID8.02.

12. TRANSITIONS IN HEIGHT BETWEEN DISSIMILAR FLOOR FINISHES ARE TO ALIGN, UNLESS NOTED OTHERWISE.

13. TRANSITIONS OCCURING IN A DOOR OPENING SHALL BE INSTALLED SO THE TRANSITION OCCURS UNDER THE CENTER LINE OF THE DOOR IN THE CLOSED POSITION.

14. FLOORING CONTRACTOR/INSTALLER TO PROVIDE CARPET SEAMING DIAGRAM TO ARCHITECT FOR APPROVAL.

15. DOORS AND FRAMES SCHEDULED TO BE PAINTED SHALL BE PAINTED WITH A SEMI-GLOSS FINISH. REFER TO FINISH PLANS FOR DOOR AND FRAME PAINT COLORS, UNLESS OTHERWISE NOTED DOORS AND FRAMES TO BE PAINTED TO MATCH ADJACENT WALL SURFACE.

16. GENERAL CONTRACTOR AND SUB-CONTRACTORS MUST NOTIFY ARCHITECT OF ANY MATERIALS REQUIRING LONG LEAD TIMES SO THAT THESE MATERIALS MAY BE ORDERED OR PRE-ORDERED TO ENSURE A TIMELY COMPLETION WITHIN THE TENANT'S CONSTRUCTION SCHEDULE.

17. PRIOR TO APPLICATION OF PAINT, ALL SURFACES ARE TO BE PROPERLY PREPARED, TAPED AND SANDED.

18. ALL GYPSUM BOARD REVEALS, CORNERS OR TRANSITIONS TO BE FORMED WITH METAL FINISH BEADS. ALL BEADS ARE TO BE TAPED, DRYWALL COMPOUND APPLIED AND SANDED SMOOTH.

19. CONTRACTOR IS RESPONSIBLE FOR ANY REQUIRED FLOOR LEVELING REQUIRED TO COMPLETE A QUALITY INSTALLATION.

20. TARGETS, DIMENSIONS, NOTES AND KEYING SYMBOLS THAT ARE NOTED AS 'TYPICAL' OR 'TYP.' APPLY TO ALL OTHER SIMILAR LOCATIONS AND ARE NOTED ONLY ONCE.

22. REFER TO SHEET ID5.00 FOR FINISH SCHEDULE.

23. PROVIDE LEVEL (5) GYPSUM BOARD FINISH AT ALL PARTITIONS TO RECEIVE WALL COVERING OR GRAPHICS.

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CLASSROOM AND OFFICE BUILDING 1 RENOVATION

UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT Timothy M. Stevens C-28150 09-30-2021 STATE OF CALIFORNIA

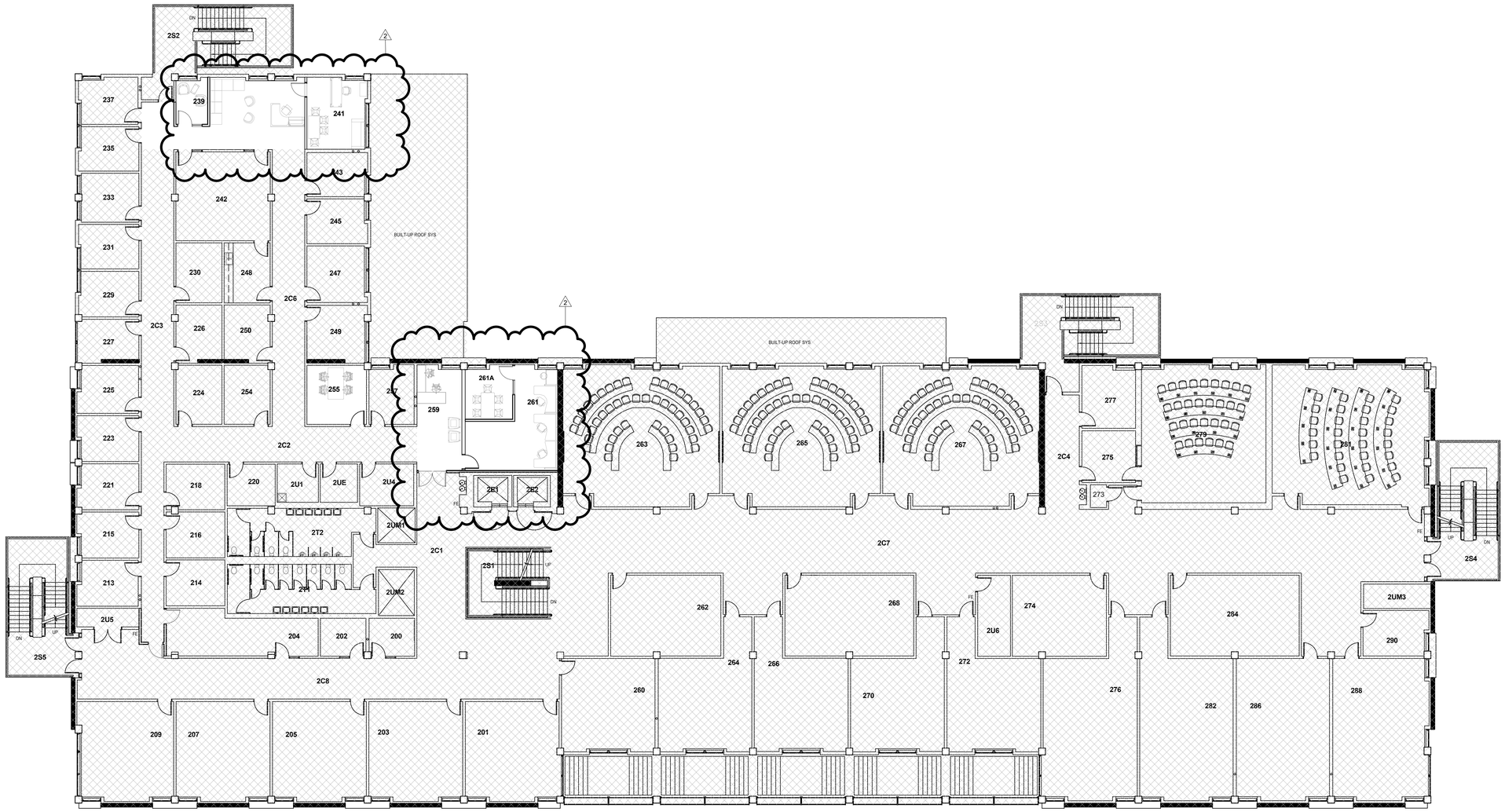
2ND FLOOR FINISH PLAN

Drawn By: AC

Checked By: MP/PW

Project Number: 2019031

Sheet Number: ID5.02



1 2ND FLOOR PLAN

SCALE: 3/32" = 1'-0"

LEGEND:

- AREA IN SCOPE OF WORK
- AREA NOT IN SCOPE OF WORK
- EXISTING PARTITION
- NEW PARTITION

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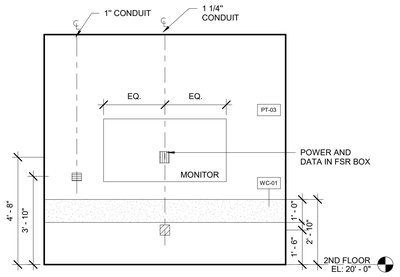
LICENSED ARCHITECT Timothy M. Stevens C-28150 09-30-2021 STATE OF CALIFORNIA

2ND FLOOR FURNITURE PLAN (REFERENCE ONLY)

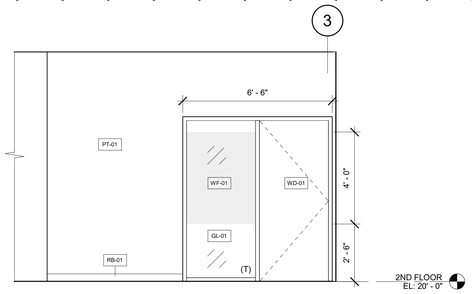
Drawn By: AC
Checked By: MP/PW
Project Number: 2019031

Sheet Number: **ID6.02**



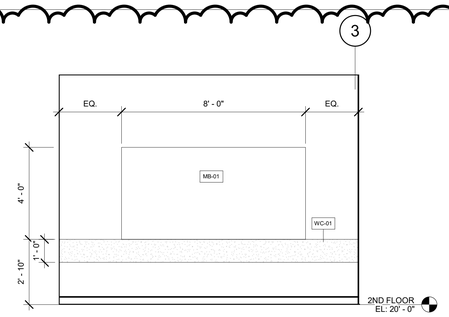
12 HUDDLE 261A AV VIEW

SCALE: 3/8" = 1'-0"



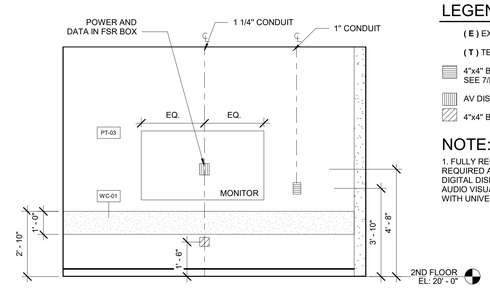
11 HUDDLE 261A ELEVATION

SCALE: 3/8" = 1'-0"



10 HUDDLE ROOM 255 AP ELEVATION

SCALE: 3/8" = 1'-0"



9 HUDDLE ROOM 255 AV ELEVATION

SCALE: 3/8" = 1'-0"

LEGEND:

(E) EXISTING

(T) TEMPERED GLASS

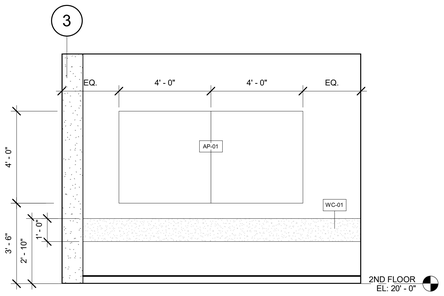
4"x4" BOX FOR AV CONTROL PAD, SEE 7/ID8.09, 8/ID8.09

AV DISPLAY, SEE 5/ID8.09

4"x4" BOX FOR AV CONNECTIONS

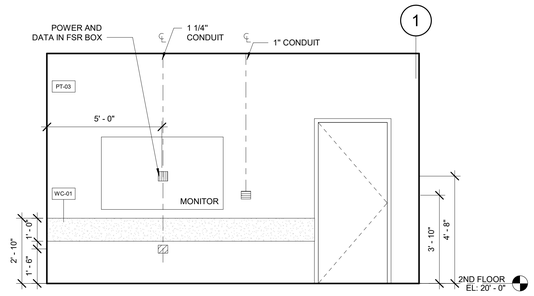
NOTE:

1. FULLY RECESSED FSR BOXES REQUIRED AT ALL AUDIO VISUAL AND DIGITAL DISPLAYS. INSTALL BEHIND AUDIO VISUAL DISPLAY COORDINATE WITH UNIVERSITY REPRESENTATIVE.



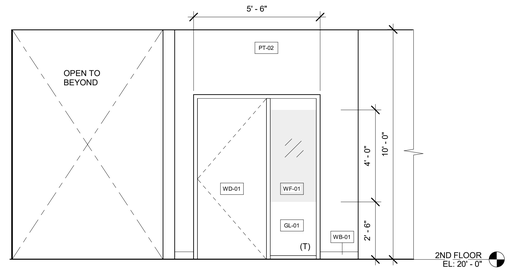
8 HUDDLE ROOM 255 AP ELEVATION

SCALE: 3/8" = 1'-0"



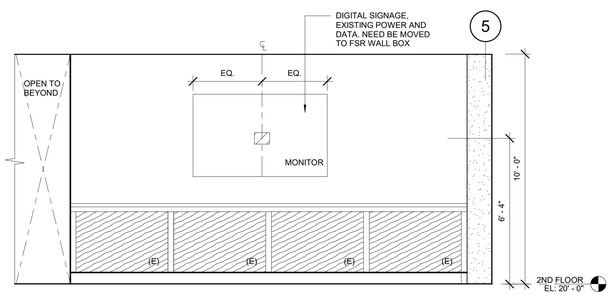
7 241 ROOM AV ELEVATION

SCALE: 3/8" = 1'-0"



6 FOCUS ROOM 239 ELEVATION

SCALE: 3/8" = 1'-0"

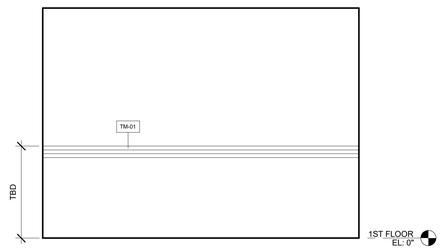


5 2C1 CORRIDOR ELEVATION

SCALE: 3/8" = 1'-0"

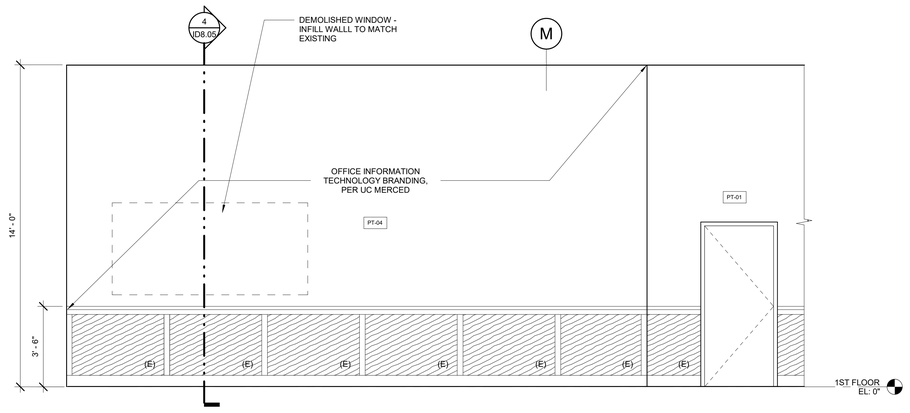
4 HEAD END 123 ROOM WEST ELEVATION

SCALE: 3/8" = 1'-0"



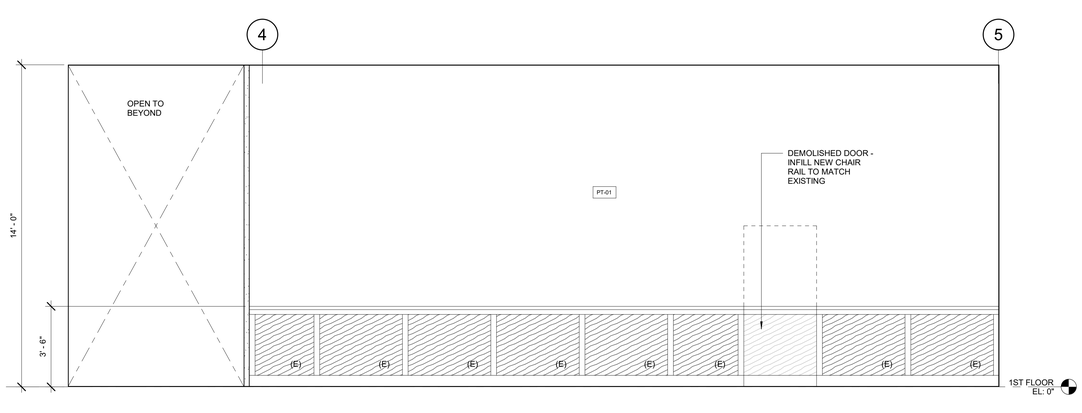
3 HEAD END 123 ROOM SOUTH ELEVATION

SCALE: 3/8" = 1'-0"



2 CORRIDOR 1C5 ELEVATION NORTH

SCALE: 3/8" = 1'-0"



1 CORRIDOR 1C5 ELEVATION EAST

SCALE: 3/8" = 1'-0"

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CLASSROOM AND OFFICE BUILDING 1 RENOVATION

UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT Timothy M. Stevens C-36150 09-30-2021 STATE OF CALIFORNIA

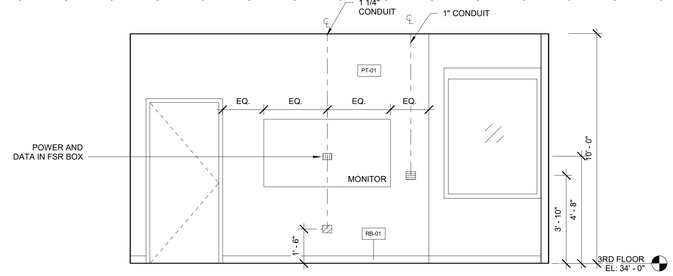
INTERIOR ELEVATIONS 1ST AND 2ND FLOOR

Drawn By: AC

Checked By: MP/PW

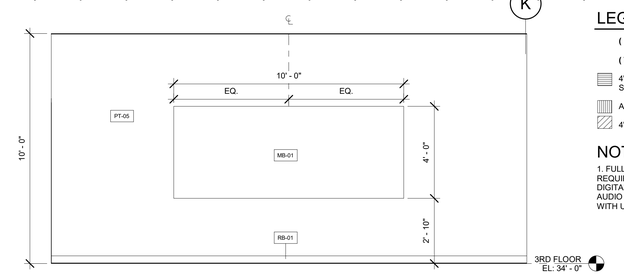
Project Number: 2019031

Sheet Number: ID7.01



13 COLLOQUY SPACE 345 WEST ELEVATION

SCALE: 3/8" = 1'-0"



12 COLLOQUY SPACE 345 SOUTH ELEVATION

SCALE: 3/8" = 1'-0"

LEGEND:

(E) EXISTING

(T) TEMPERED GLASS

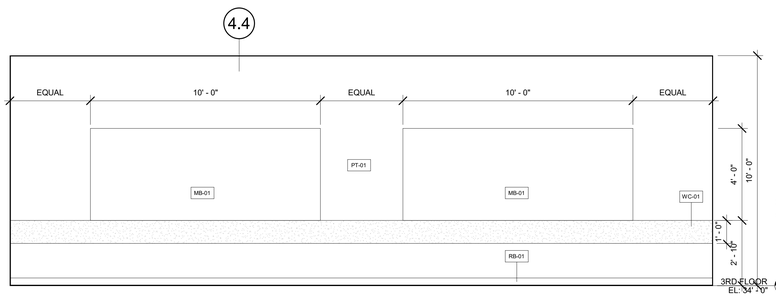
4"x4" BOX FOR AV CONTROL PAD, SEE 7/ID8.09, 8/ID8.09

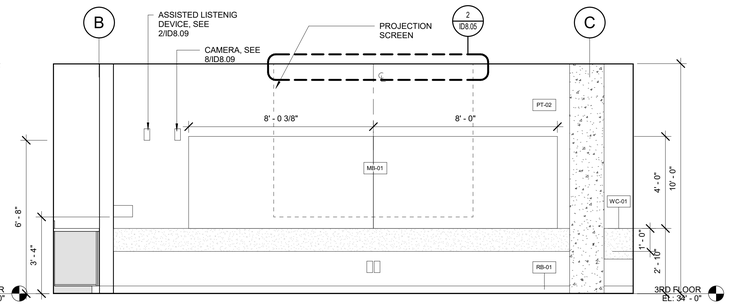
AV DISPLAY, SEE 5/ID8.09

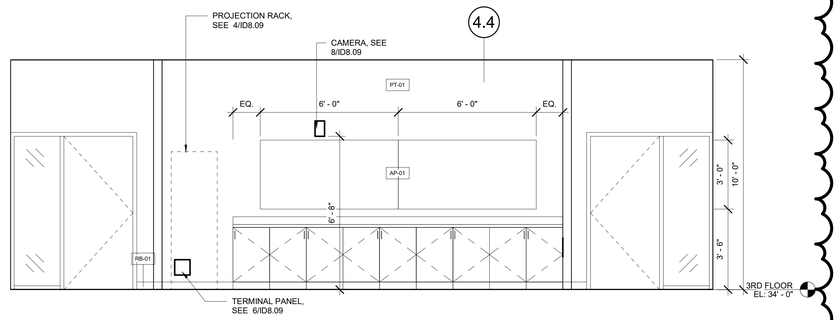
4"x4" BOX FOR AV CONNECTIONS

NOTE:

1. FULLY RECESSED FSR BOXES REQUIRED AT ALL AUDIO VISUAL AND DIGITAL DISPLAYS. INSTALL BEHIND AUDIO VISUAL DISPLAY COORDINATE WITH UNIVERSITY REPRESENTATIVE.

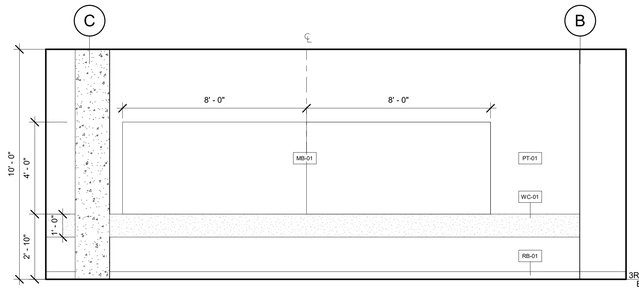






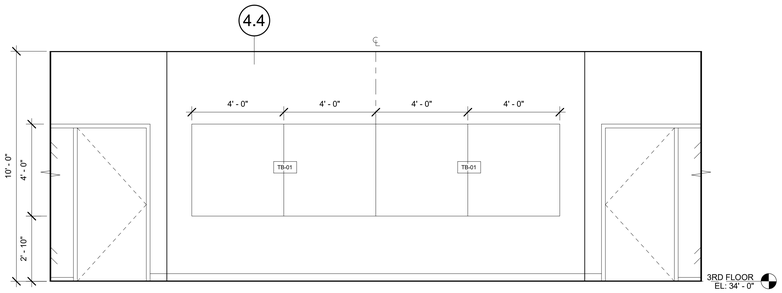
11 CONFERENCE ROOM 320 EAST ELEVATION

SCALE: 3/8" = 1'-0"



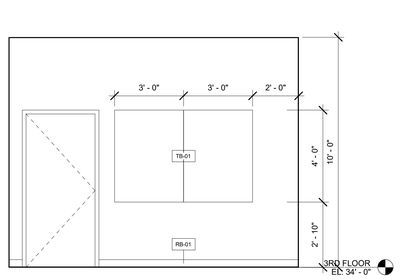
10 CONFERENCE ROOM 320 NORTH ELEVATION

SCALE: 3/8" = 1'-0"



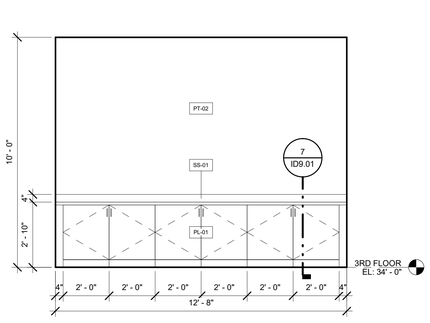
9 CONFERENCE ROOM 320 WEST ELEVATION

SCALE: 3/8" = 1'-0"



PRINTER ROOM 310 SOUTH ELEVATION

6 SCALE: 3/8" = 1'-0"



PRINTER ROOM 310 NORTH ELEVATION

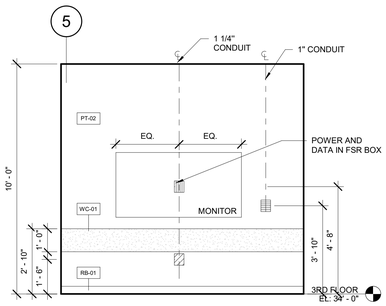
5 SCALE: 3/8" = 1'-0"

8 CONFERENCE ROOM 320 SOUTH ELEVATION

SCALE: 3/8" = 1'-0"

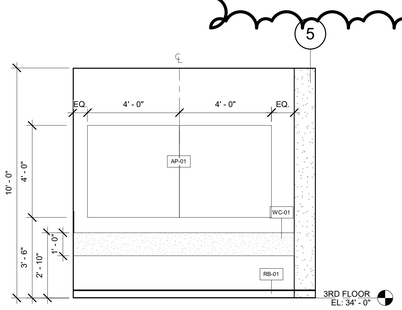
7 3C3 CORRIDOR ELEVATION

SCALE: 3/8" = 1'-0"



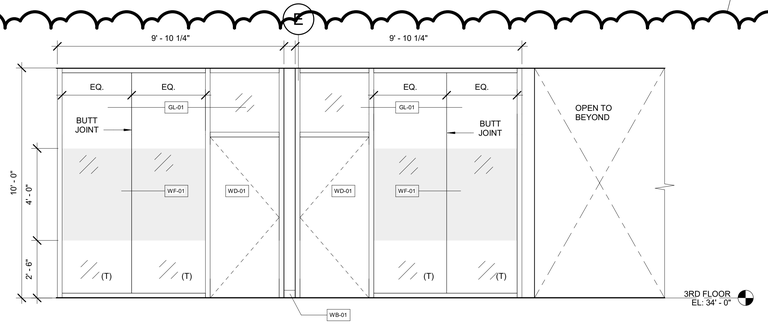
HUDDLE 302/304 AV ELEVATION

4 SCALE: 3/8" = 1'-0"



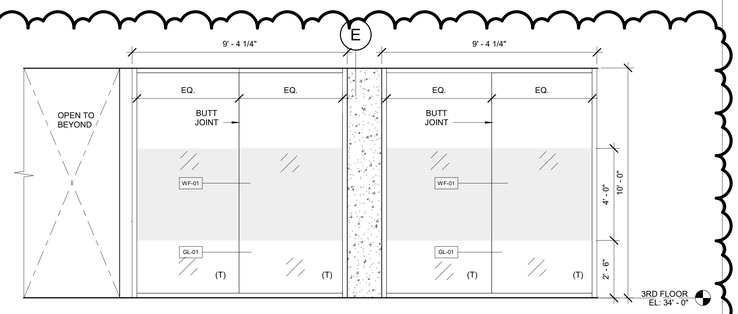
HUDDLE 302/304 PANEL ELEVATION

3 SCALE: 3/8" = 1'-0"



HUDDLE 302/304 ELEVATION SOUTH

2 SCALE: 3/8" = 1'-0"



HUDDLE 302/304 ELEVATION NORTH

1 SCALE: 3/8" = 1'-0"

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UNIVERSITY OF CALIFORNIA MERCED

NO.	DATE	DESCRIPTION
2	03/18/2020	Addendum #1

CLASSROOM AND OFFICE BUILDING 1 RENOVATION

UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT Timothy M. Stevens R-28150 09-30-2021 STATE OF CALIFORNIA

INTERIOR ELEVATIONS 3RD FLOOR

Drawn By: AC

Checked By: MP/PW

Project Number: 2019031

Sheet Number: ID7.02

LEGEND:

(E) EXISTING

(T) TEMPERED GLASS

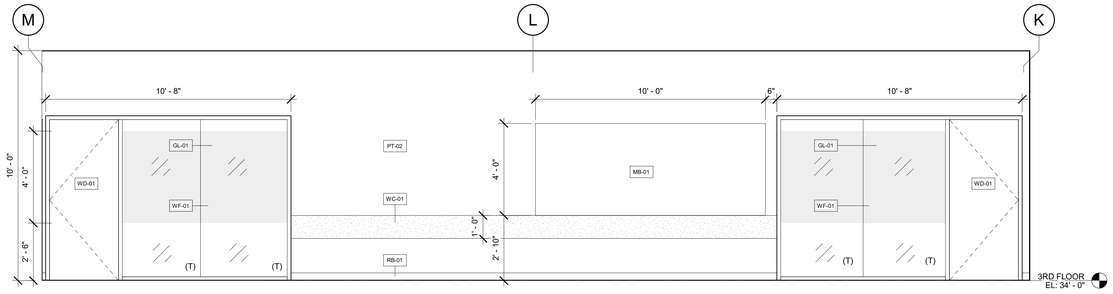
4"x4" BOX FOR AV CONTROL PAD, SEE 7/ID8.09, 8/ID8.09

AV DISPLAY, SEE 9/ID8.09

4"x4" BOX FOR AV CONNECTIONS

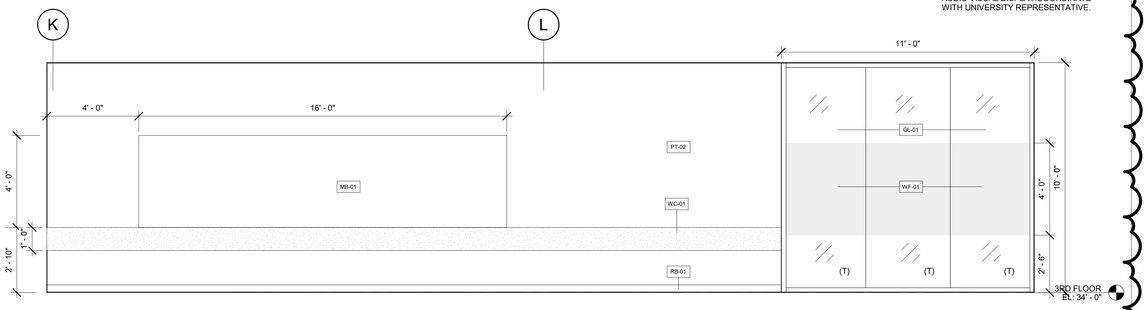
NOTE:

1. FULLY RECESSED FSR BOXES REQUIRED AT ALL AUDIO VISUAL AND DIGITAL DISPLAYS. INSTALL BEHIND AUDIO VISUAL DISPLAY COORDINATE WITH UNIVERSITY REPRESENTATIVE.



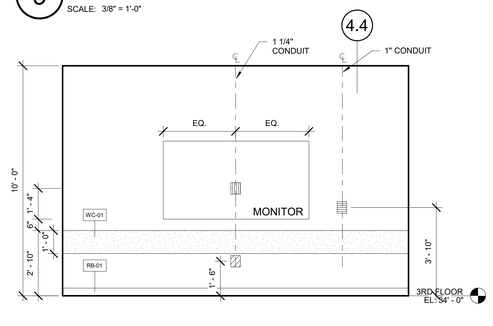
9 LAB 380 ELEVATION SOUTH

SCALE: 3/8" = 1'-0"



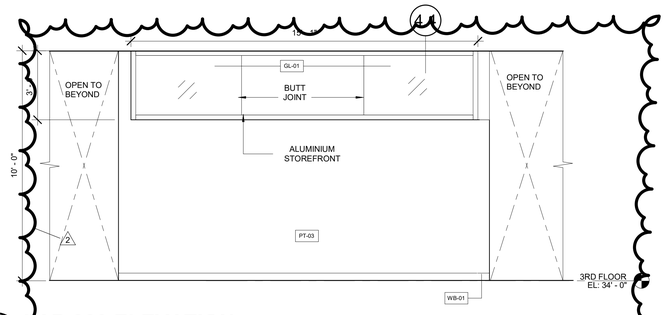
8 LAB 380 ELEVATION NORTH

SCALE: 3/8" = 1'-0"



7 LAB 380 ELEVATION WEST

SCALE: 3/8" = 1'-0"

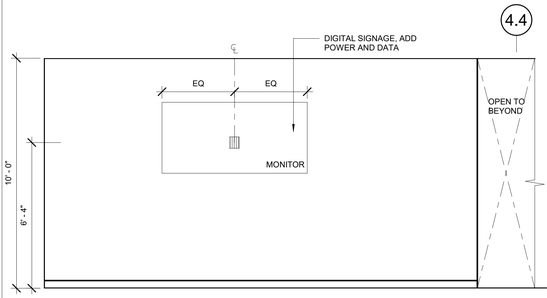


6 LAB 380 ELEVATION

SCALE: 3/8" = 1'-0"

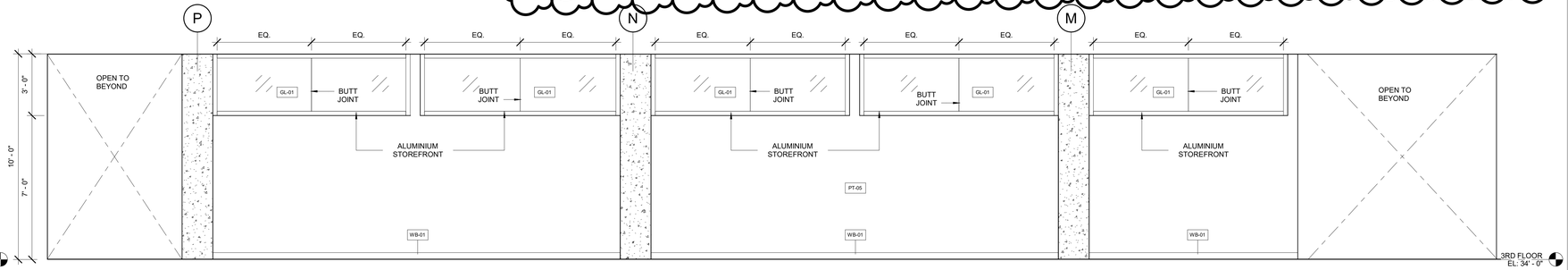
5 LAB 380 CORRIDOR ELEVATION

SCALE: 3/8" = 1'-0"



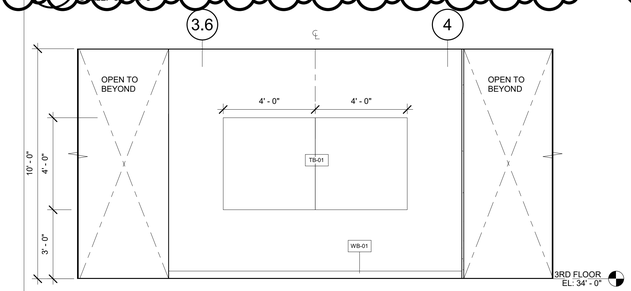
4 3C1 CORRIDOR ELEVATION

SCALE: 3/8" = 1'-0"



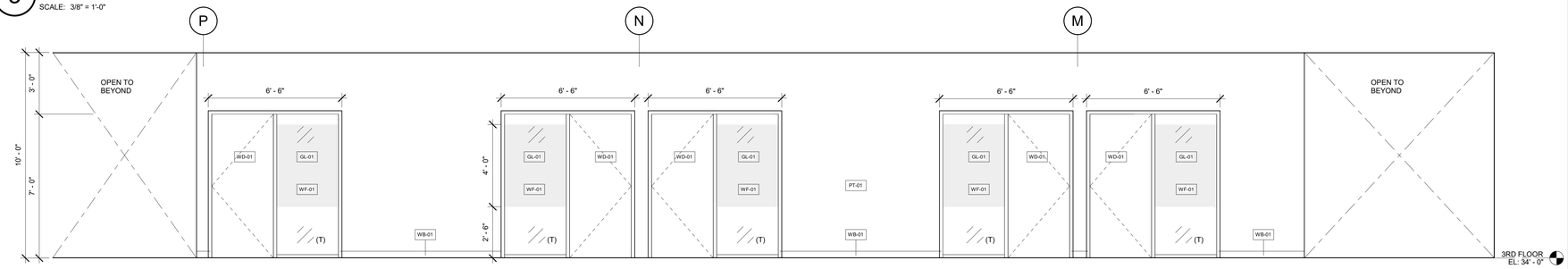
3 OFFICES CORRIDOR ELEVATION

SCALE: 3/8" = 1'-0"



2 3RD FLOOR CORRRIDOR ELEVATION

SCALE: 3/8" = 1'-0"



1 FRONT OFFICES CORRIDOR ELEVATION

SCALE: 3/8" = 1'-0"

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CLASSROOM AND OFFICE BUILDING 1 RENOVATION

UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT Timothy M. Stevens No. C-36150 09-30-2021 STATE OF CALIFORNIA

INTERIOR ELEVATIONS 3RD FLOOR

Drawn By: AC

Checked By: MP/PW

Project Number: 2019031

Sheet Number: ID7.03

LEGEND:

(E) EXISTING

(T) TEMPERED GLASS

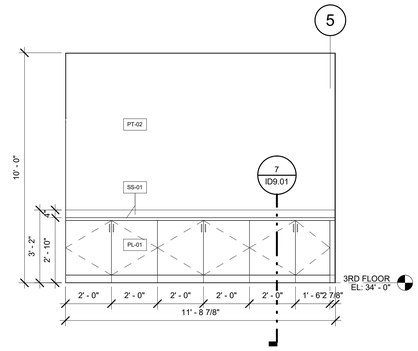
4"x4" BOX FOR AV CONTROL PAD, SEE 7/ID8.09, 8/ID8.09

AV DISPLAY, SEE 5/ID8.09

4"x4" BOX FOR AV CONNECTIONS

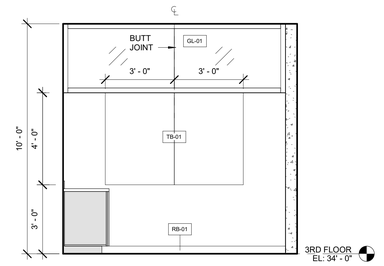
NOTE:

1. FULLY RECESSED FSR BOXES REQUIRED AT ALL AUDIO VISUAL AND DIGITAL DISPLAYS. INSTALL BEHIND AUDIO VISUAL DISPLAY COORDINATE WITH UNIVERSITY REPRESENTATIVE.



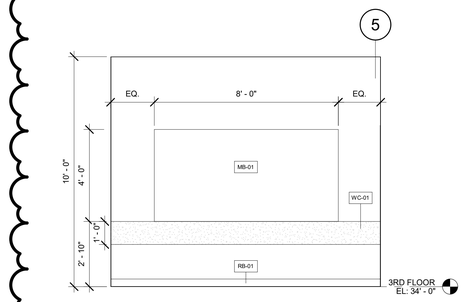
COPY ROOM 374 ELEVATION WEST

5 SCALE: 3/8" = 1'-0"



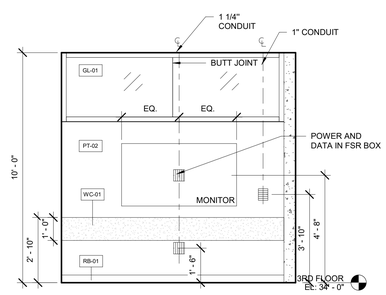
COPY ROOM 374 ELEVATION NORTH

4 SCALE: 3/8" = 1'-0"



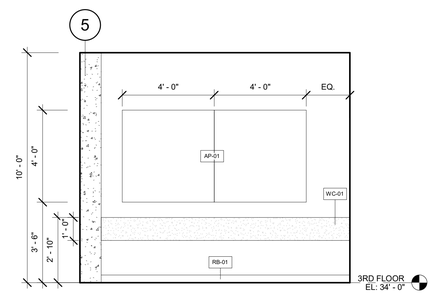
HUDDLE 370/372 ROOM MB ELEVATION

3 SCALE: 3/8" = 1'-0"



HUDDLE 370/372 ROOM AV ELEVATION

2 SCALE: 3/8" = 1'-0"



HUDDLE 370/372 ROOM AP ELEVATION

1 SCALE: 3/8" = 1'-0"

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CLASSROOM AND OFFICE BUILDING 1 RENOVATION

UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT Timothy M. Stevens C-35150 09-30-2021 STATE OF CALIFORNIA

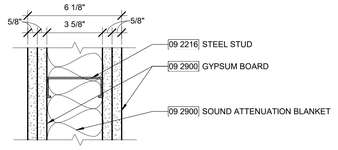
INTERIOR ELEVATIONS 3RD FLOOR

Drawn By: AC

Checked By: PW/MP

Project Number: 2019031

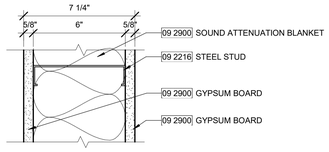
Sheet Number: ID7.04



HEAD DETAIL : 04/ID8.01
BASE DETAIL : 03/ID8.01

A2CD FRAMED PARTITION

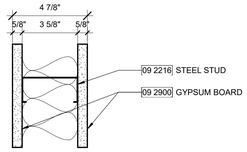
STC RATING : 50 FIRE RATING : UL# U411 2 HOUR
LIMITING HEIGHT : 13'-2"



HEAD DETAIL : 04/ID8.01
BASE DETAIL : 03/ID8.01

A1EB FRAMED PARTITION

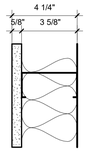
STC RATING : 40 FIRE RATING : UL# U419 1 HOUR
LIMITING HEIGHT : 13'-2"



HEAD DETAIL : 04/ID8.01, 09/ID8.01
BASE DETAIL : 03/ID8.01

A-CB FRAMED PARTITION

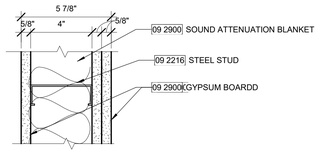
STC RATING : 40 FIRE RATING : N/A
LIMITING HEIGHT : 11'-8"



HEAD DETAIL : 04/ID8.01, 09/ID8.01
BASE DETAIL : 03/ID8.01

F-CA FURRED PARTITION

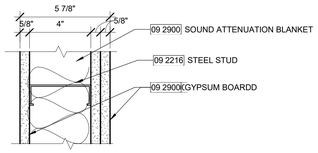
STC RATING : N/A FIRE RATING : N/A
LIMITING HEIGHT : 11'-8"



HEAD DETAIL : 04/ID8.01
BASE DETAIL : 03/ID8.01

A1DC FRAMED PARTITION

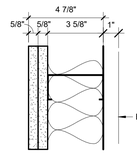
STC RATING : 45 FIRE RATING : UL# U419 1 HOUR
LIMITING HEIGHT : 13'-2"



HEAD DETAIL : 04/ID8.01, 09/ID8.01
BASE DETAIL : 03/ID8.01

A-DC FRAMED PARTITION

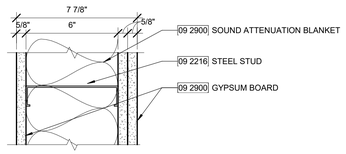
STC RATING : 45 FIRE RATING : N/A
LIMITING HEIGHT : 13'-2"



HEAD DETAIL : 04/ID8.01, 09/ID8.01
BASE DETAIL : 03/ID8.01

F-CB FURRED PARTITION

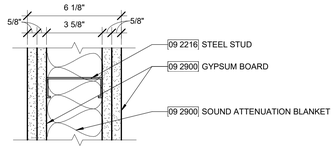
STC RATING : N/A FIRE RATING : N/A
LIMITING HEIGHT : 11'-8"



HEAD DETAIL : 04/ID801
BASE DETAIL : 03/ID8.01

A1EC FRAMED PARTITION

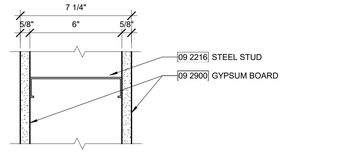
STC RATING : 45 FIRE RATING : UL# U419 1 HOUR
LIMITING HEIGHT : 13'-2"



HEAD DETAIL : 04/ID8.01, 09/ID8.01
BASE DETAIL : 03/ID8.01

A-CD FRAMED PARTITION

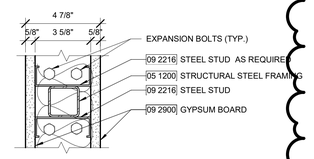
STC RATING : 50 FIRE RATING : N/A
LIMITING HEIGHT : 13'-2"



HEAD DETAIL : 04/ID8.01
BASE DETAIL : 03/ID8.01

A1EK FRAMED PARTITION

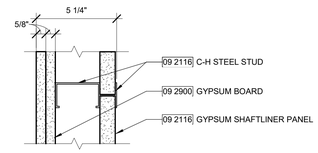
STC RATING : N/A FIRE RATING : UL# U419 1 HOUR
LIMITING HEIGHT : 16'-4"



HEAD DETAIL : 04/ID8.02
BASE DETAIL : 01/ID8.01

P-CK PARTIAL HEIGHT PARTITION

STC RATING : N/A FIRE RATING : N/A
LIMITING HEIGHT : 10'-10"



HEAD DETAIL : 08/ID8.01
BASE DETAIL : 07/ID8.01

S2KK SHAFT PARTITION

STC RATING : N/A FIRE RATING : UL# U415 2 HOUR
LIMITING HEIGHT : 16'-1" / 11'-11"

2

PARTITION TYPE GENERAL NOTES

1. REFER TO THE FLOOR PLANS FOR PARTITION TYPE SYMBOLS. A PARTITION TYPE IS INDICATED BY A SYMBOL CONTAINING THE PARTITION IDENTIFICATION WHICH REFERS TO A SPECIFIC ASSEMBLY INDICATED ON THIS SHEET.
2. THE CONSTRUCTION OF EXTERIOR WALLS ARE SHOWN ON WALL SECTIONS & CORRESPONDING DETAILS. PARTITION SYMBOLS ARE ONLY USED TO SHOW INTERIOR CONDITIONS, INCLUDING INTERIOR FURRING OF EXTERIOR WALLS.
3. PARTITION TYPES AS NOTED BY THE SYMBOL CONTINUE BETWEEN ROOM/SPACE CORNERS OR ANY INTERSECTING PARTITION.
4. SEE PLANS FOR STRUCTURE ABOVE NOTED IN PARTITION CONFIGURATION DIAGRAMS.
5. THE PARTITION TYPE ABOVE OR BELOW ANY OPENING IS TO BE THE SAME AS THAT SCHEDULED FOR EITHER SIDE OF THE OPENING, UNO.
6. DIFFERING PARTITION TYPES SHALL ALIGN SO THAT PARTITION FINISH PLANES CONTINUE UNBROKEN WITHIN AND/OR ACROSS SPACES.
7. IN CASES WHERE TWO DIFFERENT CEILING HEIGHTS ABUT PARTITIONS, THE PARTITION SHALL EXTEND ABOVE THE HIGHEST CEILING INDICATED.
8. PROVIDE MOISTURE RESISTANT GYP BOARD AT PARTITIONS IN WET AREAS (FLOOR TO FINISH CEILING) INCLUDING BUT NOT LIMITED TO THE FOLLOWING ROOMS:

   A. TOILET ROOMS
   B. JANITOR CLOSETS
   C. OUTSIDE AIR SHAFTS
   D. MECHANICAL ROOMS
   E. DRINKING FOUNTAIN ALCOVES
   F. KITCHENS
   G. LOCKERS
9. PROVIDE CEMENTITIOUS BACKER BOARD AT WET AREAS SCHEDULED WITH TILE FINISH.
10. PROVIDE ACOUSTICAL TREATMENT AT PARTITIONS WITH ACOUSTIC INSULATION.

    FILL STUD CAVITIES & RUN INSULATION CONTINUOUS AROUND COLUMNS & OTHER OBSTRUCTIONS TO FORM A CONTINUOUS ACOUSTIC BARRIER.

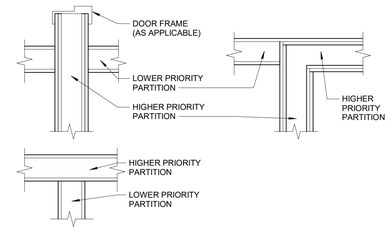
    INSTALL ACOUSTIC BATT INSULATION, FULL WIDTH, DEPTH, AND HEIGHT.

    INSTALL ACOUSTICAL SEALANT AT PARTITION HEAD, SILL & JAMB TRANSITIONS, AS WELL AS AT PENETRATIONS THROUGH THE GYPSUM BOARD MEMBRANE INCLUDING PENETRATIONS AT MOUNTING FASTENERS. FIRE STOPPING REQUIREMENTS SHALL SUPERCEDE ACOUSTIC TREATMENT.

    GYPSUM BOARD SILL & JAMB EDGES TERMINATING AT DISSIMILAR MATERIAL (CMU, CONCRETE, METAL PANEL , ETC) SHALL ALLOW 1/4" CONTINUOUS GAP AND BE SEALED AIRTIGHT WITH AN ACOUSTIC SEALANT.

    THE BACK AND SIDES OF DUPLEX ELECTRICAL OUTLETS, TELEPHONE OUTLETS, CABLE TV OUTLETS, FIRE ALARM DEVICES, THERMOSTATS, ETC. SHALL BE SEALED WITH FIRE STOP PUTTY PADS AS SPECIFIED FOR FIRE RATED ASSEMBLIES. ELSEWHERE, BACK-TO-BACK OUTLET BOXES TO BE SEPARATED BY ONE EMPTY STUD SPACE AND A MINIMUM OF 16 INCHES.
11. PARTITIONS INDICATED AS FIRE OR SMOKE RATED FORM A SEPARATION THAT SHALL BE CONTINUOUS FROM FLOOR TO STRUCTURE ABOVE WITH NO BREAKS AT CONCEALED SPACES, COLUMNS, TRANSITIONS OR OTHER OBSTRUCTIONS.
12. PENETRATIONS THROUGH RATED PARTITIONS SHALL BE SEALED WITH UL LISTED FIRE/SMOKE STOP ASSEMBLY.
13. SEE PARTITION PRIORITY LEGEND FOR PRIORITIZATION OF INTERSECTING PARTITIONS.

PARTITION PRIORITY LEGEND

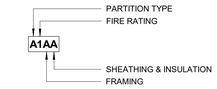


PARTITION PRIORITY LEGEND

FOUR HOUR FIRE AND/OR SMOKE PARTITION	PRIORITY 1 (HIGHEST)
THREE HOUR FIRE AND/OR SMOKE PARTITION	PRIORITY 2
TWO HOUR FIRE AND/OR SMOKE PARTITION	PRIORITY 3
TWO HOUR FIRE PARTITION	PRIORITY 4
TWO HOUR SHAFTWALL	
ONE HOUR FIRE AND/OR SMOKE PARTITION	PRIORITY 5
ONE HOUR FIRE PARTITION	PRIORITY 6
NON-RATED PARTITION	PRIORITY 7 (LOWEST)

NOTE:
1. ALL PARTITIONS MAY NOT BE USED. SEE PLANS.
2. PARTITIONS WITH HIGHER ASSIGNED PRIORITY SHALL BE CONTINUOUS THROUGH INTERSECTIONS.

PARTITION TAG SYMBOL KEY



PARTITION TYPE [FIRST CHARACTER]

A	FRAMED PARTITION
C	CHASE PARTITION
D	DOUBLE STUD PARTITION
F	FURRED PARTITION
G	FRAMING 4" ABOVE CEILING
K	CEILING HEIGHT FRAMING
M	MASONRY PARTITIONS
P	PARTIAL HEIGHT PARTITIONS
S	SHAFT PARTITION - FINISHED ONE SIDE
T	SHAFT PARTITION - FINISHED BOTH SIDES
W	WOOD FRAMED PARTITIONS

FIRE RATING [SECOND CHARACTER]

-	NOT RATED
1	1-HOUR RATED
2	2-HOUR RATED
3	3-HOUR RATED
4	4-HOUR RATED

FRAMING [THIRD CHARACTER]

A	1-5/8" METAL STUDS
B	2-1/2" METAL STUDS
C	3-5/8" METAL STUDS
D	4" METAL STUDS
E	6" METAL STUDS
F	7/8" HAT CHANNELS
G	1-1/2" HAT CHANNELS
J	2-1/2" CH STUDS WITH 1" CORE BOARD
K	4" CH STUDS WITH 1" CORE BOARD
L	6" CH STUDS WITH 1" CORE BOARD
P	4" CMU
Q	6" CMU
R	8" CMU
S	10" CMU
T	12" CMU
U	2 x 2 WOOD STUDS
V	2 x 4 WOOD STUDS
W	2 x 6 WOOD STUDS

SHEATHING & INSULATION [FOURTH CHARACTER]

A	1 LAYER GWB WITH INSULATION
B	2 LAYERS GWB WITH INSULATION
C	3 LAYERS GWB WITH INSULATION
D	4 LAYERS GWB WITH INSULATION
E	5 LAYERS GWB WITH INSULATION
F	6 LAYERS GWB WITH INSULATION
J	1 LAYER GWB - NO INSULATION
K	2 LAYERS GWB - NO INSULATION
L	3 LAYERS GWB - NO INSULATION
M	4 LAYERS GWB - NO INSULATION
N	5 LAYERS GWB - NO INSULATION
P	6 LAYERS GWB - NO INSULATION

PARTITION GENERAL NOTES

1. Gypsum board to be type "X" fire resistant GWB unless noted otherwise. Fire-rated partitions shall be constructed per CBC, table 721.1(2).
2. Limiting heights listed are based upon the following unless noted otherwise:
   a. Uniform lateral load of 5 psf.
   b. Metal stud spacing to be 16 inches on center.
   c. Metal stud steel thickness to be 18 mil (25 gage with a minimum thickness of 0.0179 inches).
   d. Partitions have gypsum board over the full height of the wall to provide a composite system. If full height gypsum board is not provided, include lateral bracing in all walls as indicated by SSMA for fully braced non-composite walls.
3. Provide lateral bracing above all doors and openings within 12 inches of the top of the opening.
4. At double stud wall framing, partition wall type D series, no gussets crossing the gap between the two stud rows is allowed.
5. Provide backing at cabinets, grab bars, handrails, and other wall mounted items to support the imposed loads.
6. The construction of the exterior walls are shown on the exterior wall sections and corresponding details.
7. The partition type above or below any opening is to be the same as that scheduled for the sides of the opening.
8. The face plane of differing partition types shall align so that the finish planes continue unbroken within and across spaces.
9. At acoustically rated partitions, provide sound putty pads on all electrical junction boxes. Electrical junction boxes on opposite sides of the partition shall not be back to back.
10. At fire rated partitions, electrical junction boxes are to be separated by at least 24 inches unless fire rated putty pads are used on the adjacent electrical boxes. Electrical junction boxes on opposite sides of the partition shall not be back to back.
11. At acoustically rated partitions, side wall sprinkler head locations on opposite sides of the wall are to be separated by a minimum of 24 inches.
12. Refer to the floor plans for partition type symbols. A partition type is indicated by a symbol containing the partition identification which refers to a specific assembly indicated on this sheet.
13. Partition types as noted by the symbol continue between room/space corners or any intersecting partition.
14. See plans for structure above noted in partition configuration diagrams.
15. Differing partition types shall align so that partition finish planes continue unbroken within and/or across spaces.
16. Provide moisture resistant gyp. board at partitions in wet areas (floor to finish ceiling) including but not limited to the following rooms.
    A. Toilet rooms
    B. Janitor closets
    C. Outside air shafts
    D. Mechanical rooms
    E. Drinking fountain alcoves
    F. Kitchens
    G. Lockers

    Provide cementitious backer board at wet areas scheduled with tile finish.
17. Provide acoustical treatment at partitions with acoustic insulation. Fill stud cavities and run insulation continuous around columns and other obstructions to form a continuous acoustic barrier.

    A. Install acoustic batt insulation, full width, depth and height.

    Install acoustical sealant at partition head, sill and jamb transistions, as well as at penetrations through the gypsum board membrane including penetrations at mounting fastners. Fire stopping requirements shall supercede acoustic treatment.

    Gypsum board sill & jamb edges terminating at dissimilar material (cmu, concrete, metal panel, etc) shall allow 1/4" continuous gap and be sealed airtight with an acoustic sealant.
18. Partitions indicated as fire or smoke rated form a separation that shall be continuous from floor to structure above with no breaks at concealed spaces, columns, transistions or other obstructions.
19. Penetrations through rated partitions shall be sealed with UL listed fire/smoke stop assembly.
20. See partition priority legend for priorization of intersecting partitions.

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2	03/18/2020	Addendum #1

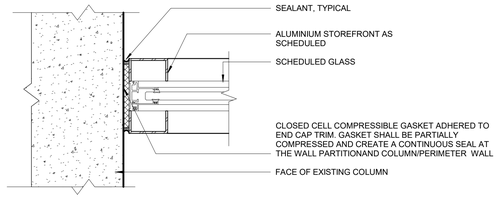
CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT
Timothy M. Stevens
C-28150
09-30-2021
STATE OF CALIFORNIA

PARTITION TYPES

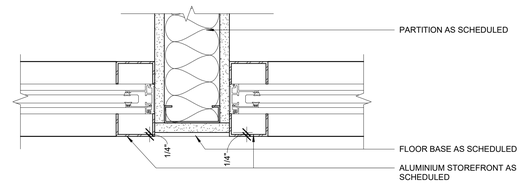
Drawn By: AC
Checked By: MP/PW
Project Number: 2019031

Sheet Number: ID8.00



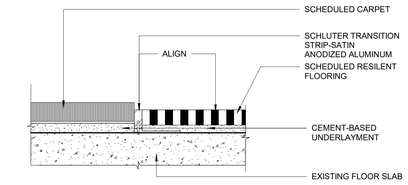
9 STOREFRONT @ COLUMN

SCALE: 3" = 1'-0"



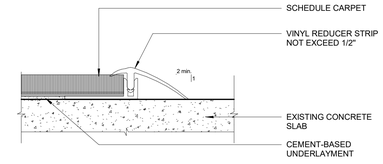
8 STOREFRONT @ WALL

SCALE: 3" = 1'-0"



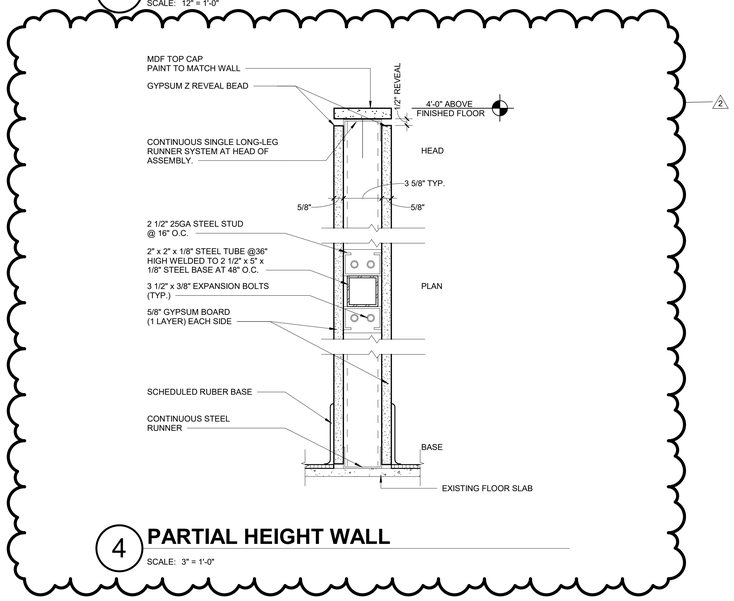
10 FLOOR TRANSITION CPT TO LVT

SCALE: 12" = 1'-0"



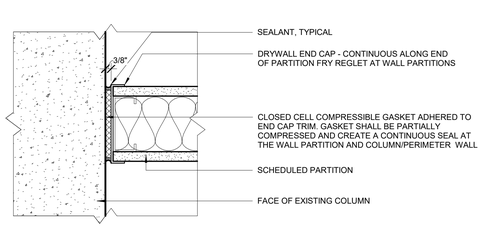
7 FLOOR TRANSITION CPT TO CONCRETE

SCALE: 12" = 1'-0"



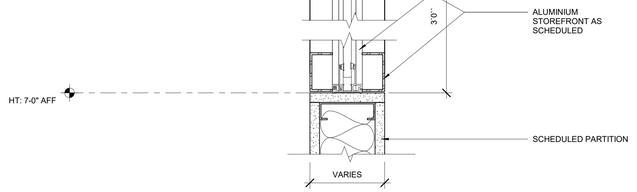
4 PARTIAL HEIGHT WALL

SCALE: 3" = 1'-0"



6 COLUMN @ WALL _FLOOR BASE

SCALE: 3" = 1'-0"

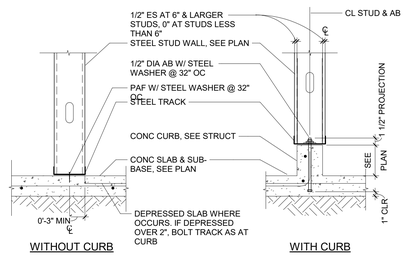


5 STOREFRONT @ CURVE CEILING

SCALE: 3" = 1'-0"

3 COLUMN @ WALL

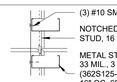
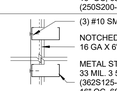
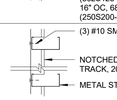
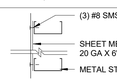
SCALE: 3" = 1'-0"



NOTES:
1. TWO ANCHORS MIN FOR EA PIECE OF TRACK, LOCATED 6" FROM ENDS.
2. PROVIDE ADDITIONAL ANCHOR 6" FROM EA SIDE OF ANY SPLICES, HOLES OR NOTCHES IN TRACK.
3. PROVIDE (1) SCREW FROM TRACK TO EA STUD FLANGE.

2 WALL FRAMING - BASE ANCHORAGE - EXISTING STRUCTURAL SLAB

SCALE: 1" = 1'-0"

TYPE	LOAD DIAGRAM/ SECTION	PLAN DETAIL
BP1		
BP2		
BP3		
BP4		

BACKING PLATE (BP) NOTES:

1. BACKING PLATES SHALL EXTEND TO NEXT ADJACENT STUD BEYOND.

2. PROVIDE METAL SLEEVES THROUGH WALL FINISH AT FIXTURE AND EQUIPMENT FASTENINGS.

3. MAXIMUM LOADS ARE THE ALLOWABLE MAXIMUM LOADS FOR THE DIRECTIONS SHOWN. WHEN COMBINING LATERAL AND VERTICAL LOAD AT BACKING USE A STRAIGHT LINE INTERATION EQUATION (VERT LOAD / VERT ALLOW) + (LAT LOAD / LAT ALLOW) <1.0

4. TYPE **BP1** BACKING SHALL BE USED FOR ANCHORAGE OF THE FOLLOWING:
   GAS CYLINDER BRACKETS, SINKS, URINALS, GRAB BARS

5. TYPE **BP2** BACKING SHALL BE USED FOR ANCHORAGE OF THE FOLLOWING:
   BASE CABINETS, FULL HEIGHT CABINETS, WALL MOUNTED CABINETS, TOILET PARTITIONS, TOILET COUNTERTOPS, ELECTRICAL PANELS

6. TYPE **BP3** BACKING SHALL BE USED FOR ANCHORAGE OF THE FOLLOWING:
   HANDRAILS, GUARDRAILS, BUMPER GUARDS, DOOR STOPS, DOOR HOLDERS

7. TYPE **BP4** BACKING SHALL BE USED FOR ANCHORAGE OF THE FOLLOWING:
   BULLETIN BOARDS, TELEPHONES, TACK BOARDS, MARKER BOARDS, DIRECTORIES, MIRRORS, TOILET & BATH ACCESSORIES

1 BACKING PLANTE

SCALE: 1 1/2" = 1'-0"

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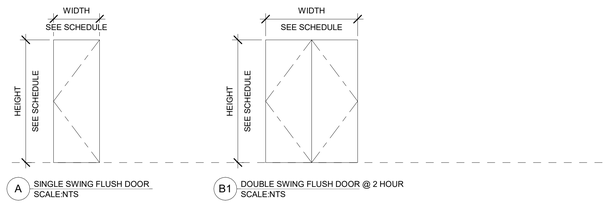
LICENSED ARCHITECT Timothy M. Stevens C-26150 09-30-2021 STATE OF CALIFORNIA

PARTITION AND TRANSITION DETAIS

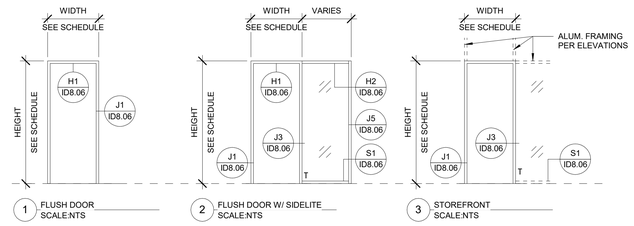
Drawn By: AC
Checked By: MP/PW
Project Number: 2019031

Sheet Number: ID8.02

DOOR TYPES

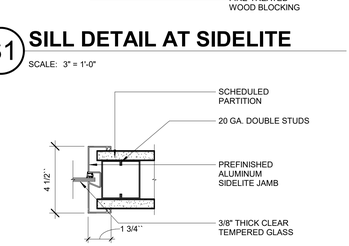


DOOR FRAMES



DOOR SCHEDULE

DOOR MARK	ROOM NAME	DOOR WIDTH	DOOR HEIGHT	DOOR THICK.	DOOR TYPE	DOOR MAT'L	DOOR FINISH	FRAME TYPE	FRAME MAT'L	FRAME FINISH	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	FIRE RATING	HDWR SET	REMARKS
1ST FLOOR																
127	IT SUPPORT	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	1	HM	PAINT	H1/ID8.06	J1/ID8.06		20 MIN	003	
2ND FLOOR																
2C2	2C2	6' - 0"	7' - 0"	1 3/4"	B	HOLLOW METAL	CLEAR	1	HM	PAINT				90 MIN	TBD	
2C8A	2C8	3' - 0"	7' - 0"	1 3/4"	-	HOLLOW METAL	PAINT	-	HM	PAINT	H1/ID8.06	J1/ID8.06		90 MIN	EXISTING	RELOCATED, EXISTING DOOR
208	208	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	1	HM	PAINT	H1/ID8.06	J1/ID8.06		90 MIN	TBD	
239	FOCUS ROOM	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT					002	
241	DEAN`S OFFICE	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	1	HM	PAINT					TBD	
361A	HUDDLE	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT					002	
3RD FLOOR																
302	HUDDLE	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	3	AL	CLEAR					002	
304	HUDDLE	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	3	AL	CLEAR					002	
345	COLLOQUY SPACE	3' - 0"	7' - 0"	1 3/4"	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)	(E)		(E) + 006	EXISTING DOOR, ADD CARD READER
348	OFFICE	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT	H1&H2/ID8.06	J1,J3&15/ID8.06			001	
352	OFFICE	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT	H1&H2/ID8.06	J1,J3&15/ID8.06			001	
354	OFFICE	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT	H1&H2/ID8.06	J1,J3&15/ID8.06			001	
356	OFFICE	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT	H1&H2/ID8.06	J1,J3&15/ID8.06			001	
366	OFFICE	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT	H1&H2/ID8.06	J1,J3&15/ID8.06			001	
368	OFFICE	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT	H1&H2/ID8.06	J1,J3&15/ID8.06			001	
370	HUDDLE	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT	H1&H2/ID8.06	J1,J3&15/ID8.06			002	
372	HUDDLE	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT	H1&H2/ID8.06	J1,J3&15/ID8.06			002	
374	PRINTER	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT	H1&H2/ID8.06	J1,J3&15/ID8.06			002	
380	LAB	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT	H1/ID8.06	J1/ID8.06			004	
380A	LAB	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT	H1/ID8.06	J1/ID8.06			005	
397	OFFICE	3' - 0"	7' - 0"	1 3/4"	A	WOOD	CLEAR	2	AL	PAINT	H1&H2/ID8.06	J1,J3&15/ID8.06			001	

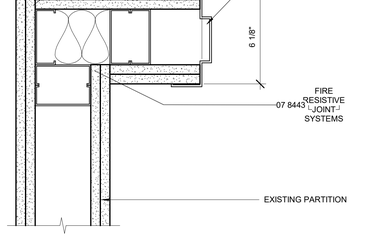


S1 SILL DETAIL AT SIDELITE

SCALE: 3" = 1'-0"

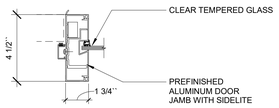
J5 JAMB DETAIL AT SIDELITE

SCALE: 3" = 1'-0"



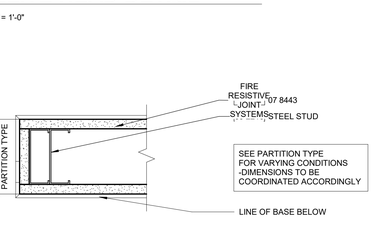
J4 2 HOUR DOOR JAMB DETAIL

SCALE: 3" = 1'-0"



J3 DOOR JAMB DETAIL

SCALE: 3" = 1'-0"

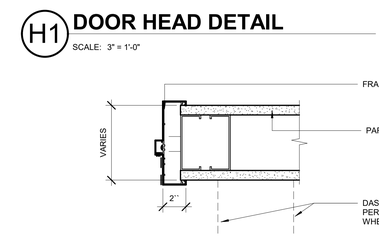


H2 SIDELITE HEAD DETAIL

SCALE: 3" = 1'-0"

J2 JAMB DETAIL

SCALE: 3" = 1'-0"



H1 DOOR HEAD DETAIL

SCALE: 3" = 1'-0"

J1 JAMB DETAILS

SCALE: 3" = 1'-0"

DOOR, FRAME & HARDWARE NOTES

1. DOORS USED AS A MEANS OF EGRESS SHALL SWING IN THE DIRECTION OF TRAVEL.

2. DOOR USED AS A MEANS OF EGRESS SHALL BE ABLE TO OPERATE WITHOUT SPECIAL KNOWLEDGE.

3. ALL DOORS USED IN CONNECTION WITH EXITS SHALL BE SO ARRANGED AS TO BE READILY OPENED WITHOUT THE USE OF A KEY FROM THE SIDE FROM WHICH EGRESS IS MADE.

4. DOOR SHALL HAVE A MAXIMUM 5 LB FORCE REQUIRED TO OPERATE.

5. EXISTING BUILDING DOORS AND FRAMES, WITHIN PROJECT SCOPE, NOT LISTED ON THE DOOR SCHEDULE ARE TO BE PAINTED SEMI-GLOSS PAINT FINISH TO MATCH ADJACENT WALL COLOR. PROVIDE SUBMITTAL WITH DOOR DESGINATIONS AND PAINT COLORS FOR APPROVAL PRIOR TO FINISHING.

6. REFER TO FINISH LEGEND ON SHEET ID0.02 AND ID0.7.01 FOR FINISH DESIGNATIONS.

7. IN GENERAL, DOOR HARDWARE FINISH IS TO MATCH EXISTING, OR SATIN CHROME BHMA 626. REFER TO SPECIFICATION AND INDIVIDUAL PRODUCT INFORMATION FOR CLARIFICATION.

8. ALL DOORS USED IN CONNECTION WITH EXITS SHALL BE SO ARRANGED AS TO BE READILY OPENED WITHOUT THE USE OF A KEY FROM THE SIDE FROM WHICH EGRESS IS MADE.

9. DOORS IN PUBLIC BUILDINGS, OPENING INTO MECHANICAL OR ELECTRICAL EQUIPMENT ROOMS, STAIRS, OR ENTRANCES TO VEHICULAR TRAFFIC AREAS, SHALL HAVE KNURLED HANDLES TO ALERT THE BLIND.

10. REFER TO DOOR SCHEDULE TO CONFIRM FULL HEIGHT DIMENSION FOR DOORS.

11. BASE BUILDING LOCK SYSTEM AND KEYWAY IS TO BE VERIFIED BY GENERAL CONTRACTOR. LOCK SETS, KEYWAYS AND CYLINDERS TO MATCH BASE BUILDING STANDARDS REGARDLESS OF LOCKSET MANUFACTURER SELECTED AND PROVIDED ON THE PROJECT. DOOR HARDWARE SUPPLIER TO VERIFY COMPATIBILITY AND COORDINATION WITH EXISTING BASE BUILDING KEYING SYSTEM. ALL MECHANICAL, MAGNETIC AND ELECTRIC LOCKS ARE REQUIRED TO HAVE A KEY OVER-RIDE. COORDINATE KEY SCHEDULE WITH BUILDING OWNER REPRESENTATIVE AND TENANT. PROVIDE CYLINDERS AND KEYING AS APPROVED BY TENANT AND BUILDING OWNER.

12. COORDINATE WITH BUILDING AND OWNER FOR ADDITIONAL QUANTITY OF KEYS. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

13. CONTRACT WITH BUILDING APPROVED FIRE ALARM CONTRACTOR FOR FINAL TIE INS, INTERFACE, PROGRAMMING, TESTING AND DOCUMENTATION FOR ALL DOOR LOCK / FIRE ALARM INTERCONNECTIONS. PROVIDE DOCUMENTATION TO REQUIRED AGENCIES AND OWNER.

14. COORDINATE VOLTAGE REQUIREMENTS FOR ELECTRIFIED DOOR HARDWARE DEVICES AND SECURITY SYSTEM DEVICES. PROVIDE TRANSFORMERS AT ELECTRIFIED DOOR HARDWARE AND SECURITY AS REQUIRED FOR VOLTAGE CONTINUITY THROUGHOUT THE PROJECT.

15. SUBMIT COMPLETE DOOR, FRAME AND HARDWARE SUBMITTAL FOR ARCHITECT'S REVIEW.

16. ALL FIRE RATED DOORS AND FRAMES SHALL BE LABELED ACCORDINGLY AS REQUIRED BY CODE. TAGS TO BE VISIBLE / READABLE AT COPMLETION OF PROJECT.

17. ALL HOLLOW METAL FRAMES TO RECEIVE SILENCERS.

18. RIGHT HAND LEAF TO BE ACTIVE AT A PAIR OF DOORS, U.O.N.

19. GENERAL CONTRACTOR SHALL INSTALL DOORS COMPLETE WITH ALL HARDWARE FITTINGS AND ACCESSORIES AS REQUIRED FOR SPECIAL INSTALLATION. FURNISH ANY SPECIAL ITEMS REQUIRED FOR CODE COMPLIANCE AT RATED DOOR LOCATIONS.

20. INSTALL DOOR STOPS TO ALLOW FOR OPERATION OF HOLD OPEN DEVICES. INSTALL STOPS TO PREVENT BAR PULLS, LEVER AND OTHER HARDWARE FROM CONTACTING ADJACENT PARTITION OR FINISHED WALL SURFACE.

21. PROVIDE EXTENDED SPINDLES AT FLOOR MOUNTED HARDWARE DEVICES SUCH AS PIVOTS AND DOOR STOPS WHERE REQUIRED FOR THICK FLOOR FINISHES.

22. PRIOR TO BID SUBMISSION, GENERAL CONTRACTOR SHALL EXAMINE THE DRAWINGS, SCHEDULE AND SPECIFICATIONS. FURNISH PROPER HARDWARE FOR ALL OPENINGS WHETHER LISTED OR NOT.

23. ALL DOORS RECEIVING ELECTRIFIED HARDWARE ARE TO BE CORED AS REQUIRED.

24. HARDWARE AT A PAIR OF DOORS IS SPECIFIED FOR EACH LEAF U.N.O.

25. ALL HINGES TO BE BALL BEARING, U.N.O.

26. DOORS FROM 7'-0" TO 10'-0" TO RECEIVE (2) PAIRS OF HINGES, U.N.O.

27. ALL PAIRS OF DOORS WITH ELECTRIFIED STRIKES TO RECEIVE AN ELECTRONIC HINGE ON INACTIVE DOOR.

28. FLOOR FINISH TO CONTINUE UNDER DOOR OR TRANSITION AT CENTERLINE OF DOOR. PROVIDE MINIMAL UNDERCUT AND COORDINATE WITH FLOOR FINISH AND TRANSITION DETAILS.

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CLASSROOM AND OFFICE BUILDING 1 RENOVATION

UNIVERSITY OF CALIFORNIA, MERCED

LICENSED ARCHITECT Timothy M. Stevens C-39150 09-30-2021 STATE OF CALIFORNIA

DOOR DETAILS, TYPES AND SCHEDULE

Drawn By: AC
Checked By: MP/PW
Project Number: 2019031

Sheet Number: ID8.06

SCHEDULES

DUAL DUCT TERMINAL UNIT SCHEDULE

TAG	MFG. & MODEL NO.	HOT DECK			COLD DECK			REMARKS
		INLET SIZE	HEATING MAX	MIN	INLET SIZE	COOLING MAX	MIN	
(E) DDV-108	-	8	310	155	12	1050	155	1
(E) DDV-115	-	6	40	40	6	110	110	1
(E) DDV-116	-	6	40	40	6	70	70	1
(E) DDV - 202	-	10	490	155	12	800	155	1
DDV-210	PRICE RDV	4	50	40	6	200	40	2, 3
(E) DDV-211	-	6	150	110	10	400	110	1
DDV-265	PRICE RDV	6	100	40	6	200	40	2, 3
DDV - 266	PRICE RDV	4	100	90	6	200	90	2, 3
(E) DDV-309	-	6	280	115	10	560	115	1
(E) DDV-368	-	10	460	210	16	1520	210	1
(E) DDV-369		10	460	210	16	1520	210	1
(E) DDV-372	-	8	440	175	16	1410	175	1
(E) DDV-373	-	6	90	40	6	200	40	1
(E) DDV-377	-	8	340	210	14	1140	210	1
DDV-378	PRICE RDV	4	50	40	6	100	40	2, 3
DDV-379	PRICE RDV	4	50	40	6	100	40	2, 3
DDV-380	PRICE RDV	4	50	40	6	100	40	2, 3
DDV-381	PRICE RDV	4	50	40	6	100	40	2, 3
DDV-382	PRICE RDV	4	50	40	6	100	40	2, 3
DDV-383	PRICE RDV	4	50	40	6	100	40	2, 3
DDV-384	PRICE RDV	4	50	40	6	100	40	2, 3
DDV-385	PRICE RDV	4	50	40	6	100	40	2, 3
DDV-386	PRICE RDV	4	50	40	6	100	40	2, 3
DDV-387	PRICE RDV	8	550	220	12	1100	220	2, 3
DDV-388	PRICE RDV	4	90	20	6	150	20	2, 3

NOTES:

1. REPROGRAM (E) SETPOINTS IN BUILDING AUTOMATION SYSTEM.
2. DDV CONSISTS OF (2) SEPARATE TERMINAL UNITS.
3. ROUND TYPE TERMINAL UNIT W/O REHEAT COIL

DIFFUSER / GRILLE SCHEDULE

TYPE DESIGNATION	DESCRIPTION	SERVICE	NECK SIZE	FACE SIZE	MANUFACTURER AND MODEL NO.	MAXIMUM NC LEVEL	REMARKS
A	LINEAR SLOT DIFFUSER	SUPPLY	AS SHOWN	AS SHOWN	TITUS TBD 80	30	1
NONE	PERFORATED RETURN GRILLE	RETURN	AS SHOWN	AS SHOWN	TITUS PAR	30	1
C	LAY IN SUPPLY AIR DIFFUSER	SUPPLY	AS SHOWN	AS SHOWN	TITUS OMNI	30	1
D	SIDEWALL DISPLACEMENT DIFFUSER	SUPPLY	AS SHOWN	AS SHOWN	TITUS 300	20	1
E	CONTINUOUS LINEAR RETURN DIFFUSER	RETURN	AS SHOWN	AS SHOWN	TITUS MLR-39	20	2,3

NOTES:

1. LAY IN CEILING TYPE.
2. FOR INSTALLATION IN GYPSUM BOARD CEILING
3. FACTORY FURNISHED END CONNECTION

DUCTWORK CONSTRUCTION SCHEDULE

SERVICE	MATERIAL	INSULATION
DUCTWORK LOW PRESSURE	G90 GALVANIZED SHEET METAL CONFIRMING TO ASTM A-525 AND A-527, LOCK-FORMING GRADE. CONSTRUCTED PER SMACNA 2" W.G. CLASS	SUPPLY: MIN 1-1/2" THICK BLANKET MATERIAL OF FINE INORGANIC GLASS FIBER WITH FOIL FACE. MIN DENSITY OF 1.0 LB PER FT^3. MINIMUM R VALE OF 4.5 HR. °F FT^2 / BTU, AT 68°F MEAN TEMPERATURE EXHAUST/RETURN: NONE
DUCTWORK MEDIUM PRESSURE	G90 GALVANIZED SHEET METAL CONFIRMING TO ASTM A-525 AND A-527, LOCK-FORMING GRADE. CONSTRUCTED PER SMACNA 4" W.G. CLASS	SUPPLY: MIN 1-1/2" THICK BLANKET MATERIAL OF FINE INORGANIC GLASS FIBER WITH FOIL FACE. MIN DENSITY OF 1.0 LB PER FT^3. MINIMUM R VALE OF 4.5 HR. °F FT^2 / BTU, AT 68°F MEAN TEMPERATURE EXHAUST/RETURN: NONE

2

COMBINATION FIRE AND SMOKE DAMPER SCHEDULE

TAG	MFG. & MODEL NO.	DUCT SIZE	ACTUATOR TYPE	MOTOR VOLTAGE	LEAKAGE CLASS	FIRE RATING	REMARKS
FSD 2-2-9	RUSKIN FSD60	12x10	ELECTRIC	120	UL CLASS II	1.5 HRS	1,2
FSD 2-2-10	RUSKIN FSD60	12x12	ELECTRIC	120	UL CLASS II	1.5 HRS	1,2

NOTES:

1. PRESSURE DROP SHALL NOT EXCEED 0.08" FOR A 48"X24" DAMPER SECTION OPERATING AT 2000 FPM FACE VELOCITY
2. NUMBERING SCHEME AS FOLLOWS: FLOOR - TYPE - INDEX #. CONTRACTOR TO CHECK EXISTING BUILDING CONFIGURATION AND PROPOSE NEW NUMBERS IF CONFLICT WITH EXISTING NUMBERS OCCURS.

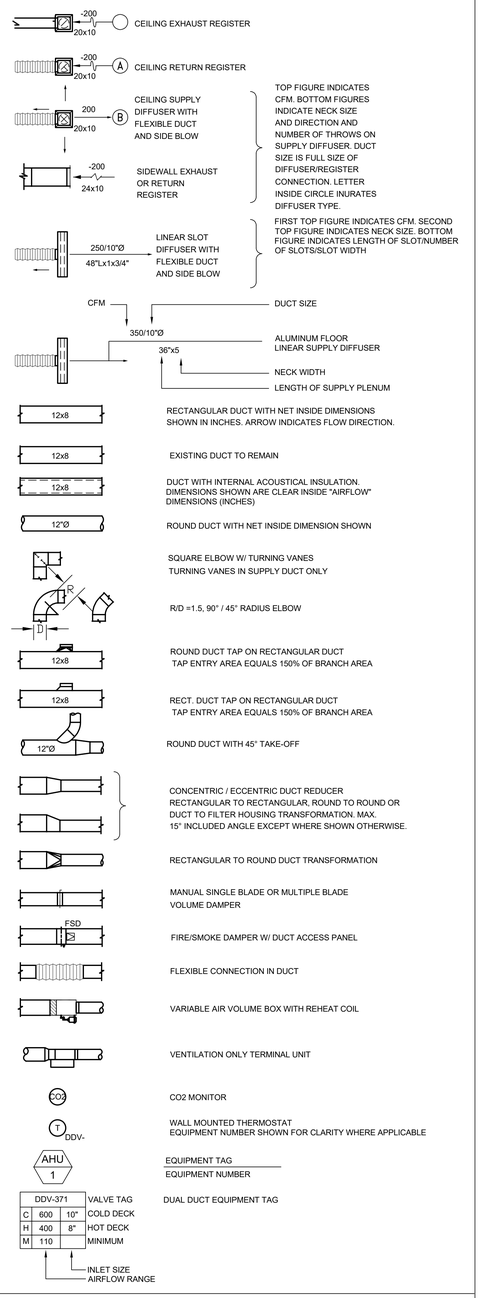
ABREVIATIONS

AC	AIR CONDITIONER
ACH	AIR CHANGES PER HOUR
AFF	ABOVE FINISHED FLOOR
AL	ALUMINUM
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
AUTO	AUTOMATIC
BAL	BALANCING
BC	BALANCING COCK
BD	BACKDRAFT DAMPER
BHP	BRAKE HORSEPOWER
BLDG	BUILDING
BOD	BOTTOM OF DUCT
BSMT	BASEMENT
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT / HOUR
CAP	CAPACITY
CC	COOLING COIL
CD	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CLG	CEILING
CLR	CLEAR
CONC	CONCRETE
COND	CONDENSATE
CONN	CONNECTION
CONT	CONTINUOUS/CONTINUE
DIM	DIMENSION
DN	DOWN
DP	DIFFERENTIAL PRESSURE
DPS	DIFFERENTIAL PRESSURE SWITCH
DWG	DRAWING
EA	EACH OR EXHAUST AIR
EF	EXHAUST FAN
ELEC	ELECTRICAL
ELEV	ELEVATOR/ELEVATION
EQPT	EQUIPMENT
EWT	ENTERING WATER TEMP.
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPOSED
F	FILTERS, FAHRENHEIT, FUTURE
FC	FLEXIBLE CONNECTION
FD	FIRE DAMPER
FE	FUME EXHAUST
FE	FUME EXHAUST
SS	STAINLESS STEEL
FH	FUME HOOD
FIN	FINISHED
FLEX	FLEXIBLE
FLR	FLOOR
FPM	FEET PER MINUTE
FSD	FIRE/SMOKE COMBINATION DAMPER
FT ( )	FOOT OR FEET
GALV	GALVANIZED
GE	GENERAL EXHAUST
GPM	GALLONS PER MINUTE
H, HT	HEIGHT
HC	HEATING COIL
HD	HEAD (FEET OF WATER)
HP	HORSEPOWER
HZ	HERTZ (CYCLES PER SEC)
IN (")	INCH OR INCHES
INS	INSULATION
LBS	POUNDS
LDB	LEAVING DRY BULB TEMPERATURE
LWB	LEAVING WET BULB TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MAX	MAXIMUM
MBH	1000 BTUH
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
NTS	NOT TO SCALE
OAD	OUTSIDE AIR DAMPER
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER
P	PUMP
PLUMB	PLUMBING
POC	POINT OF CONNECTION
PSI	POUNDS PER SQUARE INCH
PSIG	PSI (GAUGE)
REQD	REQUIRED
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SAD	SEE ARCHITECTURAL DRAWING
SM	SHEET METAL
SPEC	SPECIFICATIONS
SP	STATIC PRESSURE,
SQ	SQUARE
TEMP	TEMPERATURE, TEMPORARY
THRU	THROUGH
TON	12,000 BTUH OF COOLING
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UTR	UP THROUGH ROOF
V	VENT
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VOL	VOLUME
VERT	VERTICAL
VFD	VARIABLE FREQUENCY DRIVE
WT	WEIGHT
W/	WITH
W/O	WITHOUT
(E)	EXISTING
(F)	FUTURE
(N)	NEW
@	AT
°F	DEGREE FAHRENHEIT
C_L	CENTER LINE
#	NUMBER
P_L	PLATE.
Ø	DIAMETER, PHASE
2P	2 POSITION
2W	2 WAY
3W	3 WAY

GENERAL NOTES

1. EXACT LOCATIONS OF ALL CEILING DIFFUSERS, REGISTERS AND GRILLES ARE DETAILED ON THE ARCHITECTURAL REFLECTIVE CEILING PLAN, AND ARCHITECTURAL ROOM ELEVATIONS.
2. MANUAL DAMPERS SHALL BE PROVIDED IN ALL DUCT BRANCHES TO INDIVIDUAL DIFFUSERS, GRILLES AND REGISTERS WHETHER SHOWN OR NOT.
3. PENETRATIONS OF PIPES, CONDUITS, ETC., IN WALLS REQUIRING PROTECTED OPENINGS SHALL BE FIRE STOPPED. FIRE STOP MATERIAL SHALL BE A TESTED ASSEMBLY APPROVED BY THE STATE FIRE MARSHAL.
4. CONTRACTOR SHALL BE COGNIZANT WITH BUILDING STRUCTURE AND CEILING SPACE ALLOWED FOR INSTALLATION OF EQUIPMENTS PRIOR TO BID FOR PRICING ADDITIONAL OFFSETS OF DUCTS AND PIPING THAT ARE NOT SHOWN ON DRAWINGS.
5. CONTRACTOR IS TO MAINTAIN RECORDED "AS-BUILT" INFORMATION ON ALL EXISTING SERVICES UNCOVERED DURING CONSTRUCTION AND ALL NEW SERVICES BEING INSTALLED. "AS-BUILT" INFORMATION SHALL BE CLEARLY MARKED IN COLORED PENCIL ON A REPRODUCIBLE PRINT OF CONTRACT DRAWINGS. RECORDED INFORMATION SHALL INCLUDE ROUTING AND INVERT ELEVATIONS, AT THE COMPLETION OF THE CONTRACT, THE CONTRACTOR SHALL SUBMIT RECORDED "AS-BUILT" DRAWINGS IN HARDCOPY AND CAD FORMAT OVER TO THE UNIVERSITY REPRESENTATIVE.
6. ADVISE UNIVERSITY REPRESENTATIVE IN WRITING IN THE EVENT A CONFLICT OCCURS BETWEEN REQUIREMENTS OF THE CONTRACT DOCUMENTS AND ACTUAL FIELD CONDITIONS. CONTRACTOR SHALL BEAR ALL COSTS FOR RELOCATION OF EQUIPMENT, PIPES, DUCTS, ETC. FROM FAILURE TO PROPERLY COORDINATE INSTALLATIONS AND ADVISE OF CONFLICT IN WRITING PRIOR TO INSTALLATION.
7. INSTALL DUCTWORK TO BEST SUIT FIELD CONDITIONS AND COORDINATE WITH THE INSTALLATION WORK OF OTHER TRADES. THE DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED TO DETERMINE EXACT LOCATION OF PIPING OR DUCTWORK.
8. CERTAIN VERTICAL AND HORIZONTAL OFFSETS ARE SHOWN IN DUCTS AND PIPING TO INDICATE THE GENERAL RELATIONSHIP OF THE SYSTEMS WITHIN THE SPACE AVAILABLE FOR INSTALLATION. PROVIDE ADDITIONAL OFFSETS SIMILAR TO THOSE SHOWN AS REQUIRED TO COORDINATE WITH INSTALLATION REQUIREMENTS OF OTHER SYSTEMS.
9. PRIOR TO SUBMISSION OF ANY BID, THE CONTRACTOR SHALL PERFORM A THOROUGH FIELD SURVEY OF THE EXISTING SITE CONDITIONS AND FEATURES. ANY SITE CONDITIONS WHICH MAY CAUSE SIGNIFICANT DEVIATION FROM THE DESIGN DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE UNIVERSITY REPRESENTATIVE FOR CLARIFICATION PRIOR TO SUBMISSION OF THE CONTRACTOR'S BID. VERIFY DIMENSIONS OF ALL UNIVERSITY-FURNISHED OPERATING EQUIPMENT TO ENSURE PROPER COORDINATION WITH CONSTRUCTION.
10. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE ALL WORK WITH THE UNIVERSITY REPRESENTATIVE INCLUDING CONSTRUCTION ACCESS AND STORAGE.
11. ALL UTILITIES REQUIRED FOR THE CONTINUOUS OPERATION OF ALL EXISTING FACILITIES MUST BE MAINTAINED IN SERVICE AT ALL TIMES.
12. ALL REMOVED ITEMS DEEMED TO HAVE VALUE SHALL BE DELIVERED TO A PLACE OF STORAGE AT THE SITE AS DIRECTED. ALL OTHER ITEMS MUST BE DISPOSED OF OFF SITE IN A LEGAL MANNER.
13. WHERE EXISTING CONSTRUCTION IS CUT, DAMAGED, OR REMODELED, PATCH WITH MATERIALS TO MATCH IN KIND, QUALITY, AND PERFORMANCE AT NO ADDITIONAL COST TO OWNER.
14. IT IS THE MECHANICAL CONTRACTORS RESPONSIBILITY TO COORDINATE ALL CEILING REMOVAL REQUIREMENTS FOR THE INSTALLATION AND DEMOLITION OF MECHANICAL SYSTEMS WITH THE GENERAL CONTRACTOR. NO ADDITIONAL FUNDS WILL BE ALLOWED FOR CEILING REMOVAL RESULTING FROM LACK OF COORDINATION.

SYMBOL LEGEND



APPLICABLE CODES AND STANDARDS

1. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL CONFORM TO THE FOLLOWING CODES AND REGULATIONS AS APPLICABLE:
   - CALIFORNIA CODE OF REGULATIONS TITLE 24 - PARTS 2, 3, 4, AND 5.
   - CALIFORNIA CODE OF REGULATIONS TITLE 24 - ENERGY INSULATION STANDARDS.
   - 2019 CALIFORNIA BUILDING CODE.
   - 2019 CALIFORNIA PLUMBING CODE.
   - 2019 CALIFORNIA MECHANICAL CODE.
   - 2019 CALIFORNIA FIRE CODE.
   - 2019 CALIFORNIA ELECTRIC CODE.
   - NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) STANDARDS.
2. UNLESS OTHERWISE STATED, IT IS INTENDED THAT THE ABOVE CODES AND REGULATIONS REFER TO THE LATEST EDITION OR REVISION IN EFFECT ON THE DATE OF THE CONTRACT. NOTHING ON THE DRAWINGS IS TO BE CONSTRUED AS REQUIRING OR PERMITTING WORK THAT IS CONTRARY TO THE ABOVE LISTED CODES AND REGULATIONS, OR OTHER LOCAL, STATE OR FEDERAL CODES OR REGULATIONS WHICH MAY BE APPLICABLE.

MECHANICAL DRAWING INDEX

#	DESCRIPTION
M0.01	SYMBOLS, SCHEDULES, LEGENDS, AND GENERAL NOTES
M0.02	TITLE 24 DOCUMENTATION
M0.03	TITLE 24 DOCUMENTATION
M1.02C	SECOND FLOOR MECHANICAL DEMOLITION PLAN
M1.02D	SECOND FLOOR MECHANICAL DEMOLITION PLAN
M1.03A	THIRD FLOOR MECHANICAL DEMOLITION PLAN
M1.03C	THIRD FLOOR MECHANICAL DEMOLITION PLAN
M2.01A	FIRST FLOOR MECHANICAL PLAN
M2.02C	SECOND FLOOR MECHANICAL PLAN
M2.02D	SECOND FLOOR MECHANICAL PLAN
M2.03A	THIRD FLOOR MECHANICAL PLAN
M2.03B	THIRD FLOOR MECHANICAL PLAN
M2.03C	THIRD FLOOR MECHANICAL PLAN
M6.01	DETAILS
M7.01	CONTROL DIAGRAMS

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UCMERCED

NO.	DATE	DESCRIPTION
2	03/18/2020	ADDENDUM #1
1	02/27/2020	PERMIT
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

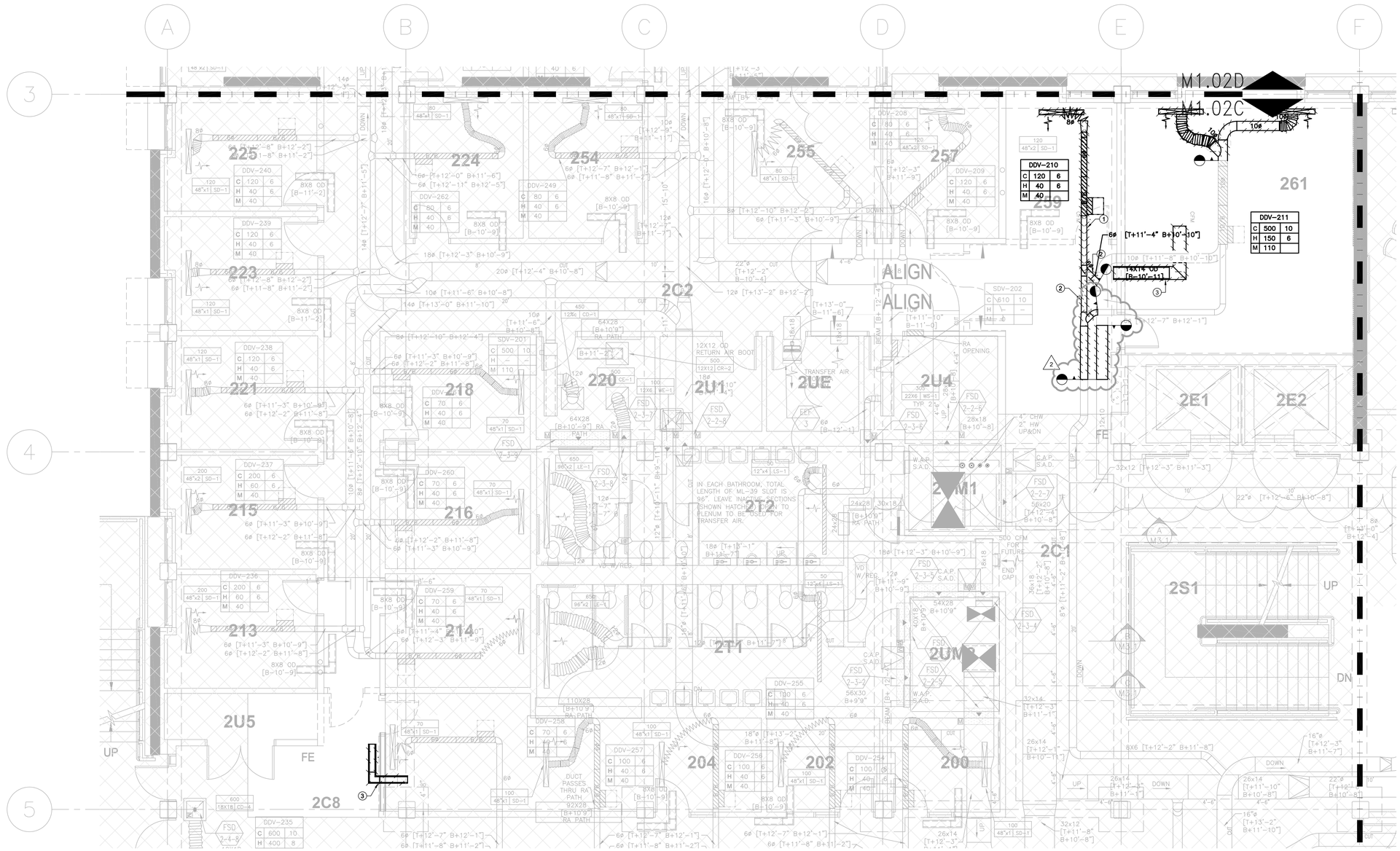
SYMBOLS, SCHEDULES, LEGENDS, AND GENERAL NOTES

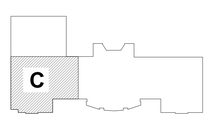
Drawn By: JH
Checked By: JH
Project Number: 2019031

Sheet Number: **M0.01**

SHEET NOTES:

1. DEMOLISH AND REMOVE (E) DDV AND ASSOCIATED SUPPORTS AND ACCESSORIES.
2. DEMOLISH AND REMOVE (E) HOT AND COLD SUPPLY AIR DUCTWORK.
3. DEMOLISH AND REMOVE (E) TRANSFER AIR DUCTWORK. PATCH ALL REMAINING OPENINGS IN ABOVE CEILING WALLS





KEYPLAN

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CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

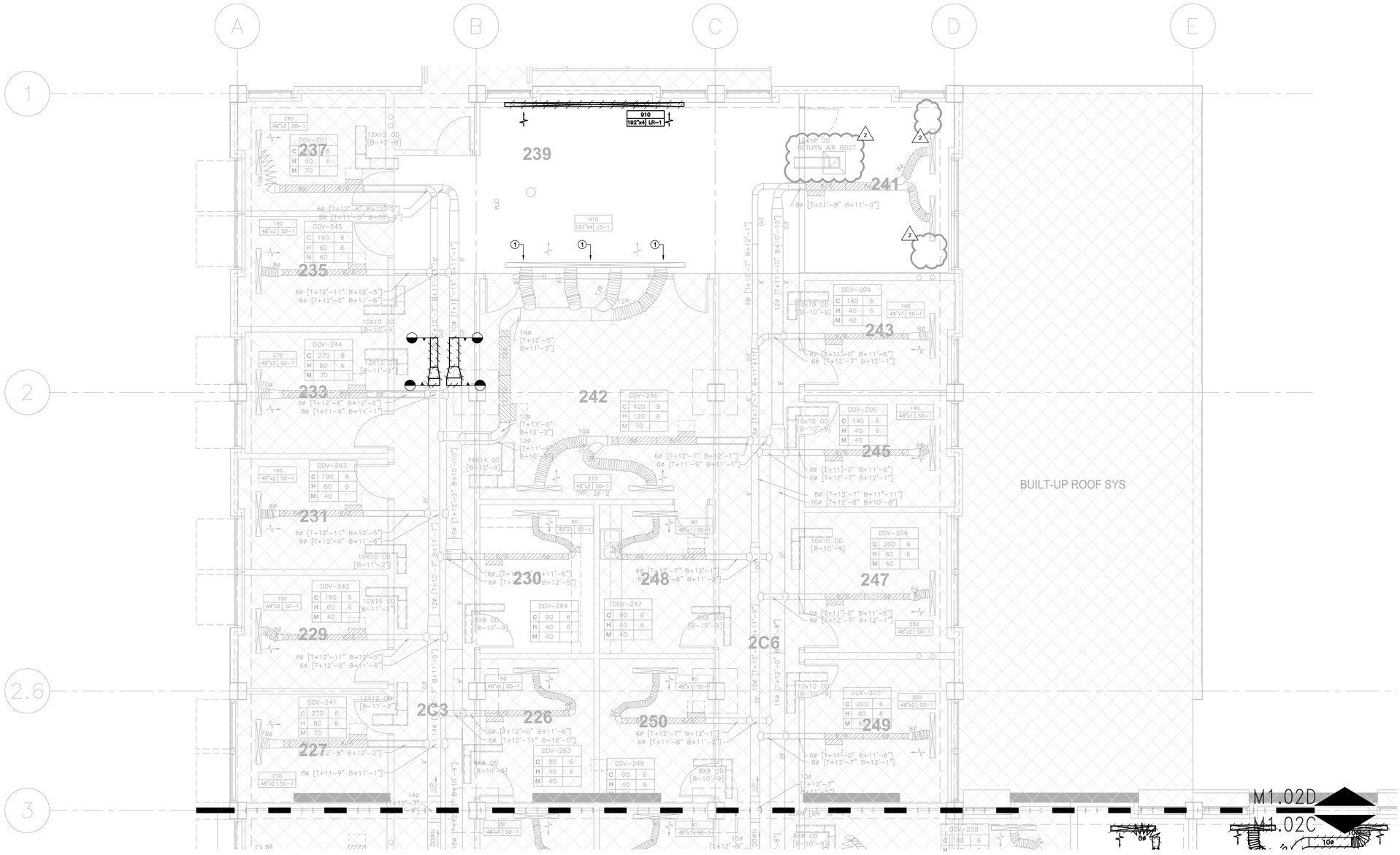
SECOND FLOOR MECHANICAL DEMOLITION PLAN

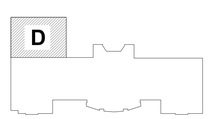
Drawn By: MP/JH
Checked By: JH
Project Number: 2019031

Sheet Number: **M1.02C**

SHEET NOTES:

1. PROVIDE TEMPORARY SUPPORT FOR SUPPLY AIR DIFFUSER TO BE REINSTALLED IN NEW CEILING.





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	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

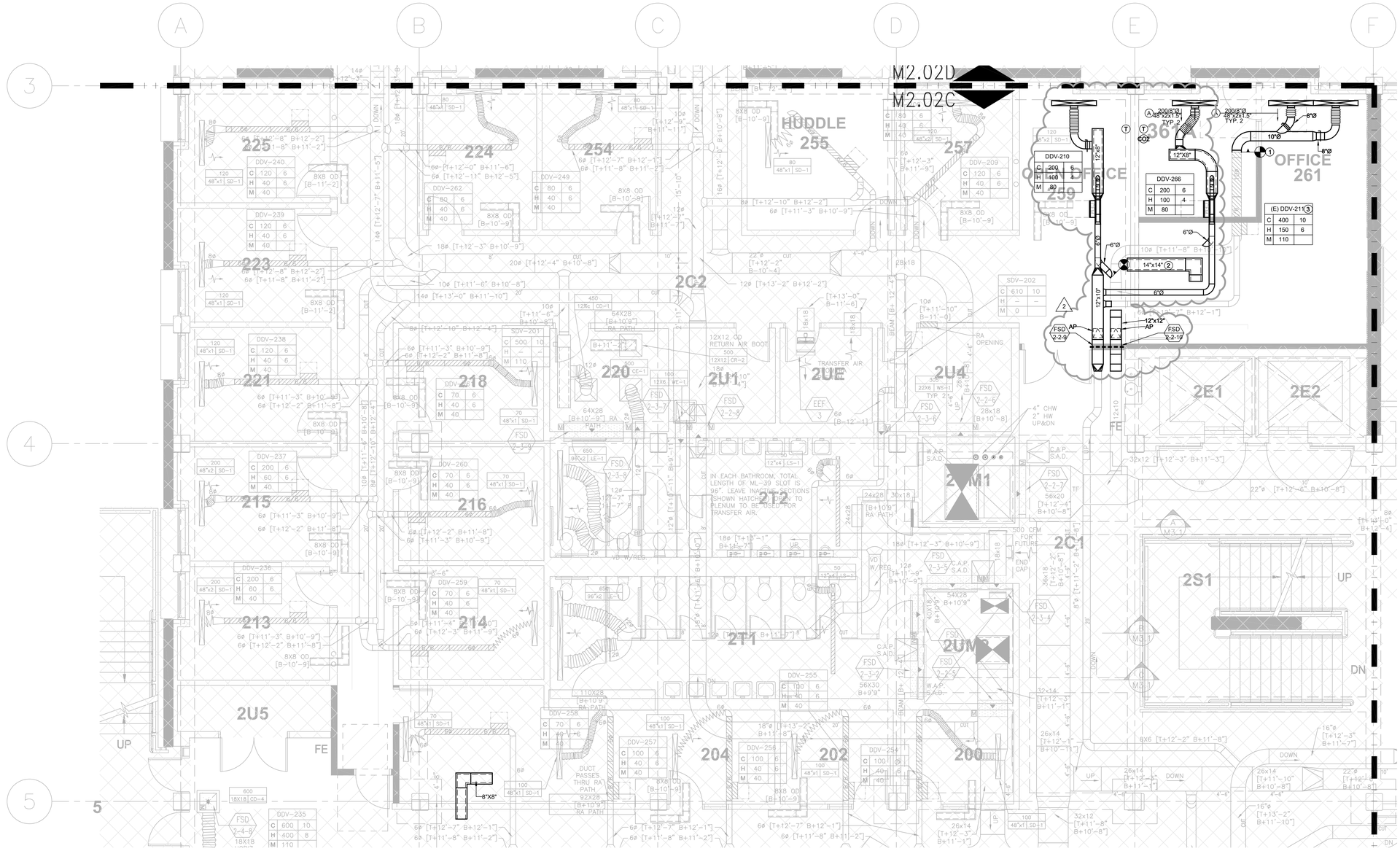
SECOND FLOOR MECHANICAL DEMOLITION PLAN

Drawn By: JH
Checked By: JH
Project Number: 2019031

Sheet Number: **M1.02D**

SHEET NOTES:

1. CONNECT NEW DUCTWORK TO DISCHARGE OF (E) DDV-211.
2. 14"X14" TRANSFER DUCT IN SAME LOCATION AS PREVIOUSLY REMOVED TRANSFER DUCT. PATCH AND SEAL DRYWALL AROUND (N) TRANSFER DUCT.
3. REPROGRAM (E) DDV TO NEW SETPOINTS INDICATED



C

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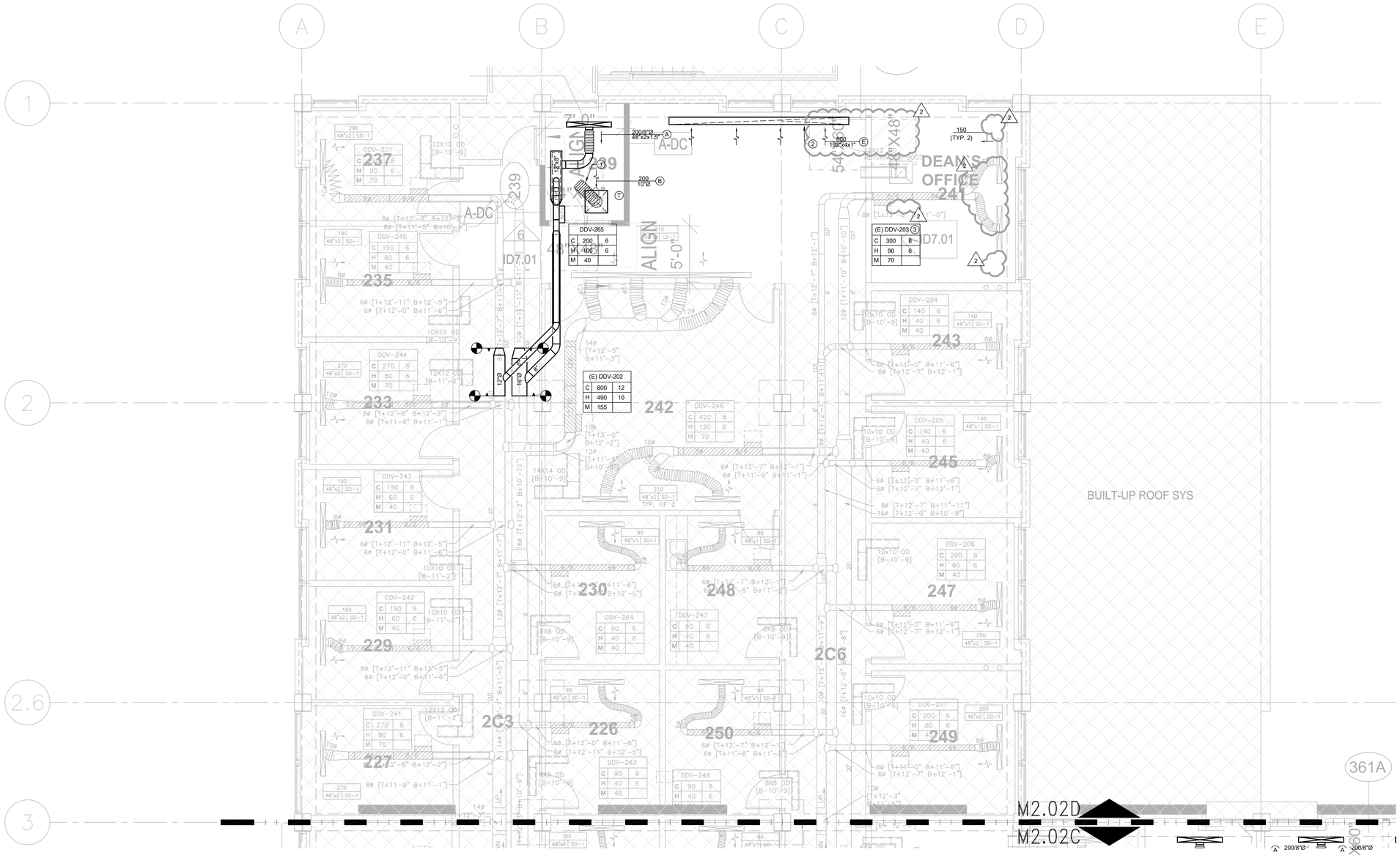
1	02/27/2020	PERMIT
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

SECOND FLOOR MECHANICAL PLAN

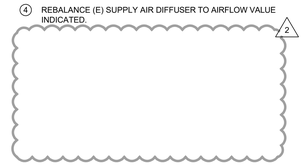
Drawn By: MP/JH
Checked By: JH
Project Number: 2019031

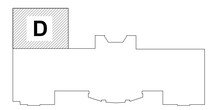
Sheet Number: **M2.02C**



SHEET NOTES - AREA A:

1. 16"Ø ACOUSTICAL FLEXIBLE TRANSFER BOOT.
2. CONTINUOUS RETURN AIR LINEAR SLOT DIFFUSER. INSTALL WITH FACTORY FURNISHED ACOUSTICALLY LINED RETURN PLENUM ABOVE LINEAR RETURN AIR GRILLE
3. REPROGRAM (E) DDV TO INDICATED SETPOINTS
4. REBALANCE (E) SUPPLY AIR DIFFUSER TO AIRFLOW VALUE INDICATED.





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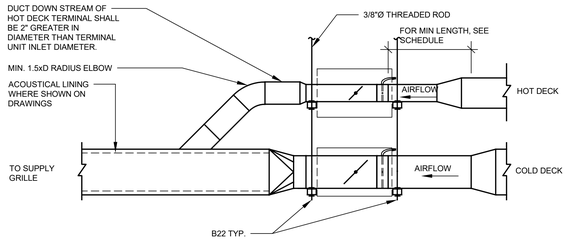
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

SECOND FLOOR MECHANICAL PLAN

Drawn By: MP/JH
Checked By: JH
Project Number: 2019031

Sheet Number: M2.02D



INLET DUCT SCHEDULE			
DIAMETER (IN.)	STRAIGHT RUN (IN.)		MAXIMUM
	MINIMUM	IDEAL (1)	
6	9	48	6 FT. OF INLET SIZE WITH NO BENDS
8	12	48	
10	15	48	
12	18	48	
14	21	48	
16	24	48	
24x16	32	48	

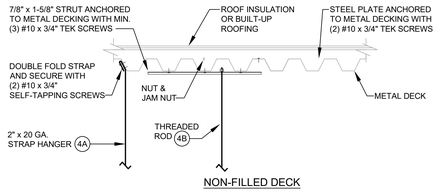
(1) PROVIDE AS CLOSE TO IDEAL LENGTH AS POSSIBLE, BUT NOT LESS THAN MINIMUM.

NOTES:

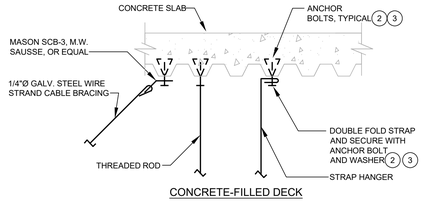
1. CONTROL BOX FOR BOTH TERMINAL UNITS SHALL BE ACCESSIBLE AND ON THE SAME SIDE OF EACH UNIT.
2. ALL DUCTWORK WITH BENDS OR TRANSITIONS BEFORE AND AFTER AIR TERMINAL SHALL BE AT LEAST 2" GREATER THAN THE AIR TERMINAL INLET DIAMETER.
3. MAINTAIN ACCESS IN FRONT OF AIR TERMINAL CONTROLLER;

4 STACKED DUAL DUCT INSTALLATION DETAIL

SCALE: NTS



NON-FILLED DECK



CONCRETE-FILLED DECK

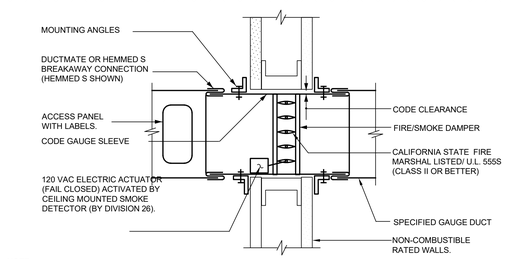
NOTES:

1. ATTACHMENTS APPLY TO DUCTWORK SUPPORTS AND PIPE SUPPORTS.
2. SEE DETAIL SPECIFICATION 23 05 29 FOR CONCRETE EMBEDMENT
3. ANCHOR SIZES ON OTHER DETAILS SUPERCEDE THIS REQUIREMENT.
4. MAXIMUM LOAD PER SUPPORT POINT:
   A. 150 LBS. MAX. AT 2'-0" MINIMUM SPACING.
   B. 300 LBS. MAX. AT 2'-0" MINIMUM SPACING.

5 ATTACHMENT TO STRUCTURE

SCALE: NTS

2

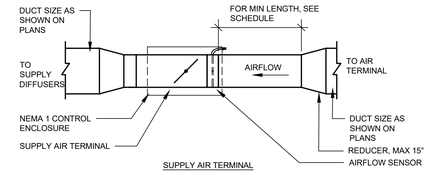


NOTE:

1. DETAIL IS SCHEMATIC IN NATURE. DAMPER INSTALLATION SHALL BE PERFORMED AS PER MANUFACTURER'S RECOMMENDATION AND APPROPRIATE LOCAL CODES.
2. DAMPER SHALL BE COMPLETED WITH FACTORY INSTALLED EFL & SP-1 OPTIONS. SMOKE DAMPER RESPONSE TIME SHALL MEET CBC 909.17.
3. FIRE/SMOKE DAMPER DETAIL IS FOR REFERENCE ONLY. FIRE/SMOKE DAMPER SHALL BE STATE FIRE MARSHAL APPROVED OR U.L. LISTED AND INSTALLED STRICTLY PER MANUFACTURER'S PRINTED INSTRUCTIONS. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE MADE AVAILABLE TO THE INSPECTION AUTHORITIES.
5. CSFM LISTING FOR SPECIFIED RUSKIN COMBINATION FIRE/SMOKE DAMPER (FSD36): 3235-0245:0124 EXP. 06/30/20
6. CSFM LISTING FOR SPECIFIED RUSKIN COMBINATION FIRE/SMOKE DAMPER (FSD60): 3235-0245:0126, EXP. 06/30/20.
6. RETAINING ANGLES FOR BOTH SIDES REFLECTED. ONE-SIDED UL APPROVED ANGLE CONFIGURATIONS ACCEPTABLE.
7. FSD TEST SWITCH SHOWN ABOVE CEILING IN DETAIL. INSTALL ABOVE CEILING IN CORRIDORS, LABS, AND OFFICES. LOCATE BELOW CEILING IN MECHANICAL, ELECTRICAL AND SERVICE SPACES. INSTALL FLUSH TO WALL IN LOCATIONS INSTALLED BELOW CEILINGS. CONTRACTOR TO LOCATE FSD TEST SWITCH TO ALLOW FOR CLEAR ACCESS.

6 COMBINATION FIRE SMOKE DAMPER INSTALLATION DETAIL

SCALE: NTS



SUPPLY AIR TERMINAL

INLET DUCT SCHEDULE			
DIAMETER (IN.)	STRAIGHT RUN (IN.)		MAXIMUM
	MINIMUM	IDEAL (1)	
6	9	48	6 FT. OF INLET SIZE WITH NO BENDS
8	12	48	
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16	24	48	
24x16	32	48	

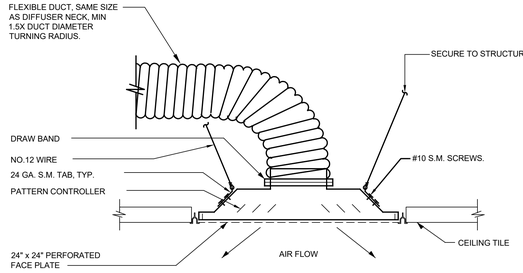
(1) PROVIDE AS CLOSE TO IDEAL LENGTH AS POSSIBLE, BUT NOT LESS THAN MINIMUM.

NOTES:

1. ALL DUCTWORK WITH BENDS OR TRANSITIONS BEFORE AND AFTER AIR TERMINAL SHALL BE AT LEAST 2" GREATER THAN THE AIR TERMINAL INLET DIAMETER.
2. MAINTAIN ACCESS IN FRONT OF AIR TERMINAL CONTROLLER;

1 TERMINAL BOX INSTALLATION DETAIL

SCALE: NTS

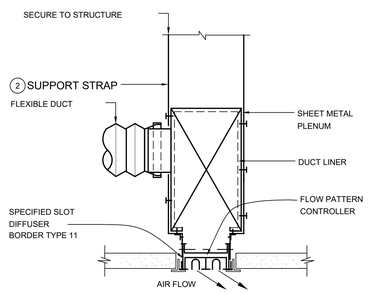


NOTES:

1. DIFFUSER FLANGE TO MATCH CEILING MFR'S. REQUIREMENTS.
2. THIS DETAIL ONLY APPLIES TO LOCATIONS WHERE 1.5 TIMES DUCT DIAMETER MIN. TURNING RADIUS CAN BE USED.

2 DIFFUSER IN LAY-IN CEILING

SCALE: NTS



NOTE:
1. SEE PLANS AND SPECIFICATIONS FOR CEILING TYPES.
2. 1" WIDE X 16 GAGE GALV. SHEET METAL STRAP.

3 SLOT DIFFUSER DETAIL

SCALE: NTS

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UCMERCED

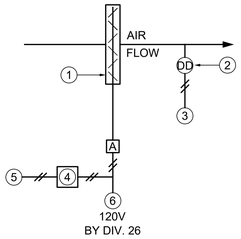
NO.	DATE	DESCRIPTION
2	03/18/2020	ADDENDUM #1
1	02/27/2020	PERMIT
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

DETAILS

Drawn By: JH
Checked By: JH
Project Number: 2019031

Sheet Number: M6.01



NOTES:

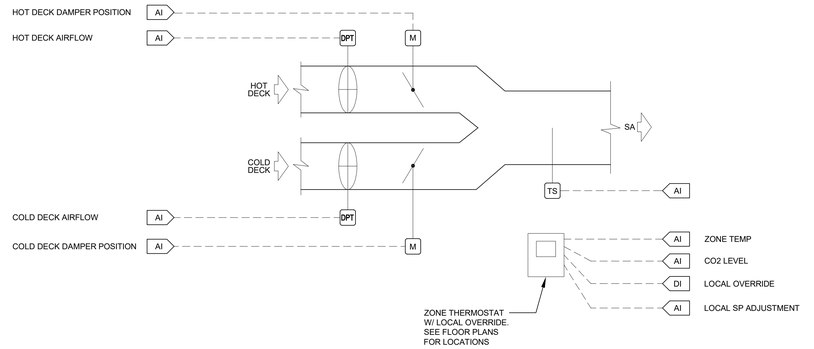
1. FIRE/SMOKE DAMPER.
2. DUCT-MOUNTED SMOKE DETECTOR FOR UNIT SHUT-DOWN. FURNISHED BY FIRE ALARM, INSTALLED BY MECHANICAL. FIRE ALARM CONTROL MODULE AT EACH FIRE/SMOKE DAMPER.
3. DUCT SMOKE DETECTOR MONITORED BY FA.
4. FIRE ALARM CONTROL MODULE AT EACH FIRE/SMOKE DAMPER.
5. FIRE/SMOKE DAMPER CONTROL SIGNAL TO FIRE ALARM CONTROL MODULE BY FIRE ALARM.
6. 120V. WIRE THROUGH FIRE ALARM CONTROL MODULE.

SEQUENCE OF OPERATIONS

FIRE ALARM SYSTEM TO ACTIVATE RESPECTIVE FIRE ALARM MODULE UPON DETECTOR ACTIVATION AND OPEN ON-BOARD NORMALLY-CLOSED AUXILIARY CONTACT TO INTERRUPT 120V POWER TO FIRE/SMOKE DAMPER ACTUATOR. FIRE/SMOKE DAMPER IS NORMALLY CLOSED AND IS HELD OPEN WHEN 120V POWER IS PRESENT AND CLOSES ON SPRING-DRIVE WITHOUT 120V POWER. FIRE ALARM SYSTEM TO EXERCISE FIRE/SMOKE DAMPERS ACCORDING TO OWNER-DIRECTED SCHEDULE (DURING UNOCCUPIED HOURS).

2 FIRE SMOKE DAMPER CONTROL MODULE

SCALE: NTS

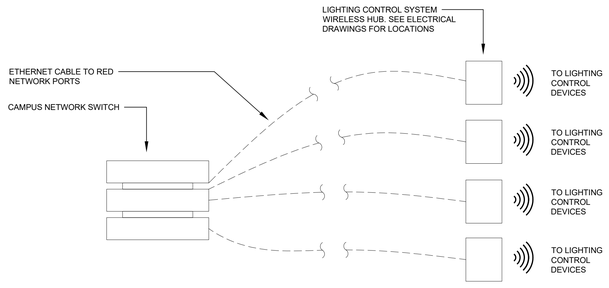


POINTS LIST

POINT NAME	TYPE	TRENDING		DEVICE	REMARKS
		Y/N	INTERVAL		
CD DAMPER POSITION	AO	Y	15 MIN	MODULATING ACTUATOR	1
CD AIRFLOW	AI	Y	15 MIN	DP TRANSDUCER	
HD DAMPER POSITION	AO	Y	15 MIN	MODULATING ACTUATOR	1
HD AIRFLOW	AI	Y	15 MIN	DP TRANSDUCER	
DISCHARGE AIR TEMP	AI	Y	15 MIN	THERMISTOR	
ZONE TEMP	AI	Y	15 MIN	THERMOSTAT	
LOCAL OVERRIDE	DI	Y	COV	PUSH BUTTON ON T-STAT	
ZONE SP ADJUSTMENT	AI	Y	COV	PUSH BUTTON ON T-STAT	
CO2 SENSOR	AI	Y	15 MIN	CO2 SENSOR	2

NOTES:

1. IF UTILIZING FLOATING CONTROL ACTUATOR, PROVIDE ADDITIONAL AI FOR DAMPER POSITION FEEDBACK
2. WHERE NOTED ON PLANS



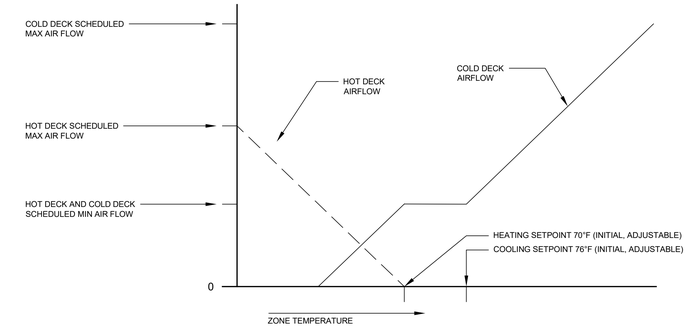
SEQUENCE OF OPERATION:

THE BUILDING AUTOMATION SYSTEM (BAS) SHALL INTEGRATE WITH THE LIGHTING CONTROL SYSTEM (LCS) VIA BACNET IP INTERFACE. THIS SHALL BE ACCOMPLISHED AS FOLLOWS:

1. THE BAS SHALL HAVE A USER ADJUSTABLE OCCUPANCY SCHEDULE
2. THE BAS SHALL SEND A MULTISTATE VALUE TO LCS TO ADJUST THE OCCUPANCY MODE OF PREPROGRAMED LIGHTING CONTROL AREAS. LIGHTING CONTROL AREAS SHALL BE PREPROGRAMED WITHIN THE LCS. EACH LIGHTING CONTROL AREA SHALL HAVE AN INDIVIDUAL BACNET ADDRESS. COORDINATE WITH DIVISION 26 TO DETERMINE THE NUMBER OF LIGHTING CONTROL AREAS.

4 LIGHTING CONTROL INTERFACE

SCALE: NTS



GENERAL NOTES:

1. ALL CONTROL HARDWARE SHALL BE FURNISHED AND INSTALLED BY THE BUILDING DDC CONTROLS CONTRACTOR
2. PROVIDE GRAPHIC USER INTERFACE FOR EACH ZONE.
3. REFERENCE FLOOR PLANS AND SCHEDULES FOR EXACT NUMBER OF TERMINALS PER ZONE.
4. CONTROL SEQUENCE APPLIES ONLY TO DUAL DUCT TERMINAL UNITS WITH AIRFLOW SENSORS ON EACH INLET.

SEQUENCE OF OPERATION:

SEE SPECIFICATION 23 09 00 SECTION 3.13 - C - 1

1 DUAL DUCT TERMINAL UNIT CONTROL DIAGRAM

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CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

CONTROL DIAGRAMS

Drawn By: MP/JH
Checked By: DP
Project Number: 2019031

Sheet Number: **M7.01**

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	E3.01A	FIRST FLOOR AREA A NEW POWER & SIGNAL PLAN
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2	E3.02A	SECOND FLOOR AREA A NEW POWER & SIGNAL PLAN
	E3.02B	SECOND FLOOR AREA B NEW POWER & SIGNAL PLAN
	E3.02C	SECOND FLOOR AREA C NEW POWER & SIGNAL PLAN
	E3.02D	SECOND FLOOR AREA D NEW POWER & SIGNAL PLAN
	E3.03A	THIRD FLOOR AREA A NEW POWER & SIGNAL PLAN
	E3.03B	THIRD FLOOR AREA B NEW POWER & SIGNAL PLAN
	E3.03C	THIRD FLOOR AREA C NEW POWER & SIGNAL PLAN
	E4.01	DETAILS AND DIAGRAMS

ABBREVIATIONS

A	AMPERES
AFF	ABOVE FINISHED FLOOR
C	CONDUIT
CO	CONDUIT ONLY
(E)	EXISTING TO REMAIN
FACP	FIRE ALARM CONTROL PANEL
G OR GRD	GROUND
(N)	NEW
NIC	NOT IN CONTRACT
Φ OR PH	PHASE
(R)	EXISTING TO BE REMOVED
(RL)	RELOCATED
(RR)	EXISTING TO BE REMOVED AND RELOCATED
TYP	TYPICAL
UCM	UNIVERSITY OF CALIFORNIA MERCED
UON	UNLESS OTHERWISE NOTED

FIRE ALARM GENERAL NOTES

1. IT IS INTENDED THAT THE FIRE ALARM SYSTEM WILL BE SUBJECT TO DELEGATED DESIGN APPROVAL BY THE CAMPUS FIRE MARSHALL. THE CONTRACTOR IS RESPONSIBLE FOR LAYING OUT DEVICES IN COMPLIANCE WITH CODE AND THE SUBMITTAL OF COMPLETE SHOP DRAWINGS INCLUDING INSTALLATION DETAILS AND CALCULATIONS REQUIRED FOR OBTAINING APPROVAL BY THE CAMPUS FIRE MARSHALL.
2. THE FIRE ALARM AND SMOKE DETECTION SYSTEM SHALL CONFORM TO ARTICLE 3-760 OF PART 3, TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS.
3. INSTALLATION OF THE FIRE ALARM AND SMOKE DETECTION SYSTEM SHALL NOT BE STARTED UNTIL DETAILED PLANS AND SPECIFICATIONS, INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAVE BEEN APPROVED. PLANS SHALL INCLUDE BUT NOT LIMITED TO:
   - A. SCOPE OF PROJECT.
   - B. FLOOR PLANS SHOWING FIRE ALARM DEVICES AND EQUIPMENT.
   - C. RISER DIAGRAM.
   - D. POINT TO POINT DIAGRAMS AND DEVICE WIRING DIAGRAMS.
   - E. CALIFORNIA STATE FIRE MARSHAL LISTING SHEET ON ALL FIRE ALARM EQUIPMENT.
   - F. MANUFACTURER'S SPECIFICATION SHEET ON ALL FIRE ALARM EQUIPMENT, INCLUDING A STATEMENT OF COMPATIBILITY (WITH DETAILS AS NECESSARY TO ILLUSTRATE) FROM THE MANUFACTURER.
   - G. BATTERY CALCULATIONS AND VOLTAGE DROP CALCULATIONS.
   - H. LEGEND OF SYMBOLS FOR ALL FIRE ALARM DEVICES.
   - I. ELEVATION DETAIL OF DEVICES INSTALLATION.
   - J. LOCATION OF FIRE OR SMOKE BARRIER WALLS ON FLOOR PLAN.
   - K. IDENTIFICATION OF TYPE OF WIRING USED, INCLUDING GAUGE AND WIRE COUNTS AND SIZE OF CONDUITS.
   - L. DESIGN NUMBER AND DETAIL OF THROUGH PENETRATION FIRESTOP SYSTEM.
   - M. FLOOR PLAN SHOWING ROOM NAMES.
   - N. SEQUENCE OF OPERATION AND EVENTS WHEN ALARM SYSTEM IS ACTIVATED.
4. AT VARIOUS STAGES AND UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM AND SMOKE DETECTION SYSTEM, SATISFACTORY TESTS OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE AUTHORITIES HAVING JURISDICTION.
5. DRAWINGS SHALL BE IN AUTOCAD, LATEST VERSION.
6. REFER TO ARCHITECTURAL CEILING PLANS AND ELEVATIONS FOR PLACEMENT OF CEILING AND WALL MOUNTED DEVICES.
7. SCOPE OF WORK SHALL INCLUDE, BUT NOT LIMIT TO, THE FOLLOWING FOR A COMPLETE OPERATIONAL SYSTEM.
   - A. REMOVE EXISTING DEVICES AS INDICATED ON PLANS.
   - B. RELOCATE EXISTING DEVICES AS INDICATED ON PLANS.
   - C. PROVIDE NEW DEVICES AS INDICATED ON PLANS.
   - D. PROVIDE ALL NECESSARY CONDUITS, CABLES AND CONNECTIONS REQUIRED.
   - E. PROVIDE NEW POWER SUPPLY/BOOSTER PANEL REQUIRED TO ACCOMMODATE NEW DEVICES.
   - F. RE-PROGRAMMING OF EXISTING NOTIFIER SYSTEM.
   - G. SCHEDULE AND SUBMIT SHUTDOWN REQUEST TWO WEEKS IN ADVANCE TO THE UNIVERSITY FOR APPROVAL, PROVIDE FIRE-WATCH AS REQUIRED. THE BUILDING SHALL NOT BE WITHOUT FIRE DETECTION (WHETHER BY THE FIRE ALARM SYSTEM OR FIRE-WATCH) AT ANY GIVEN TIME, UNLESS APPROVED BY THE UNIVERSITY.
9. EXISTING FIRE ALARM SYSTEM TO REMAIN IN SERVICE WHILE CONSTRUCTION IS UNDERWAY.
10. CONTRACTOR IS RESPONSIBLE FOR NOTIFYING UCM DISPATCH OF WORK IN THE BUILDING OF SYSTEM IN TROUBLE/TEST DURING CONSTRUCTION HOURS. REMOVAL OF SMOKE DETECTORS MAY BE REQUIRED IN CONSTRUCTION ZONES. DCFM TO MAKE FINAL DETERMINATION.

GENERAL NOTES

1. IDENTIFY AND MAINTAIN AT ALL TIME ALL UTILITIES REQUIRED FOR THE CONTINUOUS OPERATION OF ALL EXISTING FACILITIES.
2. WHERE EXISTING CONSTRUCTION IS CUT, DAMAGED OR REMODELED, PATCH WITH MATERIALS TO MATCH IN KIND, QUALITY, AND PERFORMANCE.
3. ALL ELECTRICAL WORK SHALL BE MOUNTED FLUSH WITH FINISHED SURFACES UNLESS OTHERWISE SPECIFIED. ALL CONDUITS SHALL BE CONCEALED UNLESS OTHERWISE NOTED.
4. MINIMUM SIZE OF HOMERUN CONDUIT FOR RECEPTACLE OR LIGHTING BRANCH CIRCUIT HOMERUN: 3/4" INSIDE DIAMETER.
5. MAXIMUM NUMBER OF 1-POLE BRANCH CIRCUITS (15A, 20A, OR 30A) PER HOMERUN CONDUIT: THREE CIRCUITS UNLESS OTHERWISE SHOWN.
6. UPDATE EXISTING PANEL CIRCUIT DIRECTORY IN ACCORDANCE WITH LATEST CIRCUITRY FOR ALL PANELS AFFECTED BY THIS PROJECT, DIRECTORY SHALL BE TYPEWRITTEN. PROVIDE CIRCUIT DIRECTORY IN ALL NEW PANELS.
7. CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL EQUIPMENT, PROVIDED BY OTHER TRADES, IN FIELD PRIOR TO ROUGHING-IN.
8. VERIFY WITH ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT OF ALL FIXTURES AS REQUIRED.
9. CONDUITS AND LIGHTING FIXTURES SHALL NOT BE MOUNTED TO BUS OR VENT DUCTS OR CABLE RACKS. UNISTRUT P-1000 SHALL BE SUSPENDED BELOW OR TIGHT TO BOTTOM OF DUCT WITH 3/8" THREADED STEEL RODS HUNG FROM STRUCTURE ABOVE. DO NOT SUPPORT CONDUITS AND LIGHTING FIXTURES WITH SUSPENDED CEILING SUPPORT SYSTEM.
10. OPENINGS THRU CEILING FOR CONDUITS AND CABLES SHALL BE COVERED WITH ESCUTCHEON PLATES.
11. ALL CONDUITS THRU WALL AND FLOOR SHALL BE SEALED AIR-TIGHT AROUND CONDUIT OPENING. FIREPROOFING OF CONDUIT PENETRATIONS SHALL BE MAINTAINED IN COMPLIANCE WITH THE LATEST EDITION OF UL FIRE RESISTANCE DIRECTORY, VOLUME 2.
12. PROVIDE GROUND WIRE IN ALL CONDUITS. SIZE AND CONNECT GROUND WIRE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE AND CALIFORNIA ELECTRICAL CODE.
13. ALL CONDUIT STUB OUTS MUST BE TERMINATED WITH GROUNDING BUSHINGS. PROVIDE PULL WIRES IN ALL EMPTY CONDUITS.
14. PRIOR TO INSTALLING OUTLET BOXES, CONTRACTOR SHALL COORDINATE WITH ARCHITECTURAL DRAWINGS FOR INTERFERENCE WITH FURNISHING.
15. ALL HOLES AND OPENINGS CREATED BY DEMOLITION WORK SHALL BE PATCH, SEALED AND PAINTED TO MATCH EXISTING.
16. PROVIDE DEDICATED NEUTRAL CONDUCTOR FOR ALL 120V AND 277V CIRCUITS.
17. CONTRACTOR SHALL SUBMIT METHOD OF PROCEDURE (MOP) FOR EACH ELECTRICAL SHUTDOWN. SCHEDULE AND SUBMIT REQUEST FOR SHUTDOWN AT LEAST TWO WEEKS IN ADVANCE FOR APPROVAL, REFER TO DIVISION 1 FOR ADDITIONAL REQUIREMENT. CONTRACTOR SHALL ANTICIPATE ALL WORK REQUIRE SHUTDOWN OF BUILDING UTILITIES, AFFECTING OTHER USERS/FLOORS BE PERFORMED AFTER HOURS.
18. WHEN EQUIPMENT/DEVICES ARE SHOWN TO BE REMOVED, REMOVED ALL CONDUIT & WIRING BACK TO PANEL OF ORIGIN OR NEXT ACTIVE DEVICE, UNLESS OTHERWISE NOTED.
19. WHEN EQUIPMENT/DEVICES ARE SHOWN TO BE REMOVED, PROVIDE NECESSARY CONDUIT & WIRING TO RE-ROUTE EXISTING CIRCUIT TO MAINTAIN CIRCUIT CONTINUITY TO OTHER EQUIPMENT/DEVICES THAT ARE SERVED BY THE SAME CIRCUIT/CONDUIT.
20. WHERE EXISTING WIRING DEVICE IS BEING REMOVED BUT REMOVAL OF THE FLUSH MOUNTED OUTLET BOX IS NOT FEASIBLE, PROVIDE BLANK COVERPLATE AT EXISTING OUTLET BOX.
21. PROVIDE ACOUSTIC PUTTY BEHIND ALL WALL MOUNTED BACK BOXES.
22. ALL WIRING SHALL BE RUN IN CONDUIT UNLESS OTHERWISE NOTED.
23. COORDINATE EXACT POINT OF CONNECTION AT ELECTRIFIED FURNITURE PARTITION IN FIELD WITH OTHER TRADE PRIOR TO ROUGHING IN OF POWER AND DATA BOXES.
24. WHERE THERE IS NO CLEAR AND/OR ACCESSIBLE PATH IN THE CEILING BETWEEN THE FIELD DEVICES AND THE IDF ROOM, CONTRACTOR SHALL PROVIDE CONDUIT FOR ROUTING OF DATA CABLES.

SYMBOL LEGEND

- JUNCTION BOX, WALL MOUNTED.
- JUNCTION BOX, CEILING MOUNTED.
- P — WALL MOUNTED JUNCTION BOX WITH FLEXIBLE CONDUIT AND CONNECTOR FOR FURNITURE SYSTEM (POWER), +18" AFF U.O.N.
- D — WALL MOUNTED JUNCTION BOX WITH FLEXIBLE CONDUIT AND CONNECTOR FOR FURNITURE SYSTEM (DATA), +18" AFF U.O.N. PROVIDE 2-GANG BACK BOX WITH 1-1/4" CO STUB TO ACCESSIBLE CEILING SPACE.
- 2 — P P — FLUSH MOUNTED FLOOR BOX FOR FURNITURE SYSTEM (POWER), "PIGTAIL", WHEN SHOWN, INDICATES WITH FLEXIBLE CONDUIT CONNECTION.
- D D — FLUSH MOUNTED FLOOR BOX FOR FURNITURE SYSTEM (DATA), "PIGTAIL", WHEN SHOWN, INDICATES WITH FLEXIBLE CONDUIT CONNECTION.
- FSD — FIRE/SMOKE DAMPER, PROVIDED BY DIVISION 23 AND CONNECTED BY DIVISION 26. PROVIDE REMOTE TEST SWITCH WITH INDICATOR LIGHT UNDER DIVISION 26.
- R — FIRE ALARM MONITOR/CONTROL RELAY MODULE.
- F — WALL MOUNTED FIRE ALARM MANUAL PULL STATION.
- SD — WALL MOUNTED FIRE SMOKE DETECTOR.
- DD — FIRE ALARM DUCT MOUNTED SMOKE DETECTOR.
- V — WALL MOUNTED FIRE ALARM STROBE LIGHT, +80" AFF.
- F — WALL MOUNTED FIRE ALARM HORN/STROBE, +80" AFF.
- V — CEILING MOUNTED FIRE ALARM STROBE.
- F — CEILING MOUNTED HORN/STROBE.
- D — WALL MOUNTED MAGNETIC DOOR HOLDER.
- 1 — SHEET NOTE TAG.
- 1 / E4.01 — DETAIL AND DIAGRAM TAG.
- L1 — LIGHTING FIXTURE TAG.
- 2 — FLUSH WALL MOUNTED "FSR" TYPE A/V BOX FURNISHED BY OWNER, INSTALLED BY CONTRACTOR. PROVIDE ONE DUPLEX RECEPTACLE AND ONE DATA OUTLET INSIDE THE BOX. PROVIDE 1-1/4" CONDUIT STUB TO ACCESSIBLE CEILING SPACE, UNLESS OTHERWISE NOTED. REFER TO ID7 SERIES DRAWINGS FOR EXACT LOCATION OF A/V BOX.
- P J — FLUSH MOUNTED FLOOR BOX (POWER).
- D J — FLUSH MOUNTED FLOOR BOX (DATA).

- LA-2,4,6 — INDIVIDUAL CONDUIT HOMERUN TO PANEL OR EQUIPMENT WITH DESTINATION AS SHOWN. SEE GENERAL NOTES FOR WIRING REQUIREMENTS. #12 AWG CONDUCTORS, UNLESS OTHERWISE NOTED.
  - LA-2,4,6 = PANEL LA DESTINATION, CIRCUIT #2, 4 & 6 (THREE 1-POLE CIRCUITS)
  - LA-2/4/6 = (ONE 3-POLE CIRCUIT)
- CONDUIT AND WIRING CONCEALED IN CEILING OR WALLS.
- CAPPED CONDUIT.
- CONDUIT AND WIRING IN SLAB OR CEILING SPACE BELOW.
- CONNECTION TO EQUIPMENT.
- SURFACE MOUNTED PANELBOARD, +6'-6" TO TOP OF PANEL.
- RECESS MOUNTED PANELBOARD, +6'-6" TO TOP OF PANEL.
- LOW-VOLTAGE CIRCUIT BREAKER.
- 2a — CEILING MOUNTED LIGHT FIXTURE.
- 2a — CEILING MOUNTED LIGHT FIXTURE.
- CEILING MOUNTED DOWNLIGHT FIXTURE.
- EXIT SIGN WITH DIRECTIONAL ARROW SHOWN. SHADED AREA INDICATES FACE OF EXIT SIGN, CEILING MOUNTED, WALL MOUNTED.
- $D — WALL MOUNTED LINEAR SLIDING DIMMER SWITCH WITH ON/OFF, +45"AFF
- $a — SINGLE POLE WALL MOUNTED DECORATIVE ROCKER SWITCH, +45" AFF. "a" = CIRCUIT OR OUTLET CONTROLLED.
- $aM — WALL MOUNTED OCCUPANCY SENSOR WITH INTEGRAL ON/OFF SWITCH.
- L — LIGHTING CONTROL SYSTEM LOW-VOLTAGE OVERRIDE SWITCH.
- OC — CEILING MOUNTED OCCUPANCY SENSOR. (NEW DEVICE IS LUTRON VIVE SYSTEM)
- OC — WALL MOUNTED "HALLWAY" TYPE OCCUPANCY SENSOR (NEW DEVICE IS LUTRON VIVE SYSTEM)
- PS — CEILING MOUNTED PHOTOSENSOR. (NEW DEVICE IS LUTRON VIVE SYSTEM)

LUTRON VIVE SYSTEM LIGHTING CONTROL, SEE DETAIL 7/E4.01

2
- HUB — CEILING MOUNTED WIRELESS HUB WITH POWER SUPPLY.
- PPR — CEILING MOUNTED POWER PACK RELAY MODULE.
- EPPR — CEILING MOUNTED EMERGENCY POWER PACK RELAY MODULE.
- OC — CEILING MOUNTED OCCUPANCY SENSOR.
- OC — WALL MOUNTED "HALLWAY" TYPE OCCUPANCY SENSOR, +7'-6"AFF.
- PS — CEILING MOUNTED DAYLIGHT SENSOR.
- S — WALL MOUNTED DIMMER SWITCH, +45"AFF.

LIGHTING NOTES:
- LOWER CASE LETTER ("a", "b", ETC.) SHOWN ADJACENT TO FIXTURE INDICATES SWITCHING ARRANGEMENT.
- NUMBER ("2", "3", ETC.) SHOWN ADJACENT TO FIXTURE INDICATES CIRCUIT NUMBER.
- "NL" SHOWN ADJACENT INDICATES NIGHT-LIGHT FIXTURE.
- HATCHED FIXTURE (▨) OR WITH "EM" SHOWN ADJACENT TO FIXTURE INDICATES FED BY EMERGENCY POWER.

- 2 C G WP — DUPLEX RECEPTACLE, 20A, 125V, 2P, 3WG, WALL MOUNTED +18"AFF. RATING AND MOUNTING HEIGHT APPLIES TO ALL RECEPTACLES, U.O.N.
- FOURPLEX RECEPTACLE, WALL MOUNTED.
- HALF SWITCHES DUPLEX RECEPTACLE, WALL MOUNTED.
- DUPLEX RECEPTACLE, CEILING MOUNTED.
- SPECIAL PURPOSE RECEPTACLE, WALL MOUNTED. REFER TO FLOOR PLAN FOR RATING.
- DUPLEX RECEPTACLE, FLOOR MOUNTED.

RECEPTACLE NOTES:
SUBSCRIPT ADJACENT TO RECEPTACLE SYMBOL INDICATES:
- G = WITH GROUND FAULT CIRCUIT INTERRUPTER
- 2 = "NUMBER" INDICATES CIRCUIT NUMBER
- C = +6" ABOVE COUNTER
- WP = WEATHERPROOF WITH IN-USE TYPE "BUBBLE" COVER

- WAP — 2 — DATA OUTLET, WALL MOUNTED, 2-GANG BACK BOX WITH 1" CO STUB TO ACCESSIBLE CEILING SPACE, +18"AFF, U.O.N. "WAP" = FOR WIRELESS ACCESS POINT WHEN SHOWN, +7'-6"AFF OR TO MATCH EXISTING.
- WAP — CEILING MOUNTED DATA OUTLET, 2-GANG BACK BOX WITH 1" CO STUB TO ACCESSIBLE CEILING SPACE. "WAP" = FOR WIRELESS ACCESS POINT, WHEN SHOWN.
- FLOOR MOUNTED DATA OUTLET.
- AV — 2 — AV SYSTEM OUTLET, WALL MOUNTED, 2-GANG BACK BOX WITH 1" CO STUB TO ACCESSIBLE CEILING SPACE, +18" AFF U.O.N. REFER TO ID7 SERIES DRAWINGS FOR EXACT LOCATION OF NEW OUTLETS.
- AV — FLOOR MOUNTED AV OUTLET
- S — CEILING MOUNTED SPEAKER. PROVIDE 2-GANG BACK BOX.
- CR — CARD READER, +45"AFF. PROVIDE 2-GANG BACK BOX WITH 1"CO STUB IN ACCESSIBLE CEILING SPACE.
- DB — DURESS BUTTON, +45"AFF. PROVIDE 2-GANG BACK BOX WITH 1"CO STUB IN ACCESSIBLE CEILING SPACE.
- WP — 60A/2P — NON-FUSED DISCONNECT SWITCH, HP RATED WITH OVERLOAD FOR MOTOR LOAD, VOLTAGE RATING AS REQUIRED BY LOAD.
  - WP = NEMA 3R WEATHERPROOF ENCLOSURE.
  - 60A/2P = 60A SWITCH RATING, 2-POLE. PROVIDE 30A/3P IF NOT MARKED.

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SAN FRANCISCO, CA 94109
TELEPHONE (415) 474-9500
FAX (415) 474-1363

REGISTERED PROFESSIONAL ENGINEER BENSON NG E 16075 Exp.12-31-21 ELECTRICAL

UCMERCED

NO.	DATE	DESCRIPTION
2	03/18/2020	ADDENDUM #1
1	02/27/2020	PERMIT
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

SYMBOL LEGEND, GENERAL NOTES, ABBREVIATIONS, DRAWING INDEX

Drawn By: RC
Checked By: RC
Project Number: 2019031
Sheet Number: E0.01

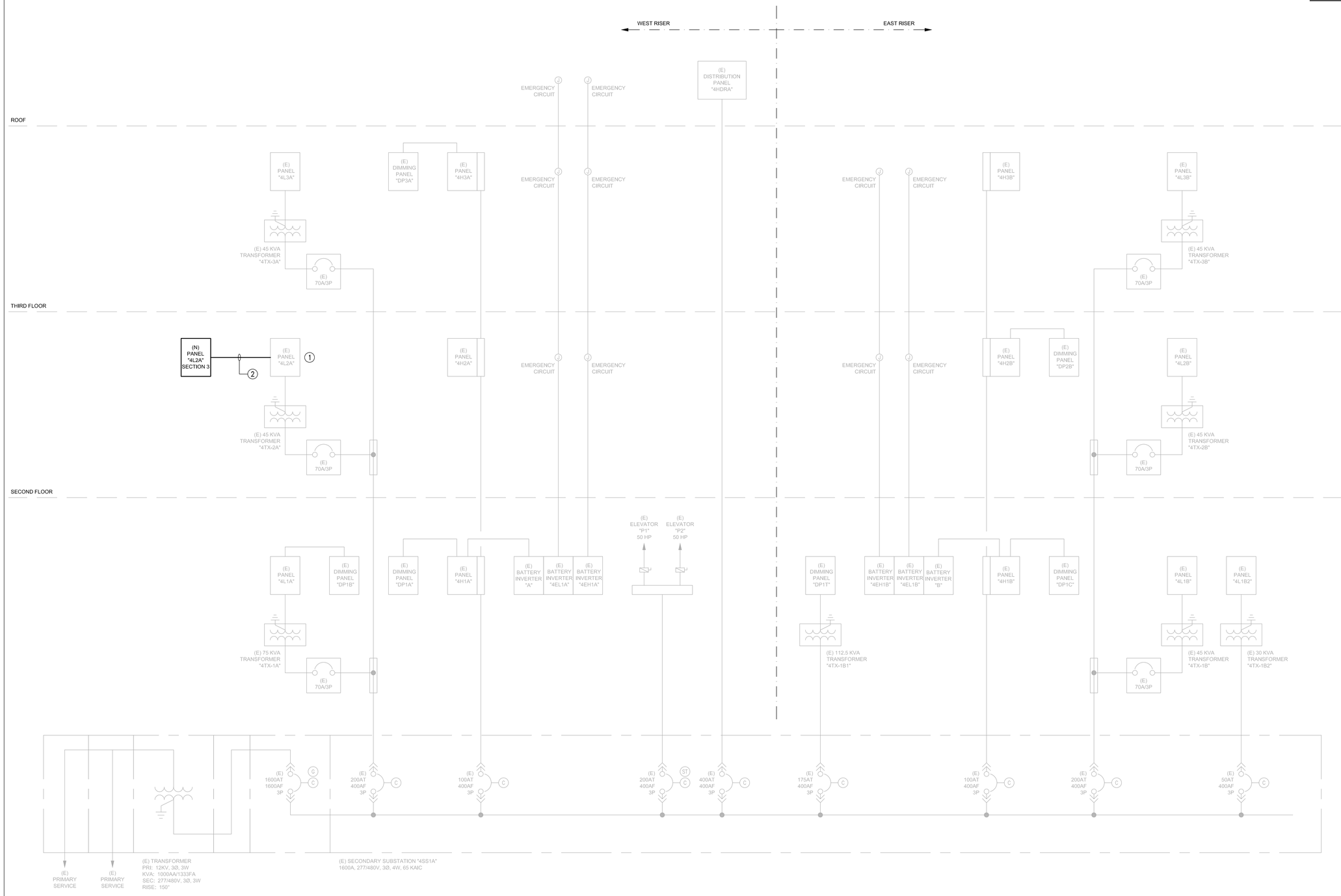
LEGEND:

INDICATES EXISTING

INDICATES NEW

SHEET NOTES:

1. REMOVE THREE 20A/1P BREAKERS FROM CIRCUIT No. 32, 34 & 36 AND REPLACE WITH NEW 50A/3P BREAKER. NEW BREAKER TYPE AND AIC RATING TO MATCH EXISTING. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO INTERCEPT & EXTEND THE THREE 120V CIRCUITS AND RECONNECT TO NEW SECTION 3.
2. 4#6 + 1#10G IN 1"C.



1 SINGLE LINE DIAGRAM

SCALE: NONE

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REGISTERED PROFESSIONAL ENGINEER BENSON NGO E 16075 Exp. 12-31-21 ELECTRICAL STATE OF CALIFORNIA

UCMERCED

NO.	DATE	DESCRIPTION
2	03/18/2020	ADDENDUM #1
1	02/27/2020	PERMIT
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION

UNIVERSITY OF CALIFORNIA, MERCED

SINGLE LINE DIAGRAM

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: E0.02

LIGHTING FIXTURE SCHEDULE

FIXTURE TYPE	DESCRIPTION	LAMP TYPE	VOLT	WATTAGE	MANUFACTURER'S & CATALOG NO.
L1	PENDANT MOUNTED LINEAR DIRECT/INDIRECT 3 LIGHT ENGINE LED FIXTURE WITH 0-10V DIMMING DRIVER, CLEAR TOP AND WHITE CROSS BAFFLE DOWN SHIELDING, STANDARD-UP, VERY HIGH-DOWN OUTPUT, FULLY ADJUSTABLE AIRCRAFT CABLES. MOUNTING FOR LAY-IN T-BAR CEILING. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING HEIGHT. PROVIDE LENGTH OF CONTINUOUS RUN INDICATED ON PLAN.	LED 80 CRI 3500K 1006 LUMENS PER FOOT	277	8.6 PER FOOT	FINELITE #S16LEDID-DCO-X'-3E-S/V-835-OPEN-277-SC-FA-FE-X OR APPROVED EQUAL
L1A	SAME CONSTRUCTION AS TYPE "L1" EXCEPT WITH BOOSTED STANDARD-UP, VERY HIGH-DOWN OUTPUT.	LED 80 CRI 3500K 1124 LUMENS PER FOOT	277	9.6 PER FOOT	FINELITE #S16LEDID-DCO-X'-3E-B/V-835-OPEN-277-SC-FA-FE-X OR APPROVED EQUAL
L2	7" DIA. RECESS MOUNTED LED DOWNLIGHT WITH 0-10V DIMMING DRIVER, OPEN REFLECTOR TRIM, MEDIUM DISTRIBUTION, CLEAR SEMI-SPECULAR ANODIZE FINISH. MOUNTING FOR GYP BOARD CEILING.	LED 80 CRI 3500K 3000 LUMENS	277	30	LIGHTOLIER 7R-N-C6L-30-835-M-Z10-U-C7-R-DL-NM-CL OR APPROVED EQUAL
L2A	SAME CONSTRUCTION AS TYPE "L2" EXCEPT WITH DIFFERENT LUMENS OUTPUT.	LED 80 CRI 3500K 2000 LUMENS	277	22	LIGHTOLIER 7R-N-C6L-20-835-M-Z10-U-C7-R-DL-NM-CL OR APPROVED EQUAL
L3	2'x2' RECESS MOUNTED LED FIXTURE WITH 0-10V DIMMING DRIVER, FLAT DOOR STYLE, STANDARD OUTPUT. MOUNTING FOR LAY-IN T-BAR CEILING.	LED 80 CRI 3500K 3397 LUMENS	277	28.5	FINELITE #HPRLED-F-2X2-DCO-S-835-277V-SC-X OR APPROVED EQUAL
L4	6-3/4" DIA x 9-1/4"H SURFACE MOUNTED CYLINDER TYPE LED DOWNLIGHT WITH 0-10V DIMMING DRIVER, MEDIUM BEAM, SPECULAR CLEAR REFLECTOR FINISH, WHITE CYLINDER FINISH. MOUNTING FOR GYP BOARD CEILING.	80 CRI 3500K 2000 LUMENS	277	19	LIGHTOLIER C6-S-DL-20-835-M-Z10-U-CL-W OR APPROVED EQUAL
L4A	SAME CONSTRUCTION AS TYPE "L4" EXCEPT WITH DIFFERENT LUMENS OUTPUT.	80 CRI 3500K 1000 LUMENS	277	9	LIGHTOLIER C6-S-DL-10-835-M-Z10-U-CL-W OR APPROVED EQUAL
L5	WALL MOUNTED FULLY INDIRECT LED FIXTURE WITH 0-10V DIMMING DRIVER, WHITE FINISH. MOUNT NEW FIXTURE AT THE SAME ELEVATION AS THE EXISTING FIXTURE BEING REMOVED. PROVIDE LENGTH OF FIXTURE AS INDICATED ON PLAN.	80 CRI 3500K 4500 LUMENS PR 4 FOOT	277	40.2 PER 4 FOOT	LEDALITE #77-0-X-L-B-C-AA-X-7-D-E-W OR APPROVED EQUAL
x1	DIE-CAST ALUMINUM EXIT SIGN, UNIVERSAL MOUNTING WITH WHITE STENCIL FACE AND HOUSING, GREEN LED LETTERS. PROVIDE NUMBER OF FACES AND DIRECTIONAL ARROW AS SHOWN ON PLANS.	GREEN LED	UNV	1.32	LITHONIA #LE-S-W-_-G OR APPROVED EQUAL

2

LIGHTING FIXTURE SCHEDULE NOTES:

1. WHEN FIXTURES BY OTHER MANUFACTURER ARE PROPOSED, CONTRACTOR SHALL PROVIDE PHOTOMETRIC CALCULATIONS FOR REVIEW AND APPROVAL TO ENSURE DESIGNED FOOT-CANDLE REQUIREMENT ARE MET.
2. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN FOR FIXTURE LAYOUT.
3. REFER TO DETAIL & DIAGRAM SHEET(S) FOR LIGHTING CONTROL DIAGRAMS AND MOUNTING DETAILS.

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 7/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: UC Merced COB#1 Remodel	Report Page:	Page 4 of 6
Project Address: 5200 North Lake Rc. Merced, CA 95343	Date Prepared:	02/21/2020

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE
This Section Does Not Apply

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY
This Section Does Not Apply

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING
This Section Does Not Apply

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS
This Section Does Not Apply

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE
This Section Does Not Apply

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))
This Section Does Not Apply

Q. RATED POWER REDUCTION COMPLIANCE FOR ALTERATIONS
This Section Does Not Apply

R. 80% LIGHTING POWER FOR ALTERATIONS - CONTROLS EXCEPTIONS
This Section Does Not Apply

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)
This Section Does Not Apply

T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www2.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 7/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: UC Merced COB#1 Remodel	Report Page:	Page 1 of 6
Project Address: 5200 North Lake Rc. Merced, CA 95343	Date Prepared:	02/21/2020

This document is used to demonstrate compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6, and §141.0(b)2 for indoor lighting scopes using the prescriptive path.

A. GENERAL INFORMATION

01	Project Location (city)	Merced, CA	04	Total Conditioned Floor Area (ft²)	4,119
02	Climate Zone	3	05	Total Unconditioned Floor Area (ft²)	
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	

☑ Office ☐ Retail ☐ Warehouse ☐ Hotel/Motel ☑ School ☐ Support Areas
☐ Parking Garage ☐ High-Rise Residential ☐ Relocatable ☐ Healthcare ☐ Other (write in):

B. PROJECT SCOPE
Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
	01	02	03	04
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☑ New Lighting System	Area Category	4,119		
☐ Altered Lighting System				
Total Area of Work (ft²)	4,119			

C. COMPLIANCE RESULTS
Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts) 01 Complete Building §140.6(c)1	02 Area Category §140.6(c)2	03 Area Category Additional §140.6(c)2G (+)	04 Tailored §140.6(c)3 (+)		05 Total Allowed (Watts)		Adjusted Lighting Power per §140.6(a) (Watts) 06 Total Designed (Watts)	07 Adjustments PAF Control Credits §140.6(a)2 (-)		08 Total Adjusted (Watts) *Includes Adjustments	Compliance Results 09 05 Must be ≥ 08 §140.6
	(See Table I)	(See Table I)	(See Table J)	(See Table K)				(See Table F)	(See Table P)			
Conditioned:		2,733.7			=	2,733.7	≥	1,924.2		=	1,924.2	COMPLIES
Unconditioned:					=		≥			=		

Table Continued

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 7/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: UC Merced COB#1 Remodel	Report Page:	Page 5 of 6
Project Address: 5200 North Lake Rc. Merced, CA 95343	Date Prepared:	02/21/2020

YES	NO	Form/Title	Field Inspector Pass	Fail
◉	○	NRCI-LTI-01-E - Must be submitted for all buildings	☐	☐
◉	○	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	☐	☐

U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

YES	NO	Form/Title	Field Inspector Pass	Fail
◉	○	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	☐	☐
◉	○	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	☐	☐
○	◉	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	☐	☐
○	◉	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	☐	☐
○	◉	NRCA-ENV-03-F - Must be submitted for daylighting design power adjustment factors (PAF).	☐	☐

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 7/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: UC Merced COB#1 Remodel	Report Page:	Page 2 of 6
Project Address: 5200 North Lake Rc. Merced, CA 95343	Date Prepared:	02/21/2020

Controls Compliance (See Table H for Details)	
Rated Power Reduction Compliance (See Table Q for Details)	**Not Applicable**

D. EXCEPTIONAL CONDITIONS
This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

Selections made in Table T have been changed by the permit applicant. See Table E. Additional Remarks for permit applicant's explanation.

Selections made in Table U have been changed by the permit applicant. See Table E. Additional Remarks for permit applicant's explanation.

E. ADDITIONAL REMARKS
This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. INDOOR LIGHTING FIXTURE SCHEDULE
Table Instructions: Include all permanent designed lighting and all portable lighting in offices.
Designed Wattage: Conditioned Spaces

01 Name or Item Tag	02 Complete Luminaire Description	03 Modular (Track) Fixture	04 Small Aperture & Color Change[1]	05 Watts per luminaire[1]	06 How Wattage is determined	07 Total number luminaires	08 Exempt per §140.6(a)3	09 Design Watts	10 Field Inspector Pass	Fail
L1	Pendant mounted linear LED fixture	☐	☐	8.6	Mfr. Spec[2]	8	☐	68.8	☐	☐
L1A	Pendant mounted linear LED fixture	☐	☐	9.6	Mfr. Spec[2]	104	☐	998.4	☐	☐
L2	2' x 2' Recess mounted LED fixture	☐	☐	30	Mfr. Spec[2]	8	☐	240	☐	☐
L2A	2' x 2' Recess mounted LED fixture	☐	☐	22	Mfr. Spec[2]	3	☐	66	☐	☐
L3	6" Dia. recess mounted LED fixture	☐	☐	28.5	Mfr. Spec[2]	16	☐	456	☐	☐
L4	Cylinder surface mounted LED fixture	☐	☐	19	Mfr. Spec[2]	5	☐	95	☐	☐
					Total Designed Watts CONDITIONED SPACES:			**1,924.2**		

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 7/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: UC Merced COB#1 Remodel	Report Page:	Page 6 of 6
Project Address: 5200 North Lake Rc. Merced, CA 95343	Date Prepared:	02/21/2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

Documentation Author Name:	Benson Ngo	Documentation Author Signature:	
Company:	Gayner Engineers	Signature Date:	02/27/2020
Address:	1133 Post Street	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	San Francisco, CA 94109	Phone:	(415) 474-9500

RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	Benson Ngo	Responsible Designer Signature:	
Company :	Gayner Engineers	Date Signed:	02/27/2020
Address:	1133 Post Street	License:	E16075
City/State/Zip:	San Francisco, CA 94109	Phone:	(415) 474-9500

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 7/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: UC Merced COB#1 Remodel	Report Page:	Page 3 of 6
Project Address: 5200 North Lake Rc. Merced, CA 95343	Date Prepared:	02/21/2020

[1] *FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per §140.6(a)4B is adjusted to be 75% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.*
[2] *Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) Wattage used must be the maximum rated for the luminaire, not the lamp.*

G. MODULAR LIGHTING SYSTEMS
This Section Does Not Apply

H. INDOOR LIGHTING CONTROLS (Not Including PAFs)
This Section Does Not Apply

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS
Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per §140.6(b). Indicate if additional lighting power allowances per §140.6(c) or adjustments per §140.6(a) are being used.
Conditioned Spaces

01 Area Description	02 Complete Building or Area Category Primary Function Area	03 Allowed Density (W/ft²)	04 Area (ft²)	05 Allowed Wattage (Watts)	06 Additional Allowances / Adjustment Area Category	PAF
239	Lounge	0.65	81	52.65	☐	☐
241, 259, 261	Office (> 250 square feet)	0.65	1,057	687.05	☐	☐
348, 350, 352, 354, 356, 366, 368	Office (≤ 250 square feet)	0.7	966	676.2	☐	☐
302, 304, 370, 372, 374	Convention, Conference, Multipurpose, and Meeting Center	0.85	660	561	☐	☐
2C3, 3C1, 3C5	Corridor	0.6	433	259.8	☐	☐
380	Classroom, Lecture, Training, Vocational	0.7	710	497	☐	☐
		TOTAL:	**3,907**	**2,733.7**	See Tables J or P for detail	

J. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM
This Section Does Not Apply

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REGISTERED PROFESSIONAL ENGINEER BENSON NGO E 16075 Exp. 12-31-21 ELECTRICAL STATE OF CALIFORNIA

UCMERCED

NO.	DATE	DESCRIPTION
2	03/18/2020	ADDENDUM #1
1	02/27/2020	PERMIT
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

TITLE 24, LIGHTING FIXTURE SCHEDULE

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E0.03**

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 7/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: UC Merced COB#1 Remodel	Report Page:	Page 4 of 6
Project Address: 5200 North Lake Rc. Merced, CA 95343	Date Prepared:	02/21/2020

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE
This Section Does Not Apply

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY
This Section Does Not Apply

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING
This Section Does Not Apply

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED ORNAMENTAL/SPECIAL EFFECTS
This Section Does Not Apply

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE
This Section Does Not Apply

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))
This Section Does Not Apply

Q. RATED POWER REDUCTION COMPLIANCE FOR ALTERATIONS
This Section Does Not Apply

R. 80% LIGHTING POWER FOR ALTERATIONS - CONTROLS EXCEPTIONS
This Section Does Not Apply

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)
This Section Does Not Apply

T. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www2.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 7/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: UC Merced COB#1 Remodel	Report Page:	Page 1 of 6
Project Address: 5200 North Lake Rc. Merced, CA 95343	Date Prepared:	02/21/2020

This document is used to demonstrate compliance with requirements in §110.9, §110.12(c), §130.0, §130.1, §140.6, and §141.0(b)2 for indoor lighting scopes using the prescriptive path.

A. GENERAL INFORMATION

01	Project Location (city)	Merced, CA	04	Total Conditioned Floor Area (ft²)	13,081
02	Climate Zone	3	05	Total Unconditioned Floor Area (ft²)	
03	Occupancy Types Within Project (select all that apply):		06	# of Stories (Habitable Above Grade)	

☑ Office ☐ Retail ☐ Warehouse ☐ Hotel/Motel ☑ School ☐ Support Areas
☐ Parking Garage ☐ High-Rise Residential ☐ Relocatable ☐ Healthcare ☐ Other (write in):

B. PROJECT SCOPE
Table Instructions: Include any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.6 or §141.0(b)2 for alterations. WARNING: Changing the Calculation Method in this table will result in the deletion of data previously input. If you need to change the calculation method, please open a new form or use "Save As".

Scope of Work	Conditioned Spaces		Unconditioned Spaces	
	01		02	03
My Project Consists of (check all that apply):	Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☑ New Lighting System	Area Category	4,022		
☐ Altered Lighting System				
Total Area of Work (ft²)	**4,022**			

C. COMPLIANCE RESULTS
Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

Lighting in conditioned and unconditioned spaces must not be combined for compliance per §140.6(b)1.	Allowed Lighting Power per §140.6(b) (Watts)						Adjusted Lighting Power per §140.6(a) (Watts)				Compliance Results
	01	02	03	04		05		06	07	08	09
	Complete Building §140.6(c)1	Area Category §140.6(c)2	Area Category Additional §140.6(c)2G (+)	Tailored §140.6(c)3 (+)	=	**Total Allowed** (Watts)	≥	Total Designed (Watts)	Adjustments PAF Control Credits §140.6(a)2 (-)	= **Total Adjusted** (Watts) *Includes Adjustments	**05 Must be ≥ 08** §140.6
	(See Table I)	(See Table I)	(See Table J)	(See Table K)				(See Table F)	(See Table P)		
Conditioned:		8,401.45			=	**8,401.45**	≥	6,990.6		= **6,990.6**	**COMPLIES**
Unconditioned:					=		≥			=	

Table Continued

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 7/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: UC Merced COB#1 Remodel	Report Page:	Page 5 of 6
Project Address: 5200 North Lake Rc. Merced, CA 95343	Date Prepared:	02/21/2020

YES	NO	Form/Title	Field Inspector Pass	Field Inspector Fail
◉	○	NRCI-LTI-01-E - Must be submitted for all buildings	☐	☐
◉	○	NRCI-LTI-02-E - Must be submitted for a lighting control system, or for an Energy Management Control System (EMCS), to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-04-E - Must be submitted for two interlocked systems serving an auditorium, a convention center, a conference room, a multipurpose room, or a theater to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-05-E - Must be submitted for a Power Adjustment Factor (PAF) to be recognized for compliance.	☐	☐
○	◉	NRCI-LTI-06-E - Must be submitted for additional wattage installed in a video conferencing studio to be recognized for compliance.	☐	☐

U. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

YES	NO	Form/Title	Field Inspector Pass	Field Inspector Fail
◉	○	NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	☐	☐
◉	○	NRCA-LTI-03-A - Must be submitted for automatic daylight controls.	☐	☐
○	◉	NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	☐	☐
○	◉	NRCA-LTI-05-A - Must be submitted for institutional tuning power adjustment factor (PAF).	☐	☐
○	◉	NRCA-ENV-03-F - Must be submitted for daylighting design power adjustment factors (PAF).	☐	☐

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 7/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: UC Merced COB#1 Remodel	Report Page:	Page 2 of 6
Project Address: 5200 North Lake Rc. Merced, CA 95343	Date Prepared:	02/21/2020

Controls Compliance (See Table H for Details)	
Rated Power Reduction Compliance (See Table Q for Details)	**Not Applicable**

D. EXCEPTIONAL CONDITIONS
This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

Selections made in Table T have been changed by the permit applicant. See Table E. Additional Remarks for permit applicant's explanation.

Selections made in Table U have been changed by the permit applicant. See Table E. Additional Remarks for permit applicant's explanation.

E. ADDITIONAL REMARKS
This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. INDOOR LIGHTING FIXTURE SCHEDULE
Table Instructions: Include all permanent designed lighting and all portable lighting in offices.
Designed Wattage: Conditioned Spaces

01 Name or Item Tag	02 Complete Luminaire Description	03 Modular (Track) Fixture	04 Small Aperture & Color Changing[1]	05 Watts per luminaire[2]	06 How Wattage is determined	07 Total number luminaires	08 Exempt per §140.6(a)3	09 Design Watts	10 Field Inspector Pass	10 Field Inspector Fail
L1	Pendant mounted linear LED fixture	☐	☐	8.6	Mfr. Spec[2]	64	☐	550.4	☐	☐
L1A	Pendant mounted linear LED fixture	☐	☐	9.6	Mfr. Spec[2]	96	☐	921.6	☐	☐
L2	2' x 2' Recess mounted LED fixture	☐	☐	30	Mfr. Spec[2]	12	☐	360	☐	☐
L2A	2' x 2' Recess mounted LED fixture	☐	☐	22	Mfr. Spec[2]	13	☐	286	☐	☐
L3	6" Dia. recess mounted LED fixture	☐	☐	28.5	Mfr. Spec[2]	12	☐	342	☐	☐
L4	Cylinder surface mounted LED fixture	☐	☐	19	Mfr. Spec[2]	72	☐	1,368	☐	☐
L4A	Cylinder surface mounted LED fixture	☐	☐	9	Mfr. Spec[2]	3	☐	27	☐	☐
L5	Wall mounted LED fixture	☐	☐	40.2	Mfr. Spec[2]	78	☐	3,135.6	☐	☐
					Total Designed Watts CONDITIONED SPACES:			**6,990.6**		

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 7/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: UC Merced COB#1 Remodel	Report Page:	Page 6 of 6
Project Address: 5200 North Lake Rc. Merced, CA 95343	Date Prepared:	02/21/2020

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

Documentation Author Name:	Benson Ngo	Documentation Author Signature:	
Company:	Gayner Engineers	Signature Date:	02/21/2020
Address:	1133 Post Street	CEA/ HERS Certification Identification (if applicable):	
City/State/Zip:	San Francisco, CA 94109	Phone:	(415) 474-9500

RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name:	Benson Ngo	Responsible Designer Signature:	
Company :	Gayner Engineers	Date Signed:	02/21/2020
Address:	1133 Post Street	License:	E16075
City/State/Zip:	San Francisco, CA 94109	Phone:	(415) 474-9500

STATE OF CALIFORNIA
Indoor Lighting
NRCC-LTI-E (Created 7/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: UC Merced COB#1 Remodel	Report Page:	Page 3 of 6
Project Address: 5200 North Lake Rc. Merced, CA 95343	Date Prepared:	02/21/2020

[1] *FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per §140.6(a)4B is adjusted to be 75% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.*
[2] *Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per §130.0(c) Wattage used must be the maximum rated for the luminaire, not the lamp.*

G. MODULAR LIGHTING SYSTEMS
This Section Does Not Apply

H. INDOOR LIGHTING CONTROLS (Not Including PAFs)
This Section Does Not Apply

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS
Table Instructions: Complete the table for each area complying using the Complete Building or Area Category Methods per §140.6(b). Indicate if additional lighting power allowances per §140.6(c) or adjustments per §140.6(a) are being used.
Conditioned Spaces

01 Area Description	02 Complete Building or Area Category Primary Function Area	03 Allowed Density (W/ft²)	04 Area (ft²)	05 Allowed Wattage (Watts)	06 Additional Allowances / Adjustment: Area Category	06 Additional Allowances / Adjustment: PAF
239	Lounge	0.65	81	52.65	☐	☐
241, 259, 261, 300, 360	Office (> 250 square feet)	0.65	4,324	2,810.6	☐	☐
348, 350, 352, 354, 356, 366, 368	Office (≤ 250 square feet)	0.7	966	676.2	☐	☐
302, 304, 370, 372, 374	Convention, Conference, Multipurpose, and Meeting Center	0.85	660	561	☐	☐
2C3, 3C1, 3C2, 3C3, 3C4, 3C5	Corridor	0.6	6,340	3,804	☐	☐
380	Classroom, Lecture, Training, Vocational	0.7	710	497	☐	☐
		TOTAL:	**13,081**	**8,401.45**	See Tables J or P for detail	

J. ADDITIONAL LIGHTING ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM
This Section Does Not Apply

Solomon Cordwell Buenz
Chicago
T 312.896.1100
San Francisco
T 415.216.2450
www.scb.com

GAYNER ENGINEERS
1133 POST STREET
SAN FRANCISCO, CA 94109
TELEPHONE (415) 474-9500
FAX (415) 474-1363

REGISTERED PROFESSIONAL ENGINEER BENSON NGO E 16075 Exp. 12-31-21 ELECTRICAL STATE OF CALIFORNIA

UCMERCED

NO.	DATE	DESCRIPTION
2	03/18/2020	ADDENDUM #1
1	02/27/2020	PERMIT
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

TITLE 24, LIGHTING FIXTURE SCHEDULE

Drawn By: RC
Checked By: RC
Project Number: **2019031**
Sheet Number: **E0.03 ALT 2**

VOLTS: 120/208V, 3Ø, 4W — (E) PANEL **4L3A** — FEEDER: SEE 1-LINE DIAG.
MAIN: MLO — SECTION 2 — BUSSING: 400A
INT. CAP.: 10,000A — LOCATION: ELECT ROOM 3U2 — MOUNTED: SURFACE

SERVICE	LTG	REC	MTR	MISC	CB	CKT	CKT	CB	LTG	REC	MTR	MISC	SERVICE
	LOAD (KVA)								LOAD (KVA)				
ELECTRIFIED FURNITURE		1.10			20/1	43	44	20/1		1.10			OFFICE 364, 362
ELECTRIFIED FURNITURE		1.10			20/1	45	46	20/1		0.90			OFFICE 361, 359
ELECTRIFIED FURNITURE		1.10			20/1	47	48	20/1		1.10			OFFICE 359, 357
ELECTRIFIED FURNITURE		1.10			20/1	49	50	20/1		1.10			OFFICE 355, 353
ELECTRIFIED FURNITURE		1.10			20/1	51	52	20/1				**1.00**	**REC - REFRIGERATOR - 335**
ELECTRIFIED FURNITURE		1.10			20/1	53	54	20/1		0.70			CONV 351
(1) **EHW-1 - 335**				**4.16**	**50/2**	55	56	20/1				0.50	ROOF TERRANCE CONV
				4.16		57	58	20/1				0.50	ROOF TERRANCE CONV
CONV CORRIDOR, WC		0.90			20/1	59	60	20/1					FURN
OFFICE 334, 336		1.10			20/1	61	62	20/1					FURN
CONV 322 PROJECT & SCREEN		0.50			20/1	63	64	20/1					FURN
CONV 322 PROJECT & SCREEN		0.70			20/1	65	66	20/1				0.70	HVAC UNIT LTS. CONTROLS
A/V RACK 322		0.20		1.50	20/1	67	68	20/1		0.40			MECHANICAL WELL CONV
COPY 310				1.80	20/1	69	70	20/1	0.30			0.50	HVAC UNIT LTS. CONTROLS
COPY 310		0.40			20/1	71	72	20/1				0.20	SECURITY PNL IDF
FILING 308		0.50			20/1	73	74	20/1				0.20	BMS PANEL IDF
FURN					20/1	75	76	20/1				1.50	IDF ROOM RACK
FURN					20/1	77	78	20/1				1.50	IDF ROOM RACK
310 SOUTH WALL					20/1	79	80	20/1				1.50	IDF ROOM RACK
310 SOUTH WALL					20/1	81	82	20/1				1.50	IDF ROOM RACK
SPARE					20/1	83	84	20/1		1.10			IDF ROOM CONV
TOTAL		10.90		11.62					0.30	6.40		9.60	TOTAL

FIRST 10 KVA REC.
LOAD @ 100% = 10.0 KVA
REMAINDER OF REC.
LOAD @ 50% DEMAND = 3.7 KVA
LIGHTING LOAD @ 125% = 0.4 KVA
LARGEST MOTOR LOAD = 0.0 KVA
LARGEST MOTOR @ 25% = 0.0 KVA
OTHER LOAD @ 100% = 21.2 KVA
CALCULATED DEMAND = 35.2 KVA = 98 AMPS
SPARE @ 25% = 8.8 KVA
TOTAL = 44.1 KVA = 122 AMPS
ØA : 14.5 KVA
ØB : 14.9 KVA
ØC : 9.5 KVA
GROUND BUS [X]

VOLTS: 120/208V, 3Ø, 4W — (E) PANEL **4L2A** — FEEDER: SEE 1-LINE DIAG.
MAIN: MLO — SECTION 2 — BUSSING: 400A
INT. CAP.: 10,000A — LOCATION: ELECT ROOM 2U3 — MOUNTED: SURFACE

SERVICE	LTG	REC	MTR	MISC	CB	CKT	CKT	CB	LTG	REC	MTR	MISC	SERVICE
	LOAD (KVA)								LOAD (KVA)				
263 - A/V RACK				0.90	20/1	43	44	20/1				1.80	205 - A/V RACK
263 - CONV		0.70			20/1	45	46	20/1				1.60	205 - MON., PS-1
263 - MONITORS			0.80		20/1	47	48	20/1				1.20	205 - PR-1, W-1, CONV
263 - MONITORS			0.80		20/1	49	50	20/1					248 - CONV
263 - INSTR. STA., CONV		0.40			20/1	51	52	20/1					203 - MON., PS-1
263 - PROJECTORS				0.80	20/1	53	54	20/1					208 - PR-1, W-1, CONV
263 - CONV. SEATING		1.10			20/1	55	56	20/1				1.80	201 - A/V RACK
263 - CONV. SEATING		1.10			20/1	57	58	20/1					201 - MON., PS-1
263 - CONV. SEATING		1.10			20/1	59	60	20/1					201 - PR-1, CONV
263 - CONV. SEATING		1.10			20/1	61	62	20/1				1.80	260 - A/V RACK
263 - CONV. SEATING		1.10			20/1	63	64	20/1					260 - MON., PS-1
263 -PROJECTION SCRN. MOTOR			0.90		20/1	65	66	20/1					260 - PR-1, CONV
CORR. 2C8 CONV				0.40	20/1	67	68	20/1					(E) CIRCUIT
SECURITY A/V RACK				1.80	20/1	69	70	20/1					(E) CIRCUIT
209 - A/V RACK				1.80	20/1	71	72	20/1					248 - CONV
209 MON, PS-1				1.60	20/1	73	74	20/1					CONV 200, 202
209 - PROJ., W-1, CONV				1.20	20/1	75	76	20/1					CONV 208, 214
207 - A/V RACK				1.80	20/1	77	78	20/1					CONV 204, 206
207 - MON, PS-1				1.60	20/1	79	80	20/2					CORR 2C8 COPIER
207 - PR-1, W-1, CONV				1.20	20/1	81	82						
SPARE					20/1	83	84	20/1					SPARE
TOTAL		6.60	2.50	13.10								8.20	TOTAL

FOR REFERENCE ONLY
NO NEW LOADS ADDED

FIRST 10 KVA REC.
LOAD @ 100% = 6.6 KVA
REMAINDER OF REC.
LOAD @ 50% DEMAND = 0.0 KVA
LIGHTING LOAD @ 125% = 0.0 KVA
LARGEST MOTOR LOAD = 0.9 KVA
LARGEST MOTOR @ 25% = 0.2 KVA
OTHER LOAD @ 100% = 23.8 KVA
CALCULATED DEMAND = 30.6 KVA = 85 AMPS
SPARE @ 25% = 7.7 KVA
TOTAL = 38.3 KVA = 106 AMPS
ØA : 12.9 KVA
ØB : 9.1 KVA
ØC : 8.4 KVA
GROUND BUS [X]

VOLTS: 120/208V, 3Ø, 4W — (E) PANEL **4L1B** — FEEDER: SEE 1-LINE DIAG.
MAIN: MLO — SECTION 1 — BUSSING: 400A
INT. CAP.: 10,000A — LOCATION: ELECT ROOM 1U1 — MOUNTED: SURFACE

SERVICE	LTG	REC	MTR	MISC	CB	CKT	CKT	CB	LTG	REC	MTR	MISC	SERVICE
	LOAD (KVA)								LOAD (KVA)				
123 - HEAD END/BC				1.50	20/1	1	2	20/1		0.40			ELEC RM. CONV.
123 - HEAD END/BC				1.50	20/1	3	4	20/1					1C4A - DOOR
CONV.		0.90			20/1	5	6	20/1					EXHAUST FAN?
132AB - OFFICE CONV.		1.10			20/1	7	8	20/1					4LCP1B
132 - A/V EQUIP. RM., SEC.				0.40	20/1	9	10	20/1			1.20		127 - PROJ. SCRN. MOTORS
132 -A/V EQUIP. CONV.		0.90			20/1	11	12	20/1			1.20		129 - PROJ. SCRN. MOTORS
120 - A/V RACK				1.80	20/1	13	14	20/1				1.00	127 - PROJECTORS
120 - PROJECTORS				1.00	20/1	15	16	20/1				1.00	129 - PROJECTORS
120 - CONTROL BOOTH CONV.		0.70			20/1	17	18	20/1				1.80	127 - A/V RACK
120 - AISLE LIGHTING	0.20				20/1	19	20	20/1		0.40			127 - INSTR. LOC. A/V
120 - PROJ. SCRN. MOT.			0.60		20/1	21	22	20/1				1.80	129 - A/V RACK
120 - PROJ. SCRN. MOT.			0.60		20/1	23	24	20/1		0.40			129 - INSTR. LOC. A/V
120 - PROJ. SCRN. MOT.			0.60		20/1	25	26	20/1				0.80	127 - MONITORS
120 - CONV. FRONT		0.50			20/1	27	28	20/1				0.80	129 - MONITORS
120 - CONV. INSTRUCTOR		0.20			20/1	29	30	20/1					SPARE
120 - WINDOW SHADE				0.40	20/1	31	32	20/1					120AA - DOOR
[1] 120 - DIMMED TRACK	0.20				20/1	33	34	20/1					SPARE
A/V RACK				1.80	20/1	35	36	20/1				0.50	DIMMING SYST PROCESSOR
EXTERIOR ALCOVE LIGHTING					20/1	37	38	30/3	1.90				DIMMING PANEL "DP-1B"
SPARE					20/1	39	40		1.90				
SPARE					20/1	41	42		1.90				
TOTAL	0.40	4.30	1.80	8.40					5.70	1.20	2.40	7.70	TOTAL

FOR REFERENCE ONLY
NO NEW LOADS ADDED

FIRST 10 KVA REC.
LOAD @ 100% = 5.5 KVA
REMAINDER OF REC.
LOAD @ 50% DEMAND = 0.0 KVA
LIGHTING LOAD @ 125% = 7.6 KVA
LARGEST MOTOR LOAD = 2.4 KVA
LARGEST MOTOR @ 25% = 0.6 KVA
OTHER LOAD @ 100% = 20.3 KVA
CALCULATED DEMAND = 34.0 KVA = 94 AMPS
SPARE @ 25% = 8.5 KVA
TOTAL = 42.5 KVA = 118 AMPS
ØA : 10.1 KVA
ØB : 10.9 KVA
ØC : 10.9 KVA
GROUND BUS [X]

VOLTS: 120/208V, 3Ø, 4W — (E) PANEL **4L3B** — FEEDER: SEE 1-LINE DIAG.
MAIN: MLO — SECTION 1 — BUSSING: 400A
INT. CAP.: 10,000A — LOCATION: ELECT ROOM 3U3 — MOUNTED: SURFACE

SERVICE	LTG	REC	MTR	MISC	CB	CKT	CKT	CB	LTG	REC	MTR	MISC	SERVICE
	LOAD (KVA)								LOAD (KVA)				
REC - 348		**0.90**			20/1	1	2	20/1		**0.54**			**REC - 374**
REC - 348, 350, 352		**1.08**			20/1	3	4	20/1		**0.72**			**REC - 372, 374**
REC - 350, 352		**0.72**			20/1	5	6	20/1		**0.80**			**REC - 374**
REC - 352, 354		**0.90**			20/1	7	8	20/1		**0.36**			**A/V REC - 370, 372**
REC - 354, 356		**0.72**			20/1	9	10	20/1		**0.72**			**REC - 370, 372**
REC -356		**0.72**			20/1	11	12	20/1		**0.72**			**REC - 368**
ELECTRIFIED PARTITION - 360		**0.72**			20/1	13	14	20/1		**0.72**			**REC - 366, 368**
ELECTRIFIED PARTITION - 360		**0.72**			20/1	15	16	20/1		**0.72**			**REC -366**
ELECTRIFIED PARTITION - 360		**0.72**			20/1	17	18	20/1		**0.18**			**REC - 368**
ELECTRIFIED PARTITION - 360		**0.72**			20/1	19	20	20/1		**0.18**			**REC - 380**
DRINKING FOUNTAIN - CORRIDOR				**0.40**	20/1	21	22	20/1		**0.90**			**REC - 380**
REC - 380		**0.90**			20/1	23	24	20/1		**0.90**			**REC - 380**
A/V REC - 380		**0.36**			20/1	25	26	20/1		**0.18**			**REC - 380**
REC - 380		**0.90**			20/1	27	28	20/1		**0.19**			**REC - 380**
ELECTRIFIED FURNITURE		1.10			20/1	29	30	20/1		**0.18**			**REC - 380**
ELECTRIFIED FURNITURE		1.10			20/1	31	32	20/1		1.10			ELECTRIFIED FURNITURE
ELECTRIFIED FURNITURE		1.10			20/1	33	34	20/1		1.10			ELECTRIFIED FURNITURE
ELECTRIFIED FURNITURE		1.10			20/1	35	36	20/1		1.10			ELECTRIFIED FURNITURE
ELECTRIFIED FURNITURE		1.10			20/1	37	38	20/1		1.10			ELECTRIFIED FURNITURE
ELECTRIFIED FURNITURE		1.10			20/1	39	40	20/1		1.10			ELECTRIFIED FURNITURE
LCP3B					20/1	41	42	20/1					SPARE
TOTAL		16.68		0.40						13.51			TOTAL

FIRST 10 KVA REC.
LOAD @ 100% = 10.0 KVA
REMAINDER OF REC.
LOAD @ 50% DEMAND = 10.1 KVA
LIGHTING LOAD @ 125% = 0.0 KVA
LARGEST MOTOR LOAD = 0.0 KVA
LARGEST MOTOR @ 25% = 0.0 KVA
OTHER LOAD @ 100% = 0.4 KVA
CALCULATED DEMAND = 20.5 KVA = 57 AMPS
SPARE @ 25% = 5.1 KVA
TOTAL = 25.6 KVA = 71 AMPS
ØA : 10.0 KVA
ØB : 11.5 KVA
ØC : 9.1 KVA
GROUND BUS [X]

VOLTS: 120/208V, 3Ø, 4W — (N) PANEL **4L2A** — FEEDER: SEE 1-LINE DIAG.
MAIN: MLO — SECTION 3 — BUSSING: 100A
INT. CAP.: 10,000A — LOCATION: ELECT ROOM 2U3 — MOUNTED: SURFACE

SERVICE	LTG	REC	MTR	MISC	CB	CKT	CKT	CB	LTG	REC	MTR	MISC	SERVICE
	LOAD (KVA)								LOAD (KVA)				
DRINKING FOUNTAIN - CORRIDOR				**0.40**	**20/1**	85	86	**20/1**		**0.36**			**REC - 261**
REC - 255		**0.18**			**20/1**	87	88	**20/1**		**0.18**			**REC - 261**
REC - 261, 261A		**0.72**			**20/1**	89	90	**20/1**		**0.54**			**REC - 261**
REC - OUTSIDE 241		**0.54**			**20/1**	91	92	**20/1**		**0.72**			**ELECTRIFIED PARTITION - 261**
FSD				**0.40**	**20/1**	93	94	**20/1**		**0.54**			**ELECTRIFIED PARTITION - 261**
SPARE					**20/1**	95	96	**20/1**					**SPARE**
SPARE					**20/1**	97	98	**20/1**					**SPARE**
SPARE					**20/1**	99	100	**20/1**					**SPARE**
SPARE					**20/1**	101	102	**20/1**					**SPARE**
SPACE						103	104						SPACE
SPACE						105	106						SPACE
SPACE						107	108						SPACE
SPACE						109	110						SPACE
SPACE						111	112						SPACE
SPACE						113	114						SPACE
SPACE						115	116						SPACE
SPACE						117	118						SPACE
SPACE						119	120						SPACE
SPACE						121	122						SPACE
SPACE						123	124						SPACE
SPACE						125	126						SPACE
TOTAL		1.44		0.80						2.34			TOTAL

FIRST 10 KVA REC.
LOAD @ 100% = 3.8 KVA
REMAINDER OF REC.
LOAD @ 50% DEMAND = 0.0 KVA
LIGHTING LOAD @ 125% = 0.0 KVA
LARGEST MOTOR LOAD = 0.0 KVA
LARGEST MOTOR @ 25% = 0.0 KVA
OTHER LOAD @ 100% = 0.8 KVA
CALCULATED DEMAND = 4.6 KVA = 13 AMPS
SPARE @ 25% = 1.1 KVA
TOTAL = 5.7 KVA = 16 AMPS
ØA : 2.0 KVA
ØB : 1.3 KVA
ØC : 1.3 KVA
GROUND BUS [X]

VOLTS: 120/208V, 3Ø, 4W — (E) PANEL **4L1B** — FEEDER: SEE 1-LINE DIAG.
MAIN: MLO — SECTION 2 — BUSSING: 400A
INT. CAP.: 10,000A — LOCATION: ELECT ROOM 1U1 — MOUNTED: SURFACE

SERVICE	LTG	REC	MTR	MISC	CB	CKT	CKT	CB	LTG	REC	MTR	MISC	SERVICE
	LOAD (KVA)								LOAD (KVA)				
ACOUSTIC PANEL MOTOR			1.00		20/1	43	44	20/1		1.10			127 - FLOOR REC
ACOUSTIC PANEL MOTOR			1.00		20/1	45	46	20/1		1.10			127 - FLOOR REC
ACOUSTIC PANEL MOTOR			1.00		20/1	47	48	20/1		1.10			127 - FLOOR REC
ACOUSTIC PANEL MOTOR			1.00		20/1	49	50	20/1		1.10			129 - FLOOR REC
ACOUSTIC PANEL MOTOR			1.00		20/1	51	52	20/1		1.10			129 - FLOOR REC
ACOUSTIC PANEL MOTOR			1.00		20/1	53	54	20/1		1.10			129 - FLOOR REC
ACOUSTIC PANEL MOTOR			1.00		20/1	55	56	20/1		1.10			131 - CONV.
ACOUSTIC PANEL MOTOR			1.00		20/1	57	58	20/1				1.80	WS-1 WINDOW SHADES 102
ACOUSTIC PANEL MOTOR			1.00		20/1	59	60	20/1					SPARE
ROLL UP DOOR RECEIVING					20/1	61	62	20/1					PROJECTOR REC
102 - AISLE LIGHTS					20/1	63	64	20/1		**0.36**			**REC - 132A**
SOUTHEAST AUDITORIUM DOOR					20/1	65	66	20/1		**0.36**			**REC - 132B**
208V PROJECTOR					20/2	67	68	20/1				**0.40**	**DRINKING FOUNTAIN - CORRIDOR**
						69	70	20/1		**0.36**			**A/V REC - 127**
SPARE					20/1	71	72	20/1		**0.36**			**REC - 127**
SPARE					20/1	73	74	20/1		**0.36**			**REC - 127**
SPARE					20/1	75	76	20/1					SPARE
SPARE					20/1	77	78	20/1					SPARE
SPARE					20/1	79	80	20/1					SPARE
SPARE					20/1	81	82	20/1					SPARE
SPARE					20/1	83	84	20/1					SPARE
TOTAL			9.00							9.50		2.20	TOTAL

FIRST 10 KVA REC.
LOAD @ 100% = 9.5 KVA
REMAINDER OF REC.
LOAD @ 50% DEMAND = 0.0 KVA
LIGHTING LOAD @ 125% = 0.0 KVA
LARGEST MOTOR LOAD = 3.0 KVA
LARGEST MOTOR @ 25% = 0.8 KVA
OTHER LOAD @ 100% = 11.2 KVA
CALCULATED DEMAND = 21.5 KVA = 60 AMPS
SPARE @ 25% = 5.4 KVA
TOTAL = 26.8 KVA = 74 AMPS
ØA : 7.1 KVA
ØB : 7.7 KVA
ØC : 5.9 KVA
GROUND BUS [X]

VOLTS: 120/208V, 3Ø, 4W — (E) PANEL **4L3B** — FEEDER: SEE 1-LINE DIAG.
MAIN: MLO — SECTION 2 — BUSSING: 400A
INT. CAP.: 10,000A — LOCATION: ELECT ROOM 3U3 — MOUNTED: SURFACE

SERVICE	LTG	REC	MTR	MISC	CB	CKT	CKT	CB	LTG	REC	MTR	MISC	SERVICE
	LOAD (KVA)								LOAD (KVA)				
OFFICE 390, 391		1.10			20/1	43	44	20/1					(E) CIRCUIT
OFFICE 390, 388, 386		1.10			20/1	45	46	20/1					(E) CIRCUIT
OFFICE 386, 384, 382		1.10			20/1	47	48	20/1					(E) CIRCUIT
OFFICE 382, 380, 378		1.10			20/1	49	50	20/1					(E) CIRCUIT
OFFICE 378, 376, 374		1.10			20/1	51	52	20/1		1.10			FURN
OFFICE 374, 372, 370		1.10			20/1	53	54	20/1		1.10			FURN
OFFICE 370, 368, 366		1.10			20/1	55	56	20/1		1.10			FURN
OFFICE 366, 364, 362		1.10			20/1	57	58	20/1		1.10			FURN
OFFICE 362, 360, 358		1.10			20/1	59	60	20/1		1.10			FURN
OFFICE 358, 356, 354		1.10			20/1	61	62	20/1		1.10			FURN
OFFICE 354, 352		1.10			20/1	63	64	20/1		1.10			FURN
OFFICE 389, 387		1.10			20/1	65	66	20/1		1.10			FURN
OFFICE 387, 385		1.10			20/1	67	68	20/1		1.10			FURN
OFFICE 383, 381		1.10			20/1	69	70	20/1		1.10			FURN
OFFICE 379, 377		1.10			20/1	71	72	20/1		1.10			FURN
OFFICE 377, 357, 373		1.10			20/1	73	74	20/1		1.10			FURN
OFFICE 373, 369, 367		1.10			20/1	75	76	20/1					SPARE
A/V RACK 371				1.50	20/1	77	78	20/1					SPARE
CONF 371		0.70			20/1	79	80	20/1					SPARE
ELECT ROM 343					20/1	81	82	50/2					SPARE
OFFICE 367					20/1	83	84						
TOTAL		19.40		1.50						13.20			TOTAL

FOR REFERENCE ONLY
NO NEW LOADS ADDED

FIRST 10 KVA REC.
LOAD @ 100% = 10.0 KVA
REMAINDER OF REC.
LOAD @ 50% DEMAND = 11.3 KVA
LIGHTING LOAD @ 125% = 0.0 KVA
LARGEST MOTOR LOAD = 0.0 KVA
LARGEST MOTOR @ 25% = 0.0 KVA
OTHER LOAD @ 100% = 1.5 KVA
CALCULATED DEMAND = 22.8 KVA = 63 AMPS
SPARE @ 25% = 5.7 KVA
TOTAL = 28.5 KVA = 79 AMPS
ØA : 11.7 KVA
ØB : 11.0 KVA
ØC : 11.4 KVA
GROUND BUS [X]

VOLTS: 120/208V, 3Ø, 4W — (E) PANEL **4L3A** — FEEDER: SEE 1-LINE DIAG.
MAIN: MLO — SECTION 1 — BUSSING: 400A
INT. CAP.: 10,000A — LOCATION: ELECT ROOM 3U2 — MOUNTED: SURFACE

SERVICE	LTG	REC	MTR	MISC	CB	CKT	CKT	CB	LTG	REC	MTR	MISC	SERVICE
	LOAD (KVA)								LOAD (KVA)				
REC - MICROWAVE 335				**1.00**	20/1	1	2	20/1		**0.36**			**ELECTRIFIED PARTITON - 390**
REC - MICROWAVE 335				**1.00**	20/1	3	4	20/1		**0.36**			**ELECTRIFIED PARTITON - 390**
REC - 302, 304		**0.72**			20/1	5	6	20/1		**0.90**			**REC - 390 FLOOR**
REC - 302, 304		**0.54**			20/1	7	8	20/1					**SPARE**
ELECTRIFIED PARTITION - 390		**0.72**			20/1	9	10	20/1		1.10			OFFICE 349, 347
ELECTRIFIED PARTITION - 390		**0.72**			20/1	11	12	20/1		1.10			OFFICE 345, 343
ELECTRIFIED PARTITION - 390		**0.72**			20/1	13	14	20/1		1.10			OFFICE 341, 339
ELECTRIFIED PARTITION - 390		**0.72**			20/1	15	16	20/1		1.10			OFFICE 337, 335
ELECTRIFIED PARTITION - 390		**0.72**			20/1	17	18	20/1		1.10			OFFICE 331, 329
ELECTRIFIED PARTITION - 390		**0.72**			20/1	19	20	20/1		1.10			OFFICE 327, 325
ELECTRIFIED PARTITION - 390		**0.72**			20/1	21	22	20/1		1.10			OFFICE 232, CORR
ELECTRIFIED PARTITION - 390		**0.72**			20/1	23	24	20/1		1.10			OFFICE 319, 321
REC - COFFEE MAKER 335				**1.00**	20/1	25	26	20/1		0.90			OFFICE 317, 315
REC - GARBAGE DISPOSAL 335				**1.00**	20/1	27	28	20/1		1.10			OFFICE 315, 313
REC - COFFEE MAKER 335				**1.00**	20/1	29	30	20/1		1.10			OFFICE 311, 309
SPARE					20/1	31	32	20/1		1.10			OFFICE 307, 305
A/V REC - 320		**0.54**			20/1	33	34	20/1		1.30			OFFICE 303, 301
A/V REC - 320		**0.36**			20/1	35	36	20/1					FURN
DRINKING FOUNTAIN - CORRIDOR				**0.40**	20/1	37	38	20/1					LCP3A
COPIER 310					20/2	39	40	20/1					FURN
						41	42	20/1					FURN
TOTAL		7.92		5.40						15.92			TOTAL

FIRST 10 KVA REC.
LOAD @ 100% = 10.0 KVA
REMAINDER OF REC.
LOAD @ 50% DEMAND = 6.9 KVA
LIGHTING LOAD @ 125% = 0.0 KVA
LARGEST MOTOR LOAD = 0.0 KVA
LARGEST MOTOR @ 25% = 0.0 KVA
OTHER LOAD @ 100% = 5.4 KVA
CALCULATED DEMAND = 22.3 KVA = 62 AMPS
SPARE @ 25% = 5.6 KVA
TOTAL = 27.9 KVA = 77 AMPS
ØA : 8.9 KVA
ØB : 10.8 KVA
ØC : 9.5 KVA
GROUND BUS [X]

VOLTS: 120/208V, 3Ø, 4W — (E) PANEL **4L2A** — FEEDER: SEE 1-LINE DIAG.
MAIN: MLO — SECTION 1 — BUSSING: 400A
INT. CAP.: 10,000A — LOCATION: ELECT ROOM 2U3 — MOUNTED: SURFACE

SERVICE	LTG	REC	MTR	MISC	CB	CKT	CKT	CB	LTG	REC	MTR	MISC	SERVICE
	LOAD (KVA)								LOAD (KVA)				
CONV 237, 235, SEC		0.90		0.20	20/1	1	2	20/1		0.90			CONV 216, 218, CORR
CONV 235, 233, 231		1.10			20/1	3	4	20/1		1.10			CONV 214
CONV 231, 229, 227		1.10			20/1	5	6	20/1		1.10			CONV 212, 210A
CONV 227, 225, 223		1.10			20/1	7	8	20/1		1.10			CONV 210, 208
CONV 223, 221, 215		1.10			20/1	9	10	20/1					CONV CORR. RR, ELEC
CONV 215, 213, 2U5		1.10			20/1	11	12	20/1				0.30	LCP2A - ELEC RM
CONV 239, 241		1.10			20/1	13	14	20/1					(E) CIRCUIT
CONV 241, 243		1.10			20/1	15	16	20/1		0.90			IDF - 256 CONV
CONV 245, 247		1.10			20/1	17	18	20/1				0.80	IDF - 256 RACK
CONV 249, 255		1.10			20/1	19	20	20/1				0.80	IDF - 256 RACK
CONV 257, 259		1.10			20/1	21	22	20/1				0.80	IDF - 256 RACK
CONV 242		0.70			20/1	23	24	20/1				0.80	IDF - 256 RACK
CONV 230 MAIL		0.90			20/1	25	26	20/1				0.60	WATER COOLER
CONV 248, 226, 250		1.10			20/1	27	28	20/1				0.30	SECURITY PANEL
CONV 226, 250, CORR 254		1.10			20/1	29	30	20/1				0.30	BMS PANEL
CONV 224 , CORR		0.70			20/1	31	32	**50/3**					**PANEL "4L2A" SECTION 3** (1)
CONV 2U1, 220, 218		1.10			20/1	33	34						
COPIER 220				1.20	20/2	35	36						
				1.20		37	38	20/1					(E) CIRCUIT
(E) CIRCUIT					20/1	39	40	20/1					(E) CIRCUIT
(E) CIRCUIT					20/1	41	42	20/1					(E) CIRCUIT
TOTAL		17.50		2.60						5.10		4.70	TOTAL

FIRST 10 KVA REC.
LOAD @ 100% = 10.0 KVA
REMAINDER OF REC.
LOAD @ 50% DEMAND = 6.3 KVA
LIGHTING LOAD @ 125% = 0.0 KVA
LARGEST MOTOR LOAD = 0.0 KVA
LARGEST MOTOR @ 25% = 0.0 KVA
OTHER LOAD @ 100% = 7.3 KVA
CALCULATED DEMAND = 23.6 KVA = 66 AMPS
SPARE @ 25% = 5.9 KVA
TOTAL = 29.5 KVA = 82 AMPS
ØA : 10.6 KVA
ØB : 9.7 KVA
ØC : 9.6 KVA
GROUND BUS [X]

SHEET NOTES:

(1) REMOVE EXISTING SINGLE POLE BREAKERS AND PROVIDE WITH NEW BREAKER INDICATED, TYPE AND AIC TO MATCH EXISTING.

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CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

PANEL SCHEDULES

Drawn By: RC
Checked By: RC
Project Number: 2019031
Sheet Number: **E0.04**

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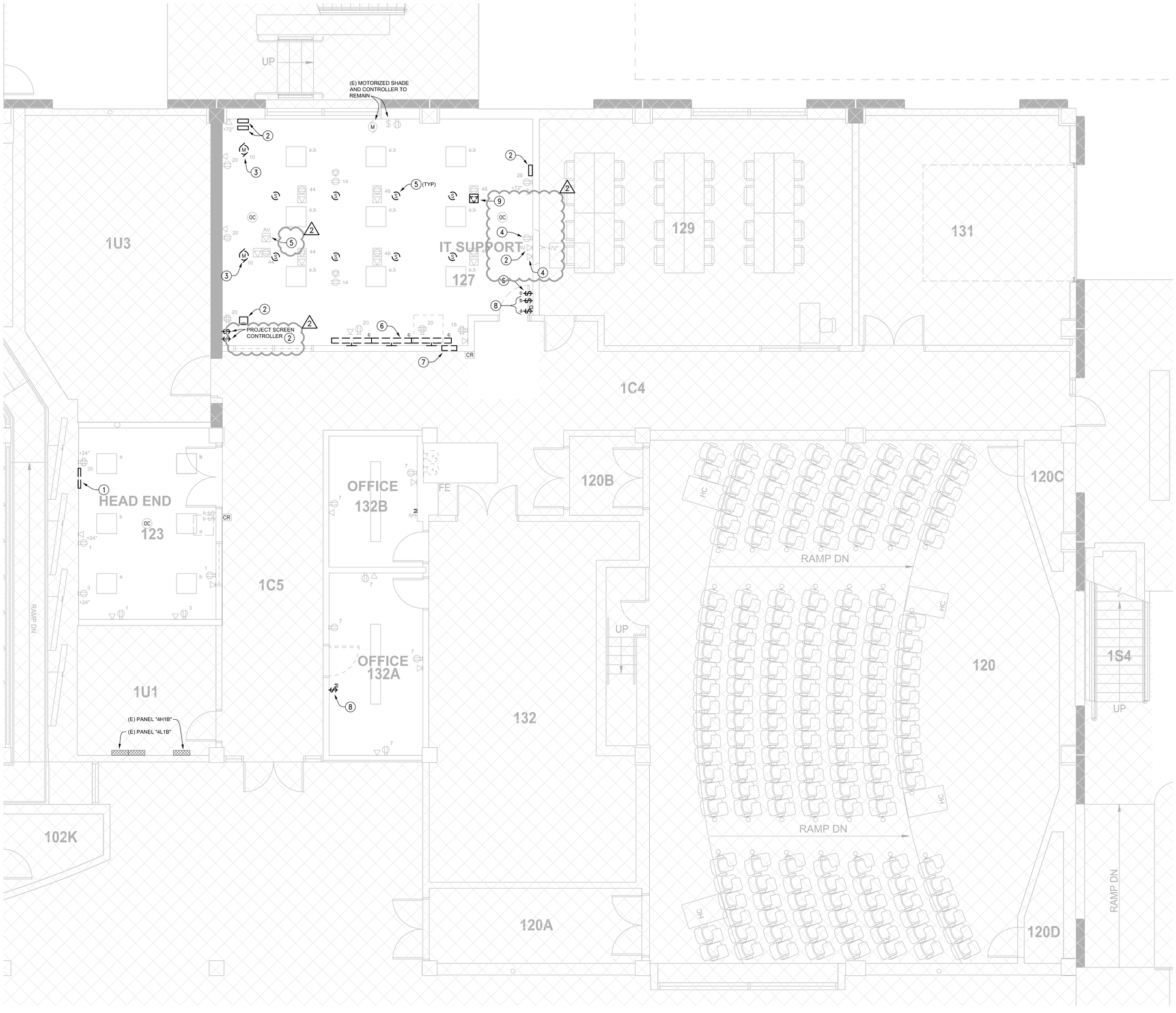


GENERAL NOTES:

1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY DASHED LINE INDICATES EXISTING TO BE REMOVED, UNLESS OTHERWISE NOTED.
3. EXISTING LIGHTING IS FED FROM PANEL "4H1B" AND EXISTING POWER IS FED FROM PANEL "4L1B", UNLESS OTHERWISE NOTED.

SHEET NOTES:

2 (1) REMOVE GROUND BAR.

(2) PROVIDE BLANK COVERPLATE AT BACK BOX AFTER A/V DEVICES AND CABLES HAVE BEEN REMOVED BY THE OWNER..

(3) DISCONNECT MOTORIZED PROJECTION SCREEN AND REMOVE CONDUITS & WIRING BACK TO PANEL OF ORIGIN. EQUIPMENT SHALL BE REMOVED BY THE OWNER.

(4) REMOVE DEVICES AND RELOCATE TO "FSR" BOX AND RECONNECT AS INDICATED ON NEW PLAN. PROVIDE BLANK COVERPLATE. REUSE EXISTING CIRCUIT TO SERVE "FSR" BOX.

(5) A/V DEVICES SHALL BE REMOVED BY THE OWNER.

2 (6) DISCONNECT AND REMOVE LIGHT FIXTURE AND SWITCH.

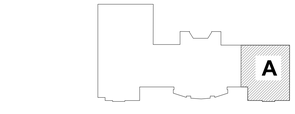
(7) REMOVE RECESS WALL MOUNTED AV SYSTEM PULL BOX AND CONDUIT. CABLES SHALL BE REMOVED BY THE OWNER.

(8) DISCONNECT AND REMOVE LIGHT SWITCH AND RELOCATE TO NEW LOCATION AS INDICATED ON NEW PLAN.

(9) REMOVE DATA OUTLET AND CABLES FROM FLOOR BOX. FLOOR BOX AND CONDUIT SHALL BE REUSED FOR A/V.

1 FIRST FLOOR AREA A ELECTRICAL DEMOLITION PLAN

SCALE: 1/4" = 1'-0"



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	01/16/2020	100% DD

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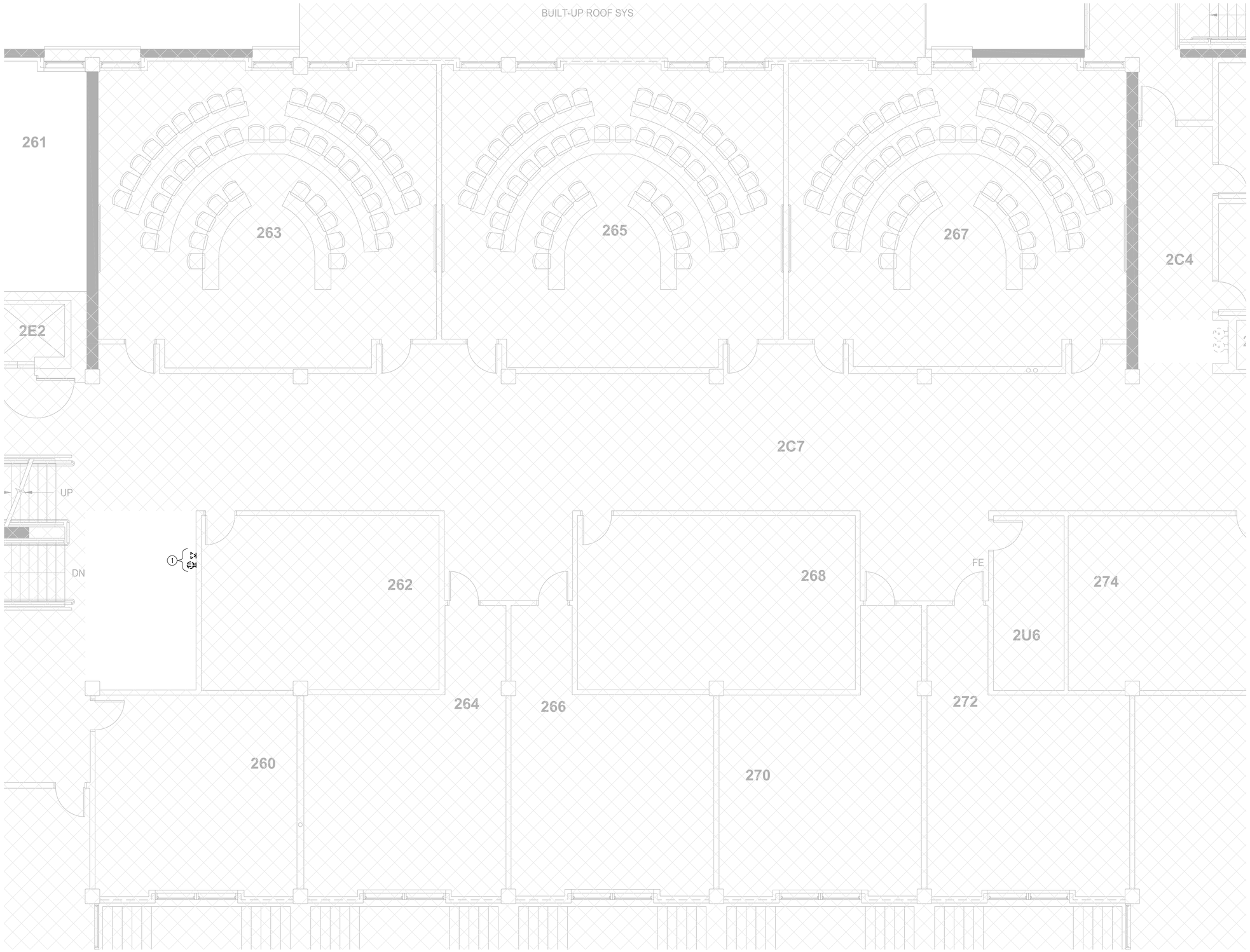
UNIVERSITY OF CALIFORNIA, MERCED

FIRST FLOOR AREA A ELECTRICAL DEMOLITION PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E1.01A**



GENERAL NOTES:

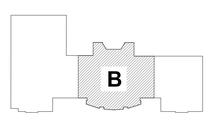
1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY DASHED LINE INDICATES EXISTING TO BE REMOVED, UNLESS OTHERWISE NOTED.

SHEET NOTES:

(1) REMOVE EXISTING DEVICES AT DIGITAL SIGN. RELOCATE TO NEW "FSR" A/V BOX. PROVIDE BLANK COVERPLATE. REUSE EXISTING CIRCUIT TO SERVE "FSR" BOX.

1 SECOND FLOOR AREA B ELECTRICAL DEMOLITION PLAN

SCALE: 1/4" = 1'-0"



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CLASSROOM AND OFFICE BUILDING 1 RENOVATION
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SECOND FLOOR AREA B ELECTRICAL DEMOLITION PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031
Sheet Number: E1.02B

GENERAL NOTES:

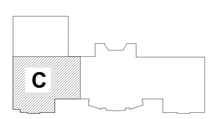
1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY DASHED LINE INDICATES EXISTING TO BE REMOVED, UNLESS OTHERWISE NOTED.
3. EXISTING NORMAL LIGHTING IS FED FROM PANEL "4H2A". EXISTING EMERGENCY LIGHTING IS FED FROM PANEL "4EH1A" LOCATED ON FIRST FLOOR, AND EXISTING POWER IS FED FROM PANEL "4L2A", UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. REMOVE OCCUPANCY SENSOR SWITCH TO FACILITATE NEW ARCHITECTURAL WORK. REINSTALL SWITCH TO MATCH EXISTING WHEN WORK BY OTHER TRADE IS COMPLETE.
2. REMOVE EXISTING FIXTURE.
3. REMOVE AND RELOCATE FIRE ALARM DEVICE TO NEW LOCATION AS INDICATED ON NEW PLAN.
4. REMOVE AND RELOCATE EXIT SIGN TO NEW LOCATION AS INDICATED ON NEW PLAN.
5. DISCONNECT RECEPTACLES IN THIS ROOM FROM RESPECTIVE CIRCUITS (4L2A-32,34,36) AND RECONNECT TO NEW CIRCUITS AS INDICATED ON THE NEW PLAN.
6. DISCONNECT MOTORIZED PROJECTION SCREEN AND REMOVE CONDUITS & WIRING BACK TO PANEL OF ORIGIN. PROJECT SCREEN SHALL BE REMOVED BY THE OWNER.
7. REMOVE DEVICE FROM FLUSH MOUNTED FLOOR BOX AND WIRING BACK TO PANEL OF ORIGIN. PROVIDE BLANK COVER. TYPICAL OF TWO.
8. MOTORIZED PROJECTION SCREEN CONTROLLER SHALL BE REMOVED BY THE OWNER. PROVIDE BLANK COVERPLATE.
9. VERIFY EXACT LOCATION WITH NEW WALL AND REMOVE DEVICES IF IN CONFLICT. SEE SHEET NOTE No.10 IF DEVICES IS CLEAR OF THE NEW WALL.
10. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO REMOVE FROM WALL PANEL THAT IS BEING REMOVED AND REINSTALL FLUSH WITH WALL.
11. REMOVE DEVICES AND REUSE TO FEED NEW FURNITURE PARTITION AS INDICATED ON NEW PLAN.
12. FLUSH MOUNTED A/V FLOOR BOX. ALL WORK SHALL BE PROVIDED BY THE OWNER.
13. REMOVE EXISTING SECTION AND PROVIDE END FITTINGS AND MOUNTING HARDWARE REQUIRED FOR REMAINING SECTIONS.
14. VERIFY EXACT LOCATION OF FIXTURES AND PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO SHIFT FIXTURES TO CLEAR NEW DOOR SWING.
15. REMOVE DEVICES AND RELOCATE AS INDICATED ON NEW PLAN.

1 SECOND FLOOR AREA C ELECTRICAL DEMOLITION PLAN

SCALE: 1/4" = 1'-0"



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SECOND FLOOR AREA C ELECTRICAL DEMOLITION PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E1.02C**

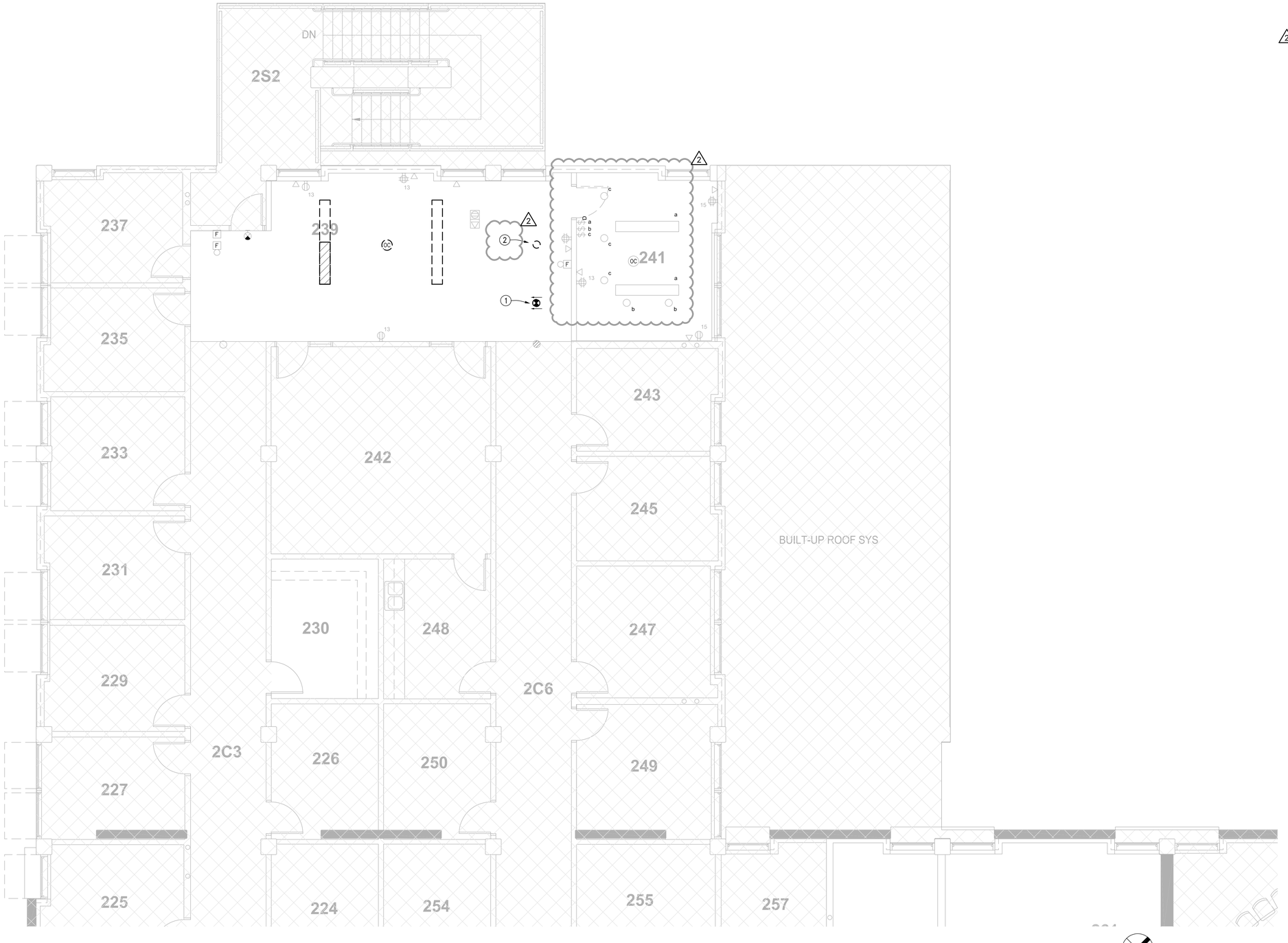
GENERAL NOTES:

1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY DASHED LINE INDICATES EXISTING TO BE REMOVED, UNLESS OTHERWISE NOTED.
3. EXISTING NORMAL LIGHTING IS FED FROM PANEL "4H2A", EXISTING EMERGENCY LIGHTING IS FED FROM PANEL "4EH1A" LOCATED ON FIRST FLOOR, AND EXISTING POWER IS FED FROM PANEL "4L2A", UNLESS OTHERWISE NOTED.

SHEET NOTES:

2 (1) REMOVE AND RELOCATE EXIT SIGN TO NEW LOCATION AS INDICATED ON NEW PLAN.

(2) REMOVE LIGHTING FIXTURE AND RELOCATE TO NEW CORRIDOR EXTENSION. SEE SHEET E2.02C.



1 SECOND FLOOR AREA D ELECTRICAL DEMOLITION PLAN

SCALE: 1/4" = 1'-0"

D

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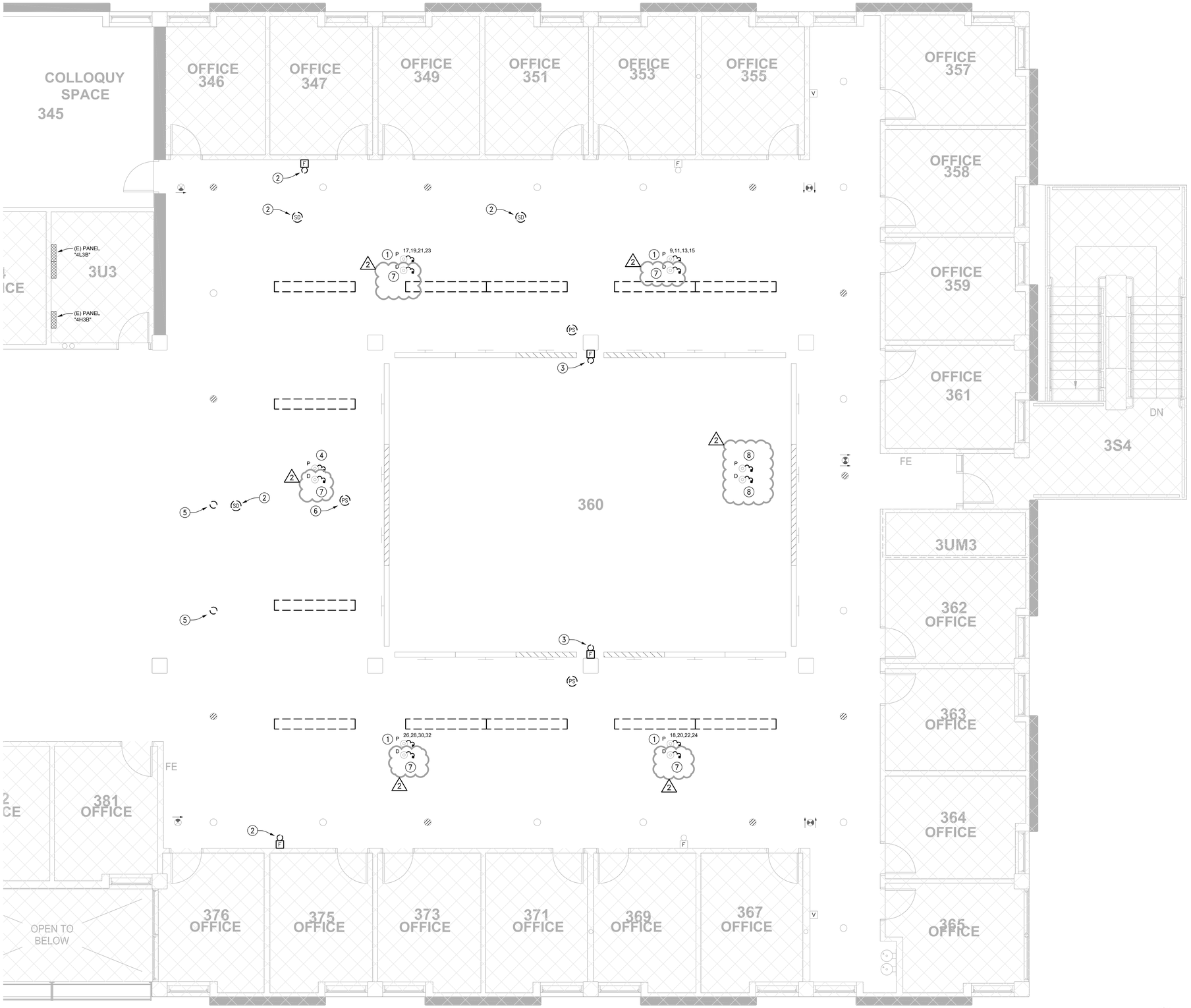
NO.	DATE	DESCRIPTION
2	03/18/2020	ADDENDUM #1
1	02/27/2020	PERMIT
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

SECOND FLOOR AREA D ELECTRICAL DEMOLITION PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E1.02D**



1 THIRD FLOOR AREA A ELECTRICAL DEMOLITION PLAN

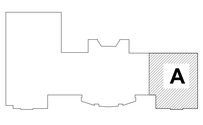
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY DASHED LINE INDICATES EXISTING TO BE REMOVED, UNLESS OTHERWISE NOTED.
3. EXISTING NORMAL LIGHTING IS FED FROM PANEL "4H3B". EXISTING EMERGENCY LIGHTING IS FED FROM PANEL "4EH1B" LOCATED ON FIRST FLOOR, AND EXISTING POWER IS FED FROM PANEL "4L3B", UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. REMOVE DEVICES, FITTINGS AND FURNITURE FEED FROM FLOOR BOX. PROVIDE BLANK COVERPLATE. REMOVE WIRING BACK TO ITS ORIGIN.
2. REMOVE AND RELOCATE FIRE ALARM DEVICE TO NEW LOCATION AS INDICATED ON NEW PLAN.
3. REMOVE EXISTING SURFACE MOUNTED FIRE ALARM HORN/STROBE AND SURFACE RACEWAY.
4. REMOVE DEVICE, FITTINGS AND FURNITURE FEED FROM FLOOR BOX. PROVIDE NECESSARY MATERIAL & LABOR REQUIRE TO RETROFIT FLOOR BOX WITH DUPLEX RECEPTACLE. REFER TO NEW PLAN FOR NEW CIRCUITRY. REMOVE WIRING NO LONGER USED.
5. REMOVE LIGHT FIXTURE. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO MAINTAIN LIGHTING CIRCUIT AND CONTROL FOR FIXTURES THAT ARE TO REMAIN.
6. REMOVE AND RELOCATE TO CLEAR NEW CONSTRUCTION. SEE NEW PLAN.
7. REMOVE DEVICES, FITTINGS AND FURNITURE FEED FROM FLOOR BOX. PROVIDE BLANK COVERPLATE.
8. REUSE EXISTING FLOOR BOX TO FEED NEW FURNITURE PARTITIONS.



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CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

THIRD FLOOR AREA A ELECTRICAL DEMOLITION PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E1.03A**

1 **THIRD FLOOR AREA B ELECTRICAL DEMOLITION PLAN**

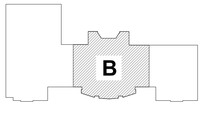
SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY DASHED LINE INDICATES EXISTING TO BE REMOVED, UNLESS OTHERWISE NOTED.
3. EXISTING NORMAL LIGHTING IS FED FROM PANEL "4H3B". EXISTING EMERGENCY LIGHTING IS FED FROM PANEL "4EH1B" LOCATED ON FIRST FLOOR, UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. REMOVE DEVICES, FITTINGS AND FURNITURE FEED FROM FLOOR BOX. PROVIDE BLANK COVERPLATE.
2. REMOVE DEVICE, FITTINGS AND FURNITURE FEED FROM FLOOR BOX. PROVIDE NECESSARY MATERIAL & LABOR REQUIRE TO RETROFIT FLOOR BOX WITH DUPLEX RECEPTACLE. REFER TO NEW PLAN FOR NEW CIRCUITRY. REMOVE WIRING NO LONGER USED.
3. REMOVE AND RELOCATE FIRE ALARM DEVICE TO NEW LOCATION AS INDICATED ON NEW PLAN.
4. REMOVE AND RELOCATE TO CLEAR NEW CONSTRUCTION. SEE NEW PLAN.
5. REUSE EXISTING FLOOR BOX TO FEED NEW FURNITURE PARTITIONS.
6. REUSE EXISTING FLOOR BOX TO FEED NEW FURNITURE. SEE NEW PAN FOR NEW CIRCUITRY AND REMOVE WIRING NO LONGER USED.
7. REMOVE DEVICES AND RELOCATE TO NEW "FSR" A/V BOX AND RECONNECT AS INDICATED ON NEW PLAN. PROVIDE NEW BLANK COVERPLATE. REUSE EXISTING CIRCUIT TO SERVE NEW "FSR" A/V BOX.
8. EXISTING DEVICES AND CABLES SHALL BE REMOVED BY THE OWNER. PROVIDE NEW BLANK COVERPLATE.



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CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

THIRD FLOOR AREA B ELECTRICAL DEMOLITION PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E1.03B**

GENERAL NOTES:

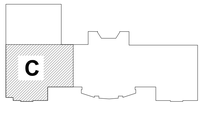
1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY DASHED LINE INDICATES EXISTING TO BE REMOVED, UNLESS OTHERWISE NOTED.
3. EXISTING NORMAL LIGHTING IS FED FROM PANEL "4H3A", EXISTING EMERGENCY LIGHTING IS FED FROM PANEL "4EH1A" LOCATED ON FIRST FLOOR, AND EXISTING POWER IS FED FROM PANEL "4L3A", UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. DISCONNECT MOTORIZED PROJECTOR SCREEN AND REUSE CIRCUIT TO CONNECT NEW SCREEN AS INDICATED ON NEW PLAN. SCREEN SHALL BE REMOVED BY THE OWNER..
2. REMOVE AND RELOCATE LIGHTING CONTROL SYSTEM LOW-VOLTAGE OVERRIDE SWITCH TO NEW LOCATION AS INDICATED ON NEW PLAN.
3. REMOVE DEVICES, FITTINGS AND FURNITURE FEED FROM FLOOR BOX. PROVIDE BLANK COVERPLATE. REMOVE WIRING BACK TO ITS ORIGIN.
4. REMOVE WIRING BACK TO ITS ORIGIN.
5. PROVIDE BLANK COVERPLATE AT THIS FLOOR BOX.

1 THIRD FLOOR AREA C ELECTRICAL DEMOLITION PLAN

SCALE: 1/4" = 1'-0"



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CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

THIRD FLOOR AREA C ELECTRICAL DEMOLITION PLAN

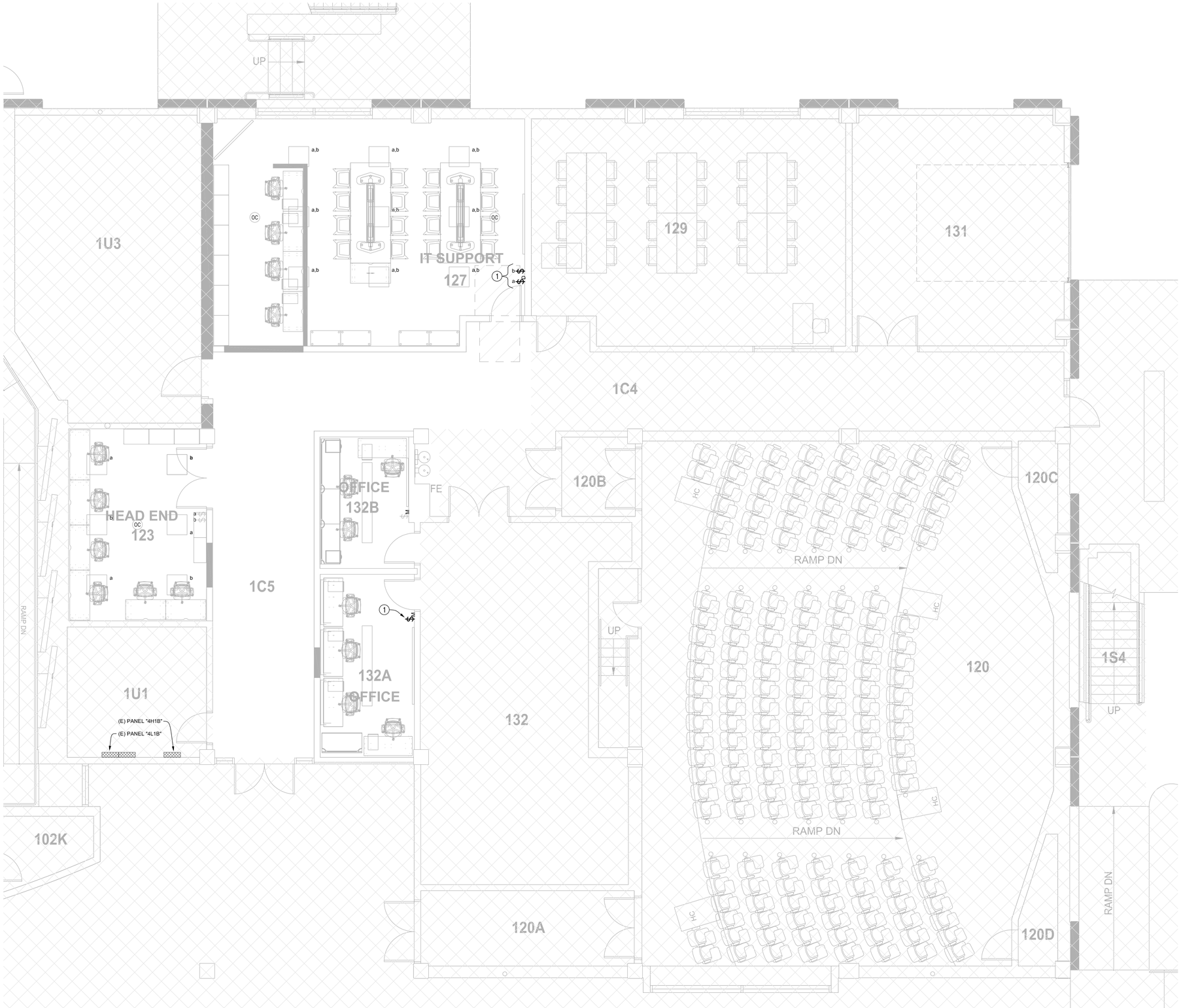
Drawn By: RC
Checked By: RC
Project Number: 2019031
Sheet Number: E1.03C

GENERAL NOTES:

1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.
3. EXISTING LIGHTING IS FED FROM PANEL "4H1B", UNLESS OTHERWISE NOTED.

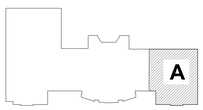
SHEET NOTES:

(1) RELOCATED LIGHT SWITCH, PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO RECONNECT TO EXISTING CIRCUITRY.



1 FIRST FLOOR AREA A NEW LIGHTING PLAN

SCALE: 1/4" = 1'-0"



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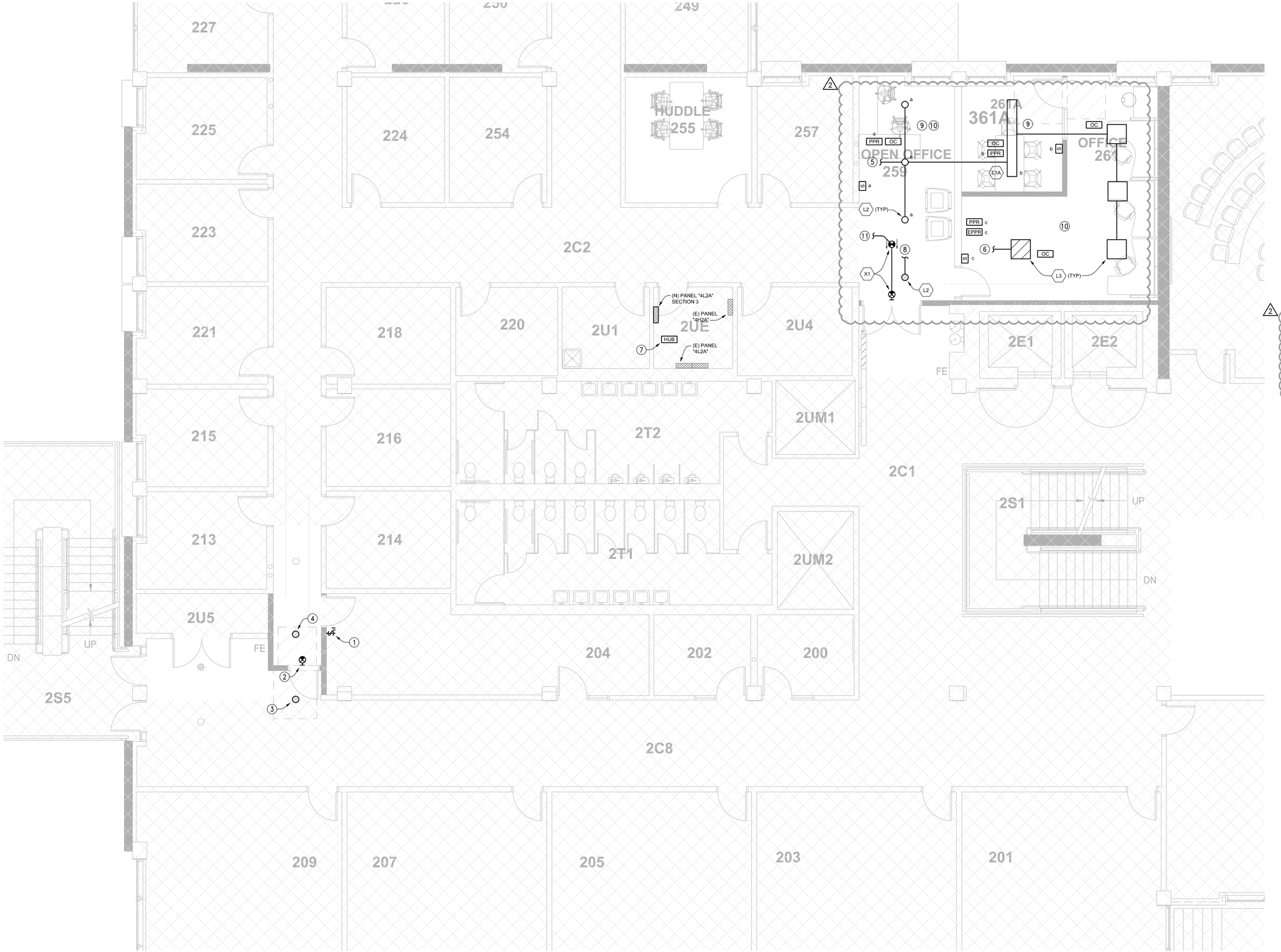
CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

FIRST FLOOR AREA A NEW LIGHTING PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E2.01A**



GENERAL NOTES:

1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.
3. EXISTING NORMAL LIGHTING IS FED FROM PANEL "4H2A". EXISTING EMERGENCY LIGHTING IS FED FROM PANEL "4EH1A" LOCATED ON FIRST FLOOR, UNLESS OTHERWISE NOTED.

SHEET NOTES:

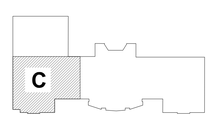
1. REINSTALL EXISTING WALL MOUNTED OCCUPANCY SWITCH AND RECONNECT TO MATCH EXISTING.
2. RELOCATED EXIT SIGN. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED AND RECONNECT TO EXISTING EMERGENCY CIRCUIT TO MATCH EXISTING.
3. RELOCATED SURFACE MOUNTED CYLINDER FIXTURE REMOVED FROM THIRD FLOOR. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED AND CONNECT TO EXISTING EMERGENCY CIRCUIT AND CONTROL SERVING THE AREA.
4. RELOCATED SURFACE MOUNTED CYLINDER FIXTURE REMOVED FROM AREA D. REFER TO SHEET E1.02D. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED AND CONNECT TO EXISTING EMERGENCY CIRCUIT AND CONTROL SERVING THE AREA.
5. INTERCEPT & EXTEND EXISTING UNSWITCHED LIGHTING CIRCUIT 4H2A-5 SERVING THE AREA TO CONNECT NEW LIGHTING AS INDICATED. SEE DETAIL 7/E4.01.
6. INTERCEPT EXISTING UNSWITCHED EMERGENCY LIGHTING CIRCUIT 4EH1A-3 IN ELECT ROOM 2UE AND EXTEND TO CONNECT NEW LIGHTING AS INDICATED. SEE DETAIL 7/E4.01.
7. CONNECT HUB TO EXISTING UNSWITCHED LIGHTING CIRCUIT 4H2A-5. PROVIDE ETHERNET CONNECTION TO IDF ROOM 2U4, COORDINATE TERMINATION REQUIREMENT WITH UCM IT DEPARTMENT.

2

8. CONNECT TO EXISTING EMERGENCY LIGHTING CIRCUIT AND CONTROL IN THE CORRIDOR.
9. OCCUPANCY SENSOR SHALL BE PROGRAMMED FOR PARTIAL-ON PER TITLE 24 REQUIREMENT, HIGHER OUTPUT SHALL BE ACHIEVED BY MANUAL DIMMER SWITCH.
10. LIGHTING IN THIS ROOM SHALL REMAIN ON DURING BUSINESS HOUR. VERIFY WITH THE OWNER FOR EXACT SCHEDULE. OCCUPANCY SENSOR SHALL CONTROL LIGHTING AFTER HOURS.
11. CONNECT TO EXISTING EXIT SIGN CIRCUIT SERVING THE AREA.

1 SECOND FLOOR AREA C NEW LIGHTING PLAN

SCALE: 1/4" = 1'-0"



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CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

SECOND FLOOR AREA C NEW LIGHTING PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031
Sheet Number: E2.02C

GENERAL NOTES:

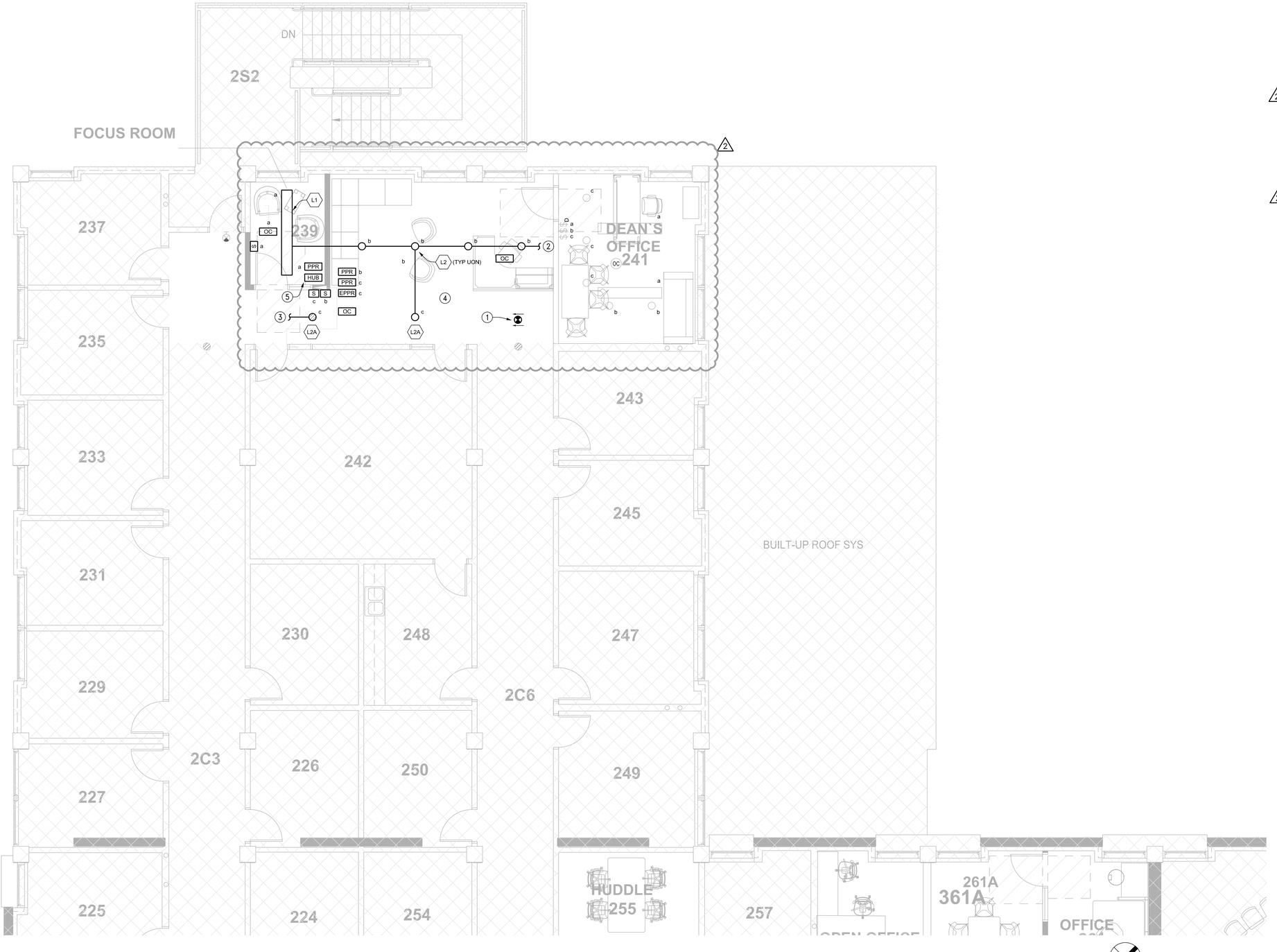
1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.
3. EXISTING NORMAL LIGHTING IS FED FROM PANEL "4H2A". EXISTING EMERGENCY LIGHTING IS FED FROM PANEL "4EH1A" LOCATED ON FIRST FLOOR, UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. RELOCATED EXIT SIGN. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO RECONNECT TO EXISTING EMERGENCY CIRCUIT TO MATCH EXISTING.
2. INTERCEPT & EXTEND EXISTING UNSWITCHED LIGHTING CIRCUIT 4H2A-3 SERVING THE AREA TO CONNECT NEW LIGHTING AS INDICATED. SEE DETAIL 7/E4.01.
3. INTERCEPT & EXTEND EXISTING UNSWITCHED EMERGENCY LIGHTING CIRCUIT SERVING THE AREA.
4. PROGRAM THE NEW LIGHTING WITH THE FOLLOWING FUNCTION:
   - TYPE "L2" - PRESET-ON/OFF, SCHEDULE TO MATCH EXISTING CORRICOR. AFTER HOURS SHALL BE SENSOR-50% ON, MANUAL-ADJUSTMENT, SENSOR-100% OFF.
   - TYPE "L2A"-PRESET-ON/OFF, SCHEDULE TO MATCH EXISTING CORRIDOR. AUTO-DIM TO 50% WHEN NO MOTION IS DETECTED, SENSOR-ON/OFF AFTER HOURS.
5. CONNECT HUB TO EXISTING UNSWITCHED LIGHTING CIRCUIT 4H2A-3. PROVIDE ETHERNET CONNECTION TO IDF ROOM 2U4, COORDINATE TERMINATION REQUIREMENT WITH UCM IT DEPARTMENT.

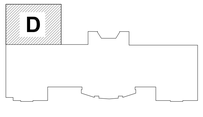
2

2



1 SECOND FLOOR AREA D NEW LIGHTING PLAN

SCALE: 1/4" = 1'-0"



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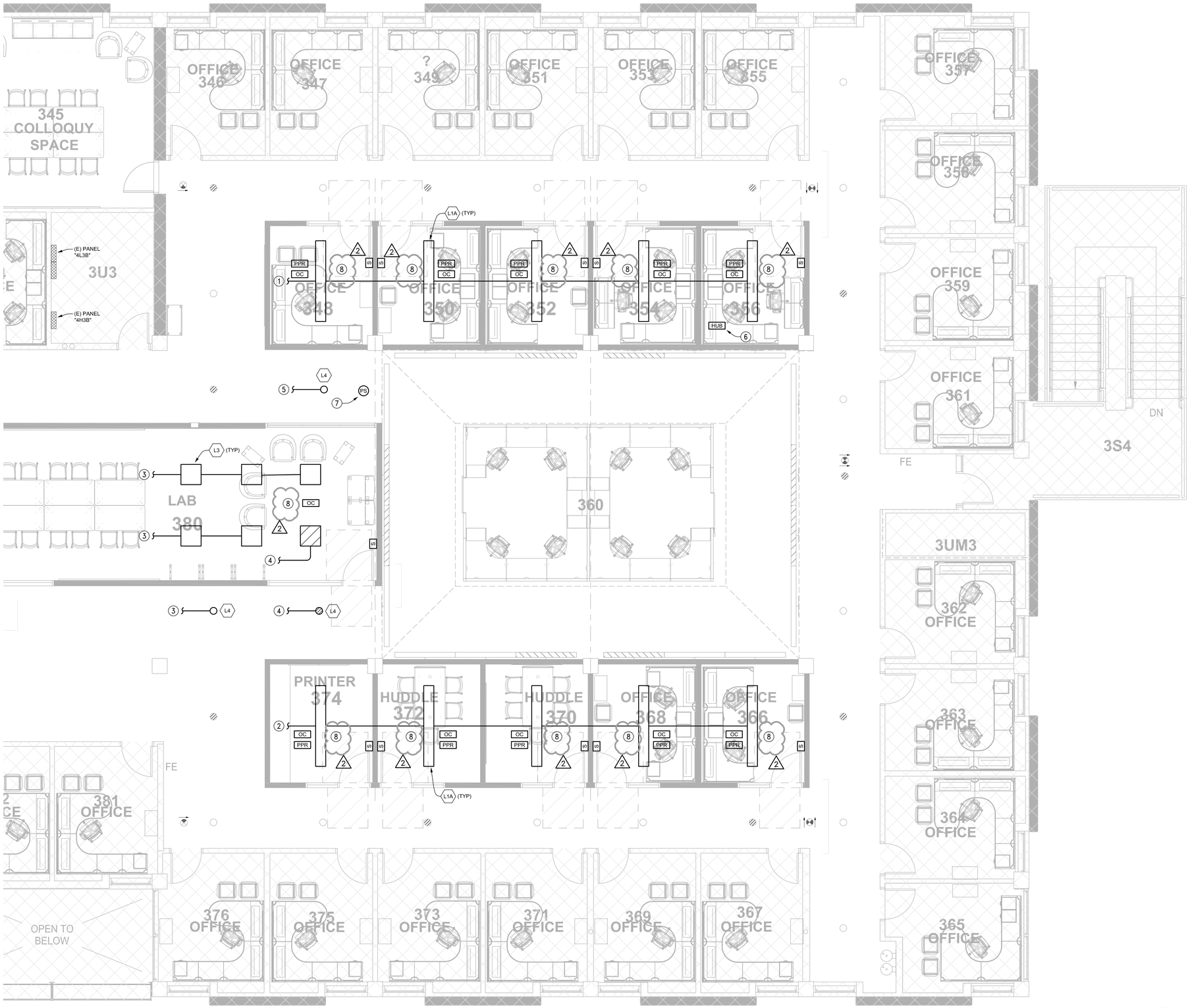
CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

SECOND FLOOR AREA D NEW LIGHTING PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E2.02D**



GENERAL NOTES:

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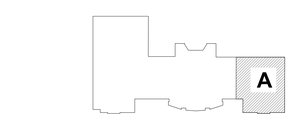
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.
3. EXISTING NORMAL LIGHTING IS FED FROM PANEL "4H3B". EXISTING EMERGENCY LIGHTING IS FED FROM PANEL "4EH1B" LOCATED ON FIRST FLOOR, UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. INTERCEPT & EXTEND EXISTING UNSWITCHED LIGHTING CIRCUIT 4H3B-3 SERVING THE AREA TO CONNECT NEW LIGHTING AS INDICATED. SEE DETAIL 7/E4.01.
2. INTERCEPT & EXTEND EXISTING UNSWITCHED LIGHTING CIRCUIT 4H3B-5 SERVING THE AREA TO CONNECT NEW LIGHTING AS INDICATED. SEE DETAIL 7/E4.01.
3. SEE SHEET E2.03B FOR CONTINUATION OF NORMAL LIGHTING CIRCUIT.
4. SEE SHEET E2.03B FOR CONTINUATION OF EMERGENCY LIGHTING CIRCUIT.
5. CONNECT TO EXISTING NORMAL LIGHTING CIRCUIT AND CONTROL SERVING THE CORRIDOR.
6. CONNECT HUB TO EXISTING UNSWITCHED LIGHTING CIRCUIT 4H3B-3. PROVIDE ETHERNET CONNECTION TO IDF ROOM 3U4, COORDINATE TERMINATION REQUIREMENT WITH UCM IT DEPARTMENT.
7. RELOCATED PHOTOSENSER. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO RECONNECT TO EXISTING CIRCUITRY.
8. OCCUPANCY SENSOR SHALL BE PROGRAMMED FOR PARTIAL-ON PER TITLE 24 REQUIREMENT. HIGHER OUTPUT SHALL BE ACHIEVED BY MANUAL DIMMER SWITCH.

1 THIRD FLOOR AREA A NEW LIGHTING PLAN

SCALE: 1/4" = 1'-0"



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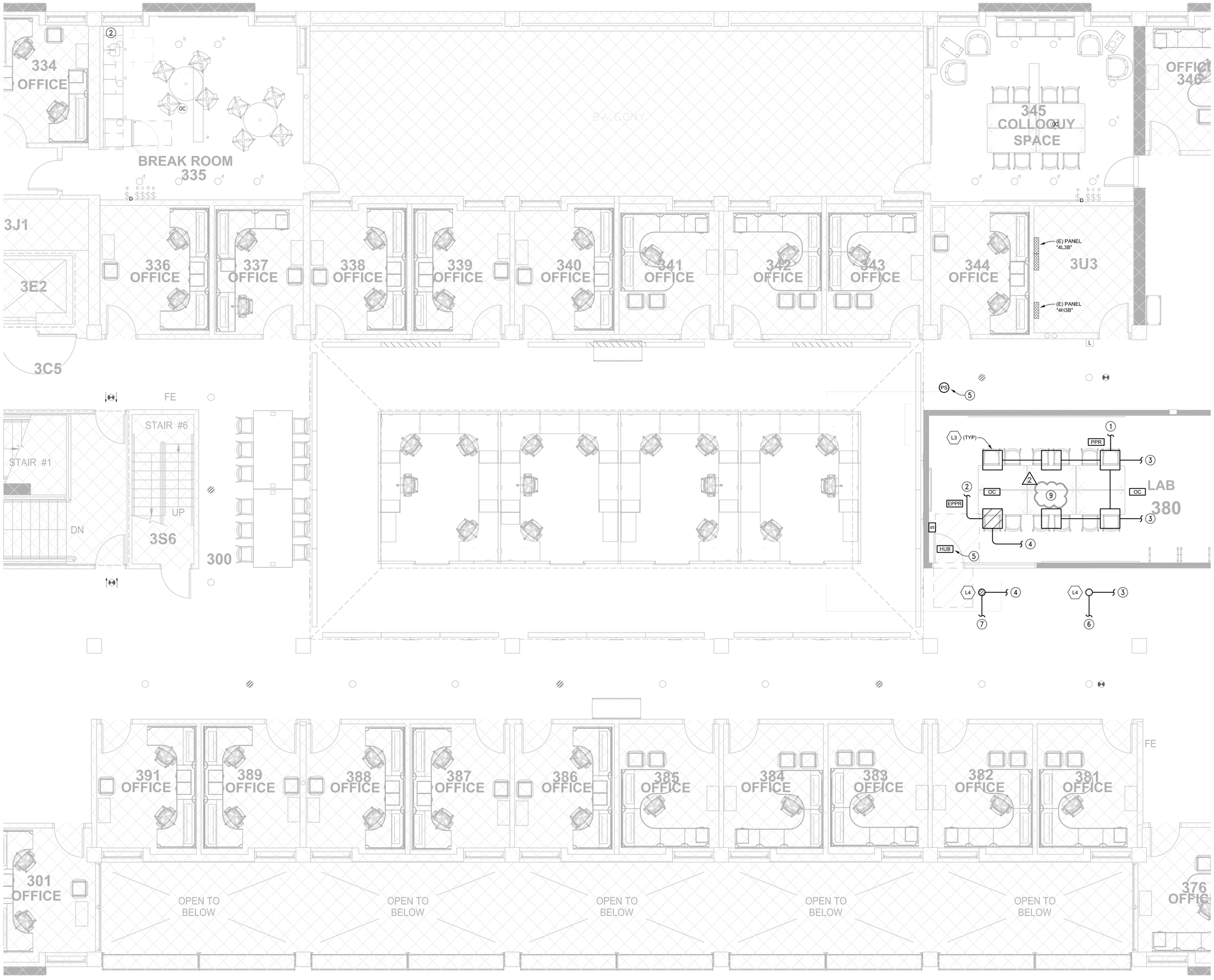
UNIVERSITY OF CALIFORNIA, MERCED

THIRD FLOOR AREA A NEW LIGHTING PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E2.03A**



GENERAL NOTES:

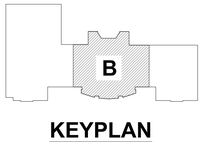
1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.
3. EXISTING NORMAL LIGHTING IS FED FROM PANEL "4H3B". EXISTING EMERGENCY LIGHTING IS FED FROM PANEL "4EH1B" LOCATED ON FIRST FLOOR, UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. INTERCEPT & EXTEND EXISTING UNSWITCHED LIGHTING CIRCUIT 4H3B-5 SERVING THE AREA TO CONNECT NEW LIGHTING AS INDICATED. SEE DETAIL 7/E4.01.
2. INTERCEPT EXISTING UNSWITCHED EMERGENCY LIGHTING CIRCUIT 4EH1B-5 IN ELECT ROOM 3U3 AND EXTEND TO CONNECT NEW LIGHTING AS INDICATED. SEE DETAIL 7/E4.01.
3. SEE SHEET E2.03A FOR CONTINUATION OF NORMAL LIGHTING CIRCUIT.
4. SEE SHEET E2.03A FOR CONTINUATION OF EMERGENCY LIGHTING CIRCUIT.
5. CONNECT HUB TO EXISTING UNSWITCHED LIGHTING CIRCUIT 4H3B-5. PROVIDE ETHERNET CONNECTION TO IDF ROOM 3U4, COORDINATE TERMINATION REQUIREMENT WITH UCM IT DEPARTMENT.
6. CONNECT TO EXISTING NORMAL LIGHTING CIRCUIT AND CONTROL SERVING THE CORRIDOR.
7. CONNECT TO EXISTING EMERGENCY LIGHTING CIRCUIT AND CONTROL SERVING THE CORRIDOR.
8. RELOCATED PHOTOSENSOR. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO RECONNECT TO EXISTING CIRCUITRY.
9. OCCUPANCY SENSOR SHALL BE PROGRAMMED FOR PARTIAL-ON PER TITLE 24 REQUIREMENT. HIGHER OUTPUT SHALL BE ACHIEVED BY MANUAL DIMMER SWITCH.

1 THIRD FLOOR AREA B NEW LIGHTING PLAN

SCALE: 1/4" = 1'-0"



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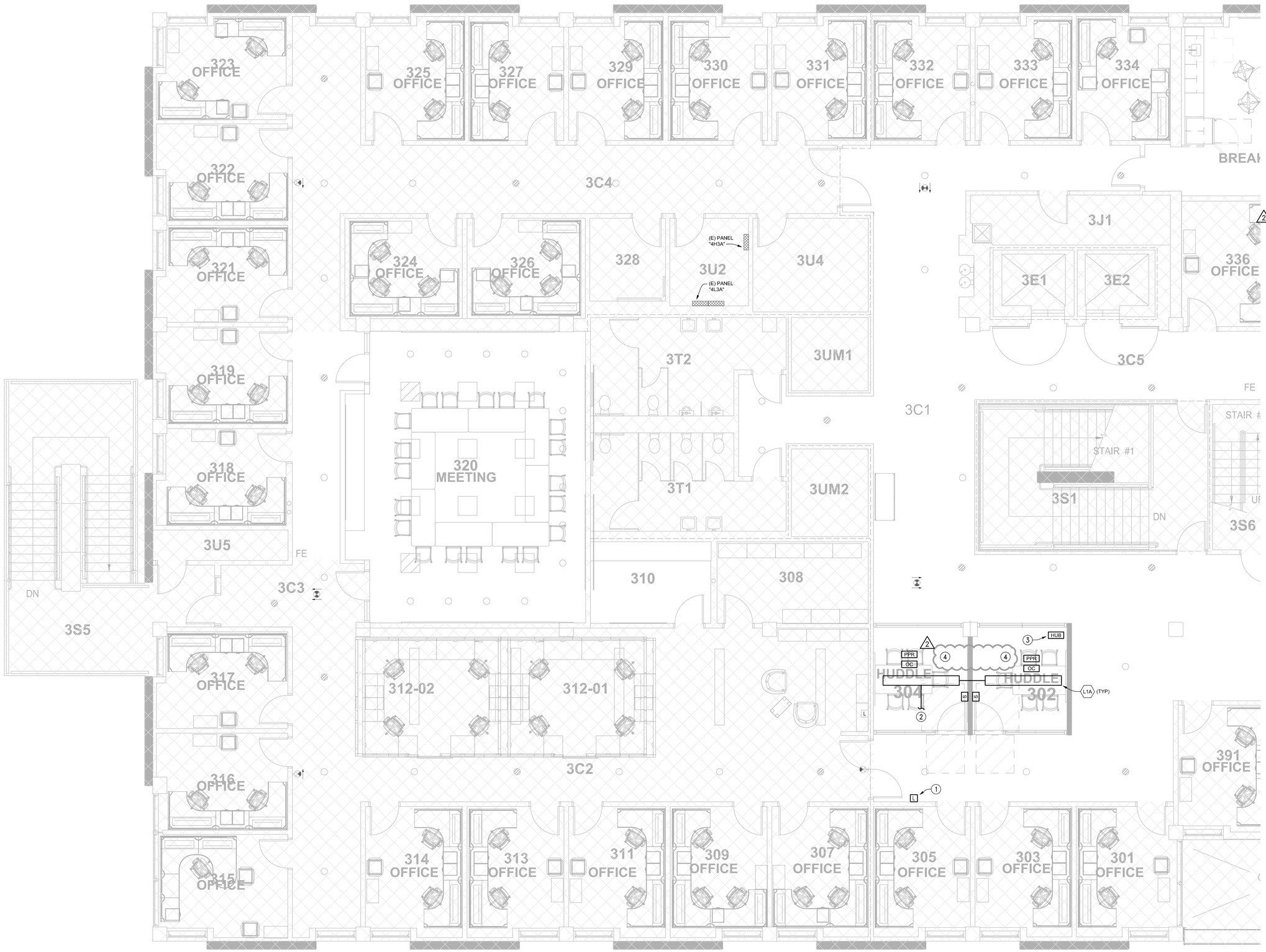
UNIVERSITY OF CALIFORNIA, MERCED

THIRD FLOOR AREA B NEW LIGHTING PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E2.03B**



GENERAL NOTES:

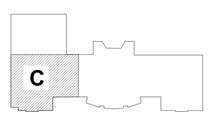
1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.
3. EXISTING NORMAL LIGHTING IS FED FROM PANEL "4H3A". EXISTING EMERGENCY LIGHTING IS FED FROM PANEL "4EH1A" LOCATED ON FIRST FLOOR, AND EXISTING POWER IS FED FROM PANEL "4L3A", UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. RELOCATED LIGHTING CONTROL SYSTEM LOW-VOLTAGE OVERRIDE SWITCH. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO RECONNECT TO MATCH EXISTING.
2. INTERCEPT & EXTEND EXISTING UNSWITCHED LIGHTING CIRCUIT 4H3A-6 SERVING THE AREA TO CONNECT NEW LIGHTING AS INDICATED. SEE DETAIL 7/E4.01.
3. CONNECT HUB TO EXISTING UNSWITCHED LIGHTING CIRCUIT 4H3A-6. PROVIDE ETHERNET CONNECTION TO IDF ROOM 304, COORDINATE TERMINATION REQUIREMENT WITH UCM IT DEPARTMENT.
4. OCCUPANCY SENSOR SHALL BE PROGRAMMED FOR PARTIAL-ON PER TITLE 24 REQUIREMENT. HIGHER OUTPUT SHALL BE ACHIEVED BY MANUAL DIMMER SWITCH.

1 THIRD FLOOR AREA C NEW LIGHTING PLAN

SCALE: 1/4" = 1'-0"



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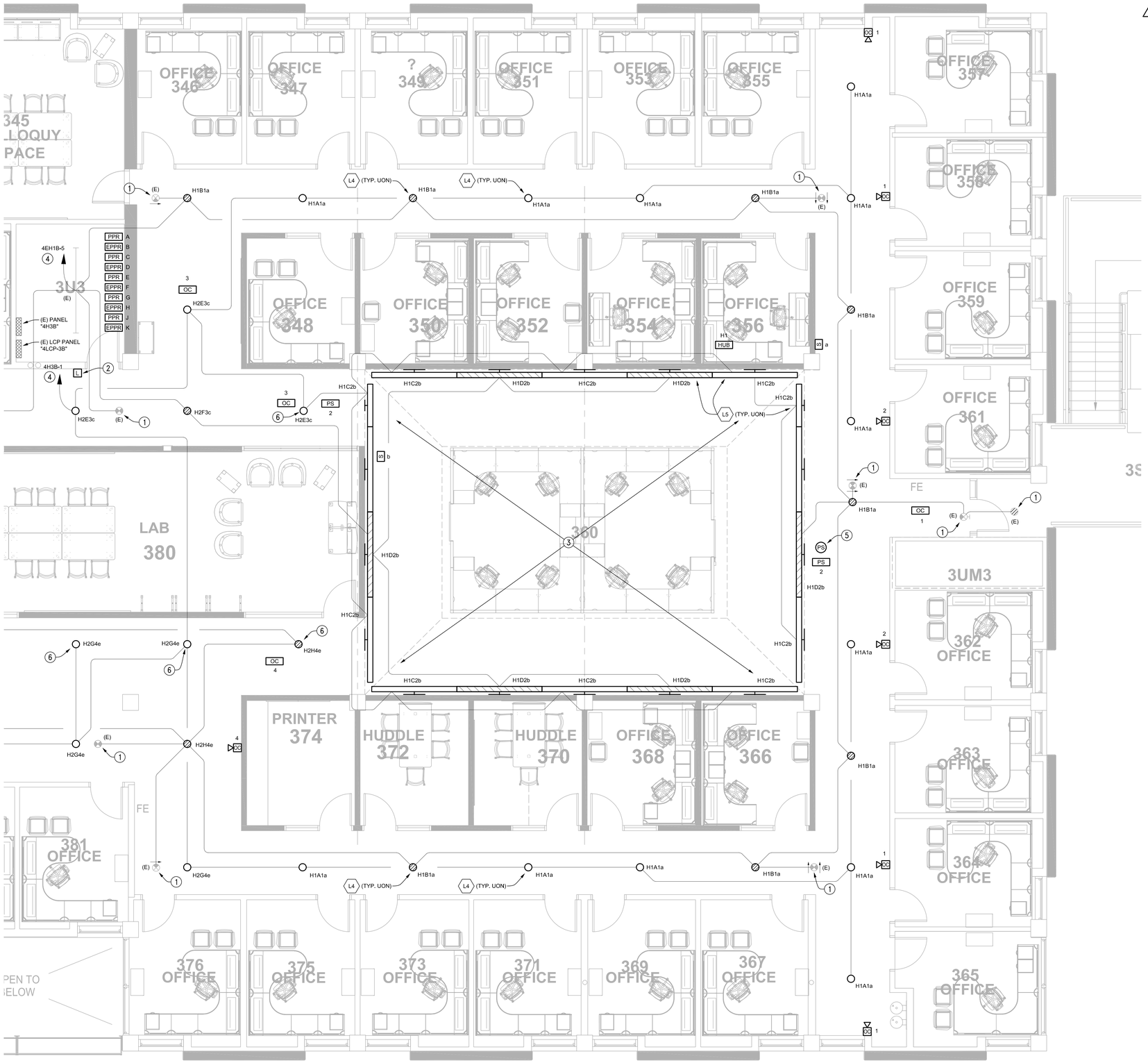
NO.	DATE	DESCRIPTION
2	03/18/2020	ADDENDUM #1
1	02/27/2020	PERMIT
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

THIRD FLOOR AREA C NEW LIGHTING PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: E2.03C



GENERAL NOTES:

1. CONDUIT CONNECTIONS SHOWN ON PLAN IS OBTAINED FROM AVAILABLE EXISTING DRAWINGS AND IS FOR REFERENCE ONLY.
2. REMOVE EXISTING CIRCUIT WIRES FROM THE CONDUITS AND PROVIDE NEW CIRCUIT WIRES AND LOW-VOLTAGE CONTROL WIRES.
3. REFER TO DETAIL 7/E4.01 FOR TYPICAL WIRING/CONNECTION REQUIREMENT.
4. EXISTING LIGHTING CIRCUIT(S) FED FROM PANEL "4H3A" IS CONTROLLED BY LIGHTING CONTROL PANEL "4LCP-3A". EXISTING LIGHTING CIRCUIT(S) FED FROM PANEL "4H3B" IS CONTROLLED BY LIGHTING CONTROL PANEL "4LCP-3B". CONTRACTOR SHALL PROVIDE NECESSAY MATERIAL & LABOR REQUIRED TO DISCONNECT FROM EXISTING LIGHTING CONTROL PANEL AND RECONNECT TO NEW LUTRON VIVE SYSTEM.
5. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO MAINTAIN EXISTING CONTROLLED FIXTURES AND/OR UNSWITCHED FIXTURES THAT ARE TO REMAIN.
6. WIRELESS HUB "H1", "H2", AND "H3" SHALL BE PROVIDED UNDER BASE BID. HUB "H4" SHALL BE PROVIDED IF ALTERNATE 2 IS EXERCISED.
7. FIXTURE TYPE "L1", "L2A", "L4", AND "L4A" IS A ONE-TO-ONE REPLACEMENT AT THE SAME LOCATION. FIXTURE TYPE "L5" TO REPLACE EXISTING AT THE SAME ELEVATION BUT NOT A ONE-TO-ONE REPLACEMENT.
8. COORDINATE EXACT LOCATION OF NEW WIRELESS DIMMER SWITCHES WITH OWNER/ARCHITECT PRIOR TO INSTALLATION.
9. COORDINATE WITH OWNER FOR EXACT PRESET ON/OFF SCHEDULE.

LEGEND (LUTRON VIVE SYSTEM, SEE 7/E4.01):

HUB	H1	CEILING MOUNTED WIRELESS HUB WITH POWER SUPPLY, "H1" INDICATES HUB ID.
PPR	A	CEILING MOUNTED NORMAL POWER PACK RELAY MODULE. "A" INDICATES POWER PACK ID.
EPPR	A	CEILING MOUNTED EMERGENCY POWER PACK RELAY MODULE. "A" INDICATES POWER PACK ID.
OC	1	CEILING MOUNTED OCCUPANCY SENSOR. "1" INDICATES SENSOR ID.
OC	1	WALL MOUNTED "HALLWAY" TYPE OCCUPANCY SENSOR, +7'-6"AFF, "1" INDICATES SENSOR ID.
PS	1	CEILING MOUNTED DAYLIGHT SENSOR. "1" INDICATES SENSOR ID.
S	a	WALL MOUNTED DIMMER SWITCH, +45"AFF, "a" INDICATES DIMMER ID.
H1A1a		TYPICAL LIGHT FIXTURE CONTROL DESIGNATION. "H1A1a" INDICATES FIXTURE IS CONTROLLED BY HUB "H1", POWER PACK "A", SENSOR "1", AND DIMMER "a".

SHEET NOTES:

1. EXISTING FIXTURE TO REMAIN. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO MAINTAIN EXISTING CONTROL FUNCTION OR UNSWITCHED CONDITION.
2. REMOVE EXISTING LIGHTING CONTROL SYSTEM LOW-VOLTAGE OVERRIDE SWITCH.
3. REMOVE EXISTING WALL MOUNTED UPLIGHT FIXTURES LOCATED IN THE SKYLIGHT. REFER TO DEMOLITION PLAN FOR LAYOUT. REMOVE WIRING BACK TO EXISTING DIMMING PANEL "DP3A". REUSE EXISTING CONDUITS TO ITS FULLEST EXTENT TO RUN NEW WIRING.
4. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO ACCOMMODATE NEW LUTRON VIVE SYSTEM, REFER TO DETAIL 7/E4.01, SEE GENERAL NOTE No.4 THIS SHEET.
5. REMOVE EXISTING PHOTOSENSOR.
6. NEW FIXTURE TYPE AND CONNECTION TO SUPERSEDE BASE BID IF ALTERNATE 2 IS EXERCISED.

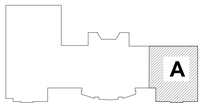
OPERATION MATRIX

POWER PACK *		PRESET ON/OFF	BUSINESS HOURS: DIMMED TO 50% OUTPUT WHEN NO MOTION IS DETECTED	BUSINESS HOURS: CONTINUOUS DIMMING BY DAYLIGHT SENSOR	AFTER HOURS: OCCUPANCY SENSOR ON/OFF	AFTER HOURS: 50% OUTPUT ON BY OCCUPANCY SENSOR, REMAINING ON BY MANUAL CONTROL, SENSOR OFF
PPR	A	●	●		●	
EPPR	B	●	●		●	
PPR	C	●		●		●
EPPR	D	●		●		●
PPR	E	●	●		●	
EPPR	F	●	●		●	
PPR	G	●	●		●	
EPPR	H	●	●		●	
PPR	J	●		●		●
EPPR	K	●		●		●
PPR	L	●	●		●	
EPPR	M	●	●		●	
PPR	N	●	●		●	
EPPR	O	●	●		●	
PPR	P	●				●

* REFER TO FLOOR PLAN FOR OCCUPANCY SENSORS, DAYLIGHT SENSORS, AND DIMMER SWITCHES CONTROLLING THE POWER PACK.

1 THIRD FLOOR AREA A NEW LIGHTING PLAN - ALTERNATE 2

SCALE: 1/4" = 1'-0"



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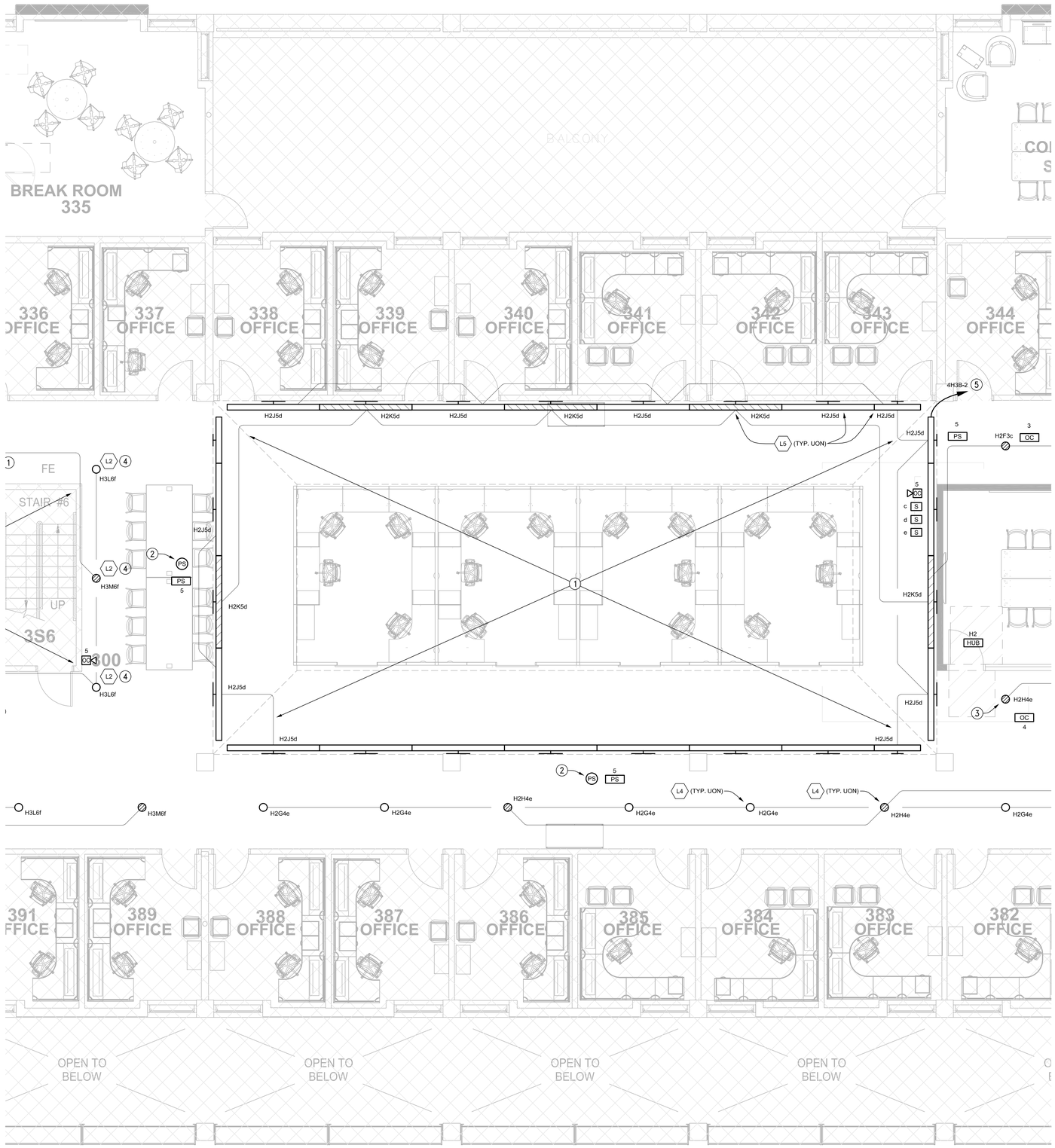
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

THIRD FLOOR AREA A NEW LIGHTING PLAN ALTERNATE 2

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: E2.03A ALT 2



GENERAL NOTES:

2

1. CONDUIT CONNECTIONS SHOWN ON PLAN IS OBTAINED FROM AVAILABLE EXISTING DRAWINGS AND IS FOR REFERENCE ONLY.
2. REMOVE EXISTING CIRCUIT WIRES FROM THE CONDUITS AND PROVIDE NEW CIRCUIT WIRES AND LOW-VOLTAGE CONTROL WIRES.
3. REFER TO DETAIL 7/E4.01 FOR TYPICAL WIRING/CONNECTION REQUIREMENT.
4. EXISTING LIGHTING CIRCUIT(S) FED FROM PANEL "4H3A" IS CONTROLLED BY LIGHTING CONTROL PANEL "4LCP-3A", EXISTING LIGHTING CIRCUIT(S) FED FROM PANEL "4H3B" IS CONTROLLED BY LIGHTING CONTROL PANEL "4LCP-3B". CONTRACTOR SHALL PROVIDE NECESSAY MATERIAL & LABOR REQUIRED TO DISCONNECT FROM EXISTING LIGHTING CONTROL PANEL AND RECONNECT TO NEW LUTRON VIVE SYSTEM.
5. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO MAINTAIN EXISTING CONTROLLED FIXTURES AND/OR UNSWITCHED FIXTURES THAT ARE TO REMAIN.
6. WIRELESS HUB "H1", "H2", AND "H3" SHALL BE PROVIDED UNDER BASE BID. HUB "H4" SHALL BE PROVIDED IF ALTERNATE 2 IS EXERCISED.
7. FIXTURE TYPE "L1", "L2A", "L4", AND "L4A" IS A ONE-TO-ONE REPLACEMENT AT THE SAME LOCATION. FIXTURE TYPE "L5" TO REPLACE EXISTING AT THE SAME ELEVATION BUT NOT A ONE-TO-ONE REPLACEMENT.
8. COORDINATE EXACT LOCATION OF NEW WIRELESS DIMMER SWITCHES WITH OWNER/ARCHITECT PRIOR TO INSTALLATION.
9. COORDINATE WITH OWNER FOR EXACT PRESET ON/OFF SCHEDULE.

LEGEND (LUTRON VIVE SYSTEM, SEE 7/E4.01):

- HUB H1 — CEILING MOUNTED WIRELESS HUB WITH POWER SUPPLY, "H1" INDICATES HUB ID.
- PPR A — CEILING MOUNTED NORMAL POWER PACK RELAY MODULE. "A" INDICATES POWER PACK ID.
- EPPR A — CEILING MOUNTED EMERGENCY POWER PACK RELAY MODULE. "A" INDICATES POWER PACK ID.
- OC 1 — CEILING MOUNTED OCCUPANCY SENSOR. "1" INDICATES SENSOR ID.
- 1 — WALL MOUNTED "HALLWAY" TYPE OCCUPANCY SENSOR, +7'-6"AFF. "1" INDICATES SENSOR ID. (2)
- PS 1 — CEILING MOUNTED DAYLIGHT SENSOR. "1" INDICATES SENSOR ID.
- S a — WALL MOUNTED DIMMER SWITCH, +45"AFF. "a" INDICATES DIMMER ID. (2)
- H1A1a — TYPICAL LIGHT FIXTURE CONTROL DESIGNATION. "H1A1a" INDICATES FIXTURE IS CONTROLLED BY HUB "H1", POWER PACK "A", SENSOR "1", AND DIMMER "a".

SHEET NOTES:

1. REMOVE EXISTING WALL MOUNTED UPLIGHT FIXTURES LOCATED IN THE SKYLIGHT, REFER TO DEMOLITION PLAN FOR LAYOUT. REMOVE WIRING BACK TO EXISTING DIMMING PANEL "DP3A". REUSE EXISTING CONDUITS TO ITS FULLEST EXTENT TO RUN NEW WIRING.
2. REMOVE EXISTING PHOTOSENSOR.
3. NEW FIXTURE TYPE AND CONNECTION TO SUPERSEDE BASE BID IF ALTERNATE 2 IS EXERCISED.
4. VERIFY EXACT APETURE SIZE IN FIELD AND PROVIDE NEW FIXTURE TO MATCH ACCORDINGLY.
5. PROVIDE NEW 277V CIRCUIT INDICATED.

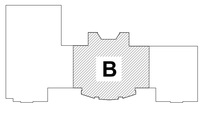
OPERATION MATRIX

* POWER PACK		PRESET ON/OFF	BUSINESS HOURS: DIMMED TO 50% OUTPUT WHEN NO MOTION IS DETECTED	BUSINESS HOURS: CONTINUOUS DIMMING BY DAYLIGHT SENSOR	AFTER HOURS: OCCUPANCY SENSOR ON/OFF	AFTER HOURS: 50% OUTPUT ON BY OCCUPANCY SENSOR, REMAINING ON BY MANUAL CONTROL. SENSOR OFF
PPR	A	●	●		●	
EPPR	B	●	●		●	
PPR	C	●		●		●
EPPR	D	●		●		●
PPR	E	●	●		●	
EPPR	F	●	●		●	
PPR	G	●	●		●	
EPPR	H	●	●		●	
PPR	J	●		●		●
EPPR	K	●		●		●
PPR	L	●	●		●	
EPPR	M	●	●		●	
PPR	N	●	●		●	
EPPR	O	●	●		●	
PPR	P	●				●

* REFER TO FLOOR PLAN FOR OCCUPANCY SENSORS, DAYLIGHT SENSORS, AND DIMMER SWITCHES CONTROLLING THE POWER PACK.

1 THIRD FLOOR AREA B NEW LIGHTING PLAN - ALTERNATE 2

SCALE: 1/4" = 1'-0"



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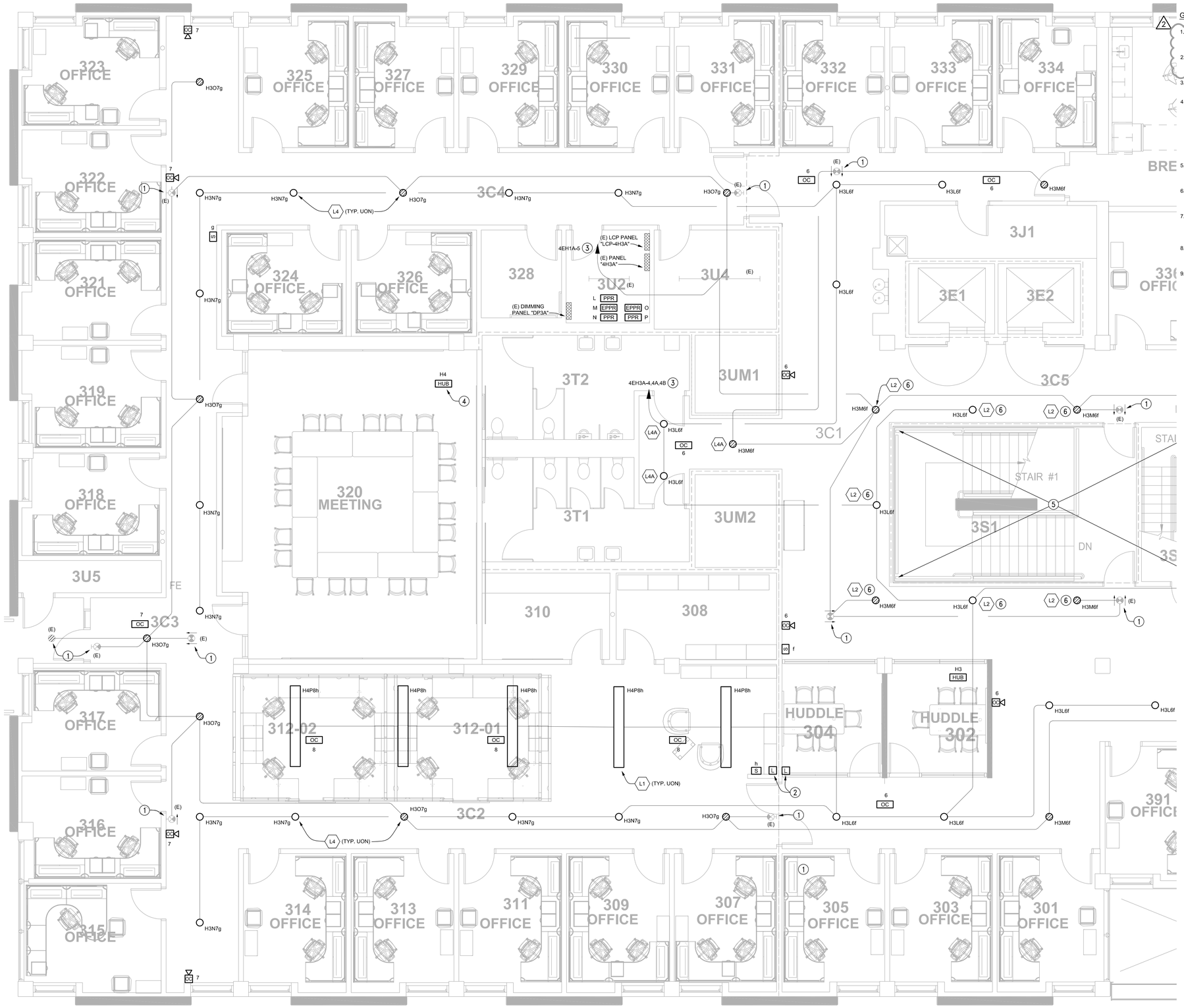
CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

THIRD FLOOR AREA B NEW LIGHTING PLAN - ALTERNATE 2

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: E2.03B ALT 2



GENERAL NOTES:

1. CONDUIT CONNECTIONS SHOWN ON PLAN IS OBTAINED FROM AVAILABLE EXISTING DRAWINGS AND IS FOR REFERENCE ONLY.
2. REMOVE EXISTING CIRCUIT WIRES FROM THE CONDUITS AND PROVIDE NEW CIRCUIT WIRES AND LOW-VOLTAGE CONTROL WIRES.
3. REFER TO DETAIL 7/E4.01 FOR TYPICAL WIRING/CONNECTION REQUIREMENT.
4. EXISTING LIGHTING CIRCUIT(S) FED FROM PANEL "4H3A" IS CONTROLLED BY LIGHTING CONTROL PANEL "4LCP-3A". EXISTING LIGHTING CIRCUIT(S) FED FROM PANEL "4H3B" IS CONTROLLED BY LIGHTING CONTROL PANEL "4LCP-3B". CONTRACTOR SHALL PROVIDE NECESSAY MATERIAL & LABOR REQUIRED TO DISCONNECT FROM EXISTING LIGHTING CONTROL PANEL AND RECONNECT TO NEW LUTRON VIVE SYSTEM.
5. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO MAINTAIN EXISTING CONTROLLED FIXTURES AND/OR UNSWITCHED FIXTURES THAT ARE TO REMAIN.
6. WIRELESS HUB "H1", "H2", AND "H3" SHALL BE PROVIDED UNDER BASE BID. HUB "H4" SHALL BE PROVIDED IF ALTERNATE 2 IS EXERCISED.
7. FIXTURE TYPE "L1", "L2A", "L4", AND "L4A" IS A ONE-TO-ONE REPLACEMENT AT THE SAME LOCATION. FIXTURE TYPE "L5" TO REPLACE EXISTING AT THE SAME ELEVATION BUT NOT A ONE-TO-ONE REPLACEMENT.
8. COORDINATE EXACT LOCATION OF NEW WIRELESS DIMMER SWITCHES WITH OWNER/ARCHITECT PRIOR TO INSTALLATION.
9. COORDINATE WITH OWNER FOR EXACT PRESET ON/OFF SCHEDULE.

LEGEND (LUTRON VIVE SYSTEM, SEE 7/E4.01):

- HUB H1 — CEILING MOUNTED WIRELESS HUB WITH POWER SUPPLY. "H1" INDICATES HUB ID.
- PPR A — CEILING MOUNTED NORMAL POWER PACK RELAY MODULE. "A" INDICATES POWER PACK ID.
- EPPR A — CEILING MOUNTED EMERGENCY POWER PACK RELAY MODULE. "A" INDICATES POWER PACK ID.
- OC 1 — CEILING MOUNTED OCCUPANCY SENSOR. "1" INDICATES SENSOR ID.
- OC 1 — WALL MOUNTED "HALLWAY" TYPE OCCUPANCY SENSOR, +7'-6"AFF. "1" INDICATES SENSOR ID.
- PS 1 — CEILING MOUNTED DAYLIGHT SENSOR. "1" INDICATES SENSOR ID.
- S a — WALL MOUNTED DIMMER SWITCH, +45"AFF. "a" INDICATES DIMMER ID.
- H1A1a — TYPICAL LIGHT FIXTURE CONTROL DESIGNATION. "H1A1a" INDICATES FIXTURE IS CONTROLLED BY HUB "H1", POWER PACK "A", SENSOR "1", AND DIMMER "a".

SHEET NOTES:

1. EXISTING FIXTURE TO REMAIN. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO MAINTAIN EXISTING CONTROL FUNCTION OR UNSWITCHED CONDITION.
2. REMOVE EXISTING LIGHTING CONTROL SYSTEM LOW-VOLTAGE OVERRIDE SWITCH.
3. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO ACCOMMODATE NEW LUTRON VIVE SYSTEM, REFER TO DETAIL 7/E4.01. SEE GENERAL NOTE No.4 THIS SHEET.
4. CONNECT HUB TO EXISTING UNSWITCHED LIGHTING CIRCUIT 4H3A-4. PROVIDE ETHERNET CONNECTION TO IDF ROOM 3U4, COORDINATE TERMINATION REQUIREMENT WITH UCM IT DEPARTMENT.
5. ALL EXISTING LIGHTING FIXTURES IN STAIRS TO REMAIN, SEE SHEET NOTE No.1 ABOVE.
6. VERIFY EXACT APETURE SIZE IN FIELD AND PROVIDE NEW FIXTURE TO MATCH ACCORDINGLY.

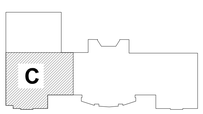
OPERATION MATRIX

POWER PACK		PRESET ON/OFF	BUSINESS HOURS: DIMMED TO 50% OUTPUT WHEN NO MOTION IS DETECTED	BUSINESS HOURS: CONTINUOUS DIMMING BY DAYLIGHT SENSOR	AFTER HOURS: OCCUPANCY SENSOR ON/OFF	AFTER HOURS: 50% OUTPUT ON BY OCCUPANCY SENSOR, REMAINING ON BY MANUAL CONTROL, SENSOR OFF
PPR	A	●	●		●	
EPPR	B	●	●		●	
PPR	C	●		●		●
EPPR	D	●		●		●
PPR	E	●	●		●	
EPPR	F	●	●		●	
PPR	G	●	●		●	
EPPR	H	●	●		●	
PPR	J	●		●		●
EPPR	K	●		●		●
PPR	L	●	●		●	
EPPR	M	●	●		●	
PPR	N	●	●		●	
EPPR	O	●	●		●	
PPR	P	●				●

* REFER TO FLOOR PLAN FOR OCCUPANCY SENSORS, DAYLIGHT SENSORS, AND DIMMER SWITCHES CONTROLLING THE POWER PACK.

1 THIRD FLOOR AREA C NEW LIGHTING PLAN - ALTERNATE 2

SCALE: 1/4" = 1'-0"



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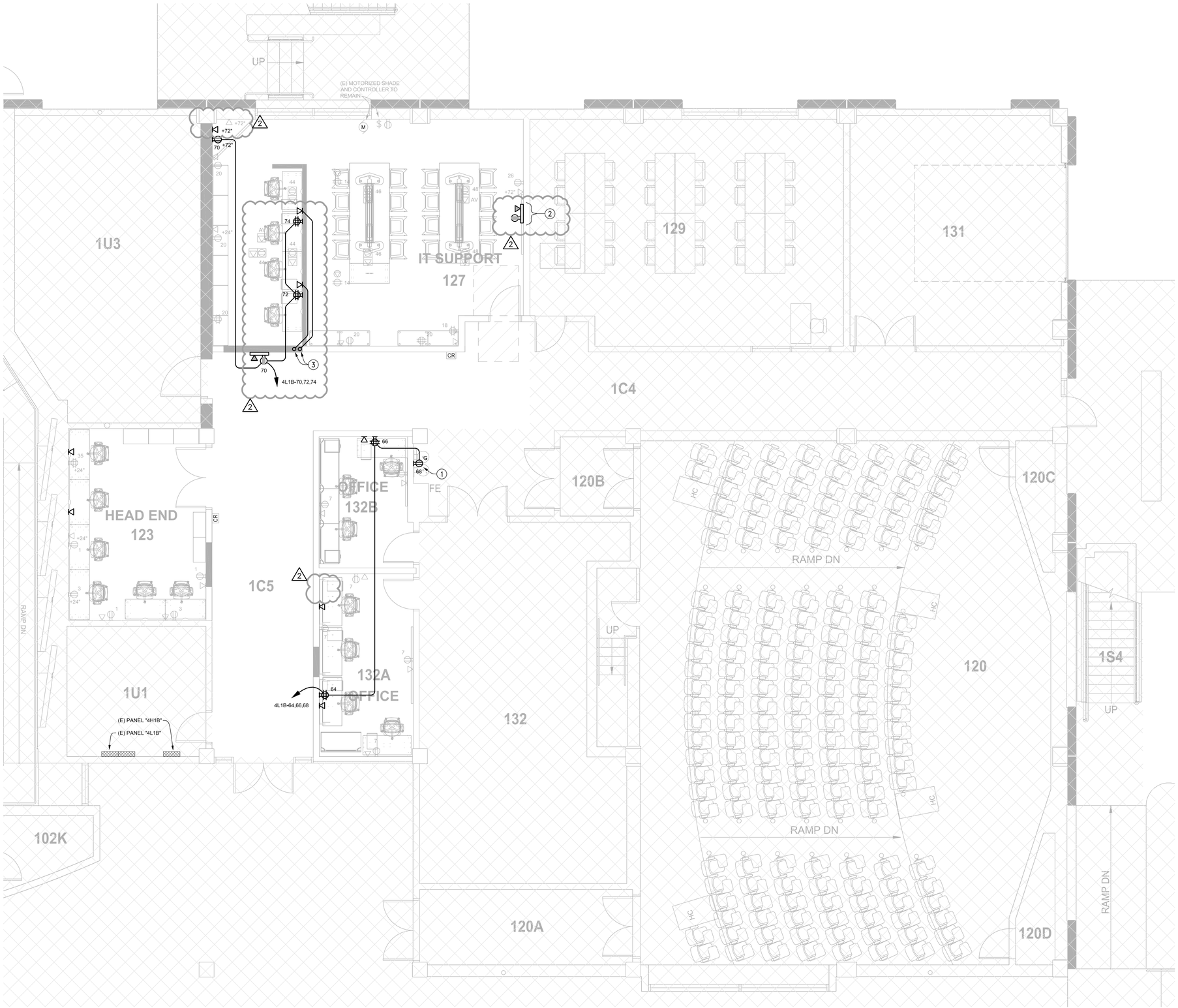
CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

THIRD FLOOR AREA C NEW LIGHTING PLAN - ALTERNATE 2

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E2.03C ALT 2**



GENERAL NOTES:

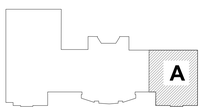
1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.
3. EXISTING POWER IS FED FROM PANEL "4L1B", UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. FOR ELECTRIC DRINKING FOUNTAIN. IF EXISTING RECEPTACLE EXISTS IN THIS LOCATION, REUSE EXISTING TO ITS FULLEST EXTENT, IN LIEU OF PROVIDING NEW, AND PROVIDE NECESSARY MATERIAL AND LABOR REQUIRED INCLUDING BUT NOT LIMITED TO THE FOLLOWING TO ACCOMMODATE THE NEW DRINKING FOUNTAIN.
   A. REPLACE EXISTING RECEPTACLE WITH GFCI TYPE.
   B. RELOCATE PER MANUFACTURER'S INSTALLATION MANUAL.
2. INSTALL RELOCATED RECEPTACLE AND DATA OUTLET INSIDE "FSR" A/V BOX. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO INTERCEPT EXISTING CIRCUIT TO CONNECT RELOCATED RECEPTACLE.
3. STUB 1-1/4" CO IN ACCESSIBLE CEILING SPACE.

1 FIRST FLOOR AREA A NEW POWER & SIGNAL PLAN

SCALE: 1/4" = 1'-0"



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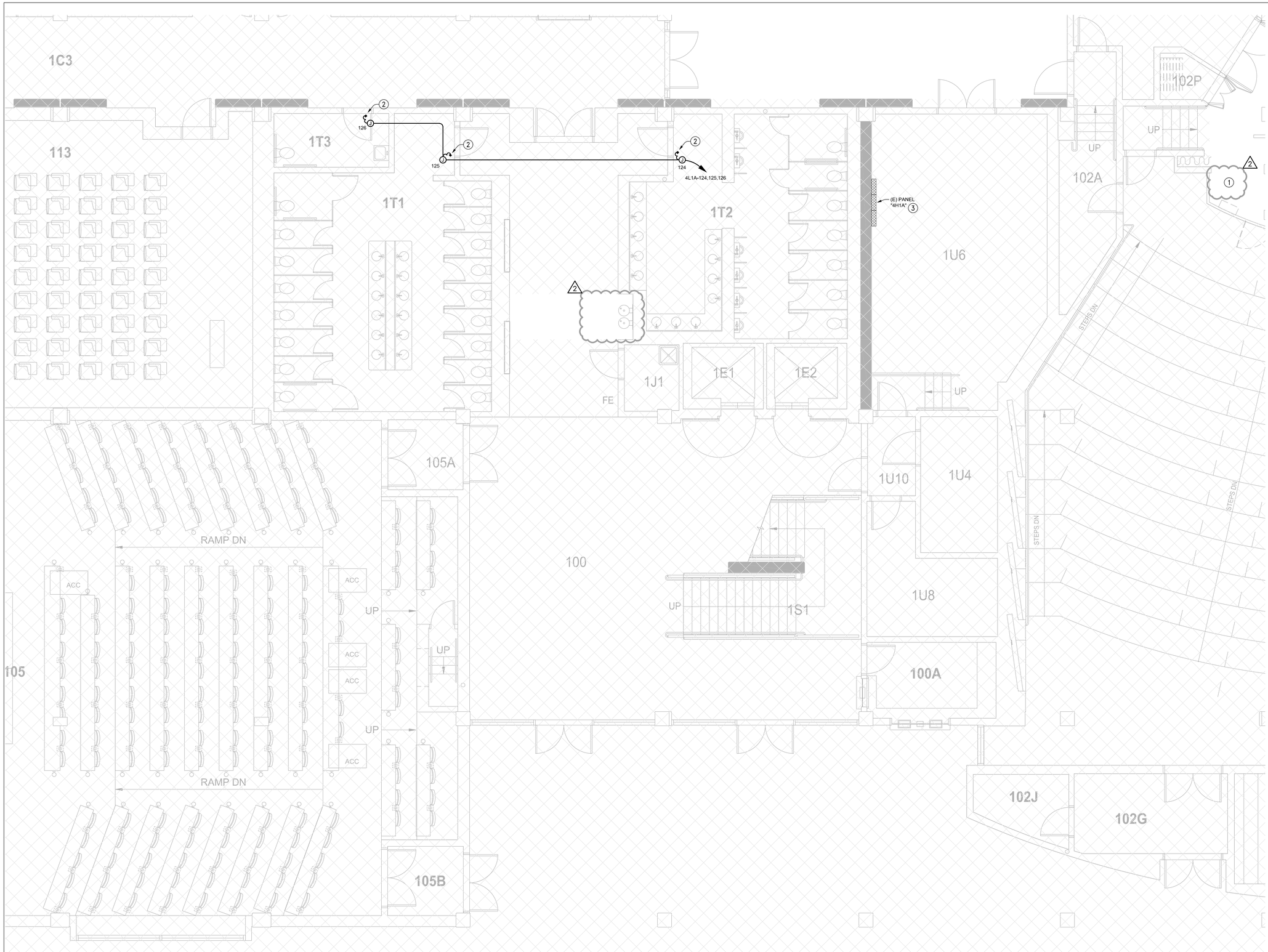
UNIVERSITY OF CALIFORNIA, MERCED

FIRST FLOOR AREA A NEW POWER & SIGNAL PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E3.01A**



GENERAL NOTES:

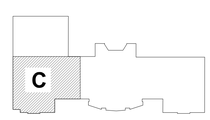
1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. REFER TO SHEET ID0.1.0 AND CARRY ALLOWANCE FOR ALTERNATE 3 FOR FLOOR BOXES WORK ON STAGE.
2. CONNECTION ADA DOOR POWER SUPPLY. COORDINATE WITH UC MERCED FOR EXACT ADA DOOR STANDARD AND PROVIDE NECESSARY OUTLET BOXES AND CONDUITS REQUIRED FOR A COMPLETE INSTALLATION.
3. PROVIDE NEW 20A/1P BREAKER AT CIRCUIT No.66, 124, 125 & 126, TYPE AND AIC RATING TO MATCH EXISTING AS REQUIRED.

1 FIRST FLOOR AREA C NEW POWER & SIGNAL PLAN

SCALE: 1/4" = 1'-0"



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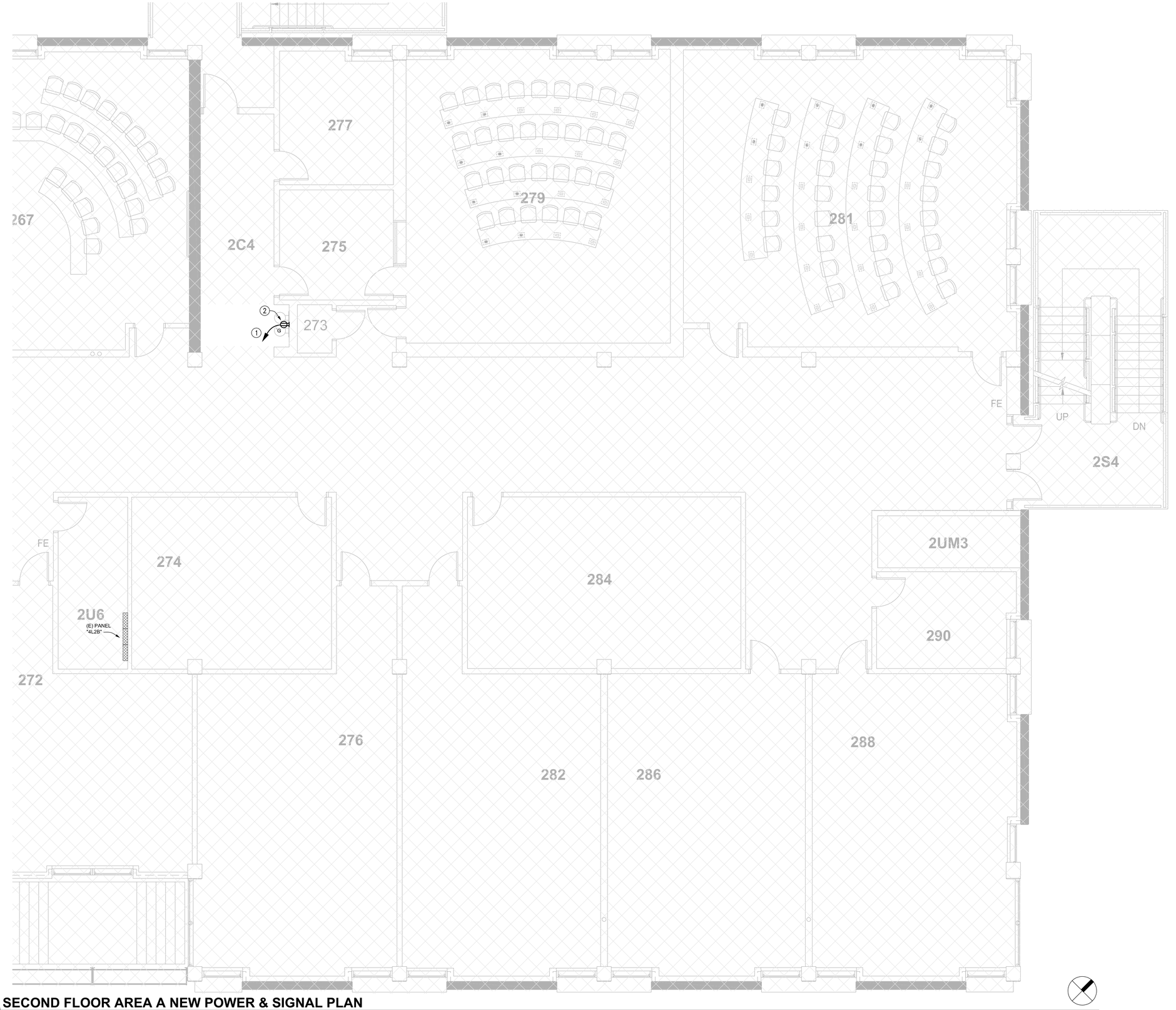
2	03/18/2020	ADDENDUM #1
1	02/27/2020	PERMIT
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

FIRST FLOOR AREA C NEW POWER & SIGNAL PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E3.01C**



GENERAL NOTES:

1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.

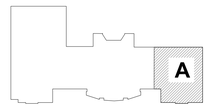
SHEET NOTES:

(1) TO AVAILABLE SPARE CIRCUIT BREAKER IN PANEL "4L2B" SECTION 3.

(2) FOR ELECTRIC DRINKING FOUNTAIN, IF EXISTING RECEPTACLE EXISTS IN THIS LOCATION, REUSE EXISTING TO ITS FULLEST EXTENT, IN LIEU OF PROVIDING NEW, AND PROVIDE NECESSARY MATERIAL & LABOR REQUIRED INCLUDING BUT NOT LIMITED TO THE FOLLOWING TO ACCOMMODATE THE NEW DRINKING FOUNTAIN.
   A. REPLACE EXISTING RECEPTACLE WITH GFCI TYPE.
   B. RELOCATE PER MANUFACTURER'S INSTALLATION MANUAL.

1 SECOND FLOOR AREA A NEW POWER & SIGNAL PLAN

SCALE: 1/4" = 1'-0"



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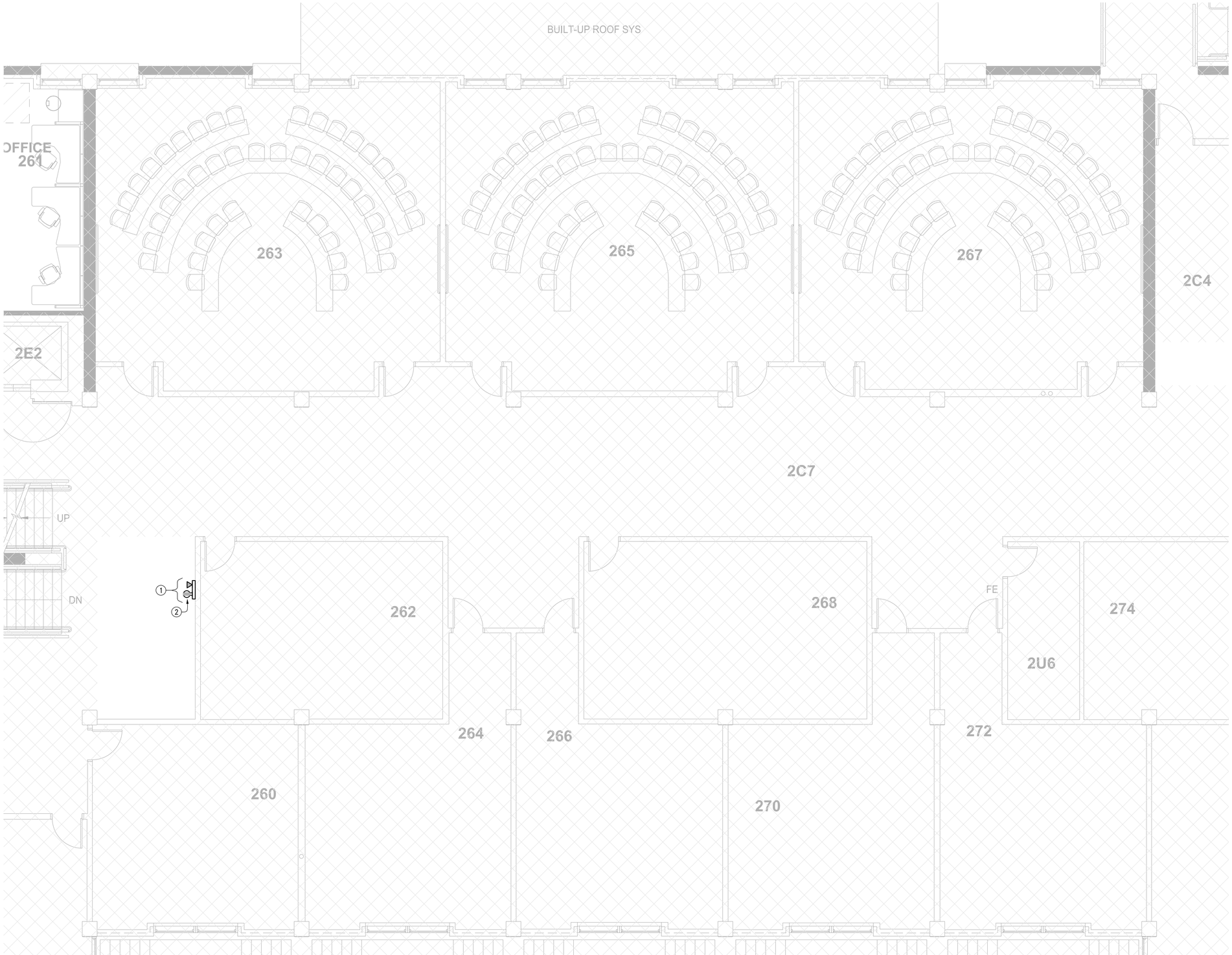
CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

SECOND FLOOR AREA A NEW POWER & SIGNAL PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E3.02A**



GENERAL NOTES:

1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.

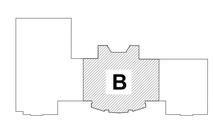
SHEET NOTES:

(1) INSTALL RELOCATED RECEPTACLE AND DATA OUTLET INSIDE "FSR" A/V BOX.

(2) PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO INTERCEPT EXISTING CIRCUIT, SERVING DIGITAL SIGN THAT IS BEING REMOVED, AND RECONNECT RELOCATED RECEPTACLE.

1 SECOND FLOOR AREA B NEW POWER & SIGNAL PLAN

SCALE: 1/4" = 1'-0"



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SECOND FLOOR AREA B NEW POWER & SIGNAL PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: E3.02B

GENERAL NOTES:

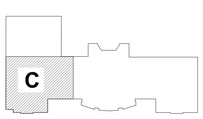
1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.
3. EXISTING POWER IS FED FROM PANEL "4L2A", UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. RELOCATED FIRE ALARM DEVICES.
2. FOR ELECTRIC DRINKING FOUNTAIN. IF EXISTING RECEPTACLE EXISTS IN THIS LOCATION, REUSE EXISTING TO ITS FULLEST EXTENT. IN LIEU OF PROVIDING NEW, AND PROVIDE NECESSARY MATERIAL & LABOR REQUIRED INCLUDING BUT NOT LIMITED TO THE FOLLOWING TO ACCOMMODATE THE NEW DRINKING FOUNTAIN.
   A. REPLACE EXISTING RECEPTACLE WITH GFCI TYPE.
   B. RELOCATE PER MANUFACTURER'S INSTALLATION MANUAL.
3. PROVIDE 1-1/4" CO TO "FSR" A/V BOX.
4. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO CONNECT EXISTING RECEPTACLE TO NEW CIRCUIT AT PANEL "4L2A" INDICATED.
5. CO-LOCATE DEVICES CENTERED UNDER THE SCREEN.
6. REUSE EXISTING BACK BOXES FOR NEW ELECTRIFIED FURNITURE BASE FEED.
7. DEVICES RELOCATED FROM FLUSH WITH WALL PANEL TO FLUSH WITH WALL. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO RECONNECT TO EXISTING CIRCUIT.
8. THESE DEVICES SHALL BE REMOVED PER DEMOLITION PLAN IF THEY ARE IN CONFLICT WITH NEW WALL.

1 SECOND FLOOR AREA C NEW POWER & SIGNAL PLAN

SCALE: 1/4" = 1'-0"



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UNIVERSITY OF CALIFORNIA, MERCED

SECOND FLOOR AREA C NEW POWER & SIGNAL PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

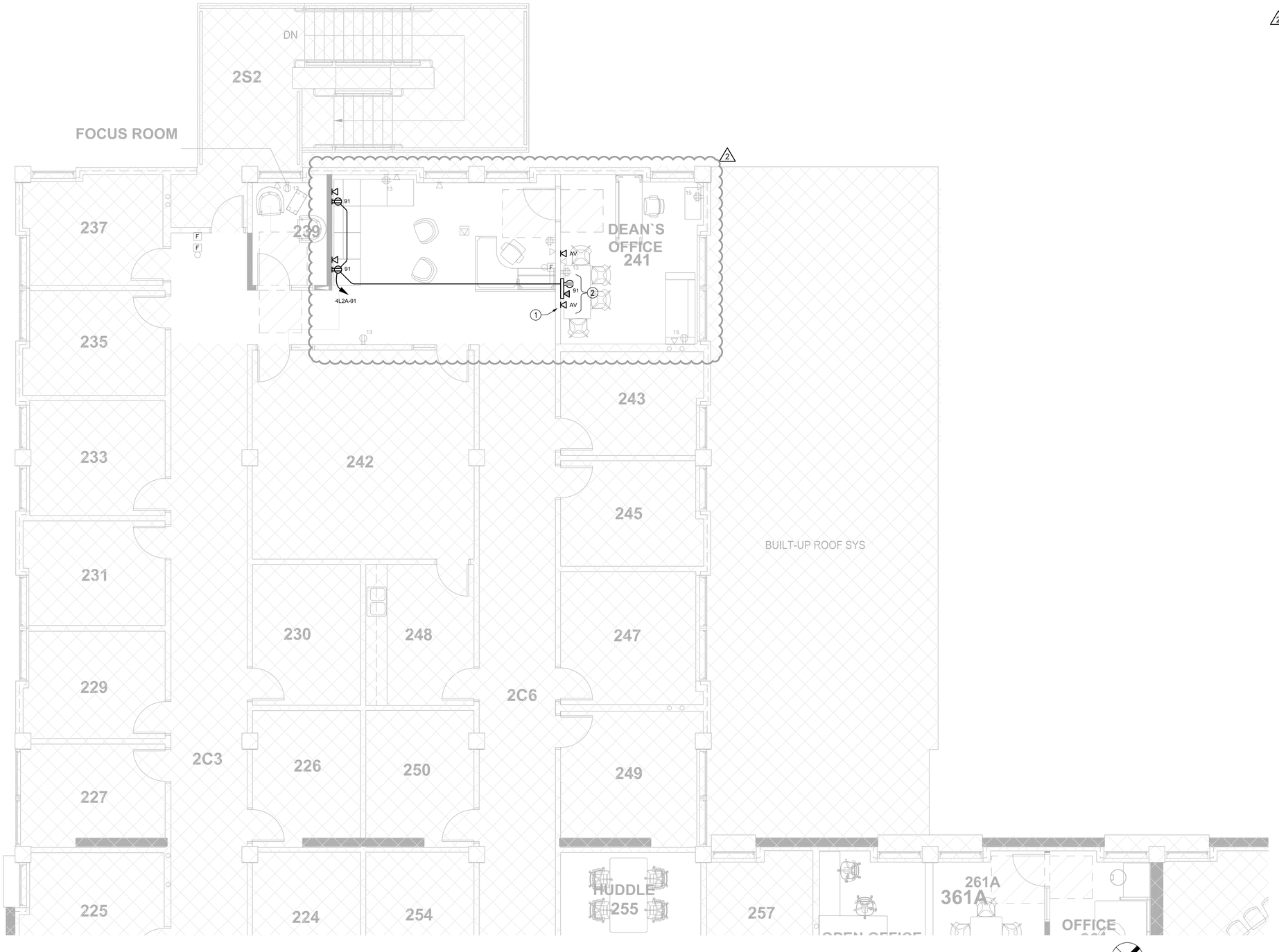
Sheet Number: **E3.02C**

GENERAL NOTES:

1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.
3. EXISTING POWER IS FED FROM PANEL "4L2A", UNLESS OTHERWISE NOTED. SEE SHEET E3.02C FOR PANEL LOCATION.

SHEET NOTES:

2
1. PROVIDE 1-1/4" CO TO THE "FSR" A/V BOX.
2. CO-LOCATE DEVICES CENTERED UNDER SCREEN.



1 **SECOND FLOOR AREA D NEW POWER & SIGNAL PLAN**

SCALE: 1/4" = 1'-0"

D

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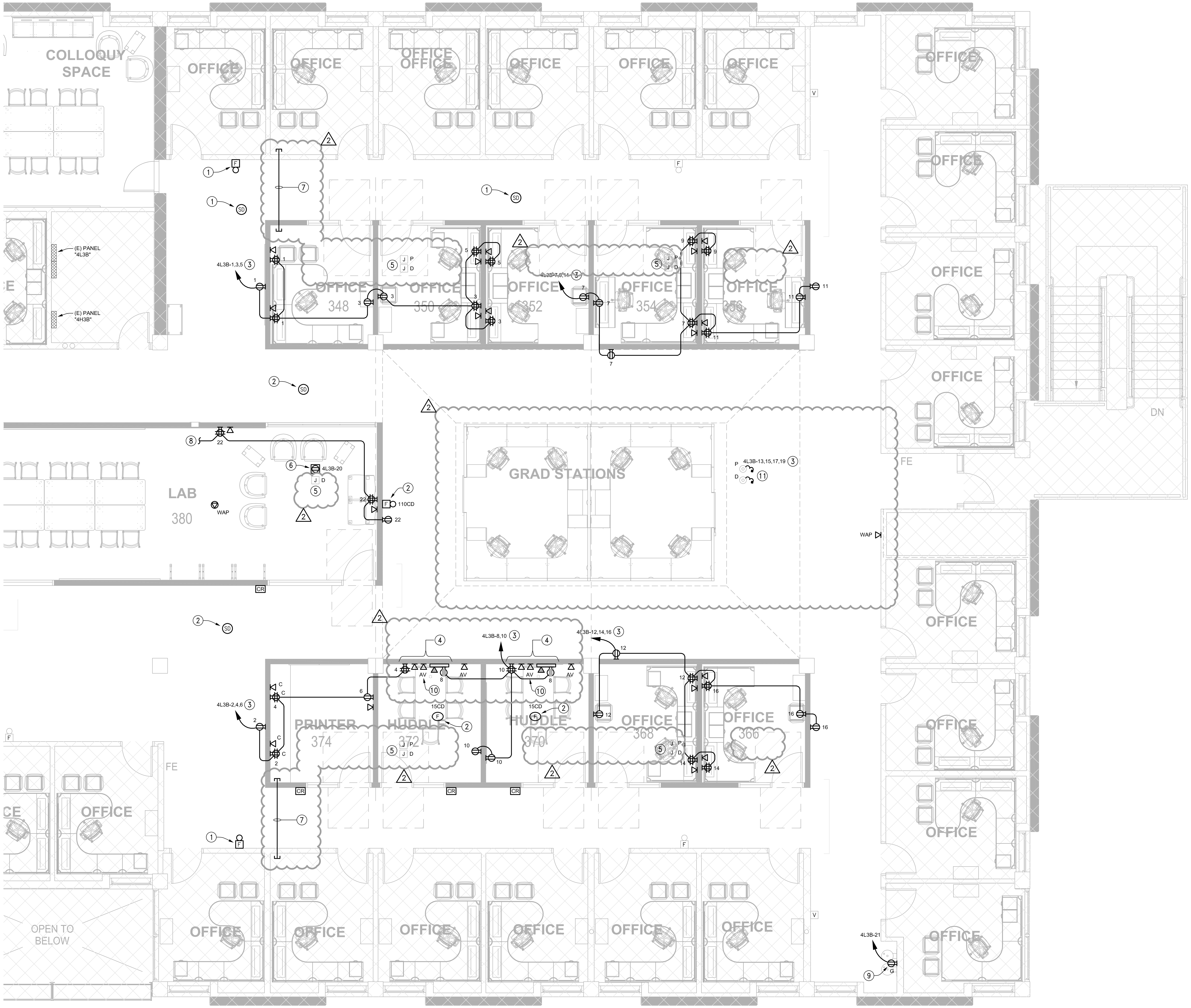
CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

SECOND FLOOR AREA D NEW POWER & SIGNAL PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

Sheet Number: **E3.02D**



1 THIRD FLOOR AREA A NEW POWER & SIGNAL PLAN

SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.
3. EXISTING POWER IS FED FROM PANEL "4L3B", UNLESS OTHERWISE NOTED.

SHEET NOTES:

(1) RELOCATED FIRE ALARM DEVICE.
(2) NEW FIRE ALARM DEVICE.
(3) VERIFY EXACT CIRCUITS TO BE USED WHEN CIRCUITS ARE MADE AVAILABLE AFTER DEMOLITION OF FLOOR FEED TO ELECTRIFIED FURNITURE PARTITIONS.
(4) CO-LOCATE DEVICES CENTERED UNDER SCREEN.
(5) EXISTING FLUSH MOUNTED FLOOR BOX WITH NEW COVERPLATE.
(6) RETROFIT EXISTING FLUSH MOUNTED FLOOR BOX WITH DUPLEX RECEPTACLE. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO CONNECT DUPLEX RECEPTACLE TO NEW CIRCUIT INDICATED.
(7) PROVIDE 2-1/2" CO IN CEILING SPACE.
(8) SEE SHEET E3.03B FOR CONTINUATION.
(9) FOR ELECTRIC DRINKING FOUNTAIN. IF EXISTING RECEPTACLE EXISTS IN THIS LOCATION, REUSE EXISTING TO ITS FULLEST EXTENT IN LIEU OF PROVIDING NEW AND PROVIDE NECESSARY MATERIAL & LABOR REQUIRED INCLUDING BUT NOT LIMITED TO THE FOLLOWING TO ACCOMMODATE THE NEW DRINKING FOUNTAIN.
   A. REPLACE EXISTING RECEPTACLE WITH GFCI TYPE.
   B. RELOCATE PER MANUFACTURER'S INSTALLATION MANUAL.
(10) PROVIDE 1-1/4" CO TO "FSR" A/V BOX.
(11) REUSE EXISTING FLUSH MOUNTED FLOOR BOXES TO SERVE NEW ELECTRIFIED FURNITURE PARTITIONS. PROVIDE NEW FLEXIBLE CONNECTION ("WHIP") UNLESS EXISTING CAN BE USED, VERIFY EXACT CONDITION IN FIELD.

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A

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CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

THIRD FLOOR AREA A NEW POWER & SIGNAL PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031
Sheet Number: E3.03A

1 **THIRD FLOOR AREA B NEW POWER & SIGNAL PLAN**

SCALE: 1/4" = 1'-0"

GENERAL NOTES:

1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. RELOCATED FIRE ALARM DEVICE.
2. SEE SHEET E3.03A FOR CONTINUATION.
3. VERIFY EXACT CIRCUITS TO BE USED WHEN CIRCUITS ARE MADE AVAILABLE AFTER DEMOLITION OF FLOOR FEED TO ELECTRIFIED FURNITURE PARTITIONS.
4. CO-LOCATE DEVICES CENTERED UNDER SCREEN.
5. RETROFIT EXISTING FLUSH MOUNTED FLOOR BOX WITH DUPLEX RECEPTACLE. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO CONNECT DUPLEX RECEPTACLE TO NEW CIRCUIT INDICATED. ALSO SEE SHEET NOTE No.3 ABOVE.
6. RECONNECT NEW ELECTRIFIED FURNITURE PARTITIONS TO EXISTING CIRCUITS, VERIFY EXACT CIRCUIT NUMBER IN FIELD.
7. PROVIDE NECESSARY MATERIAL & LABOR REQUIRED TO RECONNECT TO EXISTING CIRCUIT.
8. CONDUITS ON BACK WALL SHALL BE CONCEALED IN NEW FURRED WALL.
9. CONDUITS SHALL BE CONCEALED IN EXISTING SILL WALL.
10. VERTICAL CONDUITS SHALL BE CONCEALED INSIDE WALL. VERIFY EXACT CONDITION IN FIELD AND PROVIDE FURRING AS REQUIRED.
11. 2#6 + 1#10G IN 3/4"C.
12. SEE DETAIL 2/ID9.01 FOR LAYOUT OF NEW DEVICES AT COUNTER.
13. PROVIDE 1-1/4" CO TO "FSR" A/V BOX.
14. PROVIDE 2-1/2" CO IN CEILING SPACE.
15. EXISTING FLUSH MOUNTED FLOOR BOX WITH NEW BLANK COVERPLATE.
16. REUSE EXISTING FLUSH MOUNTED FLOOR BOXES TO SERVE NEW ELECTRIFIED FURNITURE PARTITIONS. PROVIDE NEW FLEXIBLE CONNECTION ("WHIP") UNLESS EXISTING CAN BE USED, VERIFY EXACT CONDITION IN FIELD.
17. PROVIDE NEW WIRING IN EXISTING CONDUIT FOR NEW CIRCUITS.

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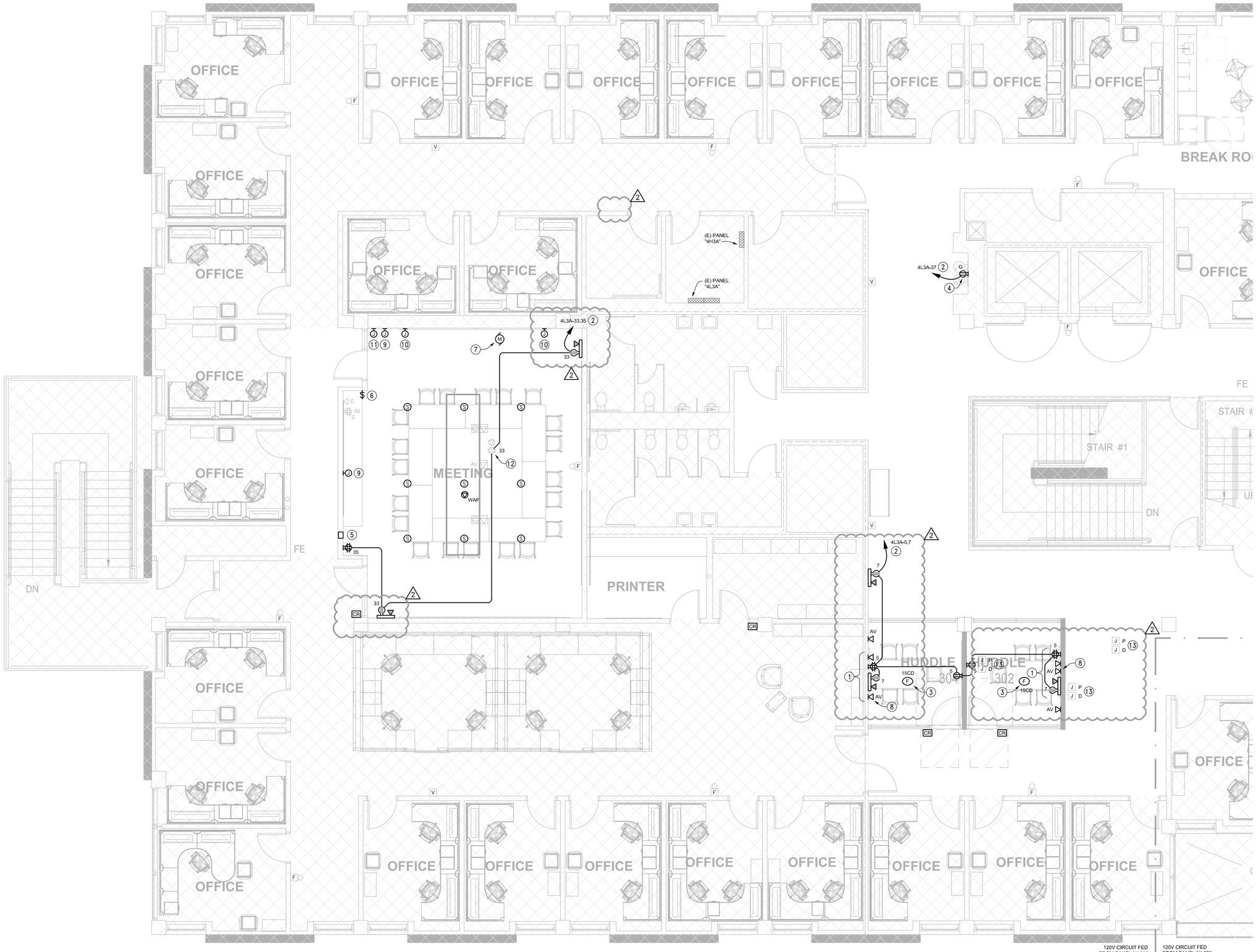
THIRD FLOOR AREA B NEW POWER & SIGNAL PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031
Sheet Number: E3.03B



GENERAL NOTES:

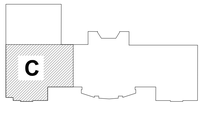
1. ALL EQUIPMENT/DEVICES SHOWN IN LIGHT CONTINUOUS LINE INDICATES EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.
2. ALL EQUIPMENT/DEVICES SHOWN IN HEAVY CONTINUOUS LINE INDICATES NEW, UNLESS OTHERWISE NOTED.
3. EXISTING POWER IS FED FROM PANEL "4L3A", UNLESS OTHERWISE NOTED.

SHEET NOTES:

1. CO-LOCATE DEVICES CENTERED UNDER SCREEN.
2. VERIFY EXACT CIRCUITS TO BE USED WHEN CIRCUITS ARE MADE AVAILABLE AFTER DEMOLITION OF FLOOR FEED TO ELECTRIFIED FURNITURE PARTITIONS.
3. NEW FIRE ALARM DEVICE.
4. FOR ELECTRIC DRINKING FOUNTAIN, IF EXISTING RECEPTACLE EXISTS IN THIS LOCATION, REUSE EXISTING TO ITS FULLEST EXTENT, IN LIEU OF PROVIDING NEW AND PROVIDE NECESSARY MATERIAL & LABOR REQUIRED INCLUDING BUT NOT LIMITED TO THE FOLLOWING TO ACCOMMODATE THE NEW DRINKING FOUNTAIN.
   A. REPLACE EXISTING RECEPTACLE WITH GFCI TYPE.
   B. RELOCATE PER MANUFACTURER'S INSTALLATION MANUAL.
5. 8"x8" RECESS MOUNTED PULL BOX WITH TWO 1-1/2"CO STUBBED TO ACCESSIBLE CEILING.
6. MOTORIZED PROJECTION SCREEN CONTROLLER. PROVIDE 1" CO TO MOTORIZED PROJECTION SCREEN.
7. CONNECT NEW MOTORIZED PROJECTION SCREEN TO EXISTING CIRCUIT CIRCUIT SERVING SCREEN THAT WAS REMOVED.
8. PROVIDE 1-1/4" CO TO "FSR"A/V BOX.
9. 2-GANG BOX FOR A/V DEVICE, +8'-0" AFF WITH 1"CO STUBBED TO ACCESSIBLE CEILING. SEE ID7 SERIES DRAWINGS FOR EXACT LOCATION.
10. 1-GANG BOX FOR LOUD SPEAKER, +8'-0" AFF WITH 1"CO STUBBED TO ACCESSIBLE CEILING. SEE ID7 SERIES DRAWINGS FOR EXACT LOCATION.
11. FOR TOUCH PANEL, +3'-4" AFF WITH 1"CO STUBBED TO ACCESSIBLE CEILING. SEE ID7 SERIES DRAWINGS FOR EXACT LOCATION.
12. DISCONNECT FROM EXISTING CIRCUIT AND RECONNECT TO NEW CIRCUITRY INDICATED.
13. EXISTING FLUSH MOUNTED FLOOR BOX WITH NEW BLANK COVERPLATE.

1 THIRD FLOOR AREA C NEW POWER & SIGNAL PLAN

SCALE: 1/4" = 1'-0"



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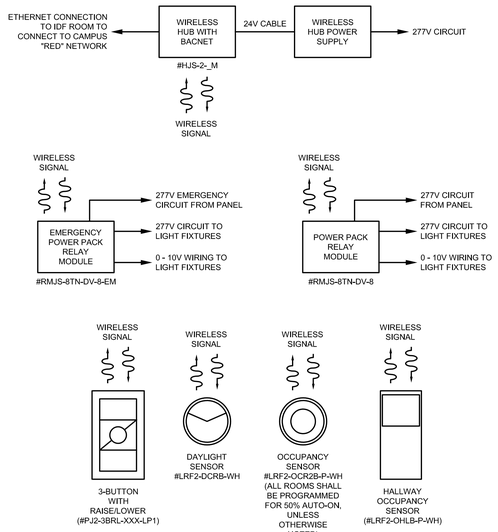
THIRD FLOOR AREA C NEW POWER & SIGNAL PLAN

Drawn By: RC
Checked By: RC
Project Number: 2019031

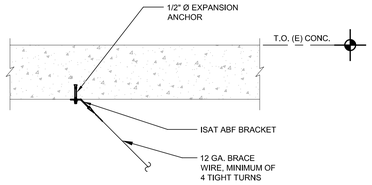
Sheet Number: E3.03C



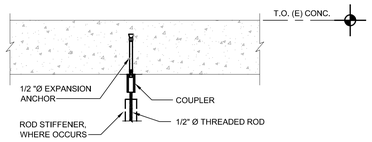
NOTES:

1. ALL MODEL NUMBER ARE BASED ON LUTRON VIVE WIRELESS SYSTEM.
2. CONTRACTOR SHALL COORDINATE WITH SYSTEM SUPPLIER AND PROVIDE ALL NECESSARY MATERIAL & LABOR REQUIRED FOR A COMPLETE FULLY FUNCTIONAL SYSTEM.

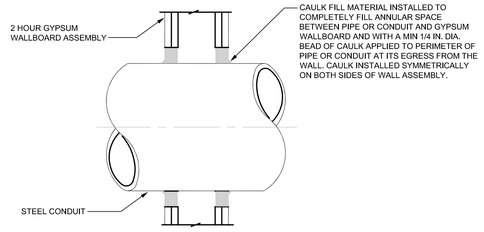
7 DIAGRAM - LIGHTING CONTROL
SCALE: NONE



4 DETAIL - CONNECTION AT CONCRETE CEUILING
SCALE: NONE



5 DETAIL - CONNECTION AT CONCRETE CEILING
SCALE: NONE

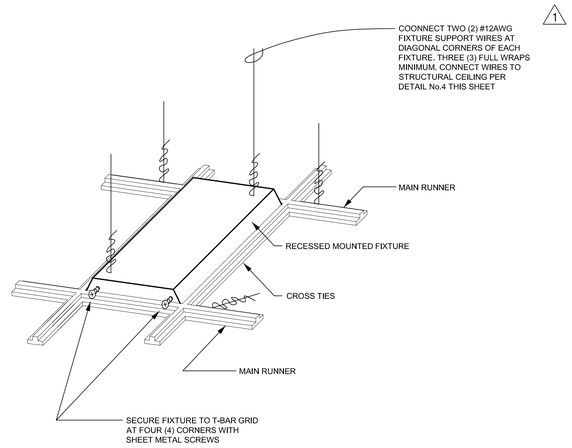


CAULK FILL MATERIAL: 3M FIRE BARRIER CP 25WB+ CAULK OR MOLDABLE PUTTY+ OR EQUAL, BEARING UL CLASSIFICATION MARKING.

CONSULT CURRENT UNDERWRITERS LABORATORIES "FIRE RESISTANCE DIRECTORY" FOR DETAILS

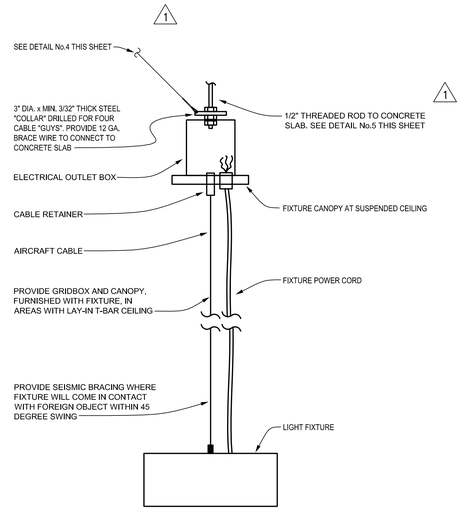
UL SYSTEM W-L-1003

6 DETAIL - FIRE RATED WALL PENETRATION
SCALE: NONE

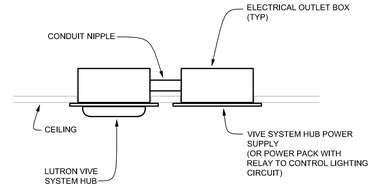


NOTE: SIMILAR FOR 2' x 2' FIXTURE

1 DETAIL - RECESS FIXTURE AT LAY-IN T-BAR CEILING
SCALE: NONE



2 DETAIL - PENDANT MOUNTED FIXTURE
SCALE: NONE



3 DETAIL - LIGHTING CONTROL DEVICE MOUNTING
SCALE: NONE

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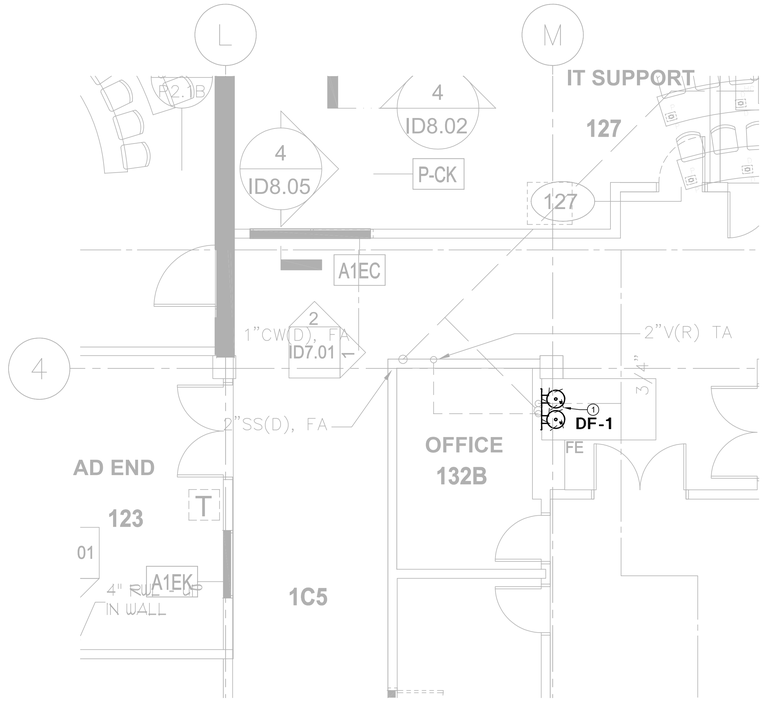
1	02/27/2020	PERMIT
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

DETAILS AND DIAGRAMS

Drawn By: RC
Checked By: RC
Project Number: 2019031

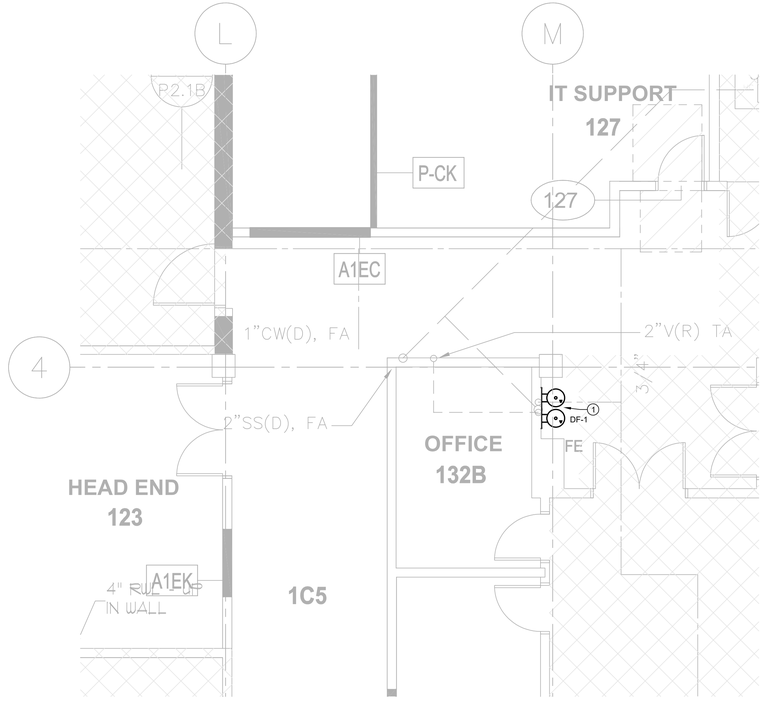
Sheet Number: E4.01



1 1ST FLOOR DEMOLITION PLAN - AREA A
1/4" = 1'-0"

SHEET NOTES:

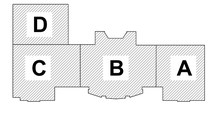
1. DEMOLISH AND REMOVE (E) DRINKING FOUNTAIN. TEMPORARILY CAP EXISTING DCW, SV, AND SS LINES FOR NEW DRINKING FOUNTAIN INSTALLATION.



2 1ST FLOOR NEW PLAN - AREA A
1/4" = 1'-0"

SHEET NOTES:

1. CONNECT (N) DRINKING FOUNTAIN TO (E) DCW, SV AND SW STUBOUTS.



KEYPLAN

Solomon Cordwell Buenz
Chicago
T 312.896.1100
San Francisco
T 415.216.2450
www.scb.com

GAYNER ENGINEERS
1133 POST STREET
SAN FRANCISCO, CA 94109
TELEPHONE (415) 474-9500
FAX (415) 474-1363

REGISTERED PROFESSIONAL ENGINEER
JULIA N. WU
No. M039800
Exp. 09-31-22
MECHANICAL
STATE OF CALIFORNIA

UCMERCED

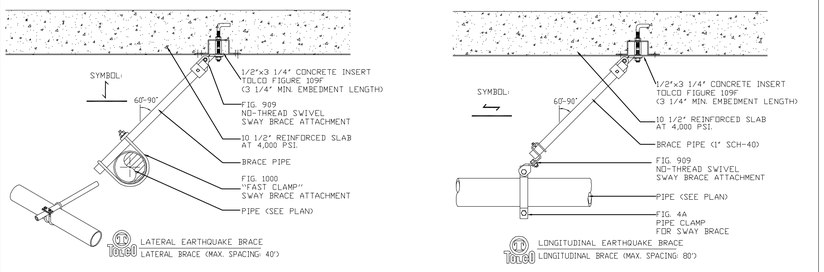
NO.	DATE	DESCRIPTION
2	03/18/2020	ADDENDUM #1
1	02/27/2020	PERMIT
	01/16/2020	100% DD

CLASSROOM AND OFFICE BUILDING 1 RENOVATION
UNIVERSITY OF CALIFORNIA, MERCED

FIRST FLOOR DEMOLITION AND NEW WORK PLUMBING PLAN

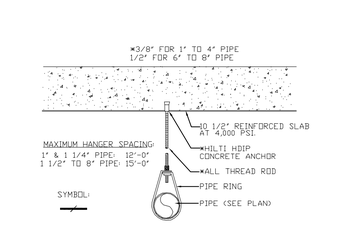
Drawn By:
Checked By:
Project Number: 2019031

Sheet Number: **P1.01**



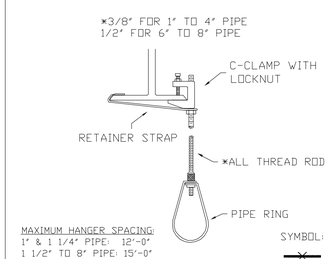
1 – SCALE: N.T.S.

CONCRETE DECK SWAY BRACE DETAILS



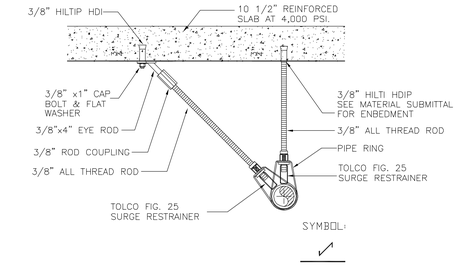
3 – SCALE: N.T.S.

DRILLED CONC. ANCHOR HANGER



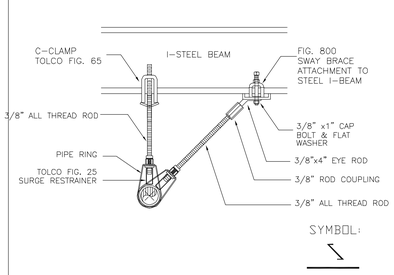
5 – SCALE: N.T.S.

C-CLAMP HANGER



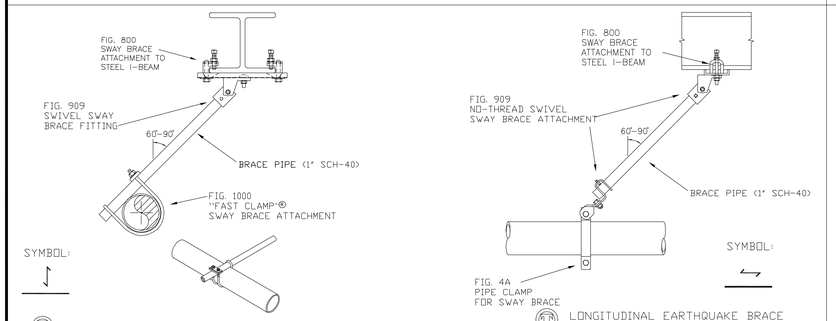
7 – SCALE: N.T.S.

END OF LINE BRACING



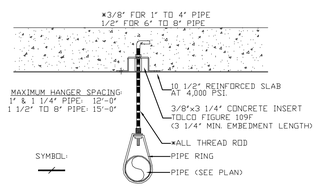
8 – SCALE: N.T.S.

END OF LINE BRACING



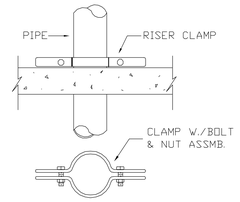
2 – SCALE: N.T.S.

STEEL I-BEAM SWAY BRACE DETAILS



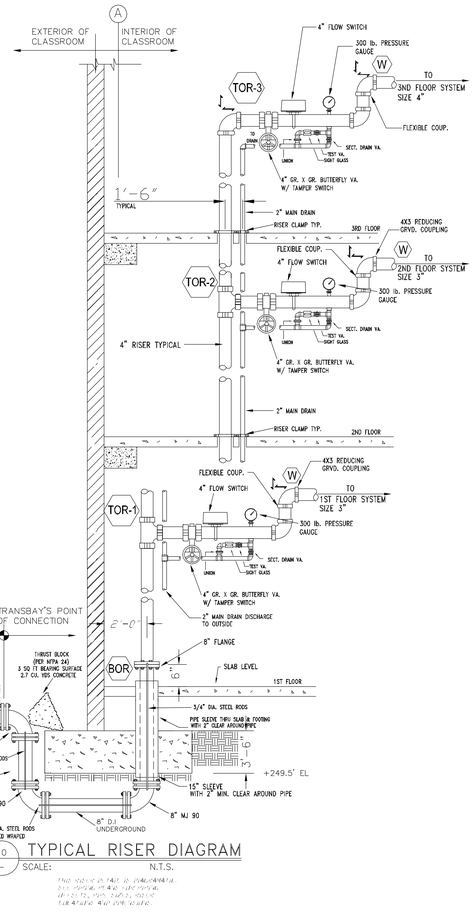
4 – SCALE: N.T.S.

CONC. DECK INSERT



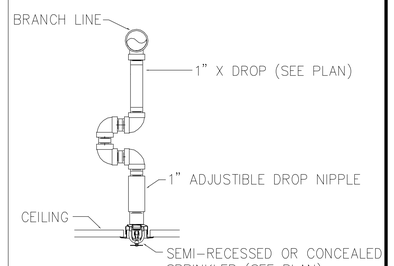
6 – SCALE: N.T.S.

RISER CLAMP



10 – SCALE: N.T.S.

TYPICAL RISER DIAGRAM



9 – SCALE: N.T.S.

TYPICAL DROP DETAIL

GENERAL NOTES:

1. SCOPE OF WORK: INSTALL 3 NEW WET OVERHEAD FIRE SPRINKLER SYSTEMS IN THE NEW CLASSROOM AND OFFICE BUILDING AS SHOWN ON PLANS.

1ST FLOOR SYSTEM: 34,300 SQ. FT.
2ND FLOOR SYSTEM: 31,630 SQ. FT.
3RD FLOOR SYSTEM: 26,330 SQ. FT.

MAXIMUM COVERAGE PER SPRINKLER: 225 SQ.FT.

2. THE AUTOMATIC FIRE SPRINKLER SYSTEM SHALL CONFORM TO THE REQUIREMENTS OF THE 1996 EDITION OF THE NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 13 AND THE REQUIREMENTS OF THE CAMPUS FIRE MARSHALL.

3. THE FIRE SPRINKLER SYSTEMS HAVE BEEN HYDRAULICALLY CALCULATED TO PROVIDE A MINIMUM OF 0.10 GPM OVER THE MOST DEMANDING AREA.

4. AT VARIOUS STAGES AND UPON COMPLETION, THE SYSTEMS MUST BE TESTED IN THE PRESENCE OF THE CAMPUS FIRE MARSHAL.

5. PENETRATIONS OF RATED ASSEMBLIES SHALL BE FIRE STOPPED IN ACCORDANCE WITH U.L. LISTINGS AND U.B.C. STANDARD 7-5. SEE MATERIAL SUBMITTAL SECTION V FOR DETAILS AND SPECS.

6. ALL MATERIAL SHALL BE NEW AND U.L. LISTED FOR FIRE PROTECTION.

7. PIPING:

1" TO 2" SHALL BE BLACK "SCH. 40" (ASTM A-135) JOINED WITH SCREWED CAST OR DUCTILE IRON FITTINGS.

2½" TO 4" SHALL BE BLACK "SCH. 40" (ASTM A-795) JOINED WITH DUCTILE GROOVED FITTINGS & COUPLINGS.

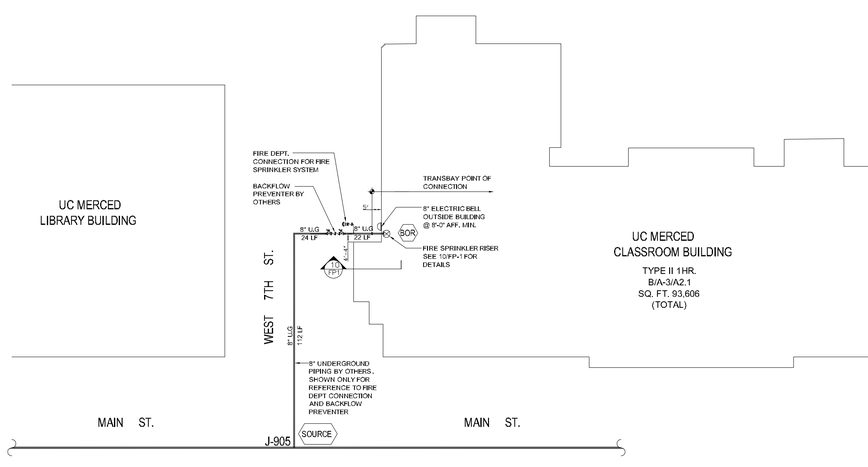
8. THE SPACING AND DETAILS OF THE SUPPORT AND BRACING OF FIRE SPRINKLER PIPING SHALL COMPLY WITH THE 1996 EDITION OF NFPA 13.

9. END HANGERS SHALL HAVE A.T.R. SCREWED DOWN TIGHT TO PIPE.

10. SPRINKLER HEADS SHALL BE INSTALLED AT CENTER OF CEILING PANELS IN BOTH DIRECTIONS.

11. TRANSBAY'S POINT OF CONNECTION IS AT 5'-0" OUTSIDE THE CLASSROOM AND OFFICE BUILDING. ALL OTHER UNDERGROUND BY OTHERS. (REFER TO CIVIL/PLUMBING DRAWINGS)

WATER SUPPLY INFORMATION:	
STATIC:	65.30 P.S.I.
RESIDUAL:	45.29 P.S.I.
FLOW:	4640 G.P.M.



FIRE PROTECTION SITE PLAN

FOR HYDRAULIC REFERENCE ONLY SCALE: 1/32=1'-0"

STAMPS

RECORD DOCUMENTS
MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY
- PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
- RIGID GRV COUPLING
- THREADED CAP
- THREADED PLUG
- ELEVATION BELOW DECK
- CHANGE ELEVATION UP
- CHANGE ELEVATION DN
- INSPECTORS TEST
- AUX DRAIN
- REVISION NOTATION
- LOCAL ALARM

FIELD INSPECTION BY:	PHONE:
1.	
2.	
3.	
4.	
5.	
WATER DEPT.	
ADDRESS:	
CITY:	
PHONE:	

ARCHITECT:	THOMAS HACKER ARCHITECTS INC.
ADDRESS:	733 SW OAK STREET #100
CITY:	PORTLAND, OREGON 97206
PHONE:	(503) 227-1254
CONTRACT WITH:	SWINERTON BUILDERS
ADDRESS:	ONE KANSER PLAZA, STE. 701
CITY:	OAKLAND, CA 94612-3611
PHONE:	(510) 208-5800
CONTACT:	KARL KLEMMICK

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
	--------	NAME	----------
1	9/01/04	E.VACA	REVISED PER ARCHITECT REVIEW COMMENTS
2			
3	10.26.04	E.VACA	REVISED PER FIRE MARSHAL REVIEW COMMENTS

TRANSBAY FIRE PROTECTION INC.
4528 W. Jacquelyn Ave, Suite 10 Fresno, Ca 93722
Tel# (559)276-6076 Fax# (559)276-8262

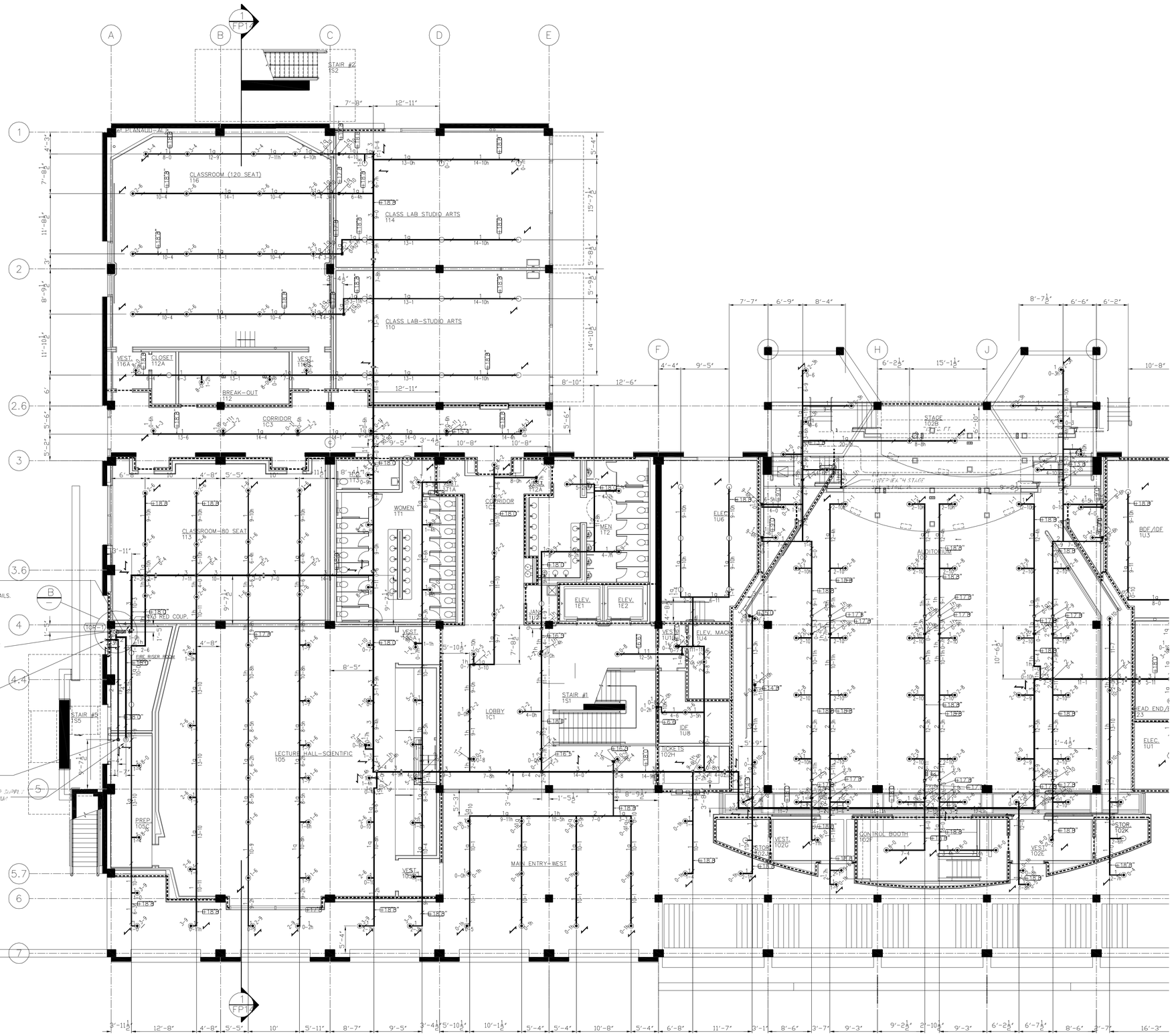
UC MERCED CLASSROOM
MERCED, CALIFORNIA

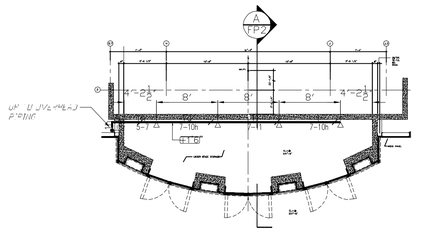
NOTES & DETAILS
FIRE PROTECTION PLAN

DRAWN BY:	E.VACA
SCALE	AS NOTED
DATE	02/26/2004
DRAWING NO.	FP-1
CONT. #	427

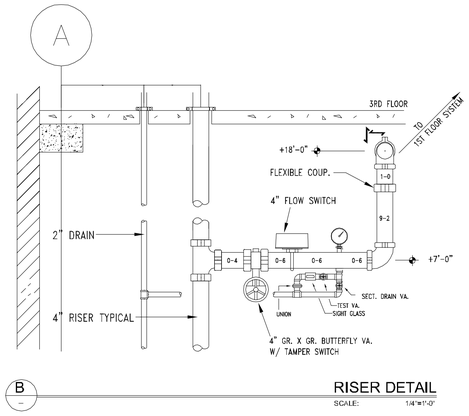
N

LICENSED FIRE PROTECTION CONTRACTOR * TRANSBAY FIRE PROTECTION INC. * CLASSIFICATION C-16 LICENSE NO. 629778 * STATE OF CALIFORNIA





A — UNDER STAGE PIPING PLAN
SCALE: 1/8"=1'-0"



B — RISER DETAIL
SCALE: 1/4"=1'-0"

LEGEND

- 1 HR. FIRE RATED WALL
- 2 HR. FIRE RATED WALL
- CONCRETE TILT UP PANEL
- 8" CMU WALL

GRAPHIC SCALE

RECORD DOCUMENTS
MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY
- PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
- RIGID GRV COUPLING
- THREADED CAP
- THREADED PLUG
- ELEVATION BELOW DECK
- CHANGE ELEVATION UP
- CHANGE ELEVATION DN
- INSPECTORS TEST
- AUX DRAIN
- REVISION NOTATION
- LOCAL ALARM

SPRINKLER HEAD LEGEND

SYM	NAME	METAL	TEMP	K	NPT	ORIF	MFG.	MODEL#	ESCUT	CONN.	QTY.
◉	REC. PEND.	CHROME	165	5.60	1/2"	1/2	CEN.	BV-QR	CHROME	THREADED	226
○	UPRIGHT	BRASS	165	5.60	1/2"	1/2	CEN.	BV-QR	----	THREADED	41
▷	SIDE WALL	BRASS	200	5.60	1/2"	1/2	CEN.	BV	----	THREADED	5

TOTAL SPRINKLERS THIS FLOOR: 272

FIELD INSPECTION BY: PHONE:
1.
2.
3.
4.
5.

WATER DEPT.
ADDRESS:
CITY:
PHONE:

ARCHITECT: THOMAS HACKER ARCHITECTS INC.
ADDRESS: 733 SW OAK STREET #100
CITY: PORTLAND, OREGON 97206
PHONE: (503) 227-1264

CONTRACT WITH: SWINERTON BUILDERS
ADDRESS: ONE KANSER PLAZA, STE. 701
CITY: OAKLAND, CA 94612-3611
PHONE: (510) 208-5800
CONTACT: KARL KLEMMICK

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
	-------	NAME	------------------
1	9/01/04	E.VACA	REVISED PER ARCHITECT REVIEW COMMENTS
2			
3	10.26.04	E.VACA	REVISED PER FIRE MARSHAL REVIEW COMMENTS

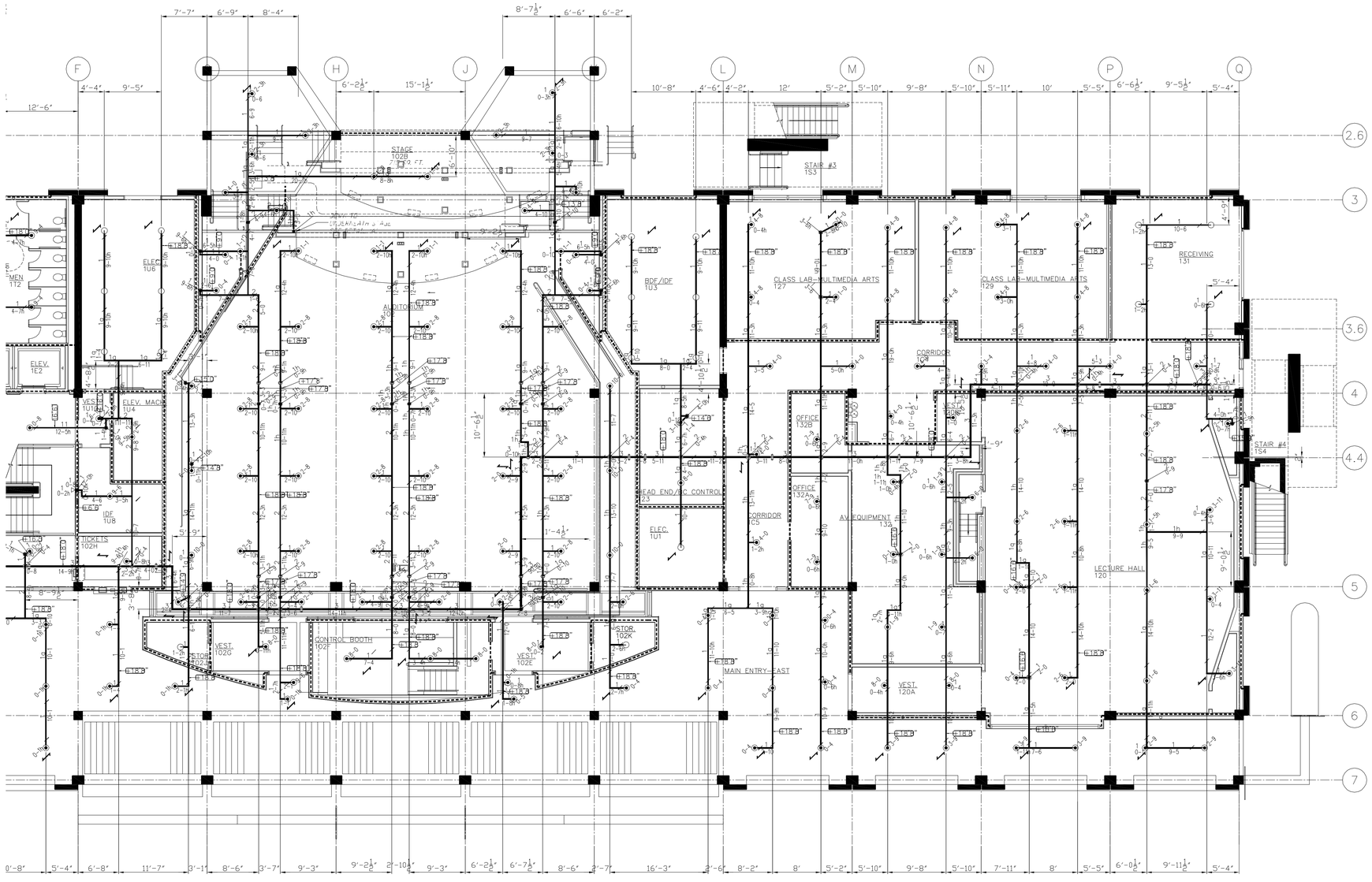
TRANSBAY FIRE PROTECTION INC.
4528 W. Jacquelyn Ave, Suite 10 Fresno, Ca 93722
Tel# (559)276-8076 Fax# (559)276-8262

UC MERCED CLASSROOM
MERCED, CALIFORNIA

FIRST FLOOR
PIPING PLAN

DRAWN BY: E.VACA
SCALE 1/8" = 1'-0"
DATE 03/10/2004
DRAWING NO. FP-2
CONT. # 427

TRANSBAY FIRE PROTECTION CONTRACTOR * LICENSED FIRE PROTECTION CONTRACTOR * CLASSIFICATION C-16 LICENSE NO. 629778 STATE OF CALIFORNIA



LEGEND

1 HR. FIRE RATED WALL

2 HR. FIRE RATED WALL

CONCRETE TILT UP PANEL

8" CMU WALL

GRAPHIC SCALE

1' 2' 3' 4' 5' 6' 7' 8' 9' 10' 11' 12' 13' 14' 15' 16'

RECORD DOCUMENTS

MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY
- PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
- RIGID GRV COUPLING
- THREADED CAP
- THREADED PLUG
- ELEVATION BELOW DECK
- CHANGE ELEVATION UP
- CHANGE ELEVATION DN
- INSPECTORS TEST
- AUX DRAIN
- REVISION NOTATION
- LOCAL ALARM

SPRINKLER HEAD LEGEND

SYM	NAME	METAL	TEMP	K	NPT	DRIP	MFG.	MODEL#	ESCUT	CONN.	QTY
◉	REC. PEND.	CHROME	165	5.60	1/2"	1/2	CEN.	BV-QR	CHROME	THREADED	226
○	UPRIGHT	BRASS	165	5.60	1/2"	1/2	CEN.	BV-QR	----	THREADED	41

TOTAL SPRINKLERS THIS FLOOR: 267

FIELD INSPECTION BY: PHONE:
1.
2.
3.
4.
5.

WATER DEPT.
ADDRESS:
CITY:
PHONE:

ARCHITECT: THOMAS HACKER ARCHITECTS INC.
ADDRESS: 733 SW OAK STREET #100
CITY: PORTLAND, OREGON 97206
PHONE: (503) 227-1264

CONTRACT WITH: SWINERTON BUILDERS
ADDRESS: ONE KANSER PLAZA, STE. 701
CITY: OAKLAND, CA 94612-3611
PHONE: (510) 208-5800
CONTACT: KARL KLEMMICK

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
1	-------	NAME	----------
2	9/01/04	E.VACA	REVISED PER ARCHITECT REVIEW COMMENTS
3			
4	10.26.04	E.VACA	REVISED PER FIRE MARSHAL REVIEW COMMENTS

TRANSBAY FIRE PROTECTION INC.
4526 W. Jacquelyn Ave. Suite 10 Fresno, Ca 93722
Tel# (559)276-6076 Fax# (559)276-8262

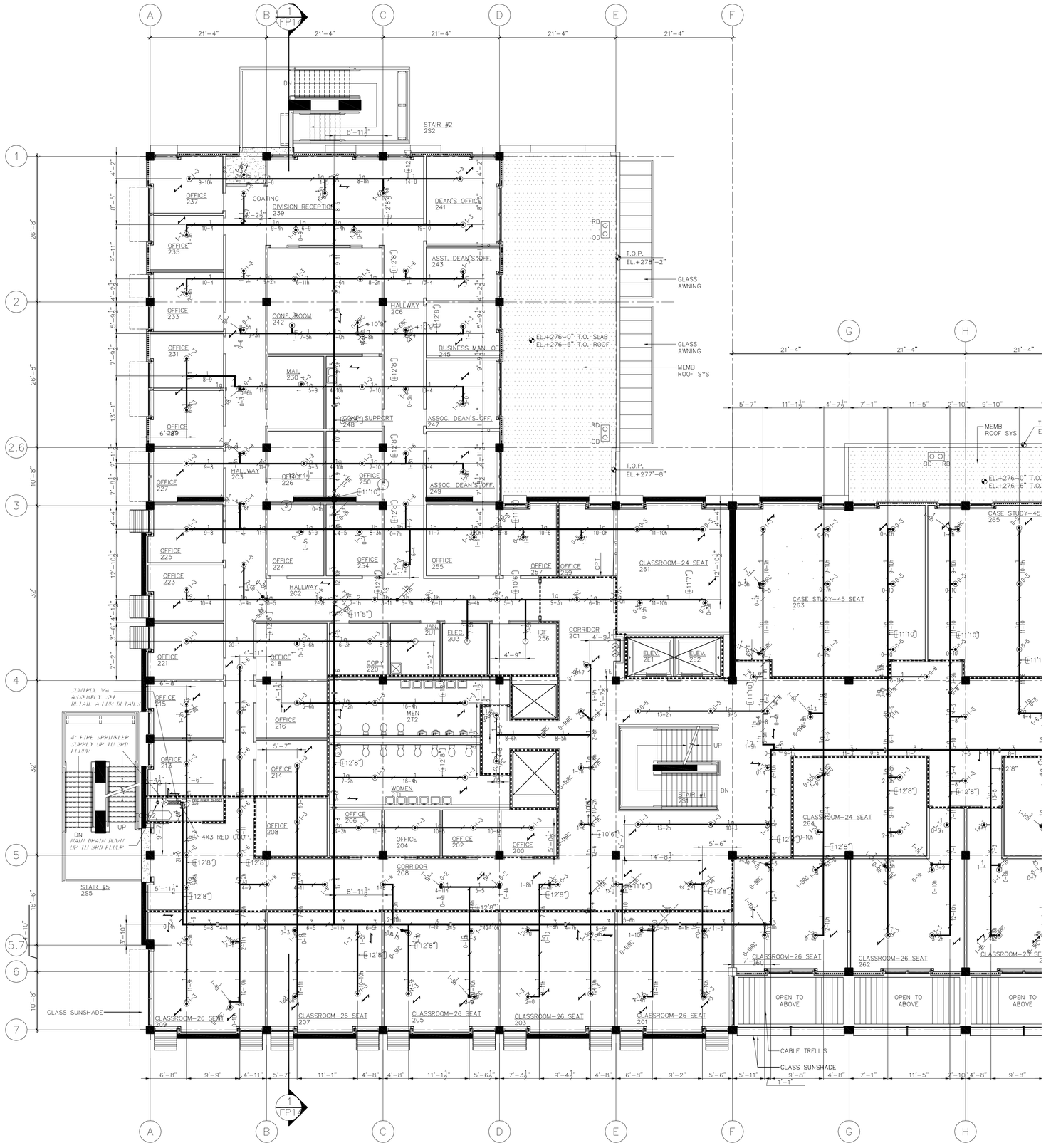
UC MERCED CLASSROOM
MERCED, CALIFORNIA

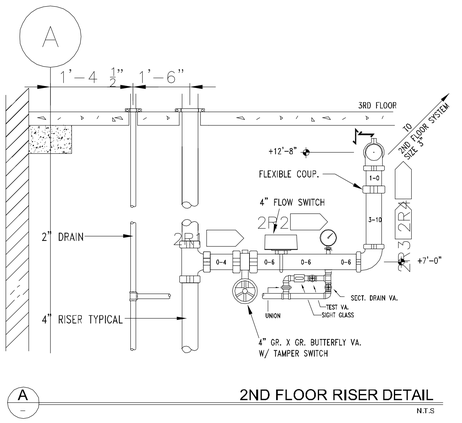
FIRST FLOOR
PIPING PLAN

DRAWN BY: E.VACA
SCALE 1/8" = 1'-0"
DATE 3/10/2004
DRAWING NO. FP-3
CONT. # 427

N

LICENSED FIRE PROTECTION CONTRACTOR
TRANSBAY FIRE PROTECTION INC.
CLASSIFICATION C-16
LICENSE NO. 629778
STATE OF CALIFORNIA



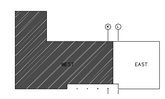


A — 2ND FLOOR RISER DETAIL
N.T.S

LEGEND

- 1 HR. FIRE RATED WALL
- 2 HR. FIRE RATED WALL
- CONCRETE TILT UP PANEL
- 8" CMU WALL

GRAPHIC SCALE



RECORD DOCUMENTS
MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY
- PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
- RIGID GRV COUPLING
- THREADED CAP
- THREADED PLUG
- ELEVATION BELOW DECK
- CHANGE ELEVATION UP
- CHANGE ELEVATION DN
- INSPECTORS TEST
- AUX DRAIN
- REVISION NOTATION
- LOCAL ALARM

SPRINKLER HEAD LEGEND

SYM	NAME	METAL	TEMP	K	NPT	ORIF	MFG.	MODEL#	ESCUT	CONN.	QTY
◉	REC. PEND.	CHROME	165	5.60	1/2"	1/2	CEN.	BV-QR	CHROME	THREADED	261
○	UPRIGHT	BRASS	165	5.60	1/2"	1/2	CEN.	BV-QR	----	THREADED	7

TOTAL SPRINKLERS THIS FLOOR: 268

FIELD INSPECTION BY: PHONE:
1.
2.
3.
4.
5.

WATER DEPT.
ADDRESS:
CITY:
PHONE:

ARCHITECT: SKIDMORE, OWINGS & MERRILL, LLP
ADDRESS: ONE FRONT STREET, STE. 2400
CITY: SAN FRANCISCO, CA 94111
PHONE: (415) 981-1555

CONTRACT WITH: SWINERTON BUILDERS
ADDRESS: ONE KANSER PLAZA, STE. 701
CITY: OAKLAND, CA 94612-3611
PHONE: (510) 208-5800
CONTACT: KARL KLEMMICK

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
0	-------	NAME	----------
1	9/01/04	E.VACA	REVISED PER ARCHITECT REVIEW COMMENTS
2			
3	10.26.04	E.VACA	REVISED PER FIRE MARSHAL REVIEW COMMENTS

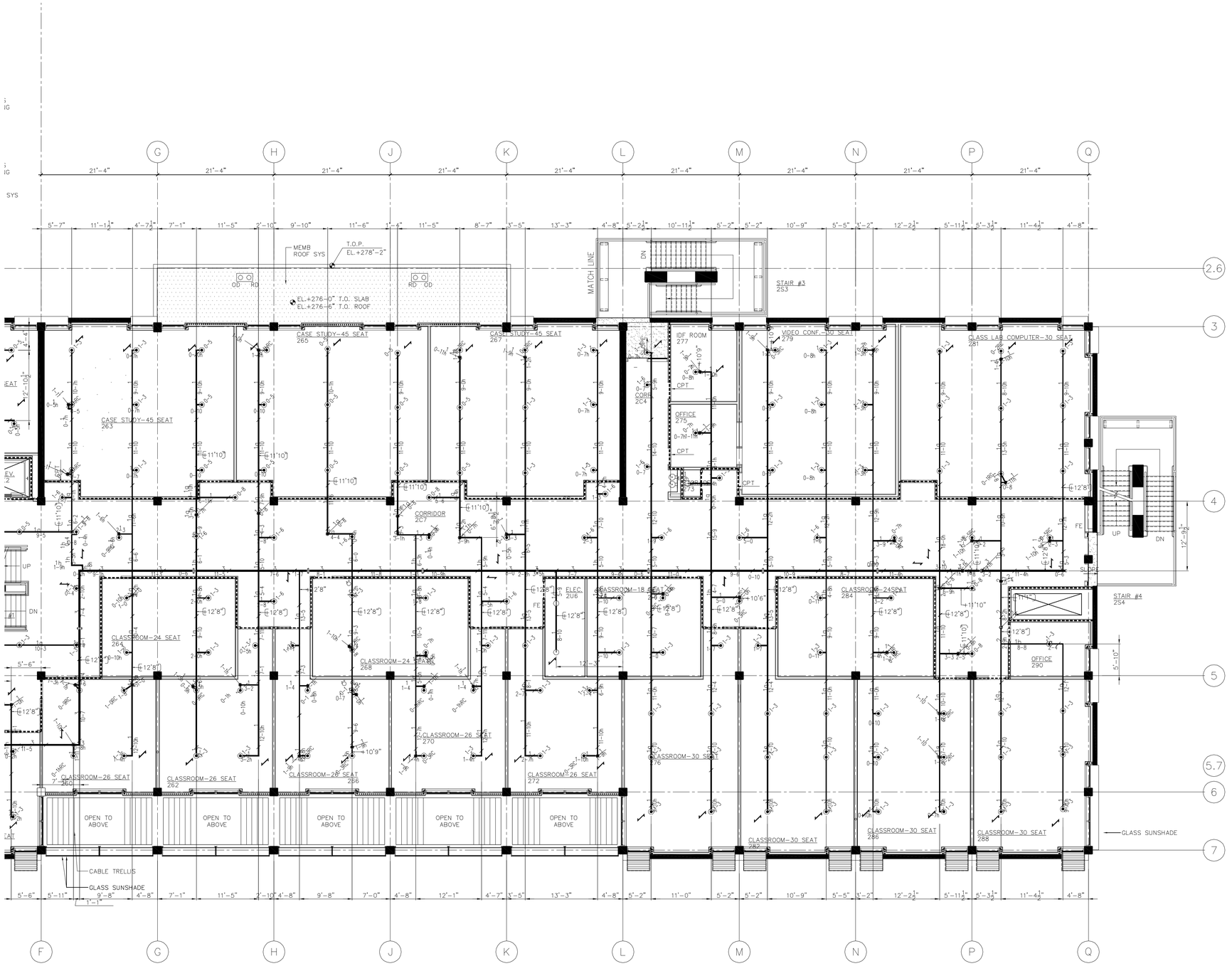
TRANSBAY FIRE PROTECTION INC.
4528 W. Jacquelyn Ave, Suite 10 Fresno, Ca 93722
Tel# (559)276-6076 Fax# (559)276-8262

UC MERCED CLASSROOM
MERCED, CALIFORNIA

SECOND FLOOR
PIPING PLAN

DRAWN BY: E.VACA
SCALE 1/8" = 1'-0"
DATE 8/11/2003
DRAWING NO. FP-4
CONT. # 427

LICENSED FIRE PROTECTION CONTRACTOR
TRANSBAY FIRE PROTECTION INC.
CLASSIFICATION C-16
LICENSE NO. 629778
STATE OF CALIFORNIA



LEGEND

1 HR. FIRE RATED WALL

2 HR. FIRE RATED WALL

CONCRETE TILT UP PANEL

8" CMU WALL

GRAPHIC SCALE

1' 2' 3' 4' 5' 6' 7' 8' 9' 10' 11' 12' 13' 14' 15' 16'

RECORD DOCUMENTS

MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY
- PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
- RIGID GRV COUPLING
- THREADED CAP
- THREADED PLUG
- ELEVATION BELOW DECK
- CHANGE ELEVATION UP
- CHANGE ELEVATION DN
- INSPECTORS TEST
- AUX DRAIN
- REVISION NOTATION
- LOCAL ALARM

SPRINKLER HEAD LEGEND

SYM	NAME	METAL	TEMP	K	NPT	ORIF	MFG.	MODEL#	ESCUT	CONN.	QTY
◉	REC. PEND.	CHROME	165	5.60	1/2"	1/2	CEN.	BV-QR	CHROME	THREADED	261
○	UPRIGHT	BRASS	165	5.60	1/2"	1/2	CEN.	BV-QR	----	THREADED	7

TOTAL SPRINKLERS THIS FLOOR: 268

FIELD INSPECTION BY: PHONE:
1.
2.
3.
4.
5.

WATER DEPT.
ADDRESS:
CITY:
PHONE:

ARCHITECT: THOMAS HACKER ARCHITECTS INC.
ADDRESS: 733 SW OAK STREET #100
CITY: PORTLAND, OREGON 97206
PHONE: (503) 227-1264

CONTRACT WITH: SWINERTON BUILDERS
ADDRESS: ONE KANSER PLAZA, STE. 701
CITY: OAKLAND, CA 94612-3611
PHONE: (510) 208-5800

CONTACT: KARL KLEMMICK

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
	-------		NAME
1	9/01/04	E.VACA	REVISED PER ARCHITECT REVIEW COMMENTS
2			
3	10.26.04	E.VACA	REVISED PER FIRE MARSHAL REVIEW COMMENTS

TRANSBAY FIRE PROTECTION INC.
4528 W. Jacquelyn Ave. Suite 10 Fresno, Ca 93722
Tel# (559)276-6076 Fax# (559)276-8262

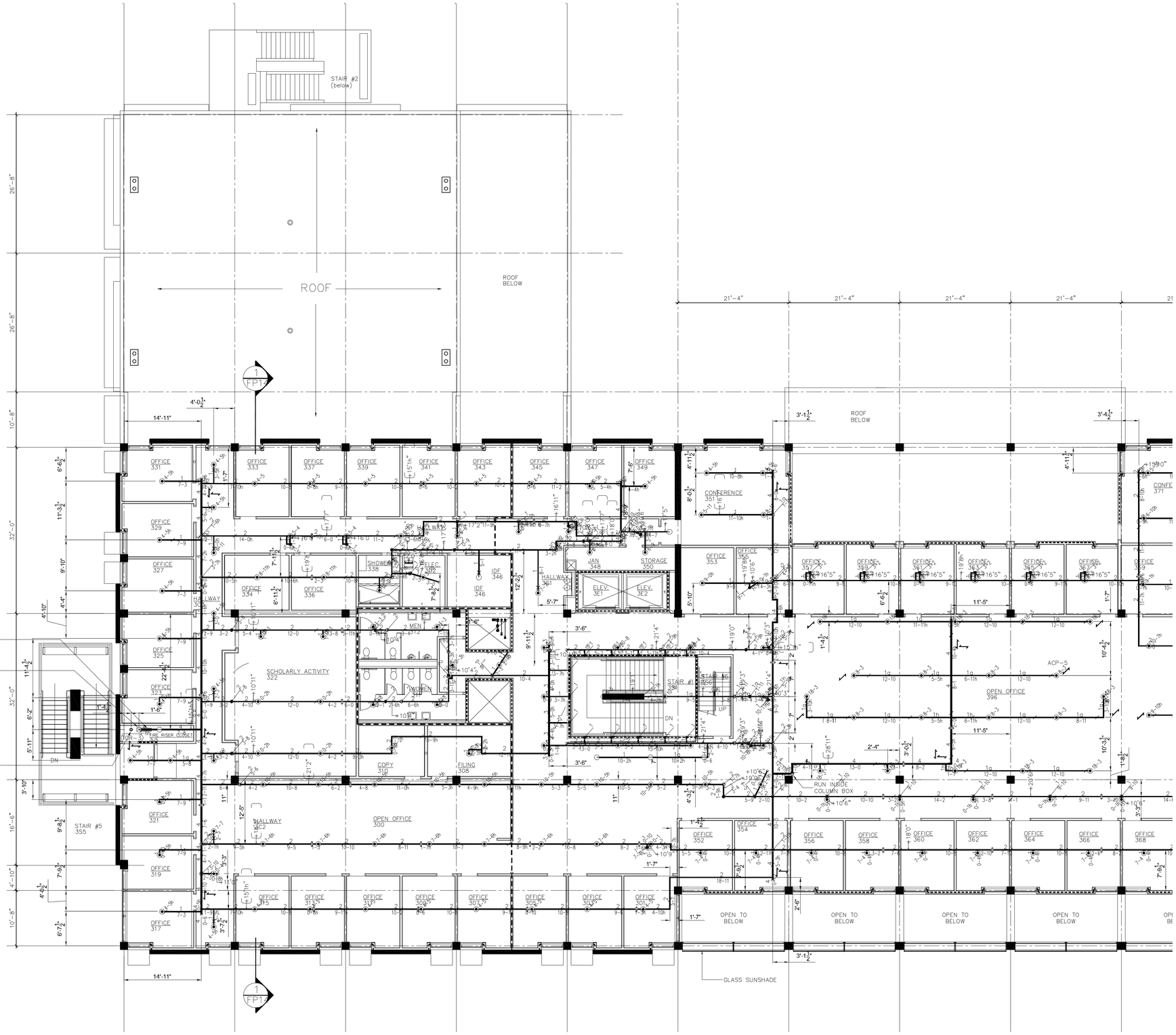
UC MERCED CLASSROOM
MERCED, CALIFORNIA

SECOND FLOOR PIPING PLAN

DRAWN BY: E.VACA
SCALE 1/8" = 1'-0"
DATE 03/10/2004
DRAWING NO. FP-5
CONT. # 427

N

STATE OF CALIFORNIA — LICENSED FIRE PROTECTION CONTRACTOR — TRANSBAY FIRE PROTECTION INC. — CLASSIFICATION C-16 LICENSE NO. 629778



LEGEND

1 HR. FIRE RATED WALL

2 HR. FIRE RATED WALL

CONCRETE TILT UP PANEL

8" CMU WALL

GRAPHIC SCALE

RECORD DOCUMENTS

MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY
- PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
- RIGID GRV COUPLING
- THREADED CAP
- THREADED PLUG
- ELEVATION BELOW DECK
- CHANGE ELEVATION UP
- CHANGE ELEVATION DN
- INSPECTORS TEST
- AUX DRAIN
- REVISION NOTATION
- LOCAL ALARM

SPRINKLER HEAD LEGEND

SYM	NAME	METAL	TEMP	K	NPT	ORIF	MFG.	MODEL#	ESCUT	CONN.	QTY
◉	REG. PEND.	CHROME	165	5.60	1/2"	1/2	CENL	EVQR	CHROME	THREADED	209
○	UPRIGHT	BRASS	165	5.60	1/2"	1/2	CENL	EVQR	—	THREADED	16
▶	WINDOW SPRINKLER	BRASS	165	5.6	1/2"	1/2	CENL	VOD. WG PENDENT VERTICAL SIDEWALL	—	THREADED	26

TOTAL SPRINKLERS THIS FLOOR: 251

FIELD INSPECTION BY:	PHONE:
1.	
2.	
3.	
4.	
5.	
WATER DEPT.	
ADDRESS:	
CITY:	
PHONE:	

ARCHITECT:	THOMAS HACKER ARCHITECTS INC.
ADDRESS:	733 SW OAK STREET #100
CITY:	PORTLAND, OREGON 97206
PHONE:	(503) 227-1264
CONTRACT WITH:	SWINERTON BUILDERS
ADDRESS:	ONE KANSER PLAZA, STE. 701
CITY:	OAKLAND, CA 94612-3611
PHONE:	(510) 208-5800
CONTACT:	KARL KLEMMICK

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
0	-----	NAME	----------
1	9/01/04	E.VACA	REVISED PER ARCHITECT REVIEW COMMENTS
2			
3	10.26.04	E.VACA	REVISED PER FIRE MARSHAL REVIEW COMMENTS

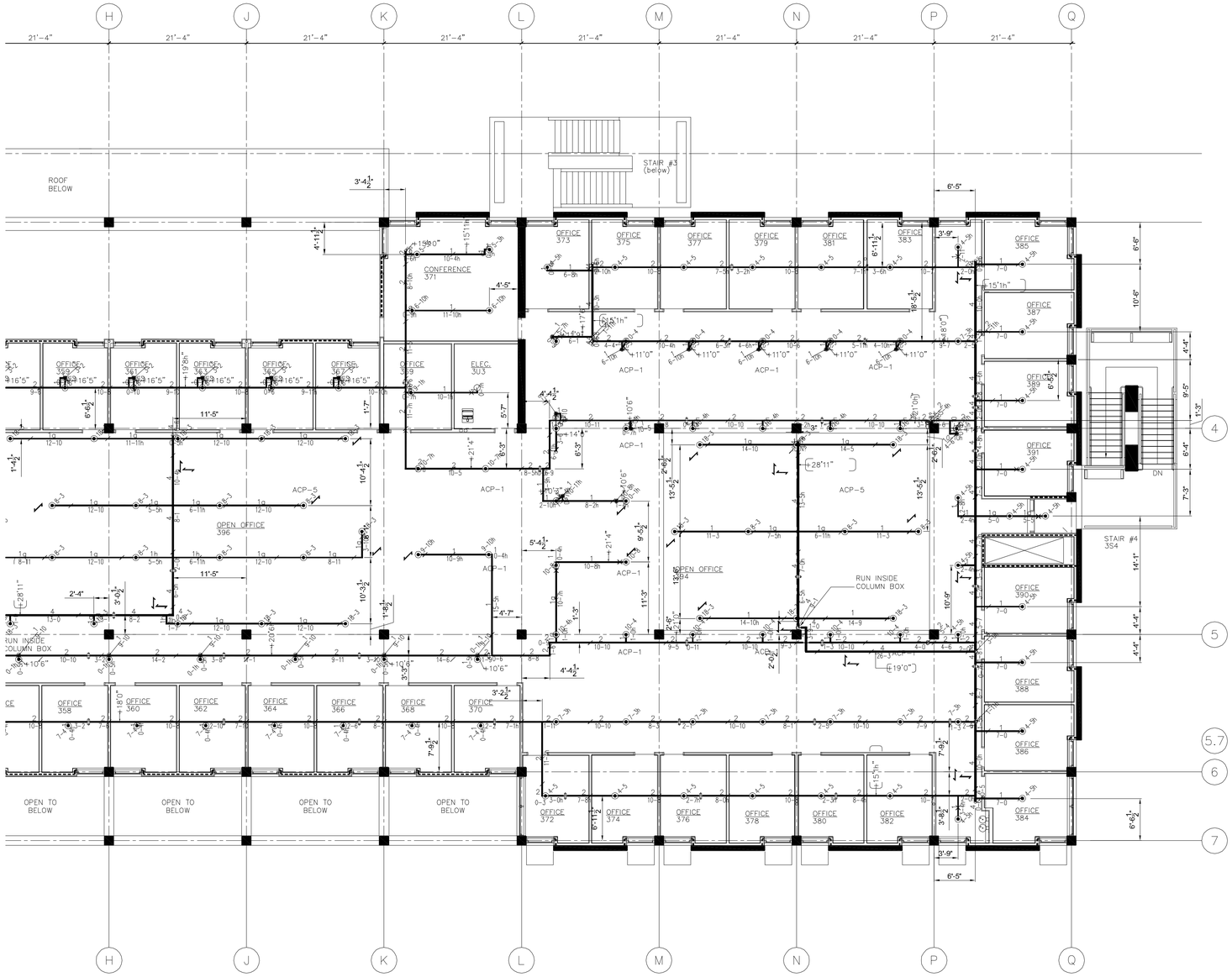
TRANSBAY FIRE PROTECTION INC.
4528 W. Jacquelyn Ave, Suite 10 Fresno, Ca 93722
Tel# (559)276-6076 Fax# (559)276-8262

UC MERCED CLASSROOM
MERCED, CALIFORNIA

THIRD FLOOR PIPING PLAN

DRAWN BY:	E.VACA
SCALE	1/8" = 1'-0"
DATE	03/10/2004
DRAWING NO.	FP-6
CONT. #	427

LICENSED FIRE PROTECTION CONTRACTOR * STATE OF CALIFORNIA * TRANSBAY FIRE PROTECTION INC. CLASSIFICATION C-16 LICENSE NO. 629778



LEGEND

- 1 HR. FIRE RATED WALL
- 2 HR. FIRE RATED WALL
- CONCRETE TILT UP PANEL
- 8" CMU WALL

GRAPHIC SCALE

RECORD DOCUMENTS
MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY
- PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
- RIGID GRV COUPLING
- THREADED CAP
- THREADED PLUG ELEVATION BELOW DECK
- CHANGE ELEVATION UP
- CHANGE ELEVATION DN
- INSPECTORS TEST
- AUX DRAIN
- REVISION NOTATION
- LOCAL ALARM

SPRINKLER HEAD LEGEND

SYM	NAME	METAL	TEMP	K	NPT	ORIF	MFG.	MODEL#	ESCUT	CONN.	QTY
◉	REC. PEND.	CHROME	165	5.60	1/2"	1/2	CENL	EVQ-QR	CHROME	THREADED	239
○	UPRIGHT	BRASS	165	5.60	1/2"	1/2	CENL	EVQ-QR	—	THREADED	16
▶	WINDOW SPRINKLER	BRASS	165	5.6	1/2"	1/2	CENL	MOD. WS PENDENT VERTICAL SIDEWALL	—	THREADED	26

TOTAL SPRINKLERS THIS FLOOR: 251

FIELD INSPECTION BY: PHONE:
1.
2.
3.
4.
5.

WATER DEPT.
ADDRESS:
CITY:
PHONE:

ARCHITECT: THOMAS HACKER ARCHITECTS INC.
ADDRESS: 733 SW OAK STREET #100
CITY: PORTLAND, OREGON 97206
PHONE: (503) 227-1264

CONTRACT WITH: SWINERTON BUILDERS
ADDRESS: ONE KANSER PLAZA, STE. 701
CITY: OAKLAND, CA 94612-3611
PHONE: (510) 208-5800
CONTACT: KARL KLEMMICK

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
	-----	NAME	----------
1	9/01/04	E.VACA	REVISED PER ARCHITECT REVIEW COMMENTS
2			
3	10.26.04	E.VACA	REVISED PER FIRE MARSHAL REVIEW COMMENTS

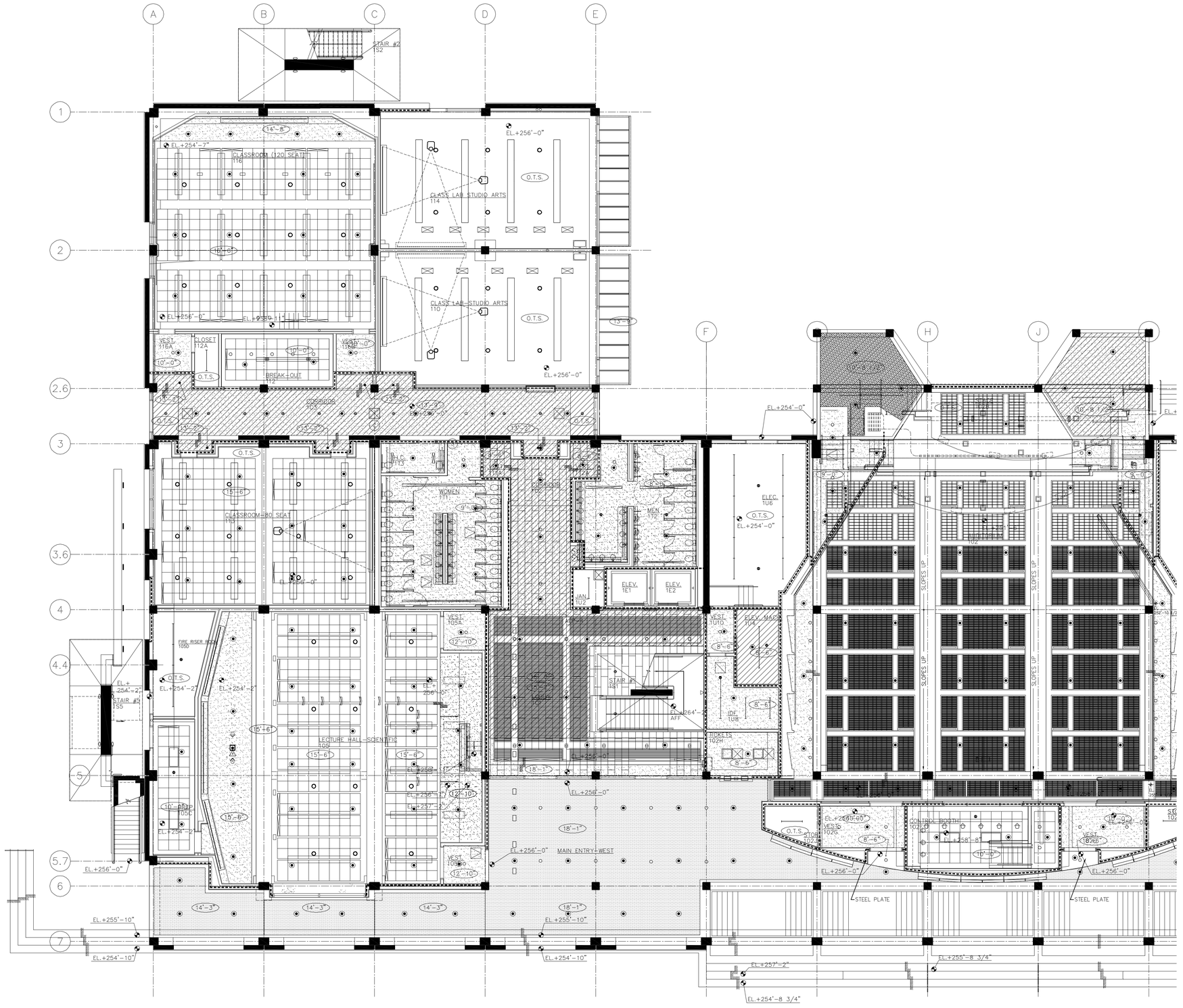
TRANSBAY FIRE PROTECTION INC.
4528 W. Jacquelyn Ave, Suite 10, Fresno, Ca 93722
Tel# (559)276-6076 Fax# (559)276-8262

UC MERCED CLASSROOM
MERCED, CALIFORNIA

THIRD FLOOR PIPING PLAN

DRAWN BY: E.VACA
SCALE 1/8" = 1'-0"
DATE 03/10/2004
DRAWING NO. FP-7
CONT. # 427

LICENSED FIRE PROTECTION CONTRACTOR
TRANSBAY FIRE PROTECTION INC.
CLASSIFICATION C-16
LICENSE NO. 629778
STATE OF CALIFORNIA



CEILING LEGEND

- OPEN TO STRUCTURE
- SUSPENDED ACOUSTICAL TILE CEILING 2'x2'
- GYPSUM BOARD CEILING
- 1-HOUR FIRE RATED CEILING
- 2-HOUR FIRE RATED CEILING
- FIRE WRAPPED PANEL CEILING
- TENSIONED FABRIC ACOUSTICAL CEILING
- EXTERIOR STUCCO SOFFIT
- WOOD SLAT CEILING PANEL

LEGEND

- 1 HR. FIRE RATED WALL
- 2 HR. FIRE RATED WALL
- CONCRETE TILT UP PANEL
- 8" CMU WALL

GRAPHIC SCALE

1 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

RECORD DOCUMENTS
MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY
- PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
- RIGID GRV COUPLING
- THREADED CAP
- THREADED PLUG
- ELEVATION BELOW DSCN
- CHANGE ELEVATION UP
- CHANGE ELEVATION DN
- INSPECTORS TEST
- AUX DRAIN
- REVISION NOTATION
- LOCAL ALARM

SPRINKLER HEAD LEGEND

SYM	NAME	METAL	TEMP	K	NPT	DRIP	MFG.	MODEL#	ESCUT	CONN.	QTY
◉	REC. PEND.	CHROME	165	5.60	1/2"	1/2	CEN.	BV-QR	CHROME	THREADED	226
○	UPRIGHT	BRASS	165	5.60	1/2"	1/2	CEN.	BV-QR	----	THREADED	-

TOTAL SPRINKLERS THIS FLOOR: 226

FIELD INSPECTION BY: PHONE:
1.
2.
3.
4.
5.

WATER DEPT.
ADDRESS:
CITY:
PHONE:

ARCHITECT: THOMAS HACKER ARCHITECTS INC.
ADDRESS: 733 SW OAK STREET #100
CITY: PORTLAND, OREGON 97206
PHONE: (503) 227-1264

CONTRACT WITH: SWINERTON BUILDERS
ADDRESS: ONE KANSER PLAZA, STE. 701
CITY: OAKLAND, CA 94612-3611
PHONE: (510) 208-5800
CONTACT: KARL KLEMMICK

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
0	-------	NAME	----------
1	9/01/04	E.VACA	REVISED PER ARCHITECT REVIEW COMMENTS
2			
3	10.26.04	E.VACA	REVISED PER FIRE MARSHAL REVIEW COMMENTS

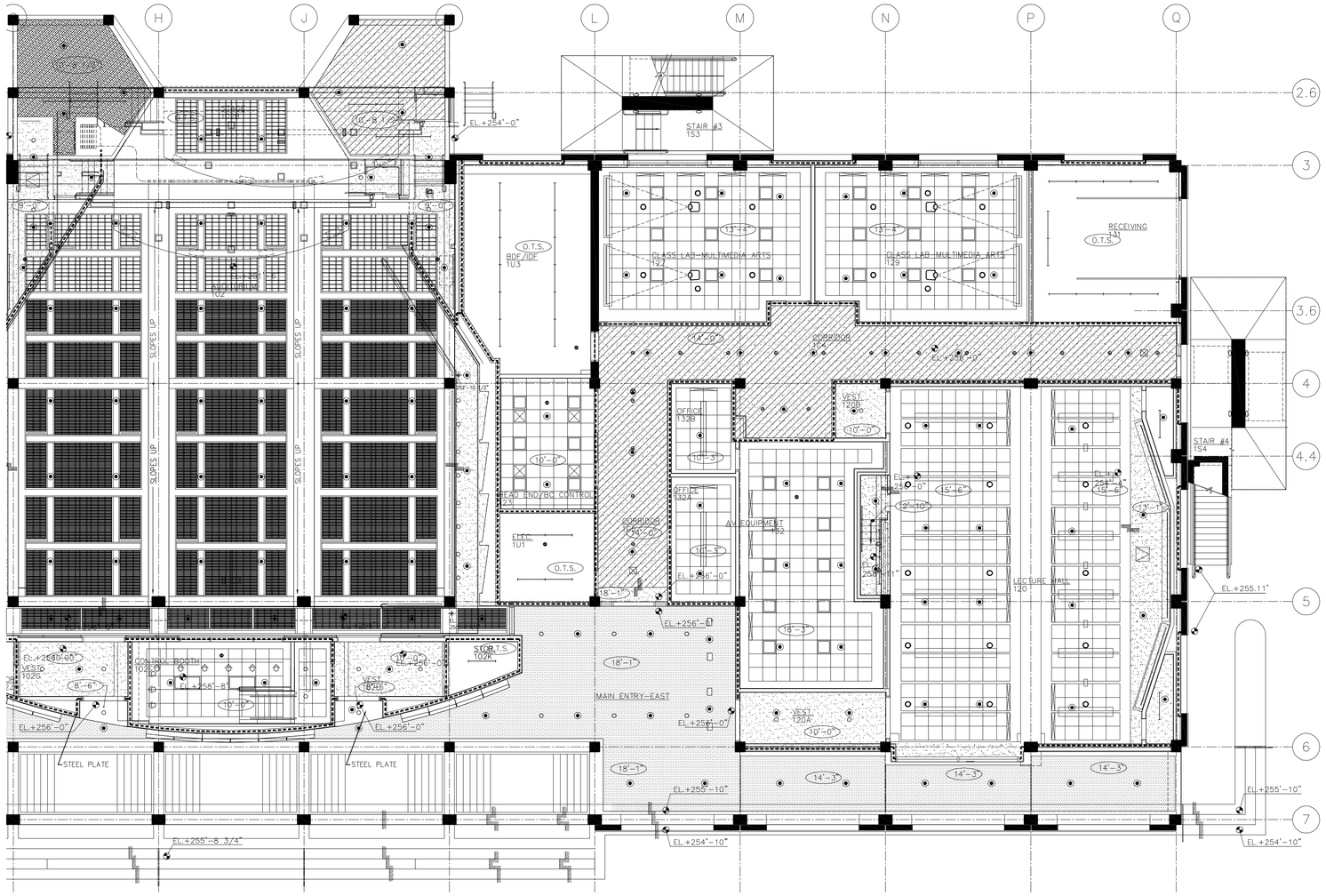
TRANSBAY FIRE PROTECTION INC.
4528 W. Jacquelyn Ave, Suite 10 Fresno, Ca 93722
Tel# (559)276-6076 Fax# (559)276-8262

UC MERCED CLASSROOM
MERCED, CALIFORNIA

FIRST FLOOR REFLECTED CEILING PLAN

DRAWN BY: E.VACA
SCALE 1/8" = 1'-0"
DATE 3/10/2004
DRAWING NO. FP-8
CONT. # 427

LICENSED FIRE PROTECTION CONTRACTOR
STATE OF CALIFORNIA
CLASSIFICATION C-16
LICENSE NO. 629778



CEILING LEGEND

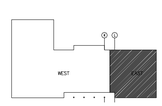
- OPEN TO STRUCTURE
- SUSPENDED ACOUSTICAL TILE CEILING 2'x2'
- GYPSUM BOARD CEILING
- 1-HOUR FIRE RATED CEILING
- 2-HOUR FIRE RATED CEILING
- FIRE WRAPPED PANEL CEILING
- TENSIONED FABRIC ACOUSTICAL CEILING
- EXTERIOR STUCCO SOFFIT
- WOOD SLAT CEILING PANEL

LEGEND

- 1 HR. FIRE RATED WALL
- 2 HR. FIRE RATED WALL
- CONCRETE TILT UP PANEL
- 8" CMU WALL

GRAPHIC SCALE

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16



RECORD DOCUMENTS

MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY
- PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
- RIGID GRV COUPLING
- THREADED CAP
- THREADED PLUG
- ELEVATION BELOW DECK
- CHANGE ELEVATION UP
- CHANGE ELEVATION DN
- INSPECTORS TEST
- AUX DRAIN
- REVISION NOTATION
- LOCAL ALARM

SPRINKLER HEAD LEGEND

SYM	NAME	METAL	TEMP	K	NPT	DRIP	MFG.	MODEL#	ESCUT	CONN.	QTY.
◉	REC. PEND.	CHROME	165	5.60	1/2"	1/2	CEN.	BV-QR	CHROME	THREADED	226
○	UPRIGHT	BRASS	165	5.60	1/2"	1/2	CEN.	BV-QR	----	THREADED	-

TOTAL SPRINKLERS THIS FLOOR: 226

FIELD INSPECTION BY:	PHONE:
1.	
2.	
3.	
4.	
5.	
WATER DEPT.	
ADDRESS:	
CITY:	
PHONE:	

ARCHITECT: THOMAS HACKER ARCHITECTS INC.
ADDRESS: 733 SW OAK STREET #100
CITY: PORTLAND, OREGON 97206
PHONE: (503) 227-1264

CONTRACT WITH: SWINERTON BUILDERS
ADDRESS: ONE KANSER PLAZA, STE. 701
CITY: OAKLAND, CA 94612-3611
PHONE: (510) 208-5800
CONTACT: KARL KLEMMICK

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
0	-------	NAME	----------
1	9/01/04	E.VACA	REVISED PER ARCHITECT REVIEW COMMENTS
2			
3	10.26.04	E.VACA	REVISED PER FIRE MARSHAL REVIEW COMMENTS

TRANSBAY FIRE PROTECTION INC.
4526 W. Jacquelyn Ave. Suite 10 Fresno, Ca 93722
Tel# (559)276-6076 Fax# (559)276-8262

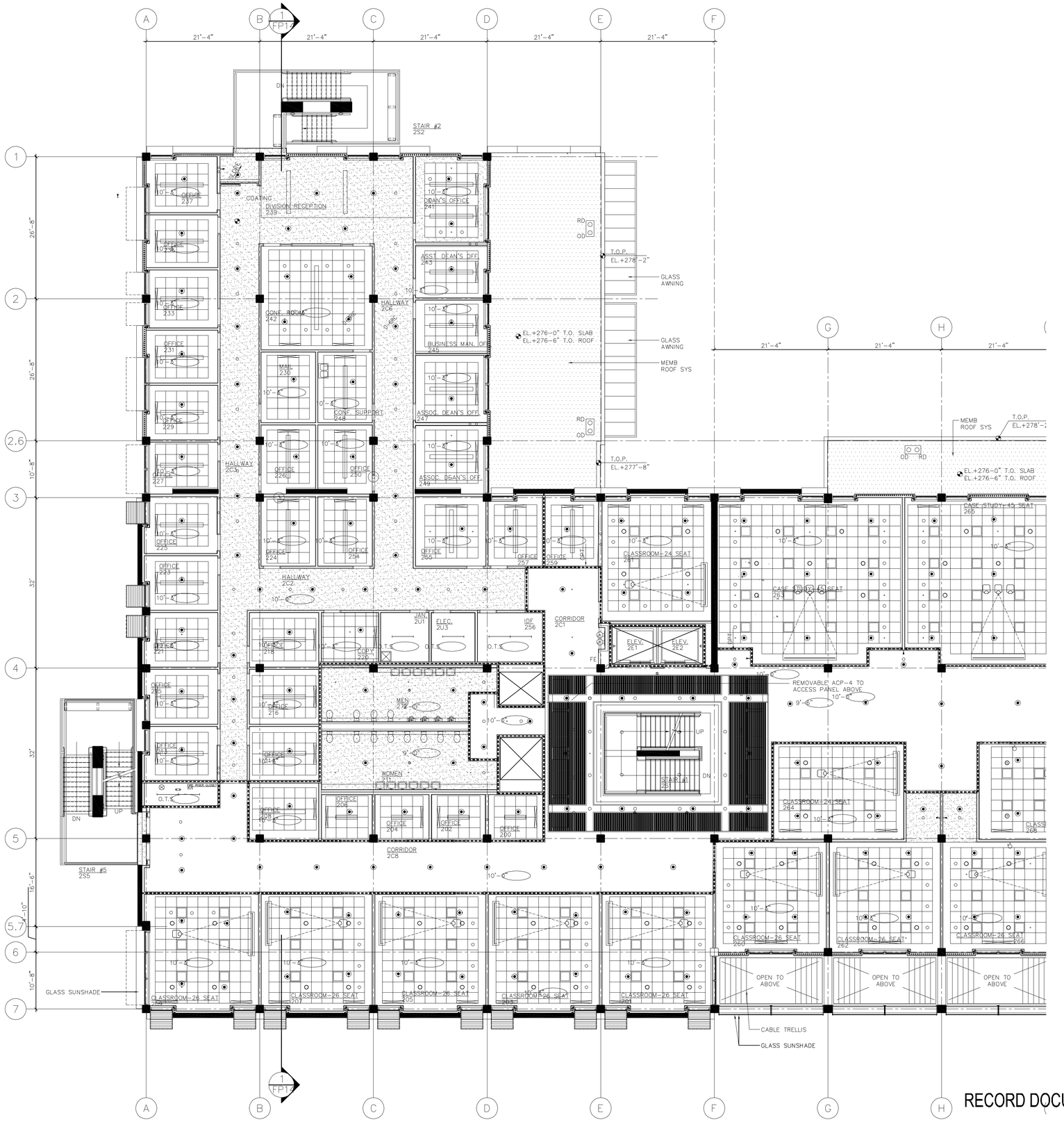
UC MERCED CLASSROOM
MERCED, CALIFORNIA

FIRST FLOOR
REFLECTED CEILING PLAN

DRAWN BY: E.VACA
SCALE 1/8" = 1'-0"
DATE 3/10/2004
DRAWING NO. FP-9
CONT. # 427

N

LICENSED FIRE PROTECTION CONTRACTOR
TRANSBAY FIRE PROTECTION INC.
CLASSIFICATION C-16
LICENSE NO. 629778
STATE OF CALIFORNIA



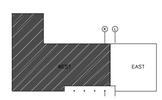
CEILING LEGEND

- OPEN TO STRUCTURE
- SUSPENDED ACOUSTICAL TILE CEILING 2'x2'
- GYPSUM BOARD CEILING
- 1-HOUR FIRE RATED CEILING
- 2-HOUR FIRE RATED CEILING
- FIRE WRAPPED PANEL CEILING
- TENSIONED FABRIC ACOUSTICAL CEILING
- EXTERIOR STUCCO SOFFIT
- WOOD SLAT CEILING PANEL

LEGEND

- 1 HR. FIRE RATED WALL
- 2 HR. FIRE RATED WALL
- CONCRETE TILT UP PANEL
- 8" CMU WALL

GRAPHIC SCALE



RECORD DOCUMENTS
MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY
- PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
- RIGID GRV COUPLING
- THREADED CAP
- THREADED PLUG
- ELEVATION BELOW DECK
- CHANGE ELEVATION UP
- CHANGE ELEVATION DN
- INSPECTORS TEST
- AUX DRAIN
- REVISION NOTATION
- LOCAL ALARM

SPRINKLER HEAD LEGEND

SYM	NAME	METAL	TEMP	K	NPT	DRIF	MFG.	MODEL#	ESCUT	CONN.	QTY.
◉	REC. PEND.	CHROME	165	5.60	1/2"	1/2	CEN.	BV-QR	CHROME	THREADED	261
○	UPRIGHT	BRASS	165	5.60	1/2"	1/2	CEN.	BV-QR	----	THREADED	–

TOTAL SPRINKLERS THIS FLOOR: 261

FIELD INSPECTION BY: PHONE:
1.
2.
3.
4.
5.

WATER DEPT.
ADDRESS:
CITY:
PHONE:

ARCHITECT: THOMAS HACKER ARCHITECTS INC.
ADDRESS: 733 SW OAK STREET #100
CITY: PORTLAND, OREGON 97206
PHONE: (503) 227-1264

CONTRACT WITH: SWINERTON BUILDERS
ADDRESS: ONE KANSER PLAZA, STE. 701
CITY: OAKLAND, CA 94612-3611
PHONE: (510) 208-5800
CONTACT: KARL KLEMMICK

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
	-------	NAME	----------
1	9/01/04	E.VACA	REVISED PER ARCHITECT REVIEW COMMENTS
2	10.26.04	E.VACA	REVISED PER FIRE MARSHAL REVIEW COMMENTS

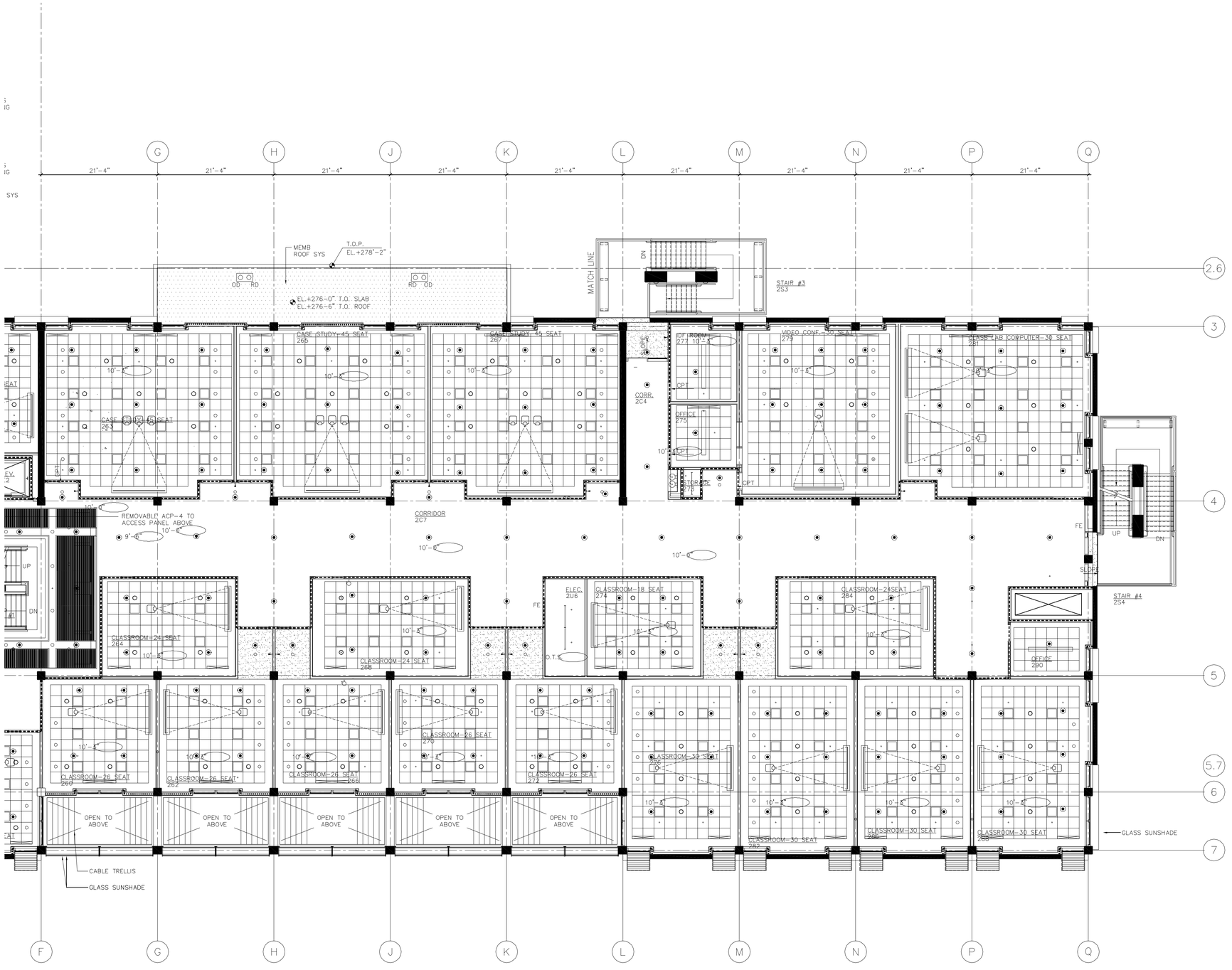
TRANSBAY FIRE PROTECTION INC.
4526 W. Jacquelyn Ave, Suite 10 Fresno, Ca 93722
Tel# (559)276-6076 Fax# (559)276-8262

UC MERCED CLASSROOM
MERCED, CALIFORNIA

SECOND FLOOR REFLECTED CEILING PLAN

DRAWN BY: E.VACA
SCALE 1/8" = 1'-0"
DATE 03/10/2004
DRAWING NO. FP-10
CONT. # 427

LICENSED FIRE PROTECTION CONTRACTOR
TRANSBAY FIRE PROTECTION INC.
STATE OF CALIFORNIA
CLASSIFICATION C-16
LICENSE NO. 629778



CEILING LEGEND

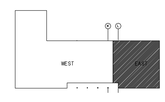
- OPEN TO STRUCTURE
- SUSPENDED ACOUSTICAL TILE CEILING 2'x2'
- GYPSUM BOARD CEILING
- 1-HOUR FIRE RATED CEILING
- 2-HOUR FIRE RATED CEILING
- FIRE WRAPPED PANEL CEILING
- TENSIONED FABRIC ACOUSTICAL CEILING
- EXTERIOR STUCCO SOFFIT
- WOOD SLAT CEILING PANEL

LEGEND

- 1 HR. FIRE RATED WALL
- 2 HR. FIRE RATED WALL
- CONCRETE TILT UP PANEL
- 8" CMU WALL

GRAPHIC SCALE

1' 2' 4' 6' 8' 10' 12' 14' 16'



RECORD DOCUMENTS
MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
- RIGID GRV COUPLING
- THREADED CAP
- THREADED PLUG
- ELEVATION BELOW DSCN.
- CHANGE ELEVATION UP
- CHANGE ELEVATION DN
- INSPECTORS TEST
- AUX DRAIN
- REVISION NOTATION
- LOCAL ALARM

SPRINKLER HEAD LEGEND

SYM	NAME	METAL	TEMP	K	NPT	ORIF	MFG.	MODEL#	ESCUT	CONN.	QTY.
●	REC. PEND.	CHROME	165	5.60	1/2"	1/2	CEN.	BV-QR	CHROME	THREADED	261
○	UPRIGHT	BRASS	165	5.60	1/2"	1/2	CEN.	BV-QR	----	THREADED	–

TOTAL SPRINKLERS THIS FLOOR: 261

FIELD INSPECTION BY: PHONE:
1.
2.
3.
4.
5.

WATER DEPT.
ADDRESS:
CITY:
PHONE:

ARCHITECT: THOMAS HACKER ARCHITECTS INC.
ADDRESS: 733 SW OAK STREET #100
CITY: PORTLAND, OREGON 97206
PHONE: (503) 227-1264

CONTRACT WITH: SWINERTON BUILDERS
ADDRESS: ONE KANSER PLAZA, STE. 701
CITY: OAKLAND, CA 94612-3611
PHONE: (510) 208-5800
CONTACT: KARL KLEMMICK

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
	----------	NAME	----------
1	9/01/04	E.VACA	REVISED PER ARCHITECT REVIEW COMMENTS
2			
3	10.26.04	E.VACA	REVISED PER FIRE MARSHAL REVIEW COMMENTS

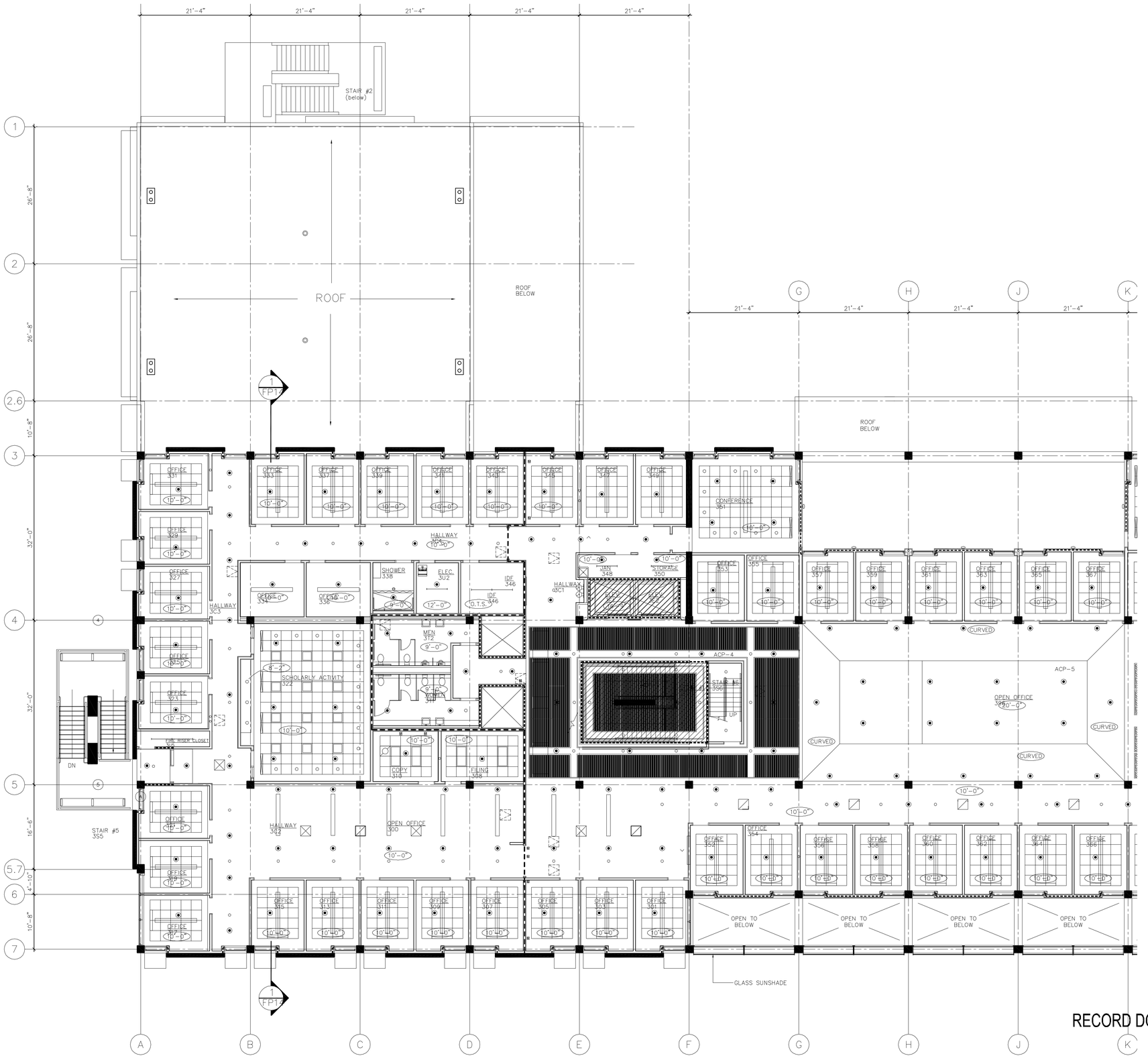
TRANSBAY FIRE PROTECTION INC.
4528 W. Jacquelyn Ave, Suite 10 Fresno, Ca 93722
Tel# (559)276-6076 Fax# (559)276-8262

UC MERCED CLASSROOM
MERCED, CALIFORNIA

SECOND FLOOR
REFLECTED CEILING PLAN

DRAWN BY: E.VACA
SCALE 1/8" = 1'-0"
DATE 03/10/2004
DRAWING NO. FP11
CONT. # 427

STATE OF CALIFORNIA — LICENSED FIRE PROTECTION CONTRACTOR — TRANSBAY FIRE PROTECTION, INC. — CLASSIFICATION C-16 LICENSE NO. 629778



CEILING LEGEND

- OPEN TO STRUCTURE
- SUSPENDED ACOUSTICAL TILE CEILING 2'x2'
- GYPSUM BOARD CEILING
- 1-HOUR FIRE RATED CEILING
- 2-HOUR FIRE RATED CEILING
- FIRE WRAPPED PANEL CEILING
- TENSIONED FABRIC ACOUSTICAL CEILING
- EXTERIOR STUCCO SOFFIT
- WOOD SLAT CEILING PANEL

LEGEND

- 1 HR. FIRE RATED WALL
- 2 HR. FIRE RATED WALL
- CONCRETE TILT UP PANEL
- 8" CMU WALL

GRAPHIC SCALE

RECORD DOCUMENTS
MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY
- PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
- RIGID GRV COUPLING
- THREADED CAP
- THREADED PLUG
- ELEVATION BELOW DECK
- CHANGE ELEVATION UP
- CHANGE ELEVATION DN
- INSPECTORS TEST
- AUX DRAIN
- REVISION NOTATION
- LOCAL ALARM

SPRINKLER HEAD LEGEND

SYM	NAME	METAL	TEMP	K	NPT	ORIF	MFG.	MODEL#	ESCUT.	CONN.	QTY
◉	REC. PEND.	CHROME	155	5.60	1/2"	1/2	CENL	EVQ-QR	CHROME	THREADED	209
○	UPRIGHT	BRASS	155	5.60	1/2"	1/2	CENL	EVQ-QR	—	THREADED	-
▶	WINDOW SPRINKLER	BRASS	155	5.6	1/2"	1/2	CENL	HSW, WS PENDENT VERTICAL SIDEWALL	—	THREADED	26

TOTAL SPRINKLERS THIS FLOOR: 235

FIELD INSPECTION BY: PHONE:
1.
2.
3.
4.
5.
WATER DEPT.
ADDRESS:
CITY:
PHONE:

ARCHITECT: THOMAS HACKER ARCHITECTS INC.
ADDRESS: 733 SW OAK STREET #100
CITY: PORTLAND, OREGON 97206
PHONE: (503) 227-1264

CONTRACT WITH: SWINERTON BUILDERS
ADDRESS: ONE KANSER PLAZA, STE. 701
CITY: OAKLAND, CA 94612-3611
PHONE: (510) 208-5800

CONTACT: KARL KLEMMICK

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
0	------	NAME	----------
1	9/01/04	E.VACA	REVISED PER ARCHITECT REVIEW COMMENTS
2	10.26.04	E.VACA	REVISED PER FIRE MARSHAL REVIEW COMMENTS

TRANSBAY FIRE PROTECTION INC.
4528 W. Jacquelyn Ave, Suite 10 Fresno, Ca 93722
Tel# (559)276-6076 Fax# (559)276-8262

UC MERCED CLASSROOM
MERCED, CALIFORNIA

THIRD FLOOR
REFLECTED CEILING PLAN

DRAWN BY: E.VACA
SCALE 1/8" = 1'-0"
DATE 03/10/2004
DRAWING NO. FP-12
CONT. # 427

STATE OF CALIFORNIA - LICENSED FIRE PROTECTION CONTRACTOR - TRANSBAY FIRE PROTECTION INC. - CLASSIFICATION C-16 LICENSE NO. 629778

CEILING LEGEND

- OPEN TO STRUCTURE
- SUSPENDED ACOUSTICAL TILE CEILING 2'x2'
- GYPSUM BOARD CEILING
- 1-HOUR FIRE RATED CEILING
- 2-HOUR FIRE RATED CEILING
- FIRE WRAPPED PANEL CEILING
- TENSIONED FABRIC ACOUSTICAL CEILING
- EXTERIOR STUCCO SOFFIT
- WOOD SLAT CEILING PANEL

LEGEND

- 1 HR. FIRE RATED WALL
- 2 HR. FIRE RATED WALL
- CONCRETE TILT UP PANEL
- 8" CMU WALL

GRAPHIC SCALE

RECORD DOCUMENTS
MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY
- PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
- RIGID GRV COUPLING
- THREADED CAP
- THREADED PLUG
- ELEVATION BELOW DECK
- CHANGE ELEVATION UP
- CHANGE ELEVATION DN
- INSPECTORS TEST
- AUX DRAIN
- REVISION NOTATION
- LOCAL ALARM

SPRINKLER HEAD LEGEND

SYM	NAME	METAL	TEMP	K	NPT	ORIF	MFG.	MODEL#	ESCUT	CONN.	QTY
◉	REC. PEND.	CHROME	165	5.60	1/2"	1/2	CENL	EVI-QR	CHROME	THREADED	209
○	UPRIGHT	BRASS	165	5.60	1/2"	1/2	CENL	EVI-QR	—	THREADED	-
▶	WINDOW SPRINKLER	BRASS	165	5.6	1/2"	1/2	CENL	M.OD. WG PENDENT VERTICAL SIDEWALL	—	THREADED	26

TOTAL SPRINKLERS THIS FLOOR: 235

FIELD INSPECTION BY: PHONE:
1.
2.
3.
4.
5.

WATER DEPT.
ADDRESS:
CITY:
PHONE:

ARCHITECT: THOMAS HACKER ARCHITECTS INC.
ADDRESS: 733 SW OAK STREET #100
CITY: PORTLAND, OREGON 97206
PHONE: (503) 227-1264

CONTRACT WITH: SWINERTON BUILDERS
ADDRESS: ONE KANSER PLAZA, STE. 701
CITY: OAKLAND, CA 94612-3611
PHONE: (510) 208-5800
CONTACT: KARL KLEMMICK

DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
	-----	NAME	----------
1	9/01/04	E.VACA	REVISED PER ARCHITECT REVIEW COMMENTS
2			
3	10.26.04	E.VACA	REVISED PER FIRE MARSHAL REVIEW COMMENTS

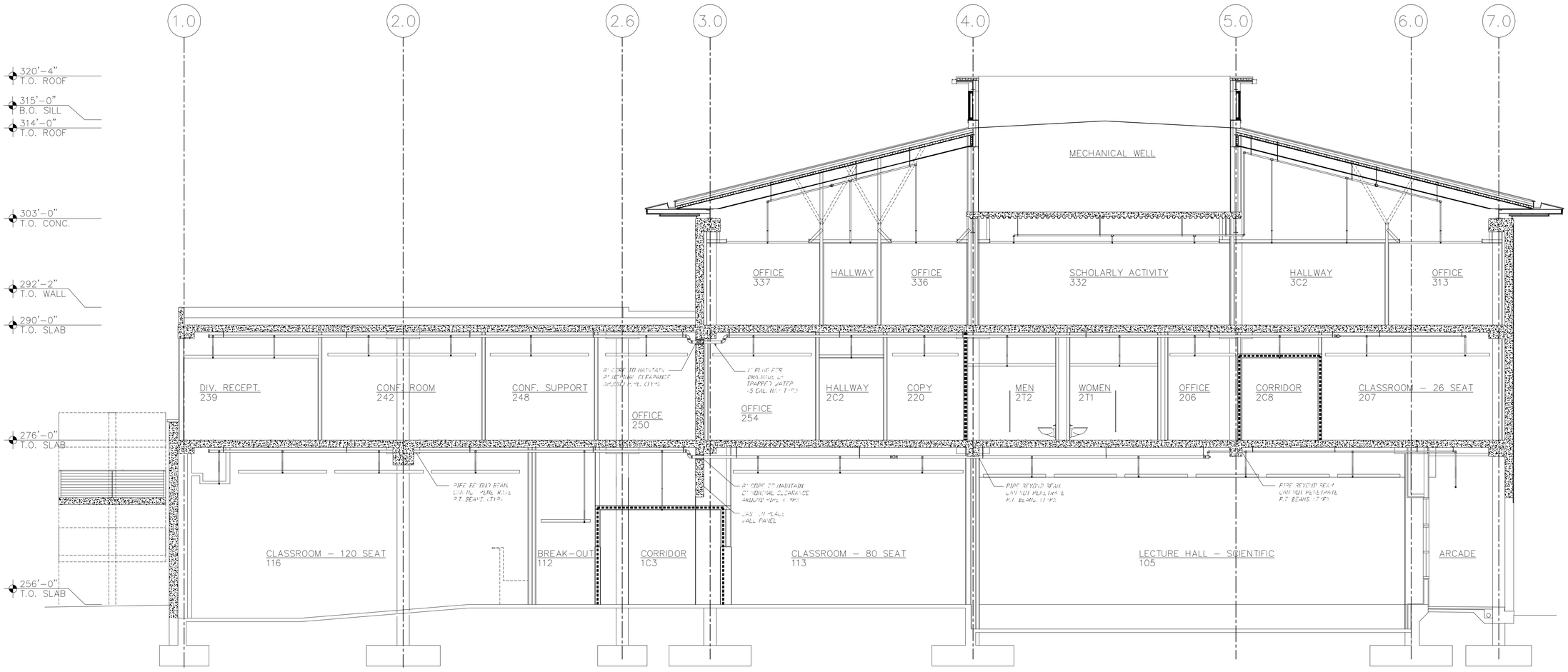
TRANSBAY FIRE PROTECTION INC.
4528 W. Jacquelyn Ave, Suite 10 Fresno, Ca 93722
Tel# (559)276-6076 Fax# (559)276-8262

UC MERCED CLASSROOM
MERCED, CALIFORNIA

THIRD FLOOR
REFLECTED CEILING PLAN

DRAWN BY: E.VACA
SCALE 1/8" = 1'-0"
DATE 03/10/2004
DRAWING NO. FP-13
CONT. # 427

LICENSED FIRE PROTECTION CONTRACTOR
TRANSBAY FIRE PROTECTION INC.
CLASSIFICATION C-16
LICENSE NO. 629778
STATE OF CALIFORNIA



1 BUILDING SECTION

SCALE: $\frac{3}{16}$"=1'-0"

RECORD DOCUMENTS
MAY 12, 2008

SYMBOLS

- AUTOMATIC SPRINKLER RISER
- EARTHQUAKE BRACING
- 2-WAY & 4-WAY
- PIPE HANGER
- HYDRAULIC REF PT
- GROOVE CAP
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FIELD INSPECTION BY:	PHONE:
1.	
2.	
3.	
4.	
5.	
WATER DEPT.	
ADDRESS:	
CITY:	
PHONE:	

ARCHITECT:	THOMAS HACKER ARCHITECTS INC.
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CONTRACT WITH:	SWINERTON BUILDERS
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DRAWING REVISIONS

#	DATE	BY	DESCRIPTION
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2			
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UC MERCED CLASSROOM
MERCED, CALIFORNIA

BUILDING SECTION
FIRE PROTECTION PLAN

DRAWN BY:	E.VACA
SCALE	3/16" = 1'-0"
DATE	03/10/2004
DRAWING NO.	FP-14
CONT. #	427

LICENSED FIRE PROTECTION CONTRACTOR
TRANSBAY FIRE PROFESSION INC
CLASSIFICATION C-16
LICENSE NO. 629778
STATE OF CALIFORNIA