VETERANS AFFAIRS PALO ALTO HEALTH CARE SYSTEM

VA PALO ALTO BUILDING 6 LABORATORY RENOVATION

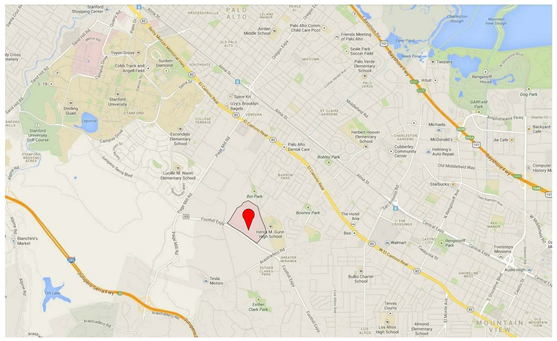
US DEPARTMENT OF VETERANS AFFAIRS
VA PA, BUILDING 6
3801 MIRANDA AVENUE
PALO ALTO, CA 94304

VA PROJECT NO: 640-13-121P

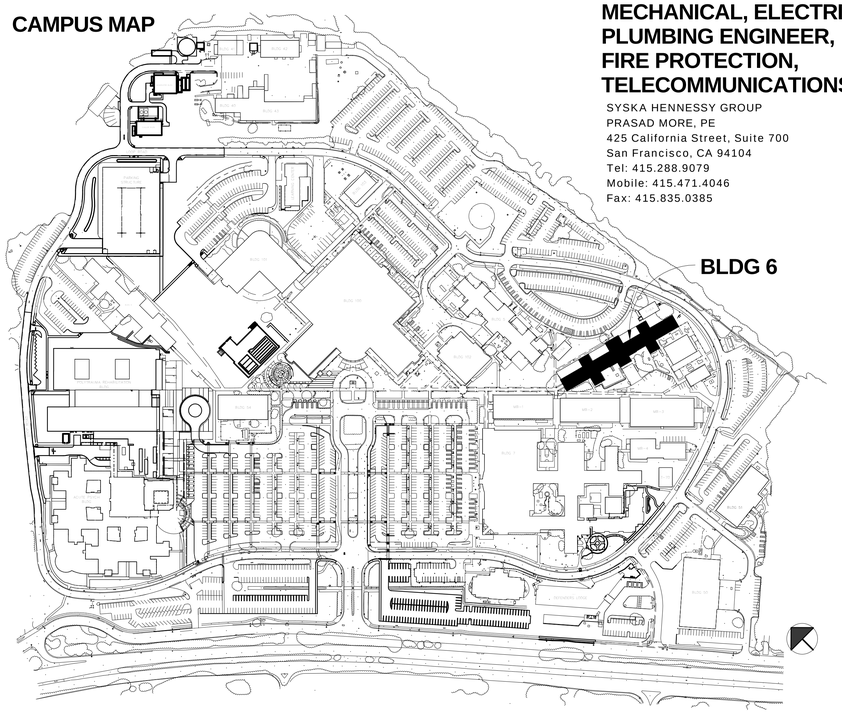
SPACE PROGRAMMING ANALYSIS

Category	SEPS Code	Room Name	Programmed for Building 4 Area (NSF) each	Number of spaces	Total NSF	Provided in Building 6 Area (NSF) each	Number of spaces	Total NSF	Difference Total NSF
Research Labs & Lab Support Spaces									
	LBRB1	Open Laboratory Modules	363	19	6897	233	26	6059	- 838
	LBTS1	Tissue Culture Room	900	2	1800	346	4	1385	- 415
		Fume Hood Room	110	2	220	211	2	422	+ 202
		Flex Lab	110	2	220	145	1	145	- 75
		Centrifuges				69	1	69	+ 69
	SRSE1	Equipment Storage Room	350	2	700	132	2	263	- 437
	SRR01	Cold Room	200	1	200	162	1	162	- 38
	LBUL1	Freezer Room, Ultra Low	240	2	480	318	1	318	- 162
	SRS01	Storage, General	150	2	300	103	3	308	+ 8
	SRL01	Microscope Room, dark	80	2	160	102	2	203	+ 43
		Film Processing Room				62	1	62	+ 62
	JANC1	Housekeeping	40	2	80		N/A		- 80
Staff Space									
	SL001	Staff Lounge (includes lockers)	265	1	265	536	1	536	+ 271
Offices									
	OFM01	Office - Investigator	100	4	400	146	4	582	+ 182
	OFA03	Workstations, data-processing	62	15	930	625	1	625	- 305
	SRE01	Equipment - Copy/Print	50	2	100		N/A		- 100
	CRA02	Conference Room	400	1	400	89	3	267	- 133
Net Square Feet					13,152			11,406	- 1,746

VICINITY MAP



CAMPUS MAP



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FINAL BID DOCUMENTS

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Drawing Title	COVER SHEET
Approved: Project Director	
Project Title	VA PALO ALTO BLDG 6 LAB RENOVATION
Location	VAPAHCS, PALO ALTO CAMPUS 3801 MIRANDA AVE. PALO ALTO, CA 94304
Date	04.17.2014
Checked	M.H.
Drawn	J.P.
Project Number	640-13-121P
Building Number	6
Drawing Number	.G0.00
Dwg. of	

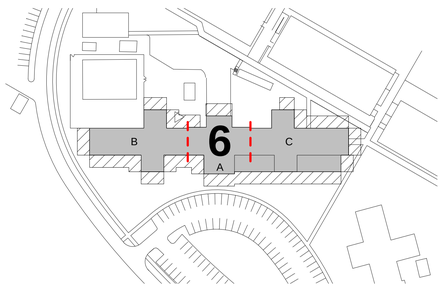
Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231

BUILDING INFORMATION

BUILDING INFORMATION:	
OCCUPANCY:	Business
CONSTRUCTION TYPE:	Type II-B
FIRE SPRINKLERS:	Yes
BUILDING AREAS	
FIRST FLOOR:	31,188 SF
SECOND FLOOR:	25,271 SF
THIRD FLOOR:	25,270 SF
TOTAL:	81,728 SF
ALLOWABLE AREAS:	
IBC TABLE 503	23,000 SF
FRONTAGE INCREASE	133%
ALLOWABLE AREA, PER STORY	30,590 SF
TOTAL ALLOWABLE AREA	91,770 SF
ALLOWABLE BUILDING HEIGHT:	
OCCUPANCY	Business
IBC TABLE 503	3 STORIES (55 FEET)
ALLOWABLE HEIGHT	55 FEET
EXISTING BUILDING HEIGHT	41 FEET



PERIMETER OF BUILDING WITH
NO LESS THAN 20 FEET OF FRONTAGE

PER 2012 IBC, SECTION 506.2, EQUATION 5-2

F = 982 feet
P = 1312 feet
W = 20 feet

Area increase due to frontage = 0.33

PER 2012 IBC, TABLE 503

CONSTRUCTION TYPE II-B
Building area limitation per story = 23,000 SF

Building area limitation per story including frontage increase = 30,590 SF

PLUMBING FIXTURE COUNT

PER IBC 2012 - TABLE 2902.1

LEVEL	OCC LOAD	WATER CLOSETS: 1 PER 25 FOR FIRST 50 AND 1 PER 50 FOR REMAINDER EXCEEDING 50				LAVATORY: 1 PER 40 FOR FIRST 80 AND 1 PER 80 FOR THE REMAINDER EXCEEDING 80	
		# REQUIRED		# PROVIDED		# REQUIRED	# PROVIDED
1, 2, 3	818	18	M	9	7 / URINAL 3	12	6 / 7
			F	9	15		6 / 12
			UNISEX		3		3

FOR PLAN VIEW, SEE A1.01 AND A1.02

OCCUPANCY TABULATION SUMMARY (Lab Renovation)				
Level	AREA *	Occupancy	Occupant AREA	O.L.
FIRST FLOOR	4802			53
SECOND FLOOR	7048	B	100 SF	77
	11850			130

GENERAL NOTES

1. DIMENSIONS OF EXISTING WORK ARE FROM FACE OF FINISH. DIMENSIONS OF NEW WORK ARE TO FACE OF STUD.
2. BASEBOARD: REPLACE/PROVIDE NEW BASEBOARD AT NEW WALLS, AND AT NEW FLOORING.
3. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS REQUIRED FROM REGULATING AGENCIES BEFORE STARTING ANY WORK.
4. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE WORKING CONDITIONS AT THE JOB SITE, INCLUDING THE SAFETY OF ALL PERSONS AND PROPERTY.
5. DO NOT SCALE THE DRAWINGS. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS. IF ANY DISCREPANCIES OR OMISSIONS IN THE DIMENSIONS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER IMMEDIATELY. ANY WORK DONE WITHOUT PROPER NOTIFICATION BEING GIVEN TO THE CONTRACTING OFFICER IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
6. THE CONTRACTOR IS RESPONSIBLE FOR CHECKING FIELD CONDITIONS PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR SHALL REPORT ANY PROBLEMS TO THE VA COTR. CHANGES RESULTING FROM CONDITIONS ARISING IN THE FIELD WHICH ARE NOT BROUGHT TO THE ATTENTION OF THE VA COTR WILL NOT RESULT IN ANY ADDITIONAL COST TO THE CLIENT.
7. THE GENERAL CONTRACTOR SHALL REVIEW ALL SUBMITTALS FROM SUBCONTRACTORS PRIOR TO SUBMITTING THEM TO ARCHITECT AND CONTRACTING OFFICER.
8. THE CONTRACTOR SHALL MAINTAIN THE PREMISES IN A CLEAN AND ORDERLY MANNER. PATHS OF TRAVEL SHALL NOT BE BLOCKED. THE CONTRACTOR SHALL LEAVE AREA CLEAN AND FREE OF DEBRIS AT THE END OF EACH WORK DAY.
9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL LEFT OVER MATERIALS, DEBRIS, TOOLS AND EQUIPMENT USED IN THE CONSTRUCTION AT THE END OF THE PROJECT.
10. ANY DAMAGE DONE BY THE CONTRACTOR TO THE EXISTING BUILDING, EQUIPMENT, OR FURNISHINGS SHALL BE PATCHED TO MATCH UNDAMAGED EXISTING ADJACENT CONSTRUCTION OR REPAIRED TO ORIGINAL CONDITION AND FUNCTION PRIOR TO DAMAGE. ALL SUCH PATCHING AND REPAIR SHALL BE DONE AT THE CONTRACTOR'S EXPENSE.
11. CONTRACTOR TO COORDINATE ALL WORK OF ALL TRADES AND WORKING TIME AND METHODS WITH THE V.A. TO INSURE MINIMUM DISTURBANCE TO THE BUILDING FUNCTIONS WILL OCCUR.
12. OTHER AREAS OF BUILDING WILL REMAIN OCCUPIED DURING CONSTRUCTION. WORK MAY NEED TO BE PERFORMED OUTSIDE REGULAR BUSINESS HOURS IF DEEMED DISRUPTIVE BY THE PROJECT MANAGER. COSTS ASSOCIATED WITH THIS REQUIREMENT SHALL BE INCLUDED IN THE BASE BID AND WILL NOT BE BILLABLE SEPARATELY TO THE CLIENT. BIDDERS SHALL COORDINATE WITH ON-SITE CLIENT PROJECT MANAGER PRIOR TO BIDDING.

APPLICABLE CODES & STANDARDS

ALL CONSTRUCTION WORK, ARCHITECTURAL, MECHANICAL, ELECTRICAL, FIRE PROTECTION, ETC. SHALL CONFORM TO THE MOST CURRENT ISSUE OF THE INTERNATIONAL BUILDING CODE, AND ANY APPLICABLE LOCAL, STATE AND FEDERAL CODES AND GUIDELINES.

1

a. INTERNATIONAL BUILDING CODE (IBC)
b. UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS)
c. NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
d. NFPA 1
e. NFPA 13
f. NFPA 98
g. NFPA 99
h. NFPA 101, 101A, & 101B LIFE SAFETY CODE
i. NATIONAL ELECTRIC CODE (NEC) NFPA 70
j. NATIONAL STANDARD PLUMBING CODE (NSPC)
k. ASME MECHANICAL CODES
l. ASHRAE STANDARD 62-2004
m. OSHA
n. VA BARRIER DESIGN GUIDE PG-18-03
o. VA DESIGN GUIDES, MASTER SPECIFICATION & TECHNICAL INFORMATION AVAILABLE ON THE VA TECHNICAL INFORMATION (TIL) WEBSITE www.cfm.va.gov/til/
p. HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT OF 1996 (HIPPA)
q. FACILITY GUIDELINES INSTITUTE (FGI) GUIDELINES FOR DESIGN AND CONSTRUCTION OF HEALTH CARE FACILITY

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PROJECT DESCRIPTION

THIS PROJECT IS THE SECOND OF TWO PROJECTS INTENDED FOR VA PALO ALTO BUILDING 6 "C" WING. THE FIRST PROJECT ADDS NEW ADMINISTRATIVE OFFICE SPACE FOR THE FACILITIES PLANNING DEPARTMENT. THIS PROJECT RENOVATES THE INTERIOR OF THE EXISTING BUILDING FOR LAB SPACE AND ADDS ANOTHER EXPANSION THAT TIES IN STRUCTURALLY WITH THE FIRST PROJECT.

THIS PROJECT INCLUDES OPEN LAB MODULES, COMPUTATIONAL SPACE, COLD ROOM, TISSUE CULTURE ROOM, FUME HOOD SPACE, FREEZER FARM SPACE, PRIVATE AND OPEN OFFICE WORKSTATIONS, MECHANICAL ROOM AND STORAGE.

AREA OF WORK: 1

8,773 SF RENOVATION @ FIRST FLOOR
8,919 SF RENOVATION @ SECOND FLOOR

17,692 SF RENOVATION TOTAL
965 SF ADDITION
130 SF DEMOLITION (OF SHED AT REAR ELECTRICAL YARD)
294 SF PATIO SLAB

SYMBOLS

DEMOLISHED WALL
EXISTING WALL
NEW NON-RATED WALL
NEW 1 HOUR FIRE RATED ASSEMBLY
BOUNDARY OF WORK
F.O.F. F.O.S. — DIMENSIONS FROM FACE OF FINISH TO FACE OF STUD WHERE NOTED
CENTERLINE OF COLUMN OR STUD, ETC.
AREAS OF NO WORK
ROOM NAME — ROOM NAME
C000 — ROOM NUMBER
0' 1' 2' 4' — GRAPHIC SCALE

DOOR SYMBOL

1 2 S 101A M — FRAME TYPE, DOOR TYPE, DOOR MODIFICATION, DOOR SIZE, DOOR ID
1t — WINDOW TAG
WORK POINT OR CONTROL POINT
1 — REVISION (AREA OF REVISION IN CLOUD)
A — WALL OR PARTITION TYPE
SIGNAGE
5" AT NEW DOORS U.O.N. — DOOR
REF — EQUIPMENT TAG

DETAIL INDICATOR
01 8-10 01 — DETAIL; REFERENCE DRAWING NUMBER

ELEVATION INDICATOR, EXTERIOR
01 5-10 — EXTERIOR ELEVATION IDENTIFICATION; REFERENCE DRAWING NUMBER

ELEVATION INDICATOR, INTERIOR
01 04 5-10 02 03 — INTERIOR ELEVATION IDENTIFICATION; REFERENCE DRAWING NUMBER

BUILDING SECTION INDICATOR
01 3-10 — SECTION IDENTIFICATION; REFERENCE DRAWING NUMBER

NORTH — NORTH ARROW

CONCRETE
EARTH
GRAVEL
STAINLESS STEEL
WOOD
GYP. BOARD
CERAMIC TILE (ELEVATION)
CERAMIC TILE (SECTION)
COUNTER TOP MATERIAL
BATT INSULATION
RIGID INSULATION
LEVEL 3 BALLISTIC FIBERGLASS

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Drawing Title	TITLE SHEET
Approved: Project Director	
Project Title	VA PALO ALTO BLDG 6 LAB RENOVATION
Location	VAPAHCS, PALO ALTO CAMPUS 3801 MIRANDA AVE. PALO ALTO, CA 94304
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Office of Construction and Facilities Management
Department of Veterans Affairs

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ABBREVIATIONS

A LABEL	CLASS A DOOR
A/C	AIR CONDITION
A/C UNIT	AIR CONDITIONING UNIT
A/E	ARCHITECT/ENGINEER
AAMA	AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION
AB	ANCHOR BOLT
ABC	AGGREGATE BASE COURSE
AC	ASBESTOS CEMENT OR ASPHALTIC CONCRETE
ACI	AMERICAN CONCRETE INSTITUTE
ACS DR	ACCESS DOOR
ACS FLR	ACCESS FLOOR
ACS PNL	ACCESS PANEL
ACST	ACOUSTIC
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
ADA	AMERICANS WITH DISABILITIES ACT
ADC	AUTOMATIC DOOR CLOSER
ADDL	ADDITIONAL
ADDN	ADDITION
ADH	ADHESIVE
ADJ	ADJACENT, ADJOINING, OR ADJUSTABLE
ADMIN	ADMINISTRATION
ADB	AUTOMATIC DOOR BOTTOM
AFC	ABOVE FINISHED COUNTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AFS	ABOVE FINISHED SLAB
AGA	AMERICAN GAS ASSOCIATION
AGC	ASSOCIATED GENERAL CONTRACTORS
AGGR	AGGREGATE
AHJ	AUTHORITY HAVING JURISDICTION
AHR	ANCHOR
AHU	AIR HANDLING UNIT
AIA	AMERICAN INSTITUTE OF ARCHITECTS
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ALT	ALTERNATE
ALT NO	ALTERNATE NUMBER
ALUM	ALUMINUM
AMP	AMPERE
AMT	AMOUNT
ANOD	ANODIZE
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ANT	ANTENNA
APA	AMERICAN PLYWOOD ASSOCIATION
APPD	APPROVED
APPROX	APPROXIMATE
APT	APARTMENT
AR	AS REQUIRED
ARCH	ARCHITECT
ASB	ASBESTOS
ASI	ARCHITECT'S SUPPLEMENTAL INSTRUCTION
ASKLR	AUTOMATIC SPRINKLER
ASPH	ASPHALT
ASSN	ASSOCIATION
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
ATCH	ATTACHMENT
ATM	AUTOMATIC TELLER MACHINE
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AUX	AUXILIARY
AV	AUDIO VISUAL
AVE	AVENUE
AVG	AVERAGE
AW	ACID WASTE
AWI	ARCHITECTURAL WOODWORKING INSTITUTE
AWPA	AMERICAN WOOD PRESERVERS' ASSOCIATION
AWS	AMERICAN WELDING SOCIETY
AWT	ACOUSTICAL WALL TREATMENT
B LABEL	CLASS B DOOR
B PL	BASE PLATE
BALC	BALCONY
BAT	BATTEN
BB	BULLETIN BOARD
BD	BOARD
BD FT	BOARD FEET (FOOT) BEV BEVEL
BHMA	BUILDER'S HARDWARE MANUFACTURER'S ASSOCIATION
BI FLD DR	BIFOLDING DOORS
BITUM	BITUMINOUS
BKG	BACKING
BLD	BUILD
BLDG	BUILDING
BLKT	BLANKET
BLVD	BOULEVARD
BM	BEAM OR BENCHMARK
BOT	BOTTOM
BR	BEDROOM
BRCG	BRACING
BRDG	BRIDGING
BRDG JST	BRIDGING JOIST
BRG	BEARING
BRG PL	BEARING PLATE
BRKT	BRACKET
BRZ	BRONZE
BSMT	BASEMENT
BTWN	BETWEEN
BU	BUSHEL
BUR	BUILT-UP ROOFING
C	CELSIUS CHANNEL
C	CHANNEL CELSIUS
C CONC	CAST CONCRETE
C LABEL	CLASS C DOOR
C TO C	CENTER TO CENTER
CAB	CABINET
CAC	CEILING ATTENUATION CLASS
CB	CATCH BASIN OR CORNER BEAD
CBB	CEMENTITIOUS (BACKER) BOARD
CC	CUBIC CENTIMETER
CCTV	CLOSED CIRCUIT TELEVISION
CCW	COUNTERCLOCKWISE
CD	CONSTRUCTION DOCUMENTS OR CONTRACT DOCUMENTS
CEM	CEMENT
CEM PLAS	CEMENT PLASTER
CER	CERAMIC
CF	CONTRACTOR FURNISHED
CF/CI	CONTRACTOR FURNISHED/CONTRACTOR INSTALLED
CF/OI	CONTRACTOR FURNISHED/OWNER INSTALLED
CFLG	COUNTERFLASHING
CFM	CUBIC FEET PER MINUTE
CFMF	COLD-FORMED METAL FRAMING
CFS	CUBIC FEET PER SECOND
CG	CENTER OF GRAVITY OR CORNER GUARD
CGSFU	CERAMIC GLAZED STRUCTURAL FACING UNITS
CH BD	CHALKBOARD
CHEM	CHEMICAL
CHFR	CHAMFER
CHK	CHECK
CI	CAST IRON
CIP	CAST-IN-PLACE
CIR	CIRCLE
CIRC	CIRCULAR
CJ	CONSTRUCTION JOINT OR CONTROL JOINT
CL	CENTER LINE
CLDG	CLADDING
CLG	CEILING
CLG HT	CEILING HEIGHT
CLR	CLEAR
cm²	SQUARE CENTIMETER
cm³	CUBIC CENTIMETER
CM	CONSTRUCTION MANAGEMENT
CMU	CONCRETE MASONRY UNIT
CNR	CORNER
CNTR	COUNTER
CO	CARBON MONOXIDE, CERTIFICATE OF OCCUPANCY, CLEANOUT, OR COMPANY
CO□	CARBON DIOXIDE
COL	COLUMN
COM	COMMON
COMB	COMBINATION, COMBINED
COMM	COMMUNICATION
COMP	COMPONENT
CONC	CONCRETE
CONC FLR	CONCRETE FLOOR
COND	CONDENSER OR CONDITION
CONF	CONFERENCE
CONN	CONNECT
CONSTR	CONSTRUCTION
CONT	CONTINUE
CONTR	CONTRACTOR
COORD	COORDINATE
CORR	CORRIDOR
CPM	CRITICAL PATH METHOD
CPRS	COMPRESSIBLE
CPT	CARPET
CRS	COLD ROLLED STEEL
CRSI	CONCRETE REINFORCING STEEL INSTITUTE
CSB	CONCRETE SPLASH BLOCK
CSG	CASING
CSI	CONSTRUCTION SPECIFICATIONS INSTITUTE
CSK	COUNTER SUNK
CSMT	CASEMENT
CSWK	CASEWORK
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
CTF	CERAMIC TILE FLOOR
CTG	COATING
CTR	CENTER CONTOUR
CTRL	CONTROL
CTV	CABLE TELEVISION
CU	COPPER C
CU FT	CUBIC FEET
CU IN	CUBIC INCH
CU YD	CUBIC YARD
CURT	CURTAIN
CYL	CYLINDER
CYL L	CYLINDER LOCK
D	DEPTH OR PENNY (NAIL)
D LABEL	CLASS D DOOR
DAT	DATUM
DB	DECIBEL
DBL	DOUBLE
DBL GLZ	DOUBLE GLAZE
DC	DIRECT CURRENT
DEG	DEGREE
DEL	DELETE
DEMO	DEMOLITION
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DIA	DIAMETER
DIAG	DIAGONAL DIAGRAM
DIAG	DIAGRAM DIAGONAL
DIFF	DIFFERENCE OR DIFFUSER
DIM	DIMENSION
DIR	DIRECTION
DISP	DISPENSER
DIST	DISTANCE
DIV	DIVIDE OR DIVISION
DL	DEAD LOAD
DOC	DOCUMENT
DOUG FIR	DOUGLAS FIR
DOZ	DOZEN
DR	DOOR, DRAIN, DRESSING ROOM, OR DRIVE
DR CL	DOOR CLOSER
DR FR	DOOR FRAME
DR OPNG	DOOR OPENING
DS	DOWNSPOUT
DSGN	DESIGN
DW	DISHWASHER
DWG	DRAWING
DWTR	DUMBWAITER
E	EAST
E LABEL	CLASS E DOOR
EA	EACH
EFF	EFFICIENCY
EFS	EXTERIOR FINISH SYSTEM
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELAST	ELASTOMERIC
ELEC	ELECTRIC
ELEC DR OP	ELECTRIC DOOR OPENER
ELEV	ELEVATOR
EMER	EMERGENCY
EMER SHR	EMERGENCY SHOWER
ENCL	ENCLOSURE
ENGR	ENGINEER
ENVIR	ENVIRONMENT
EPA	ENVIRONMENTAL PROTECTION AGENCY
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EPO	EMERGENCY POWER OFF
EPS	EXPANDED POLYSTYRENE BOARD (INSULATION)
EQ	EQUAL
EQL SP	EQUALLY SPACED
EQUIP	EQUIPMENT
EQUIV	EQUIVALENT
ERD	EXISTING ROOF DRAIN
ESC	ESCAPE OR ESCUTCHEON
ESCAL	ESCALATOR
ESMT	EASEMENT
ESP	ESPECIALLY
EST	ESTIMATE
ETC	AND SO FORTH OR ET CETERA
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWS	EYE WASH STATION
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION OR EXPOSED
EXP BT	EXPANSION BOLT
EXST GR	EXISTING GRADE
EXT	EXTERIOR, EXTERNAL, OR EXTINGUISHER
EXT GR	EXTERIOR GRADE
F	FAHRENHEIT OR FEMALE
FA	FIRE ALARM
FAB	FABRIC
FAC	FACTOR
FACIL	FACILITY
FAS	FASCIA
FAS BD	FASCIA BOARD
FCO	FLOOR CLEANOUT
FCTY	FACTORY
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT CONNECTION
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FACE
FF EL	FINISH FLOOR ELEVATION
FF&E	FURNITURE, FIXTURE, AND EQUIPMENT
FH	FLAT HEAD OR FLAT HEAD SCREWS
FHC	FIRE HOSE CABINET
FHMS	FLAT HEAD MACHINE SCREW
FHP	FULL HEIGHT PARTITION
FHWS	FLAT HEAD WOOD SCREW
FIG	FIGURE
FIL	FILLET
FIN	FINISH
FIN FLR	FINISH FLOOR
FIN GR	FINISH GRADE
FIN WD	FINISH WOOD
FIXT	FIXTURE
FL	FLOORLINE
FLASH	FLASHING
FLDG	FOLDING
FLEX	FLEXIBLE
FLG	FLOORING
FLR	FLOOR
FLR FIN	FLOOR FINISH
FLR SK	FLOOR SINK
FLUOR	FLUORESCENT
FLUOR FIX	FLUORESCENT FIXTURE
FM	FACTORY MUTUAL
FM-G	FACTORY MUTUAL GLOBAL
FO	FINISHED OPENING
FOC	FACE OF CONCRETE OR FACE OF CURB
FOF	FACE OF FINISH
FOM	FACE OF MASONRY
FOS	FACE OF SLAB OR FACE OF STUD
FOUNT	FOUNTAIN
FOW	FACE OF WALL
FP	FIRE PROTECTION OR FIREPROOF
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FR	FIRE RATING, FIRE RESISTANT, OR FRAME
FR SNK	FLUSHING RIM SINK
FREQ	FREQUENCY
FRMG	FRAMING
FRP	FIBER REINFORCED POLYESTER OR FIBERGLASS REINFORCED PLASTIC
FRZ	FREEZER
FS	FEDERAL SPECIFICATION
FSTNR	FASTENER
FT	FEET OR FOOT
FTG	FOOTING
FURG	FURRING
FURN	FURNISH OR FURNITURE
FUT	FUTURE
FWC	FABRIC WALLCOVERING
GA	GAGE OR GYPSUM ASSOCIATION
GAL	GALLON
GALV	GALVANIC OR GALVANIZED
GALV STL	GALVANIZED STEEL
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GD	GUARD
GDR	GUARD RAIL
GEN	GENERAL OR GENERATOR
GFRC	GLASS-FIBER-REINFORCED CONCRETE
GFRG	GLASS-FIBER-REINFORCED GYPSUM
GFRP	GLASS-FIBER-REINFORCED PLASTIC
GI	GALVANIZED IRON
GL	GLASS
GL BLK	GLASS BLOCK
GLU LAM	GLUED LAMINATED WOOD
GR FL	GROUND FLOOR
GRAN	GRANITE
GRTG	GRATING
GSB	GYPSUM SHEATHING BOARD
GSM	GALVANIZED SHEET METAL
GSU	GLAZED STRUCTURAL UNIT
GT	GROUT
GUAR	GUARANTEE
GUT	GUTTER
GYP	GYPSUM
GYP BD	GYPSUM BOARD
GYP PLAS	GYPSUM PLASTER
H	HIGH
H PLAM	HIGH PRESSURE PLASTIC LAMINATE
HAZ MAT	HAZARDOUS MATERIALS
HB	HOSE BIBB
HC	HOLLOW CORE
HCWD	HOLLOW CORE WOOD DOOR
HDBD	HARDBOARD
HDNR	HARDENER
HDO	HIGH DENSITY OVERLAY
HDR	HEADER
HDW	HARDWARE
HDWD	HARDWOOD
HEPA	HIGH EFFICIENCY PARTICULATE AIR (FILTER)
HEX	HEXAGON
HF	HIGH FREQUENCY
HGR	HANGER
HM	HECTOMETER
HM	HOLLOW METAL
HMD	HOLLOW METAL DOOR
HMDF	HOLLOW METAL DOOR AND FRAME
HMF	HOLLOW METAL FRAME
HNDRL	HANDRAIL
HO	HOLD OPEN
HORIZ	HORIZONTAL
HOSP	HOSPITAL
HP	HIGH PRESSURE OR HORSEPOWER
HQ	HEADQUARTERS
HS	HEAT-STRENGTHENED (GLASS) OR HIGH STRENGTH
HSE	HOUSE
HSKPG	HOUSEKEEPING
HST	HOIST
HT	HEIGHT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
HVY	HEAVY
HW	HOT WATER
HYD	HYDRANT
HYDR	HYDRAULIC
I	INTERSTATE (HIGHWAY) OR MOMENT OF INERTIA
IAQ	INDOOR AIR QUALITY
IBC	INTERNATIONAL BUILDING CODE
ID	IDENTIFICATION, INSIDE DIAMETER, OR INTERIOR DESIGN
ID NO	IDENTIFICATION NUMBER
ILLUM	ILLUMINATION
INCL	INCLUDED
IND	INDEPENDENT OR INDUSTRIAL
INFO	INFORMATION
INSUL	INSULATION
INT	INTERIOR
INTERCOM	INTERCOMMUNICATION
INTL	INTERNATIONAL
IRMA	INVERTED ROOF MEMBRANE ASSEMBLY
IWH	INSTANTANEOUS WATER HEATER
JAN	JANITOR
J-BOX	JUNCTION BOX
KD	KILN DRIED OR KNOCKED DOWN
KIT	KITCHEN
KO	KNOCKOUT
KPL	KICKPLATE
L	ANGLE
LAB	LABORATORY
LAD	LADDER
LAM	LAMINATE
LAM GL	LAMINATED GLASS
LAU	LAUNDRY
LAV	LAVATORY
LBR	LUMBER
LBS	POUND
LD BRG	LOAD-BEARING
LDR	LEADER
LED	LIGHT EMITTING DIODE
LF	LINEAR FEET (FOOT)
LH	LEFT HAND
LHR	LEFT HAND REVERSE
LHR	LATENT HEAT RATIO
LIB	LIBRARY
LIN	LINEAR
LINO	LINOLEUM
LIQ	LIQUID
LKR	LOCKER
LKR RM	LOCKER ROOM
LKWASH	LOCKWASHER
LL	LEAD LINED
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LMST	LIMESTONE
LNDSCP	LANDSCAPE
LR	LIVING ROOM
LRG	LARGE
LRV	LOUVERED ROOF VENT
LS	LUMP SUM
LT	LIGHT
LT GA	LIGHT GAGE
LT WT	LIGHTWEIGHT
LTG	LIGHTING
LTNG	LIGHTNING
LVD	LOUVERED
LVR	LOUVER
LWC	LIGHTWEIGHT CONCRETE
LWIC	LIGHTWEIGHT INSULATING CONCRETE
LYR	LAYER
MACH	MACHINE
MACH RM	MACHINE ROOM
MAINT	MAINTENANCE
MAN	MANUAL
MATL	MATERIAL
MATV	MASTER ANTENNA TELEVISION SYSTEM
MAX	MAXIMUM
MB	MACHINE BOLT
MCB	METAL CORNER BEAD
MD	DECK
ME	MECHANICAL ENGINEER
MEAS	MEASURE
MECH	MECHANICAL
MECH RM	MECHANICAL ROOM
MED	MEDICAL MEDIUM
MED	MEDIUM MEDICAL
MEK	METHYL ETHYL KETONE
MEL	MELAMINE
MEMB	MEMBRANE
MEMO	MEMORANDUM
MEZZ	MEZZANINE
MF	MILL FINISH
MFD	MANUFACTURED
MFG	MANUFACTURING
MFR	MANUFACTURER
MFR REC	MANUFACTURER'S RECOMMENDATION
MGT	MANAGEMENT
MH	MANHOLE
MIC	MICROPHONE
MID	MIDDLE
MIL STD	MILITARY STANDARD
MIN	MINIMUM MINUTE
MIN	MINUTE MINIMUM
MIRR	MIRROR
MISC	MISCELLANEOUS
MIT	MITER
MKR	MARKER
ML	METAL LATH
MLDG	MOLDING (MOULDING)
MLWK	MILLWORK
mm	MILLIMETER
MO	MASONRY OPENING OR MOTOR OPERATED
MOD	MODEL, MODIFY OR MODULE
MOD BIT	MODIFIED BITUMEN
MON	MONITOR
MOPR	MOP RACK
MR	MOISTURE RESISTANT
MS	MACHINE SCREW OR MOP SINK
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
MULL	MULLION
MW	MICROWAVE
MWP	MEMBRANE WATERPROOFING
N	NORTH
NA	NOT APPLICABLE
NAAMM	NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS
NAT	NATURAL
NATL	NATIONAL
NC	NOISE CRITERIA
NCOMBL	NONCOMBUSTIBLE
NEC	NATIONAL ELECTRICAL CODE
NEG	NEGATIVE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEUT	NEUTRAL
NFC	NATIONAL FIRE CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NR	NOISE REDUCTION
NRC	NOISE REDUCTION COEFFICIENT
NRCA	NATIONAL ROOFING CONTRACTORS ASSOCIATION
NRP	NONREMOVABLE
NS	NARROW STILE
NUM	NUMERAL
O/O	OUT TO OUT
O	OXYGEN
OA	OUTSIDE AIR OR OVERALL
OC	ON CENTER
OCC	OCCUPY
OCT	OCTAGON
OD	OUTSIDE DIMENSION
OD	OUTSIDE DIAMETER
OF/CI	OWNER FURNISHED/CONTRACTOR INSTALLED
OFD	OVERFLOW DRAIN
OFF	OFFICE
OF/OI	OWNER FURNISHED/OWNER INSTALLED
OH	OVERHANG
OH DR	OVERHEAD (COILING) DOOR
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OPR	OPERABLE
OPT	OPTIONAL
OR	OPERATING ROOM OR OUTSIDE RADIUS
ORD	ORDINANCE OR OVERFLOW ROOF DRAIN
ORG	ORGANIC
ORIG	ORIGINAL
ORN	ORNAMENTAL
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINSTRATION
OUT	OUTLET
OZ	OUNCE
PAR	PARALLEL OR PARAPET
PARA	PARAGRAPH
PART	PARTIAL
PAT	PATTERN
PB	PUSH BUTTON
PBD	PARTICLEBOARD
PC	PIECE, POLYCARBONATE OR PORTLAND CEMENT
PCA	PORTLAND CEMENT ASSOCIATION
PCC	PRECAST CONCRETE
PCCP	CONCRETE PAVEMENT
PCD	PAPER CUP DISPENSER
PCF	POUNDS PER CUBIC FOOT
PCP	PORTLAND CEMENT PLASTER
PED	PEDESTAL
PEN	PENETRATE
PEND	PENDANT
PERF	PERFORATED
PERIM	PERIMETER
PERP	PERPENDICULAR
PGBD	PEGBOARD
PHAR	PHARMACY
PHOTO	PHOTOGRAPH
PHS	PHILLIPS HEAD SCREW
PKG	PACKAGE
PL	PROPERTY LINE
PL GL	PLATE GLASS
PLAM	PLASTIC LAMINATE
PLAS	PLASTER OR PLASTIC
PLBG	PLUMBING
PLYWD	PLYWOOD
PMTL	PAINTED METAL
PNEU	PNEUMATIC
PNL	PANEL
PO	POST OFFICE PURCHASE ORDER
PO	PURCHASE ORDER POST OFFICE
POLY	POLYETHYLENE (PLASTIC) PR PAIR
PRCST	PRECAST
PREFAB	PREFABRICATE
PREFIN	PREFINISH
PRELIM	PRELIMINARY
PREP	PREPARATION
PRESS	PRESSURE
PREV	PREVIOUS
PRKG	PARKING
PRMLD	PREMOLDED
PROJ	PROJECT
PROP	PROPERTY
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PAINT, PNEUMATIC TUBE, OR PRESSURE TREATED
PTD	PAPER TOWEL DISPENSER
PTN	PARTITION
PVC	POLYVINYL CHLORIDE (PLASTIC)
PVG	PAVING
PWR	POWER
QA	QUALITY ASSURANCE
QC	QUALITY CONTROL
QRY	QUARRY
QT	QUARRY TILE
QTB	QUARRY TILE BASE
QTF	QUARRY TILE FLOOR
QTR	QUARTER
QTY	QUANTITY
QUAD	QUADRANT
QUAL	QUALITY
R	RADIUS OR RISER
RA	RETURN AIR
RAD	RADIATOR
RB	RESILIENT BASE OR RUBBER BASE
RB HK	ROBE HOOK
RBM	REINFORCED BRICK MASONRY
RBR	RUBBER
RCP	REFLECTED CEILING PLAN
RCVR	RECEIVER
RD	ROAD OR ROOF DRAIN
REC	RECESSED
RECD	RECEIVED
RECPT	RECEPTACLE
RECT	RECTANGLE
REF	REFERENCE OR REFRIGERATOR
REFR	REFRACTORY REFRIGERATION
REFR	REFRIGERATION REFRACTORY
REG	REGISTER
REINF	REINFORCE
REP	REPAIR
REPL	REPLACE
REQ	REQUIRE
REQD	REQUIRED
RESIL	RESILIENT
RET	RETURN
REV	REVISION
RF	RADIO FREQUENCY
RFG	ROOFING
RFI	REQUEST FOR INFORMATION
RFP	REQUEST FOR PROPOSAL
RH	RIGHT HAND
RHMS	ROUND HEAD MACHINE SCREW
RHR	RIGHT HAND REVERSE
RHWS	ROUND HEAD WOOD SCREW
RL	ROOF LEADER
RLG	RAILING
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RPM	REVOLUTIONS PER MINUTE
RS	ROUGH SAWN
RT	RIGHT
RV	ROOF VENT
RVS	REVERSE
RWD	REDWOOD
RWL	RAIN WATER LEADER
SA	SUPPLY AIR
SALV	SALVAGE
SAMP	SAMPLE
SAN	SANITARY
SAT	SUSPENDED ACOUSTICAL TILE
SATC	SUSPENDED ACOUSTICAL TILE CEILING
SB	SPLASH BLOCK
SBS	STYRENE BUTADIEN STYRENE
SBSTR	SUBSTRATE
SC	SHADING COEFFICIENT OR SOLID CORE
SCH	SCHOOL
SCHED	SCHEDULE
SCHEM	SCHEMATIC
SCP	SCUPPER
SCRN	SCREEN
SCT	STRUCTURAL CLAY TILE
SCWD	SOLID CORE WOOD DOOR
SD	SHOP DRAWINGS, SMOKE DETECTOR, OR SOAP DISPENSER;
SDG	SIDING
SECT	SECTION
SEG	SEGMENT
SEL	SELECT
SEP	SEPARATE
SF	SQUARE FOOT (FEET)
SFTWD	SOFTWOOD
SGD	SLIDING GLASS DOOR
SGL	SINGLE
SHR	SHOWER
SHR HD	SHOWER HEAD
SHRD	SHOWER DRAIN
SHT	SHEET
SHT MTL	FLASH SHEET METAL (FLASHING)
SHTHG	SHEATHING
SHV	SHELVING
SIM	SIMILAR
SJ	SCORED JOINT
SJI	STEEL JOIST INSTITUTE
SK	SKETCH
SKLT	SKYLIGHT
SLD WDW	HORIZONTAL SLIDING WINDOW
SLDG	SLIDING
SLNT	SEALANT
SM	SHEET METAL
SMK	SMOKE
SND	SANITARY NAPKIN DISPENSER
SND INS	SOUND INSULATION
SNDU	SANITARY NAPKIN DISPOSAL UNIT
SPEC	SPECIFICATION
SPKLR	SPRINKLER
SPKR	SPEAKER
SPLY	SUPPLY
SQ	SQUARE
SQ IN	SQUARE INCH
SQ YD	SQUARE YARD
SS SANITARY	SEWER OR SERVICE SINK
SST	STAINLESS STEEL
ST	STAIRS OR STREET
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STIF	STIFFENER
STL JST	STEEL JOIST
STL LNTL	STEEL LINTEL
STL PL	STEEL PLATE
STL RF DK	STEEL ROOF DECK
STL TB	STEEL TUBE
STL TR	STEEL TRUSS
STNLS	STAINLESS
STOR	STORAGE
STR	STRINGERS
STRUCT	STRUCTURAL
STRUCT STL	STRUCTURAL STEEL
SUB	SUBSTITUTE
SURF	SURFACE
SUSP	SUSPEND
SUSP CLG	SUSPENDED CEILING
SV	SHEET VINYL
SW	SWITCH
SWDR	SWING DOOR
SYM	SYMBOL
SYNTH	SYNTHETIC
SYS	SYSTEM
T	TREAD
T&G	TONGUE AND GROOVE
T&M	TIME AND MATERIALS
TB	THROUGH BOLT OR TOWEL BAR
TCA	TILE COUNCIL OF AMERICA
TCP	TELEPHONE CONTROL PANEL
	TEMPERATURE CONTROL PANEL; TRAFFIC CONTROL PLAN
TD	TOWEL DISPENSER
TECH	TECHNICAL
TEL	TELEPHONE
TEMP	TEMPERATURE OR TEMPORARY
TER	TERRAZZO
THD	THREAD
THERM	THERMAL
THK	THICKNESS
THRES	THRESHOLD
THRU	THROUGH
THRUOUT	THROUGHOUT
TK BD	TACKBOARD
TMPD	TEMPERED
TMPD GL	TEMPERED GLASS
TN	TRUE NORTH
TO	TOP OF ___
TO FDN	TOP OF FOUNDATION
TOB	TOP OF BEAM
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET
TOS	TOP OF STEEL
TOW	TOP OF WALL
TPD	TOILET PAPER DISPENSER
TPH	TOILET PAPER HOLDER
TR	TOWEL RACK
TRANS	TRANSOM
TRANS WD FIN	TRANSPARENT WOOD FINISH
TRTD	TREATED
TS	TENSILE STRENGTH OR TUBE STEEL
TSTAT	THERMOSTAT
TV	TELEVISION
TYP	TYPICAL
U	HEAT TRANSFER COEFFICIENT
UC	UNDERCUT
UCD	UNDERCUT DOOR
UGND	UNDERGROUND
UL	UNDERWRITERS LABORATORIES
ULT	ULTIMATE
UNFIN	UNFINISH
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UR	URINAL
UTIL	UTILITY
UV	ULTRAVIOLET
V	VOLT
VAC	VACUUM
VAR	VARIES
VCT	VINYL COMPOSITION TILE
	VITRIFIED CLAY TILE
VEH	VEHICLE
VENT	VENTILATION
VERT	VERTICAL
VEST	VESTIBULE
VFAT	VINYL FACED ACOUSTICAL TILE
VIC	VICINITY
VID	VIDEO
VIF	VERIFY IN FIELD
VNR	VENEER
VOC	VOLATILE ORGANIC COMPOUND
VOL	VOLUME
VOLT	VOLTAGE
VP	VENEER PLASTER
VR	VAPOR RETARDER
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
VWF	VINYL WALL FABRIC
W	WIDE OR WEST
W/	WITH
W/O	WITHOUT
WARR	WARRANTY
WBL	WOOD BLOCKING
WC	WALL COVERING OR WATER CLOSET
WC WL HNG	WATER CLOSET, WALL HUNG
WCHR	WATER CHILLER
WCL WL MTD	WATER COOLER, WALL HUNG
WD	WOOD
WDW	WINDOW
WF	WIDE FLANGE
WFAB	WALL FABRIC
WFR	WOOD FRAME
WFS	WOOD FURRING STRIPS
WH	WATER HEATER
WHSE	WAREHOUSE
WLD	WELDED
WM	WIRE MESH
WP	WATERPROOFING
WPD	WATER PRESSURE DROP
WPM	WATERPROOF MEMBRANE
WR	WEATHER RESISTANT
WS	WEATHERSTRIP
WSCT	WAINSCOT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
X	BRACE CROSS BRACE
XPS	EXTRUDED POLYSTYRENE BOARD (INSULATION)
YD	YARD
YR	YEAR

FINAL BID DOCUMENTS

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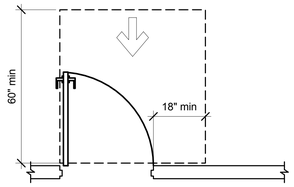
Drawing Title	ABBREVIATIONS
Approved: Project Director	
Project Title	VA PALO ALTO BLDG 6 LAB RENOVATION
Project Number	640-13-121P
Building Number	6
Location	VAPAHCS, PALO ALTO CAMPUS 3801 MIRANDA AVE. PALO ALTO, CA 94304
Date	04.17.2014
Checked	M.H.
Drawn	J.P.
Drawing Number	A0.01
Dwg.	of

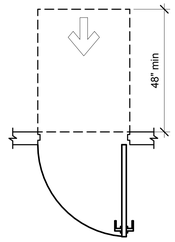
Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231



(A) FRONT APPROACH, PULL SIDE



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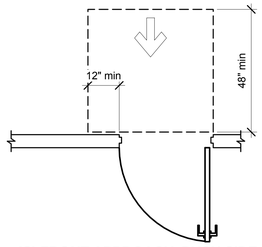
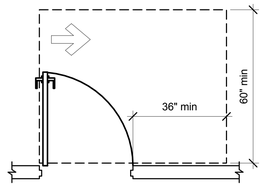


(C) FRONT APPROACH, PUSH SIDE, DOOR PROVIDED WITH BOTH CLOSER AND LATCH



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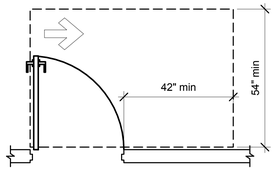

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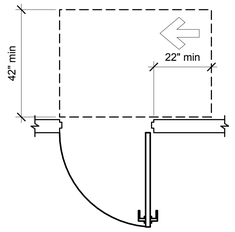

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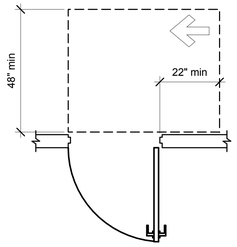
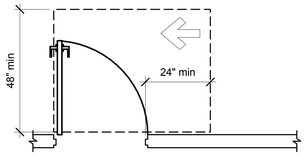
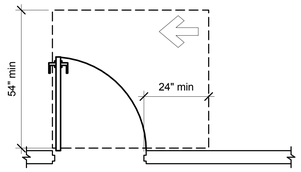


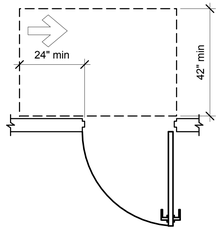
(G) HINGE APPROACH, PUSH SIDE, DOOR PROVIDED WITH BOTH CLOSER AND LATCH



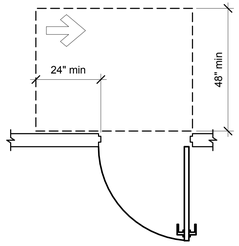
(H) LATCH APPROACH, PULL SIDE



(I) LATCH APPROACH, PULL SIDE, DOOR PROVIDED WITH CLOSER



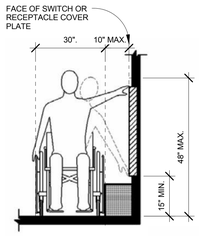
(J) LATCH APPROACH, PUSH SIDE



(K) LATCH APPROACH, PUSH SIDE, DOOR PROVIDED WITH CLOSER

MANEUVERING CLEARANCES AT MANUAL SWINGING DOORS & GATES

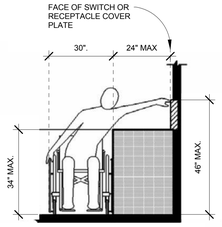
30



NOTE:

THE 30" BY 48" WHEELCHAIR CLEAR FLOOR SPACE IS LOCATED A MAX 10" FROM THE WALL

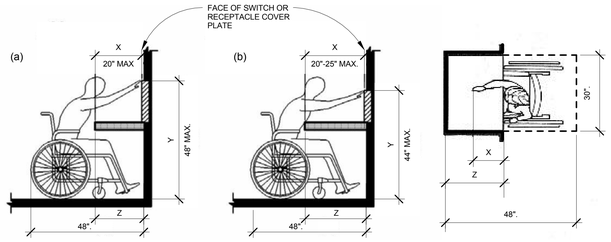
15 HIGH AND LOW - SIDE REACH LIMITS



NOTE:

IF THE DEPTH OF THE OBSTRUCTION IS 24" AND THE MAXIMUM HEIGHT OF THE OBSTRUCTION IS 34", THE MAXIMUM HIGH SIDE REACH OVER THE OBSTRUCTION IS 46"

16 MAXIMUM SIDE REACH OVER OBSTRUCTION

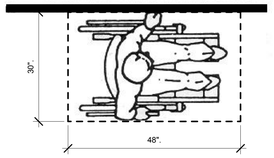


NOTE:

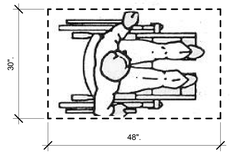
X SHALL BE ≤ 25"; Z SHALL BE >X, WHEN X <20", THEN Y SHALL BE 48" MAXIMUM. WHEN X IS 20 TO 25", THEN Y SHALL BE 44" MAXIMUM.

THE MAXIMUM LEVEL FORWARD REACH OVER AN OBSTRUCTION WITH KNEE SPACE BELOW IS 25". WHEN THE OBSTRUCTION IS LESS THAN 20" DEEP, THE MAXIMUM HIGH FORWARD REACH IS 48". WHEN THE OBSTRUCTION PROJECTS 20 TO 25", THE MAXIMUM HIGH FORWARD REACH IS 44"

17 MAXIMUM FORWARD REACH OVER OBSTRUCTION



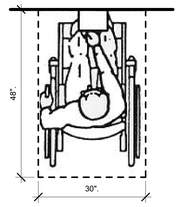
26 PARALLEL APPROACH



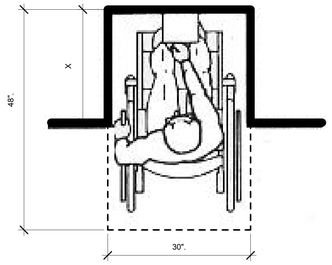
NOTE:

CLEAR FLOOR SPACE SHOWN TO BE 30 BY 48 INCHES MINIMUM.

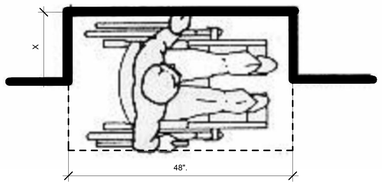
27 CLEAR FLOOR SPACE



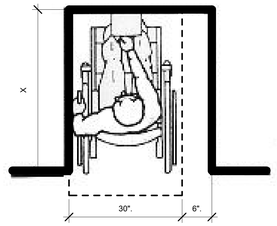
28 FORWARD APPROACH



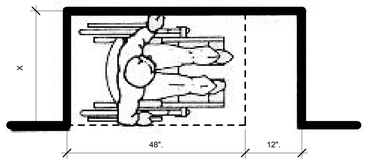
NOTE: X<24"



NOTE: X<15"



NOTE: IF X>24" , THEN AN ADDITIONAL MANEUVERING CLEARANCE OF 6" SHALL BE PROVIDED AS SHOWN.



NOTE: IF X>15", THEN AN ADDITIONAL MANEUVERING CLEARANCE OF 13" PROVIDED AS SHOWN.

NOTE:

FOR A FRONT APPROACH, WHERE THE DEPTH OF THE ALCOVE IS EQUAL TO OR LESS THAN 24", THE REQUIRED CLEAR FLOOR SPACE IS 30" BY 48".

FOR A SIDE APPROACH, WHERE THE DEPTH OF THE ALCOVE IS EQUAL TO OR LESS THAN 15", THE REQUIRED CLEAR FLOOR SPACE IS 30" BY 48".

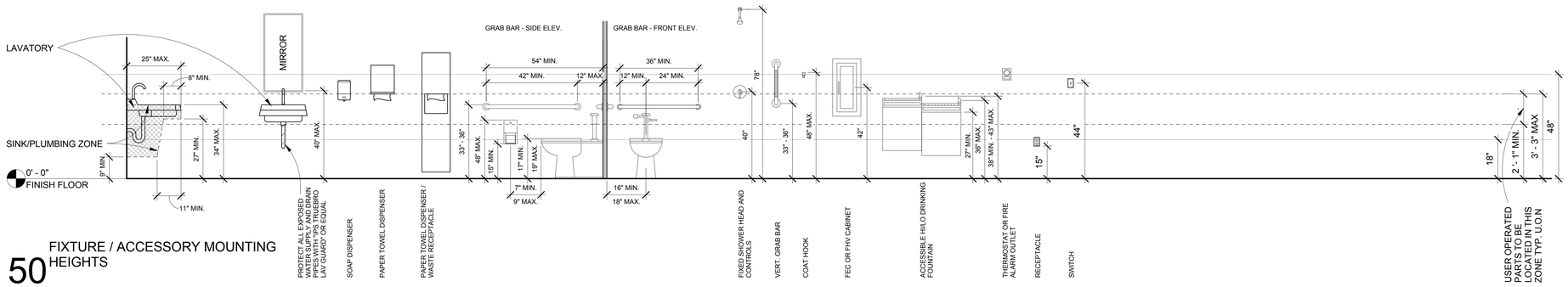
34 CLEAR ALCOVE APPROACH

NOTE:

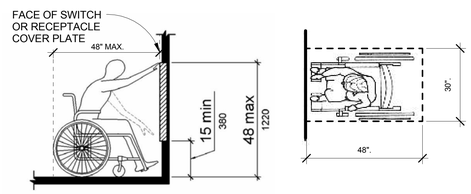
FOR A FRONT APPROACH, IF THE DEPTH OF THE ALCOVE IS GREATER THAN 24", THEN IN ADDITION TO THE 30" WIDTH, A MANEUVERING CLEARANCE OF 6" IN WIDTH IS REQUIRED.

FOR A SIDE APPROACH, WHERE THE DEPTH OF THE ALCOVE IS GREATER THAN 15 " THEN IN ADDITION TO THE 48 " LENGTH, AN ADDITIONAL MANEUVERING CLEARANCE OF 12" LENGTH IS REQUIRED.

36 ADDITIONAL MANEUVERING CLEARANCE FOR ALCOVES



50 FIXTURE / ACCESSORY MOUNTING HEIGHTS



NOTE:

FORWARD REACH RANGE SHOWN IN PROFILE AND PLAN VIEW TO BE 48 INCHES MAXIMUM AND 15 INCHES MINIMUM.

57 HEIGHT FORWARD REACH LIMIT

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Drawing Title: ACCESSIBILITY REQUIREMENTS

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Project Number: 640-13-121P

Building Number: 6

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: Author

Drawing Number: A0.02

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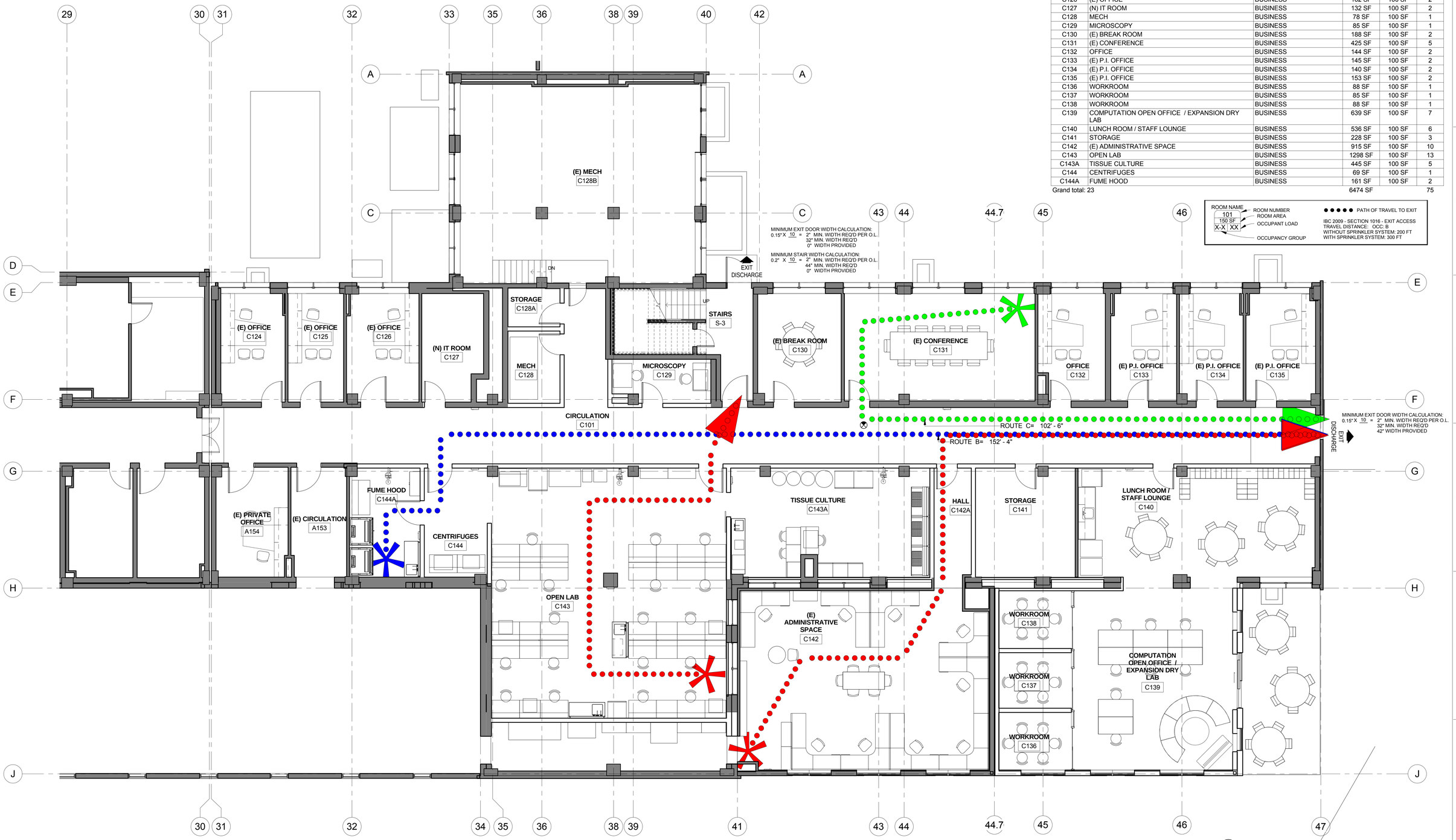
Department of Veterans Affairs

OCCUPANCY PER NFPA TABLE 7.3.1.2 - LAB LEVEL 1					
ROOM NUMBER	ROOM NAME	OCCUPANCY TYPE	AREA	O.L.F.	O.L.
FIRST FLOOR					
C124	(E) OFFICE	BUSINESS	145 SF	100 SF	2
C125	(E) OFFICE	BUSINESS	125 SF	100 SF	2
C126	(E) OFFICE	BUSINESS	162 SF	100 SF	2
C127	(N) IT ROOM	BUSINESS	132 SF	100 SF	2
C128	MECH	BUSINESS	78 SF	100 SF	1
C129	MICROSCOPY	BUSINESS	85 SF	100 SF	1
C130	(E) BREAK ROOM	BUSINESS	188 SF	100 SF	2
C131	(E) CONFERENCE	BUSINESS	425 SF	100 SF	5
C132	OFFICE	BUSINESS	144 SF	100 SF	2
C133	(E) P.I. OFFICE	BUSINESS	145 SF	100 SF	2
C134	(E) P.I. OFFICE	BUSINESS	140 SF	100 SF	2
C135	(E) P.I. OFFICE	BUSINESS	153 SF	100 SF	2
C136	WORKROOM	BUSINESS	88 SF	100 SF	1
C137	WORKROOM	BUSINESS	85 SF	100 SF	1
C138	WORKROOM	BUSINESS	88 SF	100 SF	1
C139	COMPUTATION OPEN OFFICE / EXPANSION DRY LAB	BUSINESS	639 SF	100 SF	7
C140	LUNCH ROOM / STAFF LOUNGE	BUSINESS	536 SF	100 SF	6
C141	STORAGE	BUSINESS	228 SF	100 SF	3
C142	(E) ADMINISTRATIVE SPACE	BUSINESS	915 SF	100 SF	10
C143	OPEN LAB	BUSINESS	1298 SF	100 SF	13
C143A	TISSUE CULTURE	BUSINESS	445 SF	100 SF	5
C144	CENTRIFUGES	BUSINESS	69 SF	100 SF	1
C144A	FUME HOOD	BUSINESS	161 SF	100 SF	2
Grand total: 23			6474 SF		75



1 FIRST FLOOR - EGRESS DIAGRAM

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Drawing Title: EGRESS DIAGRAM

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: Author

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A0.03

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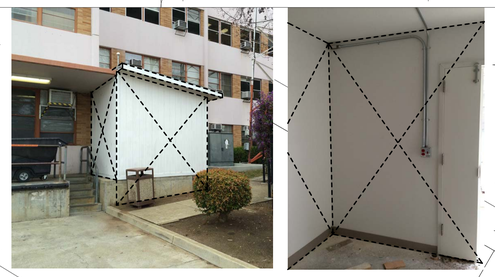

2 (E) SHED TO DEMO'D

ME BUILDING

BUILDING MB-2

BUILDING MB-1

BUILDING 6

BUILDING T6A

PARKING LOT M

BUILDING 5

NOTES:

1. CONTRACTOR MUST SURVEY FOR UNDERGROUND UTILITIES PRIOR TO EXCAVATION.

DEMO (E) SHED AND CONC. SLAB BELOW.

MAIN ENTRY, BUILDING 6

LIMIT OF CONSTRUCTION FENCE

(E) SIDEWALK

COMPLETELY REMOVE 3 (E) TREES

REMOVE (E) SHRUBS & TOPSOIL; FILL & PREP FOR (N) SLABS

NOTES:

1. CAP (E) IRRIGATION LINES, REMOVE SPRINKLER HEADS. PROVIDE BY-PASS LINES IF NECESSARY TO RECONNECT SUPPLY TO SPRINKLER HEADS OUTSIDE OF SCOPE OF WORK.
2. REPLACE AND REPAIR LANDSCAPING IN AREAS DAMAGED DURING CONSTRUCTION.

1 SITE PLAN

0' 16' 32' 64'

NORTH

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Revision 1	05.02.2014

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www.HilliardArchitects.com

Drawing Title: SITE PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: M.U.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A1.00

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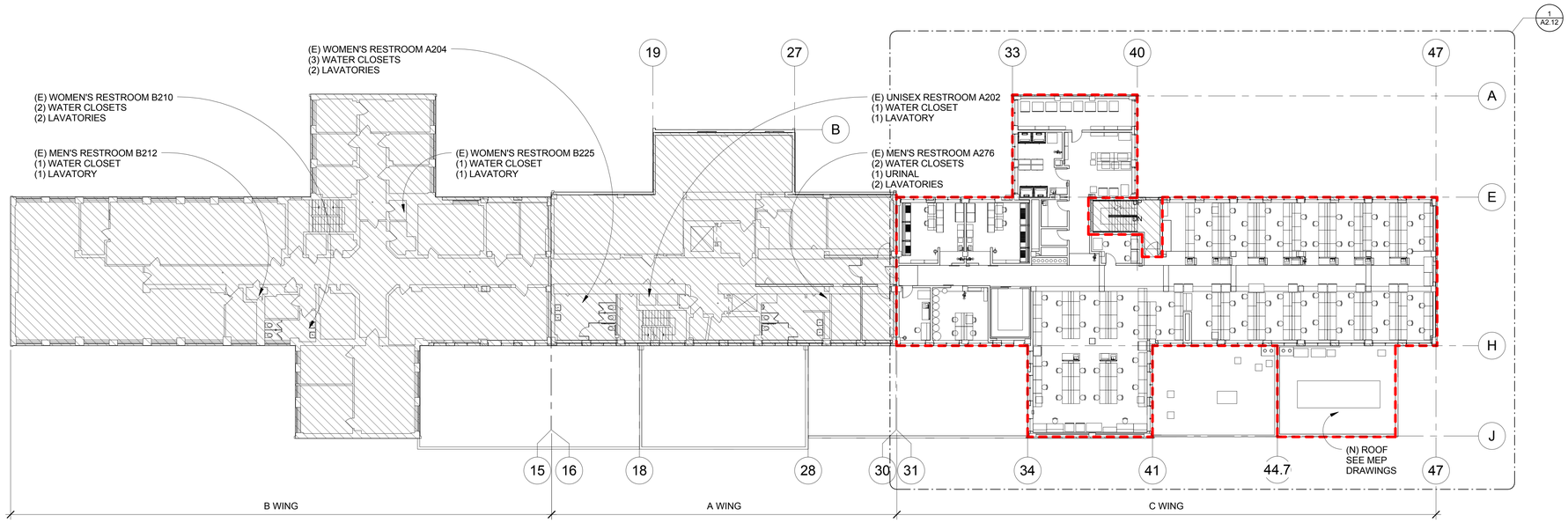
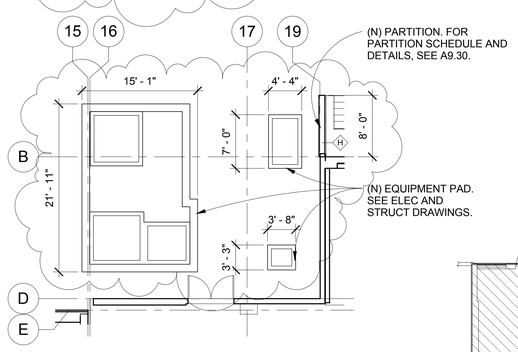


2 OVERALL BUILDING PLAN - SECOND FLOOR

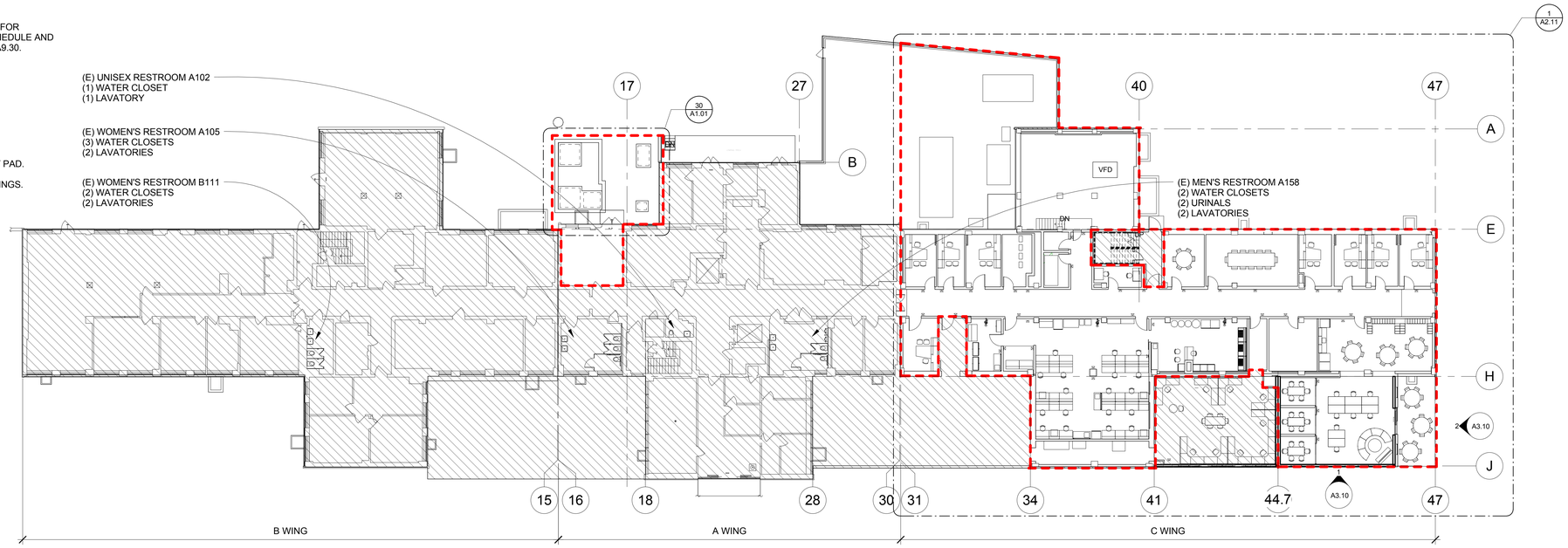
NOTES:

1. CONTRACTOR MUST SURVEY FOR UNDERGROUND UTILITIES PRIOR TO EXCAVATION.



30 ENLARGED PLAN - "A" WING EXTERIOR YD

0' 8' 16' 32'



1 OVERALL BUILDING PLAN - FIRST FLOOR

LEGEND

AREA OF NO WORK

BOUNDARY OF WORK

0' 16' 32' 64' NORTH

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Drawing Title: OVERALL BUILDING PLANS

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A1.01

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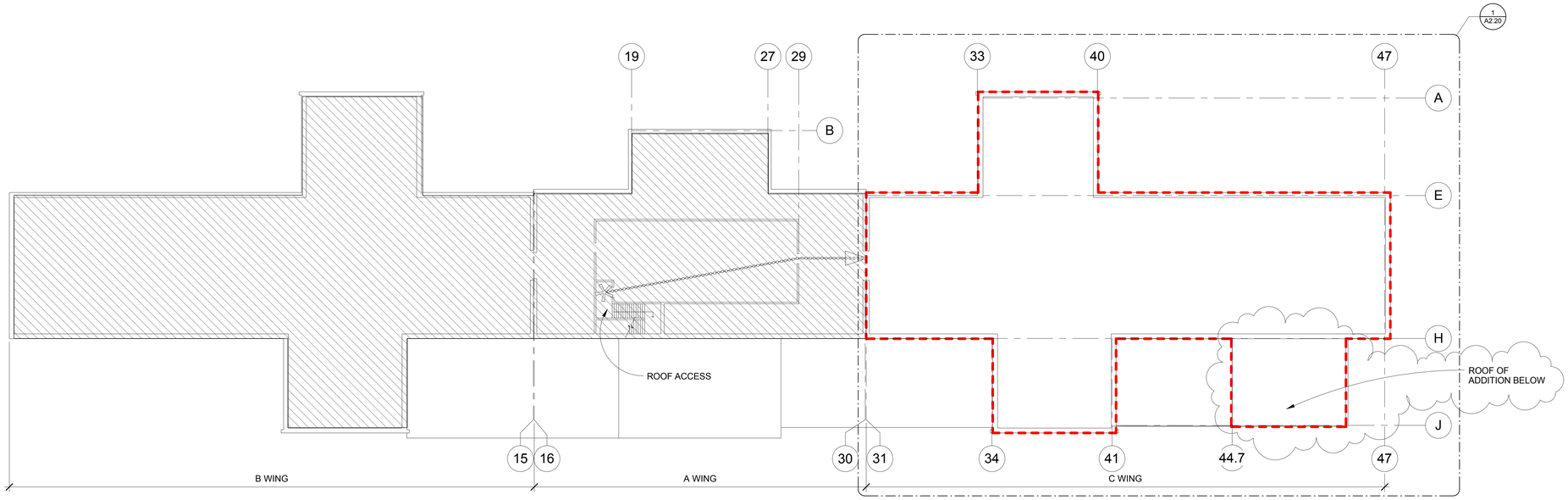
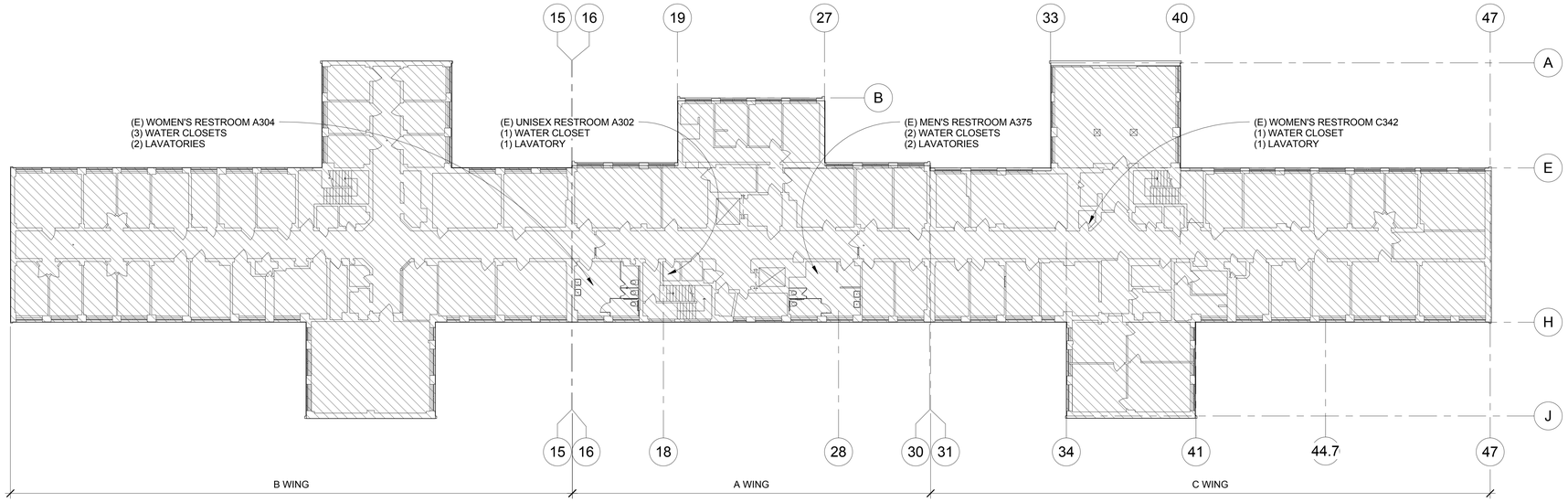


4 OVERALL BUILDING PLAN - ROOF



3 OVERALL BUILDING PLAN - THIRD FLOOR

0' 16' 32' 64'

NORTH

LEGEND

AREA OF NO WORK

BOUNDARY OF WORK

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Drawing Title: OVERALL BUILDING PLANS

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A1.02

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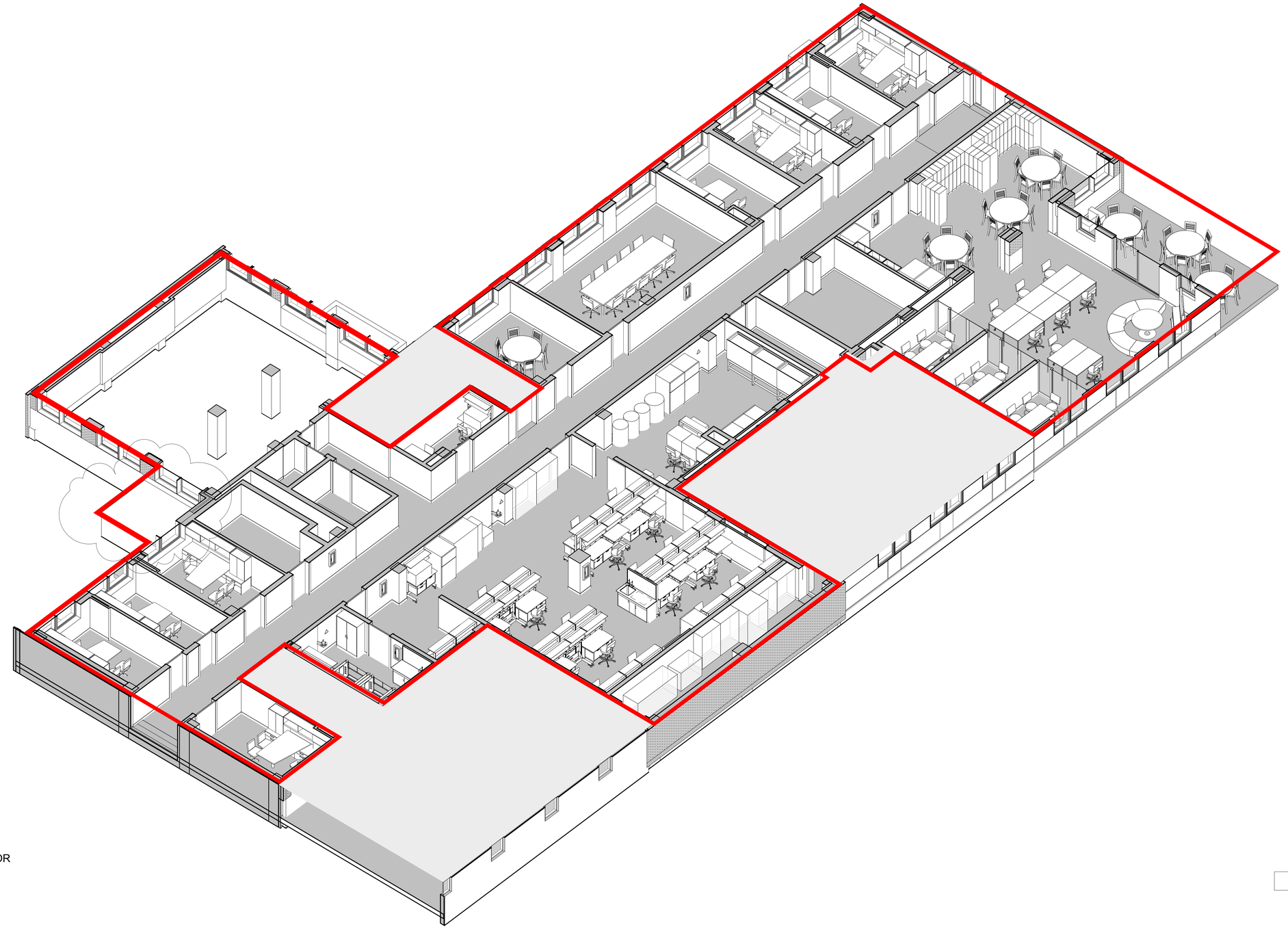
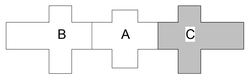


1 3D - FIRST FLOOR



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Tel 415 989 6400, Fax 415 989 3056
www.HilliardArchitects.com

Drawing Title: 3D VIEW - FIRST FLOOR

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A1.11

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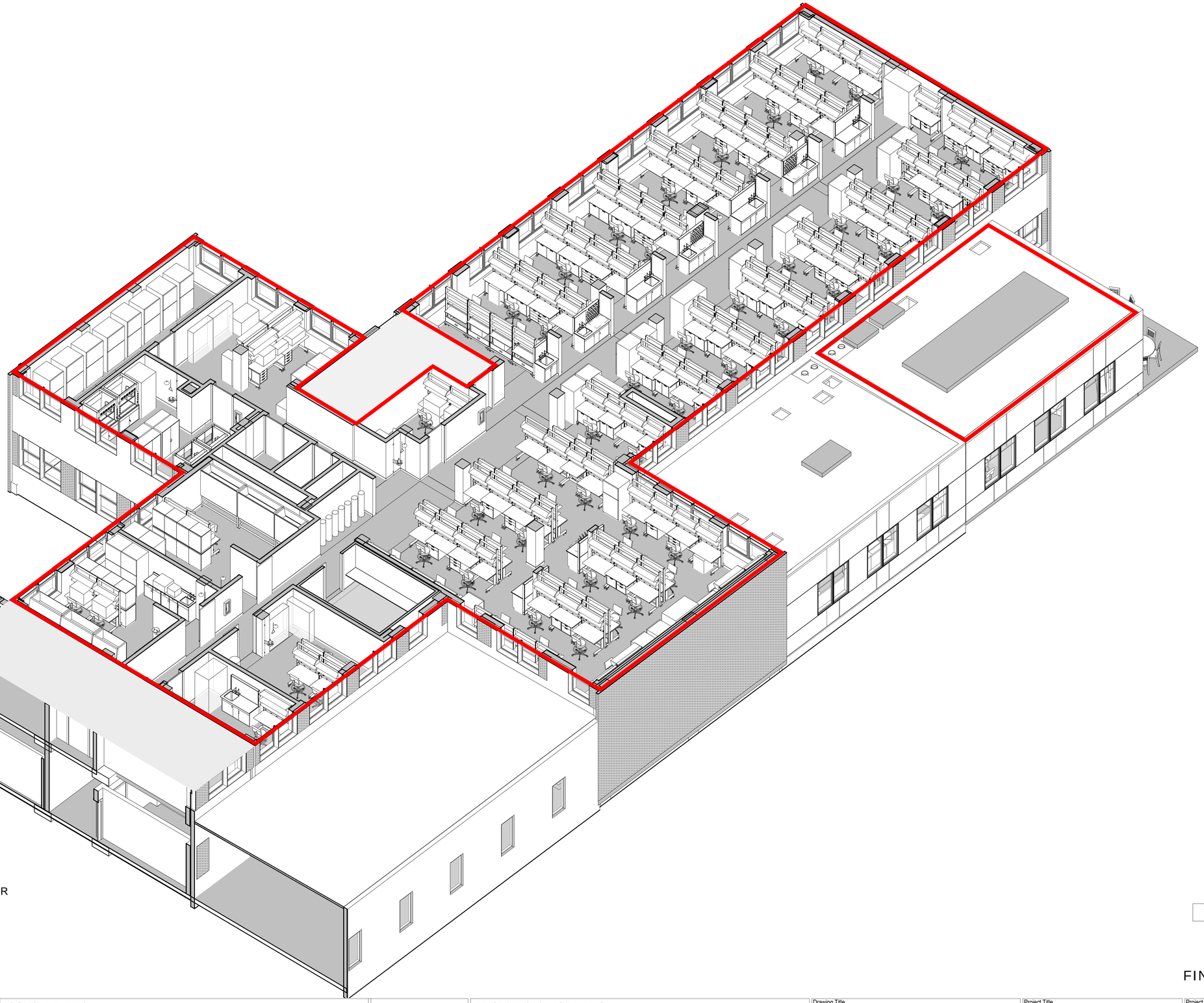
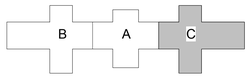


1 3D - SECOND FLOOR



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Drawing Title: 3D VIEW - SECOND FLOOR

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A1.12

Dwg. of

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231

DEMO NOTES:

1. FOR MECH, ELECTRICAL AND PLUMBING DEMO, SEE MEP DRAWINGS.
2.
3.

1 DEMOLITION PLAN - FIRST FLOOR

LEGEND

- AREA OF NO WORK
- BOUNDARY OF WORK
- (E) FLOOR FINISH TO BE DEMOLISHED

0' 4' 8' 16'

NORTH

KEY PLAN

B A C

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Drawing Title: FIRST FLOOR DEMOLITION PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A1.21

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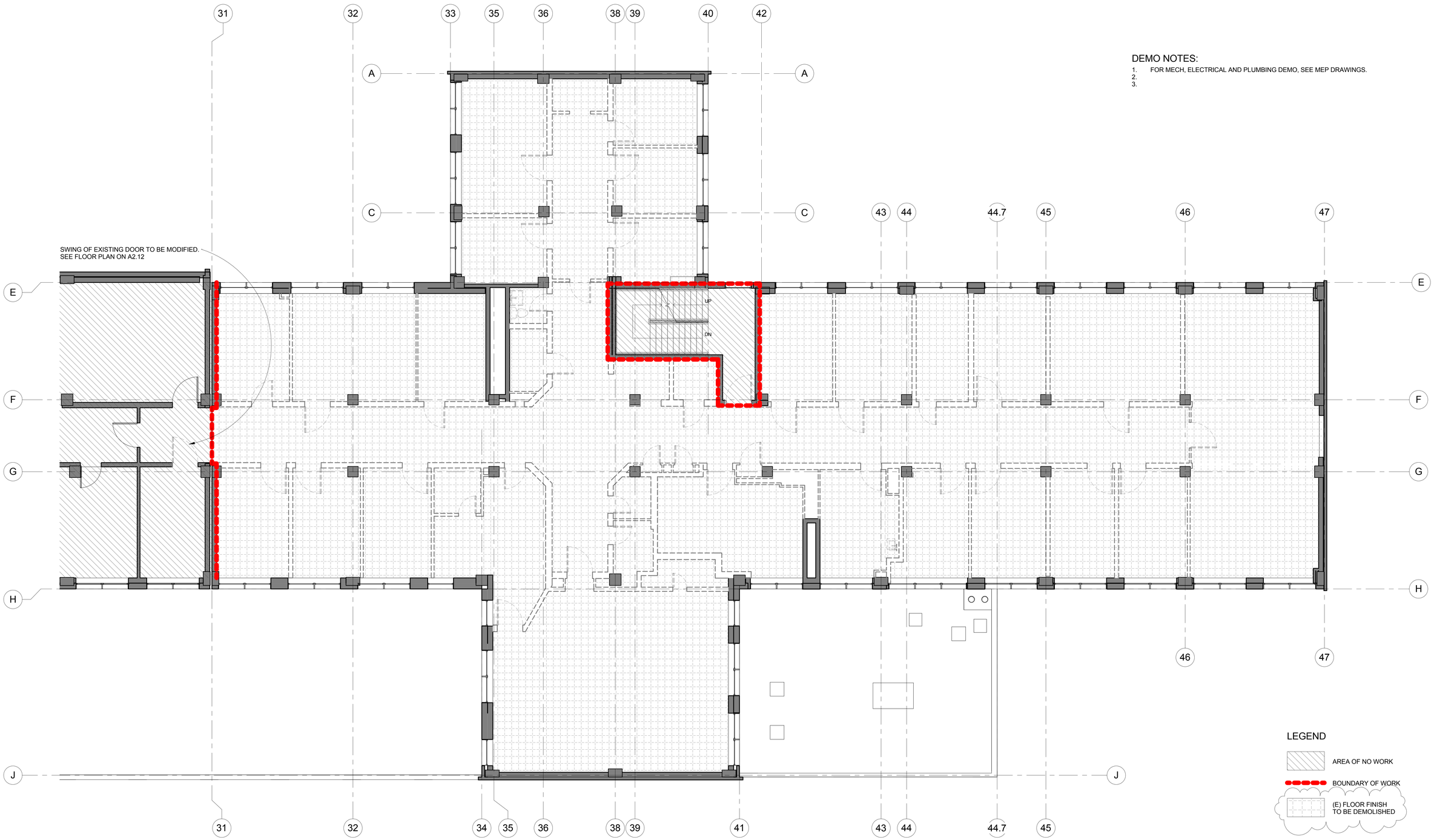
DEMO NOTES:

1. FOR MECH, ELECTRICAL AND PLUMBING DEMO, SEE MEP DRAWINGS.
2.
3.



1 DEMOLITION PLAN - SECOND FLOOR

LEGEND

- AREA OF NO WORK
- BOUNDARY OF WORK
- (E) FLOOR FINISH TO BE DEMOLISHED

KEY PLAN

B | A | C

0' 4' 8' 16'

NORTH

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Drawing Title: SECOND FLOOR DEMOLITION PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A1.22

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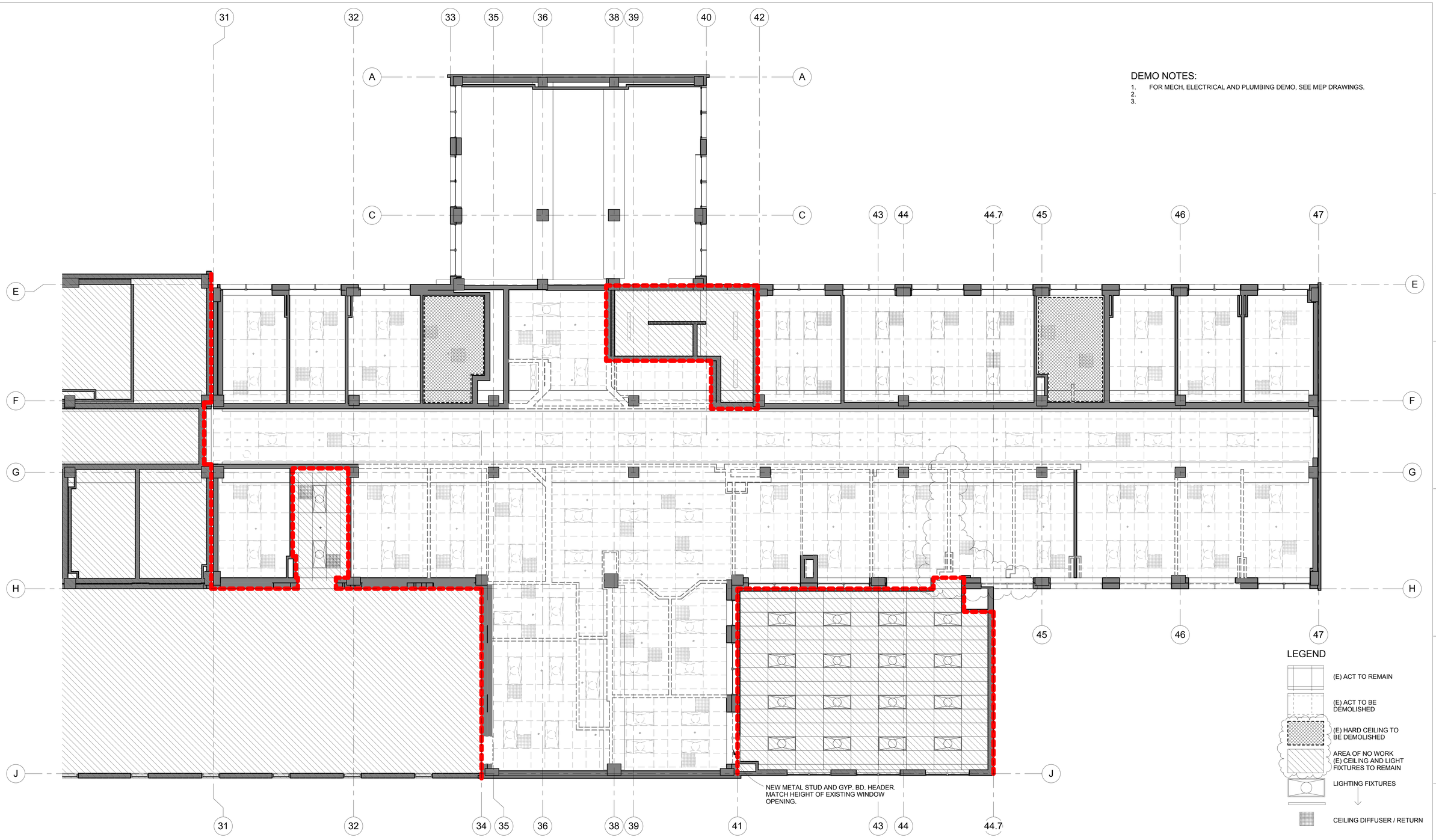
DEMO NOTES:

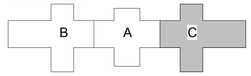
1. FOR MECH, ELECTRICAL AND PLUMBING DEMO, SEE MEP DRAWINGS.
2.
3.



LEGEND

- (E) ACT TO REMAIN
- (E) ACT TO BE DEMOLISHED
- (E) HARD CEILING TO BE DEMOLISHED
- AREA OF NO WORK (E) CEILING AND LIGHT FIXTURES TO REMAIN
- LIGHTING FIXTURES
- CEILING DIFFUSER / RETURN
- BOUNDARY OF WORK

KEY PLAN



0' 4' 8' 16'

NORTH

1 DEMOLITION CEILING PLAN - FIRST FLOOR

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www.HilliardArchitects.com

Drawing Title: FIRST FLOOR DEMOLITION CEILING PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A1.31

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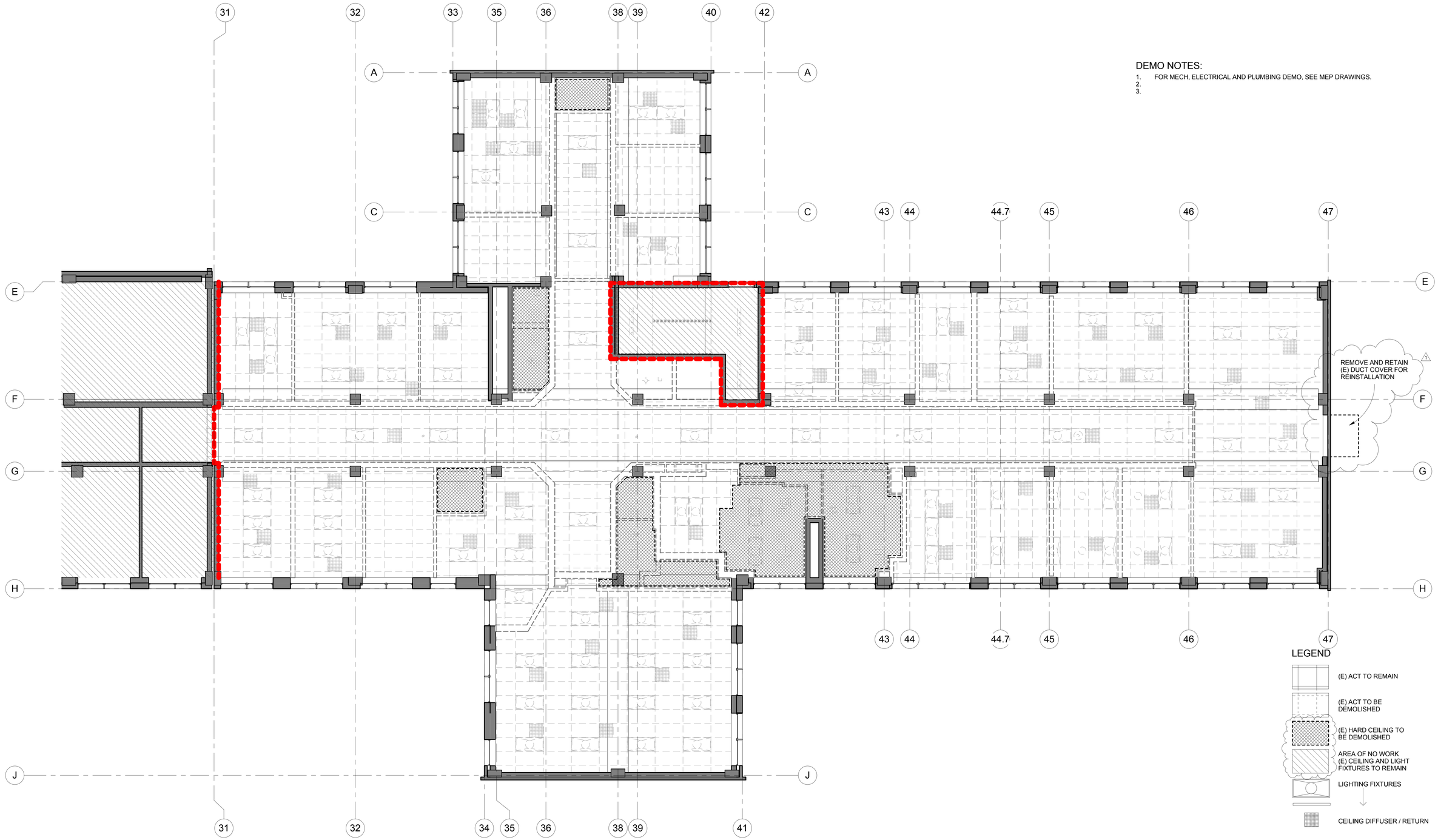
DEMO NOTES:

1. FOR MECH, ELECTRICAL AND PLUMBING DEMO, SEE MEP DRAWINGS.
2.
3.



LEGEND

- (E) ACT TO REMAIN
- (E) ACT TO BE DEMOLISHED
- (E) HARD CEILING TO BE DEMOLISHED
- AREA OF NO WORK (E) CEILING AND LIGHT FIXTURES TO REMAIN
- LIGHTING FIXTURES
- CEILING DIFFUSER / RETURN
- BOUNDARY OF WORK

KEY PLAN

B A C

0' 4' 8' 16'

NORTH

1 DEMOLITION CEILING PLAN - SECOND FLOOR

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www.HilliardArchitects.com

Drawing Title: SECOND FLOOR DEMOLITION CEILING PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A1.32

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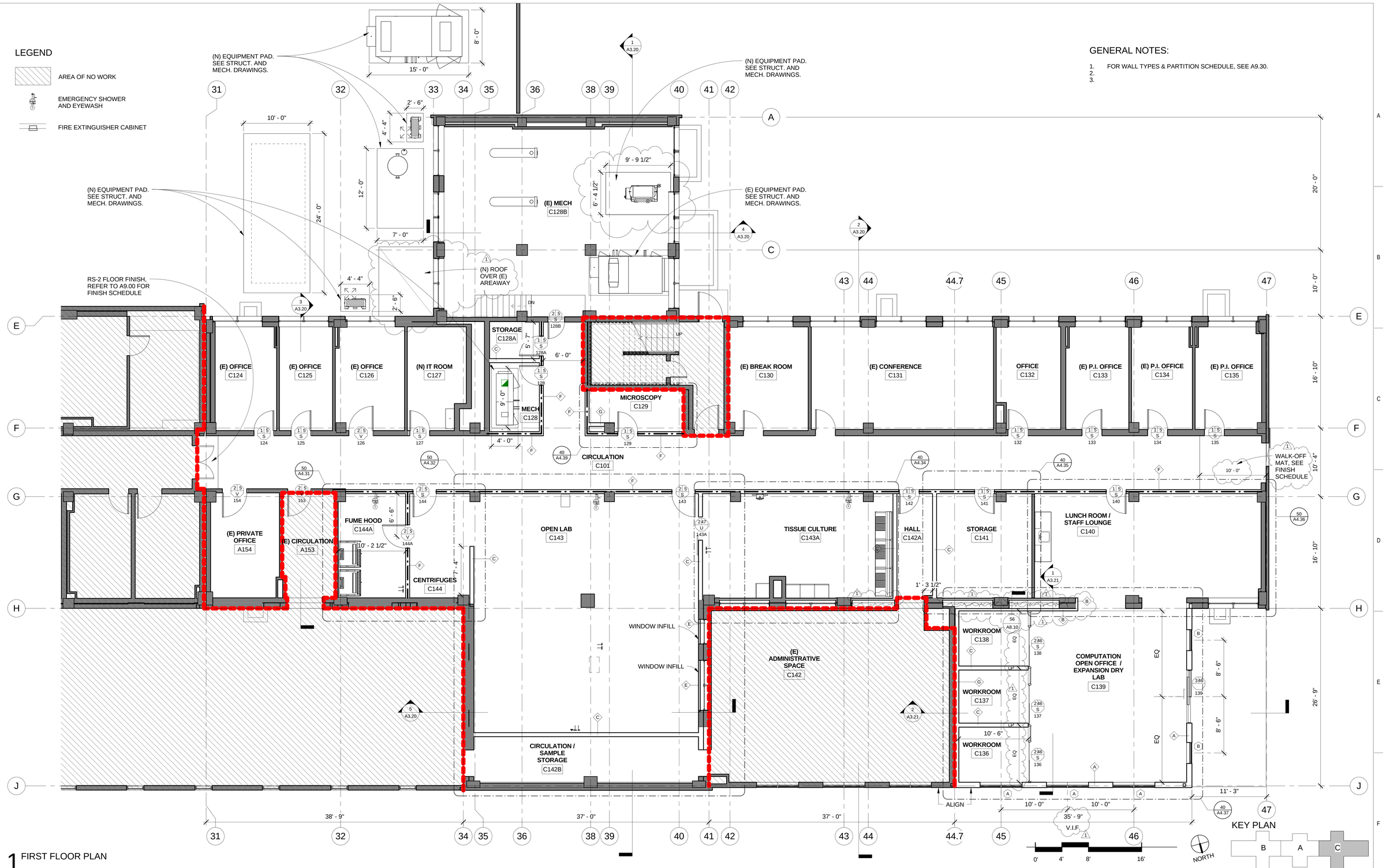
VA FORM 08-6231

LEGEND

- AREA OF NO WORK
- EMERGENCY SHOWER AND EYEWASH
- FIRE EXTINGUISHER CABINET

GENERAL NOTES:

1. FOR WALL TYPES & PARTITION SCHEDULE, SEE A9.30.
2.
3.



1 FIRST FLOOR PLAN

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Drawing Title: FIRST FLOOR PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A2.11

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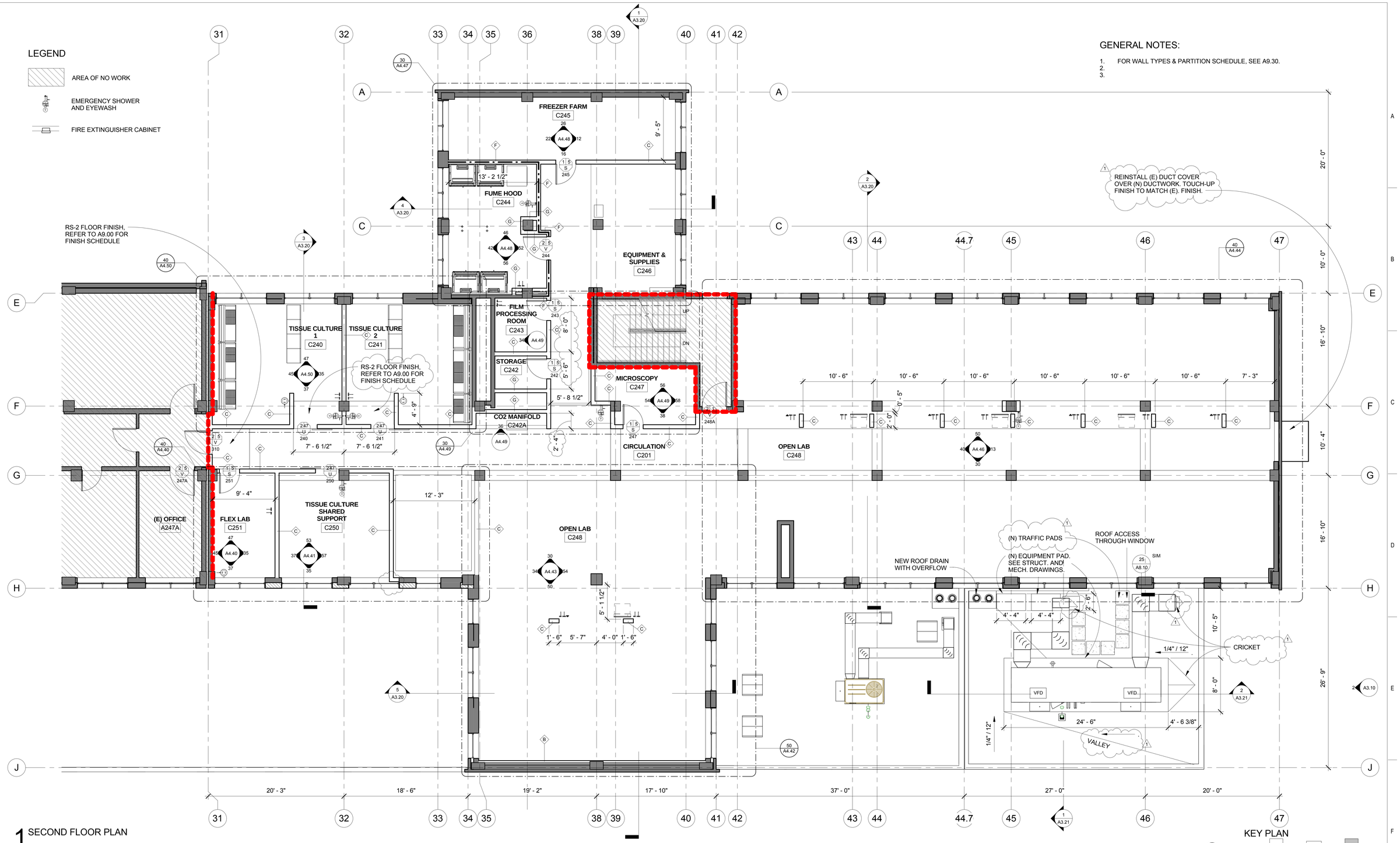
LEGEND

- AREA OF NO WORK
- EMERGENCY SHOWER AND EYEWASH
- FIRE EXTINGUISHER CABINET

GENERAL NOTES:

1. FOR WALL TYPES & PARTITION SCHEDULE, SEE A9.30.
2.
3.



1 SECOND FLOOR PLAN

KEY PLAN

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Drawing Title: SECOND FLOOR PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A2.12

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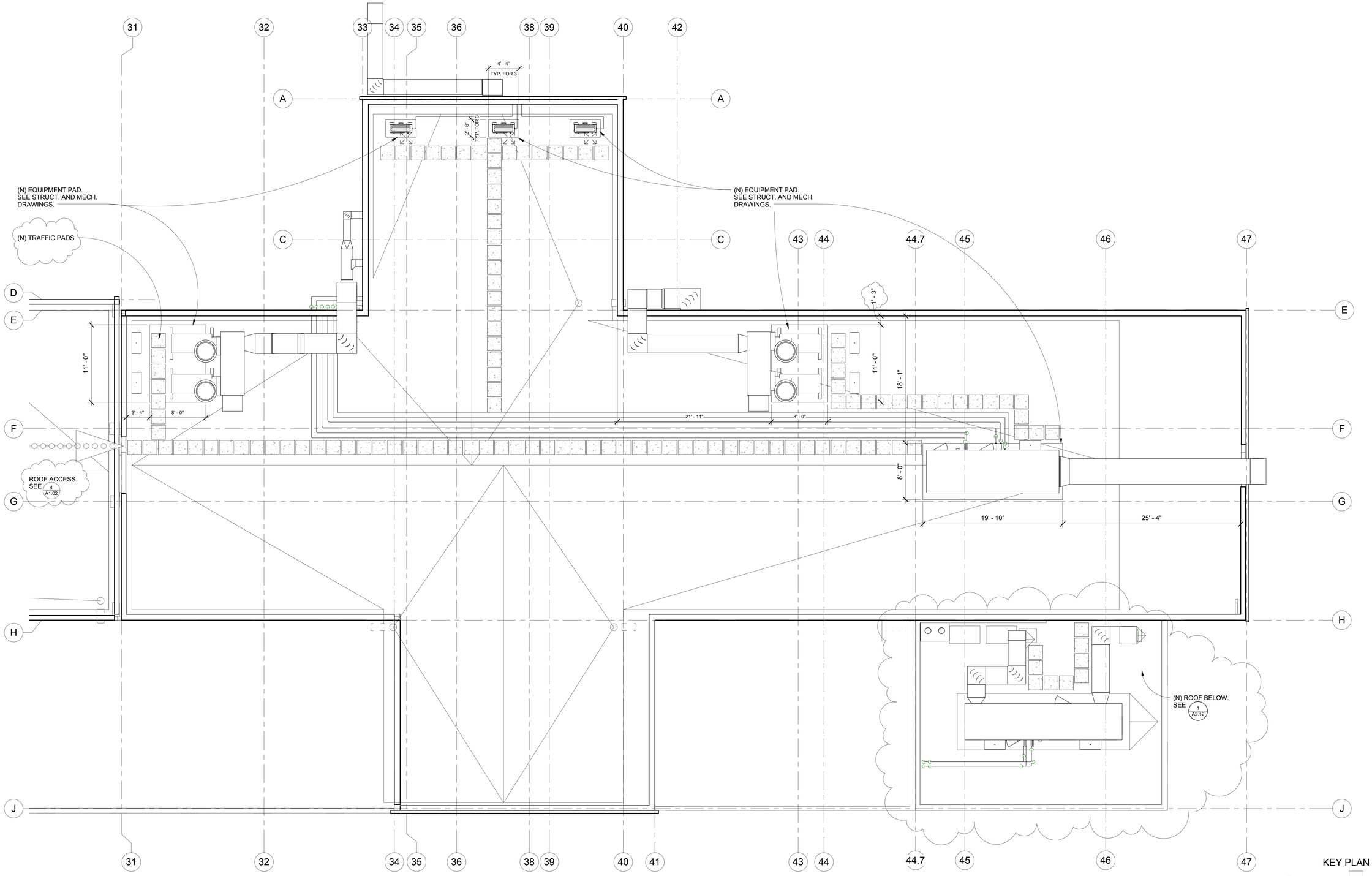
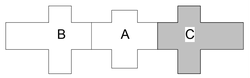


1 ROOF PLAN

KEY PLAN



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Drawing Title: ROOF PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn:

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A2.20

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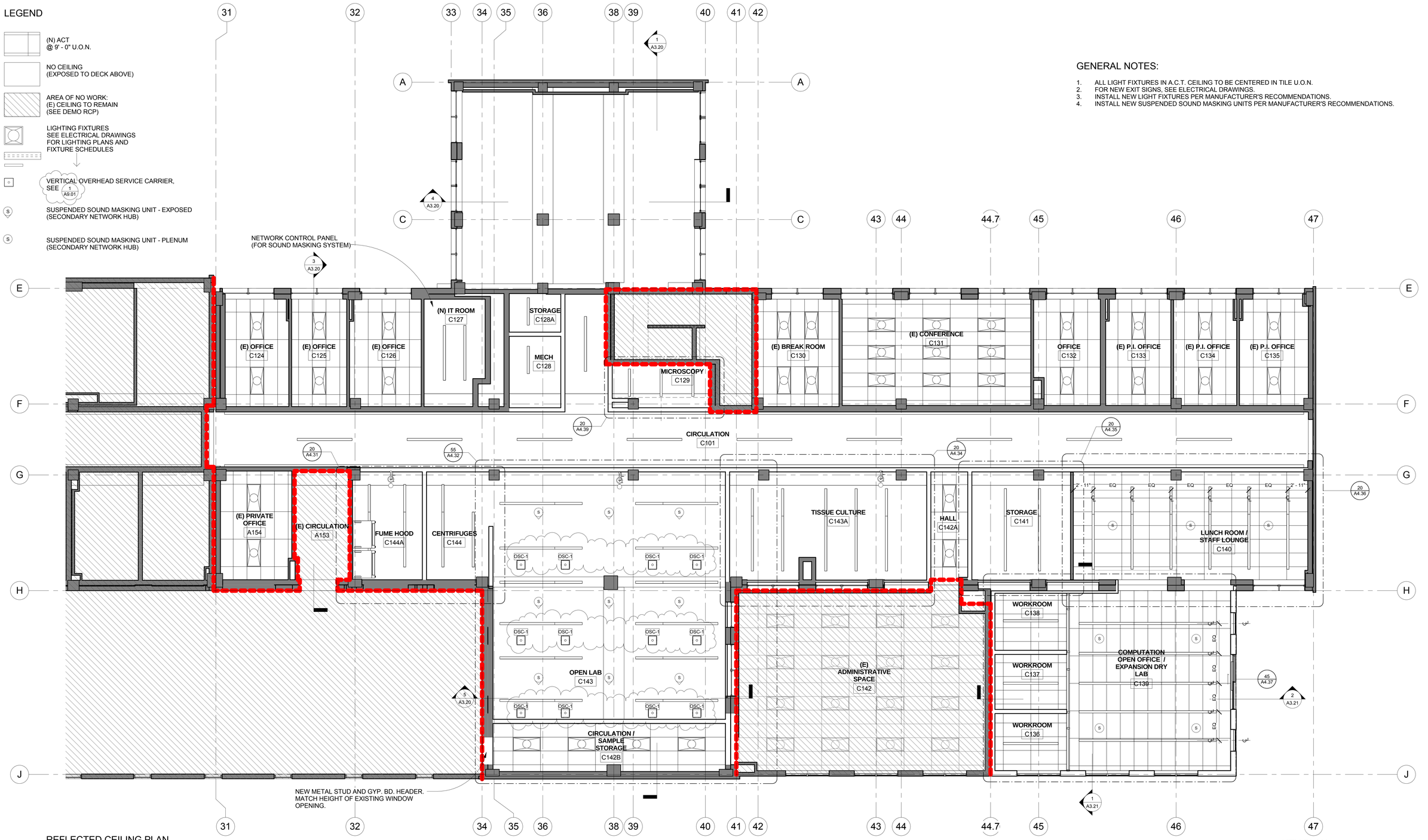
VA FORM 08-6231

LEGEND

- (N) ACT @ 9' - 0" U.O.N.
- NO CEILING (EXPOSED TO DECK ABOVE)
- AREA OF NO WORK: (E) CEILING TO REMAIN (SEE DEMO RCP)
- LIGHTING FIXTURES SEE ELECTRICAL DRAWINGS FOR LIGHTING PLANS AND FIXTURE SCHEDULES
- VERTICAL OVERHEAD SERVICE CARRIER, SEE 1/A9.01
- SUSPENDED SOUND MASKING UNIT - EXPOSED (SECONDARY NETWORK HUB)
- SUSPENDED SOUND MASKING UNIT - PLENUM (SECONDARY NETWORK HUB)

GENERAL NOTES:

1. ALL LIGHT FIXTURES IN A.C.T. CEILING TO BE CENTERED IN TILE U.O.N.
2. FOR NEW EXIT SIGNS, SEE ELECTRICAL DRAWINGS.
3. INSTALL NEW LIGHT FIXTURES PER MANUFACTURER'S RECOMMENDATIONS.
4. INSTALL NEW SUSPENDED SOUND MASKING UNITS PER MANUFACTURER'S RECOMMENDATIONS.



1 REFLECTED CEILING PLAN - FIRST FLOOR

0' 4' 8' 16'

NORTH

KEY PLAN

B A C

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Drawing Title: FIRST FLOOR REFLECTED CEILING PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A2.21

Dwg. of

Office of Construction and Facilities Management

Department of Veterans Affairs

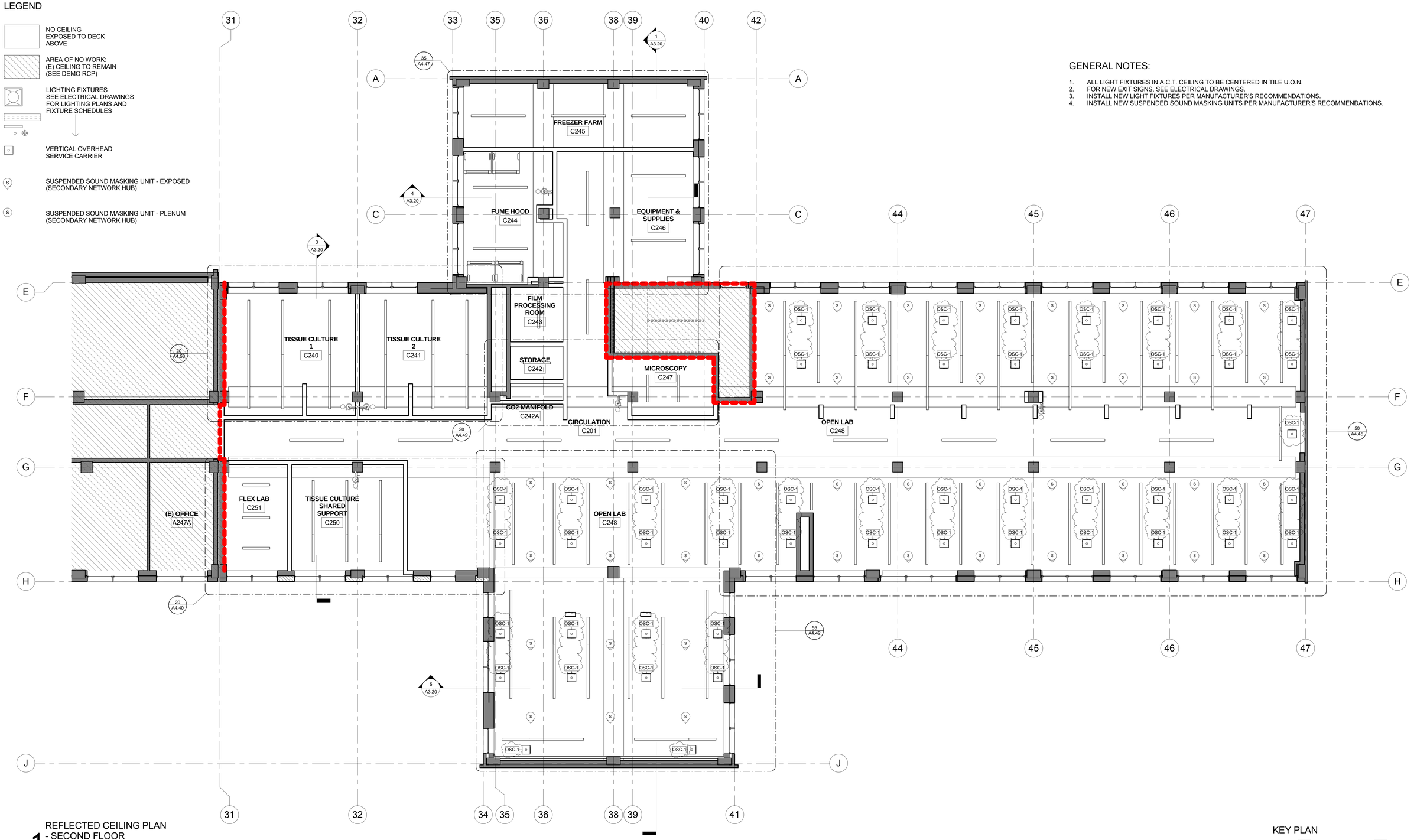
VA FORM 08-6231

LEGEND

- NO CEILING EXPOSED TO DECK ABOVE
- AREA OF NO WORK: (E) CEILING TO REMAIN (SEE DEMO RCP)
- LIGHTING FIXTURES SEE ELECTRICAL DRAWINGS FOR LIGHTING PLANS AND FIXTURE SCHEDULES
- VERTICAL OVERHEAD SERVICE CARRIER
- (S) SUSPENDED SOUND MASKING UNIT - EXPOSED (SECONDARY NETWORK HUB)
- (S) SUSPENDED SOUND MASKING UNIT - PLENUM (SECONDARY NETWORK HUB)

GENERAL NOTES:

1. ALL LIGHT FIXTURES IN A.C.T. CEILING TO BE CENTERED IN TILE U.O.N.
2. FOR NEW EXIT SIGNS, SEE ELECTRICAL DRAWINGS.
3. INSTALL NEW LIGHT FIXTURES PER MANUFACTURER'S RECOMMENDATIONS.
4. INSTALL NEW SUSPENDED SOUND MASKING UNITS PER MANUFACTURER'S RECOMMENDATIONS.



1 REFLECTED CEILING PLAN - SECOND FLOOR

KEY PLAN

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Drawing Title: SECOND FLOOR REFLECTED CEILING PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A2.22

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LEGEND

AREA OF NO WORK

FIRE EXTINGUISHER CABINET

BOUNDARY OF WORK

(E) OFFICE C124
(E) OFFICE C125
(E) OFFICE C126
(N) IT ROOM C127
STORAGE C128A
MECH C128
MICROSCOPY C129
(E) BREAK ROOM C130
(E) CONFERENCE C131
OFFICE C132
(E) P.I. OFFICE C133
(E) P.I. OFFICE C134
(E) P.I. OFFICE C135
CIRCULATION C101
(E) PRIVATE OFFICE A154
(E) CIRCULATION A153
FUME HOOD C144A
CENTRIFUGES C144
TISSUE CULTURE C143A
HALL C142A
STORAGE C141
LUNCH ROOM / STAFF LOUNGE C140
OPEN LAB C143
(E) ADMINISTRATIVE SPACE C142
WORKROOM C138
WORKROOM C137
WORKROOM C136
COMPUTATION OPEN OFFICE / EXPANSION DRY LAB C139
CIRCULATION / SAMPLE STORAGE C142B

1 FIRST FLOOR EQUIPMENT PLAN

0' 4' 8' 16'

NORTH

KEY PLAN

B A C

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Drawing Title: FIRST FLOOR EQUIPMENT PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A2.31

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Department of Veterans Affairs

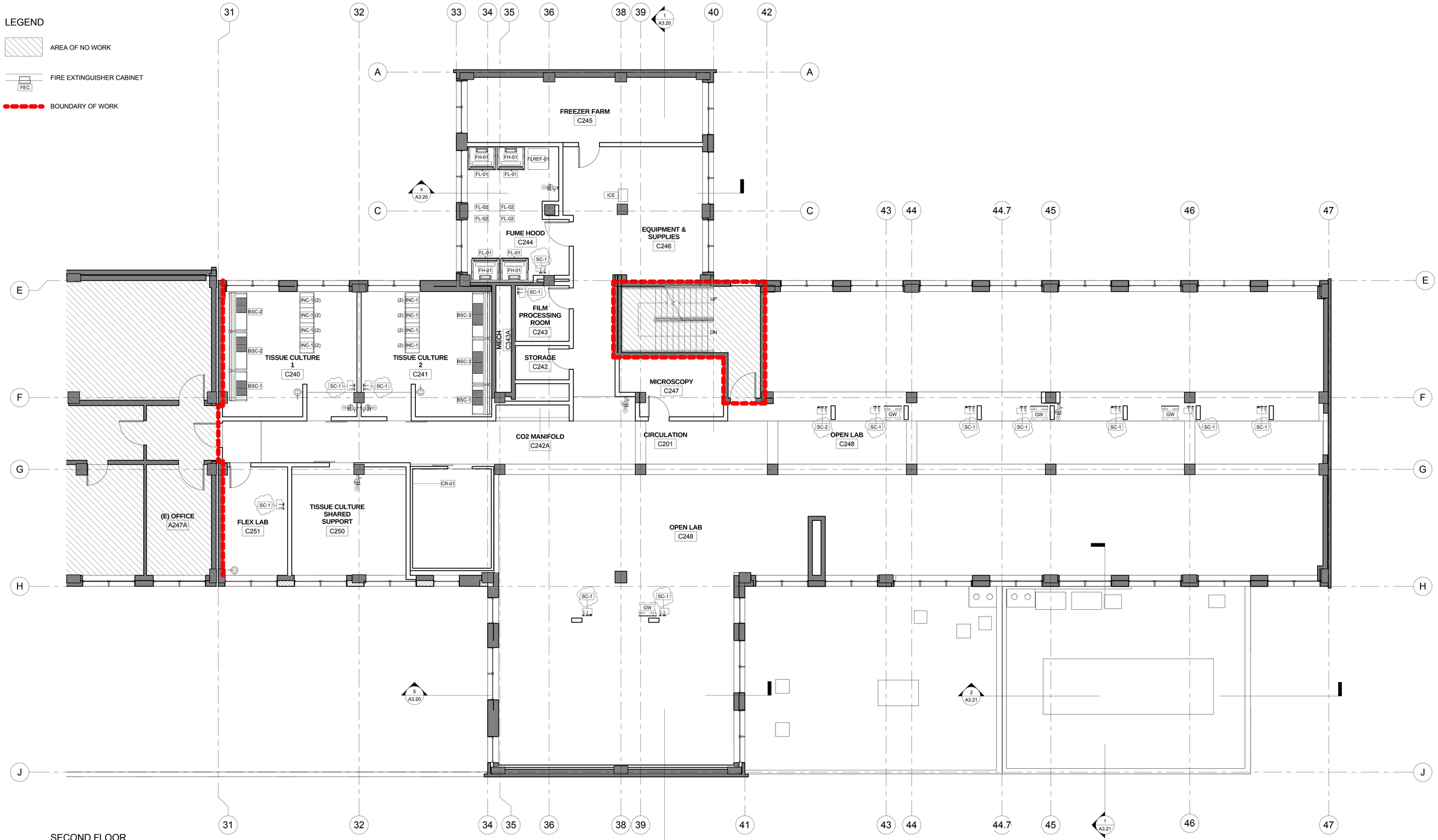
VA FORM 08-6231

LEGEND

AREA OF NO WORK

FIRE EXTINGUISHER CABINET (FEC)

BOUNDARY OF WORK



1 SECOND FLOOR EQUIPMENT PLAN

0' 4' 8' 16'

NORTH

KEY PLAN

B A C

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Tel 415 989 6400, Fax 415 989 3056
www.HilliardArchitects.com

Drawing Title: SECOND FLOOR EQUIPMENT PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A2.32

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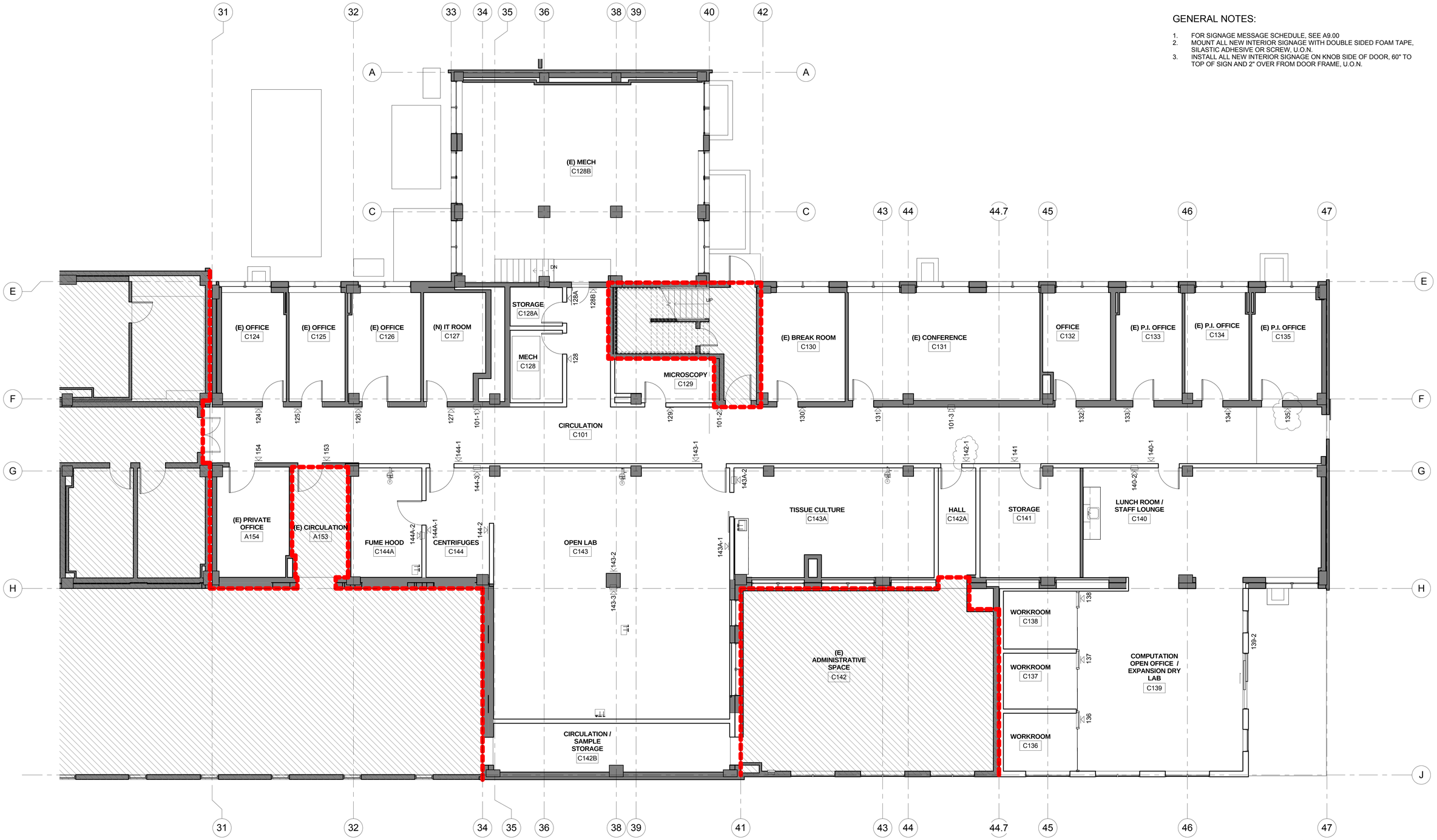
Department of Veterans Affairs

VA FORM 08-6231

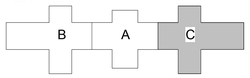
GENERAL NOTES:

1. FOR SIGNAGE MESSAGE SCHEDULE, SEE A9.00
2. MOUNT ALL NEW INTERIOR SIGNAGE WITH DOUBLE SIDED FOAM TAPE, SILASTIC ADHESIVE OR SCREW, U.O.N.
3. INSTALL ALL NEW INTERIOR SIGNAGE ON KNOB SIDE OF DOOR, 60" TO TOP OF SIGN AND 2" OVER FROM DOOR FRAME, U.O.N.



1 FIRST FLOOR SIGNAGE PLAN

KEY PLAN



0' 4' 8' 16'

NORTH

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Tel 415 989 6400, Fax 415 989 3056
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Drawing Title: FIRST FLOOR SIGNAGE PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn:

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A2.51

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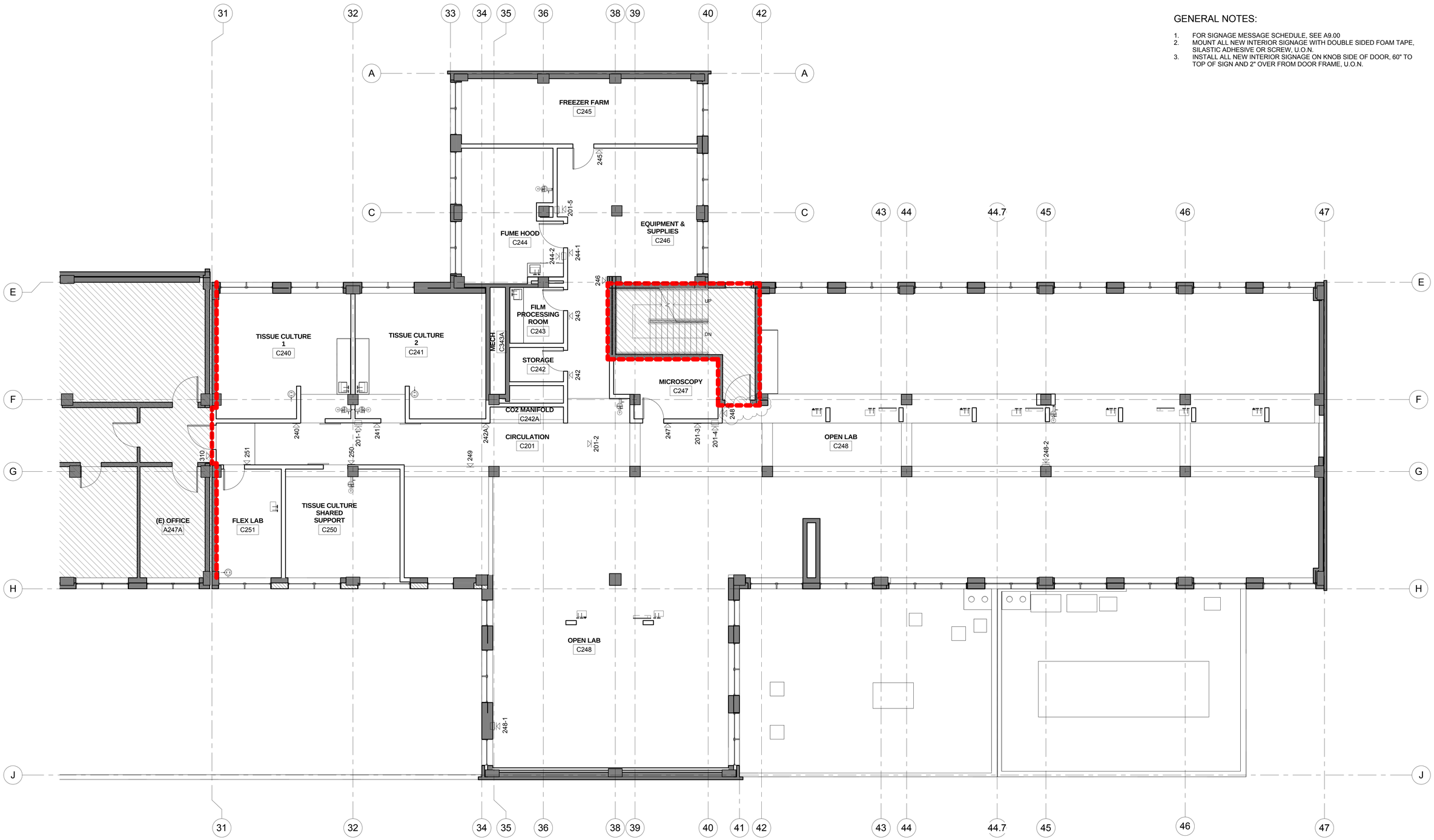
GENERAL NOTES:

1. FOR SIGNAGE MESSAGE SCHEDULE, SEE A9.00
2. MOUNT ALL NEW INTERIOR SIGNAGE WITH DOUBLE SIDED FOAM TAPE, SILASTIC ADHESIVE OR SCREW, U.O.N.
3. INSTALL ALL NEW INTERIOR SIGNAGE ON KNOB SIDE OF DOOR, 60" TO TOP OF SIGN AND 2" OVER FROM DOOR FRAME, U.O.N.



1 SECOND FLOOR SIGNAGE PLAN

0' 4' 8' 16'

NORTH

KEY PLAN

B A C

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www.HilliardArchitects.com

Drawing Title: SECOND FLOOR SIGNAGE PLAN

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

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Project Number: 640-13-121P

Building Number: 6

Drawing Number: A2.52

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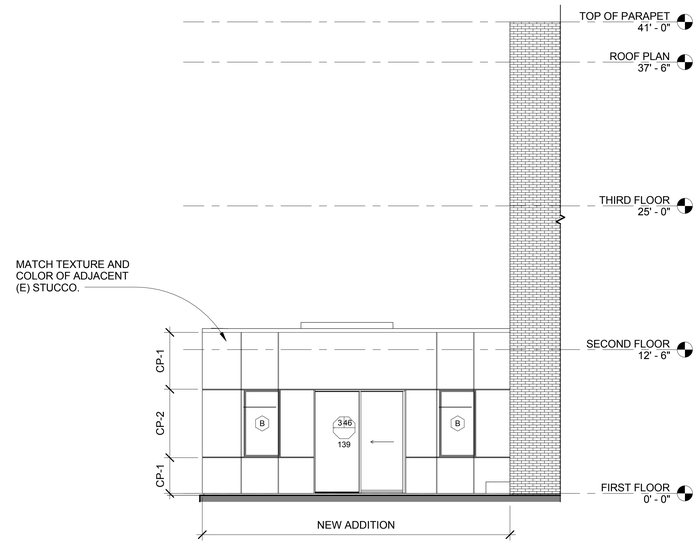
VA FORM 08-6231

1 EXTERIOR ELEV - NORTH



2 EXTERIOR ELEV - WEST

0' 4' 8' 16'

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Revisions:	Date
Revision 1	05.02.2014

CONSULTANTS:

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Tel 415 989 6400, Fax 415 989 3056
www.HilliardArchitects.com

Drawing Title: EXTERIOR ELEVATIONS

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A3.10

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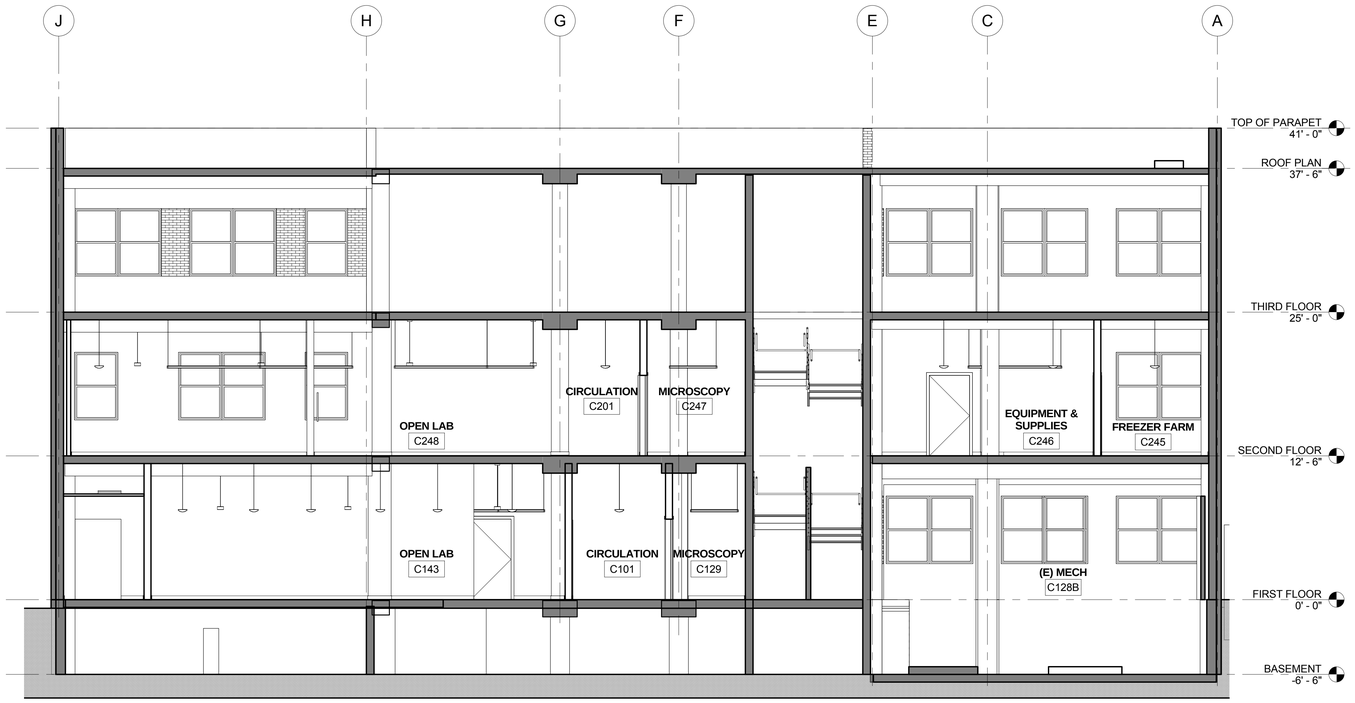
Department of Veterans Affairs

VA FORM 08-6231



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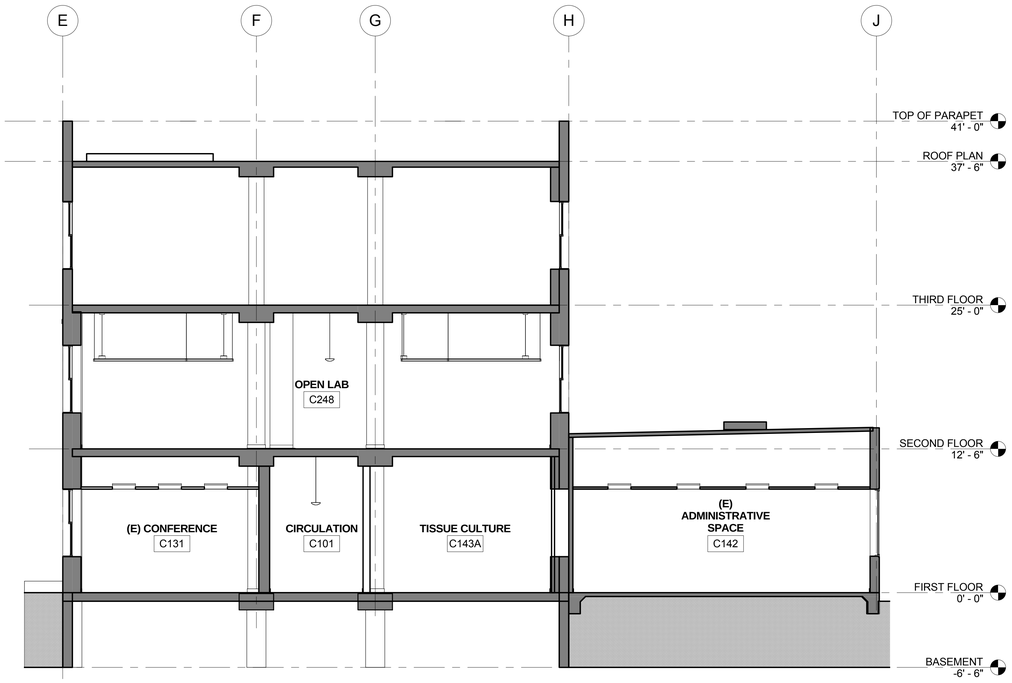

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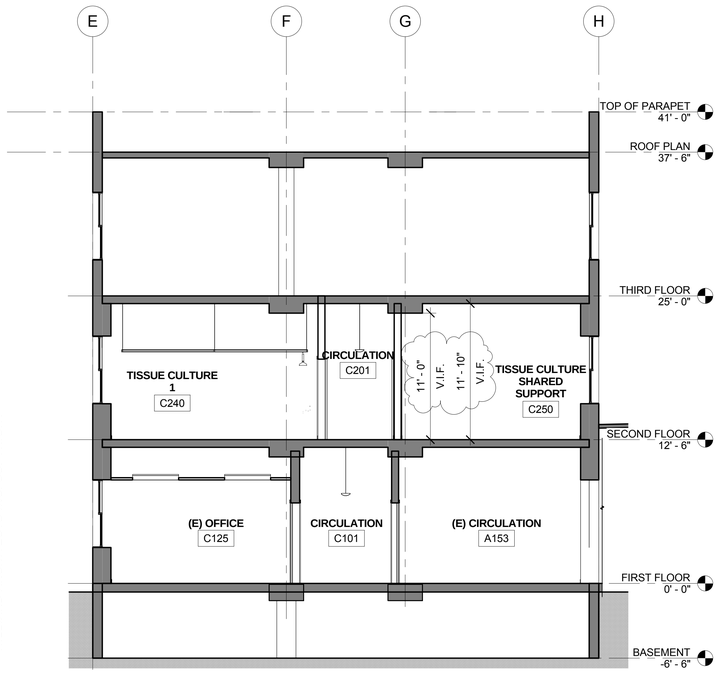
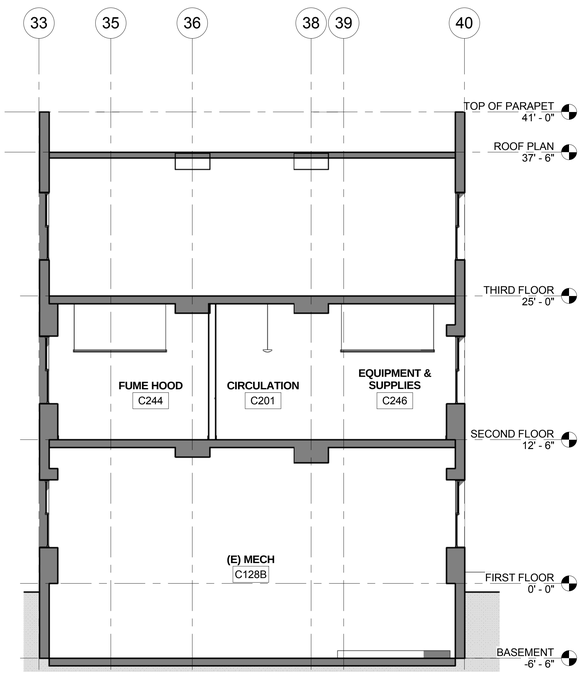
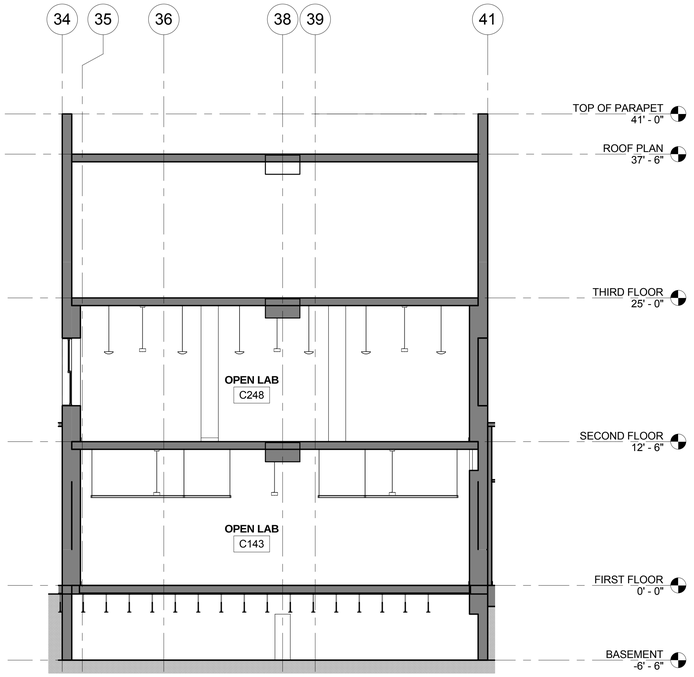


3 SECTION - TISSUE CULTURE



4 SECTION - SOUTH



5 SECTION - NORTH

0' 4' 8' 16'

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Revisions:	Date
Revision 1	05.02.2014

CONSULTANTS:

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Drawing Title: BUILDING SECTIONS

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A3.20

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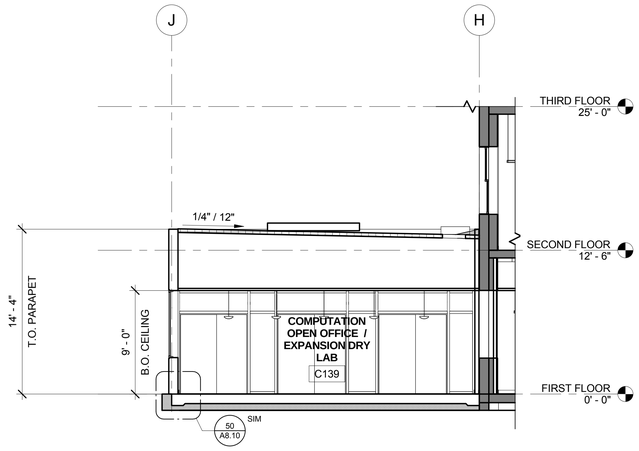
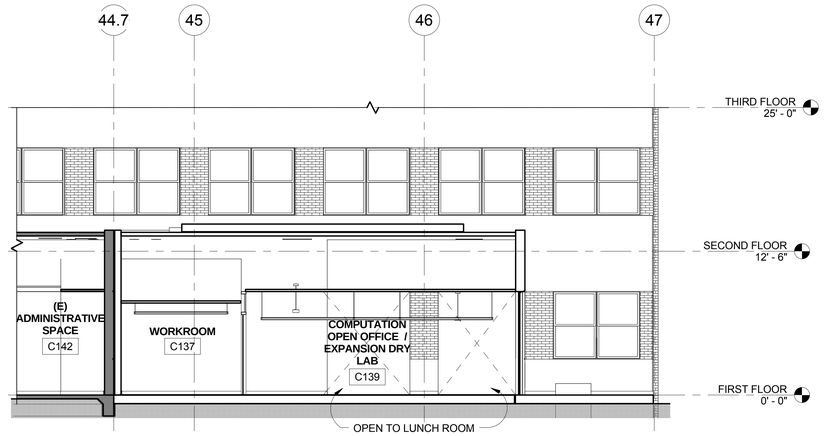
Department of Veterans Affairs

VA FORM 08-6231



1 SECTION THROUGH ADDITION - EAST



2 SECTION THROUGH ADDITION - SOUTH

0' 4' 8' 16'

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Drawing Title: BUILDING SECTIONS

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn:

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A3.21

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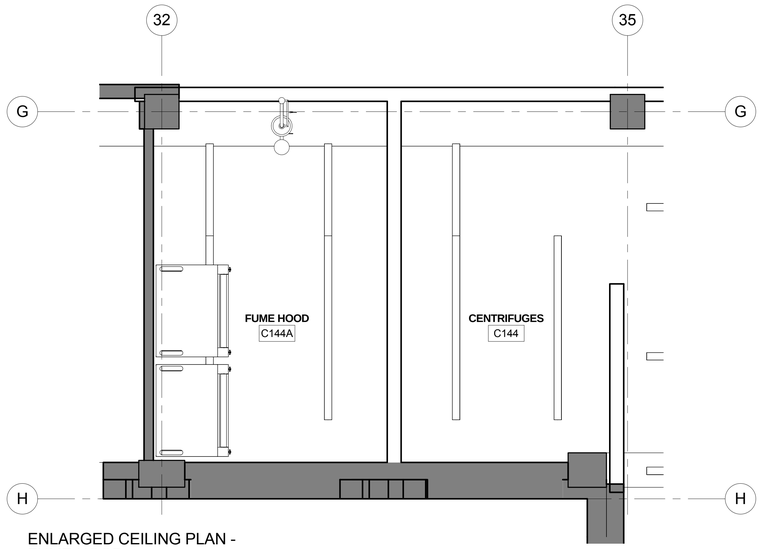
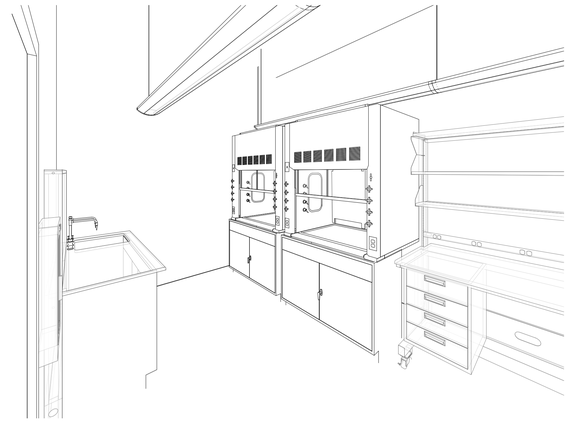
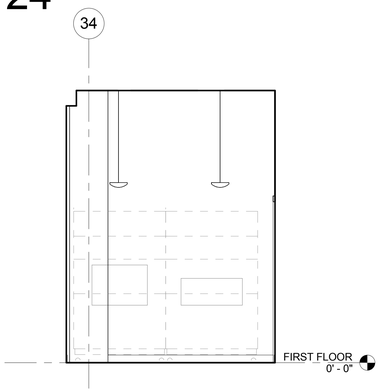


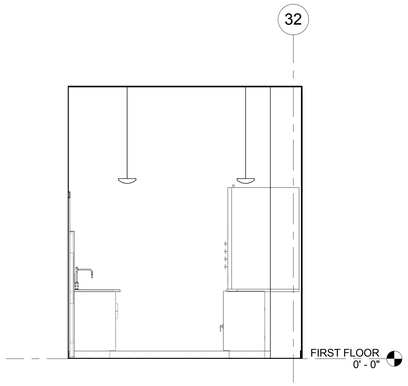
20 ENLARGED CEILING PLAN - FUME HOOD, CENTRIFUGES



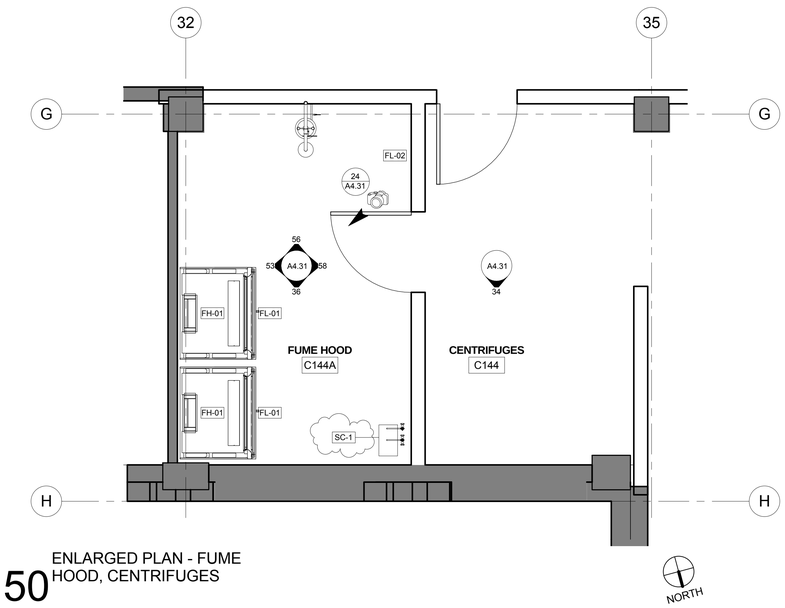
24 FUME HOOD



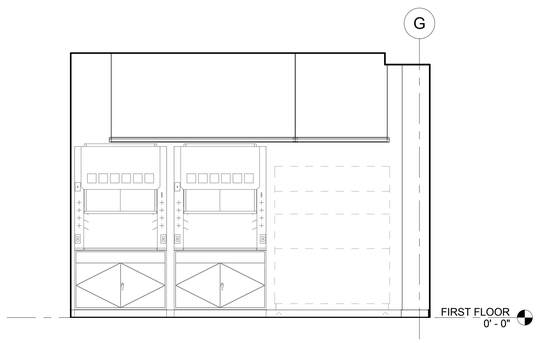
34 CENTRIFUGES - NORTH ELEV



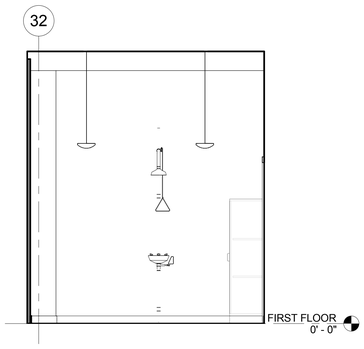
36 FUME HOOD - NORTH ELEV



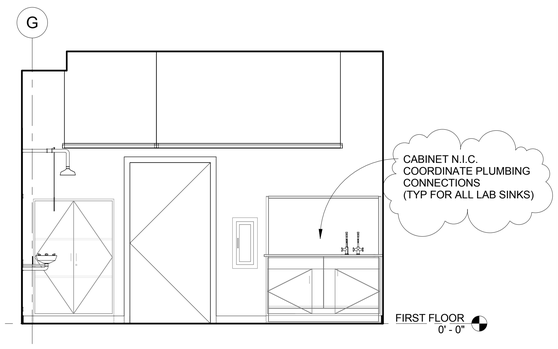
50 ENLARGED PLAN - FUME HOOD, CENTRIFUGES



53 FUME HOOD - WEST ELEV



56 FUME HOOD - SOUTH ELEV



58 FUME HOOD - EAST ELEV

0' 2' 4' 8'

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Revisions:	Date
Revision 1	05.02.2014

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Drawing Title: FIRST FLOOR ENLARGED PLANS - FUME HOOD, CENTRIFUGES

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.31

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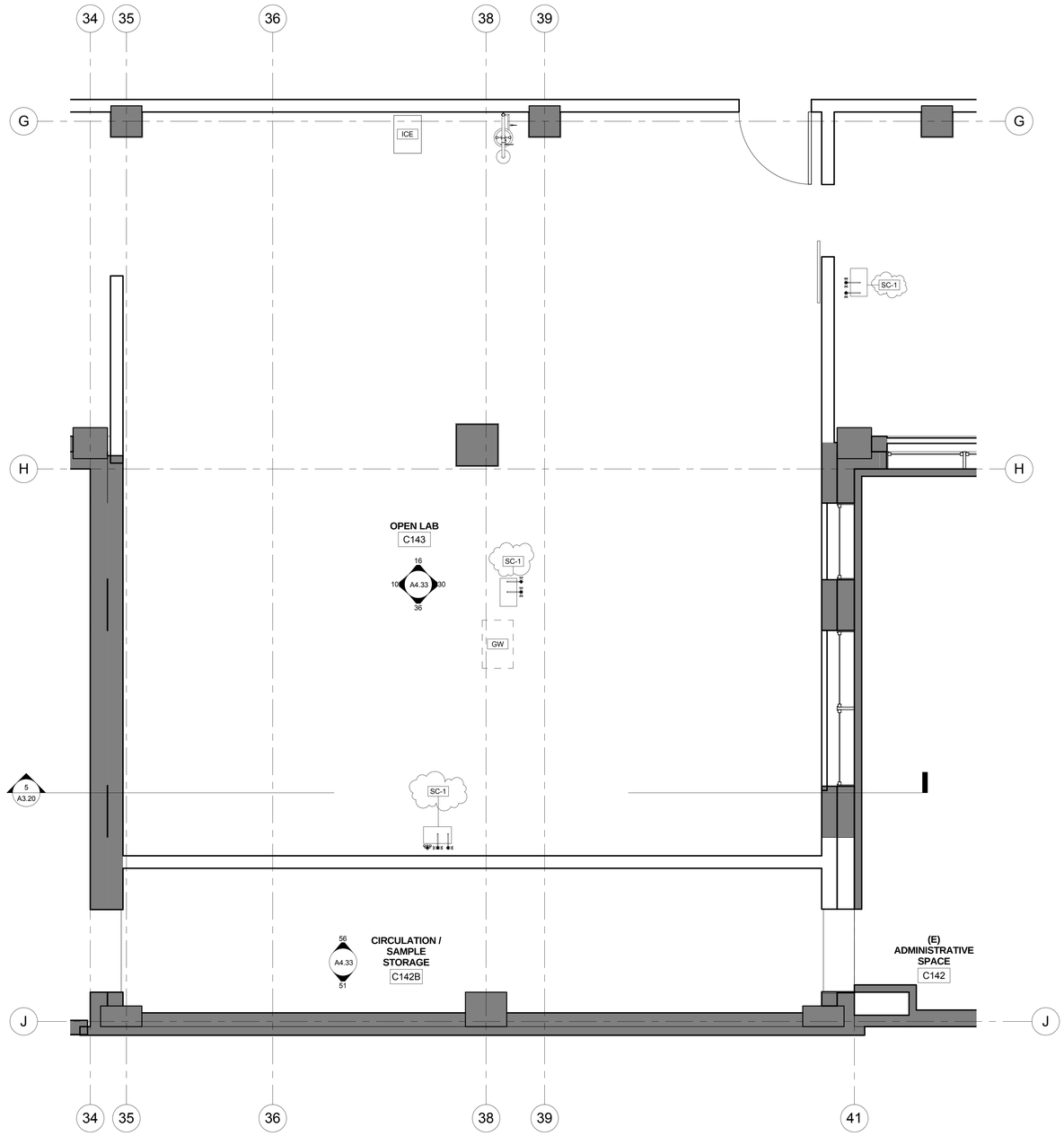
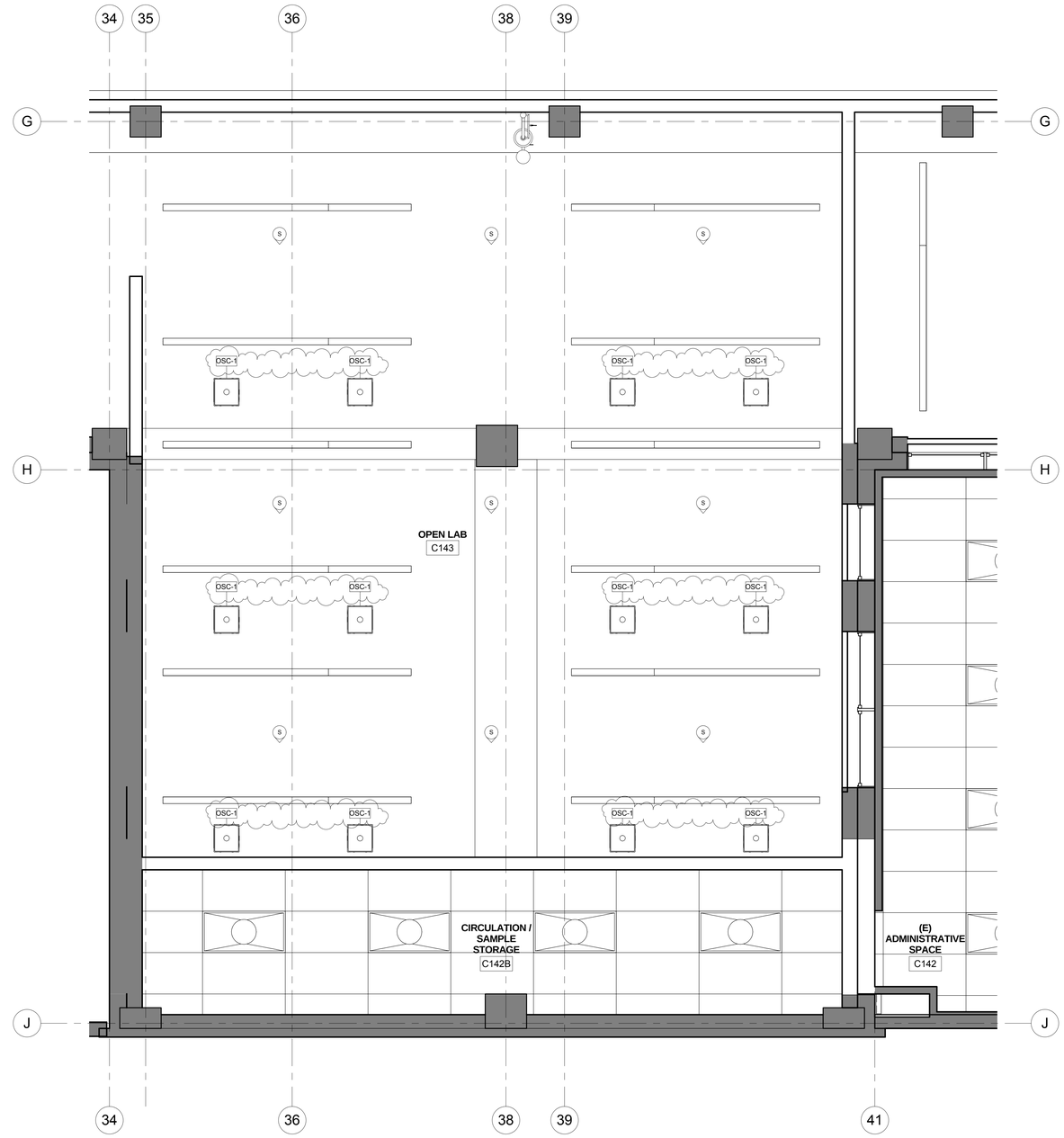
Department of Veterans Affairs

VA FORM 08-6231



ENLARGED PLAN - OPEN LAB

50



ENLARGED CEILING PLAN - OPEN LAB

55

0' 2' 4' 8'

NORTH

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www.HilliardArchitects.com

Drawing Title: FIRST FLOOR ENLARGED PLANS - OPEN LAB, SAMPLE STORAGE

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.32

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Department of Veterans Affairs

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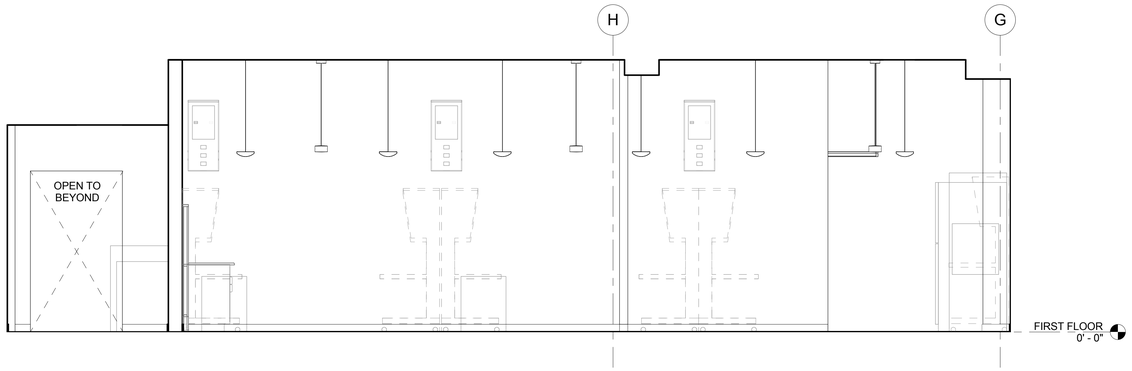
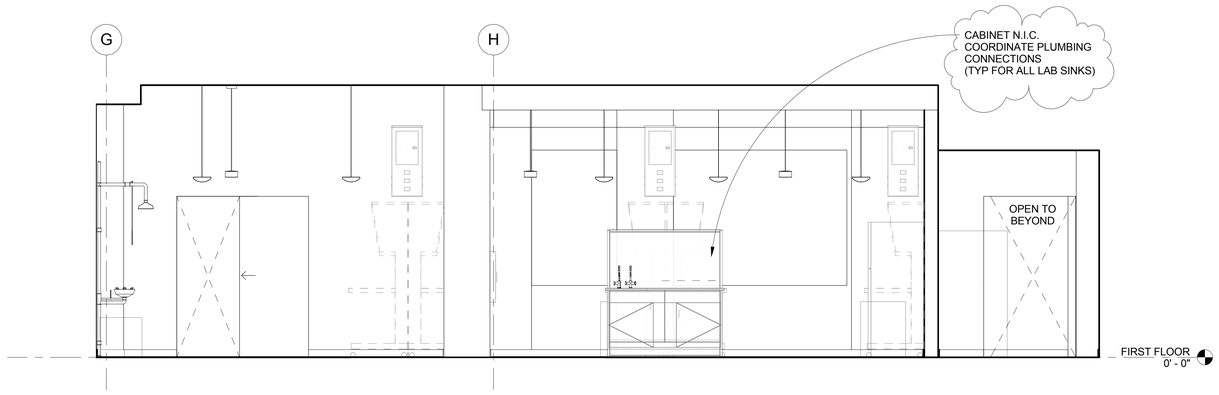
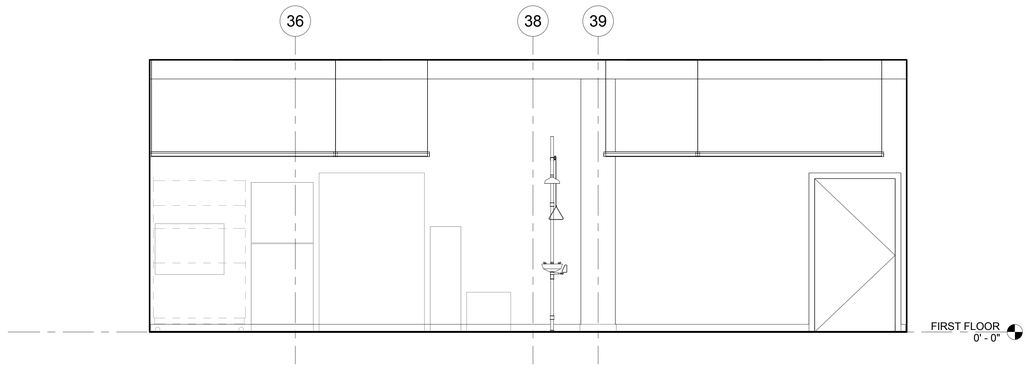


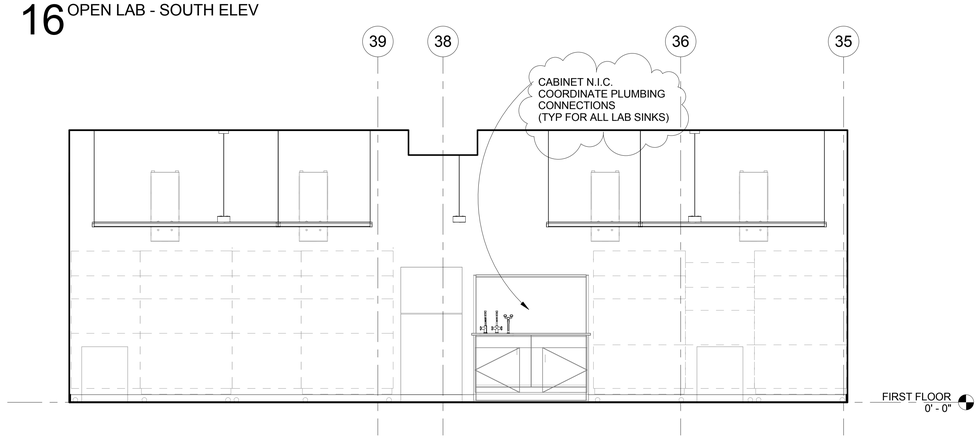
10 OPEN LAB - EAST ELEV



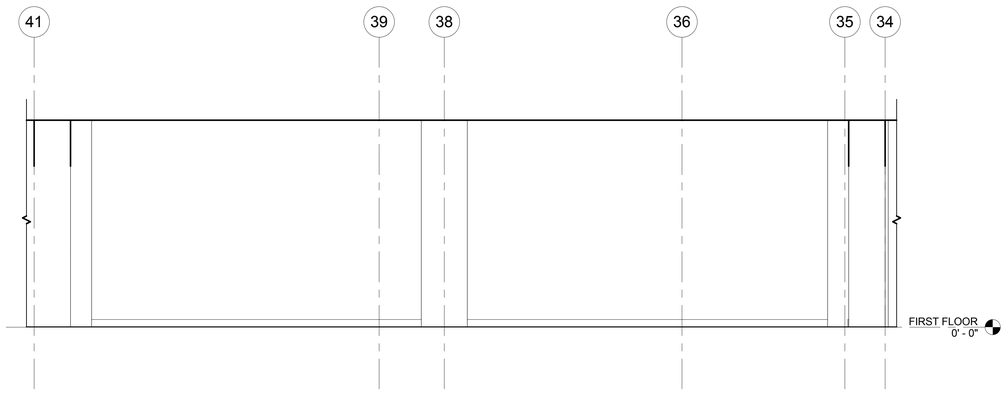
30 OPEN LAB - WEST ELEV



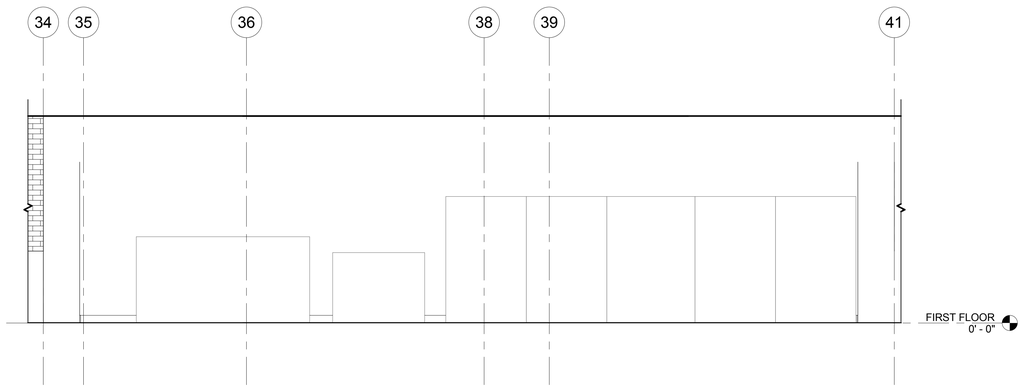
16 OPEN LAB - SOUTH ELEV



36 OPEN LAB - NORTH ELEV



51 SAMPLE STORAGE C142B - NORTH ELEV



56 SAMPLE STORAGE C142B - SOUTH ELEV

0' 2' 4' 8'

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Revisions:	Date
Revision 1	05.02.2014

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www.HilliardArchitects.com

Drawing Title: FIRST FLOOR ELEV - OPEN LAB, SAMPLE STORAGE

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.33

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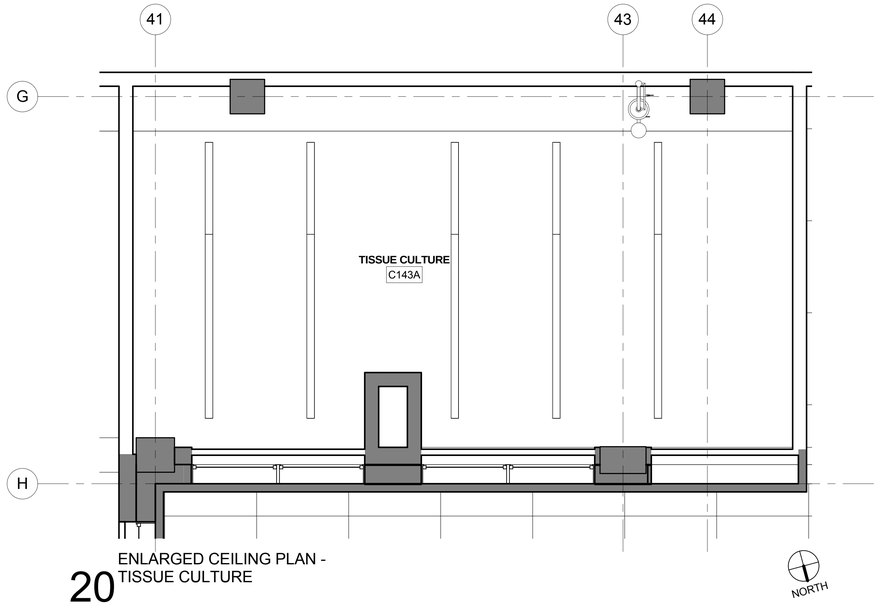
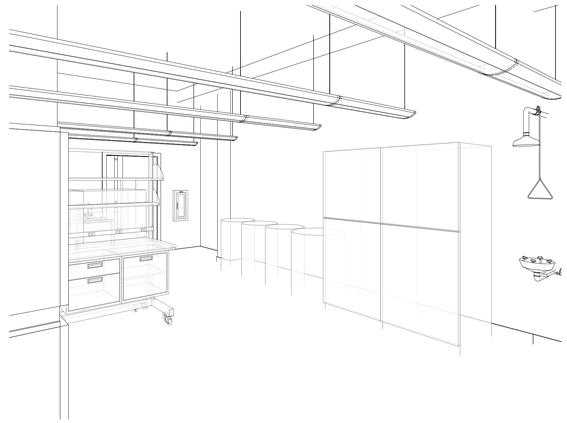
Department of Veterans Affairs

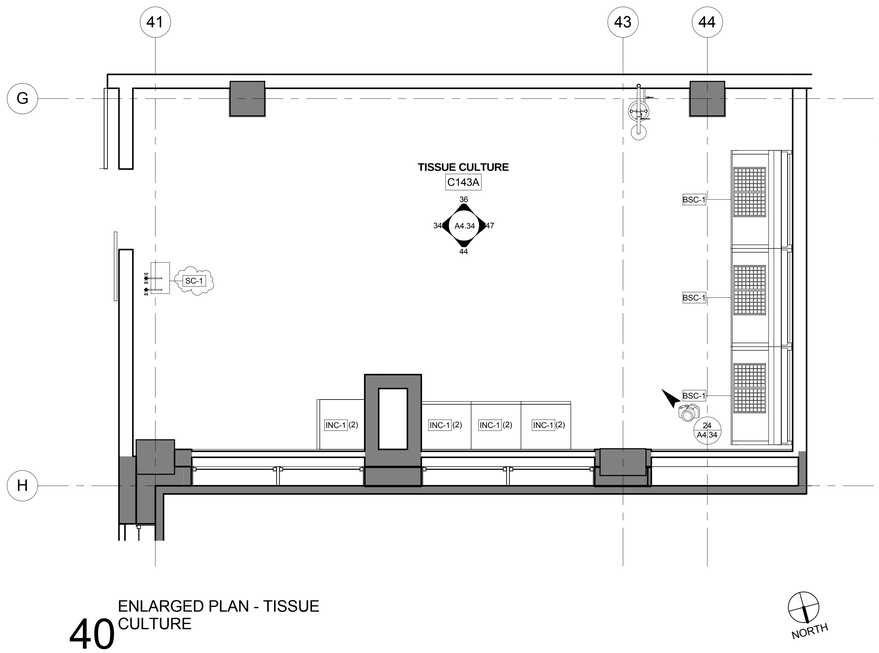
VA FORM 08-6231



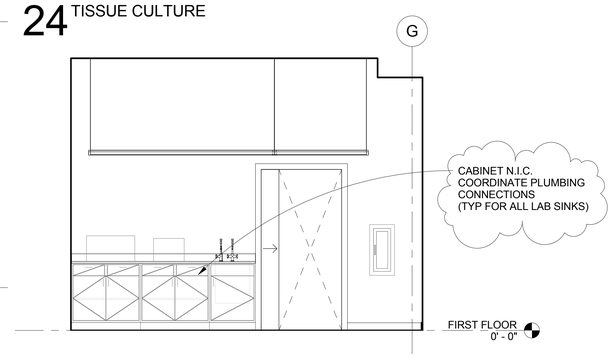
20 ENLARGED CEILING PLAN - TISSUE CULTURE



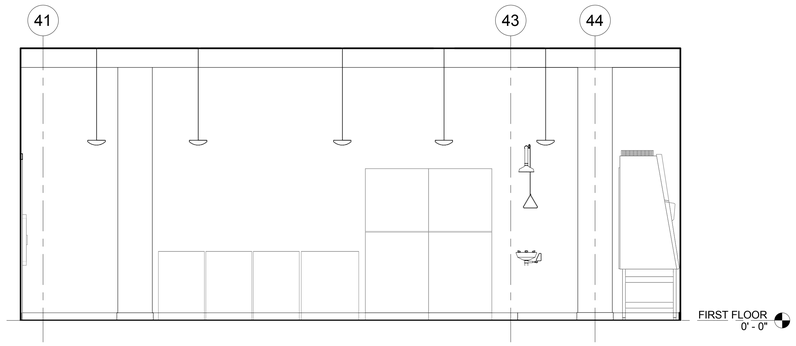
24 TISSUE CULTURE



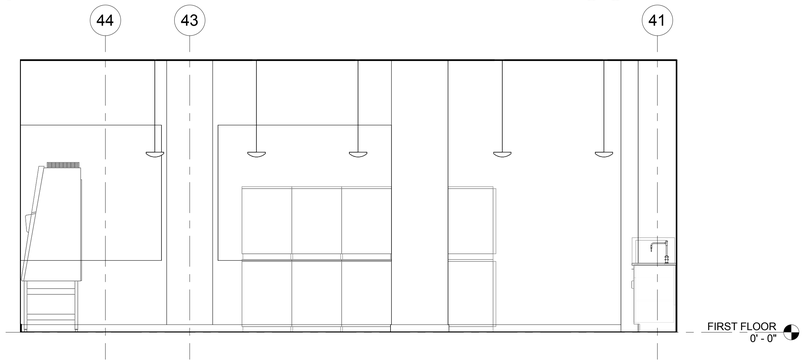
40 ENLARGED PLAN - TISSUE CULTURE



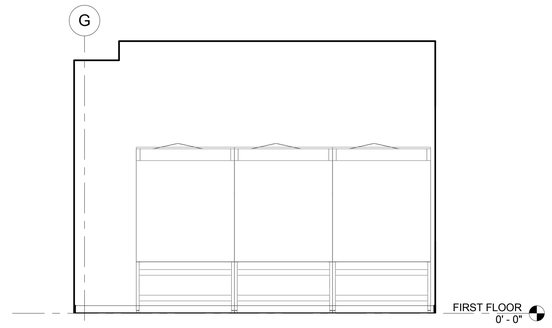
34 TISSUE CULTURE - EAST ELEV



36 TISSUE CULTURE - SOUTH ELEV



44 TISSUE CULTURE - NORTH ELEV



47 TISSUE CULTURE - WEST ELEV

0' 2' 4' 8'

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Revisions:	Date
Revision 1	05.02.2014

CONSULTANTS:

ARCHITECT/ENGINEERS:

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www.HilliardArchitects.com

Drawing Title: FIRST FLOOR ENLARGED PLANS - TISSUE CULTURE

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.34

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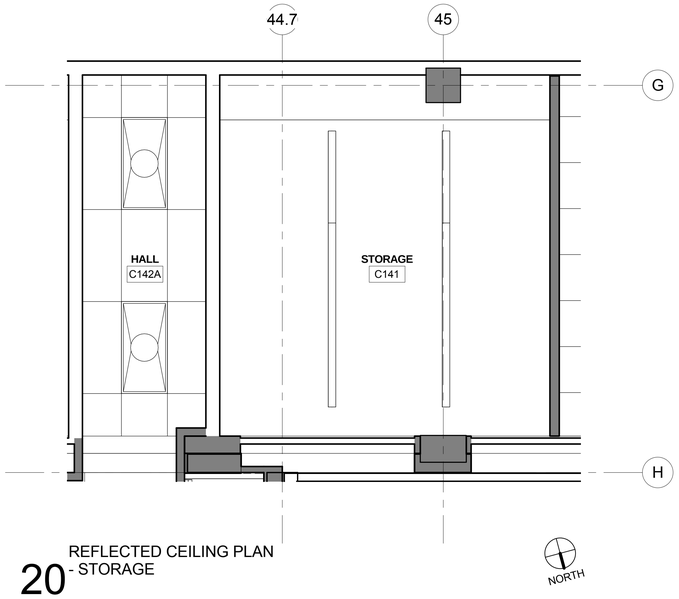
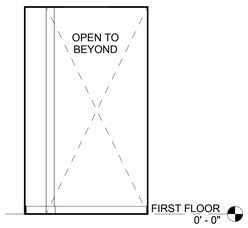


20 REFLECTED CEILING PLAN - STORAGE

13 HALL - EAST ELEV



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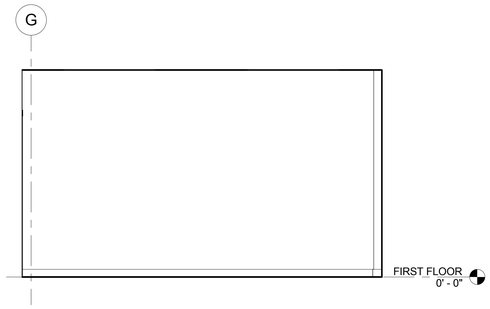
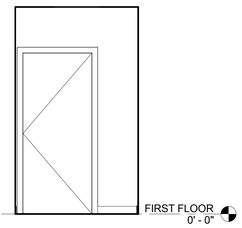
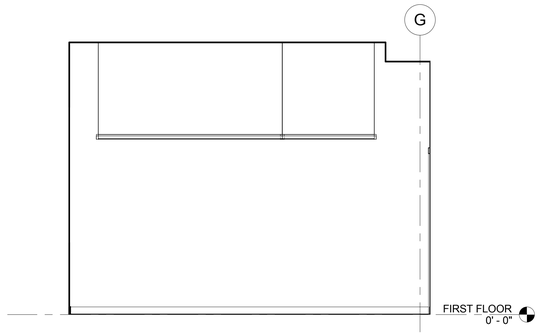


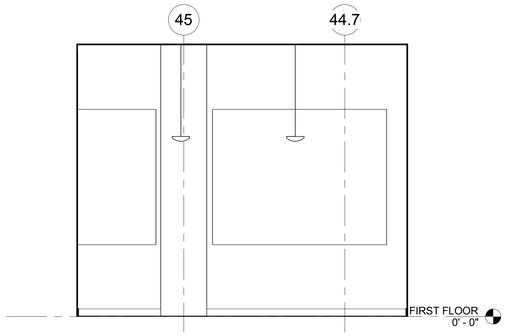
17 HALL - WEST ELEV



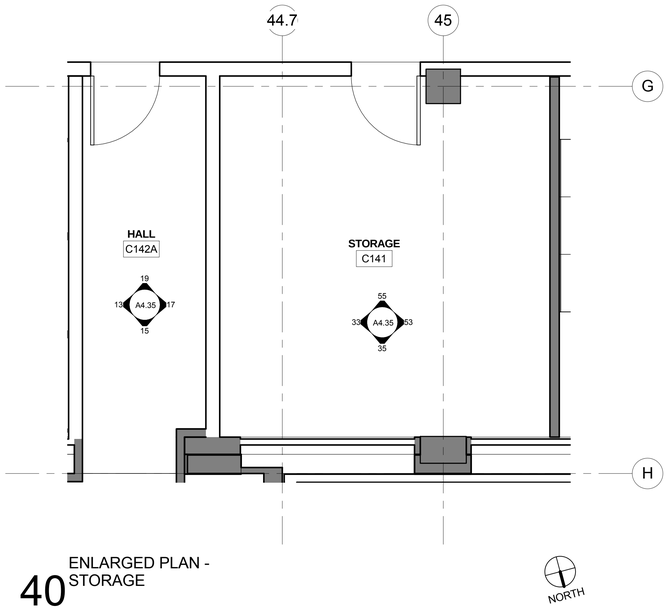
19 HALL - SOUTH ELEV



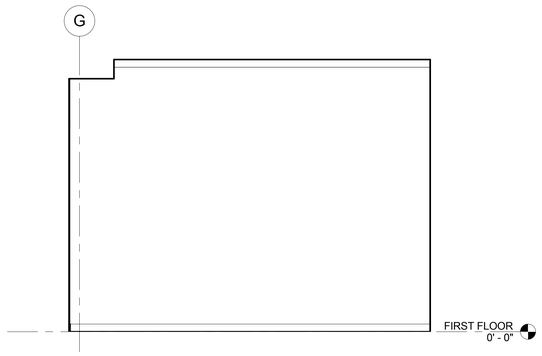
33 STORAGE - EAST ELEV



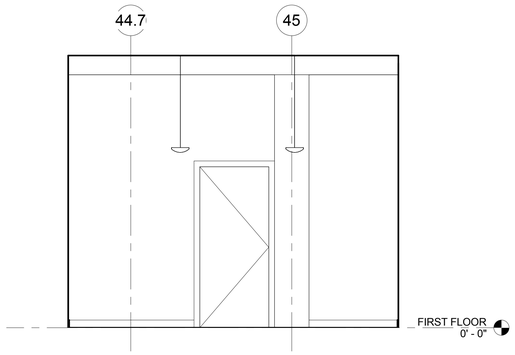
35 STORAGE - NORTH ELEV



40 ENLARGED PLAN - STORAGE



53 STORAGE - WEST ELEV



55 STORAGE - SOUTH ELEV

0' 2' 4' 8'

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Revisions:	Date

CONSULTANTS:

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Tel 415 989 6400, Fax 415 989 3056
www.HilliardArchitects.com

Drawing Title: FIRST FLOOR ENLARGED PLANS - HALL, STORAGE

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.35

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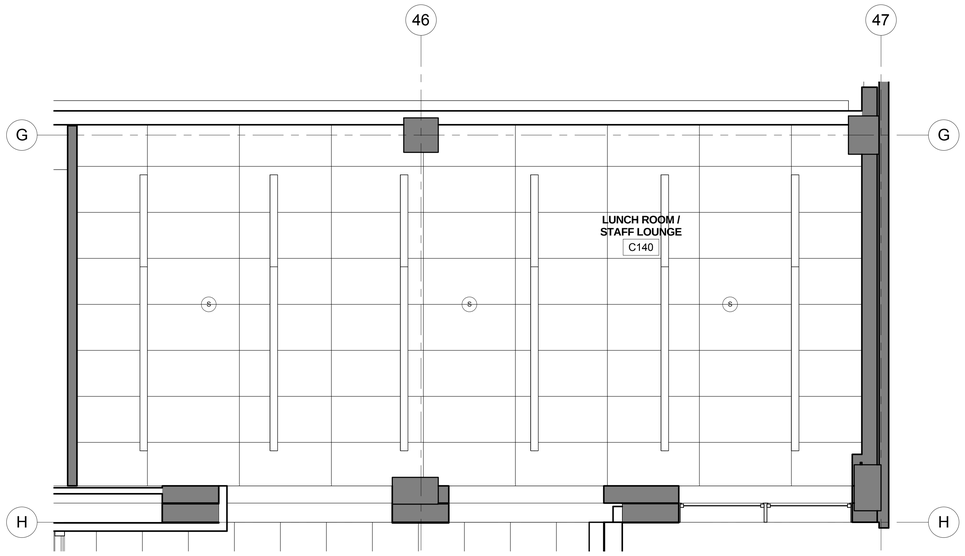
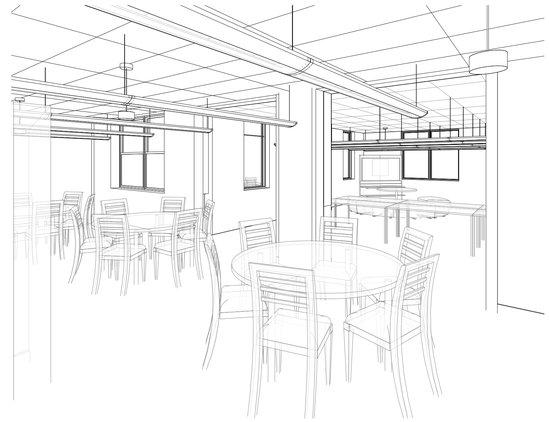
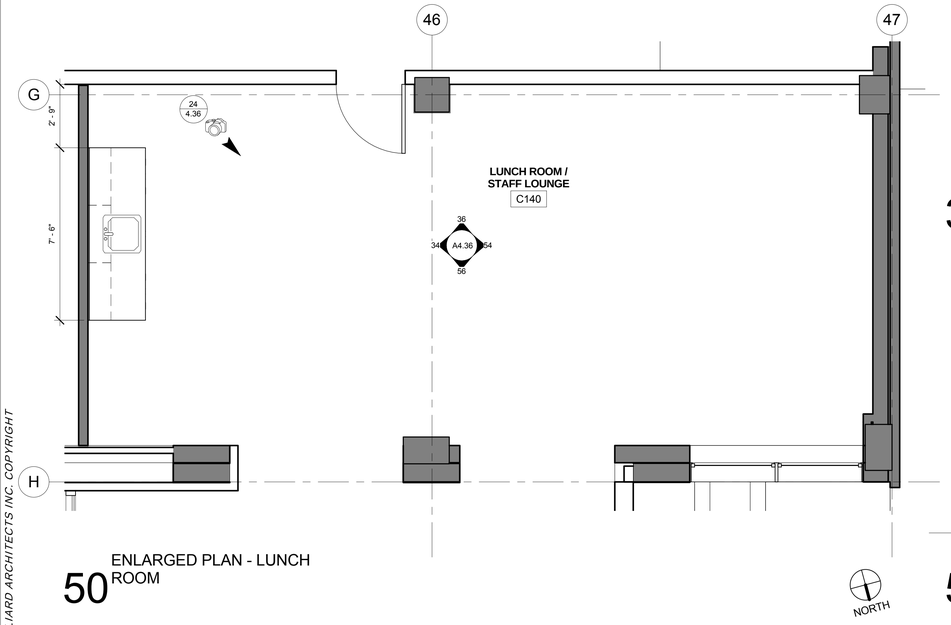


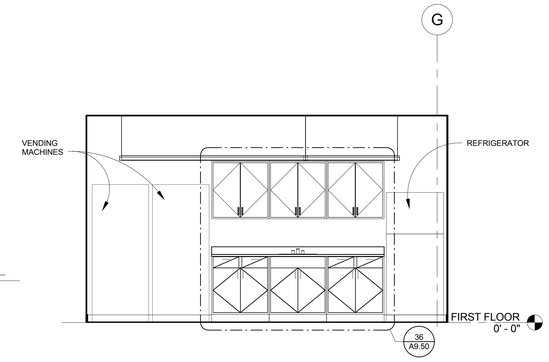
20 ENLARGED CEILING PLAN - LUNCH ROOM



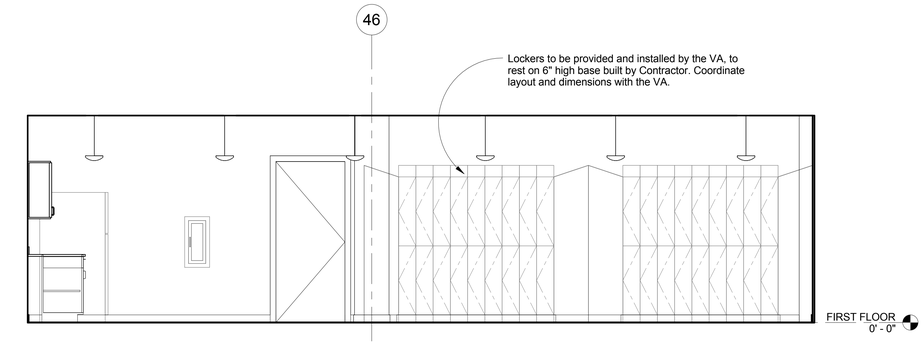
24 LUNCH ROOM



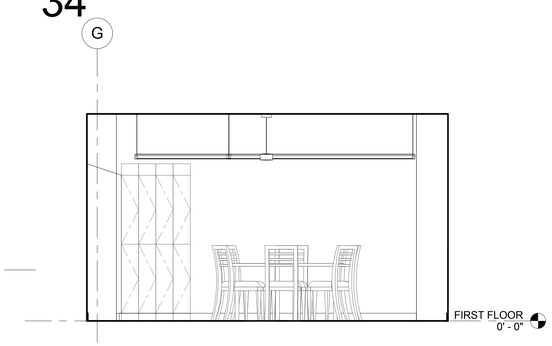
50 ENLARGED PLAN - LUNCH ROOM



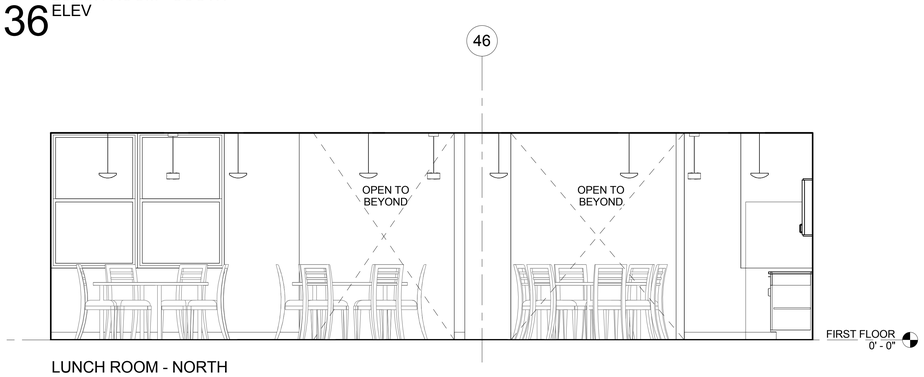
34 LUNCH ROOM - EAST ELEV



36 LUNCH ROOM - SOUTH ELEV



54 LUNCH ROOM - WEST ELEV



56 LUNCH ROOM - NORTH ELEV

0' 2' 4' 8'

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Tel 415 989 6400, Fax 415 989 3056
www.HilliardArchitects.com

Drawing Title: FIRST FLOOR ENLARGED PLANS - LUNCH ROOM

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.36

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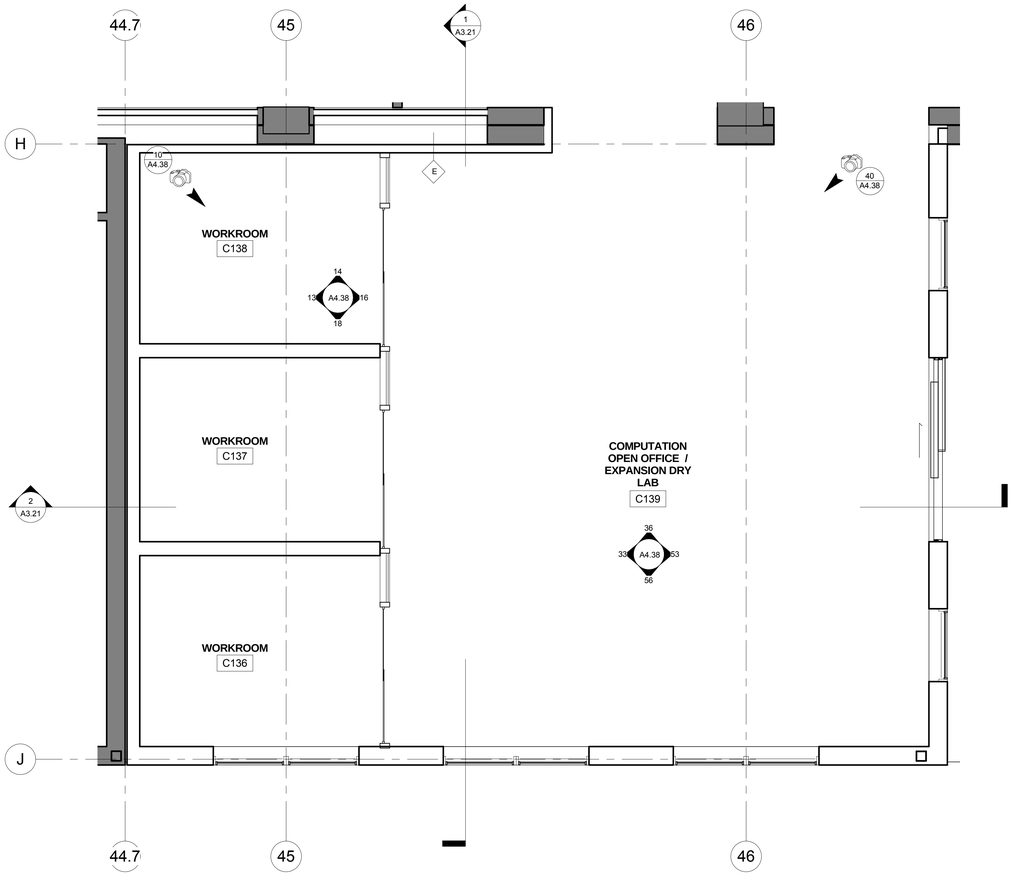
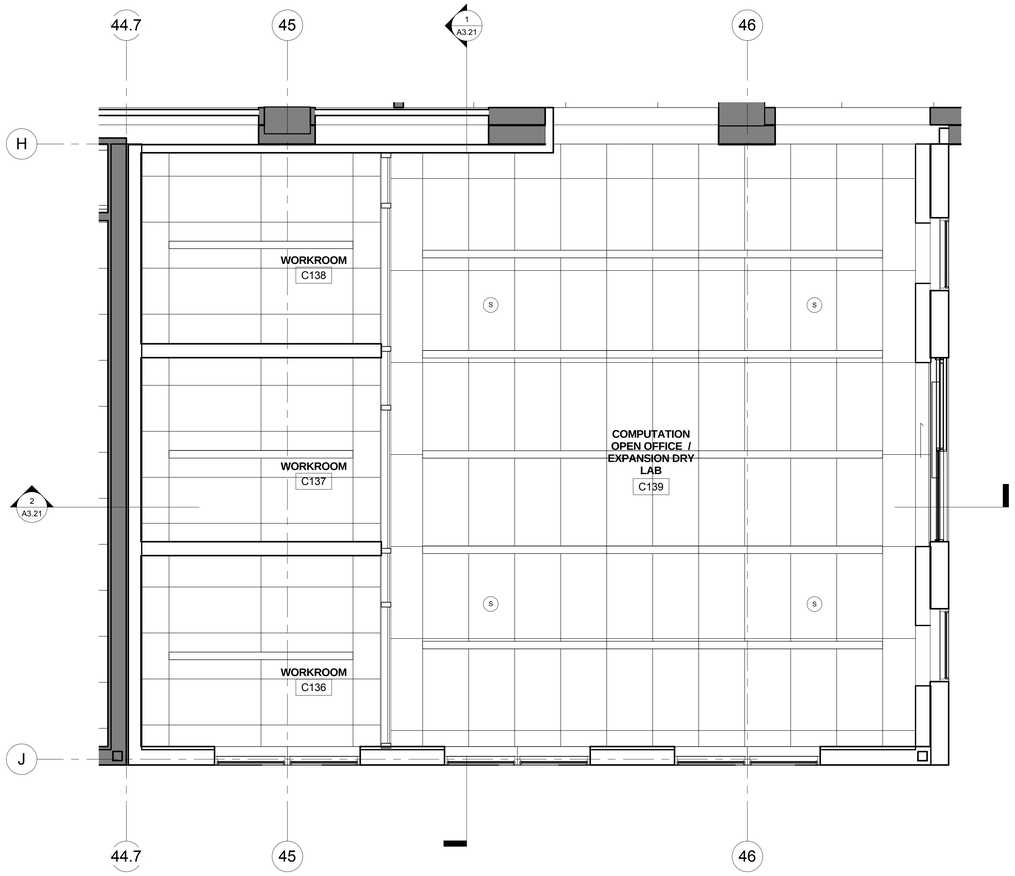


ENLARGED PLAN - WORKROOMS, COMP. OPEN OFFICE / EXPANSION DRY LAB

40



ENLARGED CEILING PLAN - WORKROOMS, COMP. OPEN OFFICE / EXPANSION DRY LAB

45

0' 2' 4' 8'

NORTH

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www.HilliardArchitects.com

Drawing Title: FIRST FLOOR ENLARGED PLANS - WORKROOMS, COMP. OPEN OFFICE / EXPANSION DRY LAB

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.37

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Office of Construction and Facilities Management

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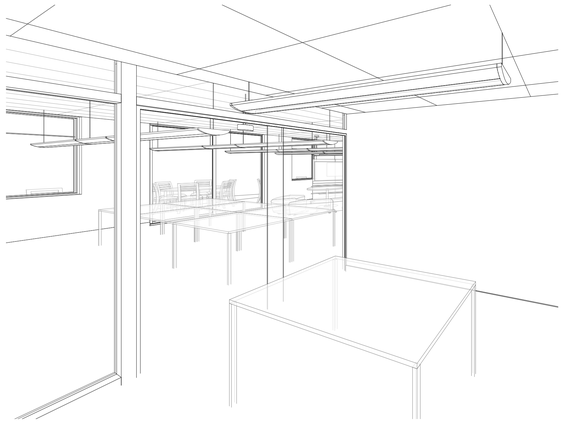
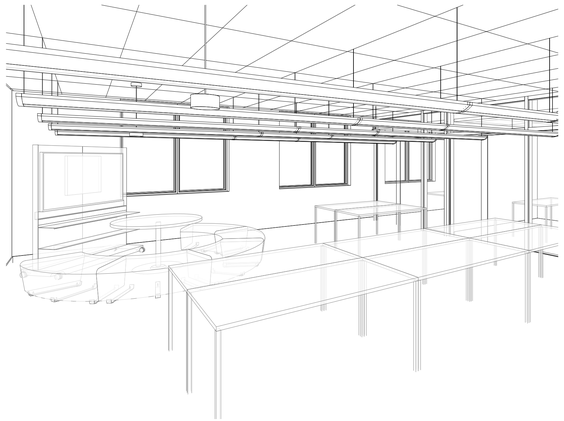
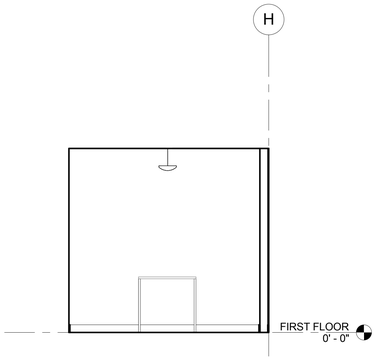


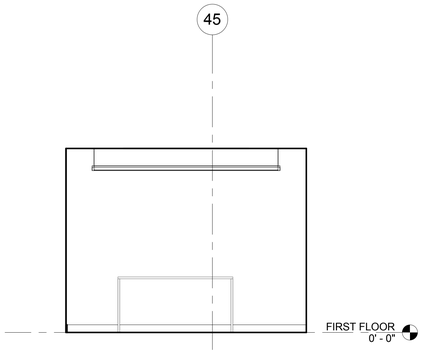
10 WORKROOM



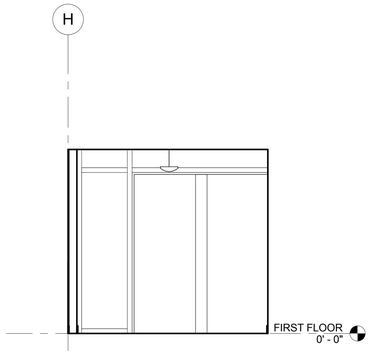
40 WORKROOMS, COMP. OPEN OFFICE / EXPANSION DRY LAB



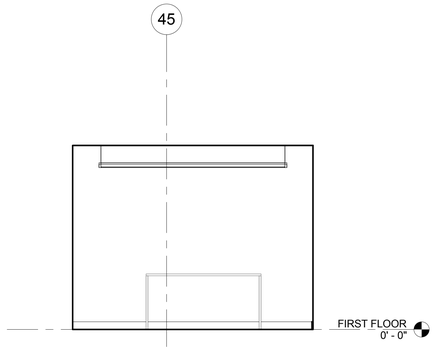
13 WORKROOM - EAST ELEV



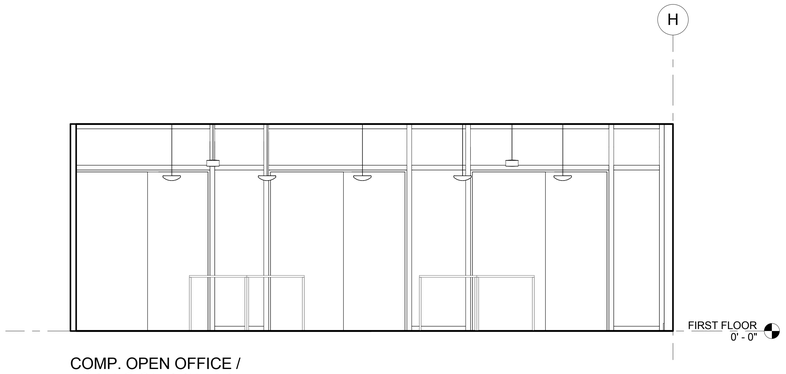
14 WORKROOM - SOUTH ELEV



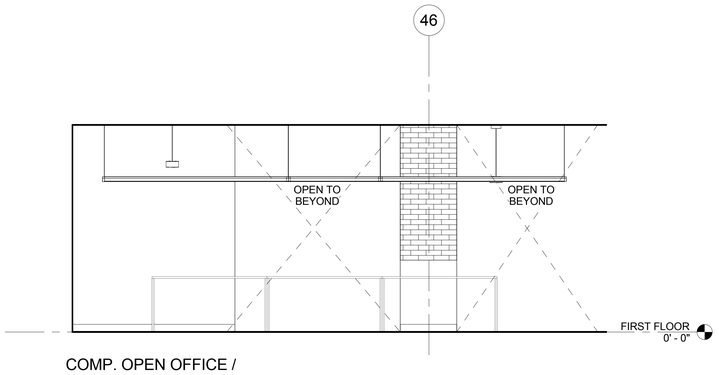
16 WORKROOM - WEST ELEV



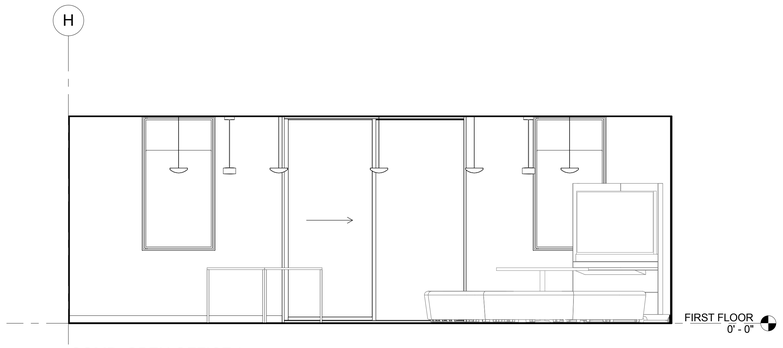
18 WORKROOM - NORTH ELEV



33 COMP. OPEN OFFICE / EXPANSION DRY LAB - EAST ELEV



36 COMP. OPEN OFFICE / EXPANSION DRY LAB - SOUTH ELEV



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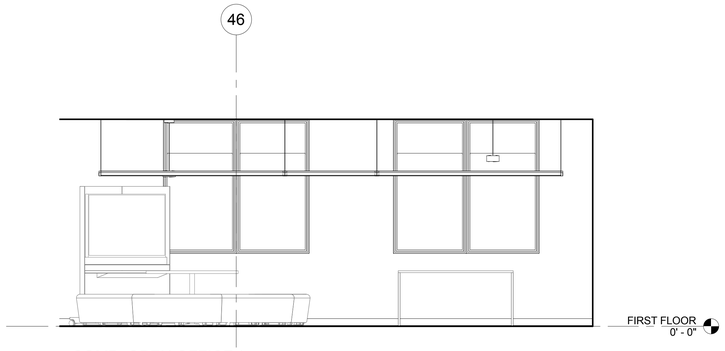

56 COMP. OPEN OFFICE / EXPANSION DRY LAB - NORTH ELEV

0' 2' 4' 8'

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Drawing Title: FIRST FLOOR ELEV, 3D VIEW - WORKROOMS, COMP. OPEN OFFICE / EXPANSION DRY LAB

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.38

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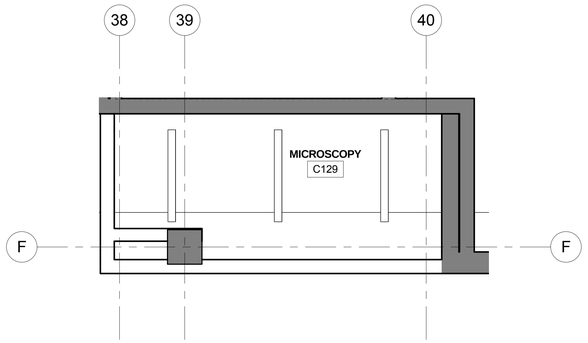
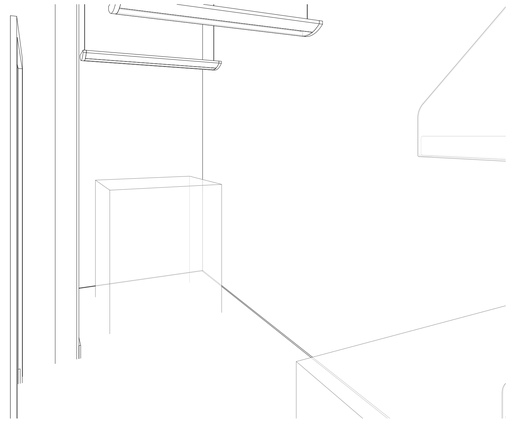


20 ENLARGED CEILING PLAN - MICROSCOPY

NORTH



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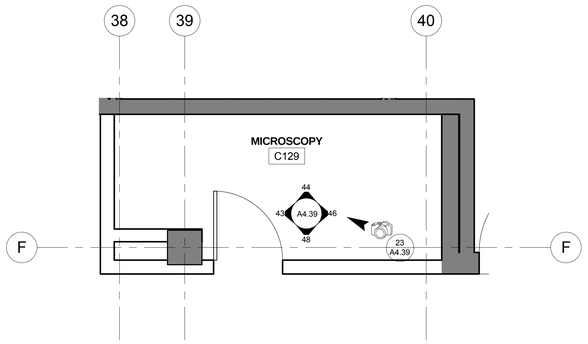
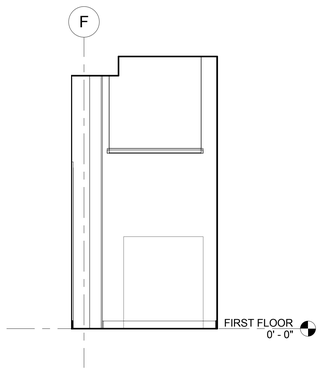
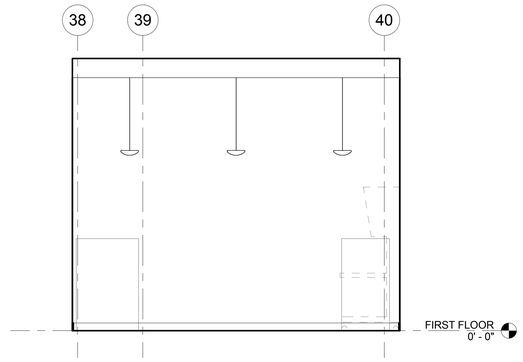


40 ENLARGED PLAN - MICROSCOPY

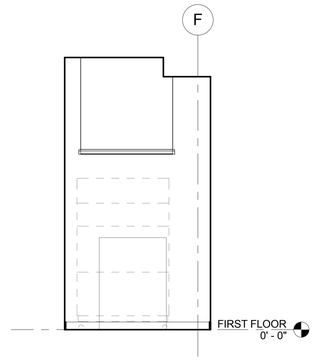
NORTH



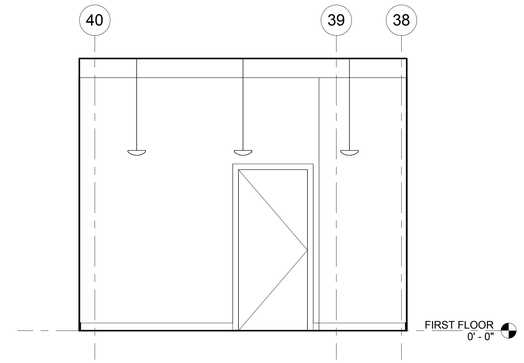
43 MICROSCOPY - EAST ELEV



44 MICROSCOPY - SOUTH ELEV



46 MICROSCOPY - WEST ELEV



48 MICROSCOPY - NORTH ELEV

0' 2' 4' 8'

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www.HilliardArchitects.com

Drawing Title: FIRST FLOOR ENLARGED PLANS - MICROSCOPY

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.39

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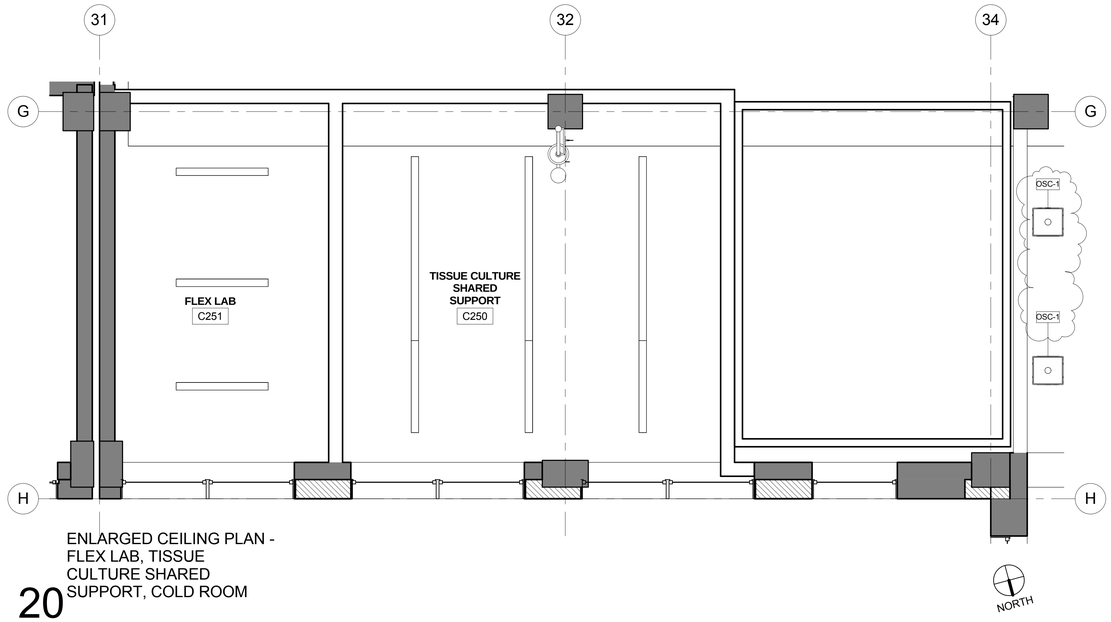
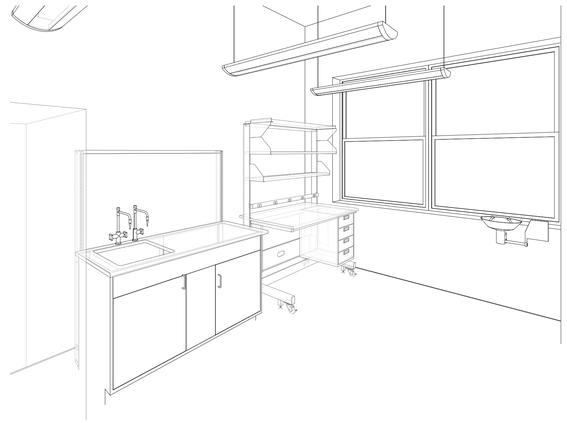
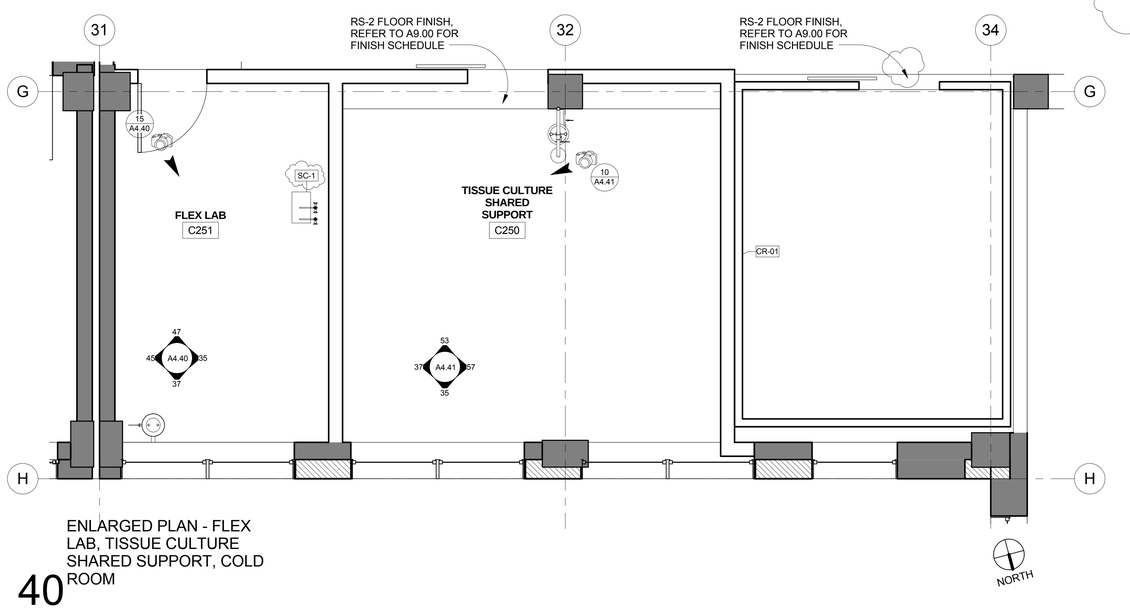


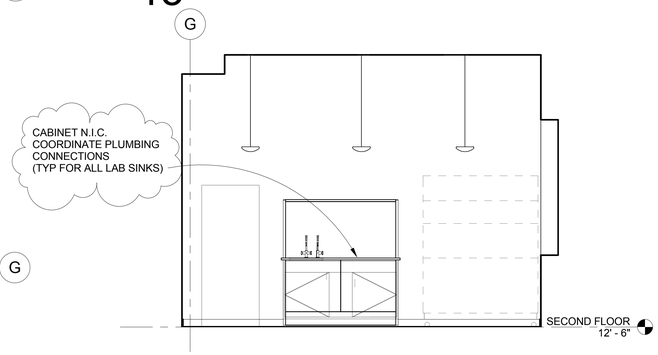
20 ENLARGED CEILING PLAN - FLEX LAB, TISSUE CULTURE SHARED SUPPORT, COLD ROOM



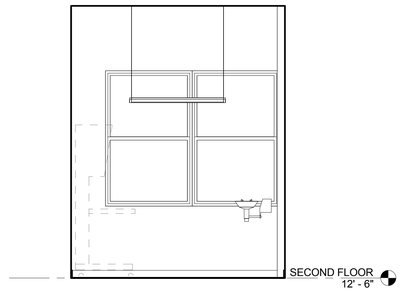
15 FLEX LAB



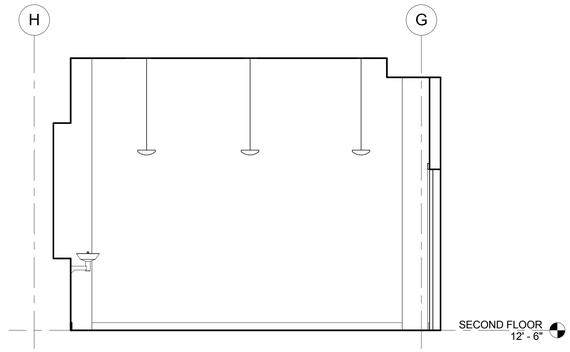
40 ENLARGED PLAN - FLEX LAB, TISSUE CULTURE SHARED SUPPORT, COLD ROOM



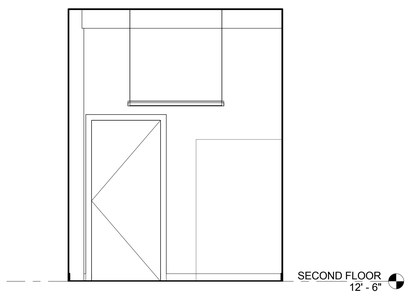
35 FLEX LAB - WEST ELEV



37 FLEX LAB - NORTH ELEV



45 FLEX LAB - EAST ELEV



47 FLEX LAB - SOUTH ELEV

0' 2' 4' 8'

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Drawing Title: SECOND FLOOR ENLARGED PLANS - FLEX LAB, TISSUE CULTURE SHARED SUPPORT

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.40

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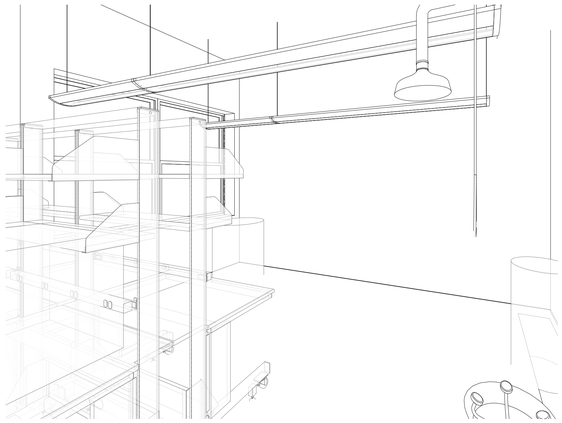
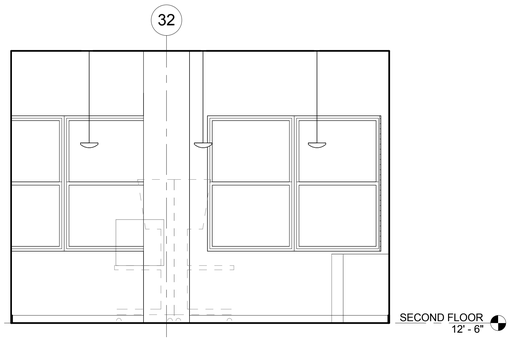
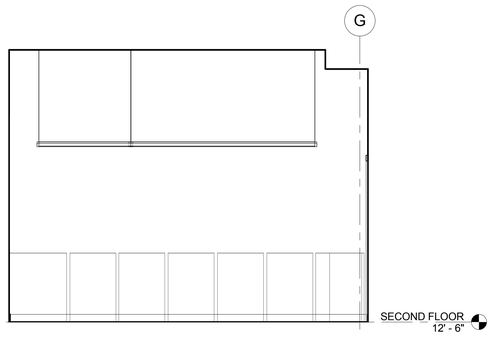


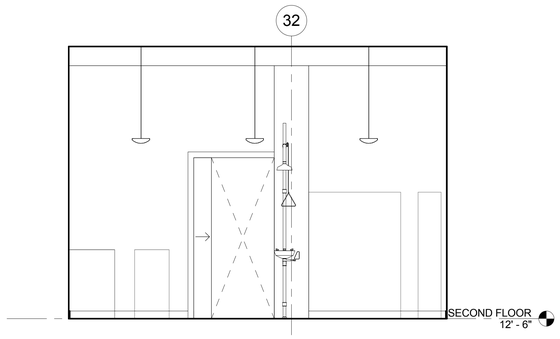
52 TISSUE CULTURE SHARED SUPPORT



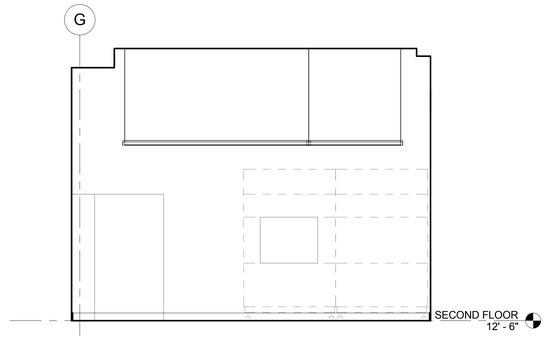
35 TISSUE CULTURE SHARED SUPPORT - NORTH ELEV



37 TISSUE CULTURE SHARED SUPPORT - EAST ELEV



53 TISSUE CULTURE SHARED SUPPORT - SOUTH ELEV



57 TISSUE CULTURE SHARED SUPPORT - WEST ELEV

0' 2' 4' 8'

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www.HilliardArchitects.com

Drawing Title: SECOND FLOOR ELEV, 3D VIEW - TISSUE CULTURE SHARED SUPPORT

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.41

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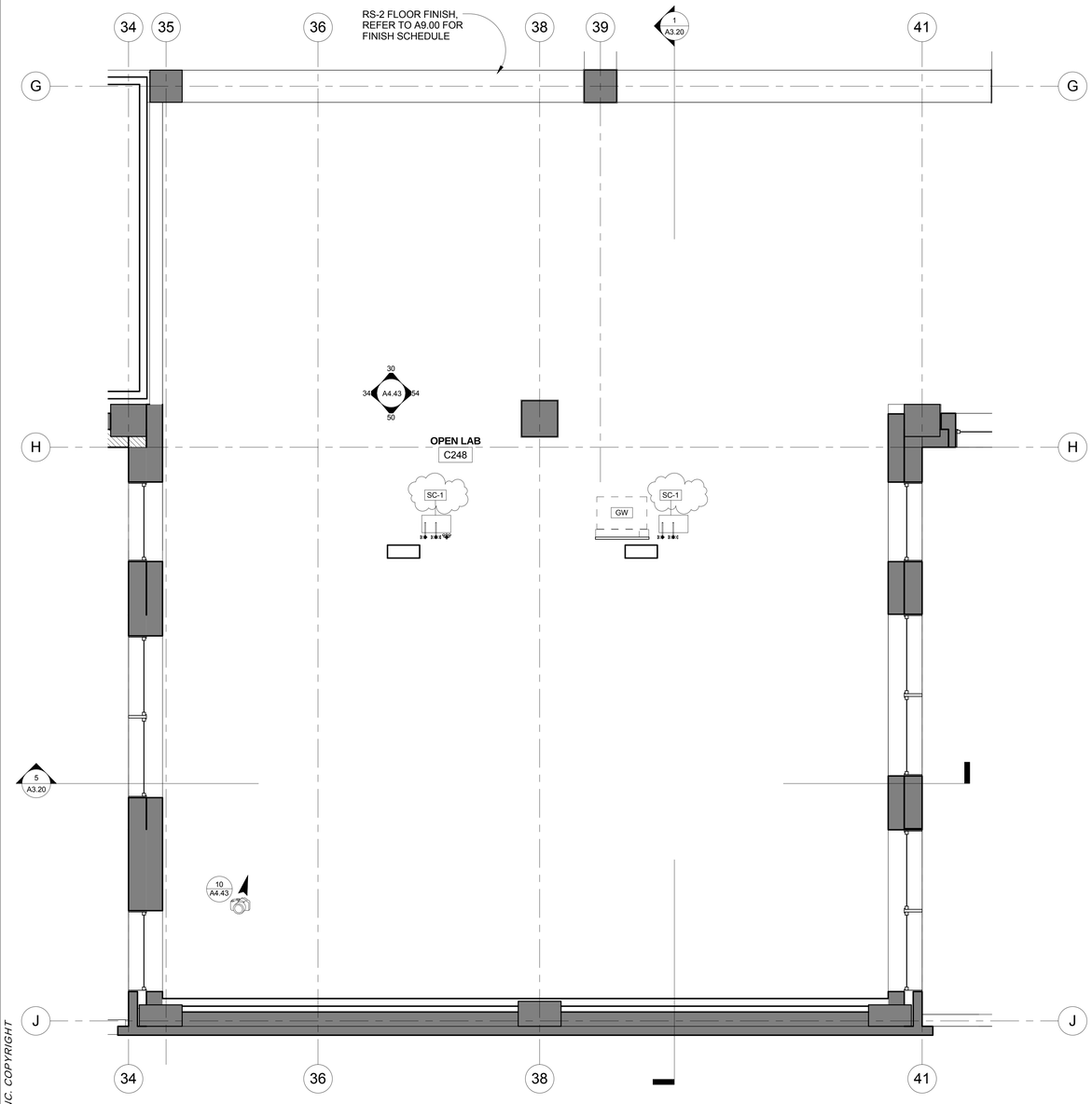
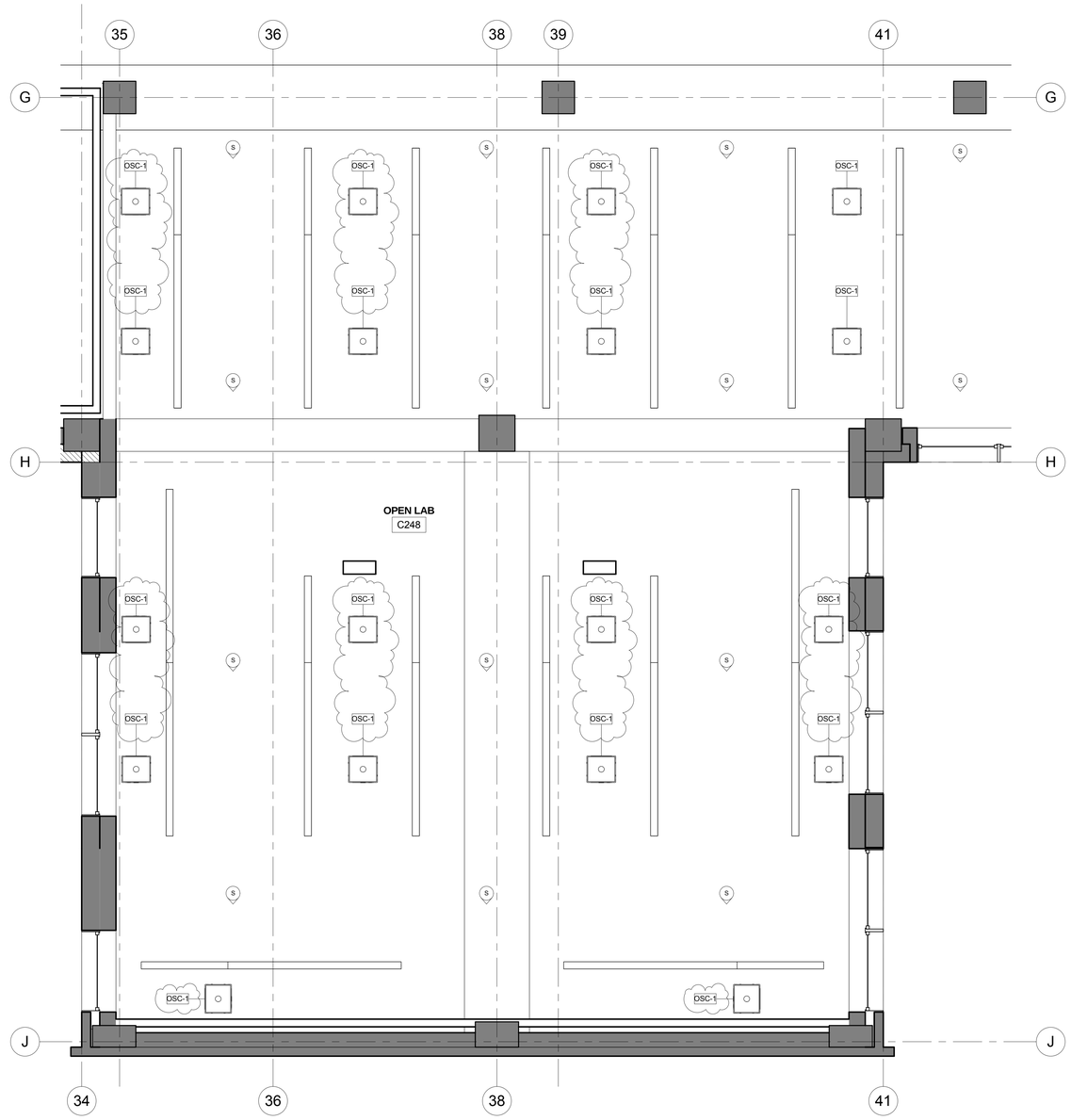


ENLARGED PLAN - OPEN LAB

50



ENLARGED CEILING PLAN - OPEN LAB

55

0' 2' 4' 8'

NORTH

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www.HilliardArchitects.com

Drawing Title: SECOND FLOOR ENLARGED PLANS - OPEN LAB (NORTH)

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.42

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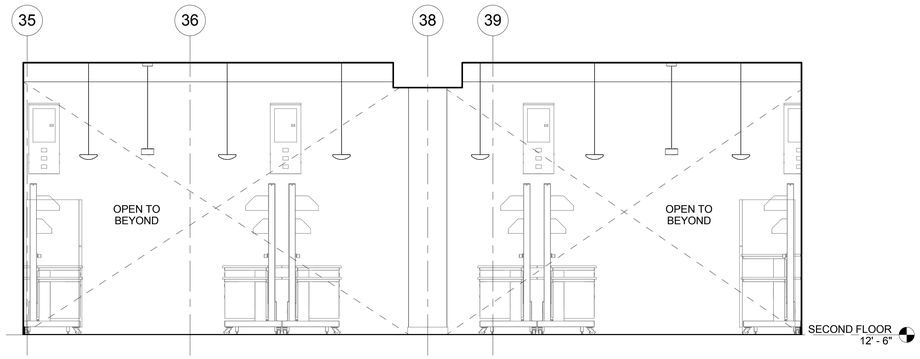
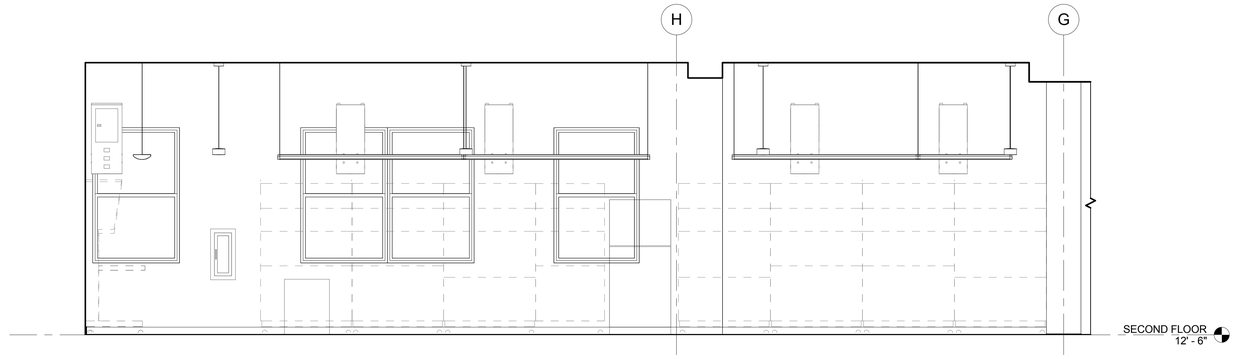
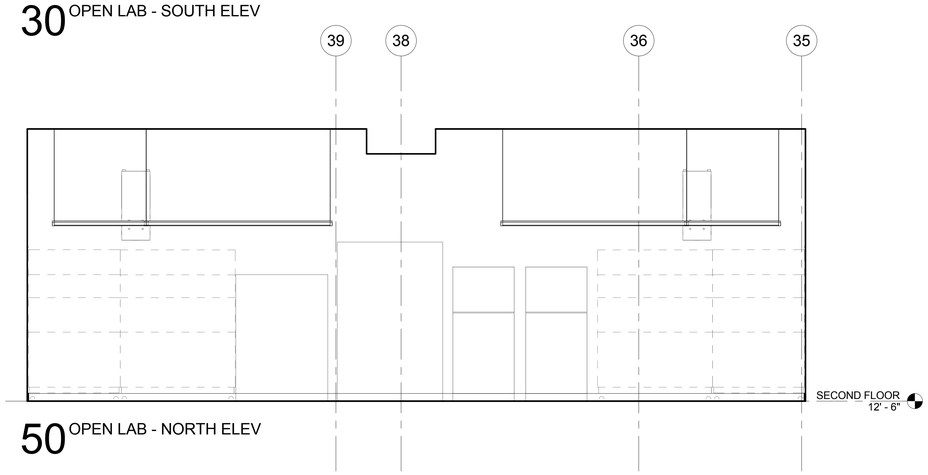
10 OPEN LAB (NORTH)



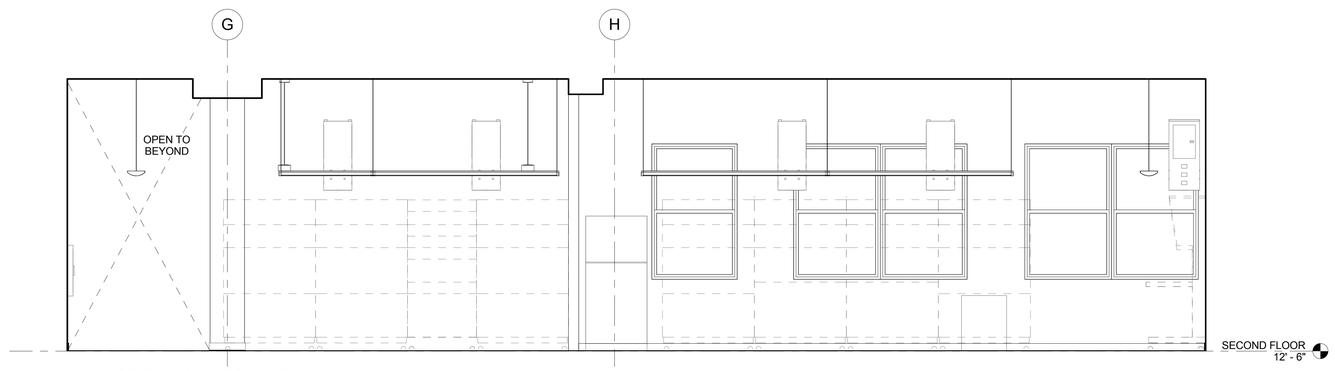
30 OPEN LAB - SOUTH ELEV



34 OPEN LAB - EAST ELEV



50 OPEN LAB - NORTH ELEV



54 OPEN LAB - WEST ELEV

0' 2' 4' 8'

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www.HilliardArchitects.com

Drawing Title: SECOND FLOOR ELEV, 3D VIEW - OPEN LAB (NORTH)

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.43

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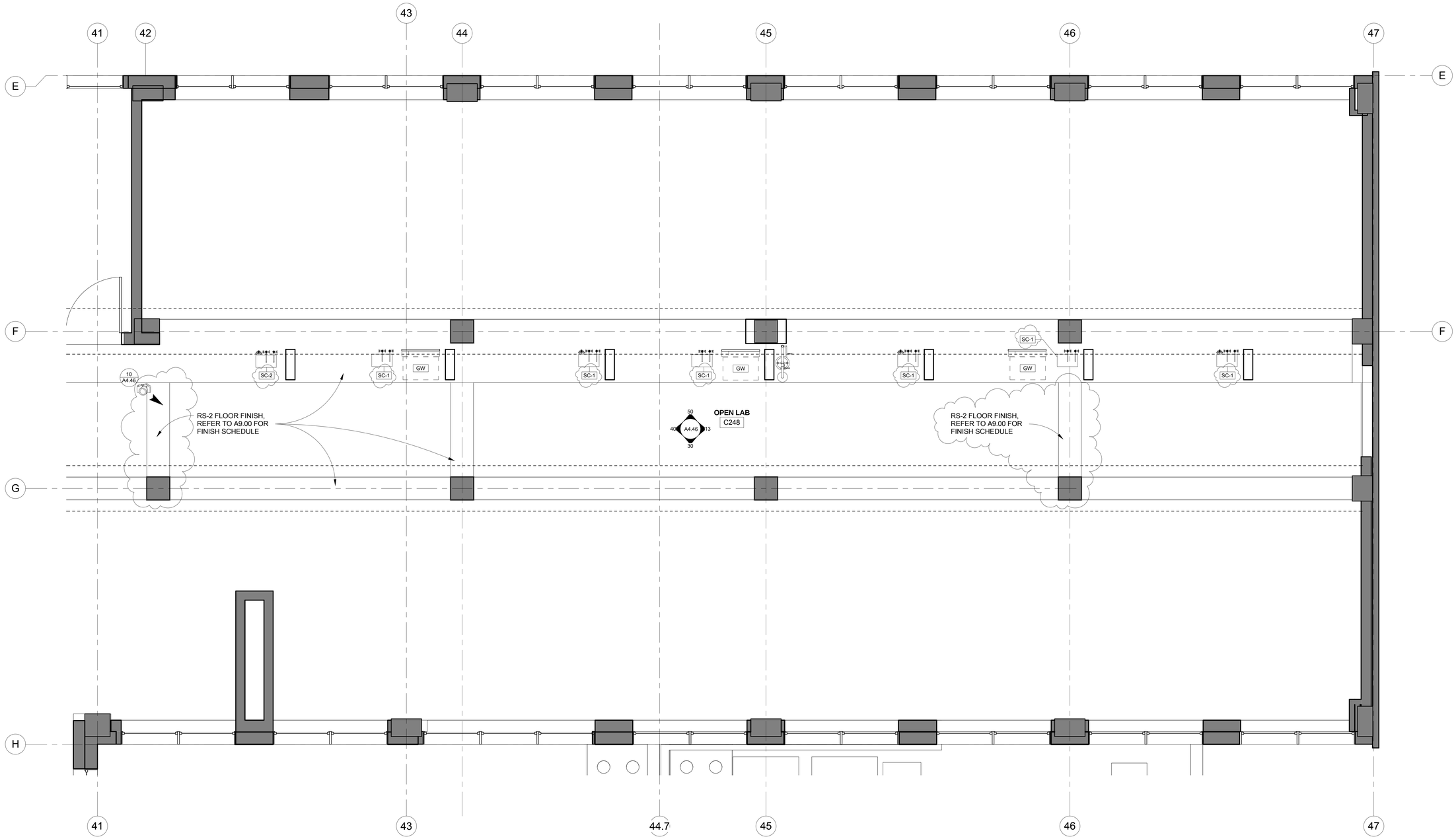
VA FORM 08-6231



40 ENLARGED PLAN - OPEN LAB

0' 2' 4' 8'

NORTH

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Drawing Title: SECOND FLOOR ENLARGED PLAN - OPEN LAB (WEST)

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.44

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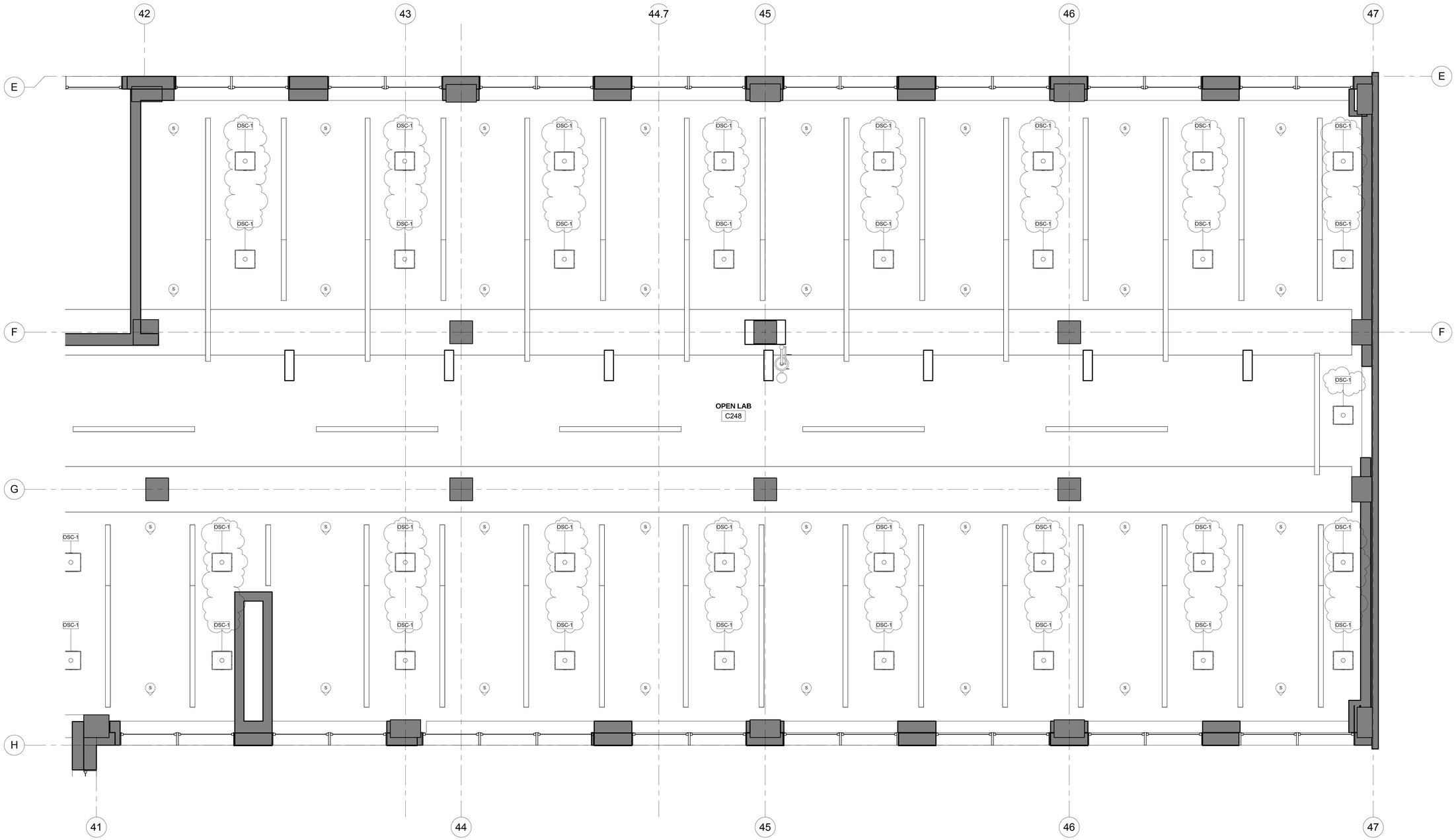

50 ENLARGED CEILING PLAN - OPEN LAB

0' 2' 4' 8'

NORTH

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Drawing Title: SECOND FLOOR ENLARGED CEILING PLAN - OPEN LAB (WEST)

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.45

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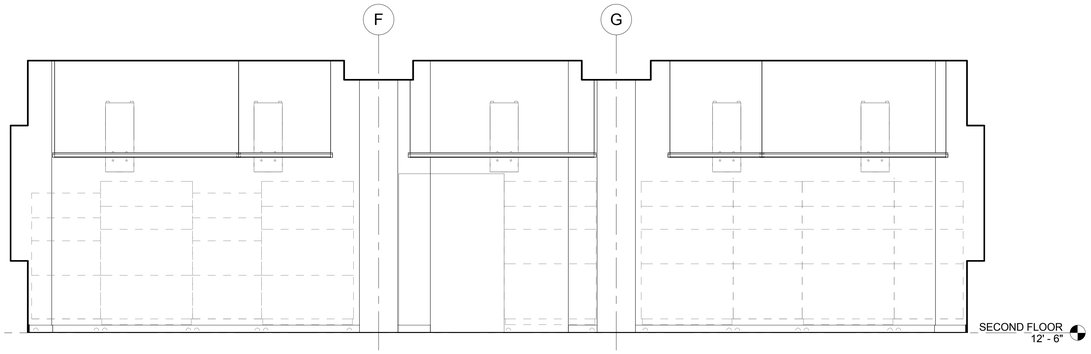
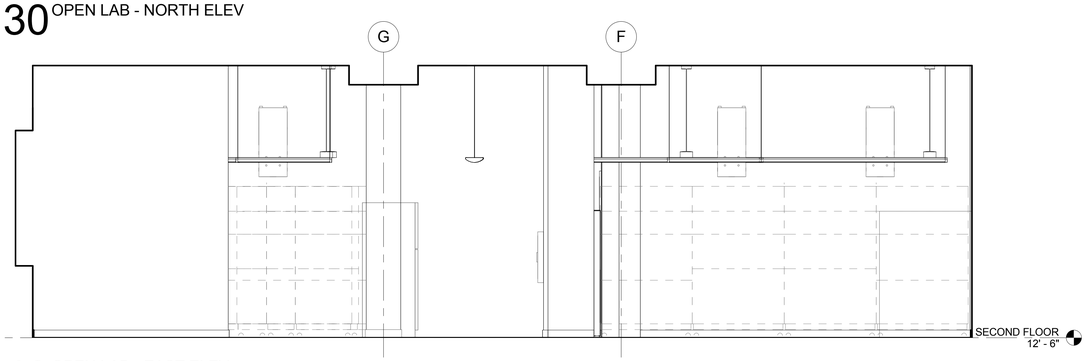
10 OPEN LAB (WEST)

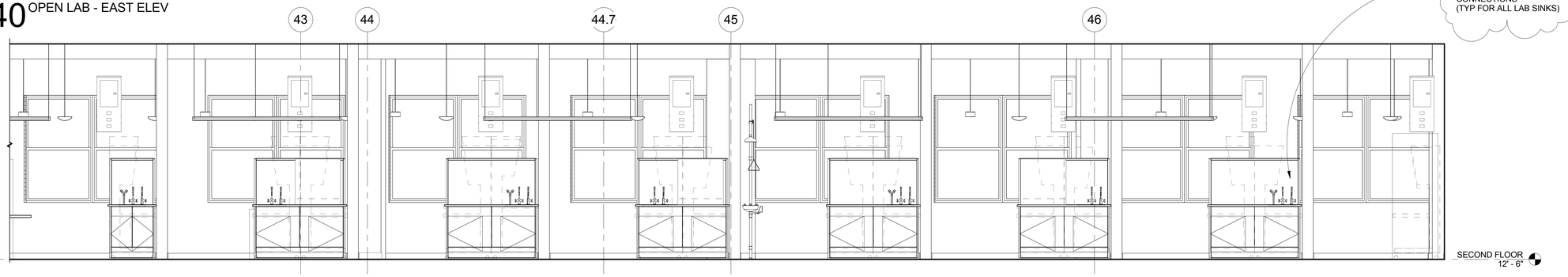


13 OPEN LAB - WEST ELEV

30 OPEN LAB - NORTH ELEV



40 OPEN LAB - EAST ELEV



50 OPEN LAB - SOUTH ELEV

0' 2' 4' 8'

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Drawing Title: SECOND FLOOR ELEV, 3D VIEW - OPEN LAB (WEST)

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.46

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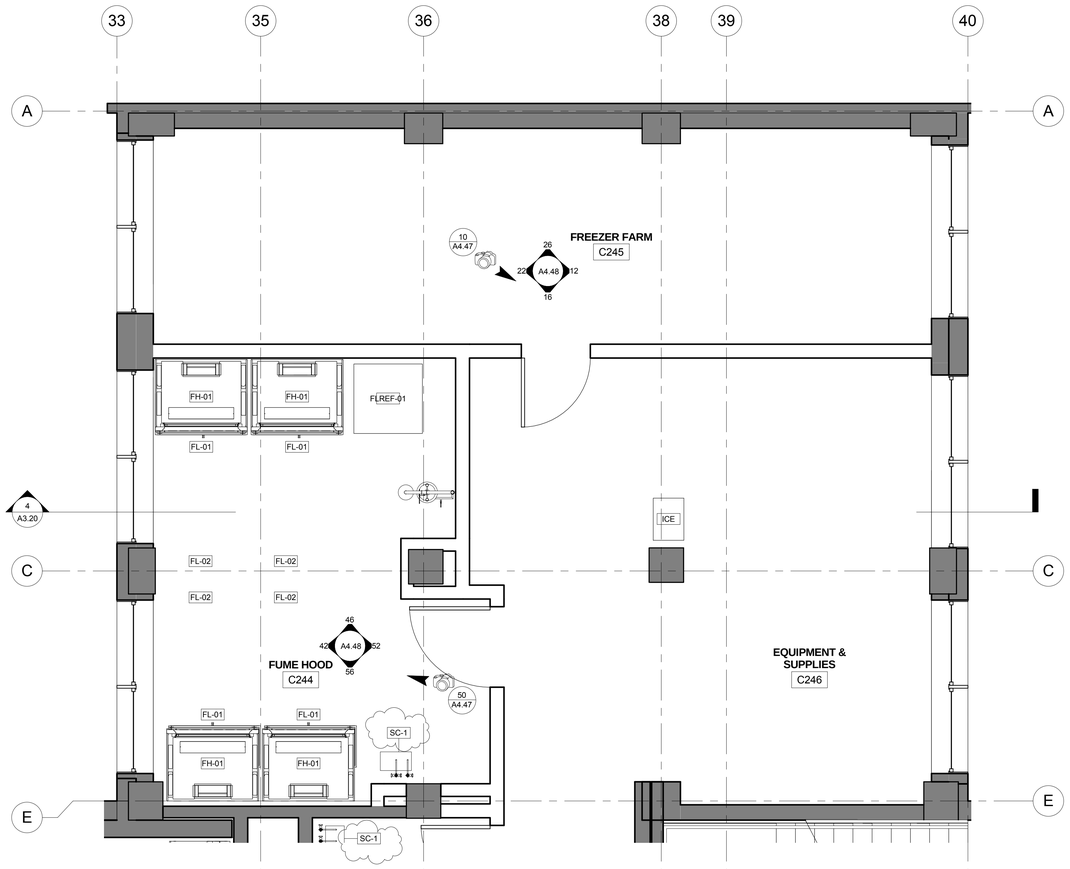
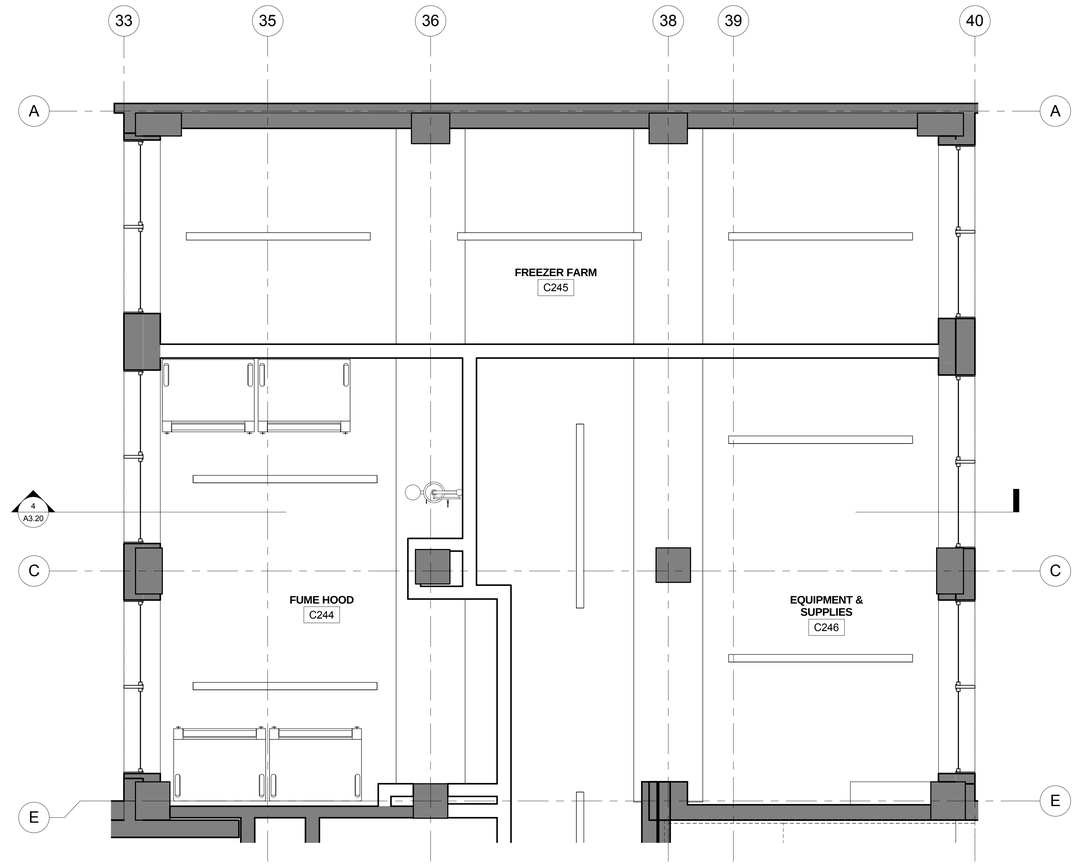


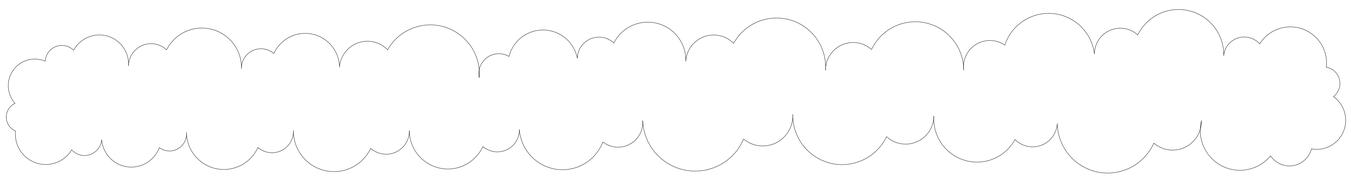
ENLARGED PLAN - FREEZER FARM, FUME HOOD, EQUIP & SUPPLIES

30



ENLARGED CEILING PLAN - FREEZER FARM, FUME HOOD, EQUIP & SUPPLIES

35



0' 2' 4' 8'

NORTH

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Drawing Title: SECOND FLOOR ENLARGED PLANS - FREEZER FARM, FUME HOOD, EQUIP & SUPPLIES

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.47

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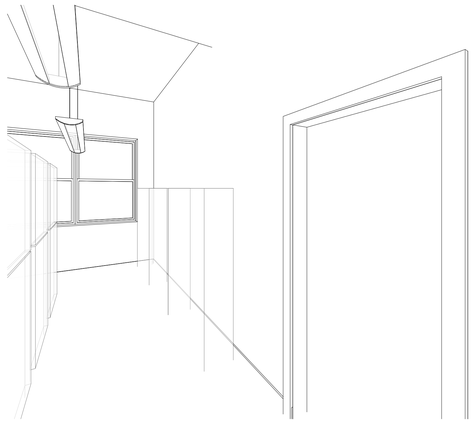
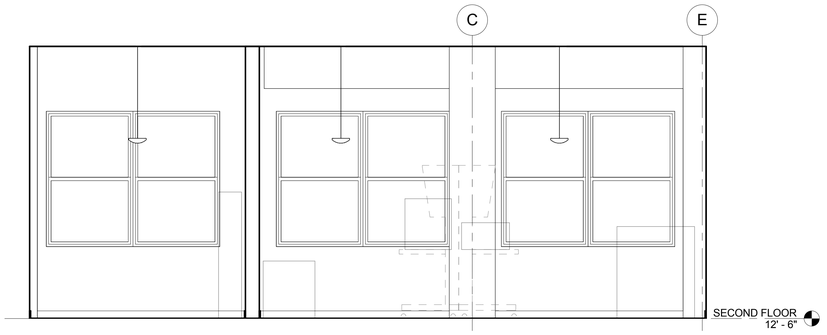
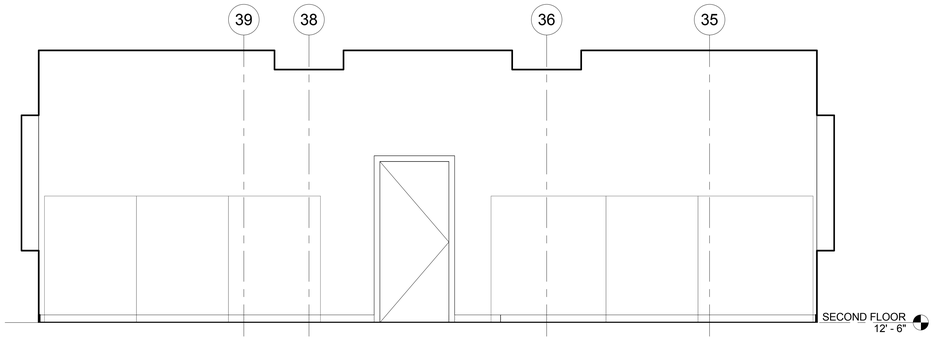


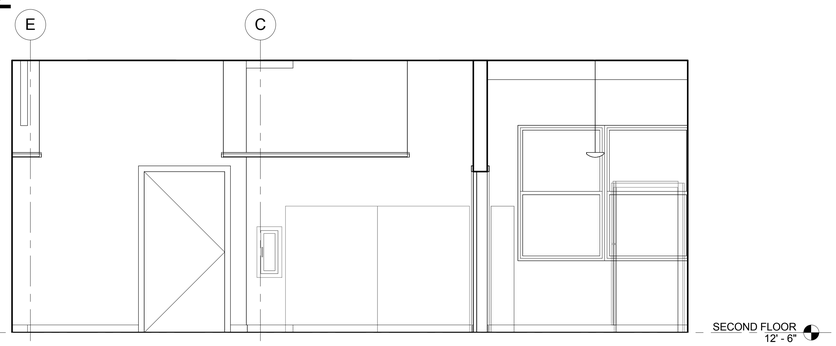
10 FREEZER FARM, EQUIPMENT & SUPPLIES



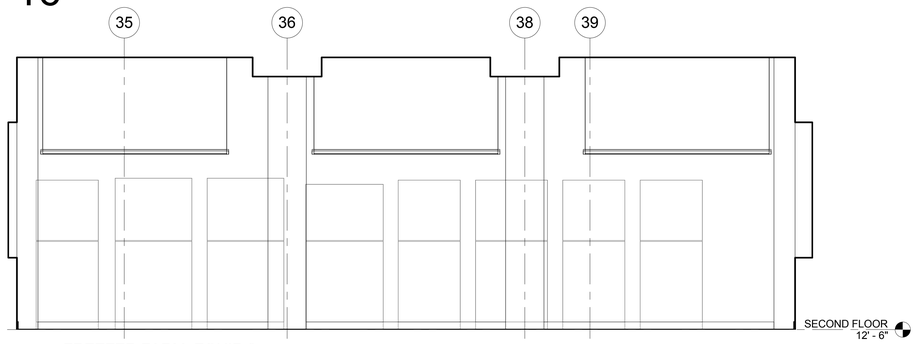
12 FREEZER FARM, EQUIP & SUPPLIES - WEST ELEV



16 FREEZER FARM, EQUIP & SUPPLIES - NORTH ELEV

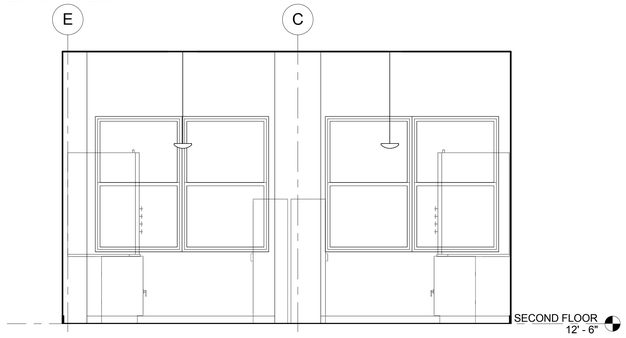


22 FREEZER FARM, EQUIP & SUPPLIES - EAST ELEV

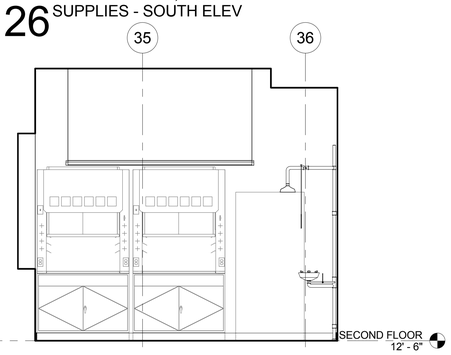


26 FREEZER FARM, EQUIP & SUPPLIES - SOUTH ELEV

50 FUME HOOD



42 FUME HOOD - EAST ELEV



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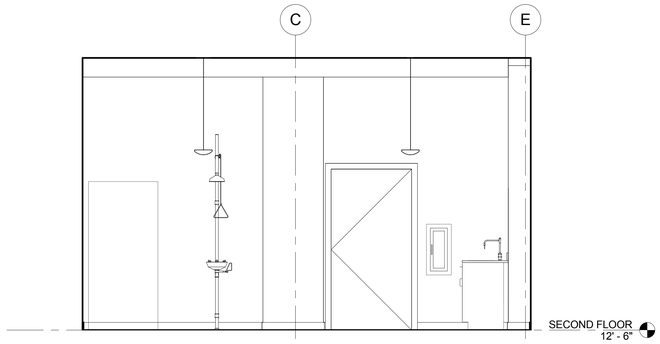
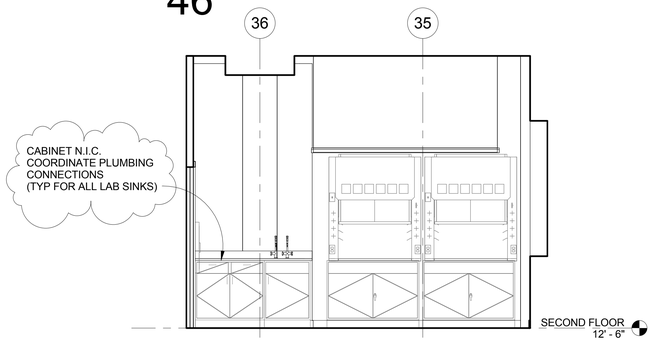


52 FUME HOOD - WEST ELEV



56 FUME HOOD - NORTH ELEV

0' 2' 4' 8'

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Drawing Title: SECOND FLOOR ELEV, 3D VIEW - FREEZER FARM, FUME HOOD, EQUIP & SUPPLIES

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn:

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.48

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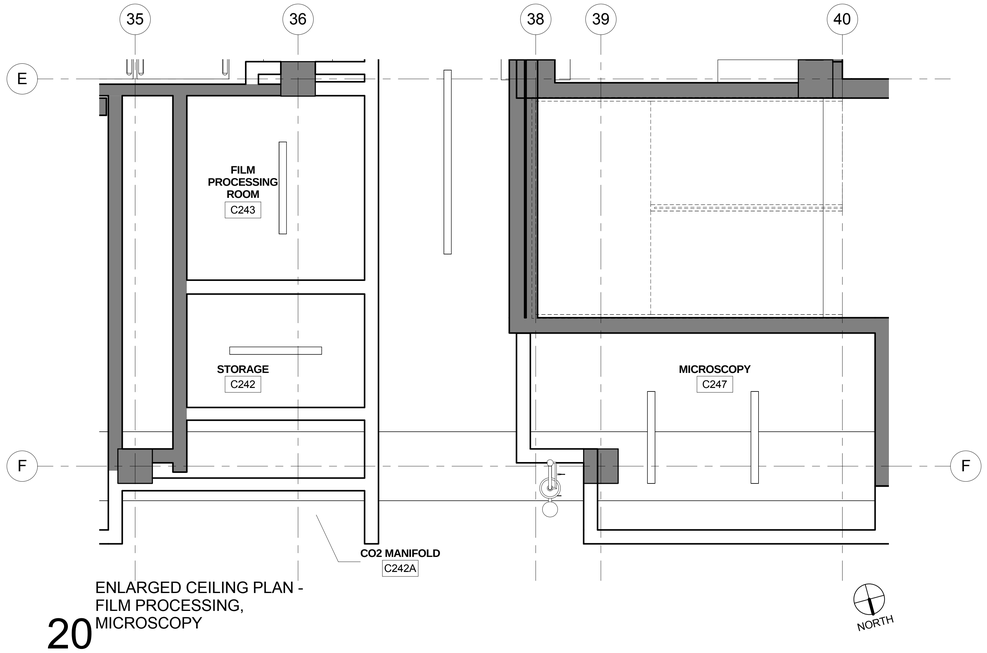
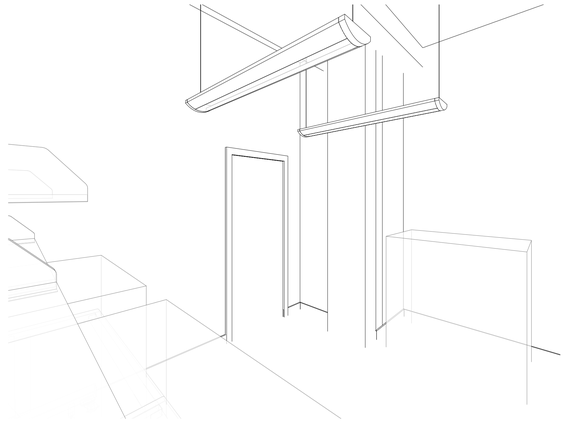
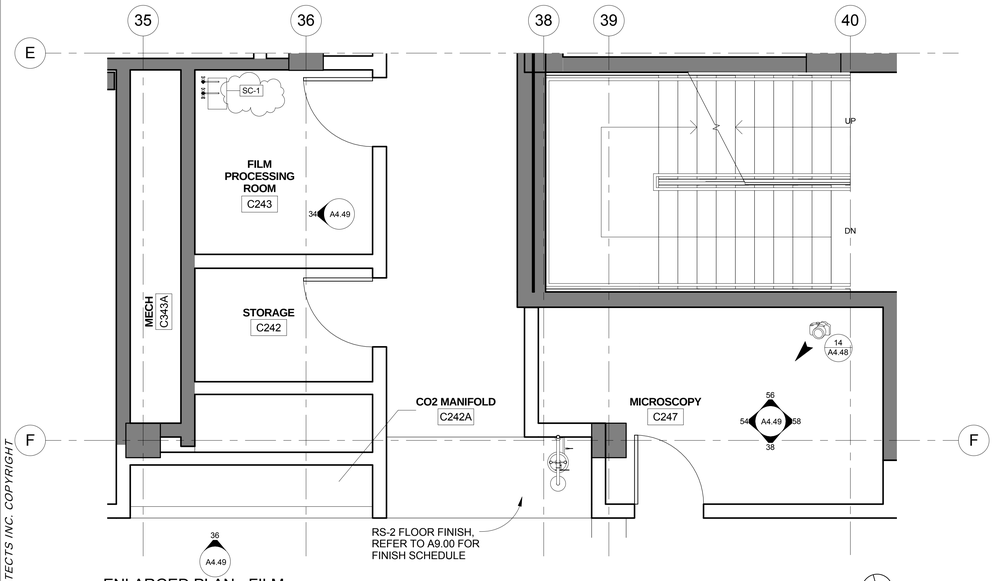


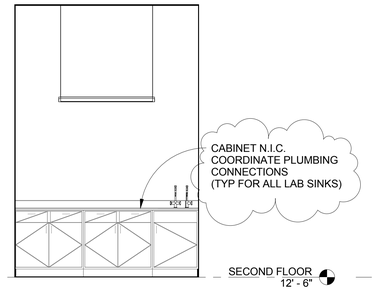
20 ENLARGED CEILING PLAN - FILM PROCESSING, MICROSCOPY



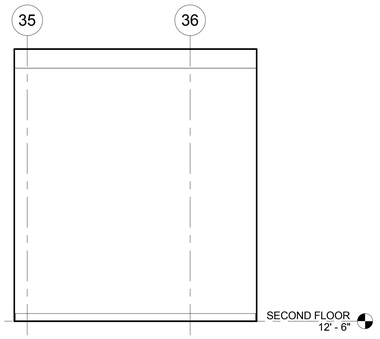
14 MICROSCOPY



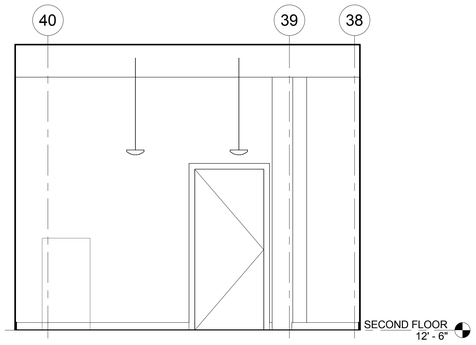
30 ENLARGED PLAN - FILM PROCESSING, MICROSCOPY



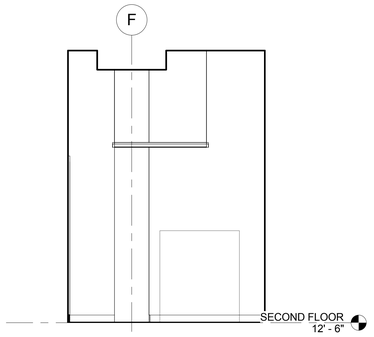
34 FILM PROCESSING - EAST ELEV



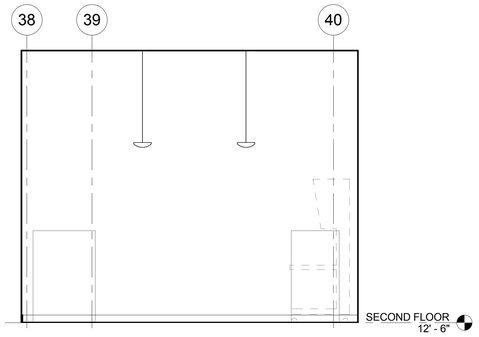
36 CO2 MANIFOLD - SOUTH ELEV



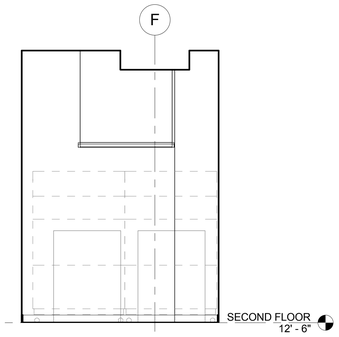
38 MICROSCOPY - NORTH ELEV



54 MICROSCOPY - EAST ELEV



56 MICROSCOPY - SOUTH ELEV



58 MICROSCOPY - WEST ELEV

0' 2' 4' 8'

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Drawing Title: SECOND FLOOR ENLARGED PLANS - FILM PROCESSING, MICROSCOPY

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.49

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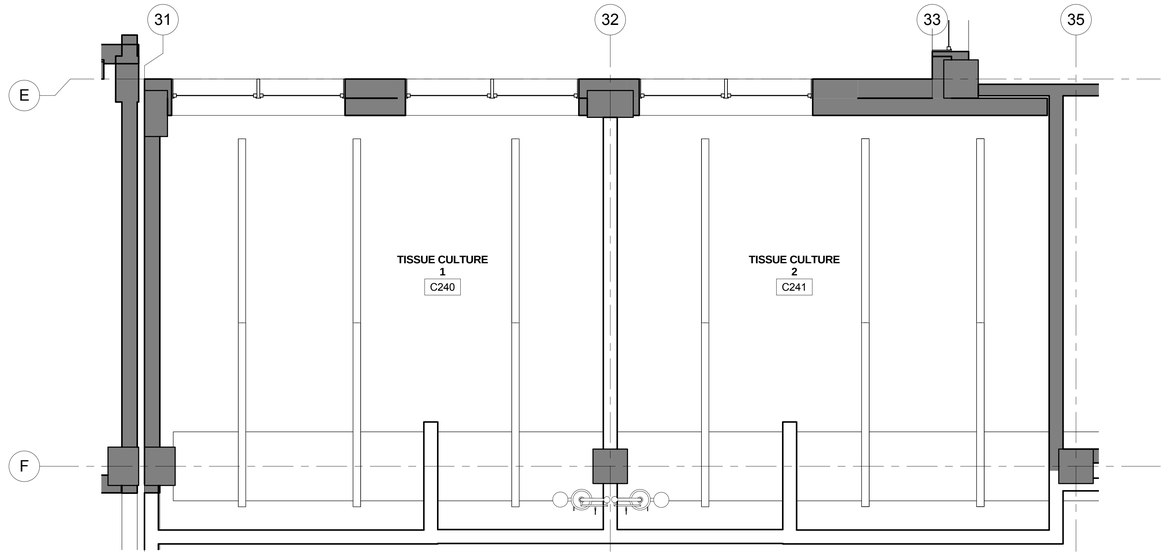
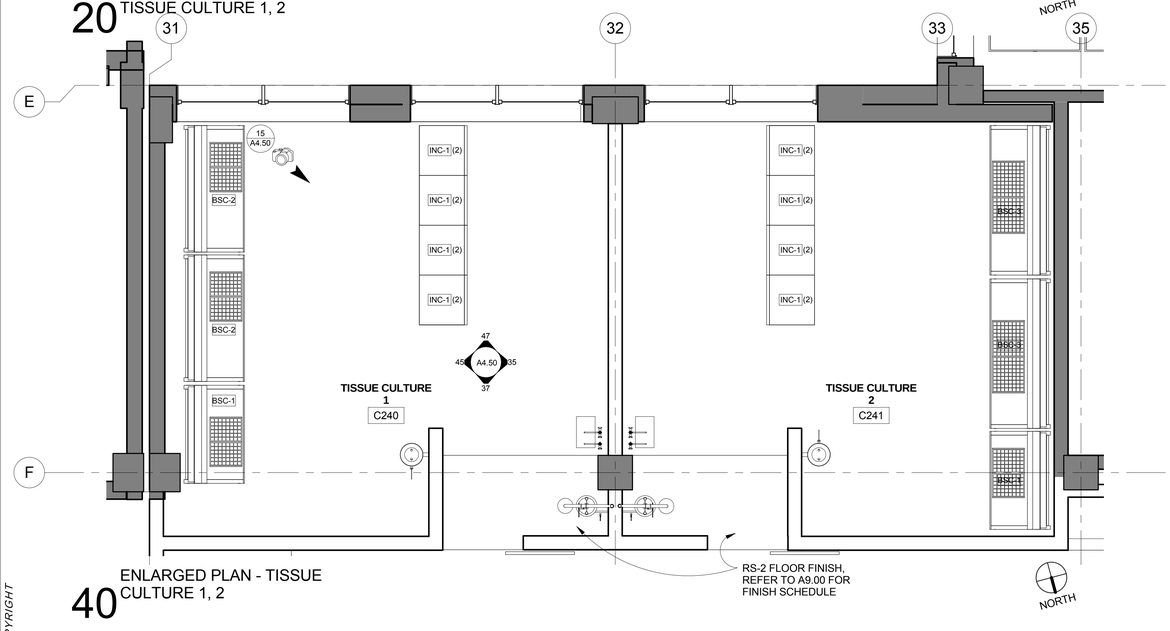
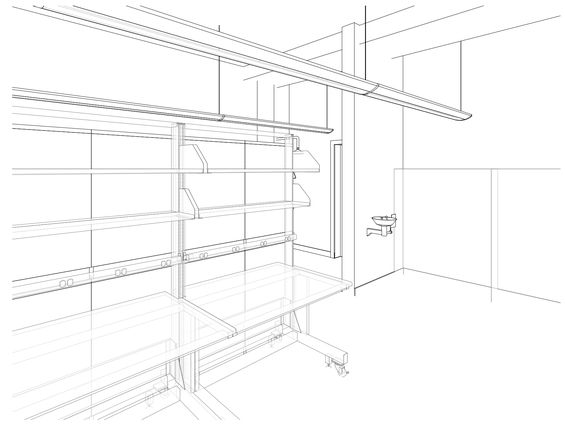


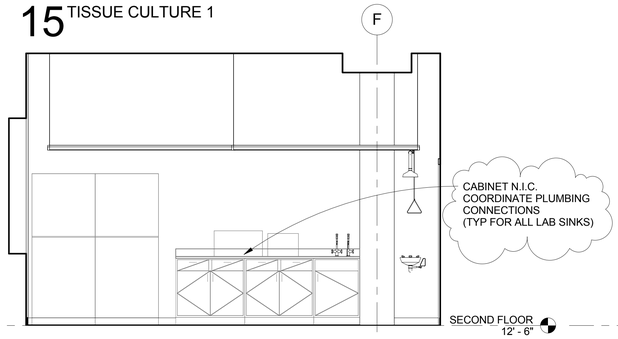
20 ENLARGED CEILING PLAN - TISSUE CULTURE 1, 2



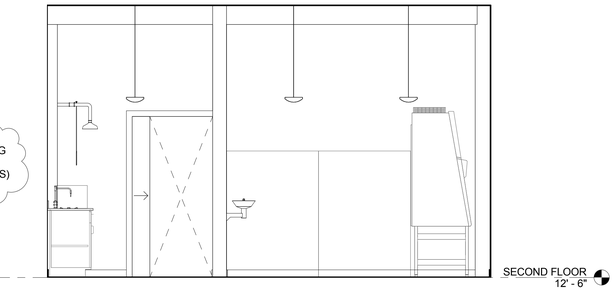
40 ENLARGED PLAN - TISSUE CULTURE 1, 2



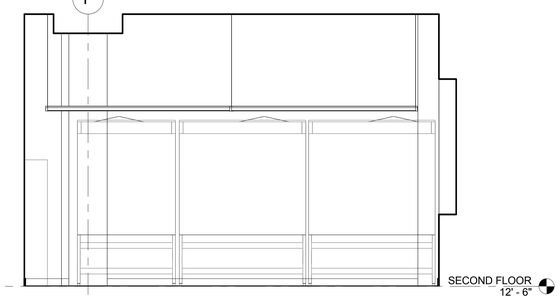
15 TISSUE CULTURE 1



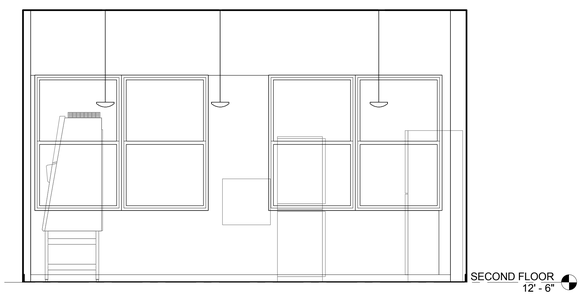
35 TISSUE CULTURE 1 - WEST ELEV



37 TISSUE CULTURE 1 - NORTH ELEV



45 TISSUE CULTURE 1 - EAST ELEV



47 TISSUE CULTURE 1 - SOUTH ELEV

0' 2' 4' 8'

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Drawing Title: SECOND FLOOR ENLARGED PLANS - TISSUE CULTURE 1, 2

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A4.50

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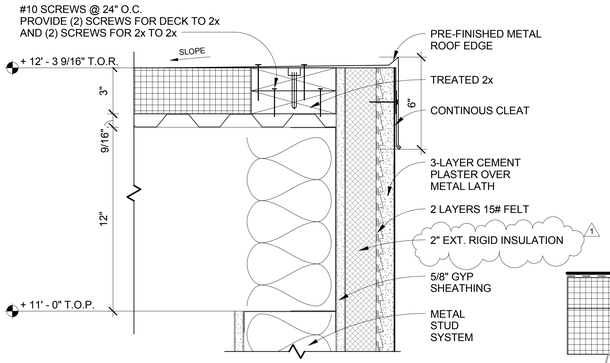
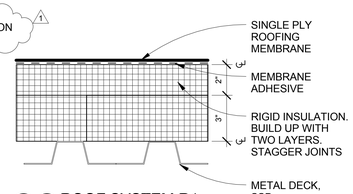
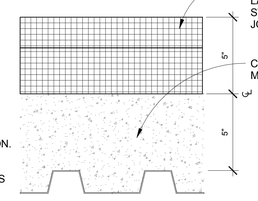


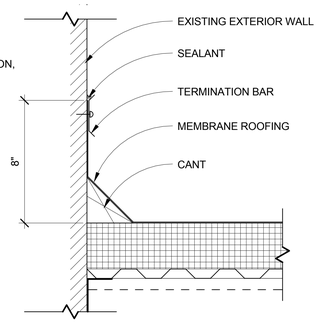
20 GRAVEL STOP @ ROOF



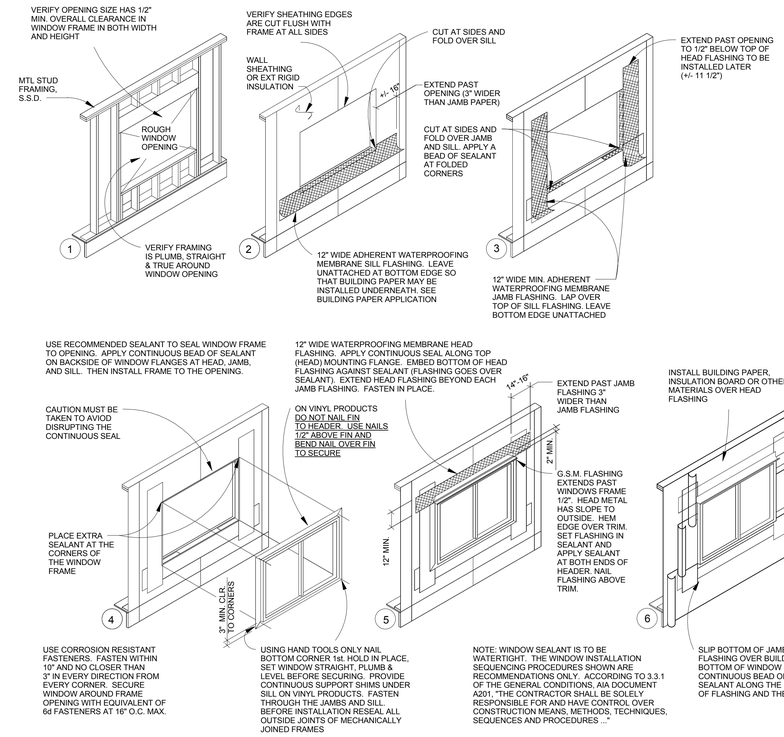
22 ROOF SYSTEM R1



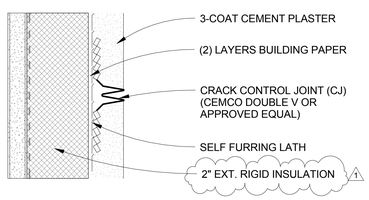
24 ROOF SYSTEM R2



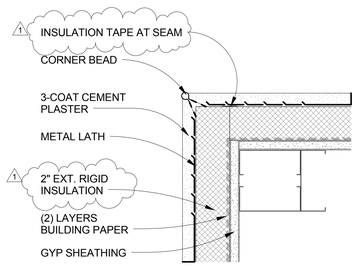
25 TERMINATION BAR AT PERIMETER OF ROOFING



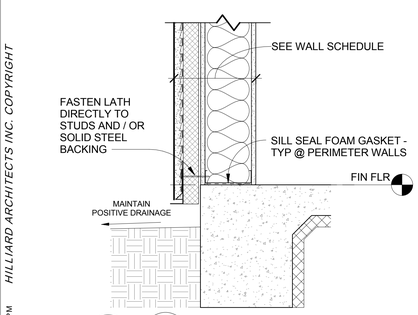
26 WINDOW FLASHING DETAILS



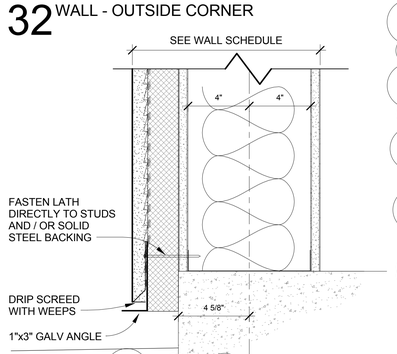
30 CONTROL JOINT



32 WALL - OUTSIDE CORNER

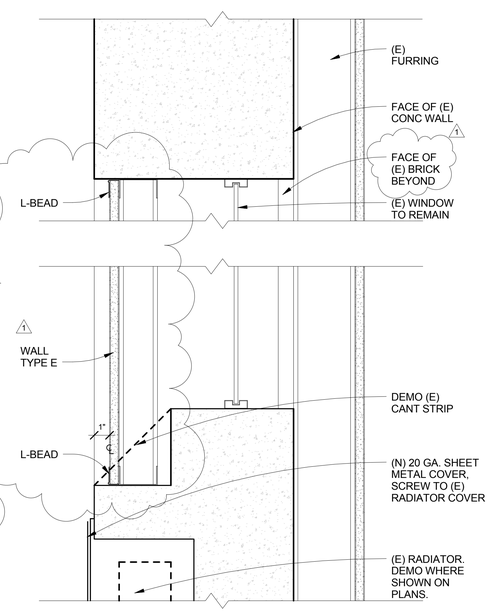


1
50 EXT. WALL @ LANDSCAPING

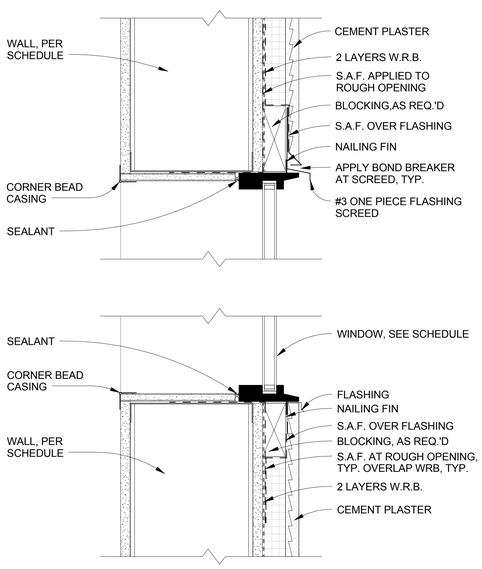


1
52 EXT. WALL @ CONC. PAVING

1



FRAMED INFILL & FURRING
56 @ EXISTING WINDOW



WINDOW HEAD/SILL @
58 CEMENT PLASTER

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Revisions:	Date
Revision 1	05.02.2014

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Drawing Title: EXTERIOR DETAILS

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn:

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A8.10

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Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231

FINISH LEGEND

TYPE	MARK	FINISH ITEM	MANUFACTURER	COLOR	NOTES
FLOORS	CONC.	CONCRETE	PER VA	PER VA	
	CPT-1	CARPET	PER VA	PER VA	
	RB-1	6" INTEGRAL BASE	PER VA	PER VA	ALL RB-1 U.O.N.
	RB-2	4" TOPSET RUBBER BASE	BURKE	PER VA	RB-2 AT CARPET
	RS-1	RUBBER FLOORING	MANNINGTON ENLIGHTEN 6" WIDE	PER VA	ALL RS-1 U.O.N.
	RS-2	RUBBER FLOORING	MANNINGTON ENLIGHTEN 6" WIDE	PER VA (ACCENT)	
	WO	WALK-OFF MAT	PATCRAFT PASEO MODULAR #10316	PER VA	
CEILINGS	ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG OPTIMA, 15/16" HD GRID, 2x4 CEILING TILES	WHITE	
PAINT	PT-1	PAINT	KELLY MOORE	WHITE - PRISTINE LINEN (TYP)	
	PT-2	PAINT	KELLY MOORE	KM3541-2 HACIENDA CLAY (ACCENT)	
	PT-3	PAINT	KELLY MOORE	KM4031-3 AFRICAN DESERT (ACCENT)	
CASEWORK	PLAM-1	PLASTIC LAMINATE	PER VA	PER VA	
	SS-1	SOLID SURFACE MATERIAL	PER VA	PER VA	

10 FINISH LEGEND 1

FINISH SCHEDULE

		FLOOR		WALLS				CEILING	CASEWORK		
RM. NO.	NAME	FINISH	BASE	NORTH	EAST	SOUTH	WEST	MATERIAL	CABINETS	COUNTER TOPS	NOTES
C101	CIRCULATION	RS-1, RS-2	RB-1					PT-1			Alternate color RS for floor transition to (E) "A" Wing VCT; Walk-off mat at entry
C124	(E) OFFICE	CPT-1	RB-2				PT-3	ACT-1			
C125	(E) OFFICE	CPT-1	RB-2					ACT-1			
C126	(E) OFFICE	CPT-1	RB-2					ACT-1			
C127	(N) IT ROOM	RS-1	RB-1					PT-1			
C128	MECH	CONC.	RB-2					PT-1			
C128A	STORAGE	RS-1	RB-2					PT-1			
C129	MICROSCOPY	RS-1	RB-1					PT-1			
C132	OFFICE	CPT-1	RB-2					ACT-1			
C133	(E) P.I. OFFICE	CPT-1	RB-2				PT-3	ACT-1			
C134	(E) P.I. OFFICE	CPT-1	RB-2				PT-3	ACT-1			
C135	(E) P.I. OFFICE	CPT-1	RB-2				PT-3	ACT-1			
C136	WORKROOM	CPT-1	RB-1					ACT-1			
C137	WORKROOM	CPT-1	RB-1					ACT-1			
C138	WORKROOM	CPT-1	RB-1					ACT-1			
C139	COMPUTATION OPEN OFFICE / EXPANSION DRY LAB	RS-1	RB-1					ACT-1			
C140	LUNCH ROOM / STAFF LOUNGE	RS-1, RS-2	RB-1					ACT-1	PL-1	SS-1	Floor pattern to be determined
C141	STORAGE	RS-1	RB-1					PT-1			
C143	OPEN LAB	RS-1, RS-2	RB-1					PT-1	PL-1	SS-1	
C143A	TISSUE CULTURE	RS-1	RB-1					PT-1	PL-1	SS-1	
C144	CENTRIFUGES	RS-1	RB-1					PT-1			
C144A	FUME HOOD	RS-1	RB-1					PT-1	PL-1	SS-1	
C201	CIRCULATION	RS-1, RS-2	RB-1					PT-1			Alternate color RS for floor transition to (E) "A" Wing VCT
C240	TISSUE CULTURE 1	RS-1, RS-2 1	RB-1					PT-1	PL-1	SS-1	
C241	TISSUE CULTURE 2	RS-1, RS-2	RB-1					PT-1	PL-1	SS-1	
C242	STORAGE	RS-1	RB-1					PT-1			
C242A	CO2 MANIFOLD	RS-1	RB-1					PT-1			
C243	FILM PROCESSING ROOM	RS-1	RB-1					PT-1	PL-1	SS-1	
C244	FUME HOOD	RS-1	RB-1					PT-1	PL-1	SS-1	
C245	FREEZER FARM	RS-1	RB-1					PT-1			
C246	EQUIPMENT & SUPPLIES	RS-1	RB-1					PT-1			
C247	MICROSCOPY	RS-1	RB-1					PT-1			
C248	OPEN LAB	RS-1, RS-2	RB-1					PT-1	PL-1	SS-1	
C250	TISSUE CULTURE SHARED SUPPORT	RS-1	RB-1					PT-1			
C251	FLEX LAB	RS-1	RB-1					PT-1	PL-1	SS-1	

50 FINISH SCHEDULE

SIGNAGE MESSAGE SCHEDULE

SIGN NUMBER	VA SIGN TYPE	DESCRIPTION	SIGN TEXT	LAYOUT/SYMBOL	INSTALLATION NOTES
SECOND FLOOR					
201-1	IN-01.31	Perpendicular (Flag) Mount Fire Equipment Identification Sign	[Symbol] Fire Equipment	Message on both sides	Center above fire equipment cabinet. 84" to bottom of sign. Mechanically fasten to wall with expandable anchors as needed for wall type.
201-2	IN-15.57	Ceiling Mounted Directional with Insert	Side 1: [Up Arrow] C-248 Open Lab [Right Arrow] C-248 Open Lab [Left Arrow] C-242 - C-246 Side 2: [Right Arrow] C-242 - C-246 [Left Arrow] C-248 Open Lab	Message Layout A on both sides	Hung with braided stainless steel wire or rod. Requires 84" clearance from floor.
201-3	IN-01.01.01	Emergency Exit Plan with Insert	Fire & Emergency Exit Plan Warning: Do not use elevators in case of fire or other electrical emergencies. Use marked exits.		Wall mounted, 63" to top of sign.
201-4	IN-01.31	Perpendicular (Flag) Mount Fire Equipment Identification Sign	[Symbol] Fire Equipment	Message on both sides	Center above fire equipment cabinet. 84" to bottom of sign. Mechanically fasten to wall with expandable anchors as needed for wall type.
201-5	IN-01.31	Perpendicular (Flag) Mount Fire Equipment Identification Sign	[Symbol] Fire Equipment	Message on both sides	Center above fire equipment cabinet. 84" to bottom of sign. Mechanically fasten to wall with expandable anchors as needed for wall type.
240	IN-04.03 C	Primary Room Identification with Insert	C-240 Tissue Culture 1	Message Layout C	
241	IN-04.03 C	Primary Room Identification with Insert	C-241 Tissue Culture 2	Message Layout C	
242	IN-03.01 A	Room Number Identification	C-242	Message Layout A	
242A	IN-13.01	Perpendicular (Flag) Mount Sign	C-242A CO2 Manifold	Message on both sides	Wall mount with screws. Install on wall above the height of doors, 84" minimum to bottom of sign.
243	IN-07.01 A	Room Sign with Indicator	C-243 Film Processing	Message Layout A	
244-1	IN-04.03 B	Primary Room Identification with Insert	C-244 Fume Hood	Message Layout B	
244-2	IN-01.31	Perpendicular (Flag) Mount Fire Equipment Identification Sign	[Symbol] Fire Equipment	Message on both sides	Center above fire equipment cabinet. 84" to bottom of sign. Mechanically fasten to wall with expandable anchors as needed for wall type.
245	IN-04.03 B	Primary Room Identification with Insert	C-245 Freezer Farm	Message Layout B	
246	IN-13.01	Perpendicular (Flag) Mount Sign	C-246 Equipment & Supplies	Message on both sides	Wall mount with screws. Install on wall above the height of doors, 84" minimum to bottom of sign.
247	IN-07.01 A	Room Sign with Indicator	C-247 Microscopy	Message Layout A	
248	IN-09.08 D	Pictogram and Symbol	[Pictogram and Symbol]	Message Layout D	On wall or door 60" to top of sign or centered on door
248-1	IN-01.31	Perpendicular (Flag) Mount Fire Equipment Identification Sign	[Symbol] Fire Equipment	Message on both sides	Center above fire equipment cabinet. 84" to bottom of sign. Mechanically fasten to wall with expandable anchors as needed for wall type.
248-2	IN-01.31	Perpendicular (Flag) Mount Fire Equipment Identification Sign	[Symbol] Fire Equipment	Message on both sides	Center above fire equipment cabinet. 84" to bottom of sign. Mechanically fasten to wall with expandable anchors as needed for wall type.
249	IN-04.03 B	Primary Room Identification with Insert	C-249 Cold Room	Message Layout B	
250	IN-04.03 B	Primary Room Identification with Insert	C-250 Tissue Culture Shared Support	Message Layout B	
251	IN-04.03 B	Primary Room Identification with Insert	C-251 Flex Lab	Message Layout B	
310					

54 SIGNAGE MESSAGE SCHEDULE - SECOND FLOOR

SIGNAGE MESSAGE SCHEDULE

SIGN NUMBER	VA SIGN TYPE	DESCRIPTION	SIGN TEXT	LAYOUT/SYMBOL	INSTALLATION NOTES
FIRST FLOOR					
101-1	IN-01.31	Perpendicular (Flag) Mount Fire Equipment Identification Sign	[Symbol] Fire Equipment	Message on both sides	Center above fire equipment cabinet. 84" to bottom of sign. Mechanically fasten to wall with expandable anchors as needed for wall type.
101-2	IN-13.01	Perpendicular (Flag) Mount Sign	[Stairs Pictogram and Symbol]	Message on both sides	Wall mount with screws. Install on wall above the height of doors, 84" minimum to bottom of sign.
101-3	IN-01.31	Perpendicular (Flag) Mount Fire Equipment Identification Sign	[Symbol] Fire Equipment	Message on both sides	Center above fire equipment cabinet. 84" to bottom of sign. Mechanically fasten to wall with expandable anchors as needed for wall type.
124	IN-04.03 B	Primary Room Identification with Insert	C-124 Office	Message Layout B	
125	IN-04.03 B	Primary Room Identification with Insert	C-125 Office	Message Layout B	
126	IN-04.03 B	Primary Room Identification with Insert	C-126 Office	Message Layout B	
127	IN-03.01 A	Room Number Identification	C-127	Message Layout A	
128	IN-03.01 A	Room Number Identification	C-128	Message Layout A	
128A	IN-03.01 A	Room Number Identification	C-128A	Message Layout A	
128B	IN-03.01 A	Room Number Identification	C-128B	Message Layout A	
129	IN-04.03 B	Primary Room Identification with Insert	C-129 Microscopy	Message Layout B	
130	IN-04.03 B	Primary Room Identification with Insert	C-130 Break Room	Message Layout B	
131	IN-07.01 A	Room Sign with Indicator	C-131 Conference Room	Message Layout A	
132	IN-04.03 B	Primary Room Identification with Insert	C-132 Office	Message Layout B	
133	IN-04.03 B	Primary Room Identification with Insert	C-133 Office	Message Layout B	
134	IN-04.03 B	Primary Room Identification with Insert	C-134 Office	Message Layout B	
135 1	IN-04.03 B	Primary Room Identification with Insert	C-135 Office	Message Layout B	
136	IN-18.01	Glass Door / Side Light Graphics	C-136 Workroom		Apply to front reading surface of glass or second surface of glass with reverse (backward) cut letters
137	IN-18.01	Glass Door / Side Light Graphics	C-137 Workroom		Apply to front reading surface of glass or second surface of glass with reverse (backward) cut letters
138	IN-18.01	Glass Door / Side Light Graphics	C-138 Workroom		Apply to front reading surface of glass or second surface of glass with reverse (backward) cut letters
139-2	EN-06.07 A	Wall Mounted Informational Sign (Exterior)	Staff Only Entrance	Message Layout A	72" to top of sign.
140-1	IN-14.08	Wall Directional with Insert	[Up Arrow] C-136, 137, 138 Workrooms C-139 Computation Open Office C140 Staff Lounge		Secure to wall with physical fasteners. 78" to top of sign.
140-2	IN-01.31	Perpendicular (Flag) Mount Fire Equipment Identification Sign	[Symbol] Fire Equipment	Message on both sides	Center above fire equipment cabinet. 84" to bottom of sign. Mechanically fasten to wall with expandable anchors as needed for wall type.
141	IN-04.03 B	Primary Room Identification with Insert	C-141 Freezers	Message Layout B	
142-1 1	IN-14.10	Wall Directional with Insert	[Up Arrow] C-142 Administration		Secure to wall with physical fasteners. 66" to top of sign.
143-1	IN-14.10	Wall Directional with Insert	[Up Arrow] C-143 Open Lab C-143A Tissue Culture		Secure to wall with physical fasteners. 66" to top of sign.
143-2	IN-04.03	Primary Room Identification with Insert	C-143 Open Lab	Message Layout B	
143-3	IN-01.31	Perpendicular (Flag) Mount Fire Equipment Identification Sign	[Symbol] Fire Equipment	Message on both sides	Center above fire equipment cabinet. 84" to bottom of sign. Mechanically fasten to wall with expandable anchors as needed for wall type.
143A-1	IN-13.01	Perpendicular (Flag) Mount Sign	C-143A Tissue Culture	Message on both sides	Wall mount with screws. Install on wall above the height of doors, 84" minimum to bottom of sign.
143A-2	IN-01.31	Perpendicular (Flag) Mount Fire Equipment Identification Sign	[Symbol] Fire Equipment	Message on both sides	Center above fire equipment cabinet. 84" to bottom of sign. Mechanically fasten to wall with expandable anchors as needed for wall type.
144-1	IN-14.10	Wall Directional with Insert	[Up Arrow] C-144 Centrifuges C-144A Fume Hood		Secure to wall with physical fasteners. 66" to top of sign.
144-2	IN-13.01	Perpendicular (Flag) Mount Sign	C-144 Centrifuges	Message on both sides	Wall mount with screws. Install on wall above the height of doors, 84" minimum to bottom of sign.
144-3	IN-01.31	Perpendicular (Flag) Mount Fire Equipment Identification Sign	[Symbol] Fire Equipment	Message on both sides	Center above fire equipment cabinet. 84" to bottom of sign. Mechanically fasten to wall with expandable anchors as needed for wall type.
144A-1	IN-04.03 B	Primary Room Identification with Insert	C-144A Fume Hood	Message Layout B	
144A-2	IN-01.31	Perpendicular (Flag) Mount Fire Equipment Identification Sign	[Symbol] Fire Equipment	Message on both sides	Center above fire equipment cabinet. 84" to bottom of sign. Mechanically fasten to wall with expandable anchors as needed for wall type.
153	IN-04.03 B	Primary Room Identification with Insert	A-153 Office	Message Layout B	
154	IN-04.03 B	Primary Room Identification with Insert	A-154 Office	Message Layout B	

57 SIGNAGE MESSAGE SCHEDULE - FIRST FLOOR

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Revisions:	Date
Revision 1	05.02.2014

CONSULTANTS:

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Drawing Title: FINISH SCHEDULE, SIGNAGE MESSAGE SCHEDULE

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Project Number: 640-13-121P

Building Number: 6

Approved: Project Director

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn:

Drawing Number: A9.00

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Department of Veterans Affairs

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EQUIPMENT KEY SCHEDULE

Type Mark	Description	Manufacturer	Model	Type Comments	Voltage	kVA	DATA	COLD WATER	HOT WATER	DI	DRAIN	VACUUM	AIR	GAS	CO2.	O2.	EXHAUST	Emergency Power	NOTES
BSC-1	BioSafety Cabinet (BSC) Class II, Type A2	Thermo Scientific	BIO1335	1300 Series Class II, Type A2 BioSafety Cabinet - 48" wide w/ stainless package	120 V, 60 Hz, 12A	1.4	Yes					Yes	No	No			30%	Yes	Provide Vacuum outlet on one side. (1) 120V duplex outlet each side
BSC-2	BioSafety Cabinet (BSC) Class II, Type A2	NUAIRE	NU-425-500	Class II, Type A2 BioSafety Cabinet - 66" wide w/ stainless package	115 V, 60 Hz, 14A	1.6												Yes	
BSC-3	BioSafety Cabinet (BSC) Class II, Type A2	NUAIRE	NU-425-600 Series 22	Class II, Type A2 BioSafety Cabinet - 78" wide w/ stainless package	115 V, 60 Hz, 14A	1.6						Yes		Yes			30%	Yes	Provide Vacuum outlet on one side
CR-01	Cold Storage Room	BIOCOLD Environmental, Inc.		Prefab Walk-in Environmental Room							Yes							No	At control console side: 115/208 VAC, 60 hz, 3 phase, 4 wire service. At condensing unit: 208-230 VAC, 3 phase, 60 hz, 3 wire service with disconnect
FH-01	Fume Hood	Thermo Scientific Hamilton	61L2774P0	SafeAire II Bench-Type			No	No	No	No	No	No	No	No	No	No		Yes	Uses central exhaust system included in base infrstructure emergency electrical load; convenience outlets within them will run on normal power unless otherwise requested.
FL-01	Flammable Liquid Storage (Vented) - Under Hood	Thermo Scientific Hamilton	950S7551	Flammable Cabinet	N/A														
FL-02	Flammable Liquid Storage (Vented) - Tall	Thermo Scientific Hamilton	950S8401	Flammable Cabinet	N/A		No	No	No	No	No	No	No	No	No	No		No	
FLREF-01	Flammable Refrigerator	TemPure Scientific	EXPR-30-TP	Flammable Refrigerator	115 V Direct Wire, 6A	1												Yes	1800 BTU/hr DIRECT WIRE
GW	Glassware Washer	Labconco	Catalog #4420321	Undercounter FlaskScrubber with Viewing Window and Light	115V, 60Hz, 16amps. 20 amp circuit breaker required			Yes	Yes		Yes							No	
ICE	Ice Machine	Follett Symphony	MCD400ABT	Ice Machine	115/60/1			Yes	No		Yes							No	
INC-1	CO2 Incubator	Thermo Scientific Forma Series II	Forma 370	Ambient Temp. +5C to +55C	115 V, 50/60 Hz, 3.6A	0.5					No				Yes				
SC-1	Sink / Countertop	Hamilton Scientific						Yes	Yes		Yes								Foot pedal / wrist blade combination controls.
SC-2	Sink / Countertop	Hamilton Scientific						Yes	Yes		Yes								Foot pedal / wrist blade combination controls.
OSC-1	Vertical Overhead Service Carrier 36x16x15	Thermo Scientific	950H0900																

01 EQUIPMENT KEY SCHEDULE

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FINAL BID DOCUMENTS

Revisions:	Date
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CONSULTANTS:

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Drawing Title: EQUIPMENT SCHEDULE

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn:

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A9.01

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Department of Veterans Affairs

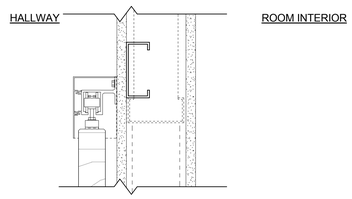
VA FORM 08-6231

DOOR SCHEDULE

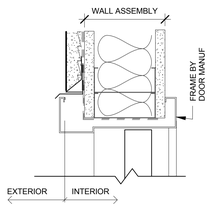
ID	DESCRIPTION	FIRE RATING	DOOR TYPE	DOOR SIZE	WIDTH	HEIGHT	THICKNESS	FRAME TYPE	FRAME MATERIAL	HARDWARE GROUP	COMMENTS
124	SINGLE FLUSH INTERIOR DOOR	20min	5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	7	(E) door to receive new hardware
125	SINGLE FLUSH INTERIOR DOOR	20min	5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	7	(E) door to receive new hardware
126	SINGLE FLUSH INTERIOR DOOR	20min	5	V	3' - 8"	7' - 0"	0' - 1 3/4"	2	H.M.	8	(E) door to receive new hardware
127	SINGLE FLUSH INTERIOR DOOR	20min	5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	7	
128	SINGLE FLUSH INTERIOR DOOR		5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	2	
128A	SINGLE FLUSH INTERIOR DOOR		5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.		
128B	SINGLE FLUSH INTERIOR DOOR		5	S	2' - 6"	7' - 0"	0' - 1 3/4"	2	H.M.		Swing of (E) door to be modified
129	SINGLE FLUSH INTERIOR DOOR	20min	5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	1	
132	SINGLE FLUSH INTERIOR DOOR	20min	5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	7	(E) door to receive new hardware
133	SINGLE FLUSH INTERIOR DOOR	20min	5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	7	(E) door to receive new hardware
134	SINGLE FLUSH INTERIOR DOOR	20min	5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	7	(E) door to receive new hardware
135	SINGLE FLUSH INTERIOR DOOR	20min	5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	7	(E) door to receive new hardware
136	SLIDING INTERIOR GLASS DOOR		46	S	5' - 11"	7' - 0"	0' - 0 1/4"	2	H.M.	11	
137	SLIDING INTERIOR GLASS DOOR		46	S	6' - 0"	7' - 0"	0' - 0 1/4"	2	H.M.	11	
138	SLIDING INTERIOR GLASS DOOR		46	S	6' - 0"	7' - 0"	0' - 0 1/4"	2	H.M.	11	
139	SLIDING EXTERIOR DOOR		46		8' - 0"	9' - 0"	0' - 0 1/4"	3	H.M.	9	
140	SINGLE FLUSH INTERIOR DOOR	20min	5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	1	
141	SINGLE FLUSH INTERIOR DOOR	20min	5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	10	Reuse salvaged door
142	SINGLE FLUSH INTERIOR DOOR	20min	5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	4	Reuse salvaged door
143	SINGLE FLUSH INTERIOR DOOR	20min	5	S	3' - 6"	6' - 8"	0' - 1 3/4"	2	H.M.		
143A	SLIDING INTERIOR BARN DOOR		47	U	3' - 6"	7' - 0"	0' - 1 3/4"	2	H.M.	11	
144	SINGLE FLUSH INTERIOR DOOR	20min	5	S	3' - 6"	6' - 8"	0' - 1 3/4"	2	H.M.	10	
144A	SINGLE FLUSH INTERIOR DOOR	45min	5	V	3' - 6"	7' - 0"	0' - 1 3/4"	2	H.M.	5	
153	SINGLE FLUSH INTERIOR DOOR	20min	5	V	3' - 6"	7' - 0"	0' - 1 3/4"	2	H.M.	6	(E) door to receive new hardware
154	SINGLE FLUSH INTERIOR DOOR	20min	5	V	3' - 8"	7' - 0"	0' - 1 3/4"	2	H.M.	8	(E) door to receive new hardware
240	SLIDING INTERIOR BARN DOOR		47	U	3' - 6"	7' - 0"	0' - 1 3/4"	2	H.M.	10	
241	SLIDING INTERIOR BARN DOOR		47	U	3' - 6"	7' - 0"	0' - 1 3/4"	2	H.M.	10	
242	SINGLE FLUSH INTERIOR DOOR		5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	1	
243	SINGLE FLUSH INTERIOR DOOR		5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	4	
244	SINGLE FLUSH INTERIOR DOOR	45min	5	V	3' - 6"	7' - 0"	0' - 1 3/4"	2	H.M.		
245	SINGLE FLUSH INTERIOR DOOR		5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1			
247	SINGLE FLUSH INTERIOR DOOR		5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	1	
247A	SINGLE FLUSH INTERIOR DOOR		5	V	3' - 8"	7' - 0"	0' - 1 3/4"	2	H.M.	2	Swing of (E) door to be modified
248A	SINGLE FLUSH INTERIOR DOOR		1	V	3' - 8"	7' - 0"	0' - 1 3/4"	2	H.M.	11	(E) stairway door to receive new hardware
249	SLIDING INTERIOR DOOR			U	3' - 6"	7' - 0"	0' - 4"			10	Part of pre-fab cold room assembly
250	SLIDING INTERIOR BARN DOOR		47	U	3' - 6"	7' - 0"	0' - 1 3/4"	2	H.M.		
251	SINGLE FLUSH INTERIOR DOOR		5	S	3' - 0"	7' - 0"	0' - 1 3/4"	1	H.M.	1	
310	SINGLE FLUSH INTERIOR DOOR		5	V	3' - 6"	7' - 0"	0' - 1 3/4"	2	H.M.	2	New door connecting A and C wings

38

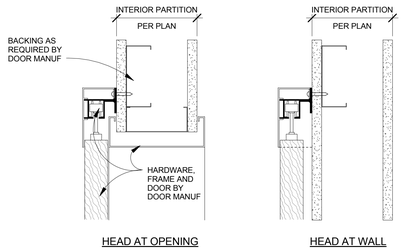
FOR HARDWARE SETS, SEE SPECIFICATIONS.



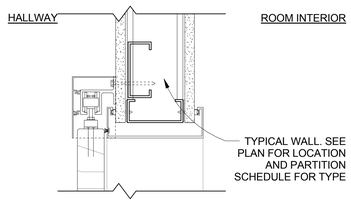
13 TYP. BARN DOOR @ WALL SECTION

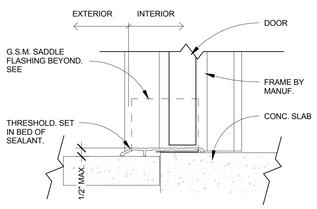


21 SLIDING DOOR HEAD @ EXT

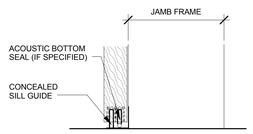


22 SLIDING DOOR HEAD

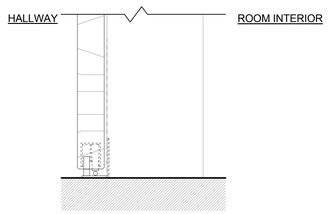




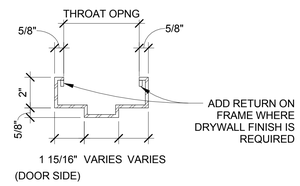
31 SLIDING DOOR SILL @ EXT



32 SLIDING DOOR SILL



33 TYP. BARN DOOR HEAD/SILL



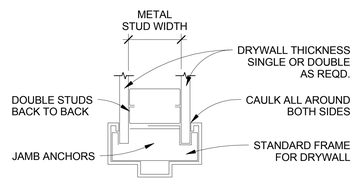
35 STANDARD DOOR FRAME

FRAME TYPE	JAMB DETAIL	COMMENTS
1	45 A9.10 SIM	TYPICAL
2	53 A9.10 SIM	SLIDING DOOR
3	51 A9.10 SIM	EXTERIOR SLIDING DOOR
4	-	EXISTING DOOR

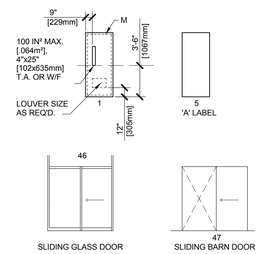
37 DOOR FRAME SCHEDULE

DOOR SIZES

MK	WIDTH IN	WIDTH [mm]	HEIGHT IN	HEIGHT [mm]	MK	WIDTH IN	WIDTH [mm]	HEIGHT IN	HEIGHT [mm]
A	1'-6"	[457]	6'-8"	[2032]	N	2'-0"	[610]	7'-0"	[2134]
B	2'-0"	[610]	6'-8"	[2032]	O	2'-2"	[660]	7'-0"	[2134]
C	2'-2"	[660]	6'-8"	[2032]	P	2'-4"	[711]	7'-0"	[2134]
D	2'-4"	[711]	6'-8"	[2032]	Q	2'-6"	[762]	7'-0"	[2134]
E	2'-6"	[762]	6'-8"	[2032]	R	2'-8"	[813]	7'-0"	[2134]
F	2'-8"	[813]	6'-8"	[2032]	S	3'-0"	[914]	7'-0"	[2134]
G	2'-10"	[864]	6'-8"	[2032]	T	3'-4"	[1016]	7'-0"	[2134]
H	3'-0"	[914]	6'-8"	[2032]	U	3'-6"	[1067]	7'-0"	[2134]
I	3'-2"	[965]	6'-8"	[2032]	V	3'-8"	[1118]	7'-0"	[2134]
J	3'-4"	[1016]	6'-8"	[2032]	W	3'-10"	[1168]	7'-0"	[2134]
K	3'-8"	[1118]	6'-8"	[2032]	X	4'-0"	[1219]	7'-0"	[2134]
L	3'-10"	[1168]	6'-8"	[2032]	Y	3'-0"	[914]	8'-0"	[2438]
M	1'-6"	[457]	7'-8"	[2337]	Z	4'-6"	[1372]	7'-0"	[2134]



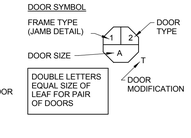
45 FRAMES IN METAL STUD PARTITIONS



47 DOOR TYPES

DOOR MODIFICATIONS
- A LAMINATED GLASS
- D DOUBLE GLAZED TEMPERED GLASS
- H ELECTRIC HOLD
- L LOUVER
- LP LIGHT PROOF LOUVER
- M MECH. SEAL FOR LIGHT PROOF & SOUND RETARDING DOOR
- T TEMPERED GLASS
- U UNDERCUT 1" [25mm]
- V LEAD GLASS
- F FIRE RATED GLAZING

DOOR SYMBOL



LEGEND (SEE ELEVATIONS)

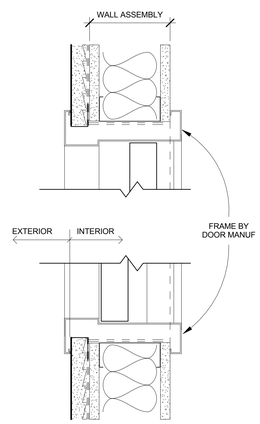
GLASS OR LOUVER REQUIRED BY MODIFICATION

GLASS OR LOUVER REQUIRED BY ELEVATION TYPE

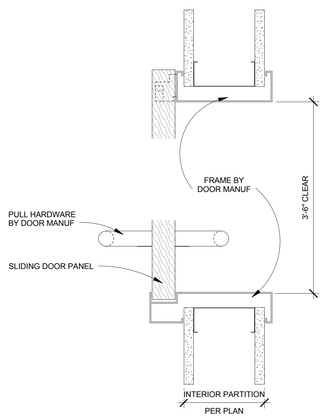
NOTES:

1. ALL DOORS SHALL BE FLUSH - 1 3/4" [44mm] THICK UNLESS NOTED OTHERWISE.
2. TOP & SIDE RAILS SHALL BE 9" [229mm] MIN. BOTTOM RAILS SHALL BE 12" MIN. [305mm].
3. DOOR TYPES 7, 8, & 9 SHALL NOT BE USED FOR OPPOSING DOORS.
4. FOR SCHEDULING DOOR TYPES, SEE PG-18-14.
5. EVEN NUMBERS ARE METAL; ODD NUMBERS ARE WOOD.
6. FIRE RATING (B = 90MIN., C = 45MIN., N = NON-RATED

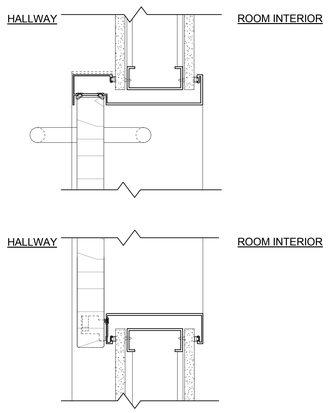
48 DOOR LEGEND



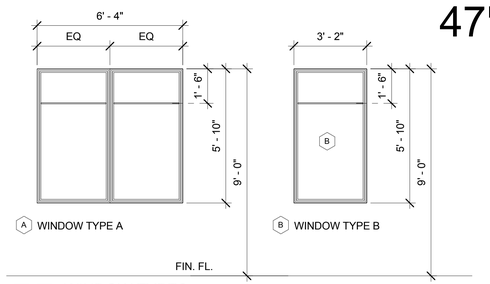
51 SLIDING DOOR JAMB @ EXT



52 SLIDING DOOR JAMB



53 TYP. BARN DOOR JAMB



55 WINDOW TYPES

WINDOW SCHEDULE

MARK	TYPE	WIDTH	HEIGHT	HEAD HEIGHT	COMMENTS
A	FIXED	6' - 4"	5' - 10"	9' - 0"	VINYL, DOUBLE-GLAZED
B	FIXED	3' - 2"	5' - 10"	9' - 0"	VINYL, DOUBLE-GLAZED

57 WINDOW SCHEDULE

FINAL BID DOCUMENTS

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Revisions: Date

CONSULTANTS:

ARCHITECT/ENGINEERS:

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San Francisco, CA 94108-5017
Tel 415 989 6400, Fax 415 989 3056
www.HilliardArchitects.com

Drawing Title: DOOR & HARDWARE SCHEDULE, WINDOW SCHEDULE & DETAILS

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: J.P.

Project Number: 640-13-121P

Building Number: 6

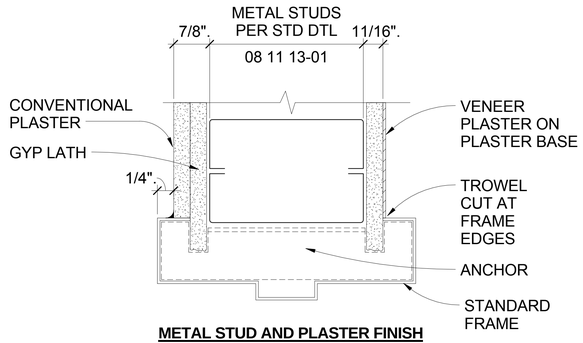
Drawing Number: A9.10

Dwg. of

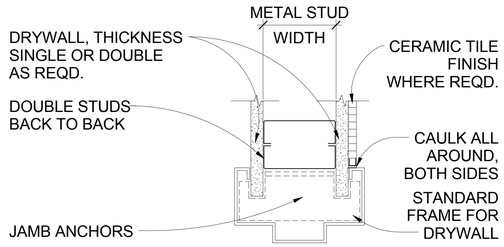
Office of Construction and Facilities Management

Department of Veterans Affairs

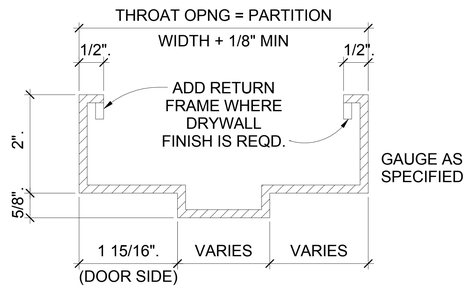
VA FORM 08-6231



METAL STUD AND PLASTER FINISH



FRAMES IN METAL STUD PARTITIONS



STANDARD DOOR FRAME

57 INTERIOR DOOR FRAMES
N.T.S.

FINAL BID DOCUMENTS

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Revisions:	Date

CONSULTANTS:

ARCHITECT/ENGINEERS:

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251 Post Street, Suite 620
San Francisco, CA 94108-5017
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Drawing Title: INTERIOR DETAILS	Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION		Project Number: 640-13-121P
			Building Number: 6
Approved: Project Director	Location: VAPAHCS, PALO ALTO CAMPUS 3801 MIRANDA AVE. PALO ALTO, CA 94304		Drawing Number: A9.11
	Date: 04.17.2014	Checked: M.H.	Drawn:
			Dwg. of

Office of Construction and Facilities Management

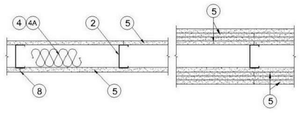
Department of Veterans Affairs

VA FORM 08-6231

Design No. U419

December 09, 2011

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 4 & 5)



1. **Floor and Ceiling Runners** — (Not shown) — For use with Item 2 - Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.

1A. **Framing Members* - Floor and Ceiling Runners** — Not shown - In lieu of Item 1 — For use with Item 2A, proprietary channel shaped, min. 3-5/8 in. deep, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC max. Effective thickness is 0.034 in.

CLARKDIETRICH BUILDING SYSTEMS — UltraSTEEL®.

1B. **Framing Members* - Floor and Ceiling Runners** — (Not shown - In lieu of Item 1) — For use with Item 2A, proprietary channel shaped, min. 2-1/2 in. deep, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling fasteners 24 in. OC max. Effective thickness is 0.034 in.

CLARKDIETRICH BUILDING SYSTEMS — UltraSTEEL®.

1C. **Framing Members* - Floor and Ceiling Runner** — Not shown - In lieu of Item 1 — For use with Item 2C, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™ Track

CRACO MFG INC — SmartTrack™

MARINO/WARE, DIV OF WARE INDUSTRIES

INC — Viper25™ Track

TELLING INDUSTRIES L L C — Viper25™ Track

1D. **Framing Members* - Floor and Ceiling Runner** — Not shown - In lieu of Item 1 — For use with Item 2D, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES

INC — Viper20™ Track

TELLING INDUSTRIES L L C — Viper20™ Track

1E. **Framing Members*— Floor and Ceiling Runners** — (Not shown) — In lieu of Item 1 - Channel shaped, attached to floor and ceiling with fasteners 24 in. OC max.

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME Framing System

CONSOLIDATED FABRICATORS CORP.

BUILDING PRODUCTS DIV — Type SUPREME Framing System

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME Framing System

SCAPCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME Framing System

UNITED METAL PRODUCTS INC — Type SUPREME Framing System

1F. **Floor and Ceiling Runners** — (Not shown)—For use with Item 2B- Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1G. **Framing Members*— Floor and Ceiling Runners** — (Not shown, As an alternate to Item 1) — For use with Items 2F, 5F or 5G or SI only, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTAK

DMFCWBS L L C — ProSTAK

MBA BUILDING SUPPLIES — ProSTAK

SOUTHEASTERN STUD & COMPONENTS INC — ProSTAK

TELLING INDUSTRIES L L C — TRUE-TRACK™

1H. **Framing Members* - Floor and Ceiling Runner** — Not shown - In lieu of Item 1 — For use with Item 2G, proprietary channel shaped runners, minimum width to accommodate stud size, with 1- 5/8 in. long legs fabricated from min 0.015 in. (min bare metal thickness) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

SUPER STUD BUILDING PRODUCTS — The Edge

2. **Steel Studs** — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 1, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.

2A. **Framing Members* - Steel Studs** — In lieu of Item 2 - Proprietary channel shaped studs, min. depth as indicated under Item 5, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height. Allowable use of studs is shown in the table below. For direct attachment of gypsum board only. Effective thickness is 0.034 in.

CLARKDIETRICH BUILDING SYSTEMS — UltraSTEEL®.

2B. **Steel Studs** — (As an alternate to Item 2, For use with Items 5B & 5E) Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.

2C. **Framing Members* - Steel Studs** — (As an alternate to Item 2, For use with Items 5C or 5I) - Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in less than the assembly height and installed with a ½ in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™

CRACO MFG INC — SmartStud™

MARINO/WARE, DIV OF WARE INDUSTRIES

INC — Viper25™

TELLING INDUSTRIES L L C — Viper25™

2D. **Framing Members* - Metal Studs** — Not shown - In lieu of Item 2 — For use with Item 1D, proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max of 24 in. OC, fabricated from min 0.020 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™

MARINO/WARE, DIV OF WARE INDUSTRIES

INC — Viper20™

TELLING INDUSTRIES L L C — Viper20™

2E. **Framing Members*— Steel Studs** — In lieu of Item 2 - For Use with Item 1E- Channel shaped studs, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME Framing System

CONSOLIDATED FABRICATORS CORP.

BUILDING PRODUCTS DIV — Type SUPREME Framing System

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME Framing System

SCAPCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME Framing System

UNITED METAL PRODUCTS INC — Type SUPREME Framing System

2F. **Framing Members*— Steel Studs** — (Not shown, As an alternate to Item 2) —For use with Items 1G, 5F or 5G or SI only, channel shaped studs, min depth as indicated under Item 5F, 5G or SI, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA BUILDING SUPPLIES — ProSTUD

SOUTHEASTERN STUD & COMPONENTS INC — ProSTUD

TELLING INDUSTRIES L L C — TRUE-STUD™

2G. **Framing Members* - Metal Studs** — Not shown - In lieu of Item 2 — For use with Item 1H, proprietary channel shaped steel studs, minimum width indicated under Item 5, 1-1/4 in. deep fabricated from min 0.015 in. (min bare metal thickness) galvanized steel. Studs 3/8 in. to 3/4 in. less in lengths than assembly heights.

SUPER STUD BUILDING PRODUCTS — The Edge

3. **Wood Structural Panel Sheathing** — (Optional, For use with Item 5 Only.)- (Not Shown) - 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs, vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling screws spaced 8 in. OC along vertical and bottom edges and 12 in. OC. in the field. When used, fastener weights for gypsum panels increased to min. 1/2 in.

4. **Batts and Blankets*** — (Required as indicated under Item 5) — Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5. See **Batts and Blankets (BKNV or BZJZ) Categories** for names of Classified companies.

4A. **Batts and Blankets*** — (Optional) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See **Batts and Blankets (BKNV or BZJZ) Categories** for names of Classified companies.

5. **Gypsum Board*** — Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Items 2F, 2G, 2E, 2D and 2F	Min Stud Depth, in. Item 2A	No. of Layers & Thickness of Panel	Min Thkns of Insulation (Item 4)
1	3-1/2	3-5/8	1 layer, 5/8 in. thick	Optional
1	2-1/2	3-5/8	1 layer, 1/2 in. thick	1-1/2 in.
1	1-5/8	3-5/8	1 layer, 5/8 in. thick	Optional
2	1-5/8	2-1/2	2 layers, 1/2 in. thick	Optional
2	1-5/8	2-1/2	2 layers, 5/8 in. thick	Optional
2	3-1/2	3-5/8	1 layer, 3/4 in. thick	3 in.
3	1-5/8	2-1/2	3 layers, 1/2 in. thick	Optional
3	1-5/8	2-1/2	2 layers, 3/4 in. thick	Optional
3	1-5/8	2-1/2	3 layers, 5/8 in. thick	Optional
4	1-5/8	2-1/2	4 layers, 5/8 in. thick	Optional
4	1-5/8	2-1/2	4 layers, 1/2 in. thick	Optional
4	2-1/2	2-1/2	2 layers, 3/4 in. thick	2 in.

CGC INC — 1/2 in. thick Type C, JP-X2 or JPC-AR; WRC, 5/8 in. thick Type AR, C, JP-AR, JP-X1, JP-X2, JPC-AR, SGX, SHX, WRX or WRC; 3/4 in. thick Type JP-X2 or ULTRACODE

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, JP-X2, JPC-AR or WRC; 5/8 in. thick Type SGX, SGX, SHX, WRX, JP-X1, AR, C, WRC, PRX-G, JP-AR, JP-X2, JPC-AR ; 3/4 in. thick Types JP-X2 or ULTRACODE

USG MEXICO S A DE C V — 1/2 in. thick Type C, JP-X2, JPC-AR or WRC; 5/8 in. thick Type AR, C, JP-AR, JP-X1, JP-X2, JPC-AR, SCS, SHX, WRX, WRC or; 3/4 in. thick Types JP-X2 or ULTRACODE

When Item 7B, Steel Framing Members*, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

5A. **Gypsum Board*** — (As an alternate to Item 5) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 6.

CGC INC — Type SHX.

UNITED STATES GYPSUM CO — Type FRX-G, SHX.

USG MEXICO S.A DE C V — Type SHX.

5B. **Gypsum Board*** — (Not Shown) - As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 in or ½ in. thick products are specified. For direct attachment only to steel studs Item 2B, not to be used with Item 2. Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with No. 6 x 1-5/8 in. long Type S-12 (for No. 6 by 1-1/4 in. long bugle head fine drilled) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.

NEW ENGLAND LEAD BURNING CO INC, DBA

NELCO — Nelco

5F. **Gypsum Board*** — (As an alternate to Item 5) — For use with Items 1G and 2F and limited to 1 Hour Rating only. Gypsum panels with beveled, square or tapered edges, applied vertically, and fastened to the steel studs with 1 in. long Type S screws spaced 8 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Steel stud depth shall be a minimum 3-5/8 in.

UNITED STATES GYPSUM CO — 5/8 in. thick Type SCX, SGX.

5G. **Gypsum Board*** — (As an alternate to Item 5) — For use with Items 1G and 2F only. Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, as specified in the table below, and fastened to the steel studs as described in Item 6. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 3 hr and 4 hr ratings are as follows:

Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Item 2F	No. of Layers & Thickness of Panel	Min Thkns of Insulation (Item 4)
2.	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4.	1-5/8	4 layers, 1/2 in. thick	Optional

CGC INC — 1/2 in. thick Type C, JP-X2 or JPC-AR;, 5/8 in. thick Type AR, C, JP-AR, JP-X1, JP-X2, JPC-AR, SCX, SHX, or; 3/4 in. thick Types JP-X3 or ULTRACODE

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, JP-X2, JPC-AR or; 5/8 in. thick Type AR, C, JP-AR, JP-X1, JP-X2, JPC-AR, SCX, SHX, JP-X1, AR, C, PRX-G, JP-AR, JP-X2, JPC-AR ; 3/4 in. thick Types JP-X3 or ULTRACODE

USG MEXICO S A DE C V — 1/2 in. thick Type C, JP-X2, JPC-AR or; 5/8 in. thick Type AR, C, JP-AR, JP-X1, JP-X2, JPC-AR, SCS, SHX, or; 3/4 in. thick Types JP-X3 or ULTRACODE

5H. **Gypsum Board*** — (Not Shown) - As an alternate to Item 5 when used as the base layer on one or both sides when 5/8 or 3/4 in thick products are specified. For direct attachment only to steel studs Item 2B, (not to be used Item 3) - Nom 5/8 or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection c Item 5 and Wallboard Protection d Item 5. Gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to 20 MSG steel studs Item 2B with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter an OC in the field. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A).

MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

5I. **Gypsum Board*** — (As an alternate to Item 5) - Nom. 5/8 in. thick gypsum panels with beveled, square or taq edges installed as described in Item 5. Steel stud minimum depth shall be as indicated in Item 5.

CGC INC — Type ULX

UNITED STATES GYPSUM CO — Type ULX

USG MEXICO S A DE C V — Type ULX

6. **Fasteners** — (Not shown) — For use with Items 2 and 3F - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). **Single layer systems:** 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. **Two layer systems:** First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. **Three-layer systems:** First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 3/4 in. thick panels, spaced 12 in. OC. Screws offset min 8 in. from layer below. **Four-layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in., 5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 8 in. from layer below.

6A. **Fasteners** — (Not shown) —For use with Item 2A - Type S or S-12 steel screws used to attach panels to studs (Item 2A). **Single layer systems:** 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8-1/2 in. OC with additional screws 1 in. and 2-1/2 in. from edges of the board when panels are horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. **Two layer systems applied vertically:** First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 2-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. **Two layer systems applied horizontally:** First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 24 in. OC. Screws offset min 8 in. from layer below. **Three layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC starting 8 in. from each edge of the board with an additional screw placed 1-1/4 in. from each edge of the board with screws offset 8 in. from first layer. **Three layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC starting 8 in. from each edge of the board with an additional screw placed 1-1/4 in. from each edge of the board. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC starting 8 in. from each edge of the board with an additional screw placed 1-1/4 in. from each edge of the board with screws offset 8 in. from first layer. **Three layer systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC starting 8 in. from each edge of the board with an additional screw placed 1-1/4 in. from each edge of the board. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Screws offset min 8 in. from layer below. **Four-layers systems:** First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in., 5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 8 in. from layer below. For all layers, an additional screw shall be placed 1-1/4 in. from each edge of the board.

7. **Furring Channels** — (Optional, not shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 5A and 5E.

7A. **Framing Members*** — (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:

a. **Furring Channels** — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 5. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A and 5E.

b. **Steel Framing Members*** — Used to attach furring channels (Item 7A) to studs (Item 2). Steel studs, 3-5/8 in. deep, spaced max. 24 in. OC. Studs friction fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A and 5E.

PLITEQ INC — Type GENIECLIP

8. **Joint Tape and Compound** — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.

9. **Siding, Brick or Stucco** — (Optional, not shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.

10. **Caulking and Sealants*** — (Optional, not shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.

UNITED STATES GYPSUM CO — Type AS

11. **Lead Batten Strips** — (Not Shown, For Use With Item 5B) - Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201/f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5B) and optional at remaining stud locations. Required behind vertical joints.

11A. **Lead Batten Strips** — (Not Shown, For Use With Item 5H) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201/f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5) and optional at remaining stud locations.

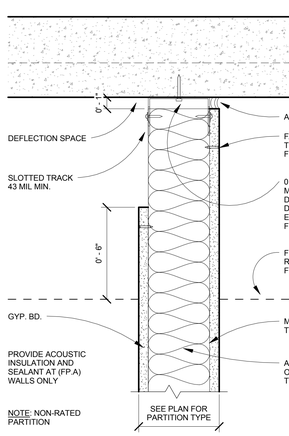
12. **Lead Discs or Tabs** — (Not Shown, For Use With Item 5B) - Used in lieu of or in addition to the lead batten strips (Item 11) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over the screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5B) under the screw heads, prior to installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201/f, Grade "C".

12A. **Lead Discs** — (Not Shown, for use with Item 5H) Max 5/16 in. diam by max 0.0625 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.9% meeting the Federal Specification QQ-L-201f, Grade "C".

13. **Lead Batten Strips** — (Not Shown, For Use With Item 5E) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201/f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5B) and optional at remaining stud locations.

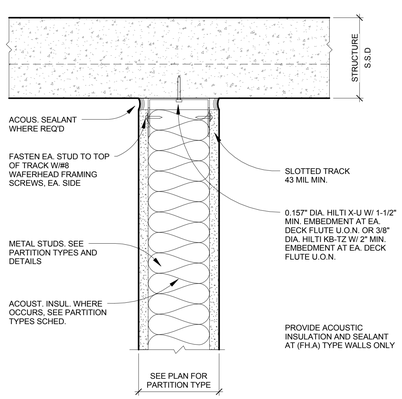
14. **Lead Tabs** — (Not Shown, For Use With Item 5E) 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 5E) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.

*Bearing the UL Classification Mark



NOTE: NON-RATED PARTITION

51 FP STUD, UNRATED

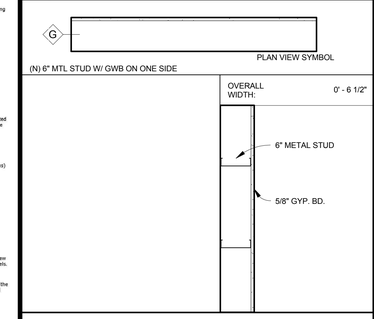


NOTE: NON-RATED PARTITION

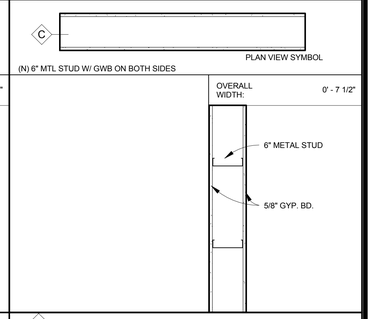
53 FH STUD, UNRATED

NON-RATED

G INTERIOR PARTITION - FURRING



C INTERIOR PARTITION



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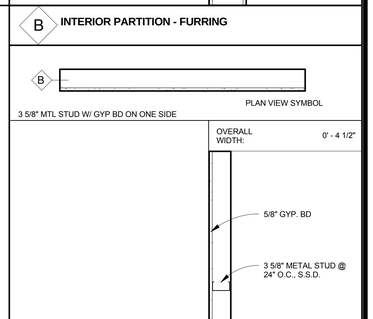
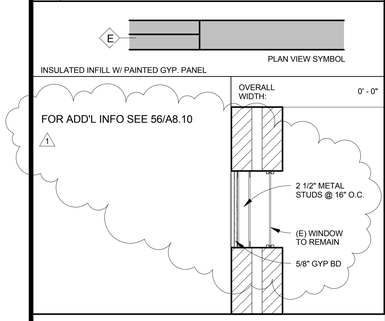
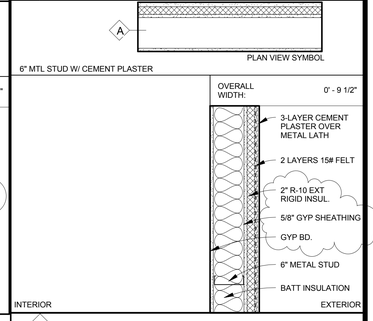


E (N) INFILL ASSEMBLY @ (E) WALL



A EXTERIOR



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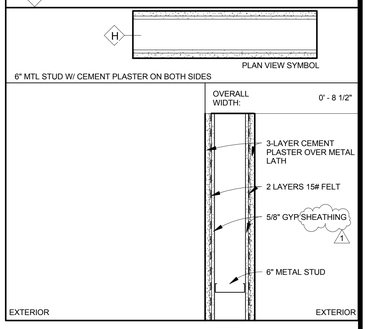
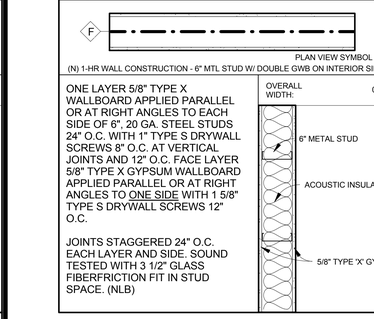


ONE HOUR

F INTERIOR PARTITION

UL DESIGN NO. U419



ONE LAYER 5/8" TYPE X WALLBOARD APPLIED PARALLEL OR AT RIGHT ANGLES TO EACH SIDE OF 6", 20 GA. STEEL STUDS 24" O.C. WITH 1" TYPE S DRYWALL SCREWS 8" O.C. AT VERTICAL JOINTS AND 12" O.C. FACE LAYER 5/8" TYPE X GYPSUM WALLBOARD APPLIED PARALLEL OR AT RIGHT ANGLES TO ONE SIDE WITH 1 5/8" TYPE S DRYWALL SCREWS 12" O.C.

JOINTS STAGGERED 24" O.C. EACH LAYER AND SIDE. SOUND TESTED WITH 3 1/2" GLASS FIBERFRICTION FIT IN STUD SPACE. (NLB)

INTERIOR WALLS

EXTERIOR WALLS

30 UL ASSEMBLY

HILLIARD ARCHITECTS INC. COPYRIGHT

5/4/2014 11:09:17 PM

Revisions:	Date

VA FORM 08-6231

CONSULTANTS:

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FINAL BID DOCUMENTS

Drawing Title	WALL SCHEDULE & DETAILS
Approved: Project Director	
Project Title	VA PALO ALTO BLDG 6 LAB RENOVATION
Location	VAPAHCS, PALO ALTO CAMPUS 3801 MIRANDA AVE. PALO ALTO, CA 94304
Date	04.17.2014
Checked	M.H.
Drawn	
Project Number	640-13-121P
Building Number	6
Drawing Number	A9.30
Dwg. of	

Office of Construction and Facilities Management

Department of Veterans Affairs

01 SUSPENDED CEILING NOTES

1 #12 GA (MIN.) HANGER WIRES MAY BE USED FOR UP TO AND INCLUDING 4'-0" X 4'-0" GRID SPACING ALONG MAIN RUNNERS. SPLICES ARE NOT PERMITED IN ANY HANGER WIRES.

2 PERIMETER HANGERS. THE TERMINAL ENDS OF EACH CROSS RUNNER AND MAIN RUNNER SHALL BE SUPPORTED INDEPENDANTLY A MAXIMUM OF 8 INCHES FROM EACH WALL OR CEILING DISCONTINUITY WITH #12 GA WIRE OR APPROVED WALL SUPPORT.

3 PROVIDE TRAPEZE OR OTHER SUPPLEMENTARY SUPPORT MEMBERS AT OBSTRUCTIONS TO MAINTAIN HANGER SPACING. PROVIDE ADDITIONAL HANGERS, STRUTS OR BRACES AS REQUIRED AT ALL CEILING BREAKS, SOFFITS OR DISCONTINUOUS AREAS. HANGER WIRES THAT ARE MORE THAN 10º (1 IN 6) OUT OF PLUMB ARE TO HAVE COUNTER-SLOPING WIRES.

4 CEILING GRID MEMBERS MAY BE ATTACHED TO NOT MORE THAN 2 ADJACENT WALLS. CEILING GRID MEMBERS SHOULD BE AT LEAST 1/2" CLEAR OF OTHER WALLS. IF WALLS RUN DIAGONALLY TO CEILING GRID SYSTEM RUNNERS, ONE END OF MAIN AND CROSS-RUNNERS SHOULD BE FREE WITH A MINIMUM OF 1/2" CLEAR AT WALLS.

5 AT THE PERIMETER OF THE CEILING AREA WHERE MAIN OR CROSS RUNNERS ARE NOT CONNECTED TO THE ADJACENT WALL, PROVIDE INTERCONNECTION BETWEEN THE RUNNERS AT THE FREE END TO PREVENT LATERAL SPREADING. A METAL STRUT OR A 16 GA WIRE WITH A POSITIVE MECHANICAL CONNECTION TO THE RUNNER MAY BE USED. WHERE THE PERPENDICULAR DISTANCE FROM THE WALL TO THE FIRST PARALLEL RUNER IS 12" OR LESS, THIS INTERLOCK IS NOT REQUIRED.

6 PROVIDE SETS OF FOUR (4) #10 GA SPLAYED BRACING WIRES ORIENTED 90º FROM EACH OTHER AT NOT MORE THAN 8'-0" BY 12'-0" O.C. PROVIDE BRACING WIRES AT LOCATIONS NOT MORE THAN 1/2 OF THIS SPACING FROM EACH PERIMETER WALL AND AT THE EDGE OF VERTICAL CEILING OFFSETS. THE SLOPE OF THESE WIRES SHALL NOT EXCEED 45º FROM A HORIZONTAL PLANE AND SHALL BE TAUT WITHOUT CAUSING THE STRUCTURE TO LIFT. COMPRESSION STRUTS ATTACHED TO THE CEILING AND THE STRUCTURE SHALL BE PROVIDED AT BRACING POINTS. DO NOT SPLICE BRACING WIRES.

NOTE: ROOMS WITH A CEILING AREA LESS THAN 96 S.F. AND SURROUNDED BY WALLS WHICH CONNECT DIRECTLY TO THE STRUCTURE ABOVE DO NOT REQUIRE BRACING WIRES WITH COMPRESSION STRUTS WHEN ATTACHED TO TWO ADJACENT WALLS.

7 FASTEN HANGER WIRES WITH NOT LESS THAN 3 TIGHT TURNS. FASTEN BRACING WIRES WITH 4 TIGHT TURNS. MAKE ALL TIGHT TURNS WITHIN A DISTANCE OF 1-1/2 INCHES. HANGER OR BRACING WIRE ANCHORS TO THE STRUCTURE SHOULD BE INSTALLED IN SUCH A MANNER THAT THE DIRECTION OF THE ANCHOR ALIGNS AS CLOSELY AS POSSIBLE WITH THE DIRECTION OF THE WIRE.

NOTE: WIRE TURNS MADE BY MACHINE WHERE BOTH STRANDS HAVE BEEN DEFORMED OR BENT IN WRAPPING CAN WAIVE THE 1-½" REQUIREMENT, BUT THE NUMBER OF TURNS SHALL BE MAINTAINED, AND BE AS TIGHT AS POSSIBLE.

8 SEPARATE ALL CEILING HANGING AND BRACING WIRES AT LEAST 6 INCHES FROM ALL UNBRACED DUCTS, PIPES, CONDUIT, ETC. IT IS ACCEPTABLE TO ATTACH LIGHTWEIGHT ITEMS, SUCH AS SINGLE ELECTRICAL CONDUIT NOT EXCEEDING 3/4" NOMINAL DIAMETER, TO HANGER WIRES USING ACCEPTABLE CONNECTORS.

9 WHEN DRILLED-IN CONCRETE ANCHORS OR SHOT-IN ANCHORS ARE USED IN REINFORCED CONCRETE INCLUDING CONCRETE FILLED METAL DECKING FOR HANGER WIRES, 1 OUT OF 10 MUST BE FIELD TESTED FOR 200 POUNDS OF TENSION. WHEN DRILLED-IN CONCRETE ANCHORS ARE USED FOR BRACING WIRES, 1 OUT OF 2 MUST BE FIELD TESTED FOR 440 POUNDS IN TENSION. AS AN OPTION, DRILLED ANCHORS MAY BE TORQUE TESTED PER WEDGE ANCHOR IN CONCRETE DETAIL 27 (THIS SHEET).
SHOT-IN ANCHORS IN CONCRETE ARE NOT PERMITTED FOR BRACING WIRES. IF ANY SHOT-IN OR DRILLED-IN ANCHOR FAILS, SEE SECTION 1925B.3.5, TITLE 24, CCR.

NOTE: DRILLED-IN OR SHOT-IN ANCHORS REQUIRE APPROVAL OF ENGINEER OF RECORD WHEN USED IN PRE-STRESSED CONCRETE.

10 ATTACH ALL LIGHT FIXTURES AND CEILING MOUNTED AIR TERMINALS OR SERVICES TO THE CEILING GRID MAIN RUNNERS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE FIXTURES. SCREWS OR APPROVED FASTENERS ARE REQUIRED.

11 FLUSH OR RECESSED LIGHT FIXTURES AND AIR TERMINALS OR SERVICES WEIGHING LESS THAN 56 POUNDS MAY BE SUPPORTED DIRECTLY ON THE RUNNERS OF A HEAVY DUTY GRID SYSTEM BUT, IN ADDITION, THEY MUST HAVE A MINIMUM OF ONE #12 GA SLACK SAFETY WIRES ATTACHED TO THE FIXTURE AT EACH CORNER AND ANCHORED TO THE STRUCTURE ABOVE.

12 ALL FIXTURES AND AIR TERMINALS OR SERVICES WEIGHING 56 LBS. OR MORE MUST BE INDEPENDANTLY SUPPORTED BY NOT LESS THAN FOUR (4) TAUT # 12 GA WIRES, ATTACHED TO THE HOUSING AND TO THE STRUCTURE ABOVE. THE FOUR (4) TAUT # 12 GA WIRES, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, MUST BE CAPABLE OF SUPPORTING FOUR (4) TIMES THE WEIGHT OF THE UNIT.

13 CEILING SUSPENSION SYSTEM SHALL BE HEAVY DUTY, EXCEPT AS OTHERWISE SPECIFIED. USE SAME CONSTRUCTION FOR CROSS RUNNERS AS MAIN RUNNERS. PREVENT DEFLECTION IN EXCESS OF 1/360 OF SPAN OF CROSS RUNNER AND MAIN RUNNER. SPLICES OR INTERSECTIONS OF CROSS RUNNERS SHALL BE ATTACHED WITH THROUGH CONNECTORS SUCH AS POP RIVETS, SCREWS, PINS, PLATES WITH END TABS OR OTHER APPROVED CONNECTORS. SUCH THROUGH CONNECTORS SHALL BE CAPABLE OF TRANSFERRING A MEAN ULTIMATE TENSILE/ COMPRESSION FORCE OF 180 POUNDS.

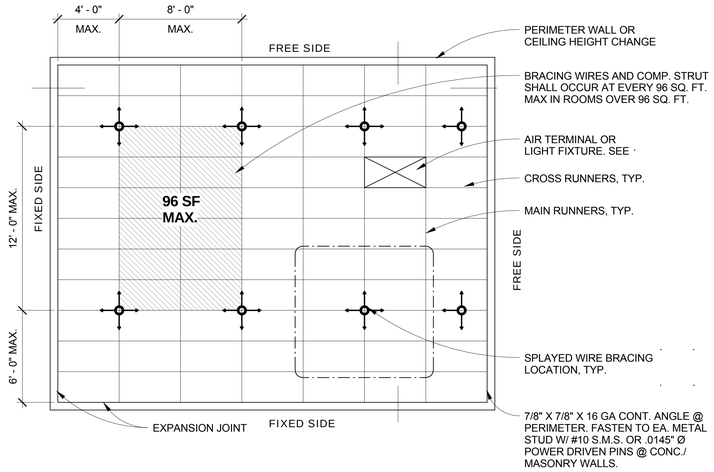
14 SUPPORT SURFACE MOUNTED LIGHT FIXTURES BY AT LEAST TWO POSITIVE DEVICES WHICH SURROUND THE CEILING RUNNER AND WHICH ARE EACH SUPPORTED FROM THE STRUCTURE ABOVE BY A #12 GA WIRE. SPRING CLIPS OR CLAMPS THAT CONNECT TO THE RUNNER ARE NOT ACCEPTABLE. PROVIDE ADDITIONAL SUPPORTS WHEN LIGHT FIXTURES ARE 8 FT. OR LONGER. MAXIMUM SPACING BETWEEN SUPPORTS SHALL NOT EXCEED 8 FEET.

15 SUPPORT PENDANT-MOUNTED LIGHT FIXTURES DIRECTLY FROM THE STRUCTURE ABOVE WITH HANGER WIRES OR CABLES PASSING THROUGH EACH PENDANT HANGER AND CAPABLE OF SUPPORTING FOUR (4) TIMES THE WEIGHT OF THE FIXTURE. A BRACING ASSEMBLY IS REQUIRED WHERE THE PENDANT HANGER PENETRATES THE CEILING. SPECIAL DETAILS ARE REQUIRED TO ATTACH THE PENDANT HANGER TO THE BRACING ASSEMBLY TO TRANSMIT HORIZONTAL FORCE. IF THE PENDANT MOUNTED LIGHT FIXTURE IS DIRECTLY AND INDEPENDENTLY BRACED BELOW THE CEILING, I.E. AIRCRAFT CABLES TO WALLS, THEN BRACE ASSEMBLY IS NOT REQUIRED ABOVE THE CEILING.

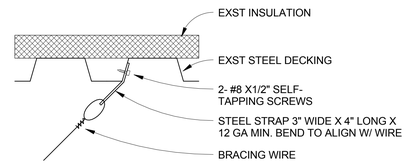
16 EXPANSION JOINTS SHALL BE PROVIDED IN THE CEILING AT INTERSECTIONS OF CORRIDORS AND AT JUNCTIONS OF CORRIDORS WITH LOBBIES OR OTHER SIMILAR AREAS.

17 FOR CEILING AREAS EXCEEDING 2500 SQUARE FEET, A SEISMIC SEPARATION JOINT SHALL BE PROVIDED TO DIVIDE THE CEILING INTO AREAS NOT EXCEEDING 2500 SQUARE FEET.

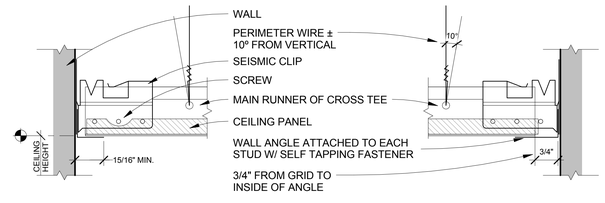
18 PENETRATIONS THROUGH THE CEILING FOR SPRINKLER HEADS AND OTHER SIMILAR DEVICES THAT ARE NOT INTEGRALLY TIED TO THE CEILING SYSTEM IN THE LATERAL DIRECTION SHALL HAVE A TWO (2) INCH OVERSIZED RING, SLEEVE OR ADAPTER THROUGH THE CEILING TILE TO ALLOW FREE MOVEMENT OF ONE (1) INCH IN ALL HORIZONTAL DIRECTIONS. ALTERNATIVELY, PER ASTM E580 SECTION 5.2.8.8, A FLEXIBLE SPRINKLER HOSE FITTING THAT CAN ACCOMMODATE 1 INCH OF CEILING MOVEMENT SHALL BE PERMITTED TO BE USED IN LIEU OF THE OVERSIZED RING, SLEEVE OR ADAPTER.



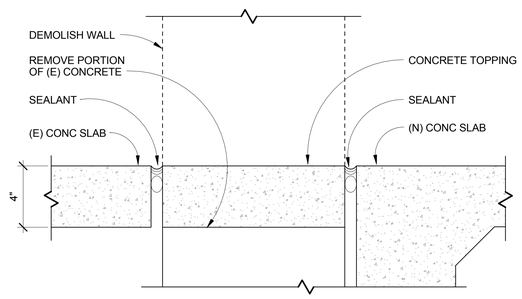
12 SUSPENDED ACOUSTICAL CEILING - TYPICAL LAYOUT



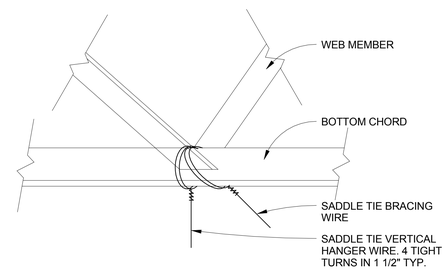
14 CEILING BRACING WIRE @ STEEL ROOF DECK N.T.S.



17 SEISMIC PERIMETER CLIP WALL TO WALL SECTION N.T.S.

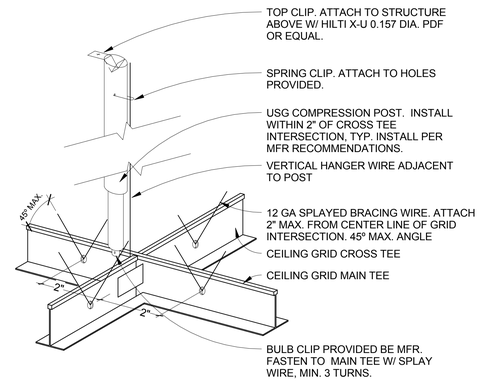


32 TOPPING DETAIL @ ENTRY/HALLWAY

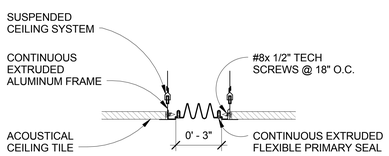


NOTE: BRACE WIRES PARALLEL TO JOIST. BRACE WIRES CAN NOT BE PERPENDICULAR TO JOIST

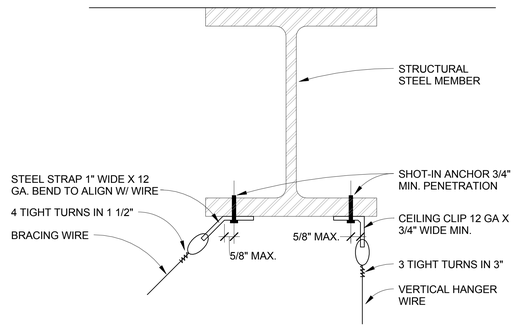
34 CEILING HANGER WIRE @ OPEN WEB STEEL JOIST N.T.S.



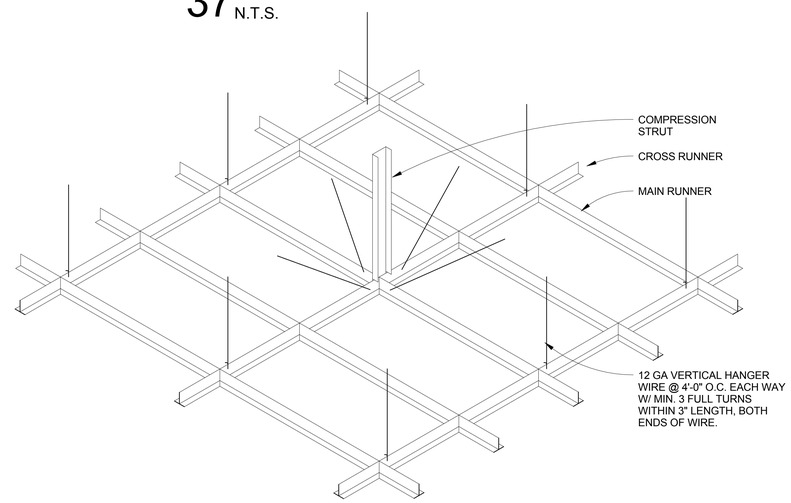
37 COMPRESSION STRUT @ ACOUSTIC CLG. SYSTEM - USG N.T.S.



42 EXPANSION JOINT @ SUSPENDED CEILNG



54 CEILING HANGER WIRE @ STEEL BEAMS N.T.S.



57 COMPRESSION STRUT @ CLG. GRID ATTACHMENT N.T.S.

FINAL BID DOCUMENTS

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Revisions:	Date

CONSULTANTS:

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Drawing Title: CEILING ASSEMBLY DETAILS

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn:

Project Number: 640-13-121P

Building Number: 6

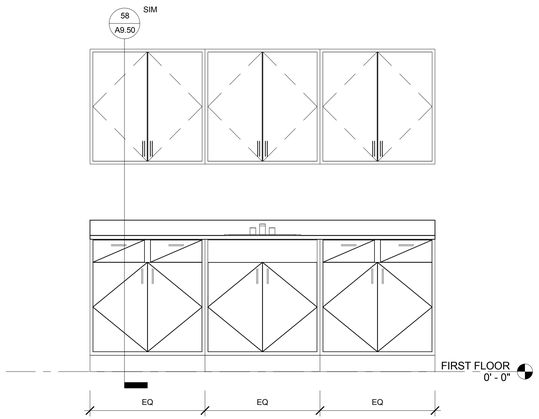
Drawing Number: A9.40

Dwg. of

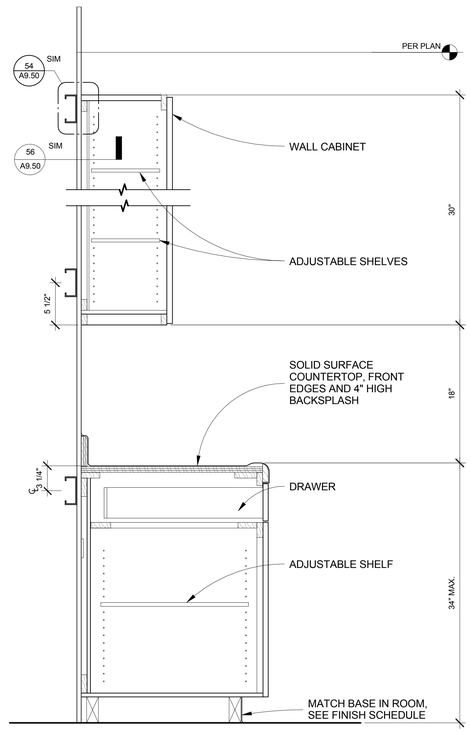
Office of Construction and Facilities Management

Department of Veterans Affairs

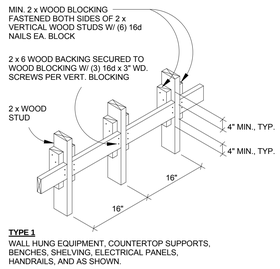
VA FORM 08-6231



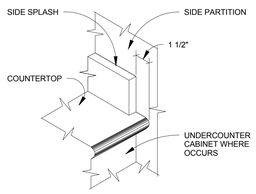
36 C140 LUNCH ROOM CASEWORK



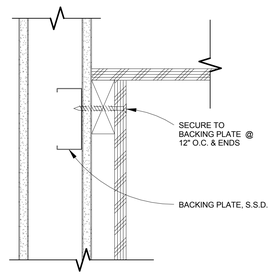
58 CASEWORK UPPER & BASE CABINETS



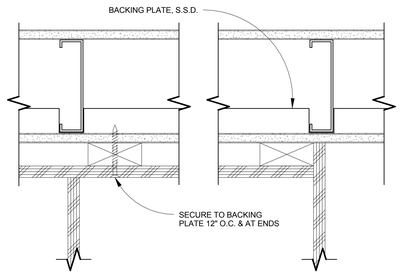
50 CABINET BACKING PLATE DETAIL



52 CABINET COUNTERTOP SIDESPLASH



54 CABINET ANCHORAGE @ TOP



56 CABINET ANCHORAGE @ WALL

FINAL BID DOCUMENTS

Revisions:	Date

CONSULTANTS:

ARCHITECT/ENGINEERS:

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Drawing Title: CASEWORK ELEVATIONS, SECTIONS, SCHEDULE & DETAILS

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn:

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A9.50

Dwg. of

Office of Construction and Facilities Management

Department of Veterans Affairs

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VA FORM 08-6231

Components — Design Elements

Typography
Helvetica Bold is the standard typeface for the VA Sign System and will be used predominantly throughout the sign program. Signs containing Helvetica Regular will be ABA compliant, to accommodate the visually impaired (refer to ABA sections). All non-ABA signs are to maintain an upper and lower case (Initial Caps) format.

The secondary language of a multilingual sign shall be Helvetica Regular.

Overhead signs shall be Helvetica Bold Condensed.

Building Standard • Helvetica Bold

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

Second Language • Helvetica Regular

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

Overhead Signs • Helvetica Bold Condensed

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890

Letterspacing
Normal letter spacing is utilized when the readability ratio factor (capital letter height in inches to maximum readable viewing distance) is 1:40. Tight spacing using upper and lower case letters. Word spacing shall be equivalent to the width of a lower case "x".

ABA letters should be spaced so that tactile readers can feel where one letter ends and the next begins. Braille needs to be spaced so the reader can feel where one dot ends, and the next dot begins (refer to ABA sections).

Normal letter spacing should not be used when letter forms are to be illuminated as light bleed causes letters to fuse together visually.

Distance letter spacing shall be utilized when the copy content is intended for readability at greater viewing distances. Distance letter spacing allows. The readability ratio factor is 1:40. Distance letter spacing shall be used for all exterior and illuminated signs.

Normal Spacing

Correct Spacing	Spacing is too tight	Spacing is too loose
Administration	**Administration**	**Administration**
Correct Spacing	Spacing is too tight	Spacing is too loose
Administration	**Administration**	**Administration**

Distance Spacing

Correct Spacing	Spacing is too tight	Spacing is too loose
Building	**Building**	**Building**
Correct Spacing	Spacing is too tight	Spacing is too loose
Building	**Building**	**Building**

Components — Design Elements

Interline Spacing
Interline spacing will generally be noted on sign type drawings. As a rule, line spacing shall be no less than 1/2 the height of the upper case letter form.

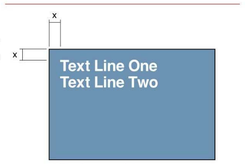
x
1/2x — Mm
Mm

Paragraph Spacing
Paragraph spacing will generally be noted on sign type drawings. As a rule, paragraph spacing shall be no less than the height of the upper case letter form.

x — Mm
Mm
x — Mm
Mm

Alignment
A flush upper left copy format shall be the general rule though certain exceptions shall be noted.

As a rule, all copy placed on inserts, changeable directional modules, listing strips, overhead panels, and changeable exterior panels shall be vertically centered, (equal margins top and bottom) Graphic symbols used in square format shall be centered on four sides.



X - Dimensions vary per sign type.
See Sign Type Drawings for exact dimensions

ADA — Design Elements

Architectural Barriers Act Tactile Sign Specifications

Character Specifications
Characters shall be sans serif, all capitals, and shall not be italic, bold, script or highly decorative.

Characters and Braille shall be in a horizontal format. Character height shall be 3/4" minimum, 2" maximum, depending on viewing distance (see Table 703.5.5 in "ABA Accessibility standards for federal facilities").

Character stroke thickness of the uppercase letter "I" shall be 15% maximum of the height of the character.

Character spacing to be 1/8" minimum and four times the character stroke width maximum.

Line spacing to be 135% minimum and 170% maximum of the letter height.

Characters shall be separated from raised borders and decorative elements by 3/8" minimum.

Characters shall be raised 1/32" minimum above their background.

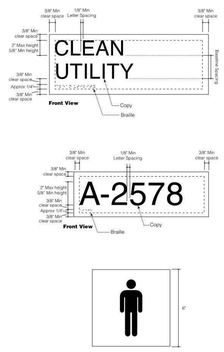
Characters to be used shall be selected from styles where the width of the uppercase letter "O" is 55% minimum and 110% maximum based on the height of the uppercase letter "I".

Pictograms
Pictograms shall have a field height of 6" minimum and Braille shall not be located within the pictogram field. Pictogram text descriptions to be located directly below the pictogram field.

Finish & Contrast
Characters and their background to have a non-glare finish. Characters shall contrast with their background with either light lettering on a dark background or dark letters on a light background.

General
Where both visual and tactile characters are required, either one sign with both visual and tactile lettering or two separate signs, one with visual, one with tactile lettering shall be provided.

Raised letters to be read by touch should not have sharp or abrasive edges.



ADA — Design Elements

Architectural Barriers Act Tactile Sign Specification

Braille
Shall be contracted, (Grade 2).

See measurements shown at right.

Braille dots shall have a domed or rounded shape.

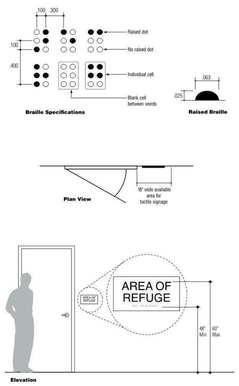
The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

Braille shall be positioned below the corresponding text. If text is multi-lined, Braille shall be placed below the entire text. Braille shall be separated 3/8" minimum from any other tactile letters and 3/8" from raised borders.

Exception
Braille provided on elevator car controls shall be separated by 3/16" minimum and shall be located either directly below or adjacent to the corresponding raised letters and symbols.

Location
Where a tactile sign is provided at a door the sign shall be located alongside the door at the latch side. Where there is no room for signage on double doors with one active leaf the sign shall be located on the inactive leaf. With two active leafs the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of single doors or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing Tactile characters shall be located so that a clear floor space 18" minimum by 18" minimum centered on the Tactile characters is proposed beyond the arc of any door swing between the latch position and 45 degrees open position.

Tactile lettering on signs shall be located 48" minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60" maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.



ADA — Design Elements

Architectural Barriers Act Requirements

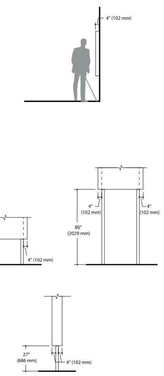
Cane Sweep
Objects with leading edges more than 27 inches (686 mm) and not more than 80 inches (2129 mm) above the finish floor or ground may protrude 4 inches (102 mm) maximum horizontally into the circulation path.

EXCEPTION: Handrails shall be permitted to protrude 4 1/2 inches (114 mm) maximum.

Protrusion Limits
Cane detectable objects and the element so in the detectable range, it gives a person sufficient time to detect the element with the cane before there is body contact. Elements located on circulation paths, including operable elements, must comply with requirements for protruding objects. For example, drinking fountains and water coolers/fountains cannot reduce the minimum required vertical clearance. Similarly, casement windows, when open, cannot encroach more than 4 inches (102 mm) into circulation paths above 27 inches (686 mm).

Post Mounted Protruding Objects
Post mounted objects mounted on posts or pylons shall overhang circulation paths 12 inches (305 mm) maximum when located 27 inches (686 mm) minimum and 80 inches (2129 mm) maximum above the finish floor or ground. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches (305 mm), the lowest edge of such sign or obstruction shall be 27 inches (686 mm) maximum or 80 inches (2129 mm) minimum above the finish floor or ground.

EXCEPTION: The lowpoinportions of handrails serving stairs and ramps shall not be required to comply.



Colors — Design Elements

Accent
Text
Background
2A244

Bracket
Background
Text
Cardiac Intervention Unit

Text
Background
Fire Door
Keep closed at all times.

Colors — Design Elements

For interior signs use the chart to the right to select a background color and a type color.

The paint colors listed are acrylic polyurethane paint systems manufactured by the following two companies:

Matthews Paint
760 Pittsburg Drive
Delaware, OH 43015
www.matthewspaint.com

Akzo Nobel
5555 Spaulding Drive
Norcross, GA 30092
www.akzonobel.com

Note: Always obtain color samples from the paint company. Colors shown are for representational purposes only. The actual paint colors may vary significantly from the colors shown unless indicated in this document. Colors will appear differently when viewed on different computer monitors and or printed from different printers. For a true color sample, it is best to obtain an actual paint sample of the desired color.

Interior Sign Background Colors

Color Ref #	Color Description	Text Color	Matthews #	Asko Nobel #
B1	Drake	White	MP05732	SIGNM05732
B2	Wells Fargo Black	White	MP26309	SIGNM26309
B3	Lime Peel	White	MP12444	SIGNM12444
B8	Djibouti Flag Blue	White	MP10273	SIGNM10273
B10	Brown County	White	MP04991	SIGNM04991
B28	Orange County	White	MP07869	SIGNM07869
B29	Spice Trader	White	MP02795	SIGNM02795
B31	Gloomy Gray	White	MP10124	SIGNM10124
B33	Fresh Fields	White	MP11532	SIGNM11532
B34	Plum Crazy	White	MP04400	SIGNM04400
B35	Antwerp Blue	White	MP03362	SIGNM03362
B16	Handicapped Blue	White	MP26511	SIGNM26511
B17	Red (OSHA)	White	MP09251	SIGNM09251
B18	New VA Blue	White	MP09144	SIGNM09144
B30	Spruce Pine	Black	MP13106	SIGNM13106
B32	Baby Boy Blue	Black	MP00344	SIGNM00344
B21	Garbo Silver	Black	MP02650	SIGNM02650
B22	Clinkhite Green	Black	MP14762	SIGNM14762
B23	Old Copper Roof	Black	MP05397	SIGNM05397
B24	Foie Gras	Black	MP04685	SIGNM04685
B25	Winter Slush	Black	MP04982	SIGNM04982
B26	Toasty Gold	Black	MP05322	SIGNM05322
B27	Corn Silk	Black	MP11392	SIGNM11392
B19	Yellow (OSHA)	Black	MP09829	SIGNM09829
B20	White	Black, Red, Purple	MP32071	SIGNM32071

Additional Colors for Trims, Accents, Posts & Brackets

A1	Dark Bronze Anodized	A4	Polished Aluminum
A2	Black	A5	Satin Aluminum
A3	Clear Anodized Aluminum		

Metric — Design Elements

Metric
The metric system is the preferred system of measurement in commerce. Under the Metric Conversion Act of 1975, PL 94-168, as amended by Section 5164 of Omnibus Trade and Competitiveness Act of 1988, and Executive Order 12770.

In accord with the Department of Veteran Affairs metric conversion plan, the sign system is preferably to be constructed in metric, however, the English system can be used on VA projects, if it meets the needs of a specific facility. The use of metric should not add cost to a project and "off the shelf" metric sign systems are preferred.

The VA does not intend to impose rigid metric conversions on the sign industry and will support sign manufacturers as their industry converts to the metric standard.

For assistance in transition to metric, the drawings with dimensions should be prepared showing direct metric English conversion. While typography is generally referred to in the graphic arts industry in points, and the sign industry in inches, the VA sign program is showing text layouts developed in inches and then directly converted to metric. It is preferred, however, that metric dimensions be rounded up to the nearest 5 mm for up to 1 5 mm up to 4 inches and, above 4 inches rounded down to the nearest 25 mm.

The adjacent conversion chart should provide assistance in converting dimensions from inches to millimeters.

For further information on the conversion to metric, contact the Department of Veteran Affairs, Office of Construction & Facilities Management.

Scales	Nearest 1 mm (SI*)	Nearest 5 mm (SI*)	Nearest 5 mm (SI*)	Cv Zoom (EACH)
1/32"	1			
1/16"	2			
1/8"	3			
3/16"	5			
1/4"	6			
5/16"	8			
3/8"	10			
7/16"	11			
1/2"	13			
9/16"	14			
5/8"	16			
3/4"	19			
7/8"	22			
1"	25	25		
1 1/4"	32	30		
1 1/2"	38	40		
1 3/4"	44	45		
2"	51	50		
2 1/4"	57	55		
2 1/2"	64	65		
2 3/4"	70	70		
3"	76	75		
3 1/4"	83	85		
3 1/2"	89	90		
3 3/4"	95	95		
4"	102	100	100	100
5"	127	125	130	125
6"	152	150	150	150
7"	178	180	180	175
8"	203	205	200	200
9"	229	230	230	225
10"	254	255	250	250
11"	279	280	280	275
1'-0"	305	305	300	300
2'-0"	610	610	610	600
3'-0"		915	910	900
4'-0"		1220	1220	1200
5'-0"		1525	1520	1500
6'-0"		1830	1830	1800
7'-0"		2135	2130	2100
8'-0"		2440	2440	2400
9'-0"		2745	2740	2700
10'-0"		3050	3050	3000
15'-0"		4570	4570	4500
20'-0"		6095	6100	6000

Planning — Interior Signs

Arrows
figure 6

Number	Location Plan Orientation	Interpretation
1		Straight Ahead
2		Up
3		Ahead on Left
4		Up on Left
5		Ahead on Right
6		Up on Right
7		Right
8		Down on Right
9		Left
10		Down on Left
11		Down
12		Straight Ahead

Installation — Interior Signs

Detail 1
Installation detail sign type 03, building standard, room number.

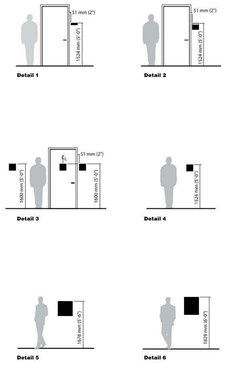
Detail 2
Installation detail sign types 04.01, 04.02, 04.03, 04.04, 05.06, 05.07, 05.08, 05.09, 07.01, 07.02, 07.03, 07.05, 07.06, 07.07 Building standard room number and name.

Detail 3
Installation detail sign types 08.01, 08.02, 08.05, 08.02, 08.03, 08.04, 08.05, 08.06, 08.07, 08.08, 11.01, 11.02, 11.04 Building standard.

Detail 4
Installation detail sign types 10.04, 10.05, 10.06.

Detail 5
Installation detail sign types 10.02, 10.03, 11.03, 14.04, 14.05, 14.09, 14.10.

Detail 6
Installation detail sign types 10.01, 14.01, 14.02, 14.06, 14.07, 14.20, 14.21, 14.25, 14.26.



Installation — Interior Signs

Detail 7
Installation detail sign types 14.03, 14.08, 14.11, 14.12, 14.13, 14.14, 14.15, 14.16, 14.17, 14.18.

Detail 8
Installation detail sign types 13

Detail 9
Installation detail sign types 15.51, 15.52, 15.53, 15.54, 15.55, 15.56, 15.57

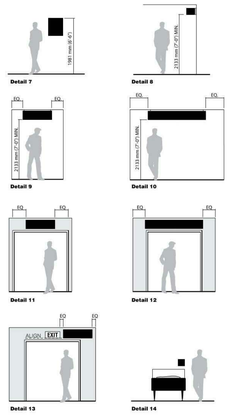
Detail 10
Installation detail sign types 15.61, 15.62, 15.63, 15.65, 15.66, 15.67

Detail 11
Installation detail sign types, 16.51, 16.52, 16.53, 16.55, 16.56, 16.57

Detail 12
Installation detail sign types 16.61, 16.62, 16.63, 16.65, 16.66, 16.67

Detail 13
Installation detail sign types 15.51, 15.52, 15.53

Detail 14
Installation detail sign types 06.05, 06.06.



EN-06.07 — Exterior Signs

Wall Mounted Informational

Size
Sign Face:
457 mm H x 457 mm W
(1'-6" H x 1'-6" W)

Description
Exterior wall mounted wall mounted sign. This sign is for miscellaneous uses such as identifying minor entrances, information messages, identifying sheds and equipment buildings, etc.

Message Configuration
(Refer to message layout drawing for dimensions)

Message layouts show ideas of type sizes relative to possible different uses and application of the sign type.

Graphic Process
Surface applied white reflective vinyl.

Colors
Text: White
Background: Refer to color chart

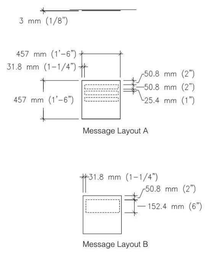
Recommendations
Use for general purpose minor sign needs.

Message Layout A: Freight & Delivery Entrance

Message Layout B: T28

EN-06.07 — Exterior Signs

Wall Mounted Informational



IN-01.01.01 — Code and Life Safety Signs

Emergency Exit Plan

Sign
508 mm H x 508 mm W
(20" H x 20" W)

Description and Use
NOTE: This sign type is optional except for hospitals when they are considered a hotel/dormitory type occupancy.

Evacuation Map/Fire Exit Plan with pocket to accept map sheet is to be placed at points of exit and egress, including all stairwells, exits, and exiting stairwell doors; other locations as needed. Use this large size sign when large size maps are necessary.

Evacuation maps can be created using a computer program and fed into the sign in accord with the facilities evacuation plan. The map must be oriented relative to the specific location of the sign i.e., (what is to the right on the drawing should be to the right of the viewer). Refer to the You Are Here section (Section 10) for additional information regarding maps.

Local fire departments may request these signs be installed. If requested, coordinate locations with their requirements.

Message Configuration
Refer to layout drawing for lettering sizes and dimensions.

Sign Components
Sign face: 3 mm (1/8") non-glare acrylic with subsurface background color creating a clear window.

Spacer to receive a clear 0.4 mm (1/64") insert. Backing plaque: surface painted 6 mm (1/4") acrylic.

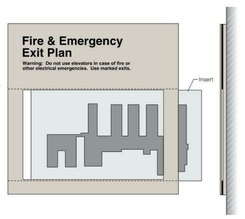
Graphic Process
Sign: silk-screened. Insert: printed

Colors
Type: refer to color chart.
Background: refer to color chart.

Typography
Helvetica Bold

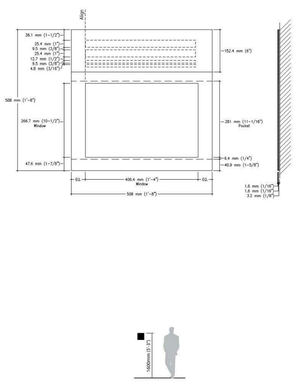
Mounting
Double sided foam tape or silastic adhesive.

Installation
On wall, 1600 mm (63") to top of sign



IN-01.01.01 — Code and Life Safety Signs

Emergency Exit Plan



IN-01.31 — Code and Life Safety Signs

Fire Equipment Identification Sign

Sign Size
229 mm H x 229 mm W
(9" H x 9" W)

Description and Use
Fire equipment identification sign is a flag sign used to identify a fire equipment cabinet.

Message Configuration
(Refer to layout drawing for lettering sizes and dimensions).

Sign Components
Acrylic plaque with aluminum bracket for flag mounting

Graphic Process
Silk-screened

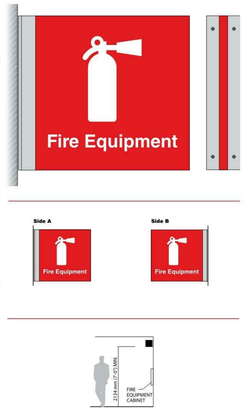
Colors
Text and symbol: white
Background: red
Bracket: aluminum

Typography
Helvetica Bold

Mounting
Mechanical fasteners with anchors

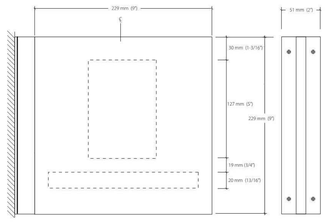
Installation
Centered above fire equipment cabinet a 2134 mm (7'-0") to bottom of sign. Bracket mechanically fastened to wall with expandable anchors as needed for wall type.

NOTE
Code requires that signage identifying fire equipment needs to be mounted above the fire equipment cabinet, flat against the wall. This perpendicular / blade mounted variation is an alternate option for displaying this information. Refer to sign type IN-01.02 for a wall mounted version of this sign.



IN-01.31 — Code and Life Safety Signs

Fire Equipment Identification Sign



REFER TO VA TIL FOR CURRENT SIGN TYPE DETAIL REQUIREMENTS AT:
http://www.cfm.va.gov/til/signs/Signage01-Intro.pdf
http://www.cfm.va.gov/til/signs/Signage04-Exterior.pdf
http://www.cfm.va.gov/til/signs/Signage08-CodeLS.pdf
http://www.cfm.va.gov/til/signs/Signage09-Interior.pdf

FINAL BID DOCUMENTS

Revision	Date
1	05.02.2014

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Drawing Title: SIGNAGE TYPE DETAILS

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE, PALO ALTO, CA 94304

Date: 04.17.2014 | Checked: M.H. | Drawn: Author

Project Number: 640-13-121P

Building Number: 6

Drawing Number: A9.60

Dwg. of

Office of Construction and Facilities Management

Department of Veterans Affairs

VA FORM 08-6231

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IN-03.01 Interior Signs

Room Number Identification

Size
76 mm H x 229 mm W
(3" H x 9" W)

Description and Use
Sign is to be used to identify rooms

Message Configuration
(Refer to layout drawing for lettering sizes and dimensions)

Sign Components
Varies by sign family component sign system, rails, curved and flat frames.

Graphic Process
Tactile room number with accompanying Braille.

Colors
Text: refer to color chart.
Background: refer to color chart

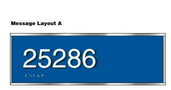
Typography
Helvetica
Grade 2 Braille

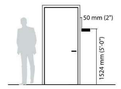
Mounting
Double sided foam tape, silastic adhesive or screw.

Installation
Knob side of door, 1524 mm (60") to top of sign and 50 mm (2") over from door frame.

Recommendations
This sign is to be used for all rooms, but can also be used to identify corridors and alcoves as necessary. Do not use on exterior and stairwell doors.

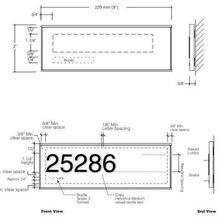
Message Layout A





IN-03.01 Interior Signs

Room Number Identification



IN-04.03 Interior Signs

Primary Room Identification with Insert

Size
229 mm H x 229 mm W
(9" H x 9" W)

Description and Use
This sign always has tactile number and Braille as its top sign component. Lower section is for insert. Use this sign to identify the occupant or activity within a room.

Message Configuration
(Refer to layout drawing for lettering sizes and dimensions) Layout A is suggested for department identification, Layout B for rooms and departments with long words or names. Layout C and D for rooms with a common name but need specific identification.

Sign Components
Vary by sign family, sliding rail component systems, curved and flat. Top section raised text and Braille. Lower section can be inserted graphics.

Graphic Process
Tactile raised text and Braille on top section. Insert with clear protector cover with surface applied vinyl on substrate or paper printed insert in lower sign section.

Colors
Text: refer to color chart.
Background: refer to color chart

Typography
Helvetica Bold
Grade 2 Braille
Lettering size is adaptable to allow messages to fit on to the sign. Refer to various layouts for reference.

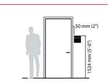
Mounting
Double sided foam tape, silastic adhesive or screw.

Installation
Knob side of door, 1524 mm (60") to top of sign and 50 mm (2") over from door frame.

Recommendations
It is recommended that this particular sign type become the "building standard" for identification of all rooms.

Signs identifying electrical closets, mechanical rooms and telecommunication rooms should consist of only the room number (Sign type IN-03.01). The room number shall be based on the building room numbering system. No descriptive name or title should be used nor should they have a unique number system.

Message Layout A



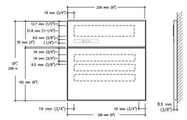
Message Layout B

Message Layout C

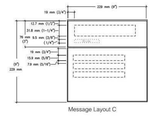
Message Layout D

IN-04.03 Interior Signs

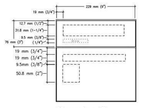
Primary Room Identification with Insert



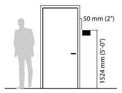
Message Layout A & B



Message Layout C



Message Layout D



IN-07.01-.03 Interior Signs

Room Sign with Indicator

Size / Sign Size
IN-0701
229 mm x 229 mm (9" H x 9" W)

IN-0702
152 mm x 229 mm (6" H x 9" W))

IN-0703
203 mm x 229 mm (8" H x 9" W)

Description and Use
This sign always has tactile and Braille section at the top of the sign component. Use this sign for conference rooms, meeting rooms. This type of sign can also be used for exam rooms, treatment rooms, and offices where the occupants want to indicate that room is in use.

Message Configuration
(Refer to layout drawing for lettering sizes and dimensions) IN01 Layout A is for conference rooms, IN01 B is for exam rooms and rooms, N03 2 Insert messages are prepared and removed based upon occupancy of the room. Selection of the text to appear behind the slider is to be determined by the sign users.

Sign Components
Vary by sign family, sliding rail component systems, curved and flat. Top section raised text and Braille. Mid section can be digital print or vinyl applied graphics. Lower section moving slider with graphic reveal.

Graphic Process
Slider section surface applied vinyl. Text behind slider is second surface.

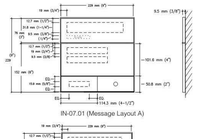
Colors
Text: refer to color chart.
Background: refer to color chart

Typography
Helvetica Bold
Grade 2 Braille

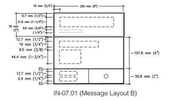
Mounting
Double sided foam tape, silastic adhesive or screw.

Installation
Knob side of door, 1524 mm (60") to top of sign and 50 mm (2") over from door frame.

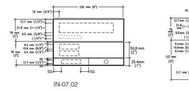
Recommendations
This sign is for use on rooms where and indication is needed in the hallway that the room is occupied or an activity is taking place in the room which should not be disturbed.



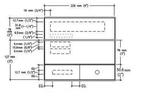
IN-07.01 (Message Layout A)



IN-07.01 (Message Layout B)



IN-07.02



IN-07.03

IN-09.08 Interior Signs

Pictogram and Symbol

Size
229 mm H x 229 mm W
(9" H x 9" W)

Description and Use
Use these signs to inform with a symbol as well as text.

Message Configuration
(Refer to layout drawing for lettering sizes and dimensions)

Sign Components
Vary by sign family, sliding rail component systems, curved and flat. Sign is a digital print, silkscreen or vinyl applied graphics.

Graphic Process
Silk-screened or surface applied vinyl.

Colors
Text: refer to color chart.
Background: refer to color chart

Typography
Helvetica Bold
Helvetica Bold Condensed

Mounting
Double sided foam tape or silastic adhesive.

Installation
On wall or door 1524 mm (60") to top of sign and on door, center.

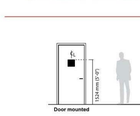
Recommendations
These signs are for use when a symbol will help communicate.

Message Layout A

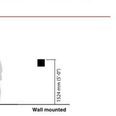
Message Layout B

Message Layout C

Message Layout D



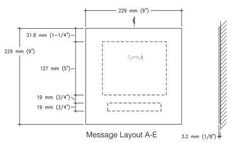
Message Layout E



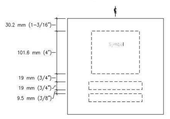
Message Layout F

IN-09.08 Interior Signs

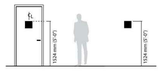
Pictogram and Symbol



Message Layout A-E



Message Layout F



IN-14.06-.10 Interior Signs

Wall Directional with Insert

Size
IN-14.06
610 mm x 508 mm
(24"H x 20"W)

IN-14.07
762 mm x 508 mm
(30"H x 20"W)

IN-14.08
914 mm x 508 mm
(36"H x 20"W)

IN-14.09
457 mm x 508 mm
(18"H x 20"W)

IN-14.10
305 mm x 508 mm
(12"H x 20"W)

Sign Use and Application
Use this sign for directional information.

Message Configuration
(Refer to layout drawing for lettering sizes and dimensions)

Sign Components
Vary by sign family component systems, curved and flat.

Graphic Process
Digital print with clear lens cover.

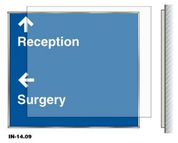
Colors
Text and Arrows: refer to color chart.
Background: refer to color chart.

Typography
Helvetica Bold

Mounting
Secure to wall with physical fasteners.

Installation
On wall.

Recommendations
This sign is for use in corridors to direct patients and public through the building.



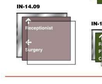
IN-14.09

IN-14.06

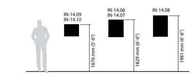
IN-14.07

IN-14.08

IN-14.09

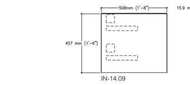


IN-14.10

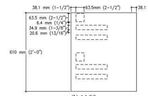


IN-14.06-.10 Interior Signs

Wall Directional with Insert

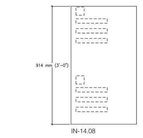


IN-14.09

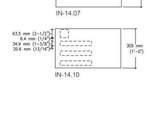


IN-14.06

IN-14.07

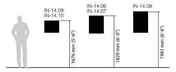


IN-14.08



IN-14.10

ARROW: Refer to standards for arrow positioning relative to text.



IN-15.57 Interior Signs

Ceiling Mounted Directional and Department ID with Insert

Size
IN-15.57
457 mm x 1016 mm
(18" x 40") 9" and 2" text

Description and Use
Use this sign for directional information that needs to be communicated overhead. Sign is double sided and both sides can be used for messages.

Message Configuration
(Refer to layout drawing for lettering sizes and dimensions)

Sign Components
Vary by sign family. Sliding rail component systems, curved and flat. Digital insert with clear lens cover.

Graphic Process
Digital print insert.

Colors
Text and arrows: refer to color chart.
Background: refer to color chart

Typography
Helvetica Bold
Helvetica Bold Condensed
76 mm (3") and 51 mm (2") cap height required for text per layout

Mounting
Ceiling hung 2134 mm (7'-0") from floor.

Installation
From the ceiling: Braided stainless steel wire or rod. Sign must not be attached directly to "T Grid" or lift out ceiling tile.

Recommendations
This sign is for use in corridors to direct patients and public through the building. Because of required letter height, there is a limit to the length of messages and a limit to number of messages.

Verify that ceiling height will accommodate sign height. Clearance requirement is 2134 mm (84").

Sign Type	Layout	Width	Height	Text Size	Sign Family	Directional Arrows	Department ID
IN-15.57	**A**	40"	18"	3"	All	x	
IN-15.57	**B**	40"	18"	3"	All		x
IN-15.57	**C**	40"	18"	2"	All	x	
IN-15.57	**D**	40"	18"	2"	All		x
IN-15.57	**E**	40"	18"	2" & 3"	All	x	x

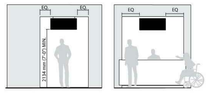
Message Layout E

Message Layout A

Message Layout B

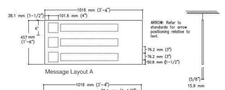
Message Layout C

Message Layout D

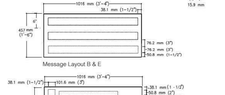


IN-15.57 Interior Signs

Ceiling Mounted Directional and Department ID with Insert

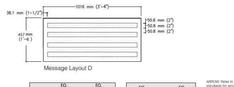


Message Layout A

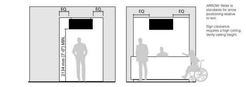


Message Layout B & E

Message Layout C



Message Layout D



ARROW: Refer to standards for arrow positioning relative to text.

Sign clearance requirement is 2134 mm (84") from finished ceiling. Verify ceiling height.

IN-18.01 Interior Signs

Glass Door and Side Light Graphics

Sign
38 mm H
(1 1/2" H)
51 mm H
(2" H)
(Other sizes as needed)

Description and Use
This sign is for use at glass entry doors to rooms or departments that are used by patients and public.

Message Configuration
(Refer to layout drawing for lettering sizes and dimensions).

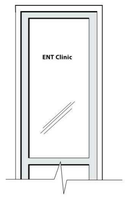
Graphic Process
Surface applied white vinyl.

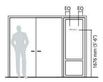
Colors
Text: White - T1
Do not use black or colors.

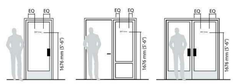
Typography
Helvetica Bold

Mounting
Glass side light and glass doors.

Installation
Apply to front reading surface of glass or second surface of glass with reverse (backward) cut letters.







IN-18.01 Interior Signs

Side Light Graphics

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REFER TO VA TIL FOR CURRENT SIGN TYPE DETAIL REQUIREMENTS AT:
http://www.cfm.va.gov/til/signs/Signage01-Intro.pdf
http://www.cfm.va.gov/til/signs/Signage04-Exterior.pdf
http://www.cfm.va.gov/til/signs/Signage08-CodeLS.pdf
http://www.cfm.va.gov/til/signs/Signage09-Interior.pdf

FINAL BID DOCUMENTS

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Drawing Title: SIGNAGE TYPE DETAILS

Approved: Project Director

Project Title: VA PALO ALTO BLDG 6 LAB RENOVATION

Project Number: 640-13-121P

Building Number: 6

Location: VAPAHCS, PALO ALTO CAMPUS, 3801 MIRANDA AVE. PALO ALTO, CA 94304

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