### **UNIVERSITY OF OREGON DESCHUTES HALL - MACHINE ROOM UPGRADES**

### CODE SUMMARY:

PROJECT AREA: 794 SQUARE FEET BUILDING FOOTPRINT AREA: 10592 SQUARE FEET OCCUPANCY TYPE: "B", EDUCATION ABOVE 12TH GRADE OCCUPANCY SEPARATION: NONE REQUIRED CONSTRUCTION TYPE: TYPE IIA, FULLY SPRINKLED

SPRINKLER/FIRE ALARM NOTE:

DESIGN AND INSTALLATION OF ADDITIONAL SPRINKLERS AND MODIFICATION OF EXISTING FIRE ALARM SYSTEM IN REMODELED SPACE, PER CODE REQUIREMENTS, TO BE BY CONTRACTOR. CONTRACTOR TO BE RESPONSIBLE FOR ANY NECESSARY CALCULATIONS OR PERMITTING REQUIRED FOR SPRINKLERS AND FIRE ALARM. SEE SPECIFICATION SECTION 21 05 13 FOR MORE INFORMATION.

### SCOPE OF WORK:

SUMMARY: THE PROJECT CONSISTS OF REMODELING ROOMS 321, 321A AND 325 FOR THE COMPUTER AND INFORMATION SCIENCE DEPARTMENT ON THE THIRD FLOOR OF DESCRIUTES HALL. THE WORK WILL BE DONE IN TWO PHASES. ONLY PHASE 1 IS BEING DONE AT THIS TIME. PHASE TWO WORK IS SHOWN FOR REFERENCE ONLY. WORK INCLUDES MINOR DEMOLITION (RECONFIGURING ROOMS 321A AND 325 INTO ONE ROOM), REPLACING THE HVAC AND ELECTRICAL SYSTEMS SERVING 321, ADDING ELECTRICAL EQUIPMENT TO THE FIRST FLOOR ELECTRICAL ROOM, AND REINFORCING THE FLOOR JOISTS UNDER ROOMS 321, 321A AND 325.

# PROJECT LOCATION

### VICINITY MAP NOT TO SCALE

### GENERAL NOTES:

- A. THESE NOTES APPLY TO THE DRAWINGS LISTED IN THE INDEX SHOWN BELOW.
- B. COORDINATE WITH OTHER TRADES AND FIELD VERIFY ALL DIMENSIONS, CLEARANCES AND ROUTING PRIOR TO FABRICATION AND INSTALLATION. ANY DISCREPANCIES BETWEEN DRAWINGS, DIMENSIONS AND EXISTING CONDITIONS SHOULD BE RECORDED IN WRITING AND REPORTED TO THE ENGINEERING FIRM FOR RESOLUTION PRIOR TO COMMENCEMENT OF THE JOB.
- C. ALL NEW WORK SHALL COMPLY WITH LOCAL AND STATE BUILDING CODES INCLUDING:
  - 2010 OREGON STRUCTURAL SPECIALTY CODE (OSSC) 2010 OREGON MECHANICAL SPECIALTY CODE (OMSC)
  - 2010 OREGON ENERGY EFFICIENCY SPECIALTY CODE (OEESC)
  - 2011 OREGON PLUMBING SPECIALTY CODE (OPSC)
  - 2011 OREGON ELECTRICAL SPECIALTY CODE (OESC)

  - 2010 OREGON FIRE CODE (OFC)
    2011 UNIVERSITY OF OREGON CAMPUS CONSTRUCTION STANDARDS
  - NATIONAL FIRE PROTECTION ASSOCIATION

BUILDING LOCATION
COMPUTER AND INFORMATION SCIENCE DEPARTMENT
UNIVERSITY OF OREGON 120 DESCHUTES HALL 1477 EAST 13TH AVENUE EUGENE, OR 97403

PROJECT INFORMATION:

BUILDING OWNER UNIVERSITY OF OREGON CONTACT: DAVID WARD 1276 UNIVERSITY OF OREGON EUGENE, OREGON 97403-1276 E-MAIL: rdward@uoreaon.edu

ENGINEERING EVERGREEN ENGINEERING MECHANICAL CONTACT: PATRICK SANDOW, P.E. E-MAIL: psandow@eeeug.com ELECTRICAL CONTACT: PAUL WAGNER, P.E. E-MAIL: pwagner@eeeug.com 1740 WILLOW CREEK CIRCLE EUGENE, OREGON 97402 PHONE (541) 484-4771

### DRAWING INDEX:

100G01	LOCATION AND GENERAL NOTES
1000A01	ROOM 321 AND 325 WALL MODIFICATIONS

STRIP CURTAIN MOUNTING DETAILS

1000501

PROJECT NOTES
PARTIAL 3RD FLOOR FRAMING PLAN AND DETAILS
PARTIAL 3RD FLOOR FRAMING DETAILS
PARTIAL ATTIC FRAMING PLAN AND DETAILS 1000S02 1000S03

1000M01 LEGEND, GENERAL NOTES & SCHEDULES

1000M02 1000M03 ROOM 321 AND 325 MECHANICAL DEMOLITION PLAN ROOM 321 AND 325 MECHANICAL NEW WORK 1000M04

ACU MOUNTING DETAILS & PIPING SCHEMATIC

CONTROL SCHEMATIC

1000E01 SINGLE LINE DIAGRAM — PHASE 1 SINGLE LINE DIAGRAM — PHASE 2 FIRST FLOOR ELECTRICAL DEMOLITION PLAN THIRD FLOOR ELECTRICAL DEMOLITION PLAN 1005F01

1015E01 FIRST FLOOR ELECTRICAL PLAN THIRD FLOOR ELECTRICAL PLAN 1015F03 PARTIAL ATTIC FLECTRICAL PLAN PARTIAL SITE ELECTRICAL PLAN

LANDSCAPING PLAN

FAST 13TH AVE RESTRICTED VEHICLE

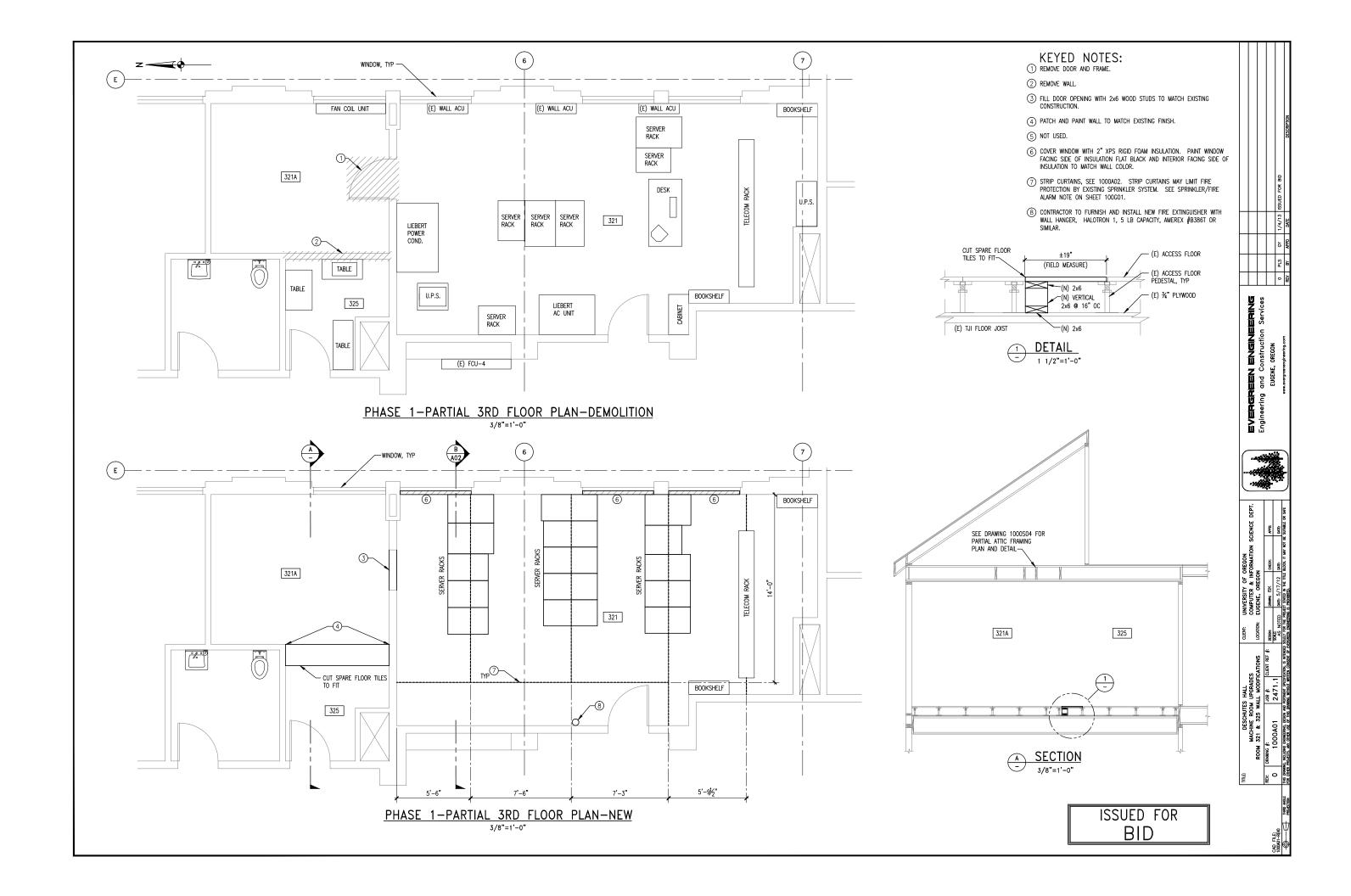
ORIENTATION PLAN NOT TO SCALE

DESCHUTES HALL

AREA OF

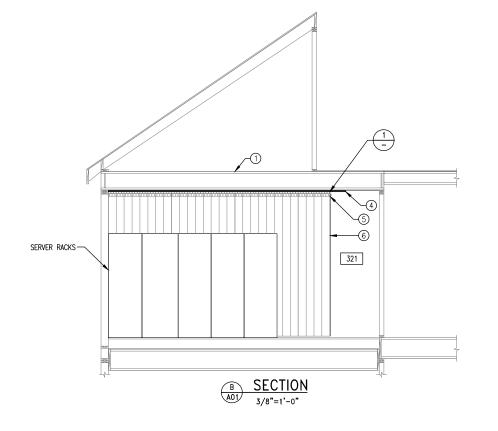
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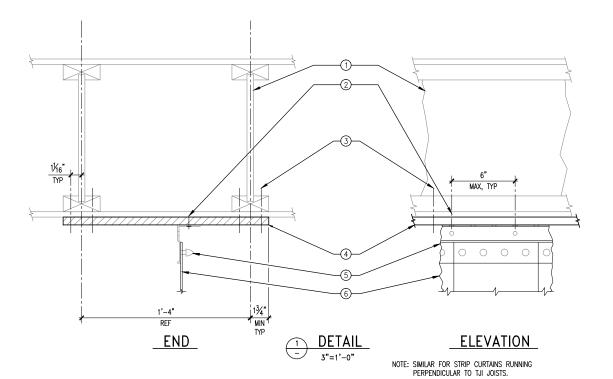




### KEYED NOTES:

- (E) TJI SUPPORT JOISTS.
- ② ¼"øx1" WOOD SCREWS, 6" OC MAX.
- (3) (2) ¼"øx3" WOOD SCREWS @ EA JOIST, 24" OC.
- 4  $\ensuremath{\ensuremath{\mathcal{Y}}}$ " Finish AC Plywood sanded and painted to match existing.
- (5) PRESS-ON STRIP CURTAIN MOUNTING HARDWARE, SIMILAR TO McMASTER CARR #8460A85. CONTRACTOR FURNISHED AND INSTALLED.
- (6) ANTI-STATIC STRIP CURTAIN, 8" W x 0.08" THICK x 9'-0" TALL STRIPS SIMILAR TO McMASTER CARR #8460A85. CONTRACTOR FURNISHED AND INSTALLED.







PROJECT NOTES ARE APPLICABLE TO ALL AREAS UNLESS NOTED OTHERWISE ON DESIGN DRAWINGS

### PROJECT NOTES:

- A. PROVIDE AND MAINTAIN ADEQUATE ERECTION SHORING AND BRACING AS REQUIRED FOR STABILITY AND PROTECTION OF THE STRUCTURE DURING ALL PHASES OF CONSTRUCTION. SITE OBSERVATIONS BY THE ENGINEER DO NOT INCLUDE INSPECTION OF SHORING, BRACING, OR OTHER ELEMENTS PERTAINING TO THE MEANS OR METHOD OF CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND INSTALLATION OF ALL REQUIRED CRIBBING, SHEATHING AND SHORING.
- B. PROMPTLY REPORT ANY DISCREPANCY FOUND AMONG THE DRAWINGS. SPECIFICATIONS THESE STRUCTURAL NOTES, AND THE SITE CONDITIONS TO THE ENGINEER, WHO SHALL CORRECT SUCH DISCREPANCY IN WRITING. ANY WORK DONE BY THE CONTRACTOR AFTER THE DISCOVERY OF SLICH DISCREPANCY IS AT THE CONTRACTOR'S OWN RISK. VERIFY AND COORDINATE THE DIMENSIONS AMONG ALL DRAWINGS PRIOR TO PROCEEDING WITH ANY WORK OR FABRICATION.
- C. DO NOT SCALE WORKING DIMENSIONS FROM THE PLANS, SECTIONS, OR DETAILS.
- D. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS PRIOR TO COMMENCING WORK.
- E. CONSTRUCTION OR DETAILS FOR ELEMENTS OR PORTIONS OF THE WORK NOT SPECIFICALLY SHOWN SHALL BE SIMILAR TO CONSTRUCTION OR DETAILS SHOWN.
- F. STANDARD DETAILS AND SCHEDULES APPLY TO THE WORK IN GENERAL AND MAY NOT BE SPECIFICALLY REFERENCED ON THE PLANS. DETERMINE WHERE EACH STANDARD DETAIL OR SCHEDULE APPLIES PRIOR TO PROCEEDING WITH THE WORK, PROMPTLY NOTIFY THE ENGINEER IF CONDITIONS ARE FOUND WHICH ARE NOT SPECIFICALLY DETAILED AND FOR WHICH NO STANDARD DETAIL OR SCHEDULE APPLIES.
- G. NOTES AND DETAILS SPECIFICALLY INDICATED ON THE PLANS TAKE PRECEDENCE OVER THESE NOTES.
- H. WHERE THE NOTES AND THE PLANS CONFLICT, USE THE MORE RESTRICTIVE CRITERIA, UNLESS
- MODIFICATIONS OR SUBSTITUTIONS IN THE DESIGN, MATERIAL, EQUIPMENT OR PRODUCTS SPECIFIED MAY BE CONSIDERED PROVIDED A WRITTEN REQUEST, SUBJECT TO REVIEW, IS SUBMITTED TO THE ENGINEER PRIOR TO ITS USE OR INCLUSION IN ANY SHOP DRAWING.

### DESIGN CRITERIA:

- A. ALL DESIGN MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
- 2010 OREGON STRUCTURAL SPECIALTY CODE
   AMERICAN SOCIETY OF CIVIL ENGINEERS, "MINIMUM DESIGN LOADS FOR BUILDING AND OTHER STRUCTURES," 2005; (ASCE 7-05)
- B. DESIGN LOADS: 1. BUILDING LOADS: UNIFORM - DEAD LOAD: 11.5 PSF (ATTIC) 18 PSF (FLAT FLOOR) 10 PSF (MANSARD ROOF) 22 PSF (3RD FLOOR) - LIVE LOAD: 100 PSF (COMPUTER ACCESS FLOOR, ROOM 321) 50 PSF (MECH. ROOM 325) - EQUIPMENT WEIGHT: PER DRAWINGS - SNOW LOAD: 20PSF OR 15PSF AND DRIFT PER ASCE 7-05
- 2. SEISMIC DESIGN CRITERIA:
- SITE CLASS: D OCCUPANCY CATEGORY: II
- SEISMIC DESIGN CATEGORY: D - S1=0.326
- SDS=0.503
- SD1=0.320
- R=1.5 (ACCESS FLOOR) OR 2.5 (MECHANICAL EQUIPMENT)
- -1=10- Cv=0.10

### WOOD CONSTRUCTION: [IBC CH 23]

- A. FRAMING LUMBER TO BE DOUGLAS FIR (COAST REGION) GRADED AND MARKED IN ACCORDANCE WITH THE STANDARD GRADING RULES #17 OF THE WEST COAST LUMBER INSPECTION BUREAU (WCLIB) OR WESTERN LUMBER GRADING RULES. OF THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA), ALL LUMBER SHALL BE OF #2 (MIN) UNLESS NOTED OTHERWISE ON DRAWINGS.
- B. MANUFACTURED LUMBER TO BE TRUSS JOIST "TIMBERSTRAND" LSL (OR APPROVED EQUAL). DOUGLAS FIR LARCH STRANDS ORIENTATED IN A PARALLEL DIRECTION GLUED UP IN A CONTINUOUS PROCESS CONFORMING TO ICC REPORT NO. ESR-1387. LSL SHALL BE SINGLE ONE-PIECE LENGTHS FREE OF FINGER JOINTS, SCARF JOINTS, OR MECHANICAL CONNECTIONS. EXTREME FIBER STRESS IN BENOING fb=2255 PSI, E=1,500,000 PSI. EACH PIECE SHALL BE PROPERLY IDENTIFIED PER ICC REPORT NO. ESR-1387.
- C. ROUGH HARDWARE:
  - 1. NAILS: COMMON WIRE NAILS, FEDERAL SPECIFICATION FF-N-105B, STANDARD LENGTHS UNO. USE HOT-DIPPED ZINC-COATED GALVANIZED NAILS FOR EXTERIOR INSTALLATIONS AND WHEN PENETRATING PRESSURE TREATED OR PRE-RETARDANT LUMBER.
  - 2. LAG SCREWS: ASTM A307, ANSI/ASME STANDARD B18.2.1. USE ANSI B18.22.1 WASHERS UNDER HEAD WHEN IN CONTACT WITH WOOD
  - 3. SCREW: ASTM A307, ANSI/ASME STANDARD B18.6.1. USE CADMIUM-PLATED PAN OR ROUND HEADED SCREWS AT STEEL TO WOOD AND WOOD TO WOOD CONNECTIONS.

    4. BOLTS, NUTS, WASHERS, STRAPS AND OTHER HARDWARE EXPOSED TO THE WEATHER TO BE HOT-DIPPED
  - GALVANIZED OR STAINLESS STEEL.
  - 5. FRAMING CLIPS, SHEET METAL STRAPS, ETC: SIMPSON, UNIVERSAL, OR SILVER, WITH ICBO REPORTS, DESIGNATIONS ON DRAWINGS ARE BASED ON SIMPSON CATALOG NUMBERS.
- C. DRIVE NAILS PERPENDICULAR TO THE GRAIN, UNLESS NOTED OTHERWISE.
- D. PREDRILL HOLES TO 3/4 OF NAIL DIAMETER WHERE SPECIFIED AND WHEN WOOD TENDS TO SPLIT.
- E. AIR-DRIVEN NAILS TO BE FULL-HEADED NAILS. DO NOT OVERDRIVE NAILS.
- F. AT FLOOR AND ROOF SHEATHING, USE RING SHANK NAILS. USE SMOOTH SHANK NAILS AT WALLS.
- G. USE OF MACHINE NAILING IS SUBJECT TO A SATISFACTORY JOB SITE DEMONSTRATION FOR EACH PROJECT AND APPROVAL BY THE OWNER'S REPRESENTATIVE. NAILHEADS THAT PENETRATE THE OUTER PLY MORE THAN WOULD BE NORMAL FOR A HAND HAMMER OR IF THE MINIMUM ALLOWABLE EDGE DISTANCES ARE NOT MAINTAINED THE INSTALLATION IS UNSATISFACTORY. MACHINE NAILING IS NOT APPROVED IN 5/6" OR
- H. GLUF FLOOR SHEATHING AT ALL POINTS OF CONTACT.
- I. PROVIDE MINIMUM NAILING PER TABLE 2304.9.1 OF THE OSSC. UNLESS NOTED OTHERWISE.

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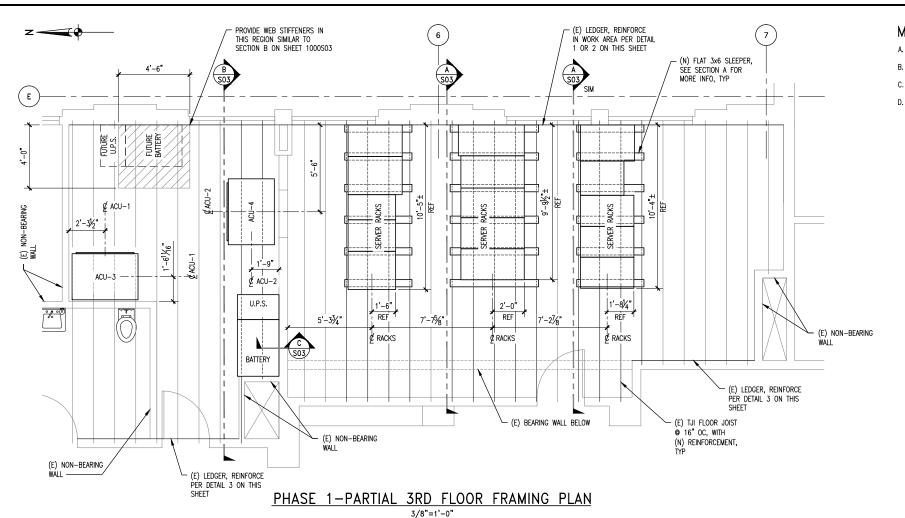
ENGINE:





SCIENCE

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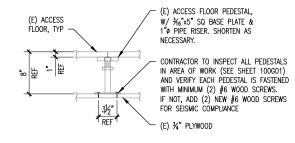


### MECHANICAL EQUIPMENT:

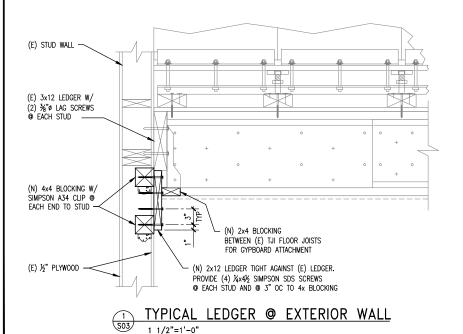
- A. AIR CONDITIONER MAXIMUM WEIGHT = 900 lbs.
- B. U.P.S. CABINET MAXIMUM WEIGHT = 640 lbs.
- C. BATTERY CABINET MAXIMUM WEIGHT = 3245 lbs.
- D. SERVER RACK MAXIMUM WEIGHT = 1500 lbs.

### **GENERAL NOTES:**

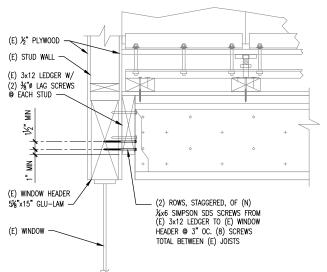
- A. SEE PROJECT NOTES ON SHEET 1000S01.
- B. (E) DENOTES EXISTING FRAMING TO REMAIN, (N) DENOTES NEW FRAMING.
- C. ACCESS FLOOR AND FLOOR PLYWOOD MAY BE REMOVED AS REQUIRED TO INSTALL NEW FLOOR JOISTS AND REINFORCE LEDGER. WHERE PLYWOOD HAS BEEN REMOVED, IT SHALL BE REPLACED AND EDGE NALED PER THE ORIGINAL DRAWINGS (4" OC AT PANEL EDGES, 10" OC FIELD). IF PARTIAL SHEETS ARE REMOVED, ALL NEW PANEL EDGES SHALL BE EDGE NAILED TO (N) OR (E) 2x BLOCKING.

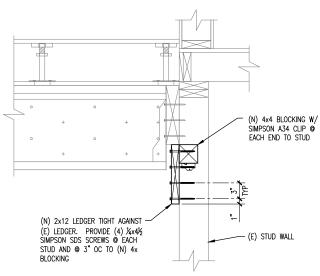


FLOOR SUPPORT 1 1/2"=1'-0"



1 1/2"=1'-0"



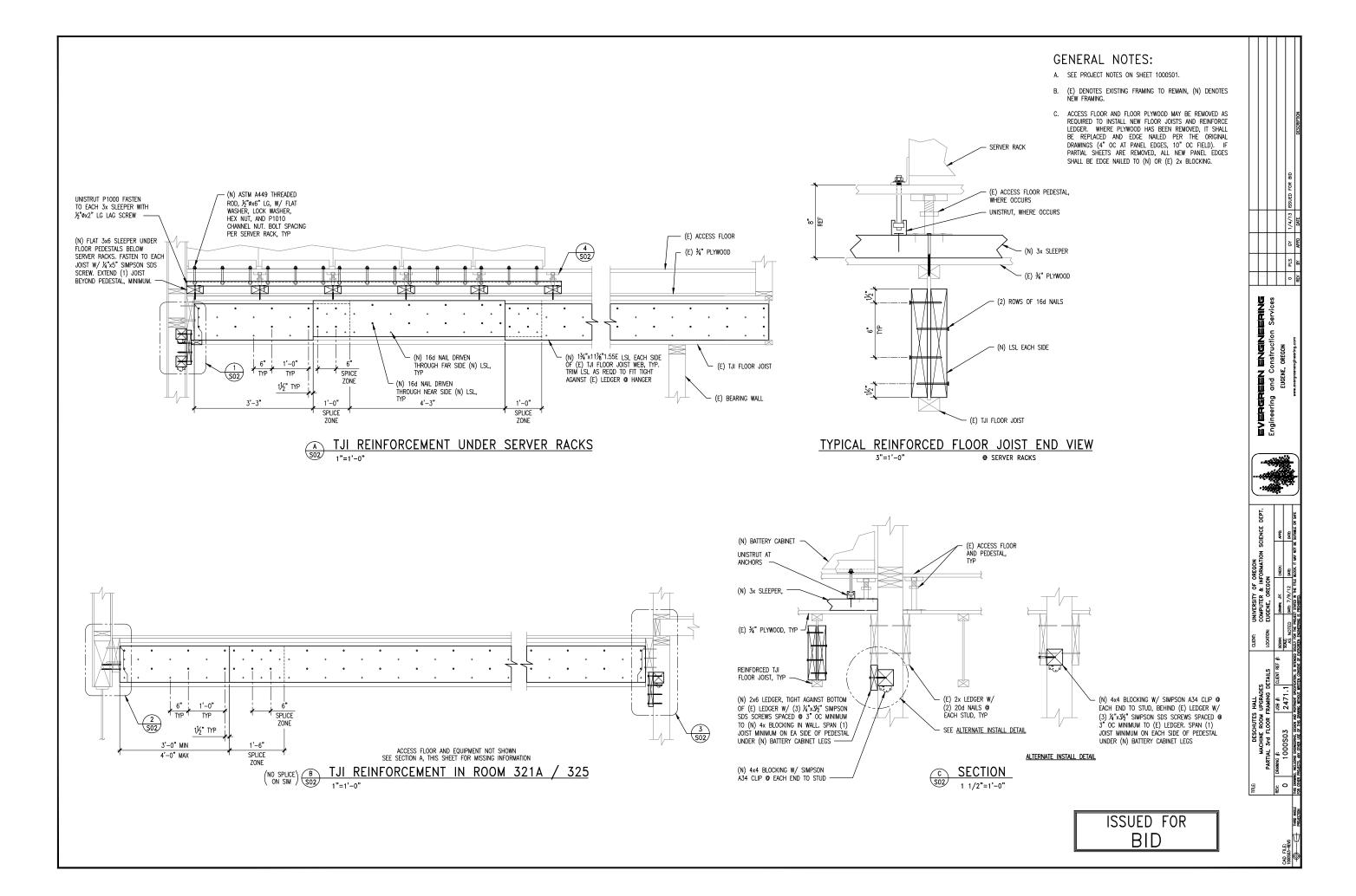


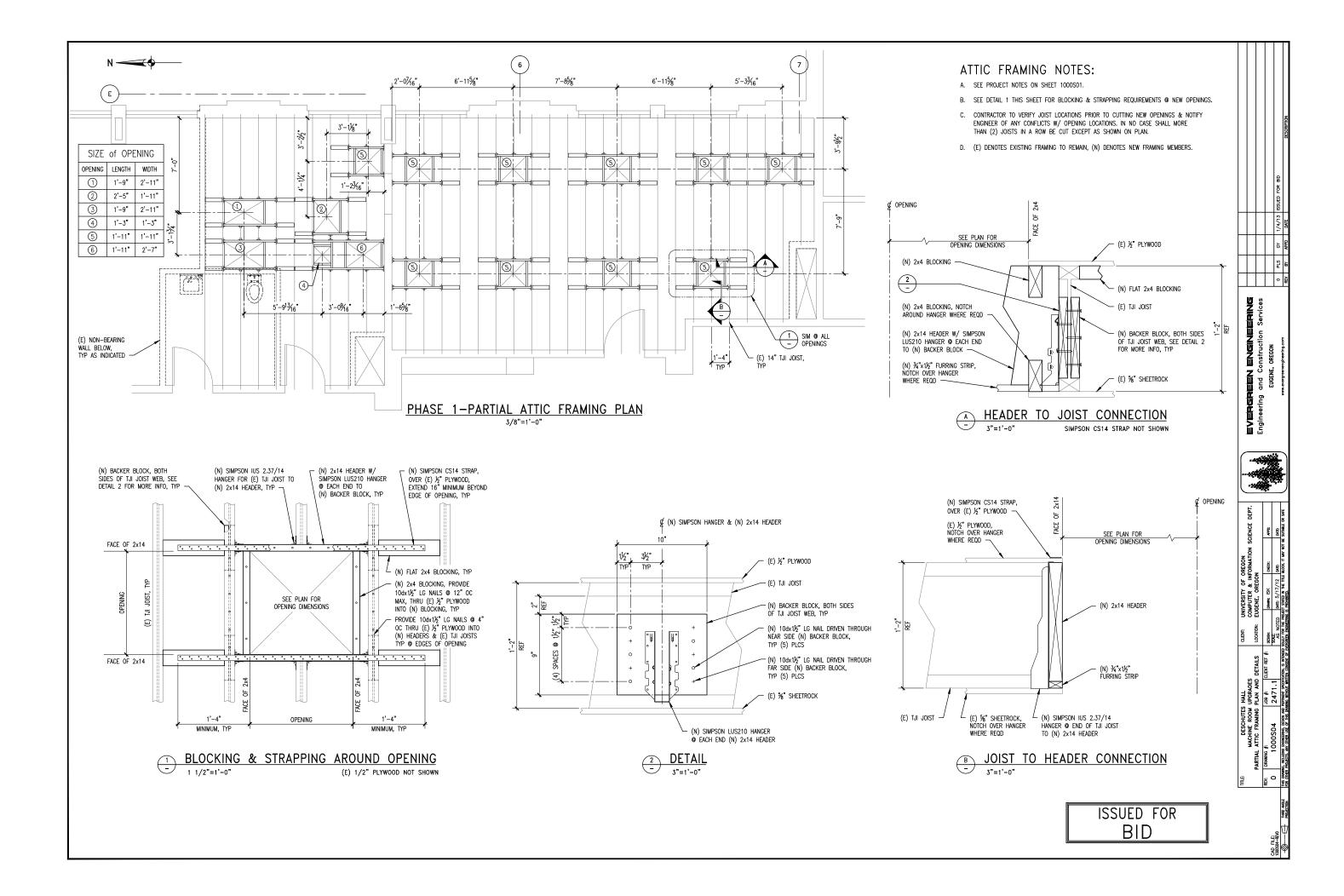
TYPICAL LEDGER ATTACHMENT @ WINDOWS 1 1/2"=1'-0"

3 TYPICAL LEDGER @ INTERIOR WALL 1 1/2"=1'-0"

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EVERGREEN ENGINEE
Engineering and Construction S
EUGENE, ORECON





### MECHANICAL LEGEND: SUPPLY DUCT UP AND DOWN

$\times$	SUPPLY DUCT UP AND DOWN
	RETURN DUCT UP AND DOWN
	EXHAUST DUCT UP AND DOWN
24x12	RECTANGULAR DUCT - HORIZONTAL BY VERTICAL DIMENSION
24"#	ROUND DUCT
	DUCT WITH RADIUS ELBOW
	DUCT WITH RECTANGULAR ELBOW
	TAKE-OFF WITH 45 DEGREE ENTRY
	DUCT TRANSITION
<del></del>	AUTOMATIC DAMPER
++	MANUAL DAMPER
①	THERMOSTAT
—-ф	PIPE TAKE OFF - UP
	90 DEGREE ELBOW UP
——●	90 DEGREE ELBOW DOWN
<del></del>	TEE DOWN
	NEW PIPE CONNECTION
<ul><li>O</li></ul>	FIRE SPRINKLER HEAD
<b>-</b> √-	DIRECTION OF AIR FLOW
UP	SLOPE PIPE/DUCT IN DIRECTION OF ARROW
<b>⊸</b> —	BREAK IN LINE - SHOWN FOR CLARITY
	PIPE CAP
A205	ROOM NUMBER

SECTION AND SHEET NUMBER

AIR OUTLET MARK NUMBER, THROW

AIR DEVICE SCHEDULE

25.5x25.5

24x24

MANUFACTURER MODEL NO. \*

TITUS MDC CFILING

SUPPLY DIFFUSER

TITUS PAR

CEILING RETURN \* TITUS, PRICE, KRUEGER, OR EQUAL

MARK

SDC-1

NEW EQUIPMENT NUMBER

— AIR FLOW (CFM), NECK SIZE

KEY NOTE

( EQUIP NO. ) 1

### MECHANICAL ABBREVIATIONS:

ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
CFM	CUBIC FEET PER MINUTE
DN	DOWN
EF	EXHAUST FAN
EXH	EXHAUST
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FS	FIRE SPRINKLER PIPING
SA	SUPPLY AIR
RA	RETURN AIR
EA	EXHAUST AIR
OSA	OUTSIDE AIR
SDC	SUPPLY DIFFUSER CEILING
RGC	RETURN GRILLE CEILING
CW	DOMESTIC COLD WATER
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
HHWS	HEATING HOT WATER SUPPLY
HHWR	HEATING HOT WATER RETURN
(E)	EXISTING
(RL)	RELOCATED

NEW

### SEQUENCE OF OPERATION:

SYSTEM DESCRIPTION:
THE SYSTEM CONSISTS OF ONE PRIMARY AND ONE REDUNDANT UPFLOW
AIR HANDLING UNIT. EACH UNIT HAS A VARIABLE SPEED EC FAN, CHILLED WATER COIL, MODULATING 3-WAY CHILLED WATER CONTROL VALVE, MODULATING OUTSIDE AND RETURN AIR DAMPERS. AND INFRARED VALVE, MUDUCATING OUTSIDE AND RESIDENT AIR DAMPERS, AND INFRARED HUMDIFIER. THE UNITS WILL BE CONTROLLED BY ROOM AND DUCT TEMPERATURE SENSORS TO MAINTAIN A ROOM SET POINT OF 72'F AND 45% RELATIVE HUMDITY. THE SUPPLY AIR SETPOINT SHALL BE RESET BASED ON OUTDOOR AIR CONDITIONS.

THE INTENT IS TO USE THE INTERNAL AIR HANDLER CONTROLS TO PERFORM THESE CONTROL FUNCTIONS AND TO CONNECT TO A NEW CONTROL PANEL IN ROOM 325 FOR MONITORING AND ALARM FUNCTIONS AS WELL AS CONNECTION TO THE CAMPUS BAS NETWORK. ALL CONTROL WIRING, CONDUIT, DEVICES, AND PROGRAMMING TO BE PROVIDED BY THE CONTROLS CONTRACTOR.

OCCUPIED & NON-OCCUPIED MODE:

1. THE AHU FAN WILL RUN CONTINUOUSLY TO MAINTAIN THE ADJUSTABLE ROOM SETPOINT (INITIALLY SET AT 72°F) WITH THE OUTSIDE AIR DAMPER SET TO ITS MINIMUM POSITION.

- ECONOMIZER MODE:

  1. IF THE OUTSIDE CONDITIONS ARE SUITABLE FOR ECONOMIZER
  OPERATION AS DETERMINED BY THE OUTSIDE AIR SENSOR (BETWEEN 42' AND 65'F), THEN ECONOMIZER OPERATION IS ALLOWED.
- UPON A CALL FOR COOLING, ECONOMIZER OPERATION IS INITIATED.
   OUTSIDE AND RETURN AIR DAMPERS MODULATE FROM A MINIMUM SETTING OF 60 CFM TO A MAXIMUM OF 2000 CFM TO MAINTAIN A SUITABLE DISCHARGE TEMPERATURE.
- 3. IF THE ECONOMIZER OPERATION ALONE IS NOT SUFFICIENT TO SATISFY THE COOLING REQUIREMENT, THE CHILLED WATER VALVE WILL MODULATE OPEN TO MAINTAIN THE APPROPRIATE LEAVING AIR TEMPERATURE. THE OUTSIDE AIR AND RETURN AIR DAMPERS WILL THEN MODULATE BACK DOWN TO MINIMUM POSITION.

EVILABLET FAM COHEDINE

EXHAUST/RELIEF FAN:

1. EF-8 IS A VARIABLE SPEED FAN CONTROLLED BY A SPACE STATIC PRESSURE SENSOR LOCATED IN ROOM 321 TO MAINTAIN A SLIGHTLY POSITIVE PRESSURE OF .1" WC.

E
REMARKS
LOUVERED FACE, BORDER TYPE 1 FOR SURFACE MOUNTING, 4 WAY PATTERN, AND NO. 26 OFF-WHITE FINISH. NO OBD.
PERFORATED FACE, BORDER TYPE 1 FOR SURFACE MOUNTING, & NO. 26 OFF-WHITE FINISH. NO OBD.

EXHAUST FAN SC	HEDULE
DESIGNATION	EF-8
CFM	2,000
ESP (in wc)	0.25
HP	3/4
VOLTS / PHASE	115/1
FAN RPM	823
TIP SPEED (FPM) / SONES	3583/9.3
DRIVE	DIRECT DRIVE
MOUNTING	WALL
MANUFACTURER	GREENHECK
MODEL NUMBER	CW-161-VG
CONTROL	PRESSURE SENSOR
LOCATION	ROOM 321
OPERATING WEIGHT (LBS)	96
DAMPER SIZE	15x15
WALL / ROOF OPENING SIZE	15.5x15.5
ACCESSORIES	1)

- 1) MOUNTED AND WIRED NEMA 1 TOGGLE SWITCH,
  - BACKDRAFT DAMPER
  - VARI-GREEN EC MOTOR 0-10 VDC INPUT
     VARI-GREEN CONSTANT PRESSURE-INDOOR
- VARI-GREEN TRANSFORMER 115/230 VAC TO 24 VDC, MOUNTED AND WIRED

### **GENERAL NOTES:**

- A. CONTRACTOR IS TO COORDINATE THE LOCATION OF ALL EQUIPMENT, GRILLES AND DIFFUSERS WITH RESPECT TO STRUCTURAL COMPONENTS, LIGHTING, AND OTHER BUILDING FEATURES. PAINT DUCTWORK VISIBLE THROUGH GRILLES AND DIFFUSERS FLAT
- B. DUCTS ARE TO BE CONSTRUCTED ACCORDING TO SMACNA GUIDELINES USING MINIMUM 26 GA GALVANIZED STEEL FOR RECTANGULAR AND 28 GA GALVANIZED STEEL FOR ROUND DUCTS AND SHALL BE SUPPORTED BY APPROVED HANGERS AT INTERVALS NOT EXCEEDING 10 FEET.
- C. ALL NEW PIPING SHALL BE INSULATED PER OEESC TABLE 503.2.8 USING GLASS FIBER INSULATION, COVER WITH ZESTON 2000 PVC PRE-MOLDED PIPING AND FITTING COVERS (OR EQUIVALENT), LABEL PER UNIVERSITY SPECIFICATIONS.
- D. THE MECHANICAL CONTRACTOR SHALL PROVIDE EQUIPMENT OPERATION AND MAINTENANCE MANUALS TO THE OWNER PRIOR TO PROJECT CLOSE-OUT.

COMPUTER ROOM AC UNIT SCHEDULE

- E. PATCH WALL PENETRATIONS TO A LIKE NEW APPEARANCE.
- F. INSTALLATION OF ALL EQUIPMENT AND SYSTEMS TO ALLOW FOR SERVICEABILITY. INSTALLATIONS THAT DO NOT ALLOW FOR ADEQUATE MAINTAINABILITY WILL NOT BE

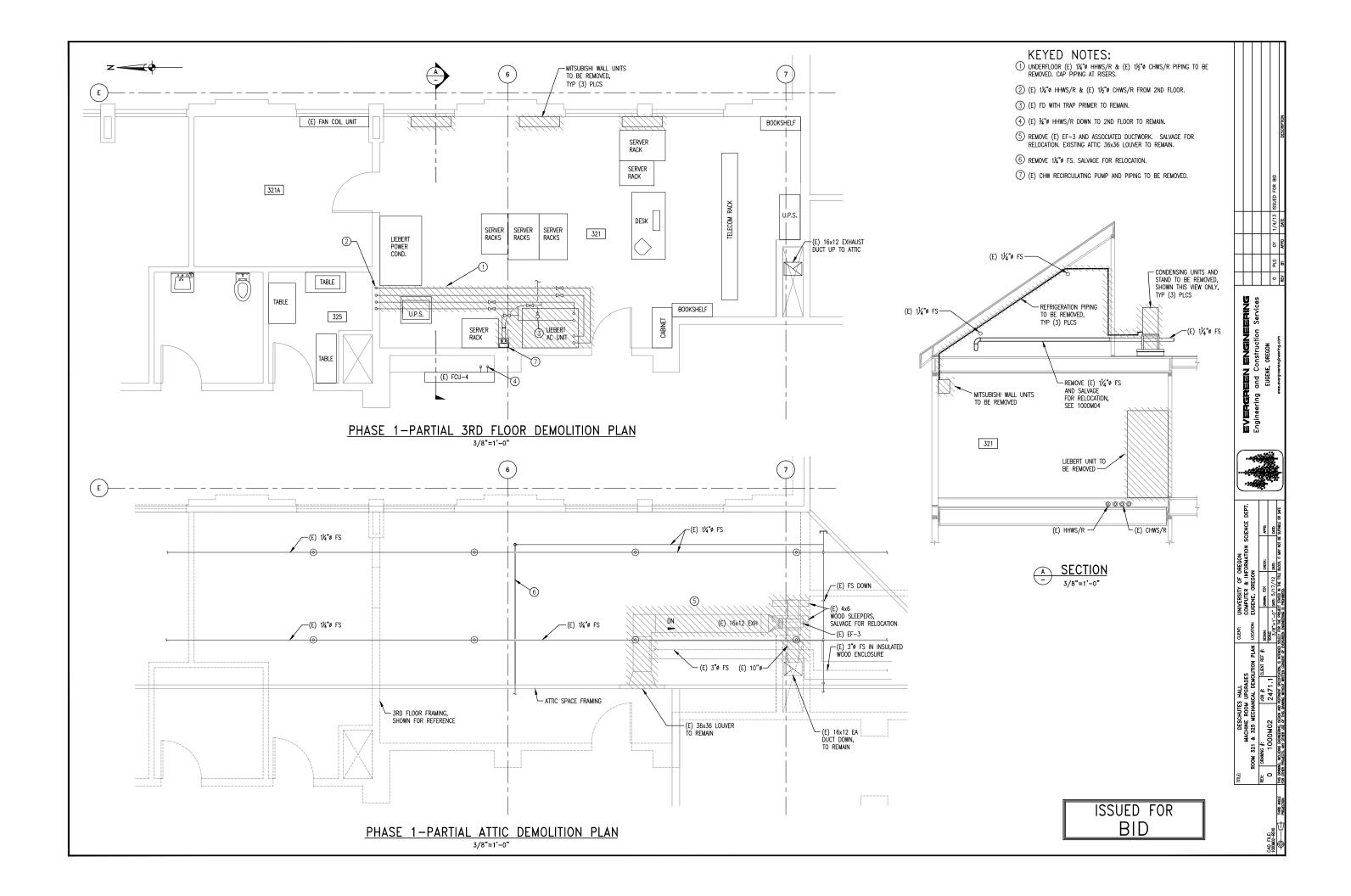
[	DESIGNATION	ACU-3	ACU-4
	NAMEPLATE AMPS (MCA)	64.2	64.2
ELECTRICAL	MAX FUSE SIZE (AMPS)	90	90
LECT	VOLTS/PHASE	208/3	208/3
۳ [	EER/SEER (AT ARI)	SEE NOTE 2	SEE NOTE 2
	CFM	5500	5500
~ [	TOTAL S P (IN WC)	0.3	0.3
BLOWER	MIN OSA (ASHRAE 62.1)	60	60
<u>m</u>	HP	3.6	3.6
	DRIVE	DIRECT	DIRECT
	SENSIBLE (MBH)	127	127
<u>_</u>	TOTAL (MBH)	127	127
COOLING	EADB/EAWB (*F)	80/62.8	80/62.8
8	LDB (*F)	58.2	58.2
	OUTSIDE DESIGN DB (*F)	92	92
	CHW GPM	18.0	18.0
SO	PRESSURE DROP (FT)	5.6	5.6
CHW	EWT (SUMMER/WINTER)	48	48
	ENTERING FLUID RISE (ΔT)	14.95	14.95
ERS	QUANTITY/SIZE	(4) 18"x24"x4"	(4) 18"x24"x4"
FILTERS	TYPE	MERV 8	MERV 8
ER	CAPACITY (LB/HR)	11	11
HUMIDIFIER	KW	4.8	4.8
₹			
1	MANUFACTURER	LIEBERT	LIEBERT
-	TYPE	COOLING ONLY	COOLING ONLY
_	MODEL NUMBER	CW041UCSA3S086	CW041UCSA3S086
L	LOCATION	ROOM 321A	ROOM 321A
(	OPERATING WEIGHT (LBS)	895	895
١	NOTES: 1. UNIT TO BE SHIPPED I	N TWO PIECES TO FACILITA	ATE MOVING INTO

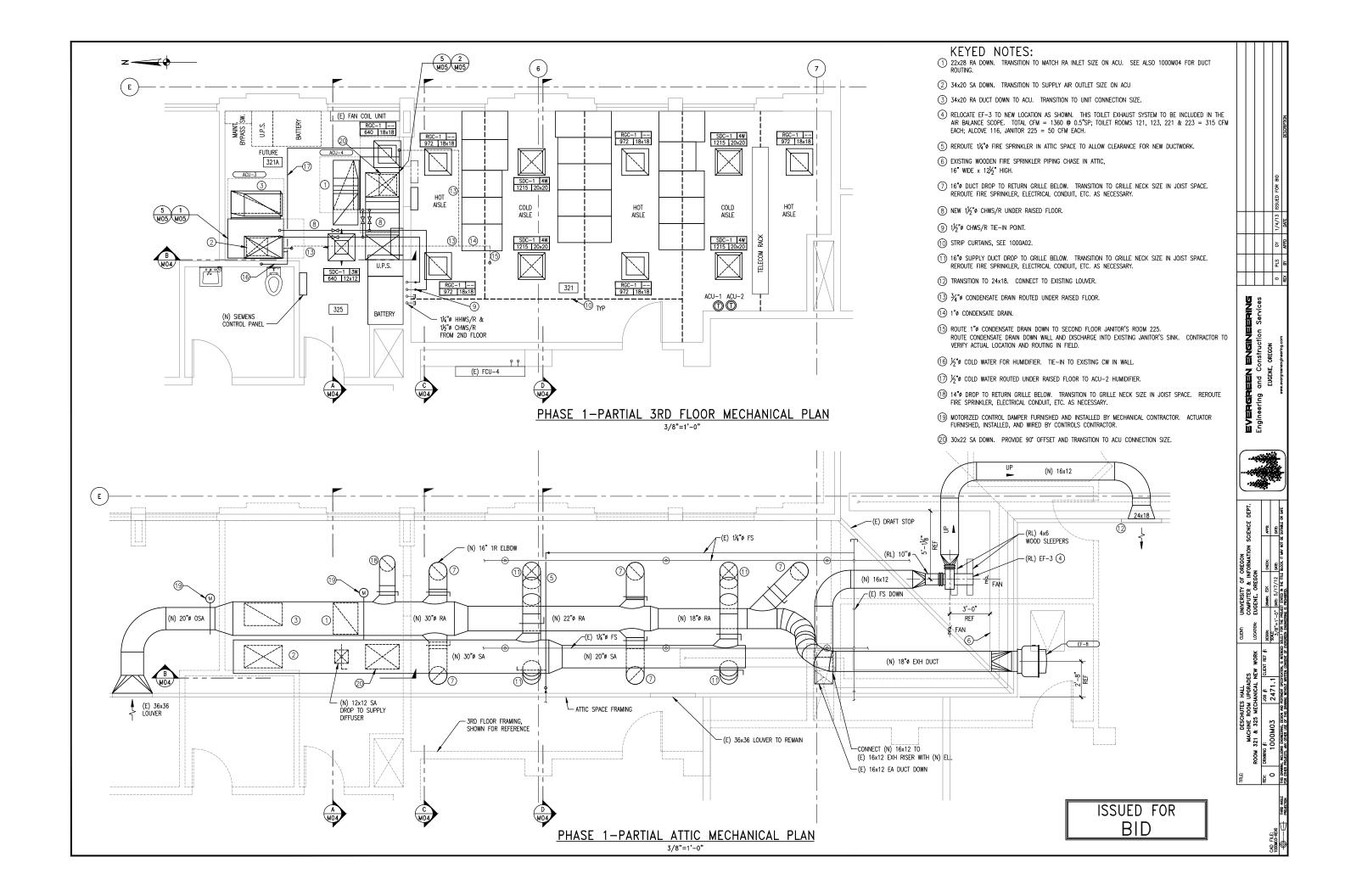
2. EER IS NOT AVAILABLE DUE TO THE VARYING EFFICIENCY OF THE CHILLER PLANT SUPPLYING CHILLED WATER.

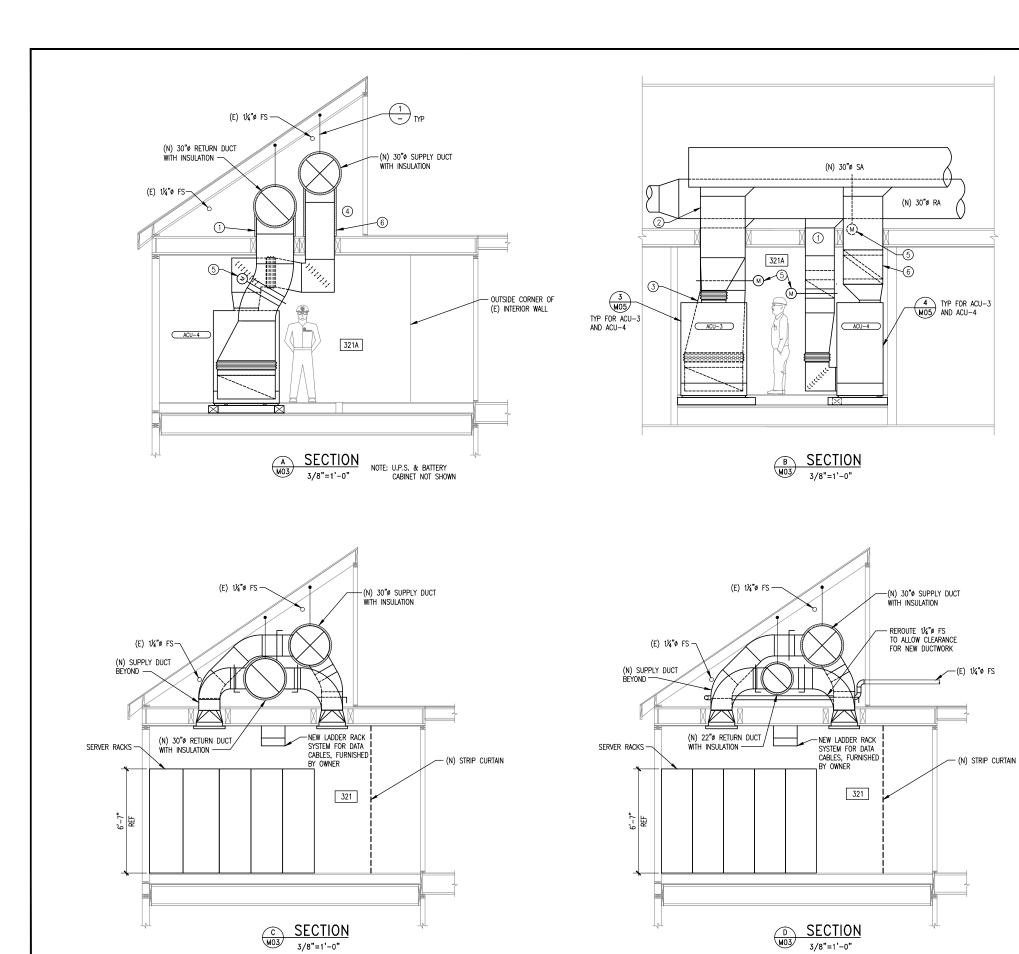
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3/8"=1'-0"

### KEYED NOTES:

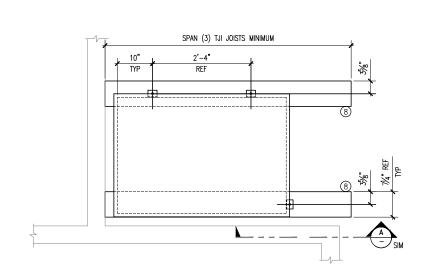
- 1) 22x28 RA DOWN. TRANSITION TO MATCH RA INLET SIZE ON ACU.
- 2 34x20 SA DOWN. TRANSITION TO SUPPLY AIR OUTLET SIZE ON ACU.
- $\begin{tabular}{lll} \hline 3 & 34x20 & RA & DOWN. & TRANSITION TO RETURN AIR OUTLET SIZE ON ACU. CONNECT TO 30 <math display="inline">\begin{tabular}{lll} \hline 9 & RA & MAIN & IN ATTIC ABOVE. \\ \hline \end{tabular}$
- 4 SUPPLY AIR DIFFUSER NOT SHOWN FOR CLARITY. SEE 1000M03.
- (5) MOTORIZED CONTROL DAMPER IN RETURN DUCT. DAMPER FURNISHED AND INSTALLED BY MECHANICAL CONTRACTOR. ACTUATOR FURNISHED, INSTALLED, AND WIRED BY CONTROLS CONTRACTOR.
- $\ensuremath{6}\xspace$  30x22 sa down. Offset and transition to supply air outlet size on acu.

		SIDE BEAM HANGER CLIP, SUPERSTRUT 540 OR SIMILAR
		** ALL-THREAD ROD  EXTENSION PIECE, SUPERSTRUT M-129 OR SIMILAR
		-1½"x18 GA GALVANIZED SHEET METAL STRAP
1	DETAIL NOT TO SCALE	

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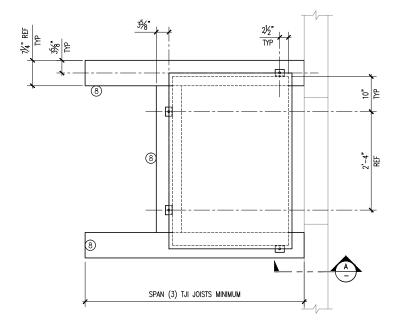


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404	2471.1		3/8"=1'-	ALE: 3/8"=1'-0" DATE: 5/17/12 DATE:	DATE:	DATE:	
BING, DESIGN AND	PERTINENT SPECIF	TICATION IS INTENDED	SOLELY FOR THE P	DESIGN AND PERTNENT SPECIFICATION. IS INTENDED SOLELY FOR THE PROJECT STATED IN THE TITLE BLOCK. IT MAY NOT BE SUITABLE OR	BLOCK IT MAY NO	T BE SUITABLE	۱ä



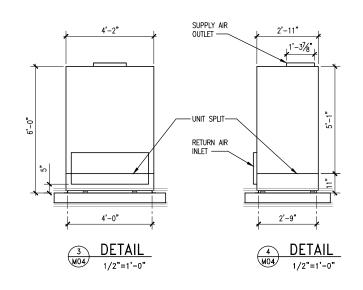
ACU-3 MOUNTING DETAIL

1"=1'-0"

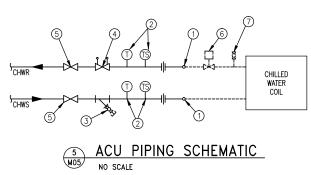


2 ACU-4 MOUNTING DETAIL
M03 1"=1'-0"

## 1.8" MIN LENGTH 1/8 - (E) FLOOR PEDESTAL, TYP (N) ACU -A SECTION - 3"=1'-0"







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**KEYED NOTES:** 

1 UNIT CONNECTION

2 TEMPERATURE SENSOR IN THERMOWELL AND THERMOMETER

3 WYE STRAINER

4 BALANCING VALVE

GATE VALVE

6 2-WAY CONTROL VALVE FURNISHED WITH UNIT

7) AIR VENT FURNISHED WITH UNIT

(N) 6x8 BLOCKING

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(E) RAISED FLOOR

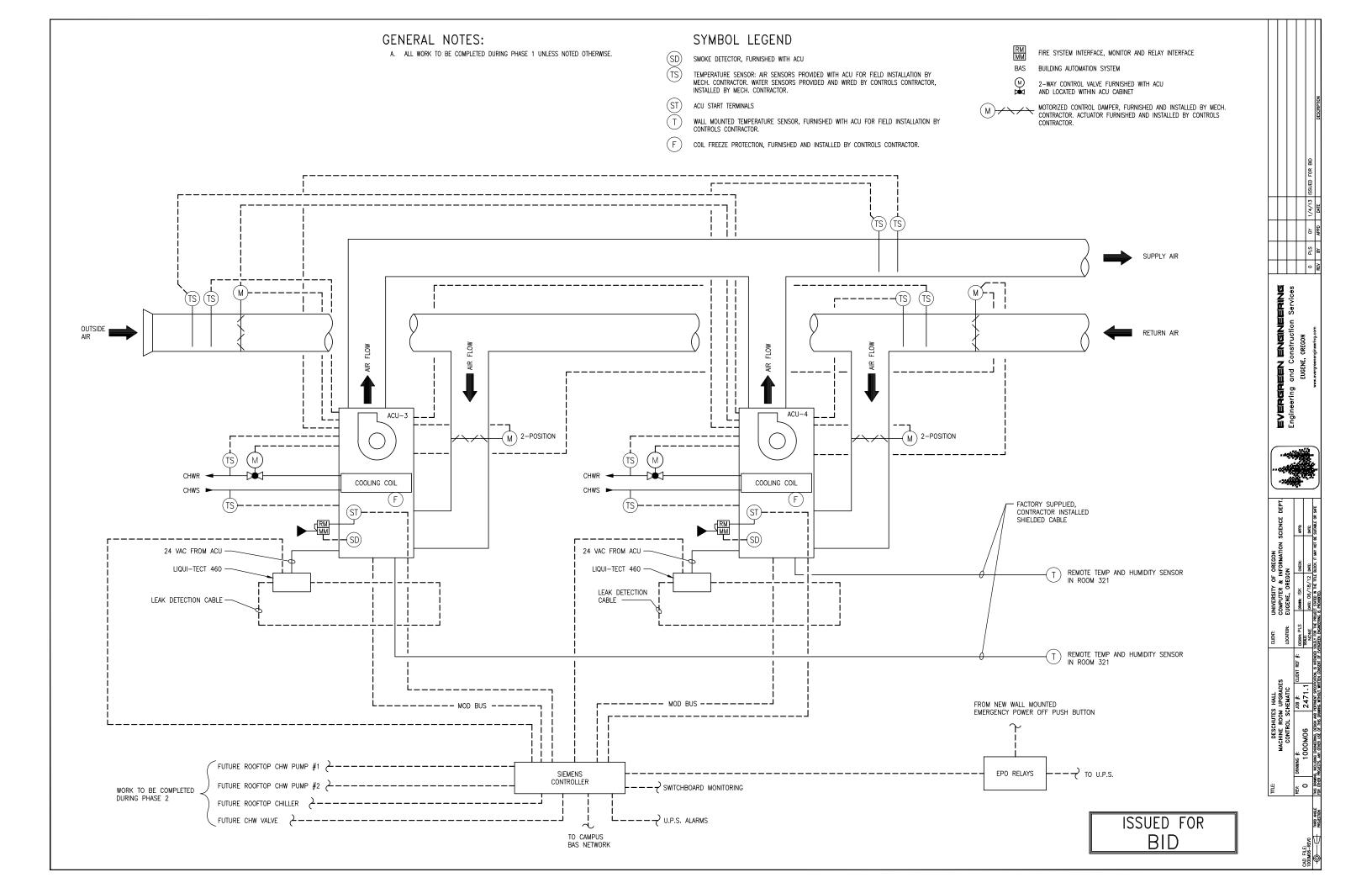
1  $\frac{1}{2}$  % x4" LAG SCREW, TYP OF 1 PER ANCHOR BRACKET.

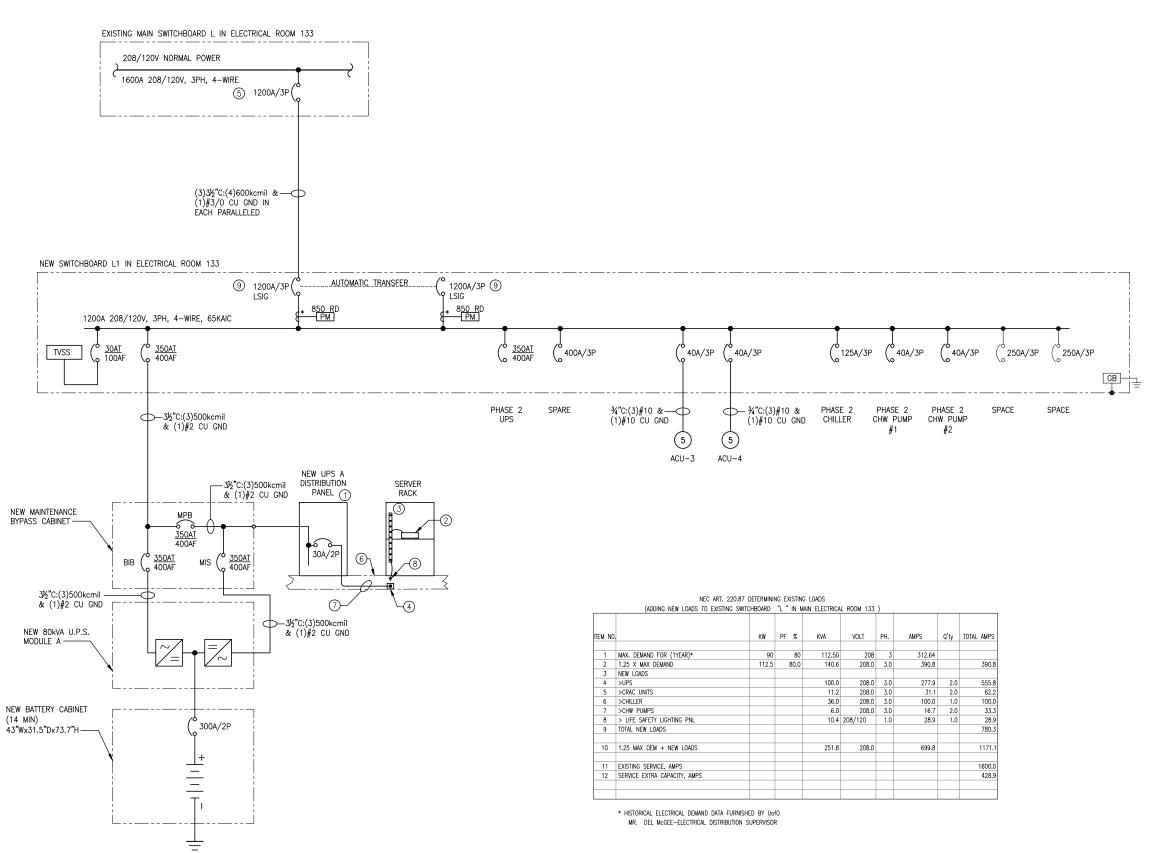
12 (E) ¾" PLYWOOD

(13) (E) 16" TJI JOIST @ 16" OC

 $\ensuremath{\textcircled{14}}$  Relocate (e) floor pedestals as needed around acu-3 and acu-4.

(5) SEISMIC ANCHOR BRACKETS, PROVIDED BY UNIT MANUFACTUTER.





LEGEND:

# MOTOR, # INDICATES MOTOR HORSEPOWER

### KEY NOTES:

- 1 225A, 120/208V, 3Ø, 4W, SURFACE MOUNTED PANEL WITH (21)-30A/2P CIRCUIT BREAKERS.
- 2 DUAL CORDED SERVER 100-240V DUAL INPUT POWER SUPPLY BY OWNER.
- 3 POWER STRIP BY OWNER.
- 4 30A, 250V TWIST LOCK RECEPTACLE NEMA L6-30R (ORANGE COLOR).
- (5) INSTALL 1200A/3P CB IN EXISTING SWITCHBOARD L.
- 6 8" RAISED FLOOR.
- (2)#10, (1)#10 GND IN 34" LIQUID TIGHT FLEXIBLE METAL CONDUIT.
- (8) 30A, 250V TWIST LOCK PLUG NEMA L6-30P (ORANGE COLOR).
- 9 EQUIPMENT SIZED FOR 160kVA SYSTEM.



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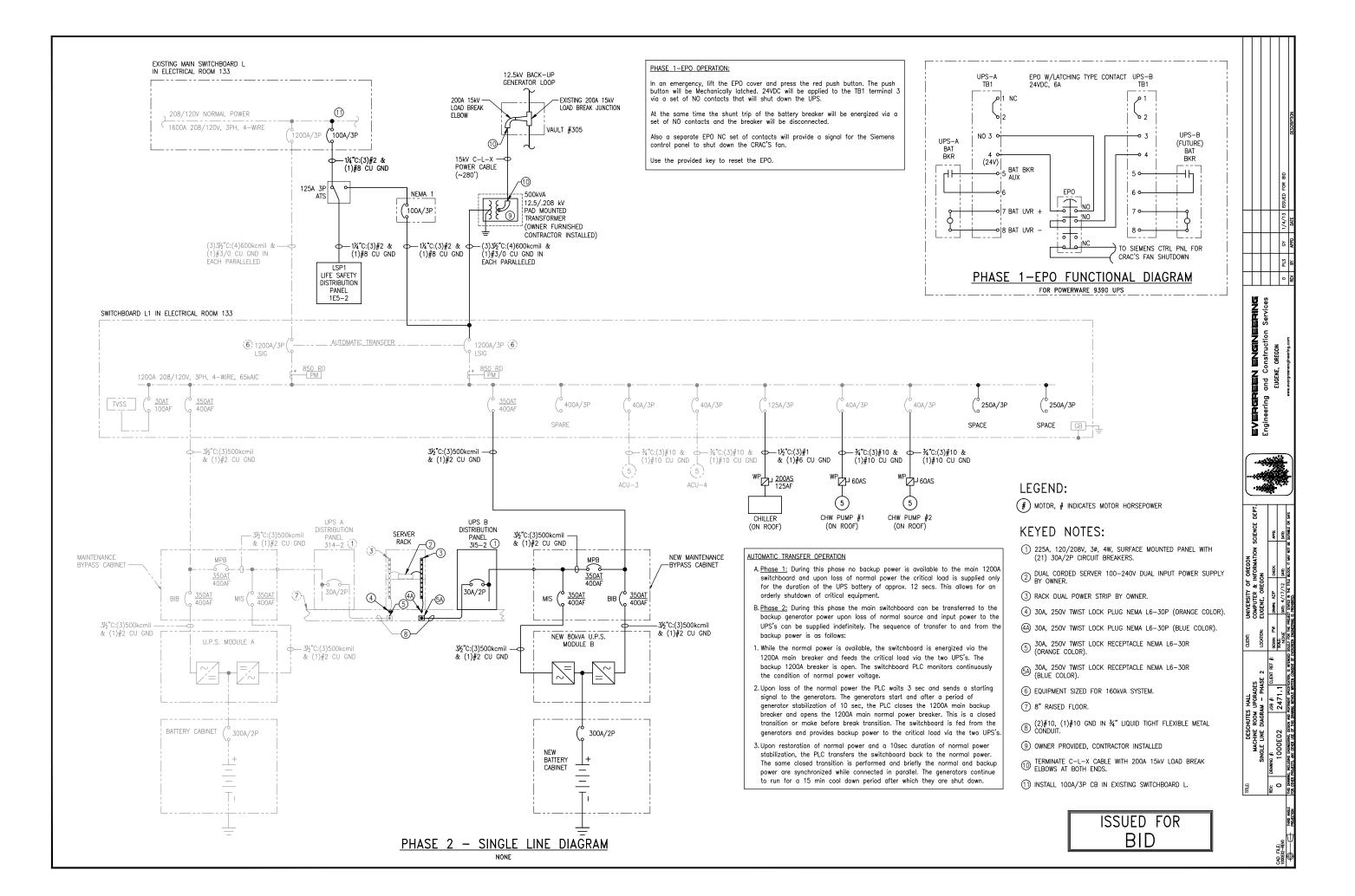
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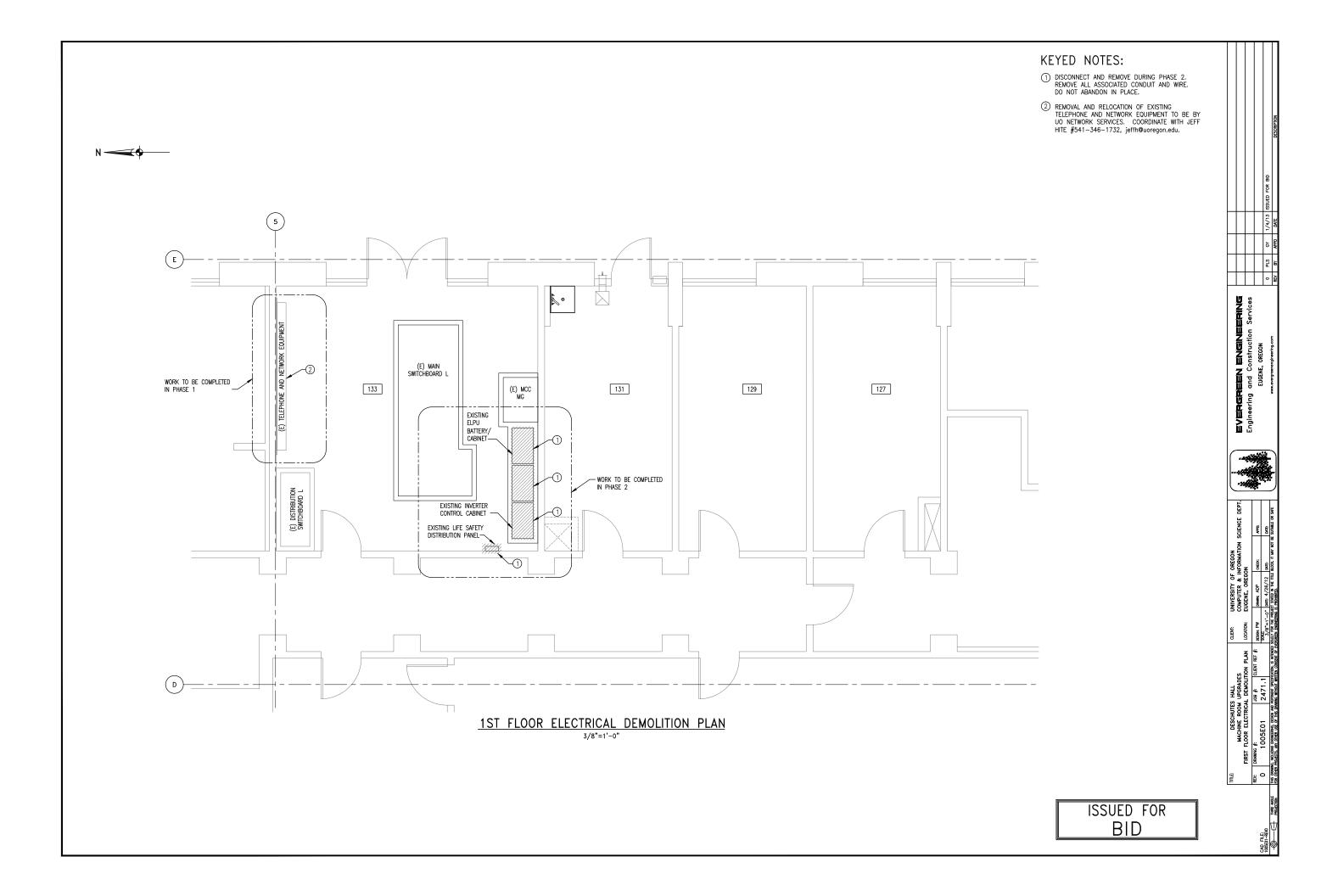
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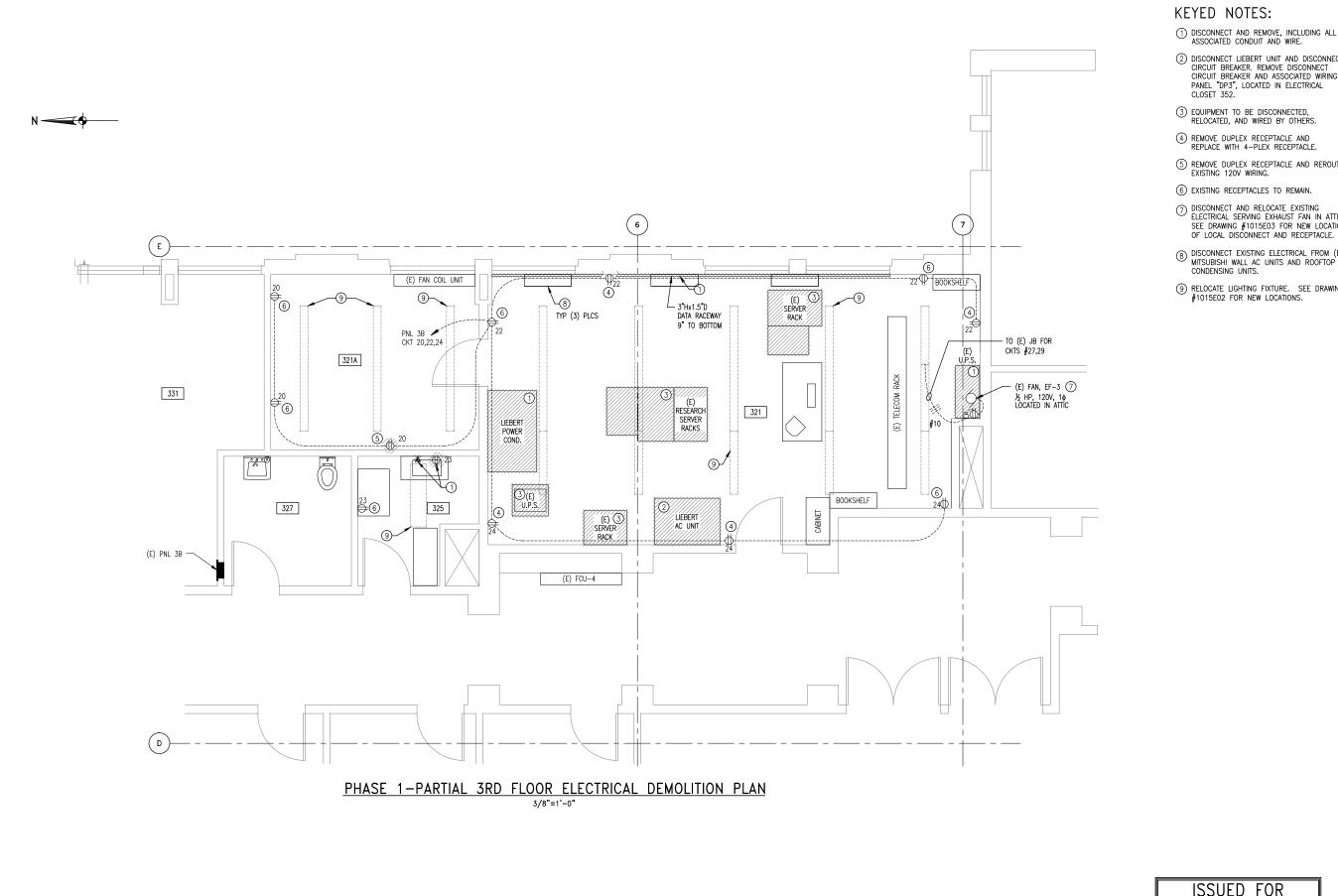
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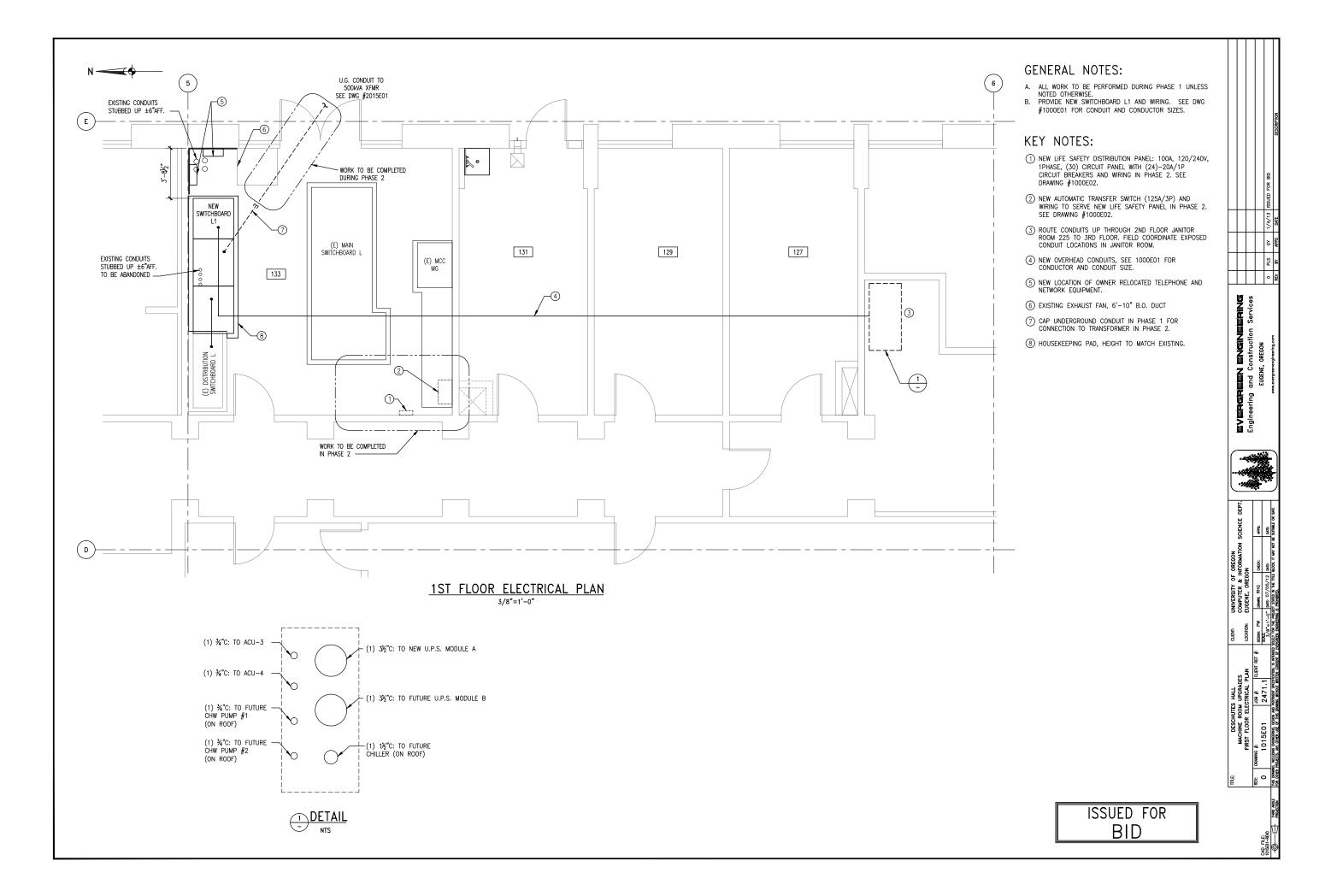


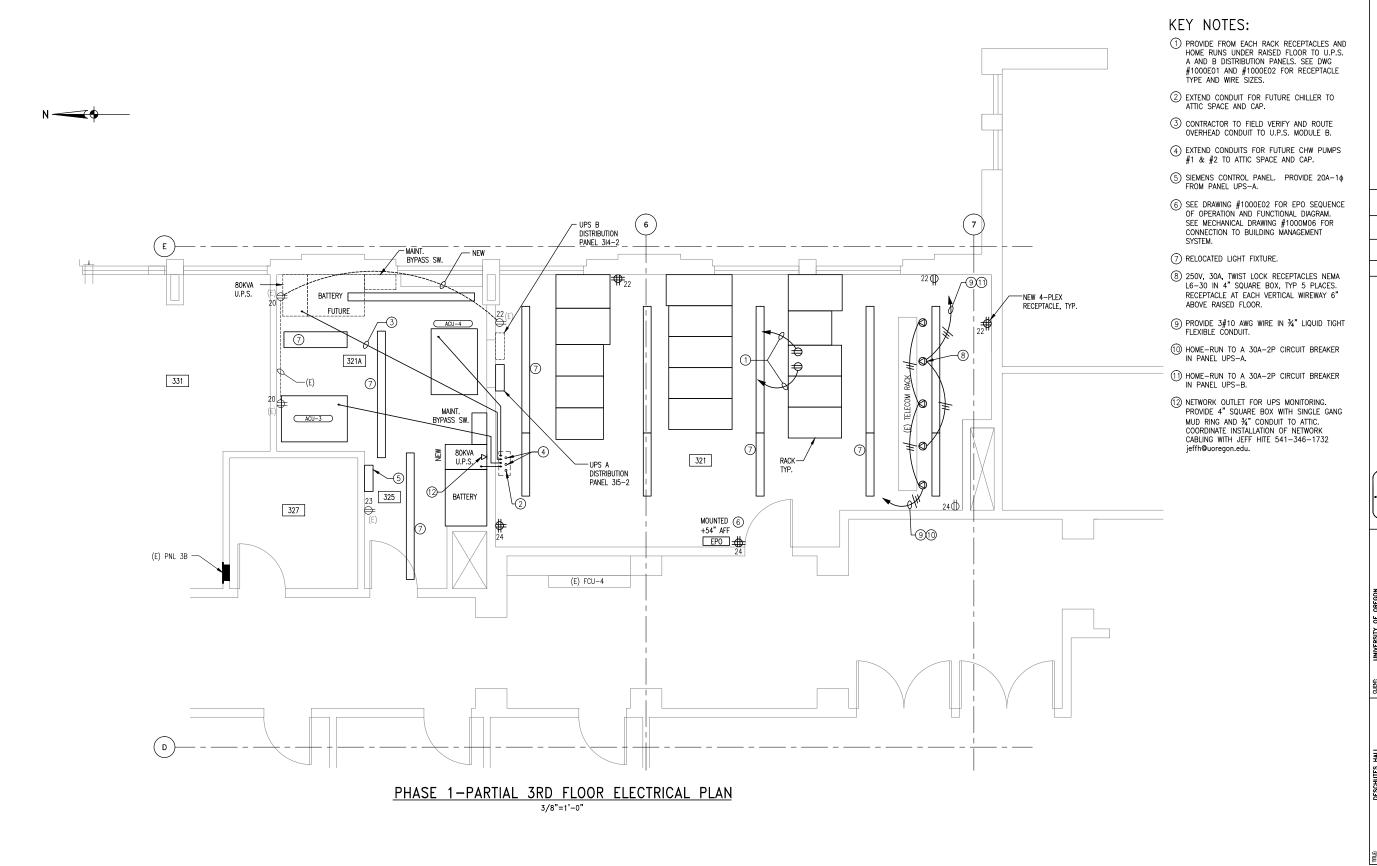


- ② DISCONNECT LIEBERT UNIT AND DISCONNECT CIRCUIT BREAKER. REMOVE DISCONNECT CIRCUIT BREAKER AND ASSOCIATED WIRING TO PANEL "DP3", LOCATED IN ELECTRICAL

- (5) REMOVE DUPLEX RECEPTACLE AND REROUTE EXISTING 120V WIRING.
- DISCONNECT AND RELOCATE EXISTING ELECTRICAL SERVING EXHAUST FAN IN ATTIC, SEE DRAWING #1015E03 FOR NEW LOCATION OF LOCAL DISCONNECT AND RECEPTACLE.
- (8) DISCONNECT EXISTING ELECTRICAL FROM (E) MITSUBISHI WALL AC UNITS AND ROOFTOP CONDENSING UNITS.
- RELOCATE LIGHTING FIXTURE. SEE DRAWING #1015E02 FOR NEW LOCATIONS.







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OR □

A. NEW SWITCH AND NEW FIXTURES TO BE WIRED BY CONTRACTOR TO EXISTING LIGHTING CIRCUIT. WIRE SO THAT THE NEW SWITCH ENERGIZES NEW LIGHTING ONLY AND EXISTING SWITCH ENERGIZES EXISTING LIGHTING ONLY. B. NEW LIGHTING FIXTURES TO BE LITHONIA SM SERIES, CAT #SM132120ESGEB10RS. C. PLACEMENT OF NEW LIGHTS TO BE COORDINATED WITH AUTHORIZED MAINTENANCE PERSONAL. D. SEE MECHANICAL DRAWINGS FOR EXACT LOCATION OF EF-3 AND EF-8. **KEY NOTES:** 2 PROVIDE NEW  $\frac{3}{4}$ " CONDUIT WITH (3) #10 FOR EF-8. ③ EXISTING WIRING TO PANEL GE, LOCATED ON GROUND FLOOR IN MAIN ELECTRICAL ROOM. NEW FIXTURE RELOCATED FAN, EF-3 IN ATTIC NEW FIXTURE 3, —3/4°C (3) #10 → NEW SWITCH (E) FIXTURE (E) FIXTURE NEW FIXTURE PHASE 1-PARTIAL ATTIC ELECTRICAL PLAN

### GENERAL NOTES:



