

SYMBOLS

- DEMOLISHED WALL
- EXISTING WALL
- NEW NON-RATED WALL
- NEW 1 HOUR FIRE RATED ASSEMBLY
- BOUNDARY OF WORK
- CONSTRUCTION BARRIER
- DIMENSIONS FROM FACE OF FINISH TO FACE OF STUD WHERE NOTED
- CENTERLINE OF COLUMN OR STUD, ETC.
- AREAS OF NO WORK
- ROOM NAME
- ROOM NUMBER
- C000
- DOOR SYMBOL**
- FRAME TYPE
- DOOR TYPE
- DOOR MODIFICATION
- DOOR SIZE
- DOOR ID
- WINDOW TAG
- WORK POINT OR CONTROL POINT
- REVISION (AREA OF REVISION IN CLOUD)
- DETAIL INDICATOR**
- DETAIL
- REFERENCE DRAWING NUMBER
- ELEVATION INDICATOR, EXTERIOR**
- EXTERIOR ELEVATION IDENTIFICATION
- REFERENCE DRAWING NUMBER
- ELEVATION INDICATOR, INTERIOR**
- INTERIOR ELEVATION IDENTIFICATION
- REFERENCE DRAWING NUMBER
- BUILDING SECTION INDICATOR**
- SECTION IDENTIFICATION
- REFERENCE DRAWING NUMBER
- NORTH
- NORTH ARROW
- WALL OR PARTITION TYPE
- SIGNAGE
- DOOR
- 5" AT NEW DOORS U.O.N.
- EQUIPMENT TAG

APPLICABLE CODES & STANDARDS

VA HAS ADOPTED THE LATEST EDITION OF THE FOLLOWING CODES AND STANDARDS. WHERE CODES CONFLICT, THE MOST STRINGENT STANDARD WILL APPLY.

VA DIRECTIVES, DESIGN MANUALS, MASTER SPECIFICATIONS, VA NATIONAL CAD STANDARD APPLICATION GUIDE, AND OTHER GUIDANCE ON THE TECHNICAL INFORMATION LIBRARY (TIL)

PHYSICAL SECURITY DESIGN MANUAL: MISSION CRITICAL FACILITIES (VA BLAST RESISTANCE REQUIREMENTS)

INTERNATIONAL BUILDING CODE

INTERNATIONAL MECHANICAL CODE

UNIFORM MECHANICAL CODE

NFPA 101 LIFE SAFETY CODE

NFPA NATIONAL FIRE CODES WITH THE EXCEPTION OF NFPA 5000 AND NFPA 900

INTERNATIONAL FIRE CODES

NEVADA STATE FIRE MARSHALL'S REGULATIONS

OCCUPATIONAL, SAFETY AND HEALTH ADMINISTRATION STANDARDS (OSHA)

VA SEISMIC DESIGN REQUIREMENTS, H-18-8

NATIONAL ELECTRIC CODE

NATIONAL ELECTRIC SAFETY CODE

NATIONAL STANDARD PLUMBING CODE

UNIFORM PLUMBING CODE

INTERNATIONAL ENERGY CONSERVATION CODE

ASME BOILER AND PRESSURE VESSEL CODE

ASME CODE FOR PRESSURE PIPING

2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, INCLUDING VA SUPPLEMENT, BARRIER FREE DESIGN GUIDE (VA PG 18-13), AND ARCHITECTURAL BARRIERS ACCESSIBILITY STANDARDS (ABAAS)

BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, AMERICAN CONCRETE INSTITUTE AND COMMENTARY (ACI 318)

MANUAL OF STEEL CONSTRUCTION, LOAD AND RESISTANCE FACTOR DESIGN SPECIFICATIONS FOR STRUCTURAL STEEL BUILDING, AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

ENERGY POLICY ACT OF 2005 (EPAct)

FEDERAL LEADERSHIP IN HIGH PERFORMANCE AND SUSTAINABLE BUILDINGS: MEMORANDUM OF UNDERSTANDING (MOU)

VENTILATION FOR ACCEPTABLE INDOOR AIR QUALITY - ASHRAE STANDARD 62.1 - 2004

SAFETY STANDARD FOR REFRIGERATION SYSTEMS - ASHRAE STANDARD 15 - 2007

PROJECT DESCRIPTION

THE SCOPE OF WORK REQUIRED TO INCREASE THE COOLING CAPACITY FOR SURGERY AIR HANDLER AH-14 INCLUDES THE FOLLOWING:

SEAL INTERIOR AND EXTERIOR SUPPLY AIR DUCTWORK FROM AH-14 ON THE ROOFTOP OF BUILDING 1D TO THE OR DEPARTMENT.

REMOVE SUPPLEMENTAL OR TRIMMING HUMIDIFIERS INSTALLED AT EACH OR SUITE. REPLACE AND RELOCATE AHU HUMIDIFIER DISTRIBUTOR.

SEAL AIR TO AIR HEAT EXCHANGER JOINTS WHERE ABUTS AIR HANDLER HOUSING. ADJUST DAMPER ACTUATORS TO CLOSE TIGHT. CLEAN AND SERVICE DAMPER BLADE JAMB AND BLADE SEALS. ADJUST TEMPERATURE SET POINTS.

REPLACE THE COOLING COIL IN AH-14. REMOVE EXISTING DUCT SILENCERS IN THE SUPPLY DUCT SYSTEM.

REMOVE INDUCT HUMIDIFIERS SERVING OR'S.

REMOVE EXISTING SUPPLY AIR GRILLES INSTALLED IN THE CEILING IN OR-3 WITH AIR VOLUME ADDED TO THE EXISTING LAMINAR AIR SURGICAL DIFFUSERS. REMOVE AND RELOCATE EXHAUST LOW IN WALL IN NEW SHAFT ENCLOSURE.

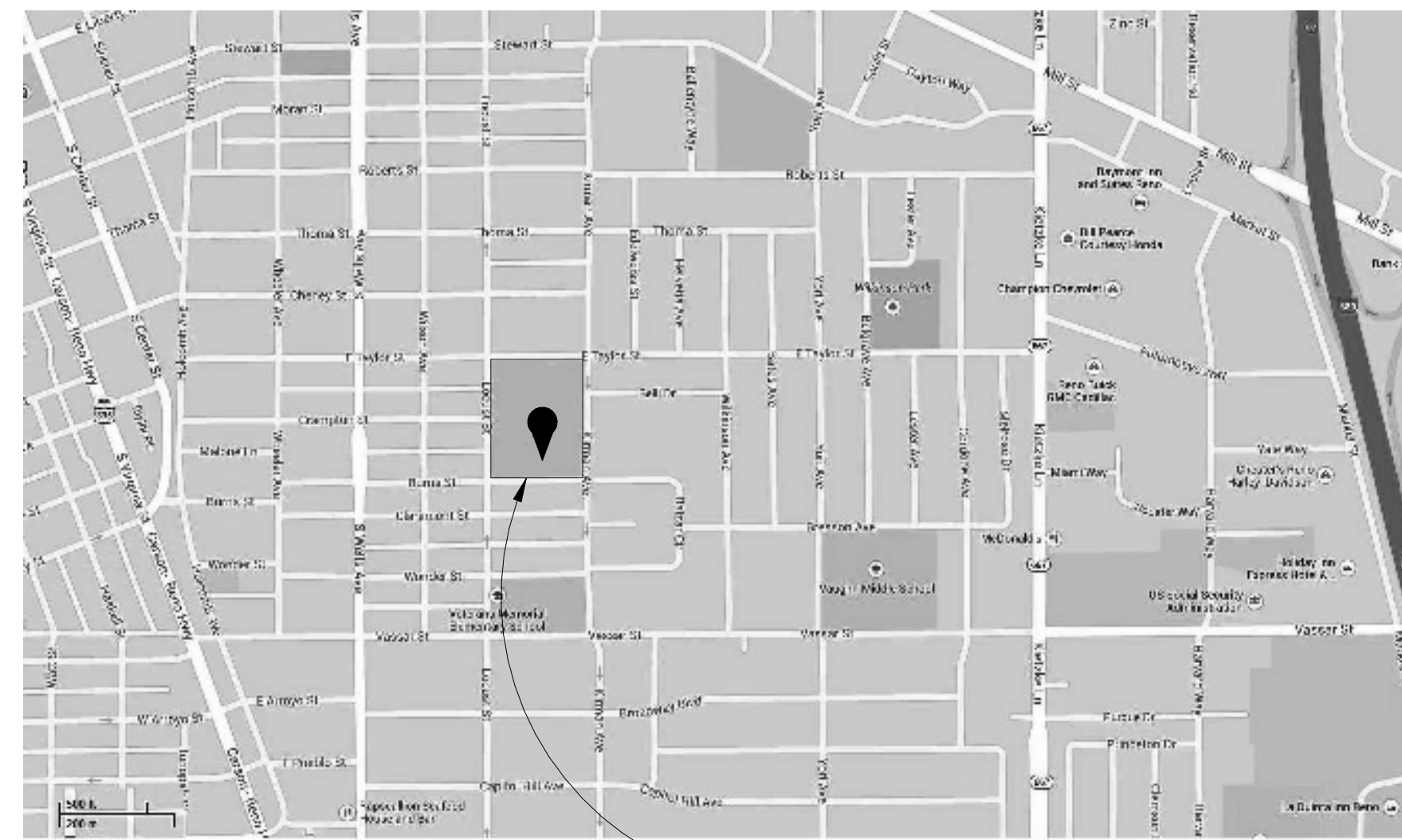
REMOVE AND RELOCATE HYDRONIC PIPING ROUTED THROUGH DUCTWORK, TYPICAL TWO LOCATIONS, NEAR OR-3.

REPLACE FACE AND BYPASS ACTUATORS @ AT AIR TO AIR HEAT EXCHANGER.

EXTEND EXHAUST DISCHARGE DUCT OF AIR HANDLER AH-14 AWAY FROM OUTSIDE AIR INTAKE OF THE ADJACENT AIR HANDLER.

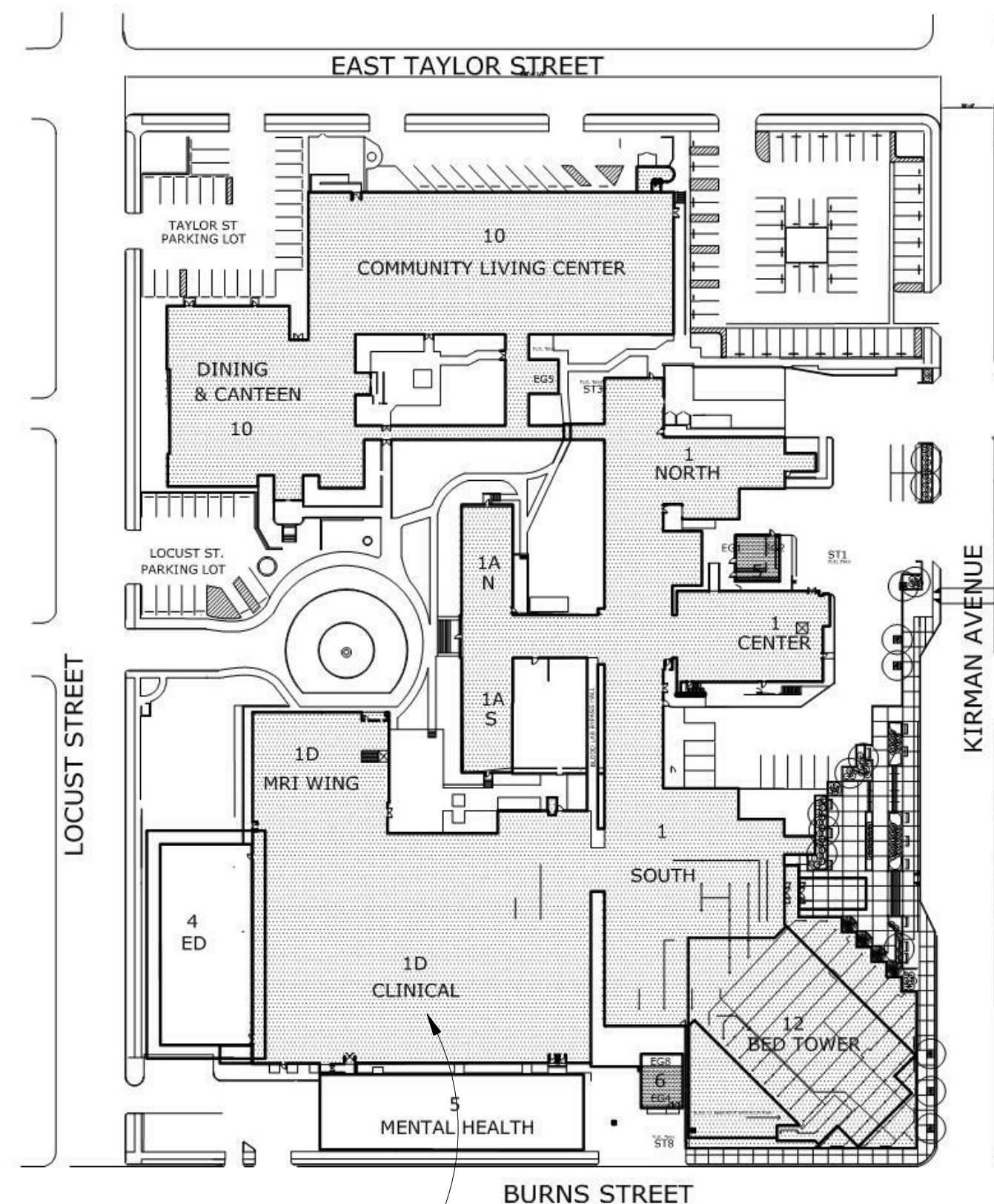
RECONFIGURE OUTSIDE AIR INLET WEATHER HOOD AT AH-14 TO PROVIDE PROTECTION OF THE SYSTEM PRE-FILTERS FROM RAIN AND SNOW.

VICINITY MAP



VA SIERRA NEVADA HEALTHCARE SYSTEM
975 KIRMAN AVE.
RENO, NV 89502

CAMPUS MAP



BUILDING 1D

SPECIAL NOTE TO CONTRACTOR

NO CONTRACTOR PERSONAL OR COMPANY VEHICLES ARE TO PARK ON VA PROPERTY. VIOLATORS WILL BE TICKETED AND FINED.

VETERANS AFFAIRS SIERRA NEVADA HEALTHCARE SYSTEM

VA RENO OR AHU SYSTEM ANALYSIS AND DESIGN

US DEPARTMENT OF VETERANS AFFAIRS
VA SIERRA NEVADA HEALTHCARE SYSTEM
RENO, NV 89502

VA PROJECT NO : 654-14-445

CONTACTS

VA CONTACT
DEPARTMENT OF VETERANS AFFAIRS
MICHAEL GRAYSON
975 Kirman Ave.
Reno, NV 89502
Tel: 775.276.0252
Mobile: 775.354.8691

ARCHITECT
HILLIARD ARCHITECTS, INC.
MIKE HILLIARD
251 Post Street, Suite 620
San Francisco, CA 94108
Tel: 415.989.6400
Fax: 415.989.3056

MECHANICAL
AINSWORTH ASSOC. MECHANICAL ENGINEERS
STEVEN AINSWORTH
3741 Business Drive
Sacramento, CA 95820
Tel: 916.737.6014
Fax: 916.737.6015

DRAWING INDEX

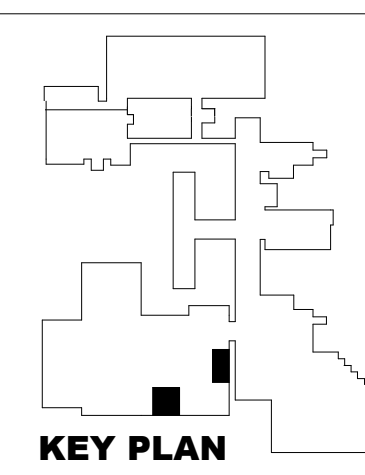
PROJECT GENERAL INFORMATION	
G10.01	COVER SHEET
G10.011	ABBREVIATIONS
ARCHITECTURAL	
AST.51	LEVEL 03 FLOOR PLANS, CEILING PLANS, PARTITION SCHEDULE
MECHANICAL	
1D-M101	MECHANICAL DEMOLITION, NEW WORK, & KEY PLAN
1D-M102	MECHANICAL ROOF PLAN

FINAL BID DOCUMENTS

1/13/2015 9:04:49 AM HILLIARD ARCHITECTS INC. COPYRIGHT

CONSULTANTS:

Revisions:	Date



ARCHITECT/ENGINEERS:

251 Post Street, Suite 620
San Francisco, CA 94108-5017
Tel 415 989 6400, Fax 415 989 3056
www.HilliardArchitects.com

Drawing Title	COVER SHEET
Approved: Project Director	

Project Title		Project Number	
VA RENO OR AHU		654-14-445	
Location		Building Number	
975 KIRMAN AVE., BLDG 1D, RENO, NV 89502		1D	
Date	Checked	Drawn	Drawing Number
12.24.14	PD, MU	JC, LH	G10.01
Dwg. 1 of 5			

Office of Construction and Facilities Management

Department of Veterans Affairs

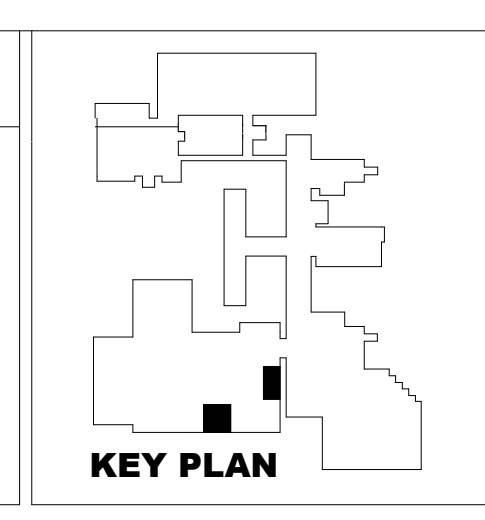
Table with 4 columns: Abbreviation, Description, Abbreviation, Description. Lists various construction terms and their corresponding abbreviations, such as A/C, A/C UNIT, A/E, AAMA, AB, ABC, etc.

12/29/2014 2:17:11 PM HILLIARD ARCHITECTS INC. COPYRIGHT

FINAL BID DOCUMENTS

Table with 2 columns: Revisions, Date. Includes a grid for tracking changes to the document.

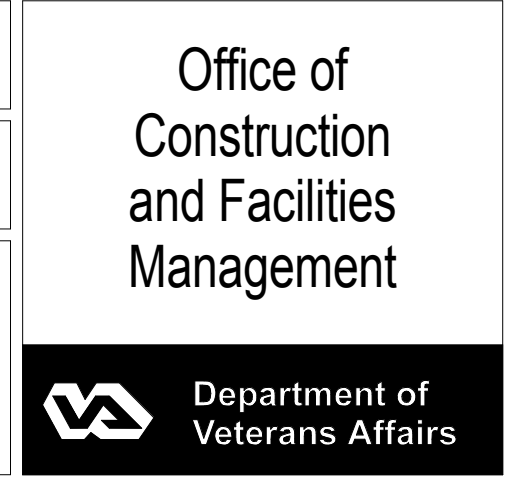
Table with 2 columns: CONSULTANTS, Name. Lists the names of consulting firms involved in the project.

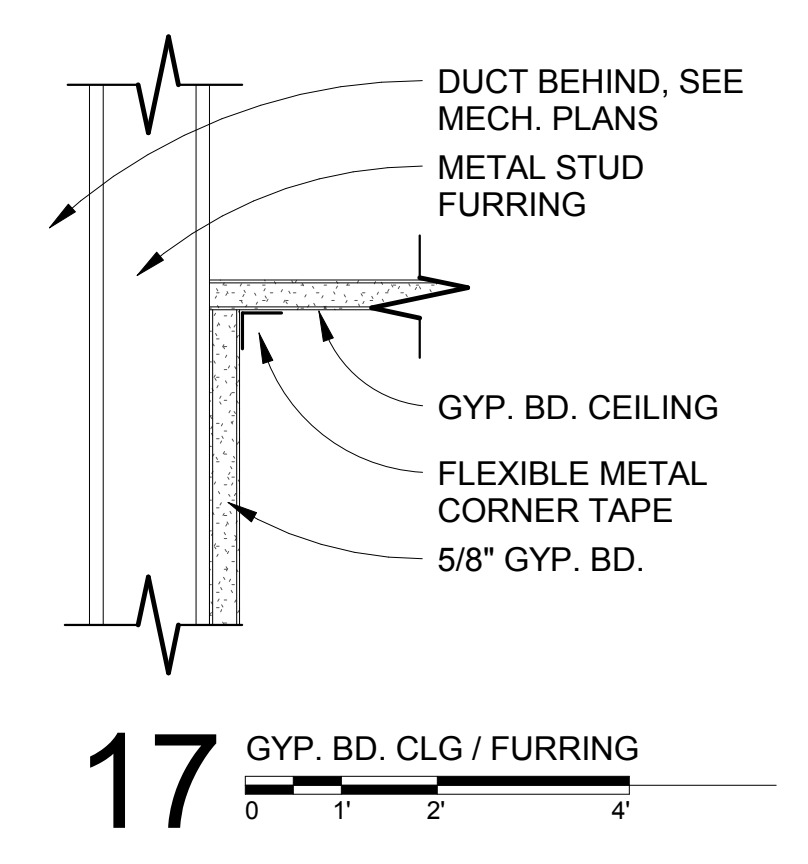
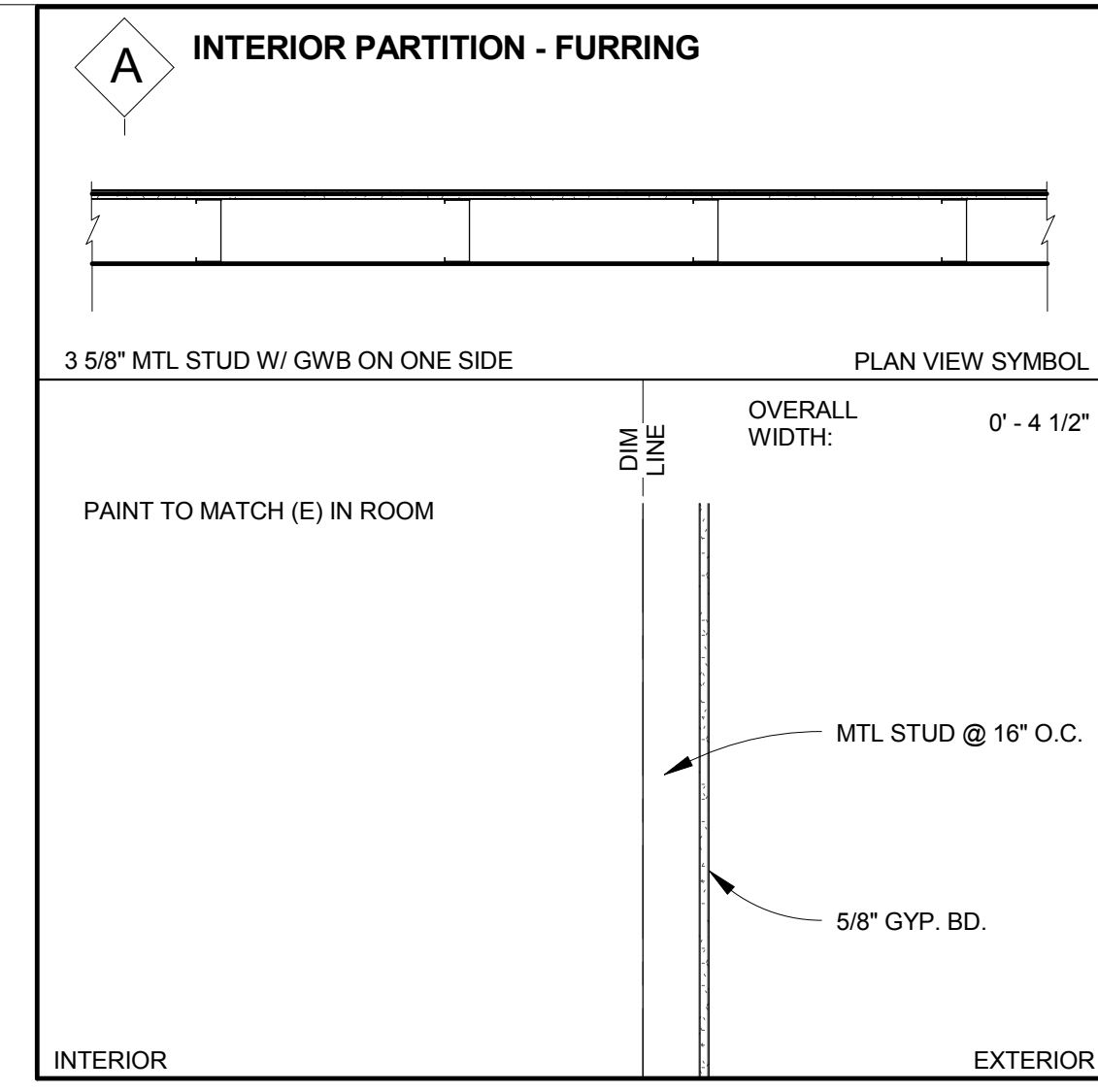


ARCHITECT/ENGINEERS: Hilliard ARCHITECTS. 251 Post Street, Suite 620 San Francisco, CA 94108-5017. Includes contact information and logo.

Table with 2 columns: Drawing Title, Abbreviations. Lists drawing titles and their corresponding abbreviations.

Table with 4 columns: Project Title, Project Number, Building Number, Drawing Number. Includes project details like 'VA RENO OR AHU' and drawing number 'GIO.02'.



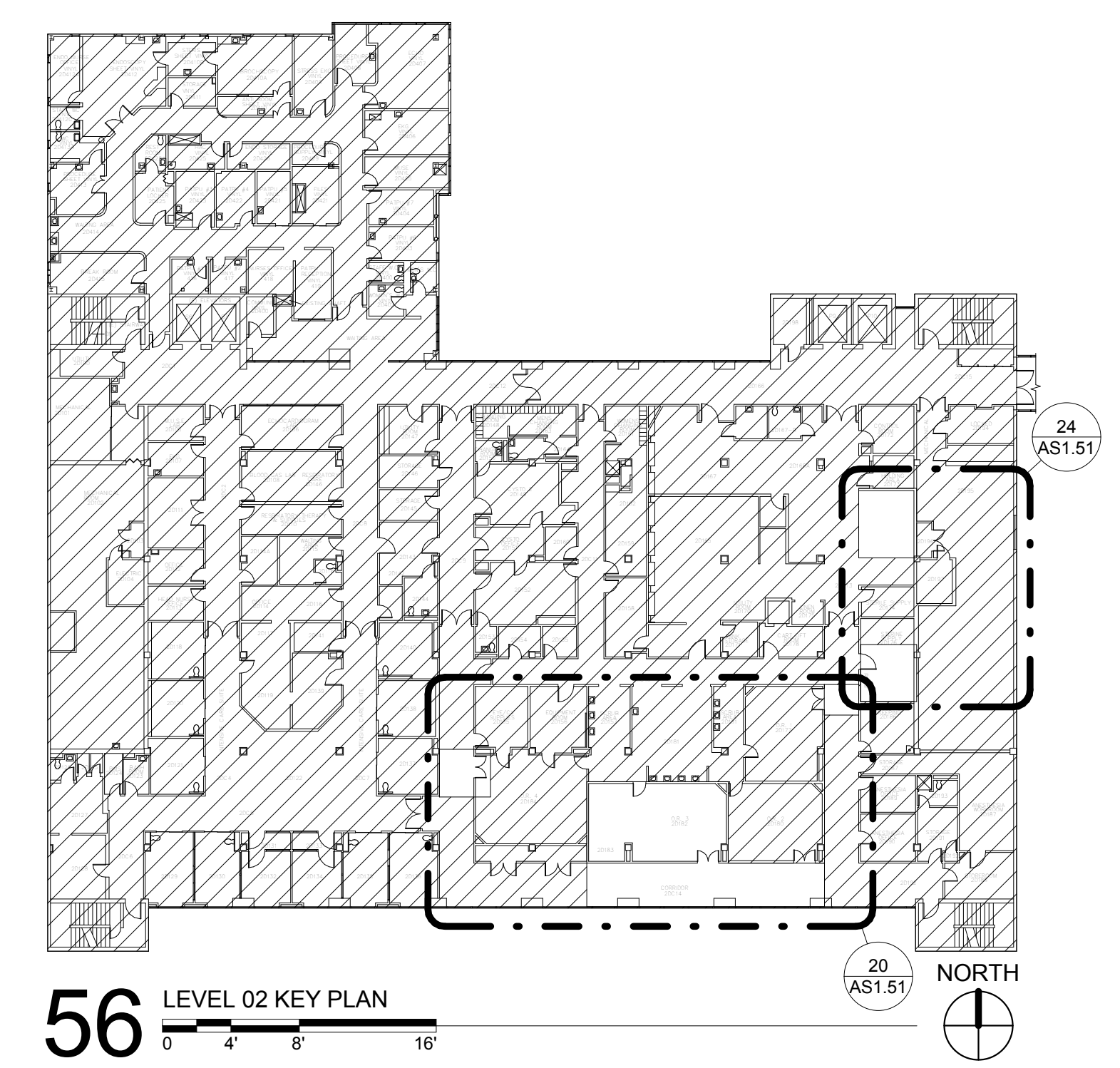
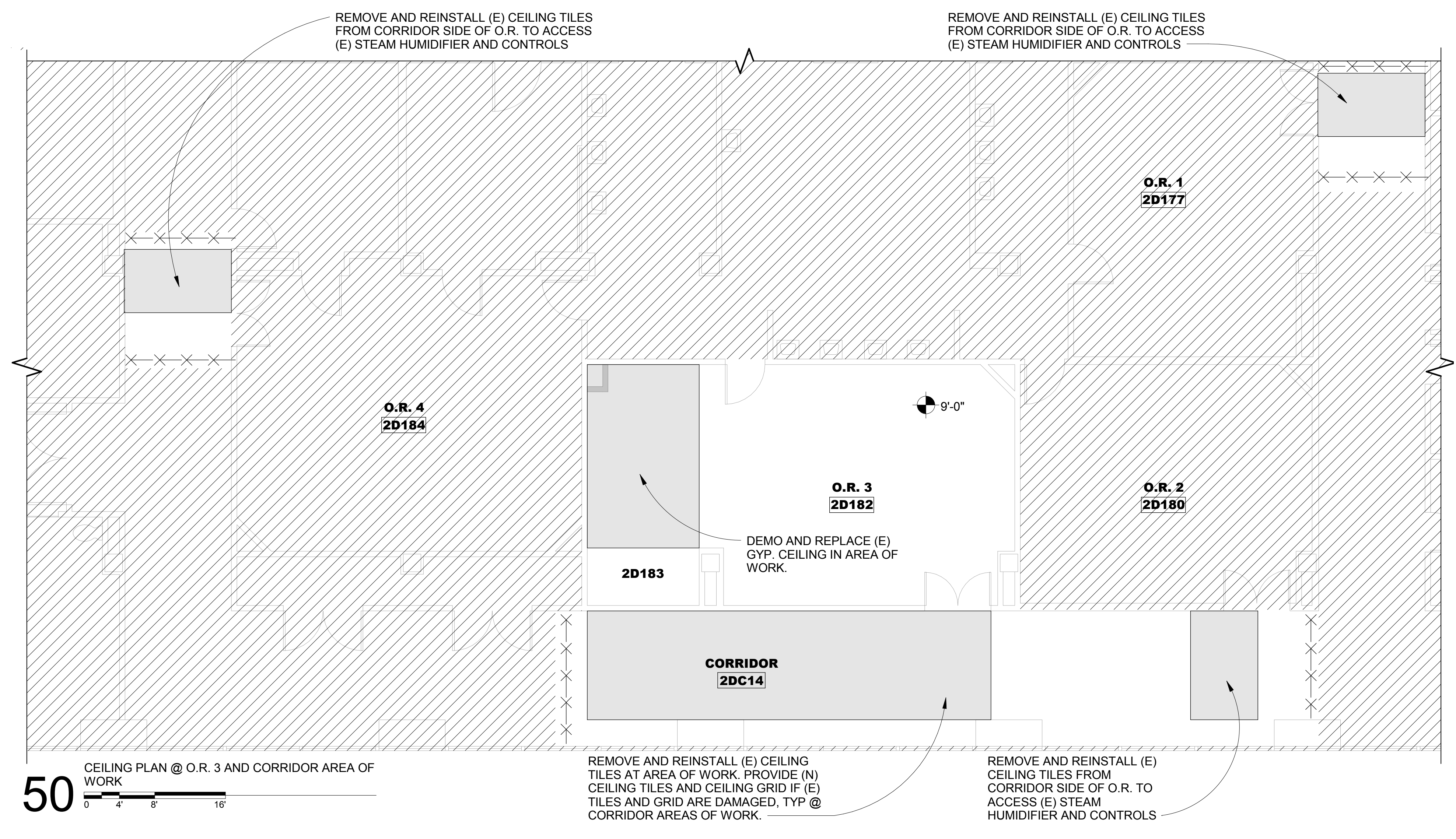
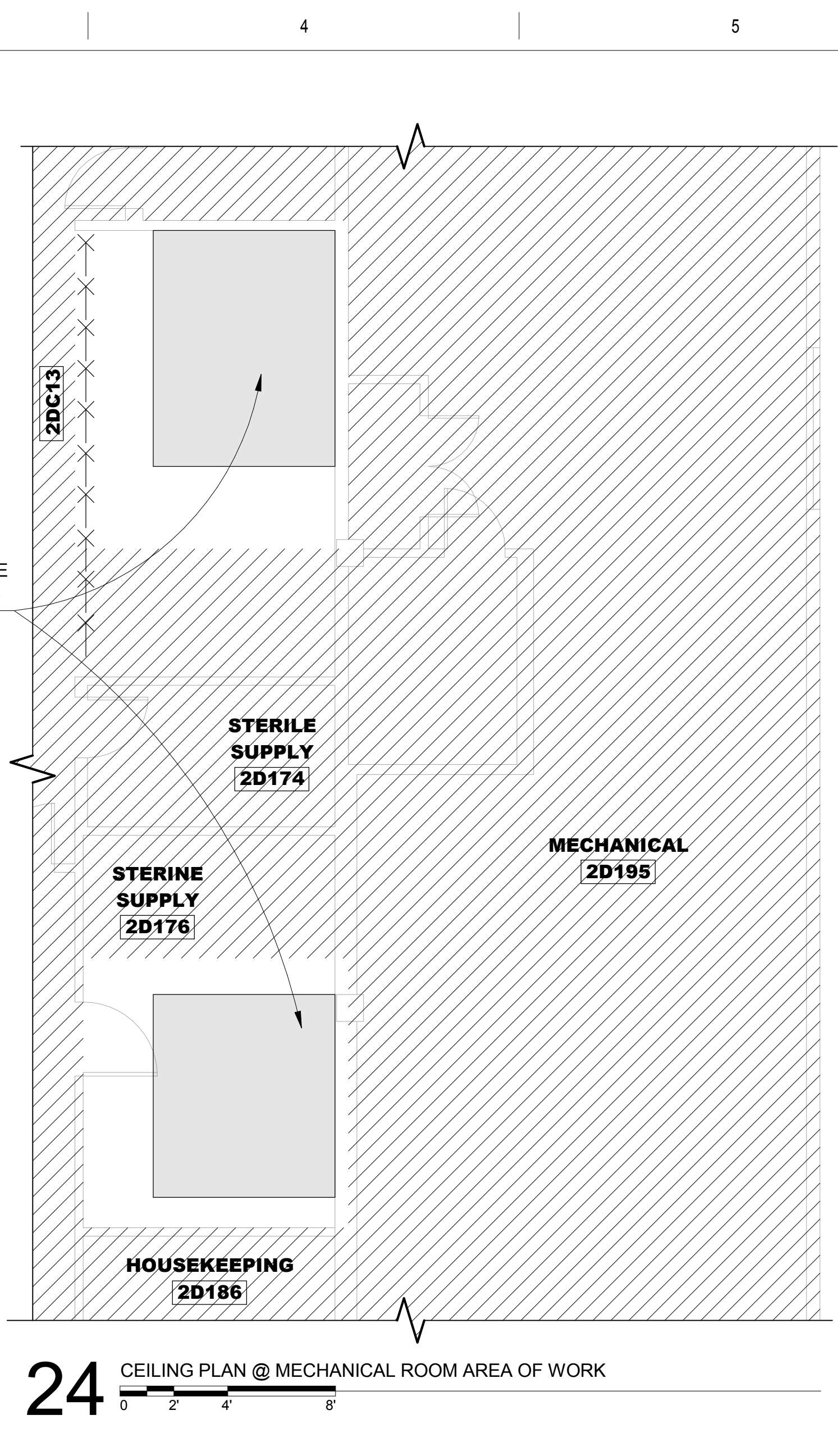
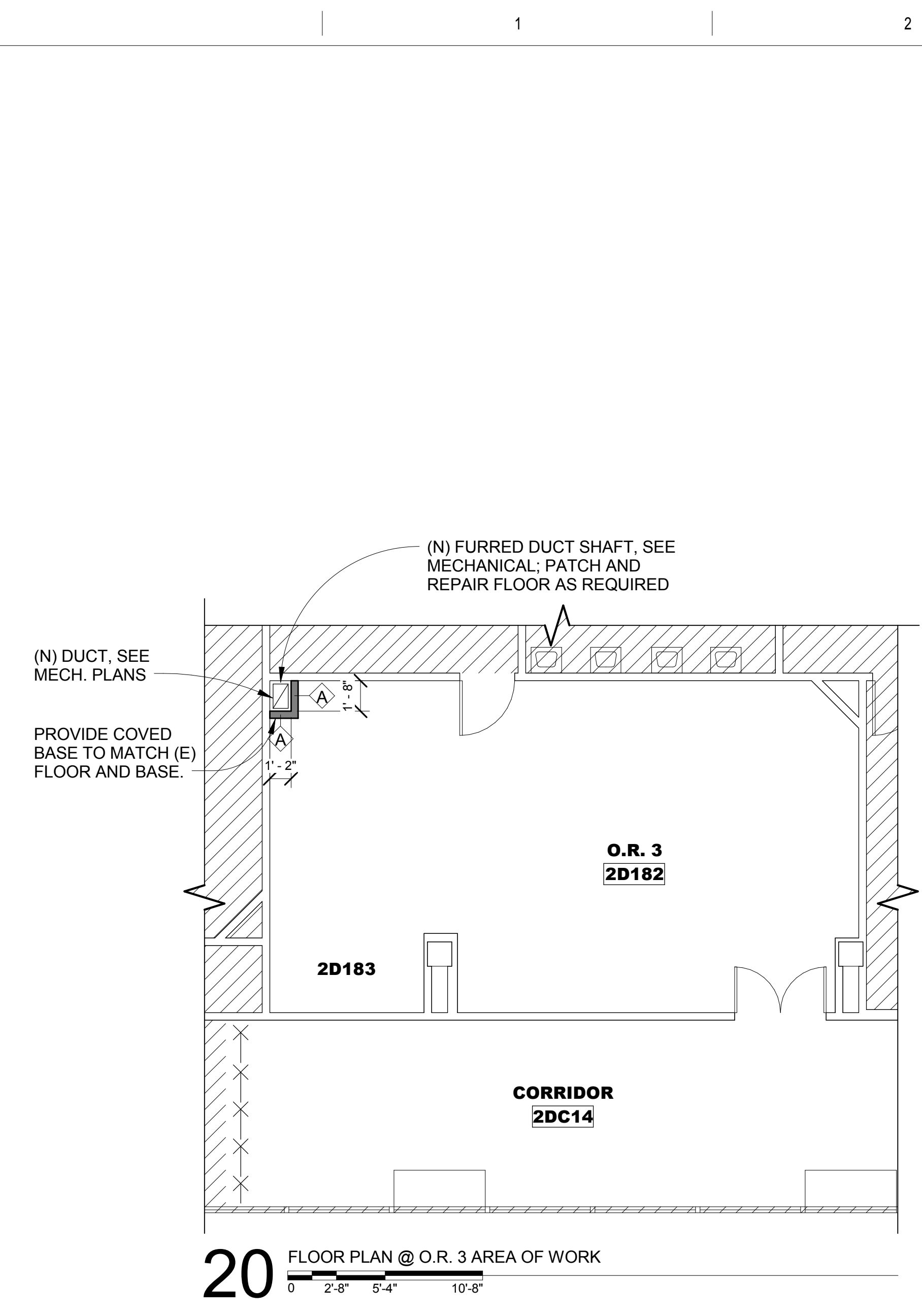


SHEET NOTES

- REPAIR (E) CONSTRUCTION TO ORIGINAL CONDITION WHERE DAMAGED BY (N) CONSTRUCTION WORK
- REMOVE AND REINSTALL (E) CEILING TILES AT AREA OF WORK. PROVIDE (N) CEILING TILES AND CEILING GRID IF (E) TILES AND GRID ARE DAMAGED. AREA OF WORK OF CEILING INCLUDES AREA UP TO 8' - 0" IN ALL DIRECTIONS OF THE DUCTS
- COVER EQUIPMENT IN STERILE WORK ENVIRONMENTS
- FOLLOW THE FACILITY'S ICRA AND ILSM REQUIREMENTS IN AREAS OF WORK

- LEGEND**
- Construction Barrier
 - Area of No Work
 - Area of Ceiling Work
 - (E) WALL
 - (N) WALL

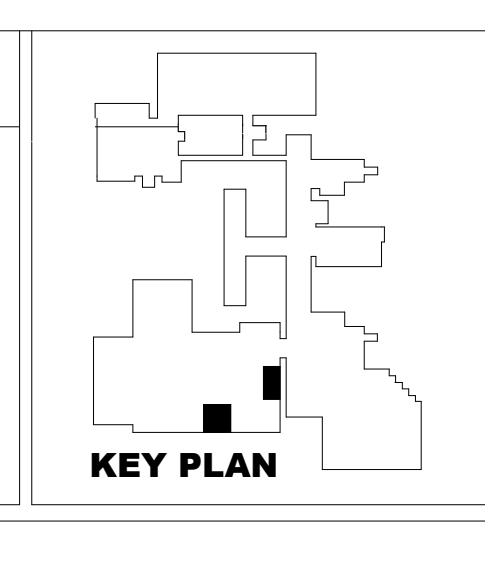
FINAL BID DOCUMENTS



12/29/2014 2:17:11 PM HILLIARD ARCHITECTS INC. COPYRIGHT

Revisions:	Date

CONSULTANTS:



ARCHITECT/ENGINEERS:

Hilliard ARCHITECTS

251 Post Street, Suite 620
San Francisco, CA 94108-5017
Tel 415 989 6400, Fax 415 989 3056
www.HilliardArchitects.com

Drawing Title

LEVEL 02 FLOOR PLANS, CEILING PLANS, PARTITION SCHEDULE

Approved: Project Director

Project Title

VA RENO OR AHU

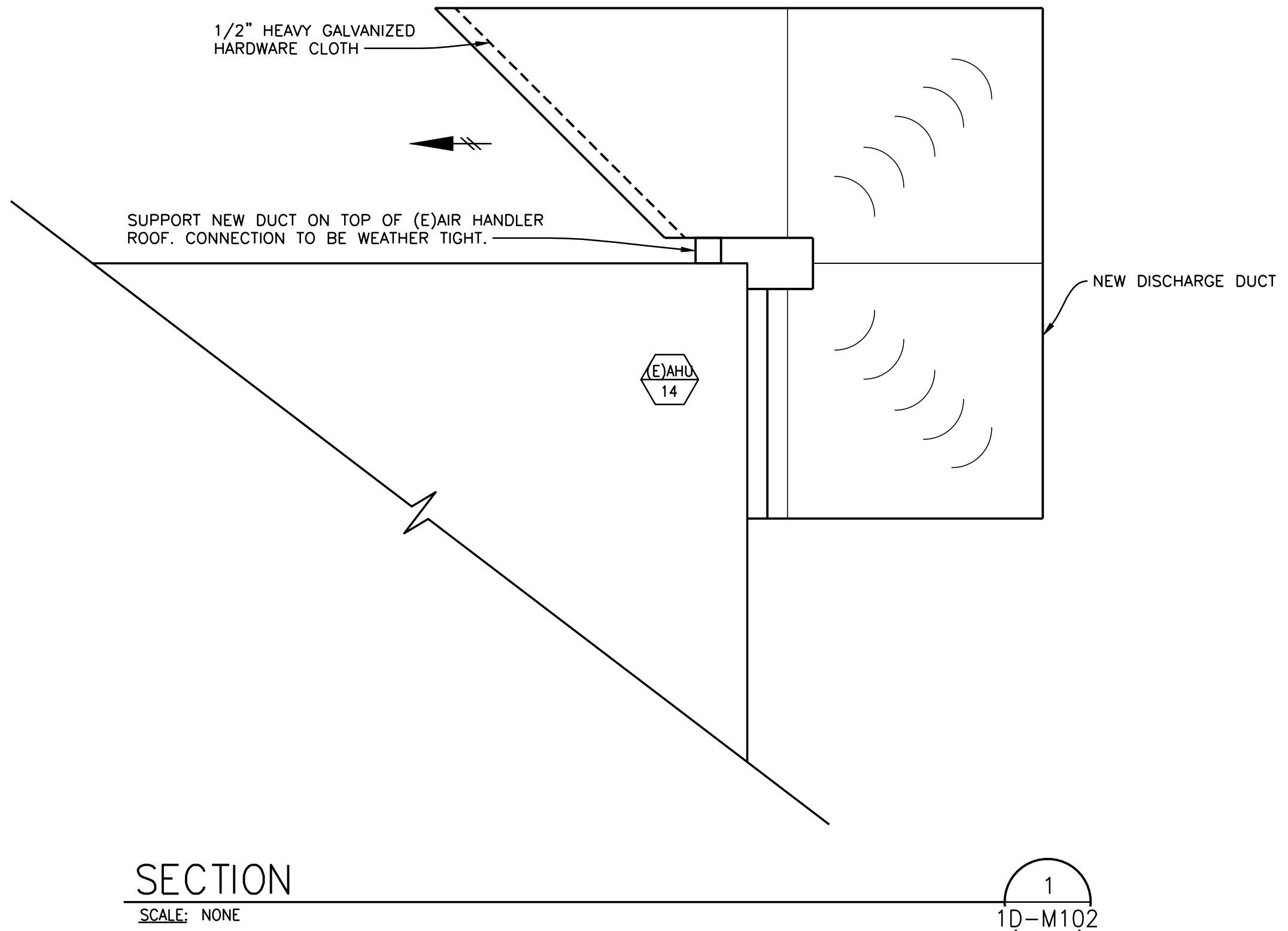
Project Number: 654-14-445
Building Number: 1D
Drawing Number: AS1.51
Dwg. 3 of 6

Location: 975 KIRMAN AVE., BLDG 1D, RENO, NV 89502
Date: 12.24.14
Checked: PD, MU
Drawn: LH

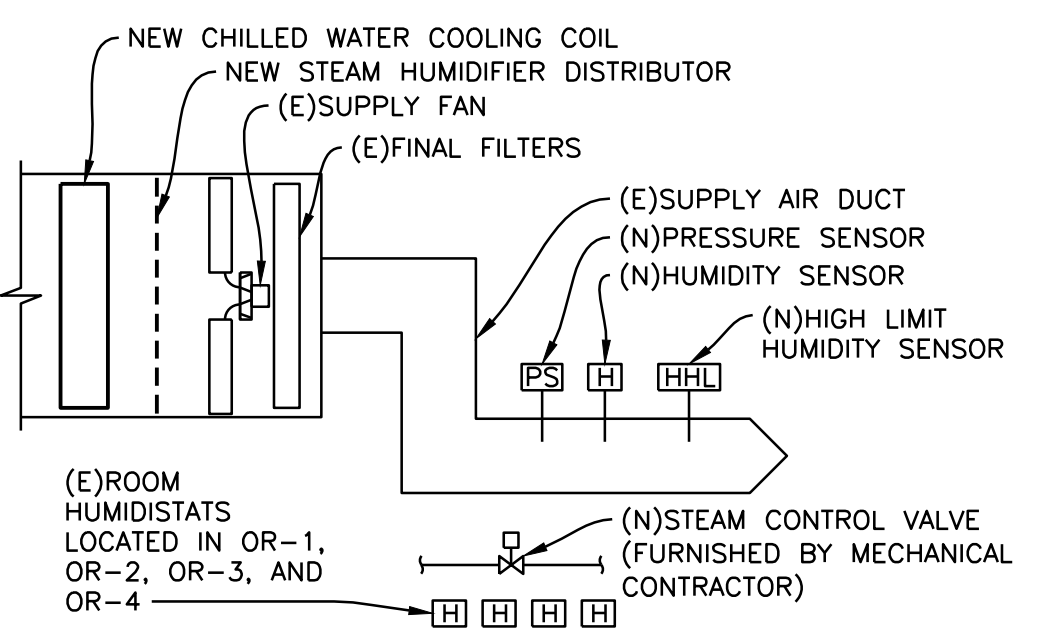
Office of Construction and Facilities Management

Department of Veterans Affairs

one eighth inch = one foot
 one quarter inch = one foot
 one half inch = one foot
 three eighths inch = one foot
 one inch = one foot
 one and one half inches = one foot
 two inches = one foot
 three inches = one foot
 four inches = one foot
 five inches = one foot
 six inches = one foot
 seven inches = one foot
 eight inches = one foot
 nine inches = one foot
 ten inches = one foot
 eleven inches = one foot
 twelve inches = one foot
 thirteen inches = one foot
 fourteen inches = one foot
 fifteen inches = one foot
 sixteen inches = one foot
 seventeen inches = one foot
 eighteen inches = one foot
 nineteen inches = one foot
 twenty inches = one foot
 twenty one inches = one foot
 twenty two inches = one foot
 twenty three inches = one foot
 twenty four inches = one foot
 twenty five inches = one foot
 twenty six inches = one foot
 twenty seven inches = one foot
 twenty eight inches = one foot
 twenty nine inches = one foot
 thirty inches = one foot
 thirty one inches = one foot
 thirty two inches = one foot
 thirty three inches = one foot
 thirty four inches = one foot
 thirty five inches = one foot
 thirty six inches = one foot
 thirty seven inches = one foot
 thirty eight inches = one foot
 thirty nine inches = one foot
 forty inches = one foot
 forty one inches = one foot
 forty two inches = one foot
 forty three inches = one foot
 forty four inches = one foot
 forty five inches = one foot
 forty six inches = one foot
 forty seven inches = one foot
 forty eight inches = one foot
 forty nine inches = one foot
 fifty inches = one foot
 fifty one inches = one foot
 fifty two inches = one foot
 fifty three inches = one foot
 fifty four inches = one foot
 fifty five inches = one foot
 fifty six inches = one foot
 fifty seven inches = one foot
 fifty eight inches = one foot
 fifty nine inches = one foot
 sixty inches = one foot
 sixty one inches = one foot
 sixty two inches = one foot
 sixty three inches = one foot
 sixty four inches = one foot
 sixty five inches = one foot
 sixty six inches = one foot
 sixty seven inches = one foot
 sixty eight inches = one foot
 sixty nine inches = one foot
 seventy inches = one foot
 seventy one inches = one foot
 seventy two inches = one foot
 seventy three inches = one foot
 seventy four inches = one foot
 seventy five inches = one foot
 seventy six inches = one foot
 seventy seven inches = one foot
 seventy eight inches = one foot
 seventy nine inches = one foot
 eighty inches = one foot
 eighty one inches = one foot
 eighty two inches = one foot
 eighty three inches = one foot
 eighty four inches = one foot
 eighty five inches = one foot
 eighty six inches = one foot
 eighty seven inches = one foot
 eighty eight inches = one foot
 eighty nine inches = one foot
 ninety inches = one foot
 ninety one inches = one foot
 ninety two inches = one foot
 ninety three inches = one foot
 ninety four inches = one foot
 ninety five inches = one foot
 ninety six inches = one foot
 ninety seven inches = one foot
 ninety eight inches = one foot
 ninety nine inches = one foot
 one hundred inches = one foot



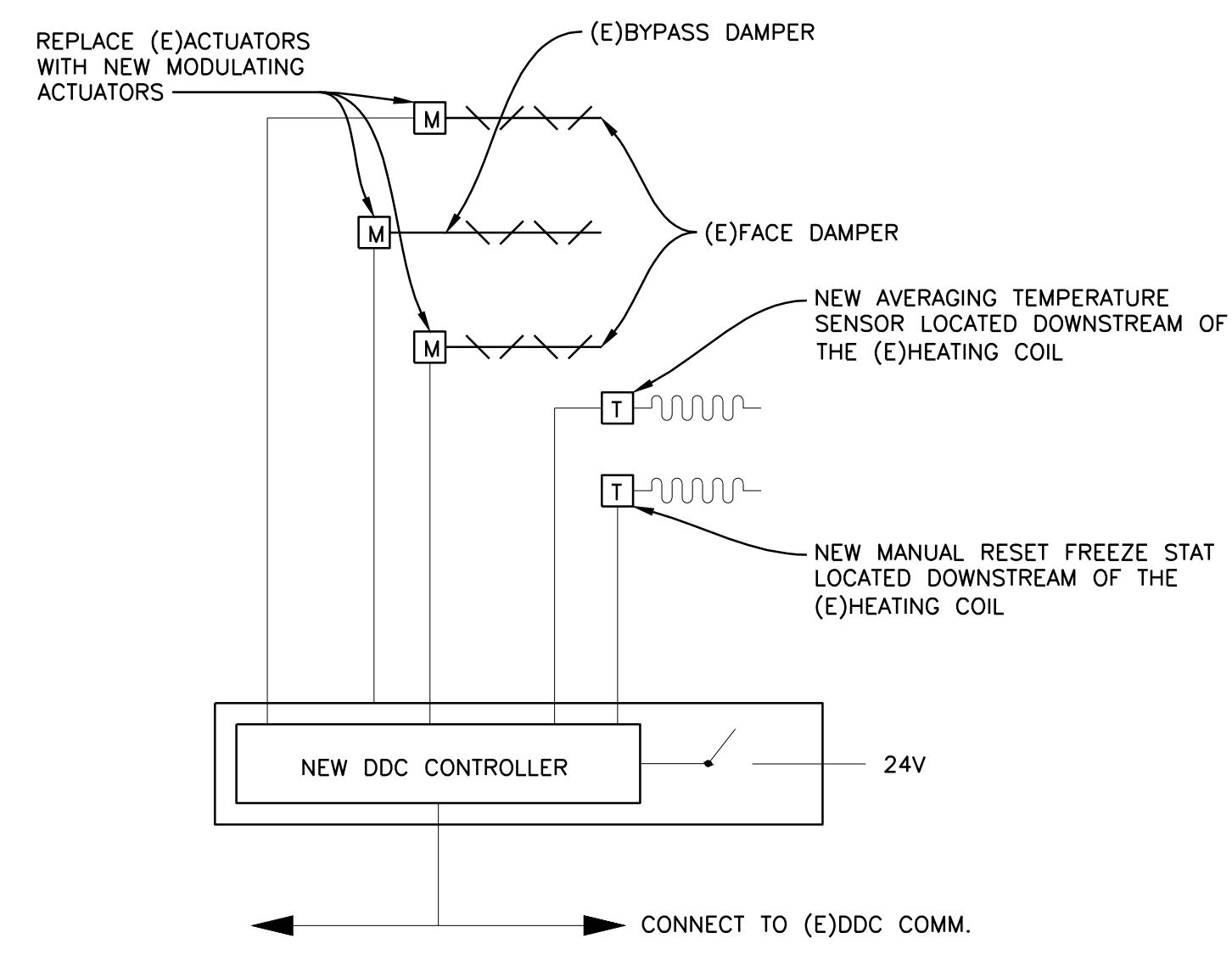
SECTION 1
 SCALE: NONE
 1D-M102



HUMIDITY CONTROLS 2
 SCALE: NONE
 1D-M102

CONTROL SEQUENCE

1. NEW COOLING COIL TO UTILIZE (E) CHILLED WATER CONTROL VALVE AND SEQUENCE.
2. HUMIDIFIER SHALL BE ENABLED AFTER PROOF OF AIR FLOW FROM PRESSURE SENSOR.
3. THE 4 EXISTING OPERATION ROOM SPACE HUMIDISTATS SHALL CONTROL THE HUMIDIFIER WITH THE LOWEST ROOM HUMIDITY LEVEL. MODULATING THE STEAM CONTROL VALVE TO MAINTAIN 50% RH (ADJUSTABLE) AND IN NO CASE SHALL ANY ROOM EXCEED 40% RH (ADJUSTABLE) WITH ALARM INDICATED AT WORKSTATION.
4. THE NEW DUCT HUMIDITY SENSOR SHALL OVERRIDE THE SPACE SENSORS TO LIMIT THE DUCT HUMIDITY LEVEL TO NOT EXCEED 60% RH (ADJUSTABLE).
5. THE NEW DUCT HIGH LIMIT SENSOR SHALL CLOSE STEAM CONTROL VALVE AND GENERATE AN ALARM AT THE WORK STATION IF THE DUCT HUMIDITY LEVEL EXCEEDS 75% RH (ADJUSTABLE). MANUAL RESET IS REQUIRED.



FAN AND BYPASS CONTROL 3
 SCALE: NONE
 1D-M102

HEAT EXCHANGER FACE AND BYPASS DAMPERS
 WHENEVER THE OUTSIDE AIR TEMPERATURE IS BELOW 52° F (ADJUSTABLE) THE FACE AND BYPASS DAMPERS ARE CONTROLLED AS THE FIRST STAGE OF HEATING (FACE DAMPER MODULATED OPEN AND BYPASS DAMPER MODULATED CLOSED TO INCREASE THE SUPPLY AIR TEMPERATURE).

WHENEVER THE OUTSIDE AIR TEMPERATURE IS ABOVE 78° F (ADJUSTABLE) THE FACE AND BYPASS DAMPERS ARE CONTROLLED AS THE FIRST STAGE OF COOLING (FACE DAMPER MODULATED OPEN AND BYPASS DAMPER MODULATED CLOSED TO DECREASE THE SUPPLY AIR TEMPERATURE).

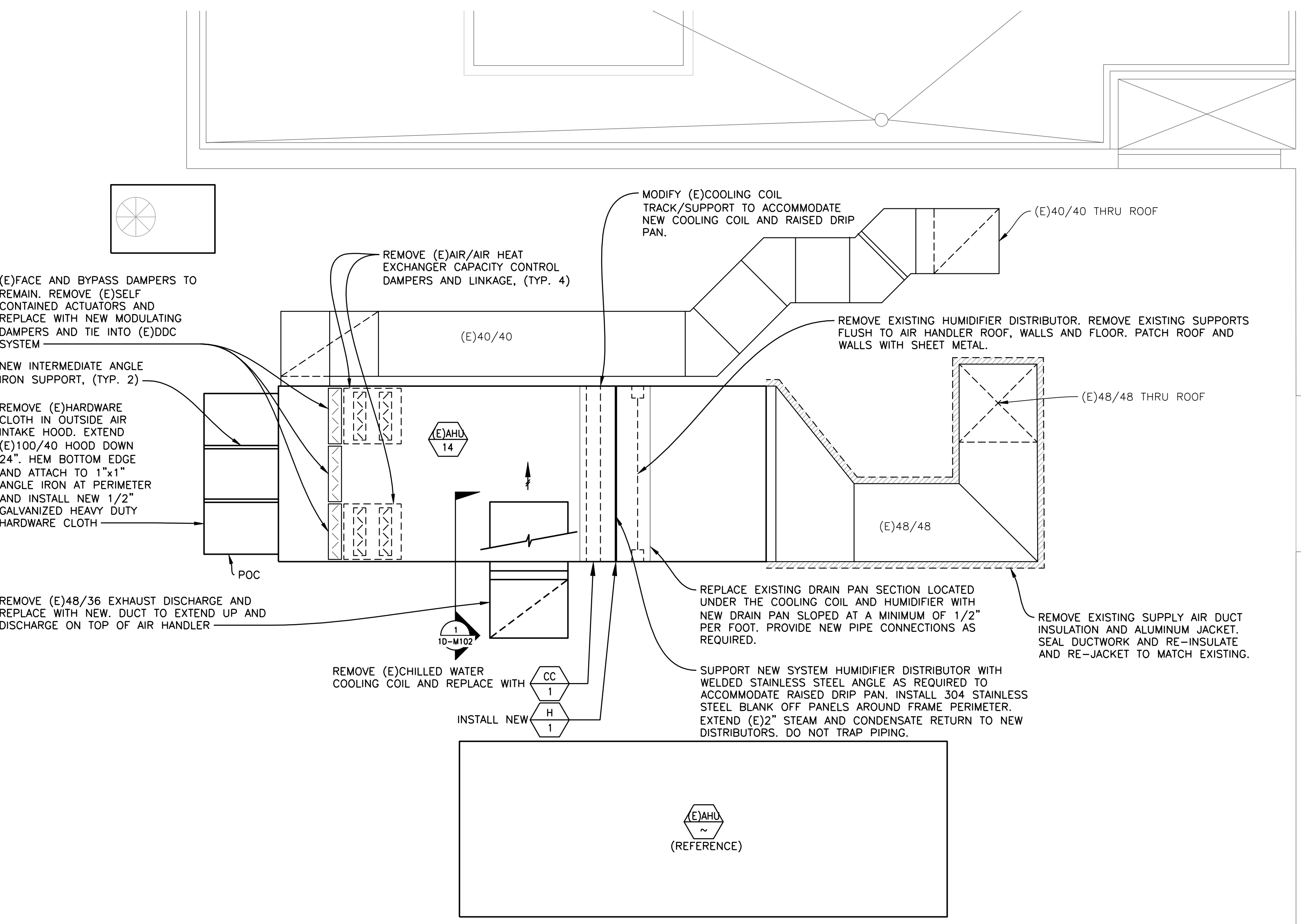
WHENEVER THE OUTSIDE AIR TEMPERATURE IS BETWEEN THE HEATING AND COOLING ENABLE SETPOINTS HEAT RECOVERY IS DISABLED WITH THE BYPASS DAMPER FULLY OPEN AND THE FACE DAMPERS FULLY CLOSED.

WHENEVER THE EXHAUST AIR TEMPERATURE LEAVING THE HEAT EXCHANGER FALLS BELOW THE LOW LIMIT SETPOINT (37° F ADJUSTABLE), THE FACE AND BYPASS DAMPERS SHALL BE MODULATED (FACE DAMPER TOWARDS THE CLOSED POSITION AND BYPASS DAMPER TOWARDS THE OPEN POSITION) SUCH THAT THE EXHAUST AIR TEMPERATURE IS MAINTAINED AT OR ABOVE 37° F LOW LIMIT TEMPERATURE AT ALL TIMES. THE BYPASS DAMPER SHALL BE LIMITED TO 20% OPEN DURING THIS MODE OF OPERATION. THIS PROVISION IS INTENDED TO PREVENT FROST DEVELOPMENT ON THE HEAT EXCHANGER.

SAFETIES
 THE HEATING COIL DISCHARGE TEMPERATURE SHALL BE LIMITED SUCH THAT IT IS NOT ALLOWED TO FALL BELOW THE LOW LIMIT SETPOINT (APPROXIMATELY 45° F). SHOULD THE HEATING COIL DISCHARGE TEMPERATURE FALL BELOW THE LOW LIMIT SETPOINT, THE HEATING COIL VALVE SHALL BE MODULATED OPEN AS REQUIRED TO MAINTAIN THE LOW LIMIT SETPOINT. THE HEATING COIL DISCHARGE TEMPERATURE LIMIT IS INTENDED TO PREVENT THE POTENTIAL FOR SHUTDOWN ON FREEZE SAFETY.

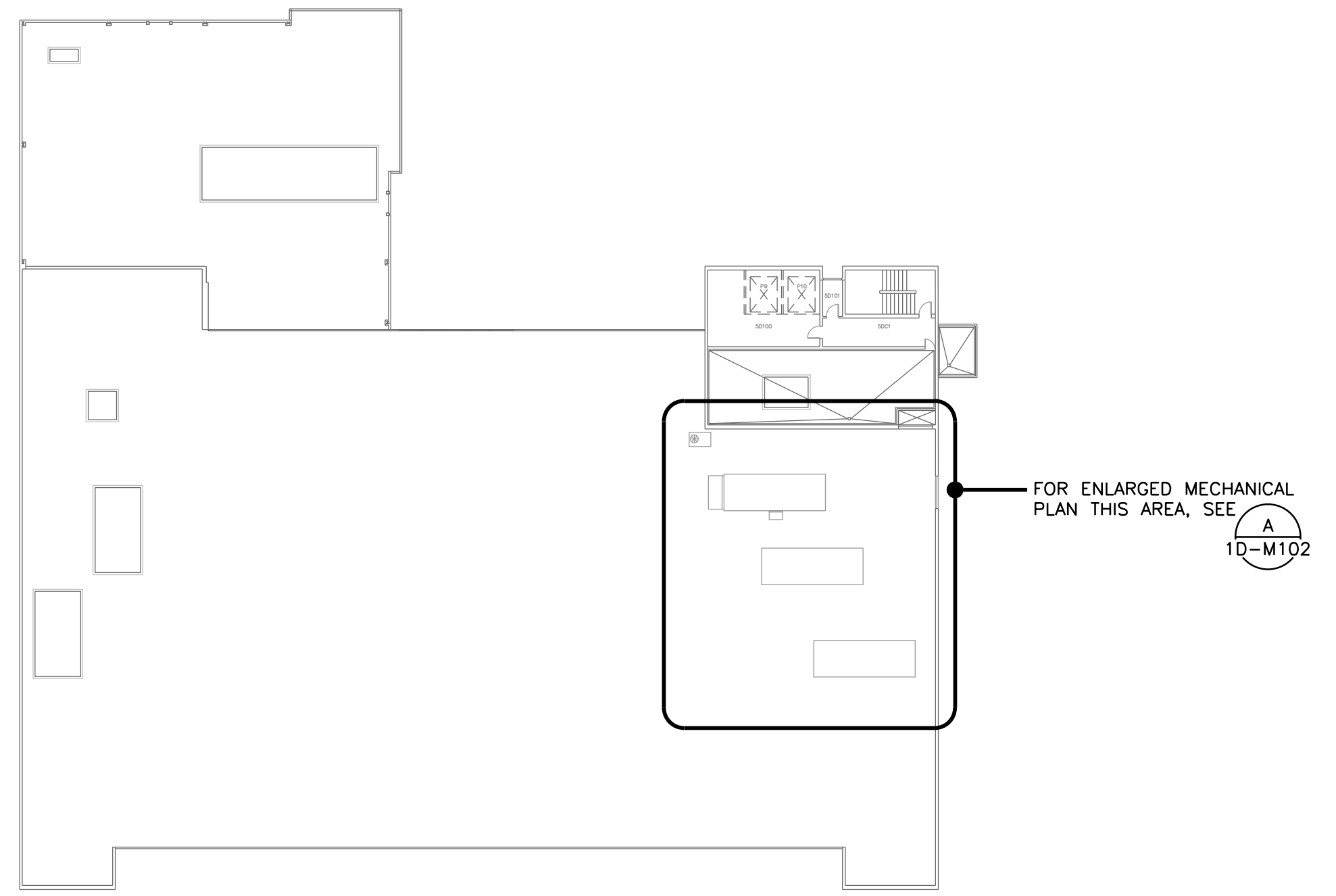
WHENEVER THE TEMPERATURE AT THE MANUAL RESET FREEZE THERMOSTAT (LOCATED DOWNSTREAM OF THE HEATING COIL) FALLS BELOW SETPOINT (APPROXIMATELY 35° F), THE SUPPLY FAN SHALL BE DISABLED, THE FACE DAMPERS SHALL BE CLOSED, THE BYPASS DAMPER SHALL BE CLOSED, THE HEATING COIL VALVE SHALL BE FULLY OPEN, THE CHILLED WATER VALVE SHALL BE FULLY OPEN, THE HUMIDIFIER SHALL BE DISABLED, AND AN ALARM CONDITION SHALL BE INDICATED.

THE HEATING WATER CONTROL VALVE SHALL BE PROGRAMMED SUCH THAT IT IS AT LEAST 5% OPEN (ADJUSTABLE) WHENEVER THE OUTSIDE AIR TEMPERATURE IS BELOW 30° F (ADJUSTABLE).



ENLARGED MECHANICAL ROOF PLAN
 SCALE: 1/4" = 1'-0"
 1D-M102

EQUIPMENT SCHEDULE	
DE-RATED FOR 4,500' ELEVATION	
CC 1	COOLING COIL CHILLED WATER COOLING COIL TO COOL 18,750 CFM WITH 86.6/62 DEGREE EDB/EWB TO 48.6/48.3 DEGREE LDB/LWB WITH 96 GPM OF 45/58.1 DEGREE EWT/LWT. 632.5 MBH TC AND 632.3 MBH SC WITH 8 ROW/8 FIN WITH 92" FIN WIDTH AND 67" FIN HEIGHT COIL. COIL TO BE COPPER TUBE COPPER FIN CONSTRUCTION WITH 16 GAUGE 304 STAINLESS STEEL CASING. MAXIMUM AIR PRESSURE DROP=0.49" WG MAXIMUM WATER PRESSURE DROP=10.7 FT. CONTRACTOR TO FIELD VERIFY ALL COIL DIMENSIONS, COIL CASING REQUIREMENTS, ETC. PRIOR TO ISSUING SUBMITTALS.
H 1	HUMIDIFIER DISTRIBUTOR STEAM DISTRIBUTOR TO PROVIDE 432 LB/HR (452 LB/HR INCLUDING LOSS) STEAM HUMIDIFICATION AT 0 DEGREE EAT AT 20% RH WITH 65 DEGREE ROOM TEMPERATURE AT 40% RH AT 18,750 CFM. THE DISTRIBUTOR FACE AREA OF 43" H AND 90" W WITH OVERALL DIMENSIONS OF 52" H AND 93" W. THE DISTRIBUTOR SHALL NOT EXCEED 3 DEGREE TEMPERATURE RISE. DISTRIBUTOR TUBES AND CASING TO BE STAINLESS STEEL AND THE DISTRIBUTOR TUBES SHALL BE FACTORY INSULATED. MAXIMUM AIR PRESSURE DROP OF 0.04". FURNISH WITH 24V MODULATING CONTROL VALVE WITH 2-10VDC SIGNAL AND STEAM TRAP.



ROOF LEVEL KEY PLAN
 SCALE: 1/32" = 1'-0"
 1D-M102

HILLIARD ARCHITECTS INC. COPYRIGHT
 11/08/2014 4:52:00 PM

Revisions:	Date

CONSULTANTS:

AINSWORTH ASSOCIATES
 MECHANICAL ENGINEERS
 3741 BUSINESS DR. SACRAMENTO, CA 95820 TEL: 916-737-6014 FAX: 916-737-6015
 1420 HOLCOMB AVE., SUITE 201 RENO, NV 89502 TEL: 775-329-9100 FAX: 775-329-9105

ARCHITECT/ENGINEERS:

Hilliard ARCHITECTS
 251 Post Street, Suite 620 San Francisco, CA 94108-5017 Tel 415 989 6400, Fax 415 989 3056 www.HilliardArchitects.com

MECHANICAL ROOF PLAN

Approved: Project Director

VA RENO OR AHU

Location: 975 KIRMAN AVE., BLDG 1D, RENO, NV 89502

Date: 12.24.14
 Checked: JSH
 Drawn: ER

FINAL BID DOCUMENTS

Project Number: 654-14-445
 Building Number: 1D
 Drawing Number: 1D-M102
 Dwg. 5 of 5

Office of Construction and Facilities Management

Department of Veterans Affairs