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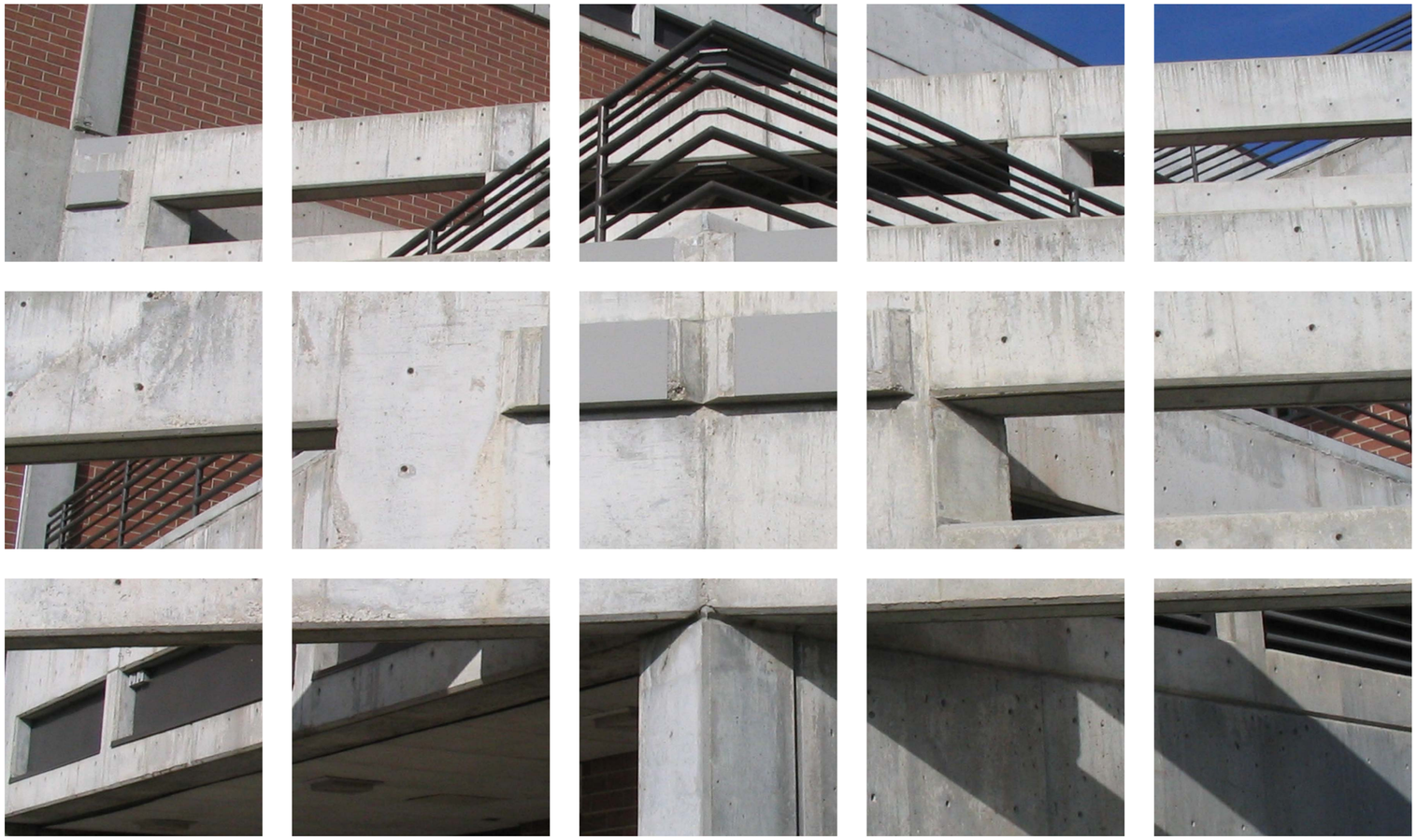


D.F.C.M. # 06005790

CONSTRUCTION DOCUMENTS

JUNE 02, 2006

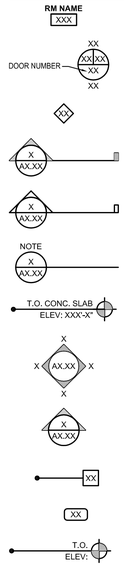
VCBO
ARCHITECTURE

524 South 600 East, Salt Lake City, UT 84102 801.575.8800 www.vcbo.com

ABBREVIATIONS

A.F.F.	ABOVE FINISH FLOOR	F.A.	FIRE ALARM	R.O.	ROUGH OPENING
A.S.	AIR SPACE	FIN.	FINISHED	RM.	ROOM
ASPH.	ASPHALT	F.H.	FIRE HYDRANT	REINF.	REINFORCED
&	AND	F.V.	FIELD VERIFY	REC.	RECESSED
@	AT	G.W.B.	GYPSUM WALLBOARD	R.W.	RETAINING WALL
ALUM.	ALUMINUM	GYP.	GYPSUM	S.	SCUPPER
ARCH.	ARCHITECTURAL	GA.	GAUGE	S.B.U.	STRUCTURAL BRICK UNIT
BLDG.	BUILDING	GALV.	GALVANIZED	SF	SQUARE FOOT
BTM.	BOTTOM	G.I.	GALVANIZED IRON	STOR.	STORAGE
BD.	BOARD	H.M.	HOLLOW METAL	SIM.	SIMILAR
C.G.	CORNER GUARD	H.C.	HANDICAP	SUSP.	SUSPENDED
CTJ.	CONTRACTION JOINT	H.P.	HIGH POINT	SYS.	SYSTEM
CL	CENTER LINE	HT.	HEIGHT	SPECS.	SPECIFICATIONS
CONC.	CONCRETE	HORIZ.	HORIZONTAL	STRG.	STORAGE
C.M.U.	CONCRETE MASONRY UNIT	H.W.	HARDWOOD	STRUCT.	STRUCTURAL
CO	COMPANY	INSUL.	INSULATION	ST.	STEEL
CORR.	CORRIDOR	I.D.	INSIDE DIAMETER	SCH.	SCHEDULE
COL.	COLUMN	K.O.	KNOCK OUT	S.S.	STAINLESS STEEL
COMP.	COMPUTER	KW	KILOWATTS	S.W.	SOFT WOOD
CONT.	CONTINUOUS	LBS	POUNDS	SERV.	SERVICE
CLG.	CEILING	LP	LIGHT POLE	TYP.	TYPICAL
C.S.	CLOSURE STRIP	MECH.	MECHANICAL	TRANS.	TRANSFORMER
CLS	CLOSET	MEZZ.	MEZZANINE	T & B	TOP AND BOTTOM
C.T.	CERAMIC TILE	MFR/MNFR	MANUFACTURER	T.O.	TOP OF
CLR	CLEAR	MGR	MANAGER	T.	TOILET
C.O.	CLEAN OUT	M.T.	MEN'S TOILET	U.O.N./U.N.O.	UNLESS OTHERWISE NOTED
C.O.T.G.	CLEAN OUT TO GRADE	MTL.	METAL	UR.	URINAL
C.I.	CAST IRON	MAX.	MAXIMUM	VEST.	VESTIBULE
DEPT	DEPARTMENT	MIN.	MINIMUM	VERT.	VERTICAL
DIA.	DIAMETER	M.O.	MASONRY OPENING	W.C.	WATER CLOSET
D.F.	DRINKING FOUNTAIN	M.H.	MANHOLE	W.H.	WATER HEATER
DN	DOWN	MACH.	MACHINERY	W.T.	WOMEN'S TOILET
DISP.	DISPENSER	M.C.C.	MOTOR CONTROL CENTER	WD.	WOOD
DIM.	DIMENSION	MISC.	MISCELLANEOUS	W.R.	WASTE RECEPTACLE
DT./DTL./DET.	DETAIL	N.	NORTH	WSCT.	WAINSCOT
DWG./DRWNG.	DRAWING	NO.	NUMBER	W/	WITH
DRN.	DRAIN	N.I.C.	NOT IN CONTRACT	W.W.F.	WELDED WIRE FABRIC
EA.	EACH	NOM.	NOMINAL		
ELEV./EL.	ELEVATION	N.T.S.	NOT TO SCALE		
EXIST./(E)	EXISTING	OPG.	OPENING		
ELECT.	ELECTRICAL	O.C.	ON CENTER		
EQUIP.	EQUIPMENT	O.H.	OVERHEAD		
E.E.S.	EMERGENCY EYEWASH AND SHOWER	O.D.	OUTSIDE DIAMETER		
E.J.	EXPANSION JOINT	PERM.	PERIMETER		
EIF	EXTERIOR INSULATION SYSTEM	PL.	PLATE		
E.O.S.	EDGE OF SLAB	PNTH	PENTHOUSE		
EVAP.	EVAPORATIVE	PTN.	PARTITION		
EXP.	EXPANSION	P.W.	PLYWOOD		
F.G.	FINISH GRADE	P.O.C.	POINT OF CONNECTION		
F.D.	FLOOR DRAIN	P.C.	PORTLAND CEMENT		
FDN./FNDTN.	FOUNDATION	PNL.	PANEL		
F.E.	FIRE EXTINGUISHER	P.F.H.	PERIMETER FELT JOINT		
FTG.	FOOTING	Q.T.	QUARRY TILE		
FLR.	FLOOR	R.D.	ROOF DRAIN		

SYMBOL LEGEND



PROJECT TEAM

OWNER
D.F.C.M.
Kurt Baxter
4110 State Office Building
Salt Lake City, Utah 84111
Phone: 801.538.3275
Fax: 801.538.3267
WWW:

ARCHITECT OF RECORD
VCBO Architecture
Sean Onyon, AIA
524 South 600 East
Salt Lake City, Utah 84102
Phone: 801.575.8800
Fax: 801.531.9850
WWW: vcbo.com

STRUCTURAL ENGINEER
Bsumek Mu & Associates
Reinhart Bsumek
345 South 400 East
Salt Lake City, UT, 84111
Phone: 801.575.8223
Fax: 801.532.3778
WWW: bsumekmu.com

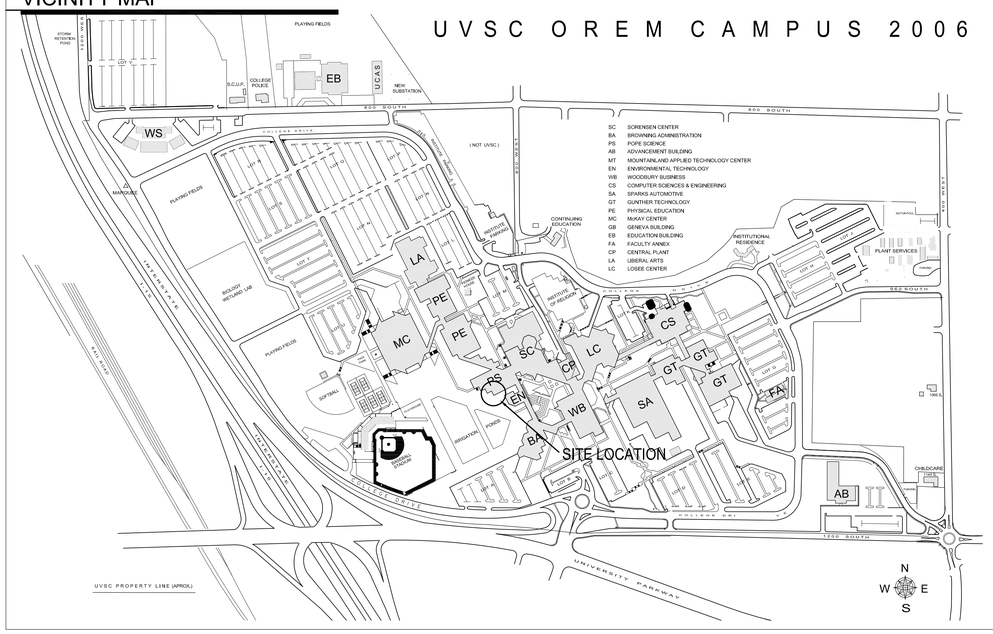
MECHANICAL ENGINEER
Colvin Engineering
Stephen Connor
244 West 300 North, Suite 200
Salt Lake City, UT, 84103
Phone: 801.322.2400
Fax: 801.322.2416
WWW: cea-ut.com

ELECTRICAL ENGINEER
BNA Consulting
Elain Fawson
635 South State Street
Salt Lake City, UT, 84111
Phone: 801.532.2196
Fax: 801.532.2305
WWW: bnaconsulting.com

UTILITY CONTACTS

COORDINATE WITH UVSC

VICINITY MAP



CODE REVIEW DATA

CODE ANALYSIS

APPLICABLE CODES

	Year		Year
International Building Code	2003 IBC	National Electrical Code	2005 IBC
International Mechanical Code	2003 IMC	Uniform Code for Building Conservation	1997 UCBC
International Plumbing Code	2003 IPC	ADA Accessibility Guidelines	2003 IBC
International Fire Code	2003 IFC		
International Energy Conservation Code	2003 IEC		

A. Occupancy and Group: COVERED MALL BUILDING _____ _____

Change in Use: Yes _____ No X Mixed Occupancy: Yes _____ No XM
Special Use and Occupancy (e.g. High Rise, Covered Mall): _____

B. Seismic Design Category: D Design Wind Speed: 90 mph

C. Type of Construction (circle one):

I/A I/B II/A II/B III/A III/B IV/HT V/A V/B

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):
North: EXIST South: EXIST East: EXIST West: EXIST

E. Mixed Occupancies: X Nonseparated Uses: 0

F: Sprinklers:

Required: _____ Provided: YES Type of Sprinkler System: _____

G: Number of Stories: THREE Building Height: 33'-6"

H: Actual Area per Floor (square feet): ADDITION AREA = 813 SQ. FT.

I: Tabular Area: _____

J: Area Modifications:

a) $A_a = A_t + \left[\frac{A_t\, I_f}{100}\right] + \left[\frac{A_t\, I_s}{100}\right]$ $\qquad I_f = 100\left[\frac{F}{P} - 0.25\right]\frac{W}{30}$

b) Sum of the Ratio Calculations for Mixed Occupancies:

$\frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1$

c) Total Allowable Area for:
1) One Story: _____
2) Two Story: $A_a(2)$_____
3) Three Story: $A_a(3)$_____

d) Unlimited Area Building: Yes X No _____ Code Section: 402

K. Fire Resistance Rating Requirements for Building Elements (hours).

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	EXIST		Floors - Ceiling Floors	EXIST	
Interior Bearing Walls	EXIST		Roofs - Ceiling Roofs	EXIST	
Exterior Non-Bearing Walls	EXIST		Exterior Doors and Windows	EXIST	
Structural Frame	EXIST		Shaft Enclosures	EXIST	
Partitions - Permanent	EXIST		Fire Walls	EXIST	
Fire Barriers	EXIST		Fire Partitions	EXIST	
			Smoke Partitions	EXIST	

L. Design Occupant Load: EXISTING
Exit Width Required: EXISTING Exit Width Provided: EXISTING

M. Minimum Number of Required Plumbing Facilities: SCIENCE AREA
a) Water Closets - Required (m) X (f) X Provided (m) 12 (f) 12
b) Lavatories - Required (m) X (f) X Provided (m) 12 (f) 12
c) Bath Tubs or Showers: NONE
d) Drinking Fountains: 3 Service Sinks: X

FOOTNOTES:

1) In case of conflict with the U.S. Department of Justice Federal Registers Parts I through V - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.

2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:
a) High Rise Requirements.
b) Atriums.
c) Performance Based Criteria.
d) Means or Egress Analysis.
e) Fire Assembly Locator Sheet.
f) Exterior and Interior Accessibility Route.
g) Fire Stopping, Including Tested Design Number.

Sheet List Table

Sheet Number	Sheet Title
GENERAL	
G 001	GENERAL INFORMATION
DEMOLITION	
D 101	DEMOLITION PLAN
D 102	DEMOLITION PLAN
D 103	DEMOLITION PLAN
D 104	DEMOLITION PLAN
ARCHITECTURAL	
AE 101	FLOOR PLAN
AE 102	FLOOR PLAN
AE 103	FLOOR PLAN
AE 104	FLOOR PLAN
AE 105	REFLECTED CEILING PLAN
AE 106	REFLECTED CEILING PLAN
AE 107	REFLECTED CEILING PLAN
AE 108	REFLECTED CEILING PLAN
AE 109	ROOF PLAN
AE 110	FINISH PLAN
AE 111	FINISH PLAN
AE 112	FINISH PLAN
AE 113	FINISH PLAN
AE 201	EXTERIOR ELEVATIONS
AE 301	WALL SECTIONS
AE 401	INTERIOR ELEVATIONS
AE 402	INTERIOR ELEVATIONS
AE 500	ADA REQUIREMENTS
AE 501	DETAILS
AE 601	DOORS AND WINDOWS
STRUCTURAL	
S001	STRUCTURAL GENERAL NOTES
S101	FOOTING & FOUNDATION & ROOF FRAMING PLANS
S301	SECTIONS
S302	SECTIONS
S501	DETAILS
MECHANICAL	
MH001	INDEX
MD101	MECHANICAL DEMOLITION PLAN
MD102	MECHANICAL DEMOLITION PLAN
MD103	MECHANICAL DEMOLITION PLAN
MD104	MECHANICAL DEMOLITION PLAN
MH101	MECHANICAL PLAN
MH102	MECHANICAL PLAN
MH103	MECHANICAL PLAN
MH104	MECHANICAL PLAN
MH121	MECHANICAL ROOF PLAN
MH122	MECHANICAL ROOF PLAN
MH501	MECHANICAL DETAILS
PLUMBING	
PD101	PLUMBING DEMOLITION PLAN
PD102	PLUMBING DEMOLITION PLAN
PL101	PLUMBING PLAN
PL102	PLUMBING PLAN
PL103	PLUMBING PLAN
ELECTRICAL	
E0.1	SYMBOLS - SCHEDULES AND NOTES
E1.0	DEMOLITION PLAN MAIN FLOOR
E2.0	LIGHTING PLAN MAIN FLOOR
E3.0	POWER PLAN MAIN FLOOR
E4.0	ELECTRICAL DIAGRAMS

VCBO
ARCHITECTURE
VALENTINER
CRANE
BRUNJES
ONYON

VCBO ARCHITECTURE
524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

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OREM, UTAH

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Ins. #

GENERAL INFORMATION

G 001

Sheet of Sheets

A1 DEMOLITION PLAN

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

PLAN NORTH

MILLWORK NOTES

- AW — REMOVE (5) TALL MILLWORK UNITS & RELOCATE TO WEST END OF MICROBIOLOGY LAB #135.
- BB — REMOVE (4) WALL MILLWORK UNITS & RELOCATE TO WEST END OF MICROBIOLOGY LAB #135.
- CC — REMOVE (4) WALL AND BASE UNITS & RELOCATE TO NORTH WALL OF RENNOVATED MICROBIOLOGY LAB #135.
- DD — REMOVE (4) WALL MILLWORK UNITS & RELOCATE TO SOUTH WALL OF MICROBIOLOGY LAB 135A.
- EE — REMOVE EXISTING DRAWER UNIT & REINSTALL IN LAB #108
- FF — REMOVE EXISTING DRAWER UNIT & REINSTALL IN CLASSROOM #109
- GG — REMOVE EXISTING DRAWER UNIT & REINSTALL IN CLASSROOM #109
- HH — REMOVE (2) EXISTING WALL CABINETS & REINSTALL IN AUTOCLAVE & CLEANING ROOM #136A.

KEYED NOTES

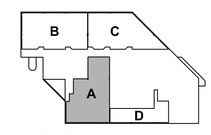
DIVISION 1 - DEMOLITION

- 1A EXISTING MILLWORK TO BE REMOVED, PROTECTED, AND STORED FOR FUTURE USE
- 1B REMOVE EXISTING STUD WALL. PATCH ADJACENT SURFACES AS REQUIRED FOR NEW FINISH
- 1C SAW CUT AND REMOVE EXISTING CONCRETE WALL TO ALLOW FOR NEW DOOR AND FRAME
- 1D RELOCATE DOOR AND FRAME AS SHOWN
- 1F SAW CUT AND REMOVE CONCRETE WALL
- 1G PROTECT EXISTING CONCRETE SLAB
- 1H REMOVE EXISTING STUD WALL TO ALLOW FOR NEW DOOR AND FRAME - PATCH ADJACENT SURFACE
- 1J REMOVE CARPET, RUBBER BASE AND ADHESIVE FROM CONCRETE SLAB
- 1K REMOVE ACOUSTICAL CEILING TILE AND SUSPENSION SYSTEM
- 1L EXISTING CONCRETE RETAINING WALL AND FOOTING TO REMAIN. FIELD VERIFY FOOTING SIZE & NOTIFY ARCHITECT
- 1M REMOVE EXISTING DOOR/WINDOW, FRAME, AND HARDWARE TO OWNER'S STOCK
- 1N MODIFY EXISTING MILLWORK AS REQUIRED FOR REMODEL
- 1P RELOCATE EXISTING PERIMETER FOOTING DRAIN AS REQUIRED BY NEW CONSTRUCTION
- 1X REMOVE CHALK BOARD

DIVISION 15 - MECHANICAL

- 15F EXISTING EYE WASH STATION TO BE REMOVED, PROTECTED AND STORED FOR FUTURE USE

KEY PLAN



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LEVEL ONE

VCBO ARCHITECTURE
VALENTINER
CRANE
BRUNJES
ONYON

VCBO ARCHITECTURE
524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

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Ins. #	

DEMOLITION PLAN

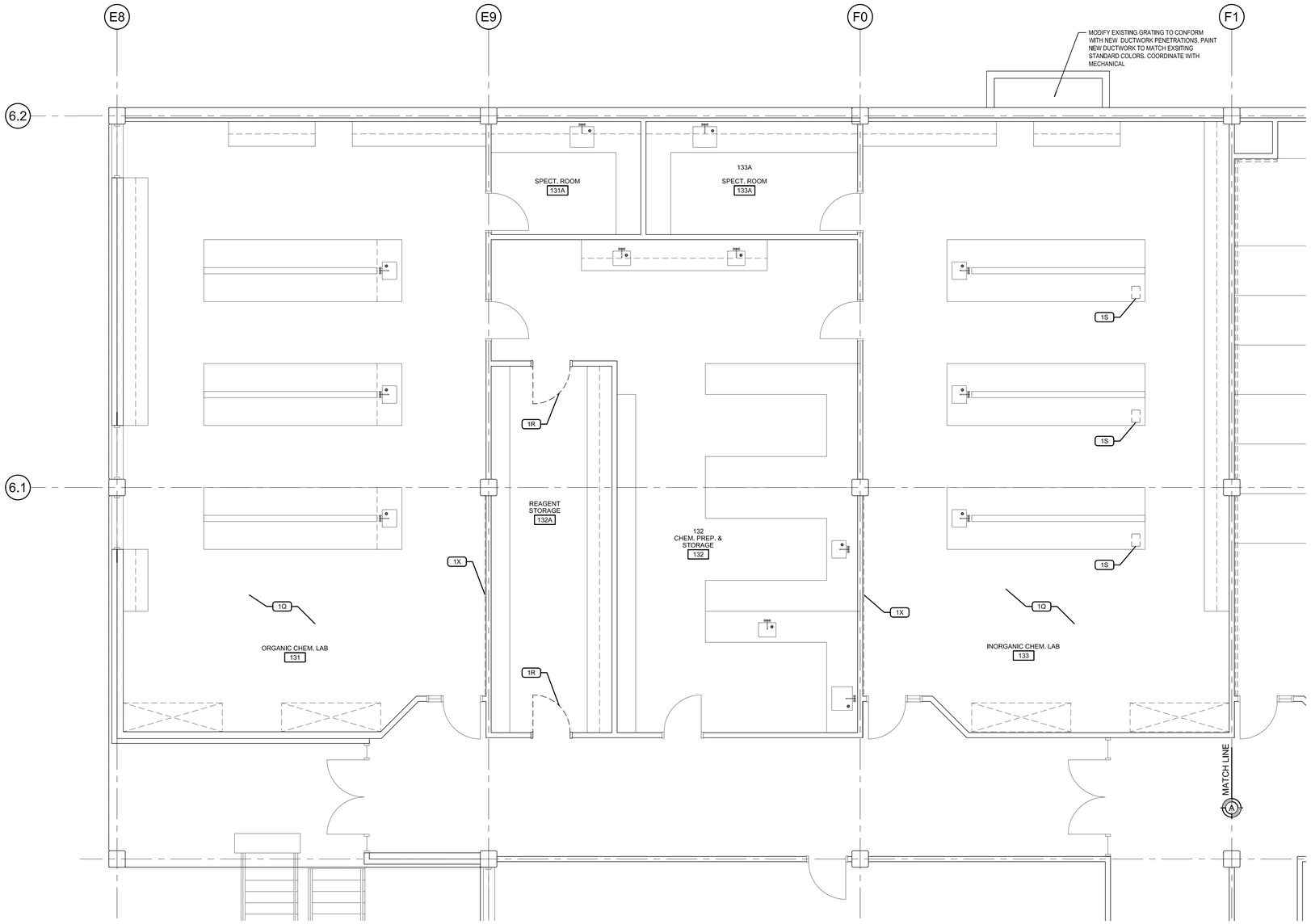
D 101

Sheet of Sheets

KEYED NOTES

DIVISION 1 - DEMOLITION

- 1Q REMOVE FLOOR TILE, GRIND SURFACE TO PREPARE FOR NEW SURFACE TREATMENT
- 1R REMOVE EXISTING DOOR & FRAME, REINSTALL IN REVERSE SWING POSITION PATCH ADJACENT SURFACES AS REQUIRED, REINSTALL HARDWARE
- 1S MODIFY COUNTERTOP AND MILLWORK AS NECESSARY FOR NEW SINK, REMOVE IMPACTED DRAWER(S) AND REPLACE WITH NEW FACE PANEL(S)
- 1X REMOVE CHALK BOARD

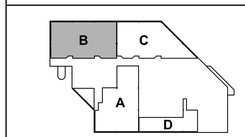


B1 DEMOLITION PLAN

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

PLAN NORTH

KEY PLAN



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CRANE
BRUNJES
ONYON

VCBO ARCHITECTURE
524 SOUTH 600 EAST
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DEMOLITION PLAN

D 102

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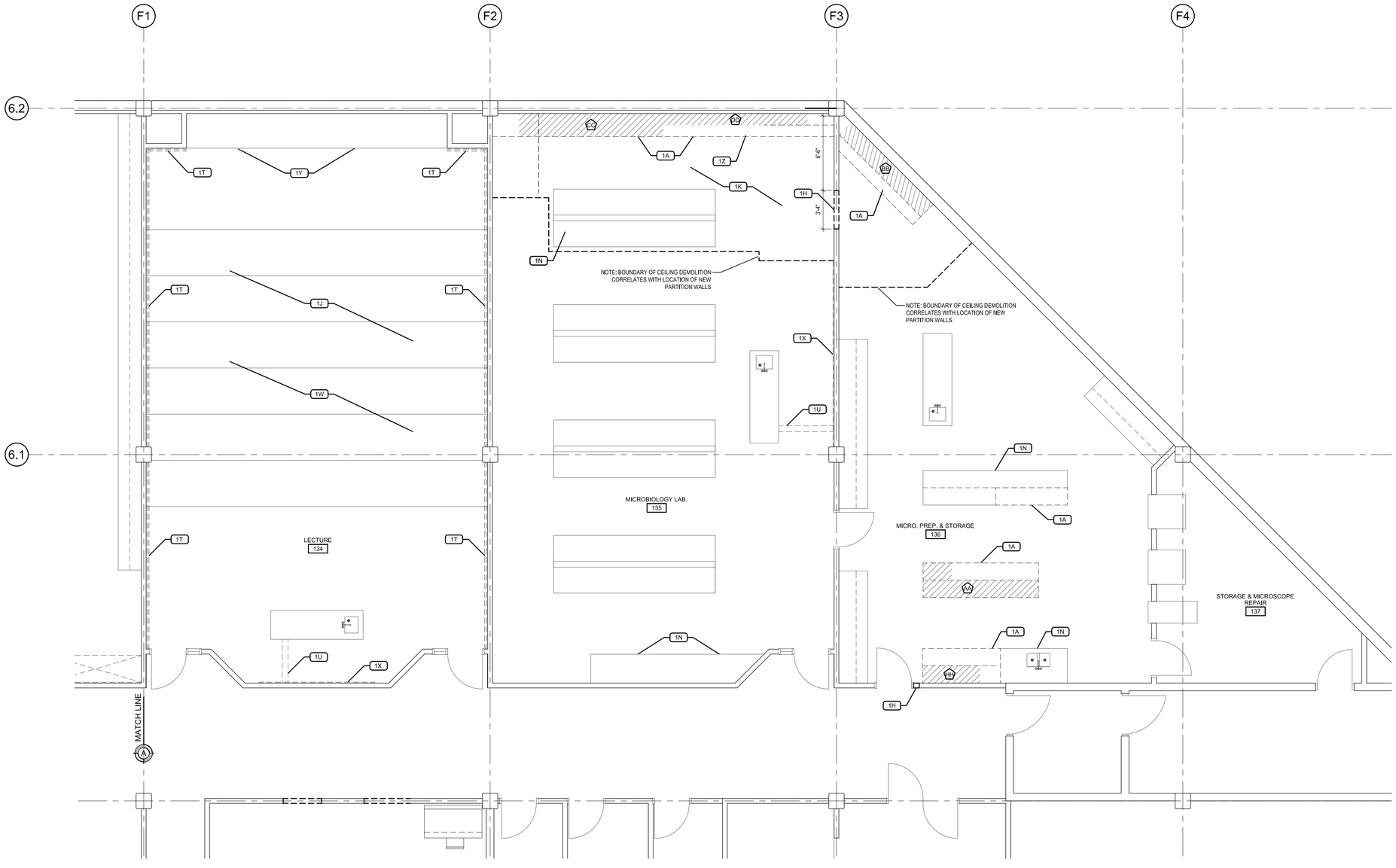

B1 DEMOLITION PLAN

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

PLAN NORTH

MILLWORK NOTES

AA	REMOVE (5) TALL MILLWORK UNITS & RELOCATE TO WEST END OF MICROBIOLOGY LAB #135.
BB	REMOVE (4) WALL MILLWORK UNITS & RELOCATE TO WEST END OF MICROBIOLOGY LAB #135.
CZ	REMOVE (4) WALL AND BASE UNITS & RELOCATE TO NORTH WALL OF RENNOVATED MICROBIOLOGY LAB #135.
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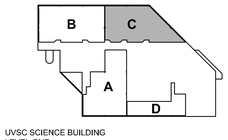
FF	REMOVE EXISTING DRAWER UNIT & REINSTALL IN CLASSROOM #109
GG	REMOVE EXISTING DRAWER UNIT & REINSTALL IN CLASSROOM #109
HH	REMOVE (2) EXISTING WALL CABINETS & REINSTALL IN AUTOCLAVE & CLEANING ROOM #136A.

KEYED NOTES

DIVISION 1 - DEMOLITION

1A	EXISTING MILLWORK TO BE REMOVED, PROTECTED, AND STORED FOR FUTURE USE
1H	REMOVE EXISTING STUD WALL TO ALLOW FOR NEW DOOR AND FRAME - PATCH ADJACENT SURFACE
1J	REMOVE CARPET. PREPARE FLOOR SYSTEM FOR NEW CARPET
1K	REMOVE ACOUSTICAL CEILING TILE AND SUSPENSION SYSTEM
1N	MODIFY EXISTING MILLWORK AS REQUIRED FOR REMODEL
1T	REMOVE VENTWOOD MILLWORK - PATCH ADJACENT SURFACES TO PREPARE FOR NEW FINISHES
1U	SAW CUT CONCRETE FLOOR FOR CONDUIT CHANNEL
1W	REMOVE VENTWOOD MILLWORK ON CEILING
1X	REMOVE CHALK BOARD
1Y	REMOVE EXISTING CABINET DOORS
1Z	REMOVE COUNTERTOP

KEY PLAN



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DEMOLITION PLAN

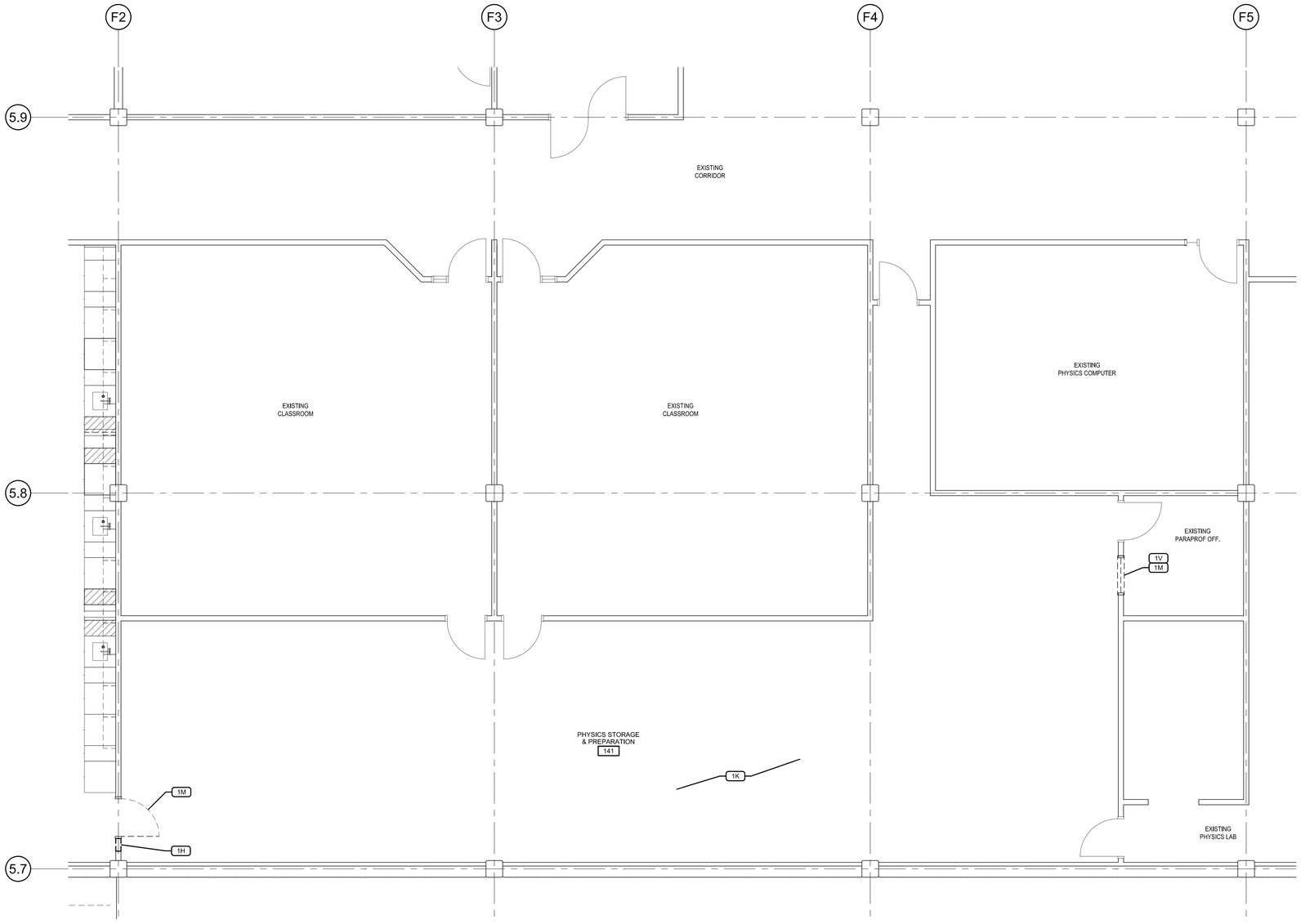
D 103

Sheet of Sheets

KEYED NOTES

DIVISION 1 - DEMOLITION

- 1H REMOVE EXISTING STUD WALL TO ALLOW FOR NEW DOOR AND FRAME - PATCH ADJACENT SURFACE
- 1K REMOVE ACOUSTICAL CEILING TILE AND SUSPENSION SYSTEM
- 1M REMOVE EXISTING DOOR/WINDOW, FRAME, AND HARDWARE TO OWNER'S STOCK
- 1V FRAME IN EXISTING WINDOW OPENING WITH STUDS TO MATCH EXISTING & GYP. EACH SIDE TO MATCH EXISTING

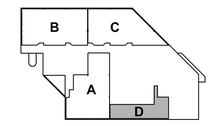


B1 DEMOLITION PLAN

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

PLAN NORTH

KEY PLAN



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DEMOLITION PLAN

D 104

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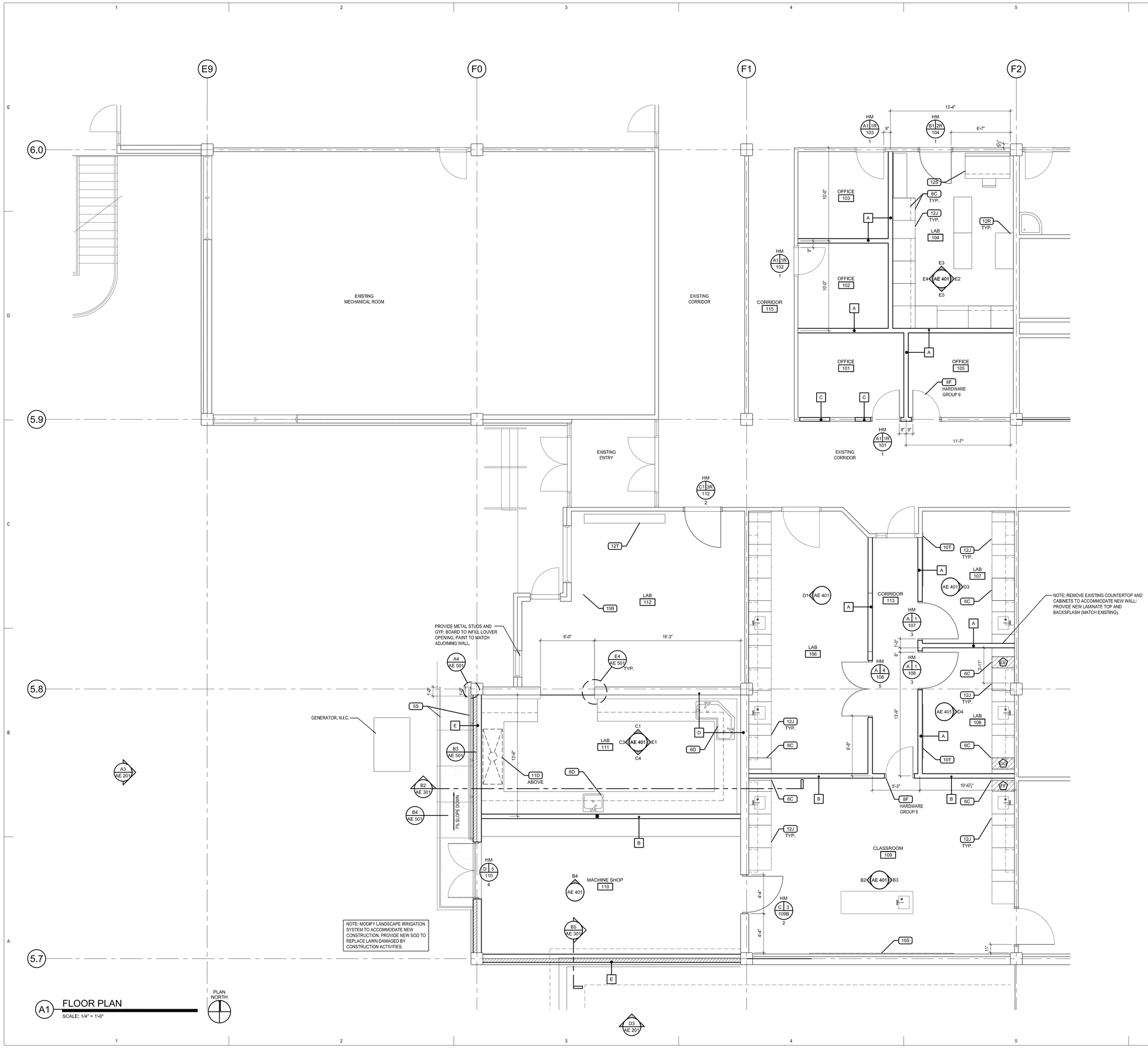


A1 FLOOR PLAN

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

DOOR NO.'S & TYPES

DOOR TYPE — FRAME TYPE

DOOR NUMBER — HARDWARE GROUP

WALL TYPE LEGEND

METAL STUD FRAMING

- A — 3 5/8" METAL STUD FRAMING @ 16" O.C. WITH 5/8" GYP. BD. EA. SIDE, FINISH AND PAINT. EXTEND TO 6" ABOVE CEILING.
- B — 3 5/8" METAL STUD FRAMING @ 16" O.C. WITH 5/8" GYP. BD. EA. SIDE, FINISH AND PAINT. INFILL FOR WINDOW THAT WAS REMOVED.
- C — 3 5/8" METAL STUD FRAMING @ 16" O.C. WITH 5/8" GYP. BD. EA. SIDE, FINISH AND PAINT. EXTEND TO BOTTOM OF EXISTING CEILING.

FURRED WALLS

- D — EXISTING CONCRETE WALL. WITH 3 5/8" METAL STUD FURRING PLACED AT INTERIOR OF ROOM WITH 5/8" GYP. BD., FINISH AND PAINT. EXTEND TO 10'-6" A.F.F.

MASONRY VENEER

- E — ATLAS BRICK VENEER OVER 6" (16 GA.) METAL STUDS @ 16" O.C. WITH BATT INSUL. 5/8" GYP. BD. INTERIOR WITH 1/2" EXTERIOR SHEATHING AND BUILDING FELTS ON EXTERIOR SIDE OF SHEATHING.

GENERAL NOTES

1.) WHERE WALL FINISH IS NOT SPECIFICALLY CALLED OUT, MATCH FINISHES OF ADJACENT WALL

MILLWORK NOTES

- AA — REMOVE (5) TALL MILLWORK UNITS & RELOCATE TO WEST END OF MICROBIOLOGY LAB #135.
- BB — REMOVE (4) WALL MILLWORK UNITS & RELOCATE TO WEST END OF MICROBIOLOGY LAB #135.
- CC — REMOVE (4) WALL AND BASE UNITS & RELOCATE TO NORTH WALL OF RENNOVATED MICROBIOLOGY LAB #135.
- DD — REMOVE (4) WALL MILLWORK UNITS & RELOCATE TO SOUTH WALL OF MICROBIOLOGY LAB 135A.
- EE — REMOVE EXISTING DRAWER UNIT & REINSTALL IN LAB #108
- FF — REMOVE EXISTING DRAWER UNIT & REINSTALL IN CLASSROOM #109
- GG — REMOVE EXISTING DRAWER UNIT & REINSTALL IN CLASSROOM #109
- HH — REMOVE (2) EXISTING WALL CABINETS & REINSTALL IN AUTOCLAVE & CLEANING ROOM #136A.

KEYED NOTES

DIVISION 5 - METALS

- 5S — STEEL PIPE HANDRAIL, PAINTED

DIVISION 6 - WOOD

- 6C — RE-ASSEMBLE EXISTING MILLWORK AS SHOWN
- 6D — EPOXY RESIN SINKS INTEGRAL WITH COUNTERTOP. COORDINATE WITH PLUMBING

DIVISION 8 - DOORS & WINDOWS

- 8F — RELOCATED EXISTING DOOR & FRAME, SAVED FROM DEMOLITION

DIVISION 10 - SPECIALTIES

- 10S — 192"X48" WHITE BD.
- 10T — 120"X48" WHITE BD.

DIVISION 11 - EQUIPMENT

- 11D — FUME HOOD

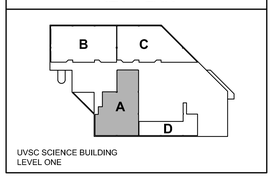
DIVISION 12 - FURNISHINGS

- 12J — NEW PLASTIC LAMINATE COUNTERTOP & BACKSPLASH AT NEW & EXISTING CABINETS
- 12R — FREE STANDING SHELVING, SAVED FROM DEMOLITION
- 12S — SYSTEMS FURNITURE DESK AND CHAIR, BY OWNER
- 12T — GAS CYLINDER RACK, BY OWNER

DIVISION 15 - MECHANICAL

- 15B — RELOCATED EYE WASH STATION

KEY PLAN



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Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

UVSC SCIENCE BUILDING REMODEL

OREM, UTAH

DFCM # 06005790

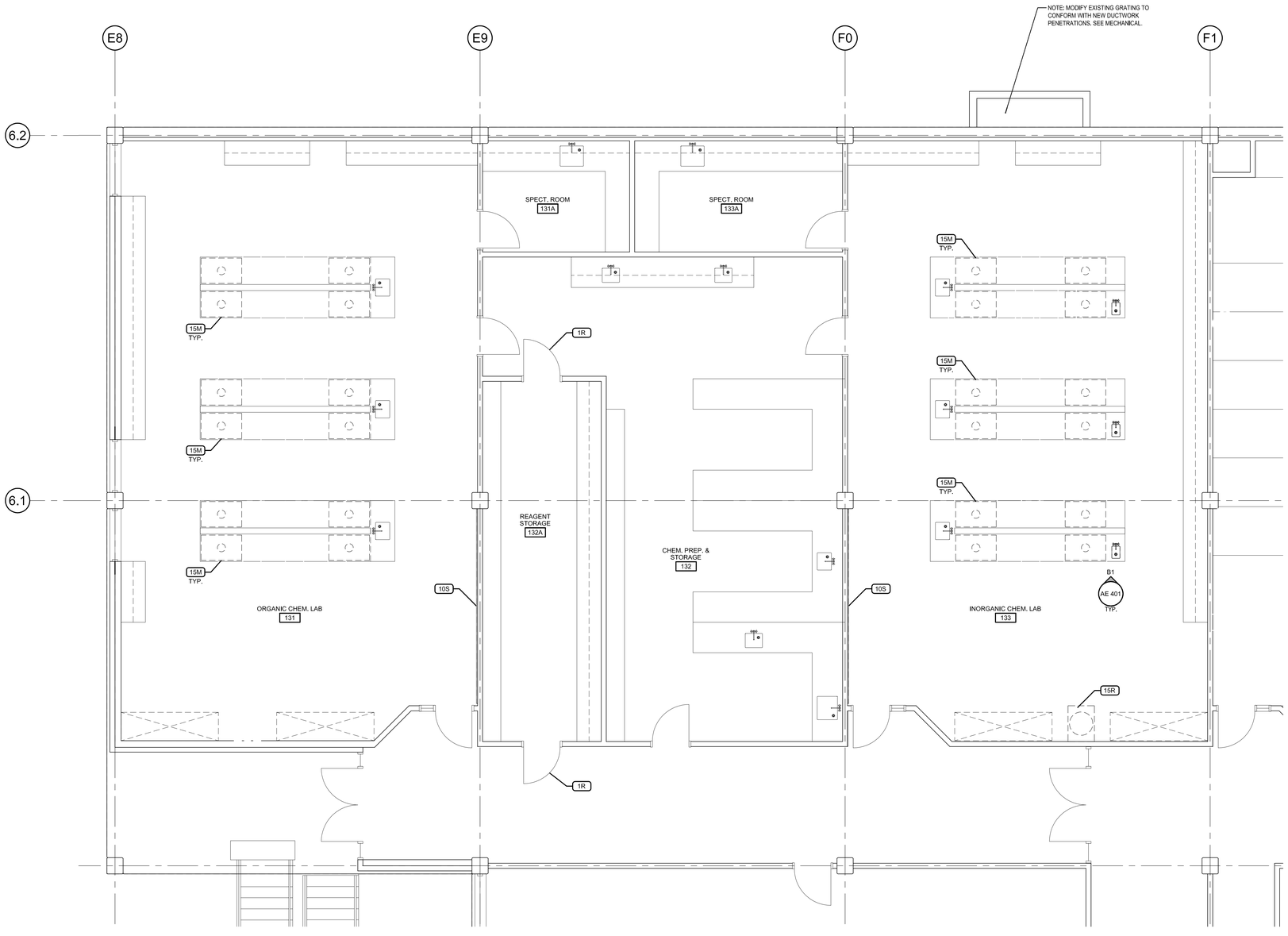
Rev #	Date	Description

Job #	05565
CAD File	ae 101 floor plan.dwg
Drawn	R.G. Checked J.S.
Date	06/05/2006
Owner #	DFCM # 06005790
Ins. #	

FLOOR PLAN

AE 101

Sheet of Sheets



B1 FLOOR PLAN

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

PLAN NORTH

DOOR NO.'S & TYPES

DOOR TYPE — FRAME TYPE

DOOR NUMBER — HARDWARE GROUP

WALL TYPE LEGEND

METAL STUD FRAMING

A — 3 5/8" METAL STUD FRAMING @ 16" O.C. WITH 5/8" GYP. BD. EA. SIDE, FINISH AND PAINT. EXTEND TO 6" ABOVE CEILING.

B — 3 5/8" METAL STUD FRAMING @ 16" O.C. WITH 5/8" GYP. BD. EA. SIDE, FINISH AND PAINT. INFILL FOR WINDOW THAT WAS REMOVED.

C — 3 5/8" METAL STUD FRAMING @ 16" O.C. WITH 5/8" GYP. BD. EA. SIDE, FINISH AND PAINT. EXTEND TO BOTTOM OF EXISTING CEILING.

FURRED WALLS

D — EXISTING CONCRETE WALL. WITH 3 5/8" METAL STUD FURRING PLACED AT INTERIOR OF ROOM WITH 5/8" GYP. BD., FINISH AND PAINT. EXTEND TO 10'-6" A.F.F.

MASONRY VENEER

E — ATLAS BRICK VENEER OVER 6" (16 GA.) METAL STUDS @ 16" O.C. WITH BATT INSUL. 5/8" GYP. BD. INTERIOR WITH 1/2" EXTERIOR SHEATHING AND BUILDING FELTS ON EXTERIOR SIDE OF SHEATHING.

GENERAL NOTES

1.) WHERE WALL FINISH IS NOT SPECIFICALLY CALLED OUT, MATCH FINISHES OF ADJACENT WALL

KEYED NOTES

DIVISION 1 - DEMOLITION

1R — REMOVE EXISTING DOOR & FRAME. REINSTALL IN REVERSE SWING POSITION PATCH ADJACENT SURFACES AS REQUIRED, REINSTALL HARDWARE

DIVISION 10 - SPECIALTIES

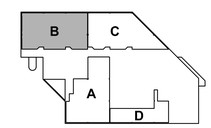
10S — 192"X48" WHITE BD.

DIVISION 15 - MECHANICAL

15M — HOOD WITH SNORKEL VENT

15R — ACETONE SINK & HOOD

KEY PLAN



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Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

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DFCM # 06005790

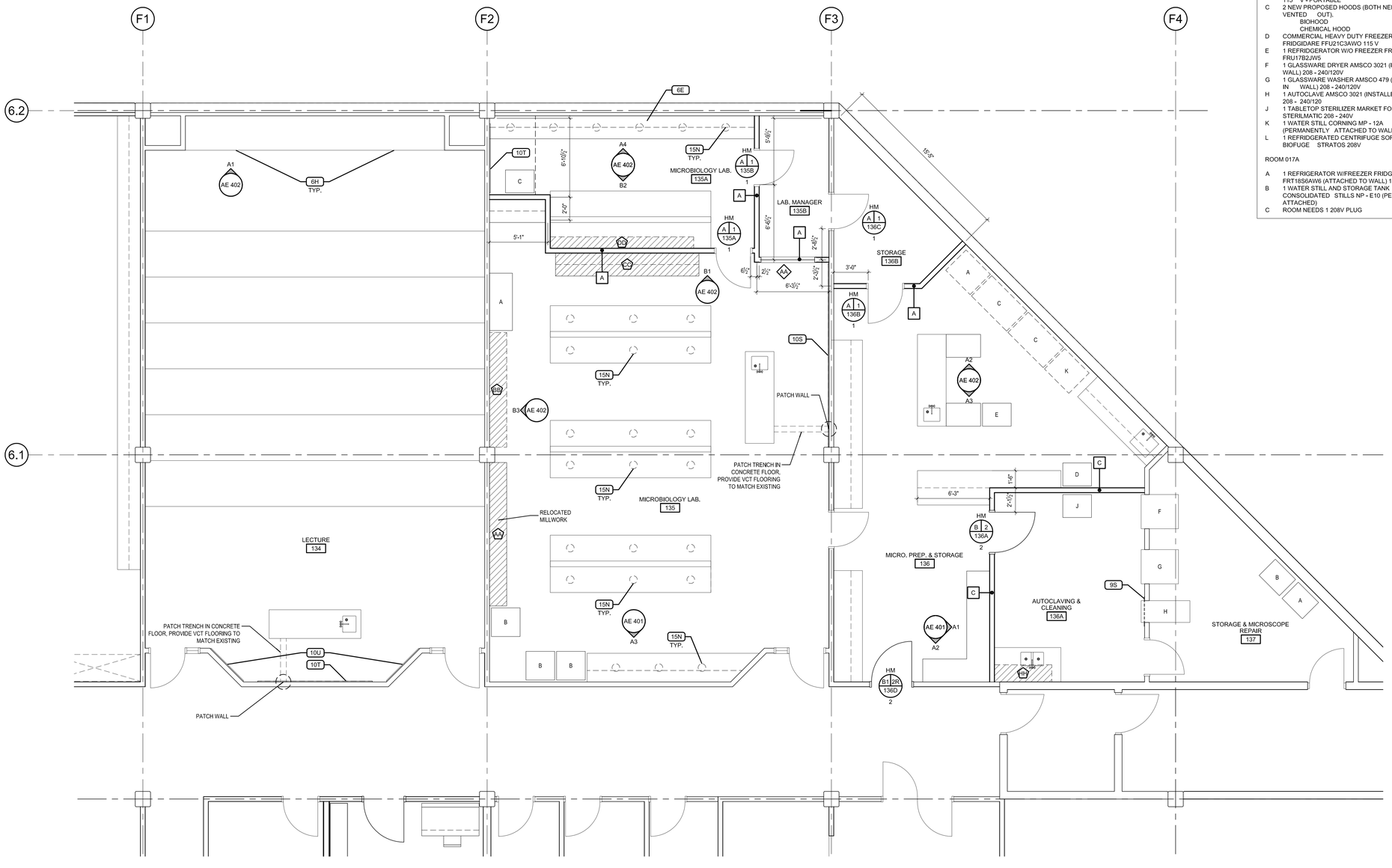
Rev #	Date	Description

Job # 05565
CAD File ae 102 floor plan.dwg
Drawn Checked
Date 06/05/2006
Owner # DFCM # 06005790
Ins. #

FLOOR PLAN

AE 102

Sheet of Sheets



B1 FLOOR PLAN

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

PLAN NORTH

EQUIPMENT NOTES

ROOM 016

A BIOCOLD REFRIDGERATOR - 3 GLASS DOORS BC - 72LR
B 3 INCUBATORS VWR 1920 110 V
C 1 INCUBATOR VWR 1910 110V
D REFRIDGERATED CENTRIFUGE 115 V DAMON/IEC, IEC PR-J - PORTABLE

ROOM 017

A BIOCOLD REFRIDGERATOR - 3 GLASS DOORS BC - 72LR
B 1 LABCONCO PURIFIER CLASS II SAFETY CABINET 115 V - PORTABLE
C 2 NEW PROPOSED HOODS (BOTH NEED TO BE VENTED OUT).
BIOHOOD
CHEMICAL HOOD
D COMMERCIAL HEAVY DUTY FREEZER (UPRIGHT) FRIDGIDARE FFU21C3AWC 115 V
E 1 REFRIDGERATOR W/O FREEZER FRIDGIDARE FRU17B2JW5
F 1 GLASSWARE DRYER AMSCO 3021 (INSTALLED IN WALL) 208 - 240/120V
G 1 GLASSWARE WASHER AMSCO 479 (INSTALLED IN WALL) 208 - 240/120V
H 1 AUTOCLAVE AMSCO 3021 (INSTALLED IN WALL) 208 - 240/120
J 1 TABLETOP STERILIZER MARKET FORGE STERILMATIC 208 - 240V
K 1 WATER STILL CORNING MP - 12A (PERMANENTLY ATTACHED TO WALL) 208V
L 1 REFRIDGERATED CENTRIFUGE SORVALL BIOFUGE STRATOS 208V

ROOM 017A

A 1 REFRIGERATOR W/FREEZER FRIDGIDAIRE FRT18S6AW6 (ATTACHED TO WALL) 115V
B 1 WATER STILL AND STORAGE TANK CONSOLIDATED STILLS NP - E10 (PERMANENTLY ATTACHED)
C ROOM NEEDS 1 208V PLUG

DOOR NO.'S & TYPES

DOOR TYPE — FRAME TYPE
DOOR NUMBER — HARDWARE GROUP

WALL TYPE LEGEND

METAL STUD FRAMING

A — 3 5/8" METAL STUD FRAMING @ 16" O.C. WITH 5/8" GYP. BD. EA. SIDE, FINISH AND PAINT. EXTEND TO 6" ABOVE CEILING.

B — 3 5/8" METAL STUD FRAMING @ 16" O.C. WITH 5/8" GYP. BD. EA. SIDE, FINISH AND PAINT. INFILL FOR WINDOW THAT WAS REMOVED.

C — 3 5/8" METAL STUD FRAMING @ 16" O.C. WITH 5/8" GYP. BD. EA. SIDE, FINISH AND PAINT. EXTEND TO BOTTOM OF EXISTING CEILING.

FURRED WALLS

D — EXISTING CONCRETE WALL WITH 3 5/8" METAL STUD FURRING PLACED AT INTERIOR OF ROOM WITH 5/8" GYP. BD., FINISH AND PAINT. EXTEND TO 10'-6" A.F.F.

MASONRY VENEER

E — ATLAS BRICK VENEER OVER 6" (16 GA.) METAL STUDS @ 16" O.C. WITH BATT INSUL. 5/8" GYP. BD. INTERIOR WITH 1/2" EXTERIOR SHEATHING AND BUILDING FELTS ON EXTERIOR SIDE OF SHEATHING.

GENERAL NOTES

1.) WHERE WALL FINISH IS NOT SPECIFICALLY CALLED OUT, MATCH FINISHES OF ADJACENT WALL

MILLWORK NOTES

AA REMOVE (5) TALL MILLWORK UNITS & RELOCATE TO WEST END OF MICROBIOLOGY LAB #135.

BB REMOVE (4) WALL MILLWORK UNITS & RELOCATE TO WEST END OF MICROBIOLOGY LAB #135.

AC REMOVE (4) WALL AND BASE UNITS & RELOCATE TO NORTH WALL OF RENNOVATED MICROBIOLOGY LAB #135.

AD REMOVE (4) WALL MILLWORK UNITS & RELOCATE TO SOUTH WALL OF MICROBIOLOGY LAB 135A.

EE REMOVE EXISTING DRAWER UNIT & REINSTALL IN LAB #108

EF REMOVE EXISTING DRAWER UNIT & REINSTALL IN CLASSROOM #109

EG REMOVE EXISTING DRAWER UNIT & REINSTALL IN CLASSROOM #109

HW REMOVE (2) EXISTING WALL CABINETS & REINSTALL IN AUTOCLAVE & CLEANING ROOM #136A.

KEYED NOTES

DIVISION 6 - WOOD

6E EPOXY RESIN COUNTERTOP & BACKSPLASH
6H NEW MILLWORK DOORS & HARDWARE

DIVISION 9 - FINISHES

9S 4" STAINLESS STEEL SURROUND

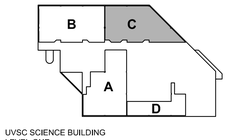
DIVISION 10 - SPECIALTIES

10S 192"X48" WHITE BD.
10T 120"X48" WHITE BD.
10U 48"X48" TACK BD.

DIVISION 15 - MECHANICAL

15N SNORKEL VENT

KEY PLAN



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Phone: (801) 575-8800
Fax: (801) 531-9850
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Date 06/05/2006
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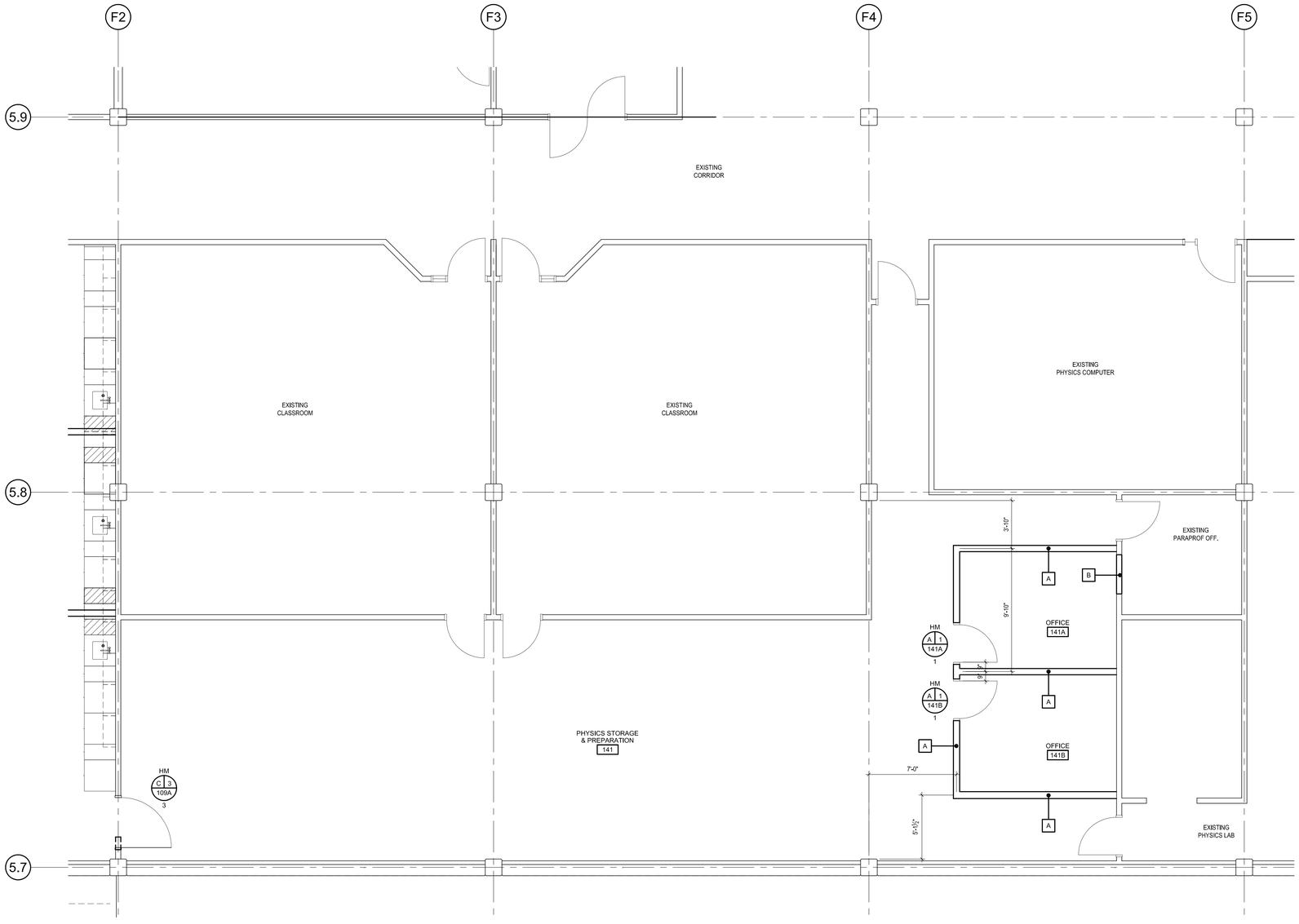
FLOOR PLAN

AE 103

Sheet of Sheets



B1 FLOOR PLAN

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

PLAN NORTH

DOOR NO.'S & TYPES

DOOR TYPE — FRAME TYPE

DOOR NUMBER — HARDWARE GROUP

WALL TYPE LEGEND

METAL STUD FRAMING

A — 3 5/8" METAL STUD FRAMING @ 16" O.C. WITH 5/8" GYP. BD. EA. SIDE, FINISH AND PAINT. EXTEND TO 6" ABOVE CEILING.

B — 3 5/8" METAL STUD FRAMING @ 16" O.C. WITH 5/8" GYP. BD. EA. SIDE, FINISH AND PAINT. INFILL FOR WINDOW THAT WAS REMOVED.

C — 3 5/8" METAL STUD FRAMING @ 16" O.C. WITH 5/8" GYP. BD. EA. SIDE, FINISH AND PAINT. EXTEND TO BOTTOM OF EXISTING CEILING.

FURRED WALLS

D — EXISTING CONCRETE WALL, WITH 3 5/8" METAL STUD FURRING PLACED AT INTERIOR OF ROOM WITH 5/8" GYP. BD., FINISH AND PAINT. EXTEND TO 10'-6" A.F.F.

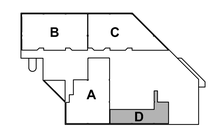
MASONRY VENEER

E — ATLAS BRICK VENEER OVER 6" (16 GA.) METAL STUDS @ 16" O.C. WITH BATT INSUL. 5/8" GYP. BD. INTERIOR WITH 1/2" EXTERIOR SHEATHING AND BUILDING FELTS ON EXTERIOR SIDE OF SHEATHING.

GENERAL NOTES

1.) WHERE WALL FINISH IS NOT SPECIFICALLY CALLED OUT, MATCH FINISHES OF ADJACENT WALL

KEY PLAN



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Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

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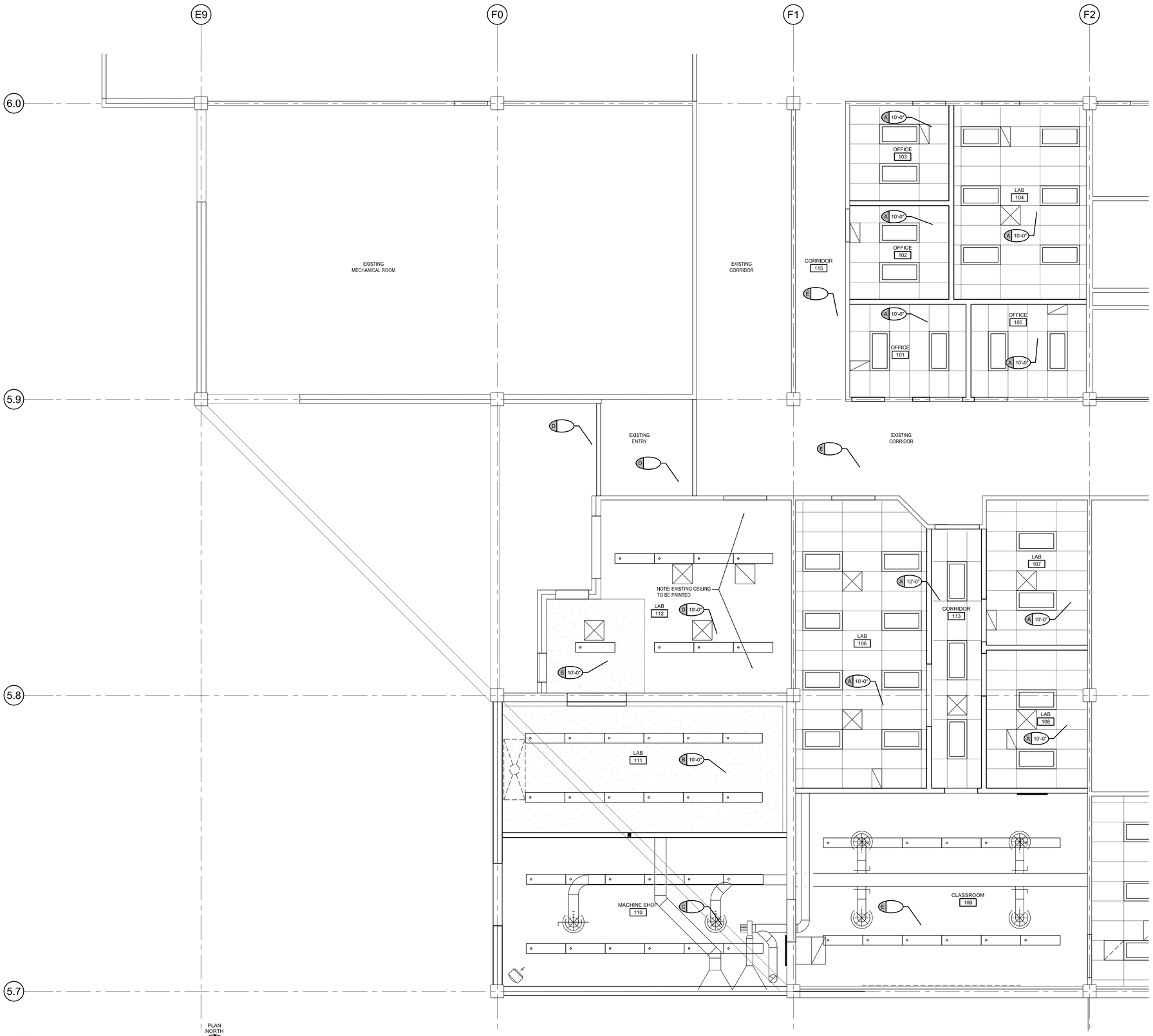
FLOOR PLAN

AE 104

Sheet of Sheets



A1 REFLECTED CEILING PLAN

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

PLAN NORTH

CEILING LEGEND

CEILING TYPE — CEILING HEIGHT (X X'-X")

A X'-X"	SUSPENDED 2'X4' ACOUSTICAL LAY-IN TILE CEILING. SEE TYPICAL CEILING SUSPENSION DETAIL
B X'-X"	SUSPENDED 5/8" GYP. BD. CEILING SYSTEM - (1 LAYER) PAINTED.
C X'-X"	EXPOSED STRUCTURE PAINTED.
D X'-X"	EXISTING CEILING. PROTECT FROM DAMAGE.
E X'-X"	EXISTING CEILING. ALL NEW EXPOSED DUCTWORK, CONDUIT, PIPING ETC. TO BE PAINTED TO MATCH EXISTING.

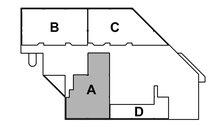
SYMBOL LEGEND

	LIGHT FIXTURE
	LIGHT FIXTURE
	PENDANT OR WALL HUNG FIXTURE
	SUPPLY GRILLE
	RETURN GRILLE

GENERAL NOTES

1. LAY-IN CEILING GRIDS SHALL BE CENTERED WITHIN ROOMS TO PROVIDE EQUALLY DIMENSIONED CUT TILES AT PERIMETER, U.N.O.
2. ALL CEILING HEIGHTS ARE FROM ADJACENT FINISH FLOOR ELEVATION.
3. MACHINE SHOP TO HAVE EXPOSED DUCTWORK, CONDUIT, PIPING, ETC. PAINTED TO MATCH EXISTING EXPOSED CEILING AREAS - FACILITY STANDARD.
4. PAINT EXPOSED DUCTWORK TO MATCH EXISTING COLOR.
5. COORDINATE NEW, RELOCATED AND EXISTING DIFFUSERS WITH MECHANICAL.

KEY PLAN



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Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

UVSC SCIENCE BUILDING REMODEL

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DFCM # 06005790

Rev #	Date	Description

Job # 05565
CAD File ae 105 reflected ceiling plan.dwg
Drawn Checked
Date 06/05/2006
Owner # DFCM # 06005790
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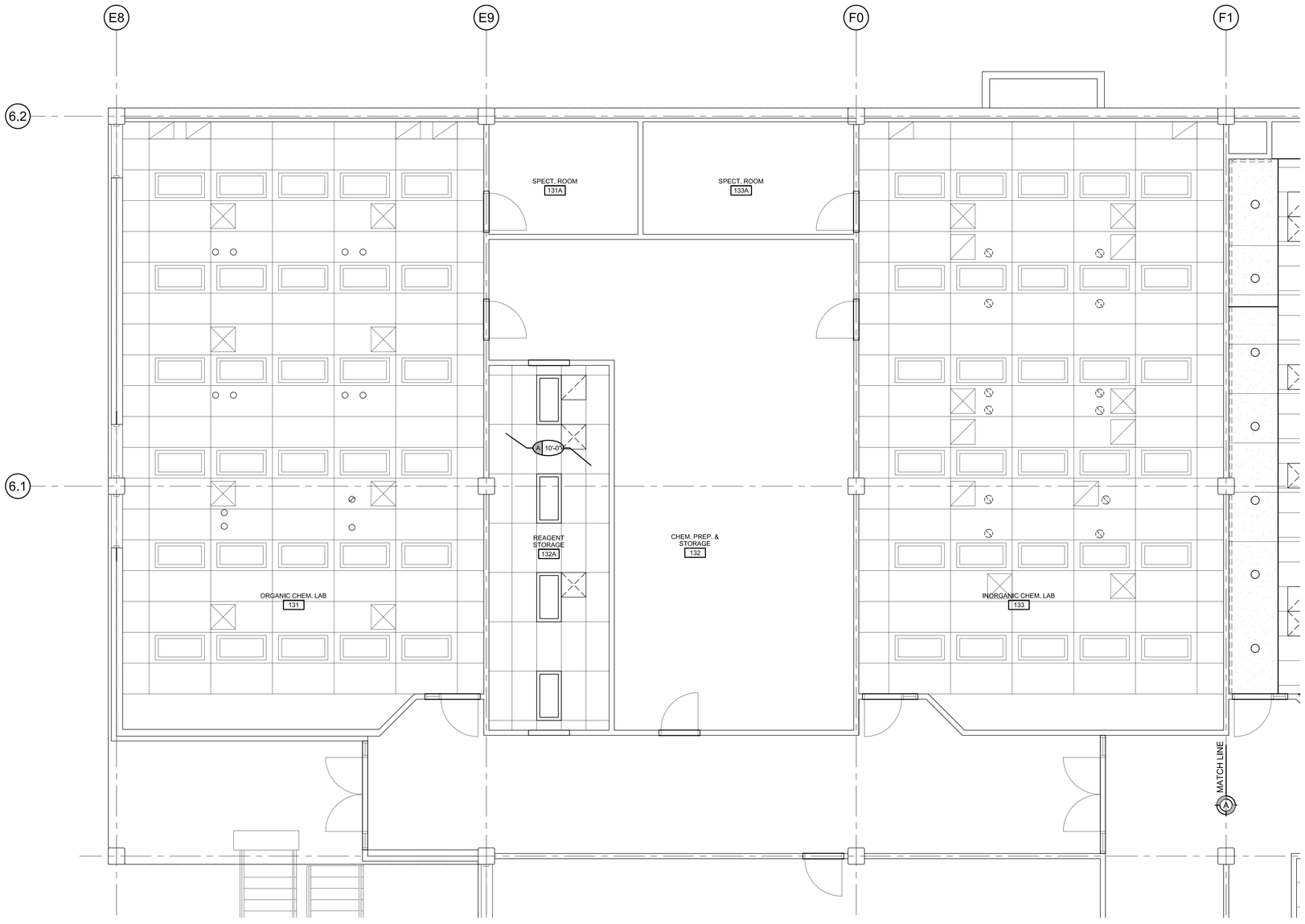
REFLECTED CEILING PLAN

AE 105

Sheet of Sheets



B1 REFLECTED CEILING PLAN

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

PLAN NORTH

CEILING LEGEND

CEILING TYPE — CEILING HEIGHT

X-X

A X-X	SUSPENDED 2'X4' ACOUSTICAL LAY-IN TILE CEILING. SEE TYPICAL CEILING SUSPENSION DETAIL
B X-X	SUSPENDED 5/8" GYP. BD. CEILING SYSTEM - (1 LAYER) PAINTED.
C X-X	EXPOSED STRUCTURE PAINTED.
D X-X	EXISTING CEILING. PROTECT FROM DAMAGE.
E X-X	EXISTING CEILING. ALL NEW EXPOSED DUCTWORK, CONDUIT, PIPING ETC. TO BE PAINTED TO MATCH EXISTING.

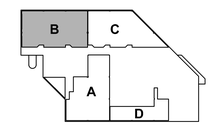
SYMBOL LEGEND

	LIGHT FIXTURE
	LIGHT FIXTURE
	PENDANT OR WALL HUNG FIXTURE
	SUPPLY GRILLE
	RETURN GRILLE

GENERAL NOTES

1. LAY-IN CEILING GRIDS SHALL BE CENTERED WITHIN ROOMS TO PROVIDE EQUALLY DIMENSIONED CUT TILES AT PERIMETER, U.N.O.
2. ALL CEILING HEIGHTS ARE FROM ADJACENT FINISH FLOOR ELEVATION.
3. MACHINE SHOP TO HAVE EXPOSED DUCTWORK, CONDUIT, PIPING, ETC. PAINTED TO MATCH EXISTING EXPOSED CEILING AREAS - FACILITY STANDARD.
4. PAINT EXPOSED DUCTWORK TO MATCH EXISTING COLOR.
5. COORDINATE NEW, RELOCATED AND EXISTING DIFFUSERS WITH MECHANICAL.

KEY PLAN



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Job #	05565
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Drawn	Checked
Date	06/05/2006
Owner #	DFCM # 06005790
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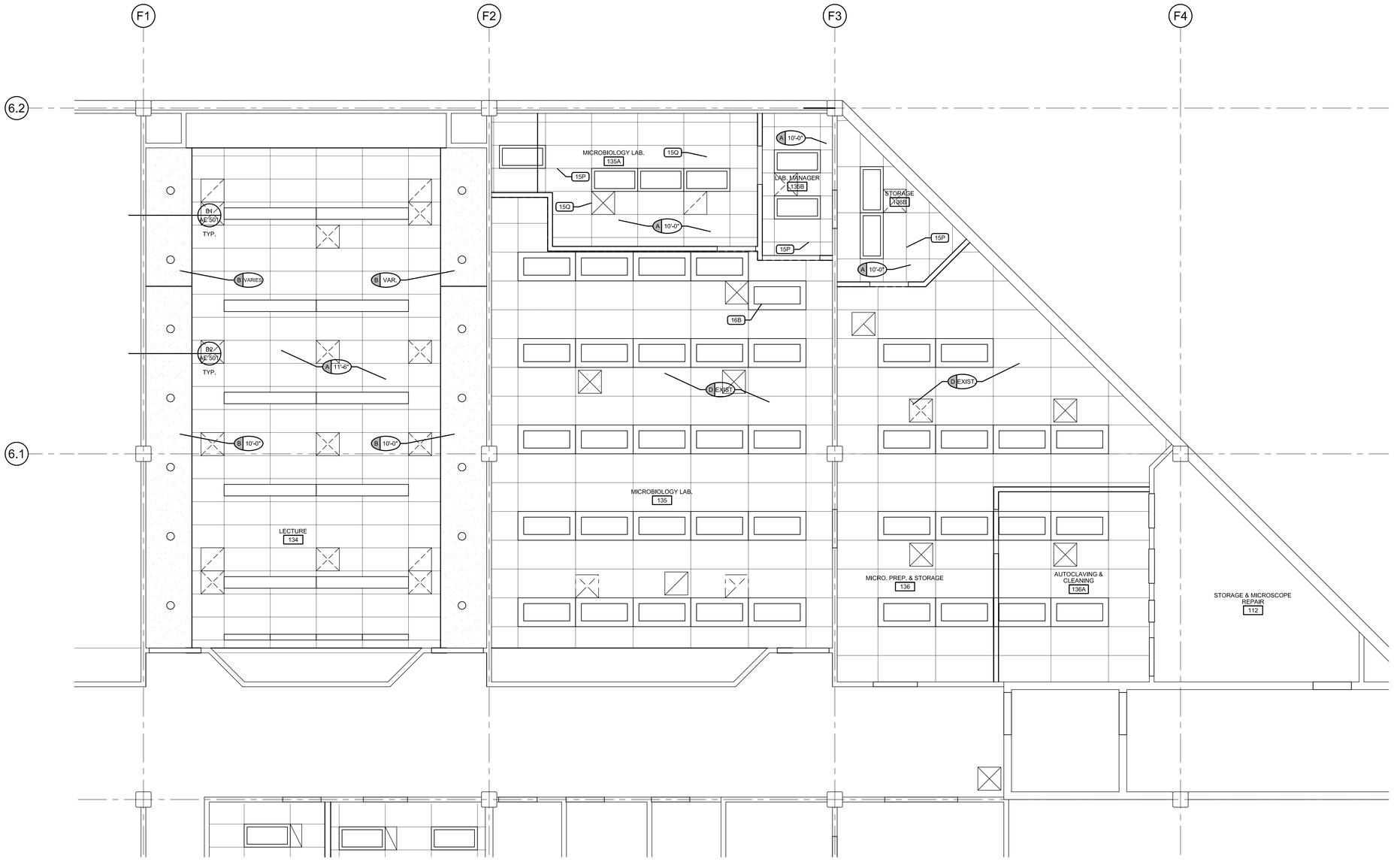
REFLECTED CEILING PLAN

AE 106

Sheet of Sheets



PLAN
SCALE: 1/4" = 1'-0"

PLAN NORTH

CEILING LEGEND

CEILING TYPE — CEILING HEIGHT (X X'-X")

A X'-X"	SUSPENDED 2'X4' ACOUSTICAL LAY-IN TILE CEILING. SEE TYPICAL CEILING SUSPENSION DETAIL
B X'-X"	SUSPENDED 5/8" GYP. BD. CEILING SYSTEM - (1 LAYER) PAINTED.
C X'-X"	EXPOSED STRUCTURE PAINTED.
D X'-X"	EXISTING CEILING. PROTECT FROM DAMAGE.
E X'-X"	EXISTING CEILING. ALL NEW EXPOSED DUCTWORK, CONDUIT, PIPING ETC. TO BE PAINTED TO MATCH EXISTING.

SYMBOL LEGEND

	LIGHT FIXTURE
	LIGHT FIXTURE
	PENDANT OR WALL HUNG FIXTURE
	SUPPLY GRILLE
	RETURN GRILLE

GENERAL NOTES

1. LAY-IN CEILING GRIDS SHALL BE CENTERED WITHIN ROOMS TO PROVIDE EQUALLY DIMENSIONED CUT TILES AT PERIMETER, U.N.O.
2. ALL CEILING HEIGHTS ARE FROM ADJACENT FINISH FLOOR ELEVATION.
3. MACHINE SHOP TO HAVE EXPOSED DUCTWORK, CONDUIT, PIPING, ETC. PAINTED TO MATCH EXISTING EXPOSED CEILING AREAS - FACILITY STANDARD.
4. PAINT EXPOSED DUCTWORK TO MATCH EXISTING COLOR.
5. COORDINATE NEW, RELOCATED AND EXISTING DIFFUSERS WITH MECHANICAL.

KEYED NOTES

DIVISION 15 - MECHANICAL

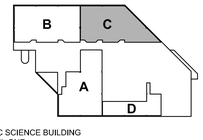
15P RELOCATED RETURN AIR VENT

15Q RELOCATED SUPPLY AIR DIFFUSER

DIVISION 16 - ELECTRICAL

16B RELOCATED LIGHT FIXTURE RECOVERED FROM DEMOLISHED CEILING

KEY PLAN



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Phone: (801) 575-8800
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UVSC SCIENCE BUILDING REMODEL

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Job #	05565
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Date	06/05/2006
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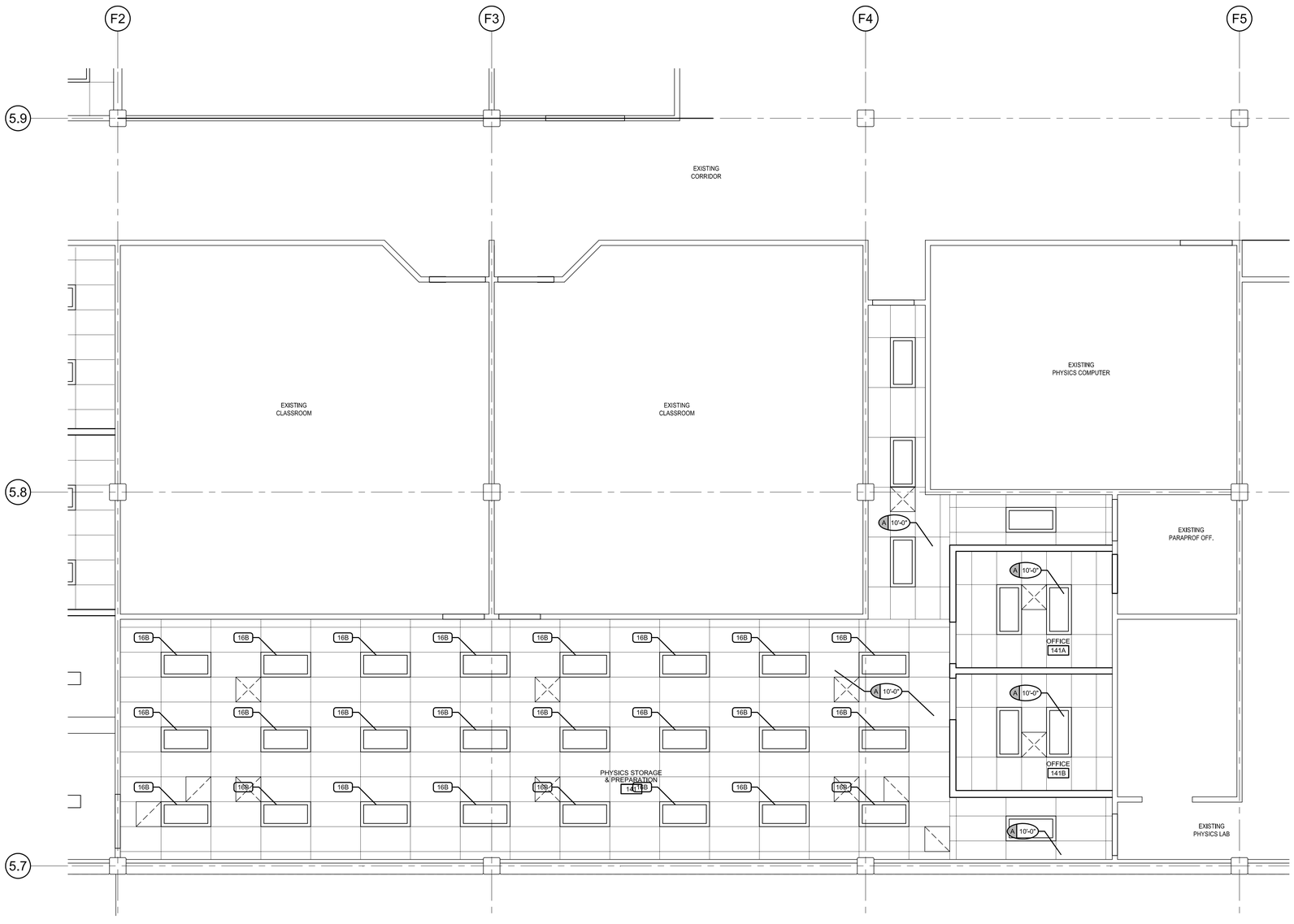
Ins. #	

REFLECTED CEILING PLAN

AE 107

Sheet of Sheets



B1 REFLECTED CEILING PLAN

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

PLAN NORTH

CEILING LEGEND

CEILING TYPE — CEILING HEIGHT

X X-X

A X-X	SUSPENDED 2'X4' ACOUSTICAL LAY-IN TILE CEILING. SEE TYPICAL CEILING SUSPENSION DETAIL
B X-X	SUSPENDED 5/8" GYP. BD. CEILING SYSTEM - (1 LAYER) PAINTED.
C X-X	EXPOSED STRUCTURE PAINTED.
D X-X	EXISTING CEILING. PROTECT FROM DAMAGE.
E X-X	EXISTING CEILING. ALL NEW EXPOSED DUCTWORK, CONDUIT, PIPING ETC. TO BE PAINTED TO MATCH EXISTING.

SYMBOL LEGEND

	LIGHT FIXTURE
	LIGHT FIXTURE
	PENDANT OR WALL HUNG FIXTURE
	SUPPLY GRILLE
	RETURN GRILLE

GENERAL NOTES

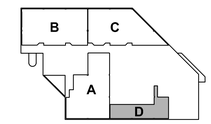
1. LAY-IN CEILING GRIDS SHALL BE CENTERED WITHIN ROOMS TO PROVIDE EQUALLY DIMENSIONED CUT TILES AT PERIMETER, U.N.O.
2. ALL CEILING HEIGHTS ARE FROM ADJACENT FINISH FLOOR ELEVATION.
3. MACHINE SHOP TO HAVE EXPOSED DUCTWORK, CONDUIT, PIPING, ETC. PAINTED TO MATCH EXISTING EXPOSED CEILING AREAS - FACILITY STANDARD.
4. PAINT EXPOSED DUCTWORK TO MATCH EXISTING COLOR.
5. COORDINATE NEW, RELOCATED AND EXISTING DIFFUSERS WITH MECHANICAL.

KEYED NOTES

DIVISION 16 - ELECTRICAL

16B RELOCATED LIGHT FIXTURE RECOVERED FROM DEMOLISHED CEILING

KEY PLAN



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DFCM # 06005790

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Job #	05565
CAD File	ae 108 reflected ceiling plan.dwg
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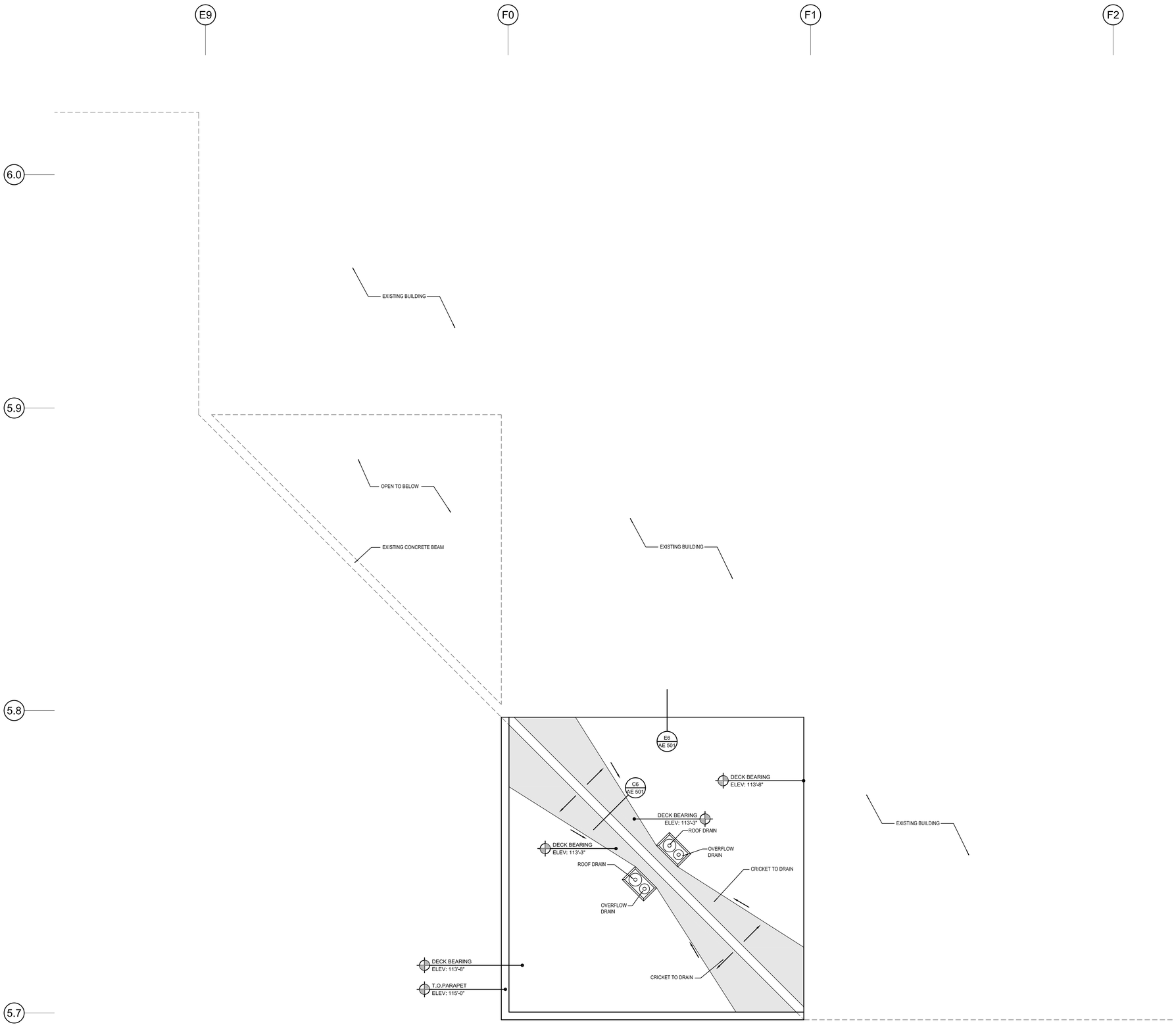
Owner #	DFCM # 06005790
Ins. #	

REFLECTED CEILING PLAN

AE 108

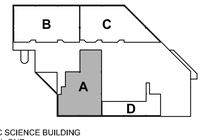
Sheet of Sheets



A1 ROOF PLAN

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

KEY PLAN



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ROOF PLAN

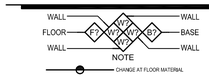
AE 109

Sheet of Sheets

A1 FINISH PLAN

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

FINISH SCHEDULE



NOTES

1.) ALL ROOMS TO HAVE THE FOLLOWING FINISHES UNLESS NOTED OTHERWISE: B1 4" RUBBER BASE, C1 GENERAL CARPET, P1 GENERAL PAINT

2) SINGLE FINISH SYMBOLS INDICATE FINISHES WHERE DIFFERENT FROM GENERAL ROOM FINISHES, (THEY OVERRIDE OR PROVIDE ADDITIONAL FINISH INFORMATION), AND ARE INDICATED WITH A SINGLE DIAMOND WITH A FINISH NOTE INSIDE.

FLOOR MATERIALS

C1 GENERAL CARPET
SC SEALED CONCRETE
V1 VINYL TILE - GENERAL - MATCH EXISTING
EX EXISTING

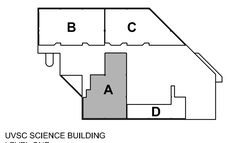
WALL

P1 GENERAL PAINT - MATCH EXISTING
EX EXISTING WALLS

BASE

B1 4" RUBBER BASE - TYPICAL - MATCH EXISTING
B2 4" WOOD BASE - TYPICAL - MATCH EXISTING

KEY PLAN



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FINISH PLAN

AE 110

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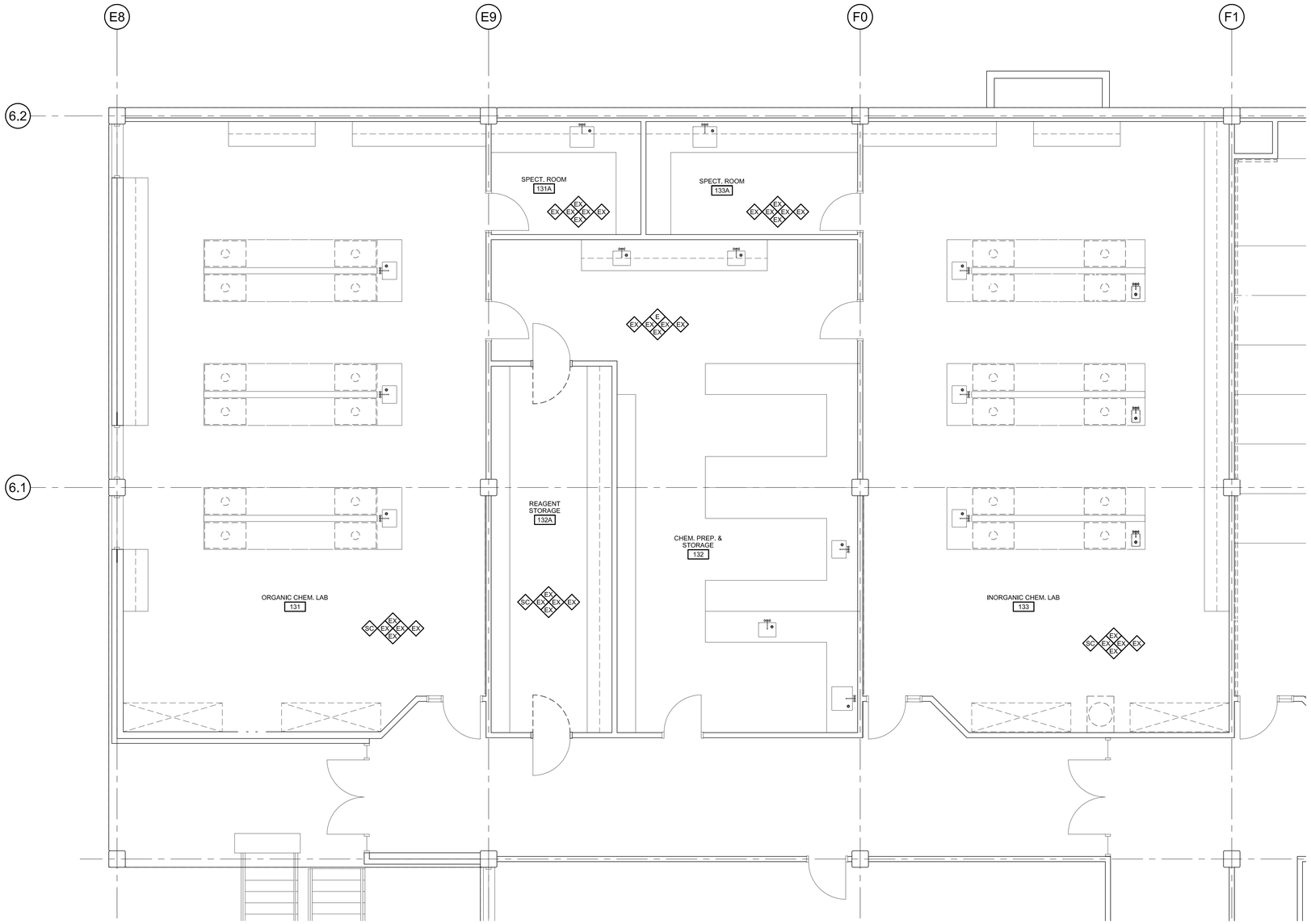
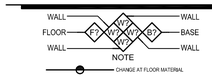


B1 FINISH PLAN

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

FINISH SCHEDULE



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EX EXISTING

WALL

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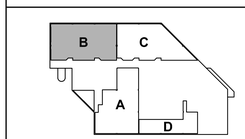
EX EXISTING WALLS

BASE

B1 4" RUBBER BASE - TYPICAL - MATCH EXISTING
B2 4" WOOD BASE - TYPICAL - MATCH EXISTING

KEY PLAN



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Owner # DFCM # 06005790
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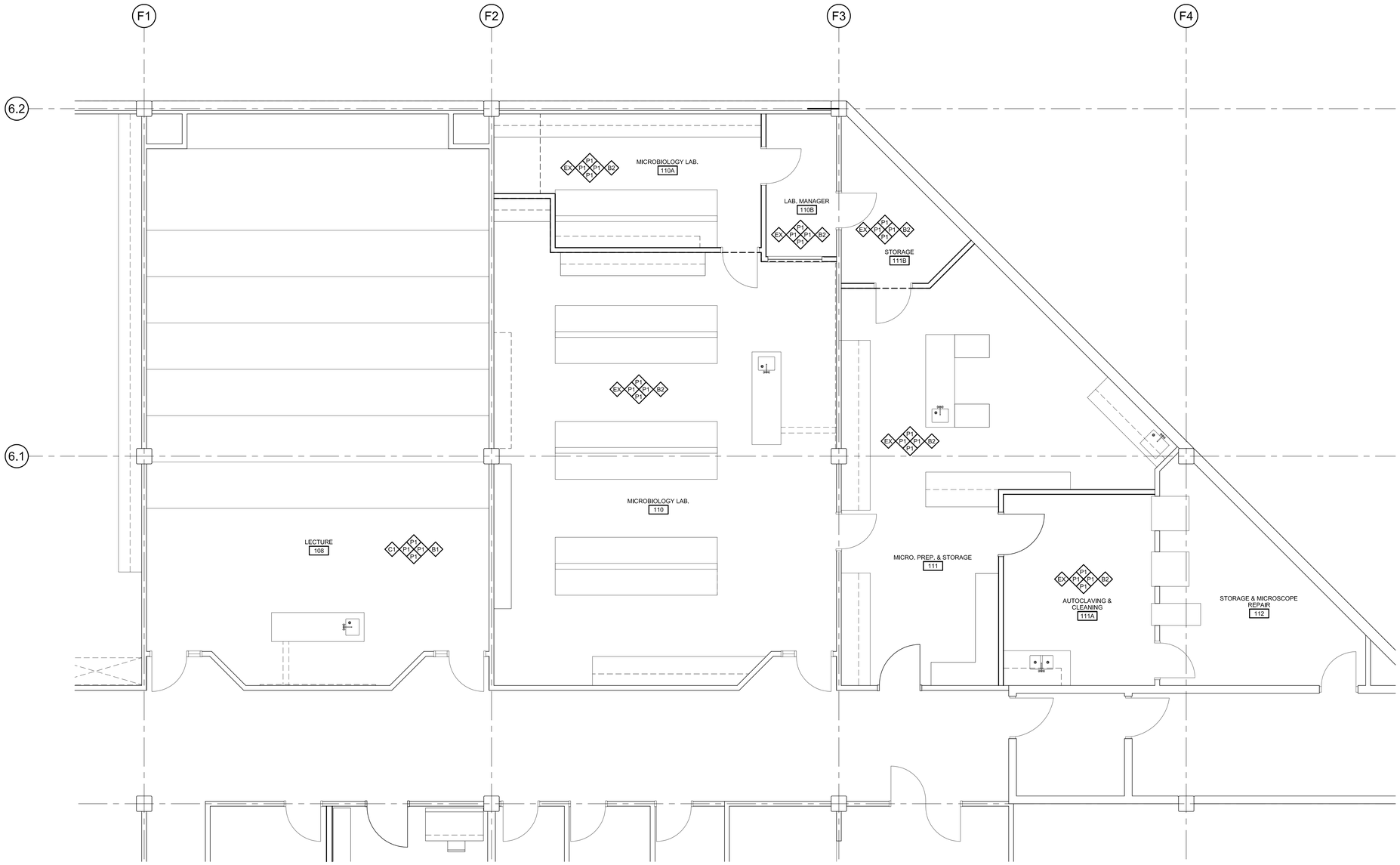
FINISH PLAN

AE 111

Sheet of Sheets

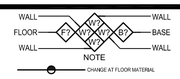


B1 FINISH PLAN

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

PLAN NORTH

FINISH SCHEDULE



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EX EXISTING

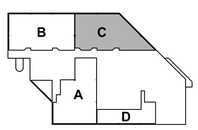
WALL

P1 GENERAL PAINT - MATCH EXISTING
EX EXISTING WALLS

BASE

B1 4" RUBBER BASE - TYPICAL - MATCH EXISTING
B2 4" WOOD BASE - TYPICAL - MATCH EXISTING

KEY PLAN



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Job #	05565
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Date	06/05/2006
Owner #	DFCM # 06005790
Ins. #	

FINISH PLAN

AE 112

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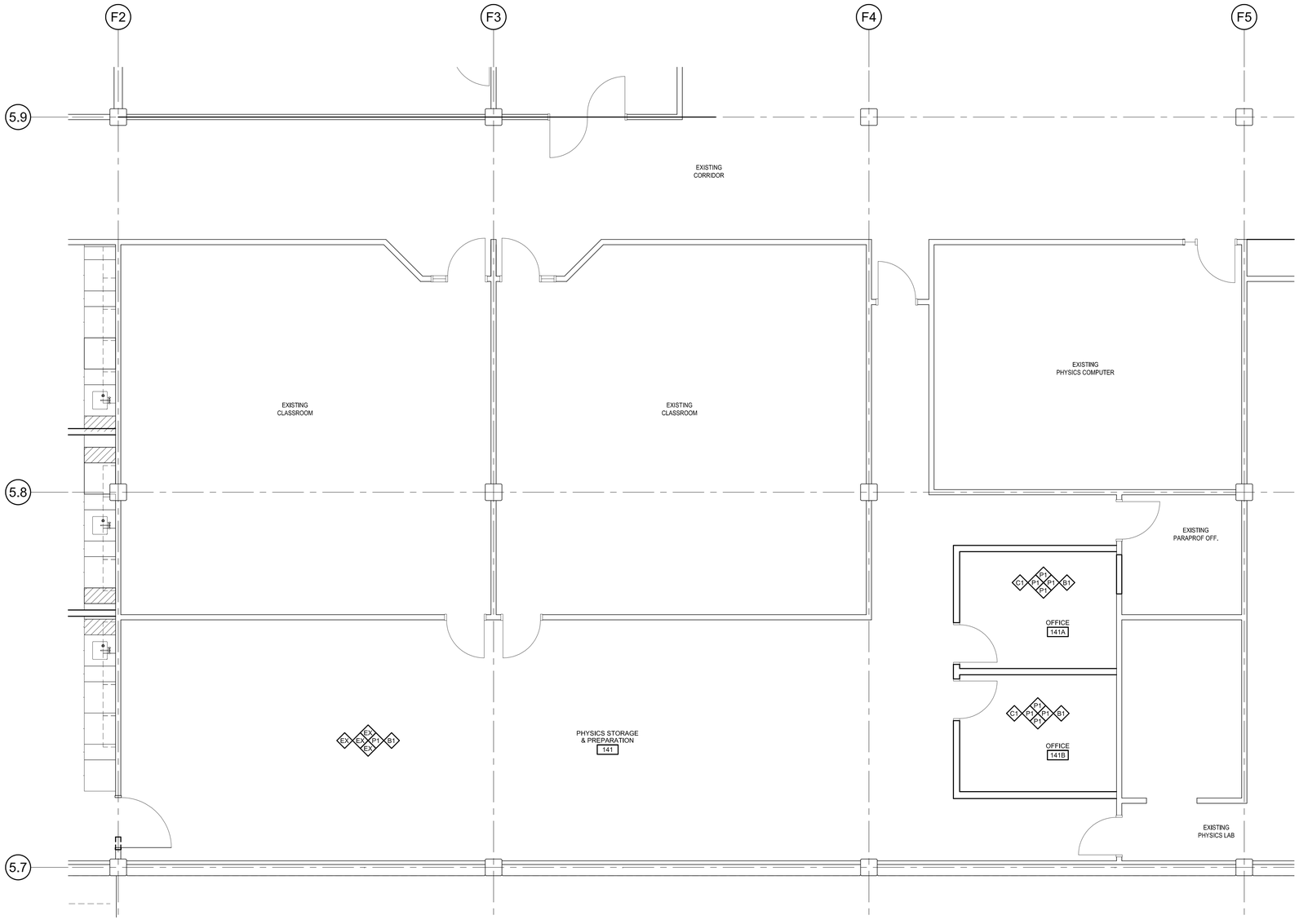
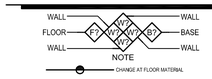


B1 FINISH PLAN

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

PLAN NORTH

FINISH SCHEDULE



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EX EXISTING

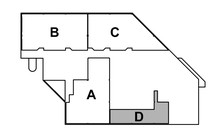
WALL

P1 GENERAL PAINT - MATCH EXISTING
EX EXISTING WALLS

BASE

B1 4" RUBBER BASE - TYPICAL - MATCH EXISTING
B2 4" WOOD BASE - TYPICAL - MATCH EXISTING

KEY PLAN



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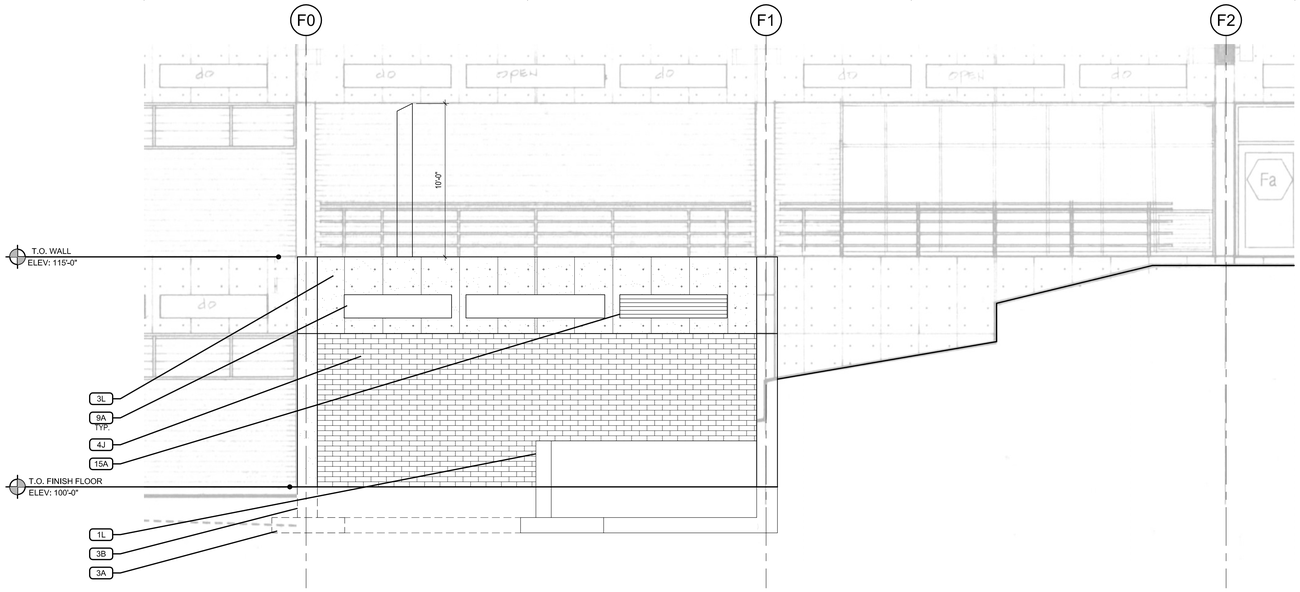
FINISH PLAN

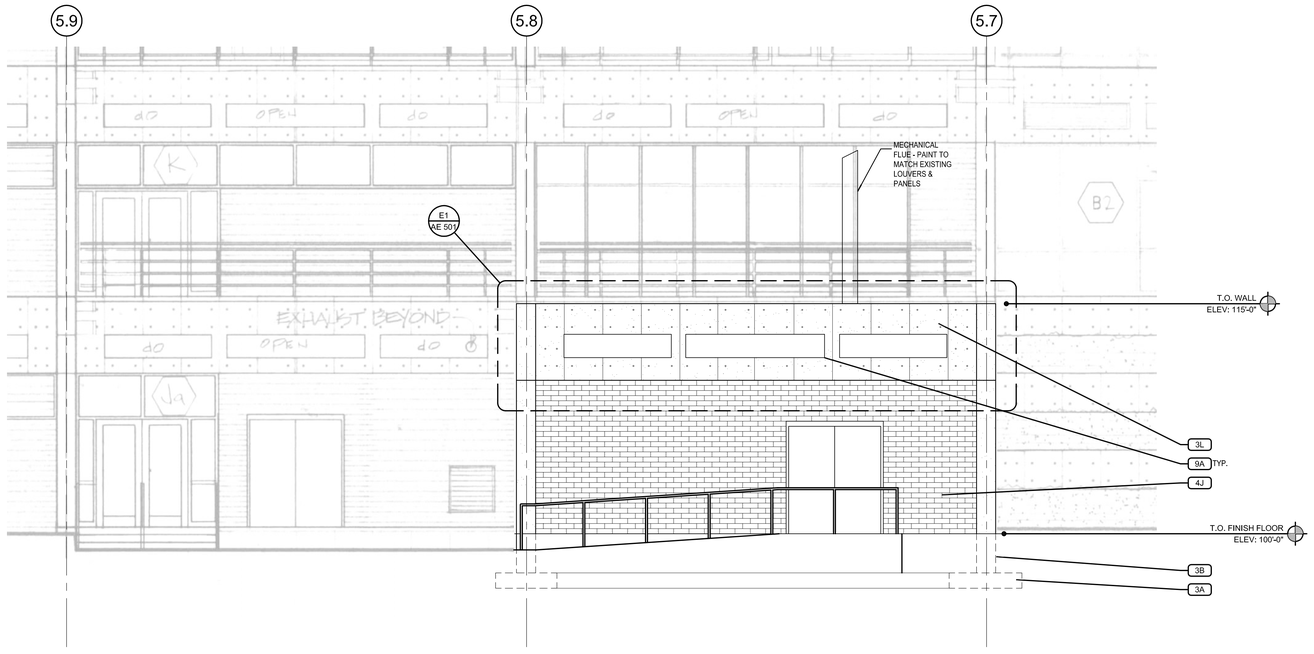
AE 113

Sheet of Sheets



D3 SOUTH ELEVATION

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



A3 WEST ELEVATION

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

KEYED NOTES

DIVISION 1 - DEMOLITION

1L EXISTING CONCRETE RETAINING WALL AND FOOTING TO REMAIN. FIELD VERIFY FOOTING SIZE & NOTIFY ARCHITECT

DIVISION 3 - CONCRETE

3A REINFORCED CONCRETE FOOTING.

3B REINFORCED CONCRETE FOUNDATION WALL.

3L CONCRETE BEAM

DIVISION 4 - MASONRY

4J ATLAS BRICK VENEER, MATCH EXISTING

DIVISION 9 - FINISHES

9A PAINT CONCRETE RECESS TO MATCH EXISTING DARK BRONZE ALUMINUM PANEL & TRIM

DIVISION 15 - MECHANICAL

15A MECHANICAL LOUVER

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Owner #	DFCM # 06005790
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EXTERIOR ELEVATIONS

AE 201

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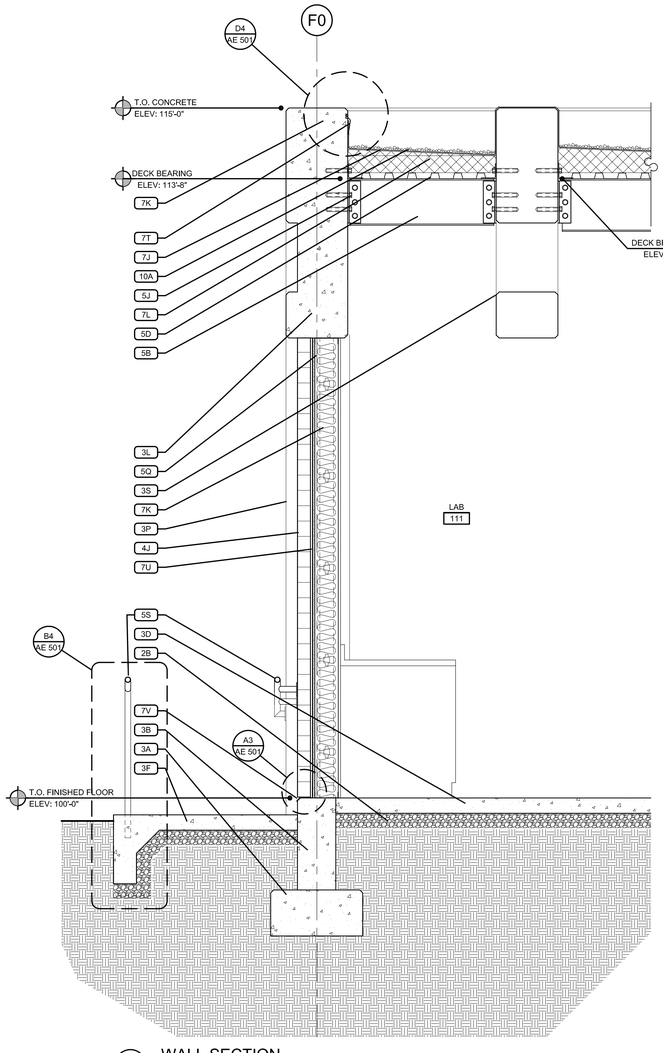
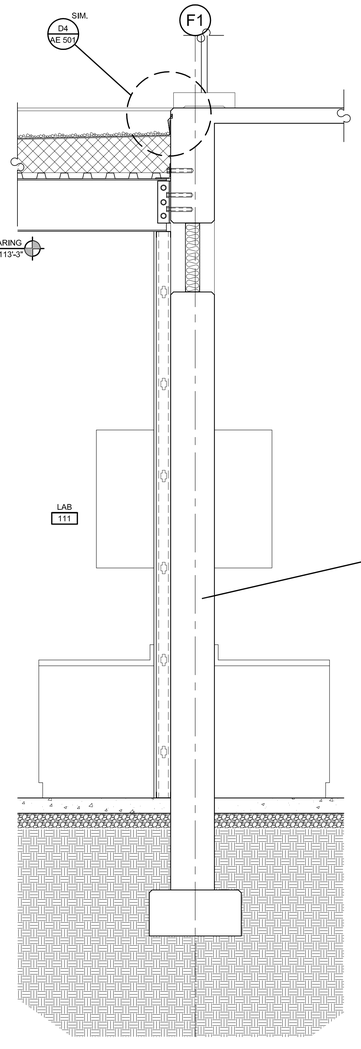
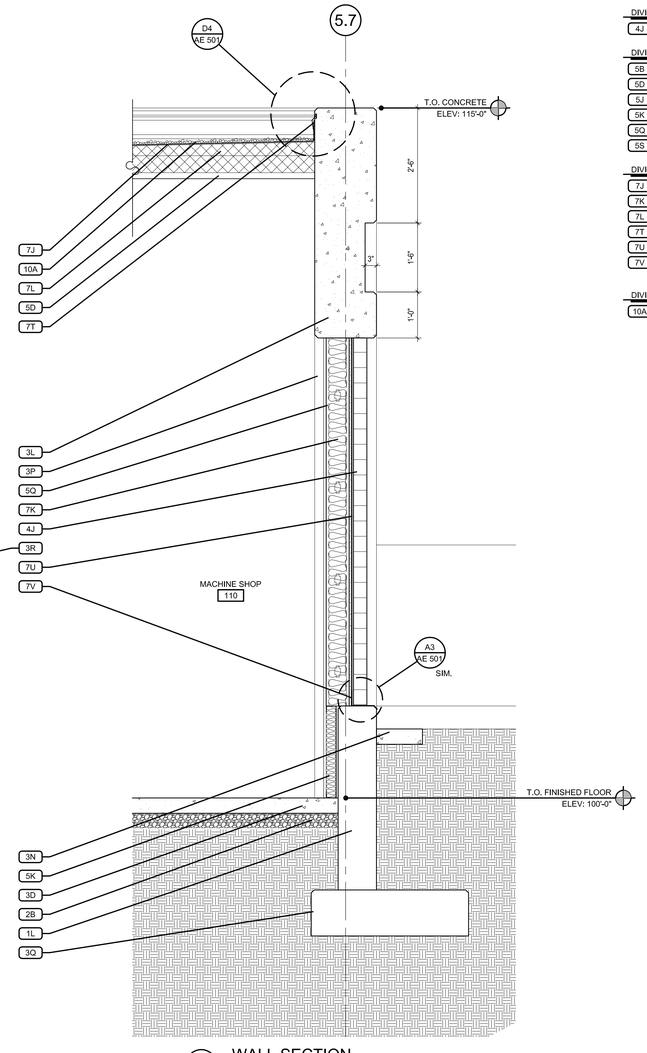


B2 WALL SECTION

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





B5 WALL SECTION

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

KEYED NOTES

DIVISION 1 - DEMOLITION

- 1L EXISTING CONCRETE RETAINING WALL AND FOOTING TO REMAIN. FIELD VERIFY FOOTING SIZE & NOTIFY ARCHITECT

DIVISION 2 - SITEWORK

- 2B 4" GRAVEL BASE.

DIVISION 3 - CONCRETE

- 3A REINFORCED CONCRETE FOOTING.
- 3B REINFORCED CONCRETE FOUNDATION WALL.
- 3D CONCRETE SLAB
- 3F CONCRETE RAMP, SEE PLAN
- 3L CONCRETE BEAM
- 3N 12" CONCRETE MOW STRIP
- 3P CONCRETE COLUMN, BEYOND
- 3Q EXISTING CONCRETE FOOTING
- 3R EXISTING CONCRETE WALL TO REMAIN
- 3S EXISTING CONCRETE BEAM

DIVISION 4 - MASONRY

- 4J ATLAS BRICK VENEER, MATCH EXISTING

DIVISION 5 - METALS

- 5B STEEL BEAM
- 5D STEEL DECK
- 5J STEEL EMBED
- 5K METAL FURRING
- 5Q 6" METAL STUDS
- 5S STEEL PIPE HANDRAIL, PAINTED

DIVISION 7 - THERMAL & MOISTURE PROTECTION

- 7J INFILTRATION BARRIER
- 7K R-19 BATT INSULATION W/ VAPOR BARRIER.
- 7L R-30 RIGID INSULATION BD.
- 7T CONT. METAL REGLET
- 7U 1/2" AIR SPACE
- 7V COPPER BASE FLASHING W/ WICK TYPE WEEP HOLES @ 24" O.C.

DIVISION 10 - SPECIALTIES

- 10A ROOF BALLAST

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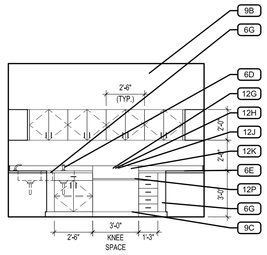
Owner #	DFCM # 06005790
Ins. #	

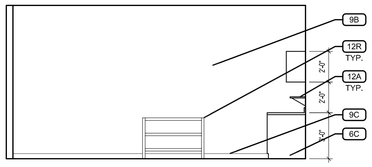
WALL SECTIONS

AE 301

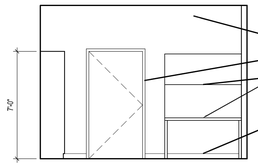
Sheet of Sheets



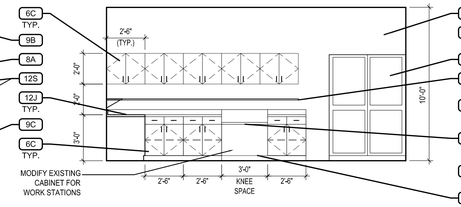
E1 INTERIOR ELEVATION @ LAB RM. 111
SCALE: 1/4" = 1'-0"



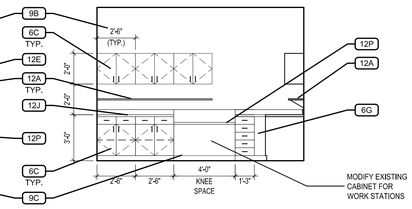
E2 INTERIOR ELEVATION @ LAB RM. 104
SCALE: 1/4" = 1'-0"



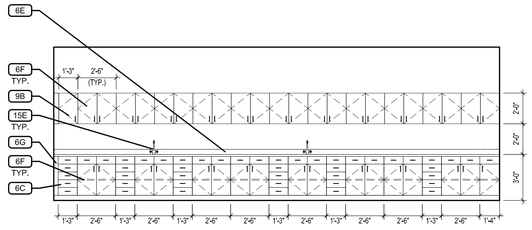
E3 INTERIOR ELEVATION @ LAB RM. 104
SCALE: 1/4" = 1'-0"



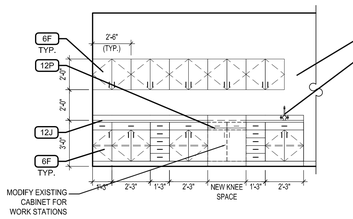
E4 INTERIOR ELEVATION @ LAB RM. 104
SCALE: 1/4" = 1'-0"



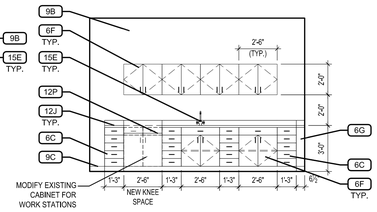
E5 INTERIOR ELEVATION @ LAB RM. 104
SCALE: 1/4" = 1'-0"



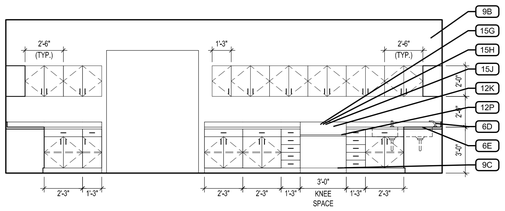
D1 INTERIOR ELEVATION @ LAB RM. 106
SCALE: 1/4" = 1'-0"



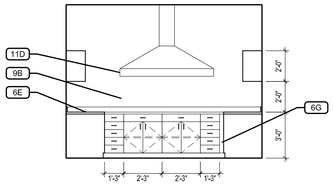
D3 INTERIOR ELEVATION @ LAB RM.107
SCALE: 1/4" = 1'-0"



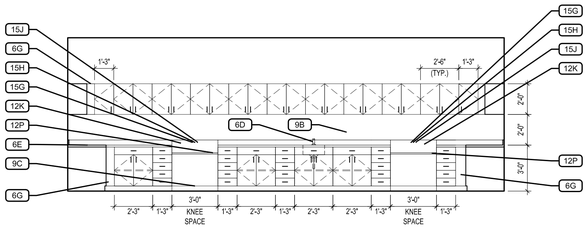
D4 INTERIOR ELEVATION @ LAB RM.108
SCALE: 1/4" = 1'-0"



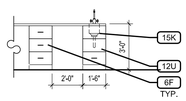
C1 INTERIOR ELEVATION @ LAB RM. 111
SCALE: 1/4" = 1'-0"



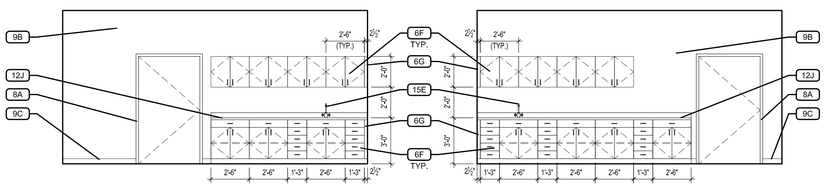
C3 INTERIOR ELEVATION @ LAB RM. 111
SCALE: 1/4" = 1'-0"



C4 INTERIOR ELEVATION @ LAB RM. 111
SCALE: 1/4" = 1'-0"

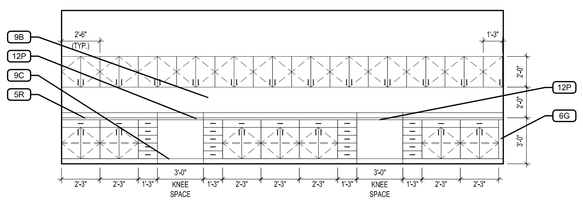


B1 INTERIOR ELEVATION BENCH RM. 133
SCALE: 1/4" = 1'-0"

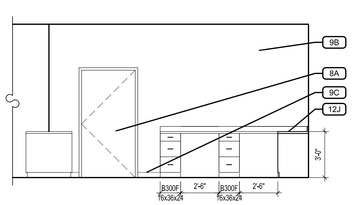


B2 INTERIOR ELEVATION RM. 109 WEST
SCALE: 1/4" = 1'-0"

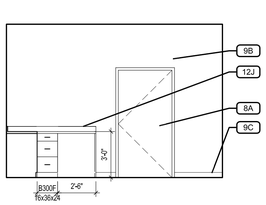
B3 INTERIOR ELEVATION RM. 109 EAST
SCALE: 1/4" = 1'-0"



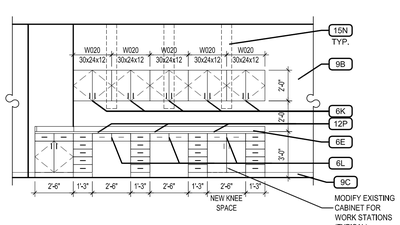
B4 INTERIOR ELEVATION @ MACHINE SHOP RM. 110
SCALE: 1/4" = 1'-0"



A1 INTERIOR ELEVATION RM. 136 EAST
SCALE: 1/4" = 1'-0"



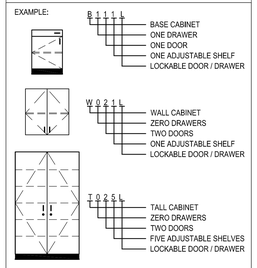
A2 INTERIOR ELEVATION RM. 136 SOUTH
SCALE: 1/4" = 1'-0"



A3 INTERIOR ELEVATION RM. 135 SOUTH
SCALE: 1/4" = 1'-0"

ARCHITECTURAL WOOD WORK KEY

EXAMPLE:



CABINET MEASUREMENTS SHOWN ARE ACTUAL SIZES. BASE CABINET HEIGHTS ALLOW FOR A COUNTERTOP 1 1/2" THICK. CABINET DEPTHS ARE MEASURED FROM THE BACK TO THE FACE OF THE DOOR OR DRAWER FRONT (WHERE APPLICABLE)

GENERAL NOTES

1. MILLWORK DIMENSION NUMBERS ARE WIDTH X, HEIGHT X, AND DEPTH X.
2. SEE SHEET A5.01 FOR TOILET ROOM MOUNTING HEIGHTS, TOILET ROOM ACCESSORIES SCHEDULE, TYPICAL TOILET STALL LAYOUT.
3. PROVIDE SCHEDULED BASE @ ALL CABINET TOE 4" HIGH SPACE, TYP. UNLESS OTHERWISE SPECIFIED
4. PRIME ALL WALLS BEHIND VINYL WALL COVERINGS AND TACKABLE WALL PANELS.
5. TACKABLE WALL PANELS TO BE LAID OUT STARTING @ CENTER LINE OF WALL.
6. ALL COUNTERTOPS TO HAVE A BACK SPLASH, TYP.
4". AT BACK AND SIDES, U.N.O.
7. BLOCK AND FILL VOIDS BETWEEN WALLS AND ANGLED MILLWORK WITH SIMILAR MATERIAL TO ADJACENT MILLWORK
8. FIELD VERIFY ALL DIMENSIONS.
9. BULLNOSE TILE AT ALL TILED OUTSIDE CORNERS IN RESTROOMS, TYP.
10. PROVIDE STEEL ANGLE BRACKET AT UNSUPPORTED COUNTERTOP CORNERS, TYP.
11. EVERY LARGE TOILET ROOM TO HAVE PAPER TOWEL DISPENSER & ELECTRIC HAND DRYERS
12. FOR FINISH DESIGNATION, SEE FINISH ON A1 SHEETS, TYP.

MILLWORK NOTES

- AA REMOVE (5) TALL MILLWORK UNITS & RELOCATE TO WEST END OF MICROBIOLOGY LAB #135.
- BB REMOVE (4) WALL MILLWORK UNITS & RELOCATE TO WEST END OF MICROBIOLOGY LAB #135.
- CC REMOVE (4) WALL AND BASE UNITS & RELOCATE TO NORTH WALL OF RENNOVATED MICROBIOLOGY LAB #135.
- DD REMOVE (4) WALL MILLWORK UNITS & RELOCATE TO SOUTH WALL OF MICROBIOLOGY LAB 135A.
- EE REMOVE EXISTING DRAWER UNIT & REINSTALL IN LAB #108
- FF REMOVE EXISTING DRAWER UNIT & REINSTALL IN CLASSROOM #109
- GG REMOVE EXISTING DRAWER UNIT & REINSTALL IN CLASSROOM #109
- HH REMOVE (2) EXISTING WALL CABINETS & REINSTALL IN AUTOCLAVE & CLEANING ROOM #136A.

KEYED NOTES

DIVISION 5 - METALS
- 5R GALVANIZED SHEET METAL COUNTERTOP & BACKSPLASH

DIVISION 6 - WOOD
- 6C RE-ASSEMBLE EXISTING MILLWORK AS SHOWN
- 6D EPOXY RESIN SINKS INTEGRAL WITH COUNTERTOP, COORDINATE WITH PLUMBING
- 6E EPOXY RESIN COUNTERTOP & BACKSPLASH
- 6F EXISTING MILLWORK TO REMAIN
- 6G FILLER PANEL, MATCH EXISTING FINISH
- 6K NEW MILLWORK
- 6L DRAWER(S) TO REMAIN

DIVISION 8 - DOORS & WINDOWS
- 8A DOOR & FRAME

DIVISION 9 - FINISHES
- 9B GYP. BOARD, PAINTED
- 9C MATCH EXISTING WOOD BASE

DIVISION 11 - EQUIPMENT
- 11D FUME HOOD

DIVISION 12 - FURNISHINGS
- 12A 14" WALL MOUNTED SHELF
- 12E STORAGE CABINET, BY OWNER
- 12G RISERS
- 12H ENTRY MAT
- 12J NEW PLASTIC LAMINATE COUNTERTOP & BACKSPLASH AT NEW & EXISTING CABINETS
- 12K BACK SPLASH
- 12P PROVIDE GROMMET @ EACH KNEE SPACE
- 12R FREE STANDING SHELVING, SAVED FROM DEMOLITION
- 12S SYSTEMS FURNITURE DESK AND CHAIR, BY OWNER
- 12U PROVIDE LAMINATE COVER @ EXISTING DRAWER

DIVISION 15 - MECHANICAL
- 15E EXISTING SINK AND FAUCET
- 15G 1/2" COMPRESSED AIR
- 15H 1/2" GAS
- 15J 1/2" COLD WATER
- 15K NEW 8"X12" LAB SINK
- 15N SNORKEL VENT

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SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
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UVSC SCIENCE BUILDING REMODEL

OREM, UTAH

DFCM # 06005790

Rev #	Date	Description

Job # 05565
CAD File ae 401 interior elevations.dwg
Drawn Checked
Date 06/05/2006
Owner # DFCM # 06005790
Ins. #

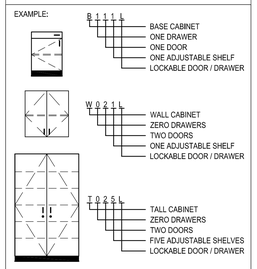
INTERIOR ELEVATIONS

AE 401

Sheet of Sheets

ARCHITECTURAL WOOD WORK KEY

EXAMPLE:



CABINET MEASUREMENTS SHOWN ARE ACTUAL SIZES. BASE CABINET HEIGHTS ALLOW FOR A COUNTERTOP 1 1/2" THICK. CABINET DEPTHS ARE MEASURED FROM THE BACK TO THE FACE OF THE DOOR OR DRAWER FRONT (WHERE APPLICABLE)

GENERAL NOTES

1. MILLWORK DIMENSION NUMBERS ARE WIDTH X, HEIGHT X, AND DEPTH X.
2. SEE SHEET A5.01 FOR TOILET ROOM MOUNTING HEIGHTS, TOILET ROOM ACCESSORIES SCHEDULE, TYPICAL TOILET STALL LAYOUT.
3. PROVIDE SCHEDULED BASE @ ALL CABINET TOE 4" HIGH SPACE, TYP. UNLESS OTHERWISE SPECIFIED
4. PRIME ALL WALLS BEHIND VINYL WALL COVERINGS AND TACKABLE WALL PANELS.
5. TACKABLE WALL PANELS TO BE LAID OUT STARTING @ CENTER LINE OF WALL.
6. ALL COUNTERTOPS TO HAVE A BACK SPLASH, TYP. 4", AT BACK AND SIDES, U.N.O.
7. BLOCK AND FILL VOIDS BETWEEN WALLS AND ANGLED MILLWORK WITH SIMILAR MATERIAL TO ADJACENT MILLWORK
8. FIELD VERIFY ALL DIMENSIONS.
9. BULLNOSE TILE AT ALL TILED OUTSIDE CORNERS IN RESTROOMS, TYP.
10. PROVIDE STEEL ANGLE BRACKET AT UNSUPPORTED COUNTERTOP CORNERS, TYP.
11. EVERY LARGE TOILET ROOM TO HAVE PAPER TOWEL DISPENSER & ELECTRIC HAND DRYERS
12. FOR FINISH DESIGNATION, SEE FINISH ON A1 SHEETS, TYP.

KEYED NOTES

DIVISION 6 - WOOD

- 6C RE-ASSEMBLE EXISTING MILLWORK AS SHOWN
- 6E EPOXY RESIN COUNTERTOP & BACKSPLASH
- 6F EXISTING MILLWORK TO REMAIN
- 6H NEW MILLWORK DOORS & HARDWARE
- 6K NEW MILLWORK

DIVISION 8 - DOORS & WINDOWS

- 8A DOOR & FRAME
- 8G WINDOW - HOLLOW METAL FRAME

DIVISION 9 - FINISHES

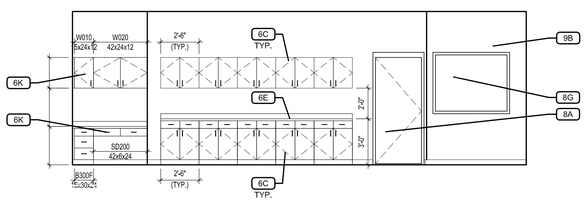
- 9B GYP. BOARD, PAINTED
- 9C MATCH EXISTING WOOD BASE

DIVISION 12 - FURNISHINGS

- 12P PROVIDE GROMMET @ EACH KNEE SPACE

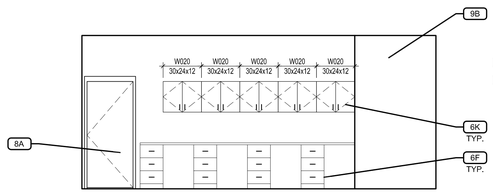
DIVISION 15 - MECHANICAL

- 15N SNORKEL VENT



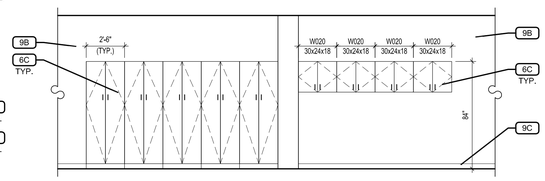
B1 INTERIOR ELEVATION RM. 135 NORTH

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



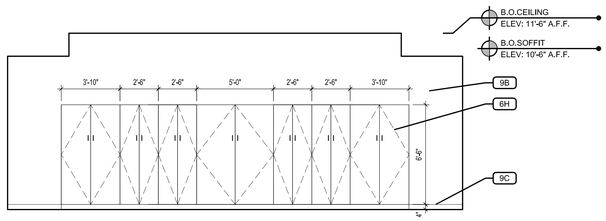
B2 INTERIOR ELEVATION RM. 135A SOUTH

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



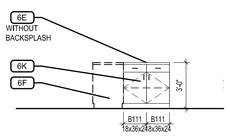
B3 INTERIOR ELEVATIONS

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



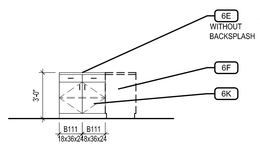
A1 LECTURE HALL RM. 134 NORTH

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



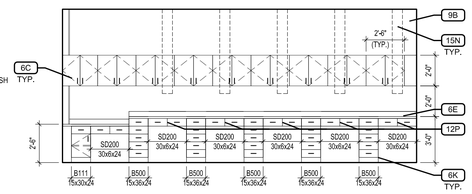
A2 LAB STATION RM. 136 NORTH

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



A3 LAB STATION RM. 136 SOUTH

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



A4 INTERIOR ELEVATION RM. 135A NORTH

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

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VCBO ARCHITECTURE
524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
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UVSC SCIENCE BUILDING REMODEL

OREM, UTAH

DFCM # 06005790

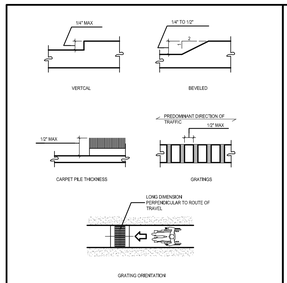
Rev #	Date	Description

Job #	05565
CAD File	ae 402 interior elevations.dwg
Drawn	Checked
Date	06/05/2006
Owner #	DFCM # 06005790
Ins. #	

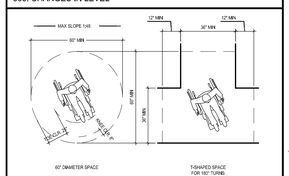
INTERIOR ELEVATIONS

AE 402

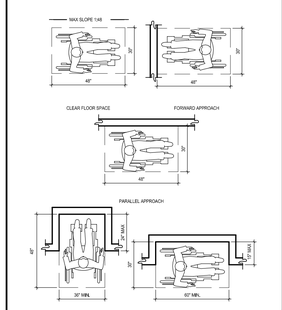
Sheet of Sheets



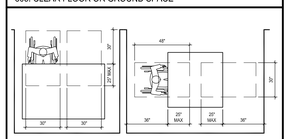
303. CHANGES IN LEVEL



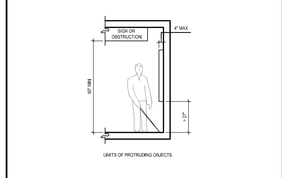
304. WHEELCHAIR TURNING SPACE



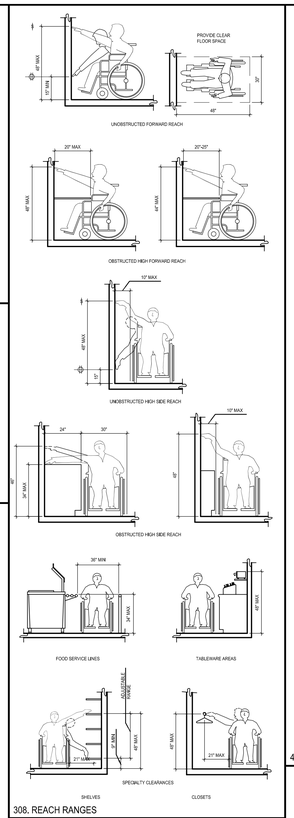
305. CLEAR FLOOR OR GROUND SPACE



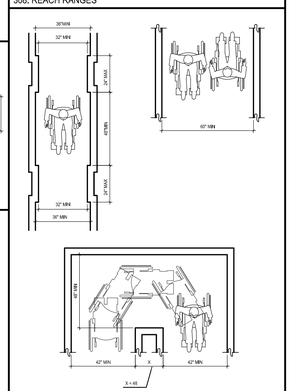
306. KNEE CLEARANCE



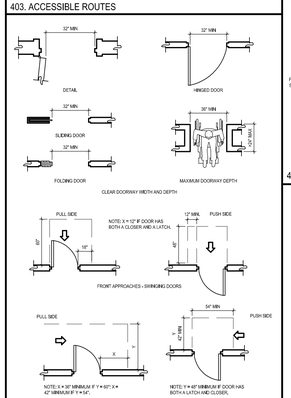
307. PROTRUDING OBJECTS



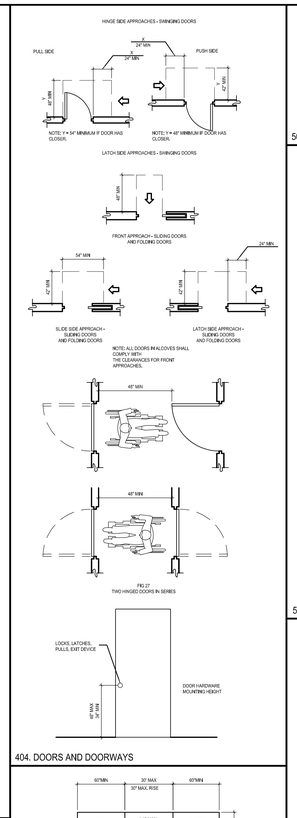
308. REACH RANGES



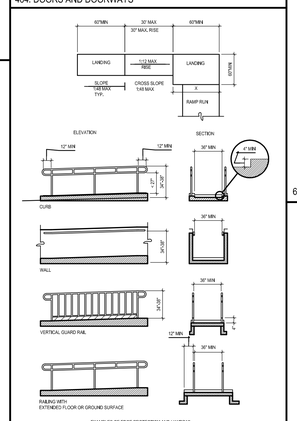
403. ACCESSIBLE ROUTES



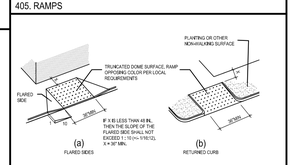
404. DOORS AND DOORWAYS



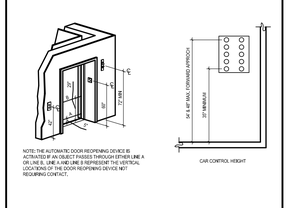
404. DOORS AND DOORWAYS



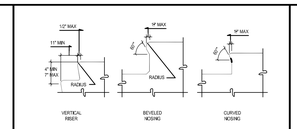
405. RAMPS



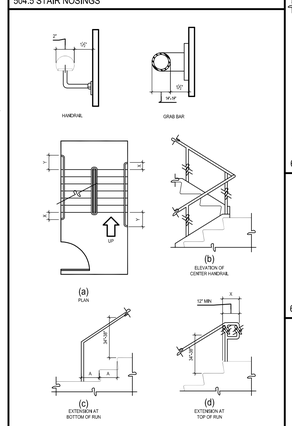
406. CURB ANGLES



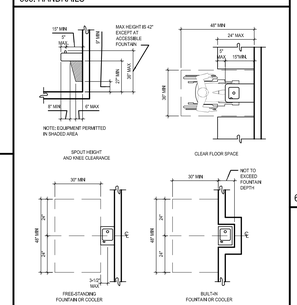
407. ELEVATORS



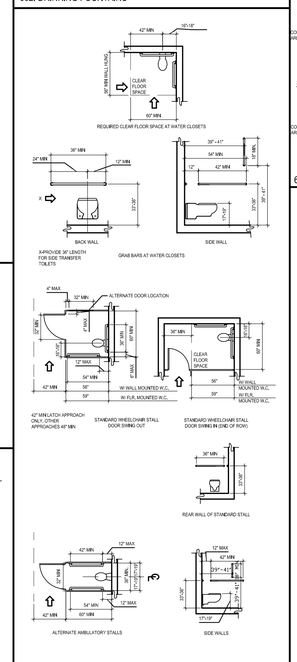
504.5 STAIR NOSINGS



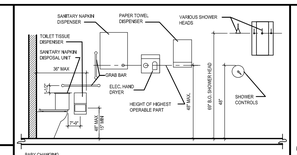
505. HANDRAILS

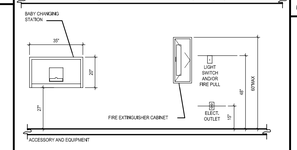


602. DRINKING FOUNTAINS

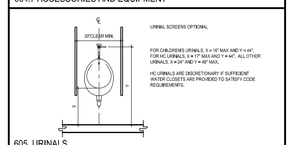


604. TOILETS AND TOILET COMPARTMENTS

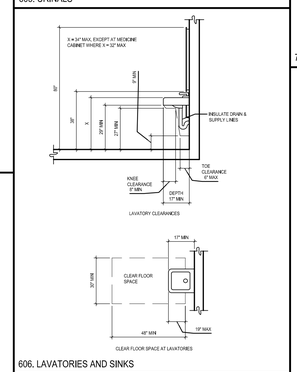




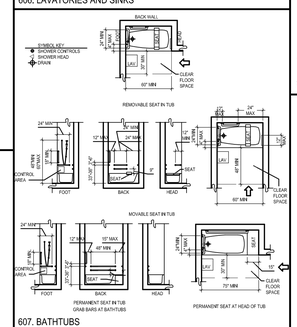
604.7 ACCESSORIES AND EQUIPMENT



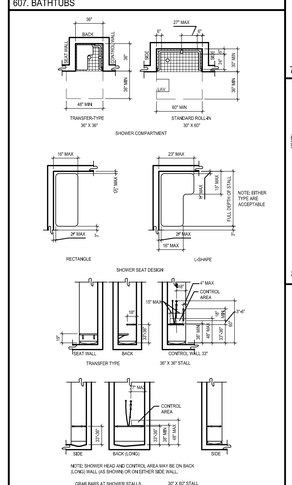
605. URINALS



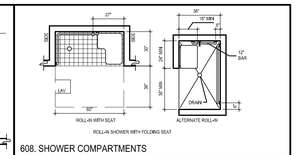
606. LAVATORIES AND SINKS



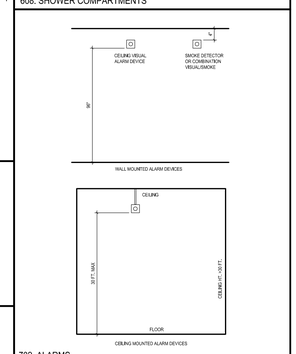
607. BATHTUBS



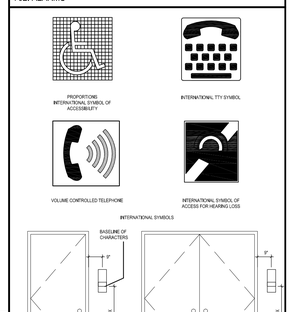
608. SHOWER COMPARTMENTS



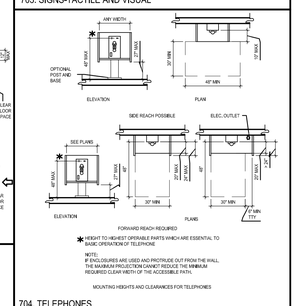
608. SHOWER COMPARTMENTS



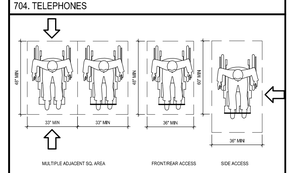
702. ALARMS



703. SIGNS-TACTILE AND VISUAL



704. TELEPHONES



802. AUDITORIUM AND ASSEMBLY AREAS

GENERAL NOTES

1 - THREE DIGIT NUMBERS REFER TO ANSI 117.1-2003 CHAPTER SECTION NUMBERS.

2 - ACCESSIBLE ROUTES SHALL HAVE WALKING SURFACES WITH A RUNNING SLOPE NO STEEPER THAN 1:20, CROSS SLOPE NO STEEPER THAN 1:48. SITE WALKWAYS WITH SLOPES EXCEEDING 1:20 SHALL BE TREATED AS RAMPS WITH RUNNING SLOPES NO STEEPER THAN 1:12. PROVIDE HANDRAILS AND EDGE PROTECTION PER ANSI 117.1-2003.

3 - CLEAR FLOOR OR GROUND SURFACES SHALL HAVE A SLOPE NO STEEPER THAN 1:48.

4 - CONTRACTOR TO PROVIDE BLOCKING/BACKING FOR ALL ACCESSORIES. BLOCKING AT GRAB BARS TO WITHSTAND 250 LB./FT. LOAD.

5 - DRINKING FOUNTAINS, TOILETS, AND URINALS ARE TO MOUNTED AS PER MANUFACTURER'S RECOMMENDATIONS FOR STANDARD UNITS UNLESS THEY ARE DESIGNATED TO BE FOR HANDICAPPED USE. H.C. ACCESSIBLE UNITS TO BE MOUNTED AS SHOWN ABOVE.

A1 ADA DETAILS

SCALE: N.T.S.

VCBO ARCHITECTURE
VALENTINER
CRANE
BRUNJES
ONYON

VCBO ARCHITECTURE
524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

UVSC SCIENCE BUILDING REMODEL

OREM, UTAH

DFCM # 06005790

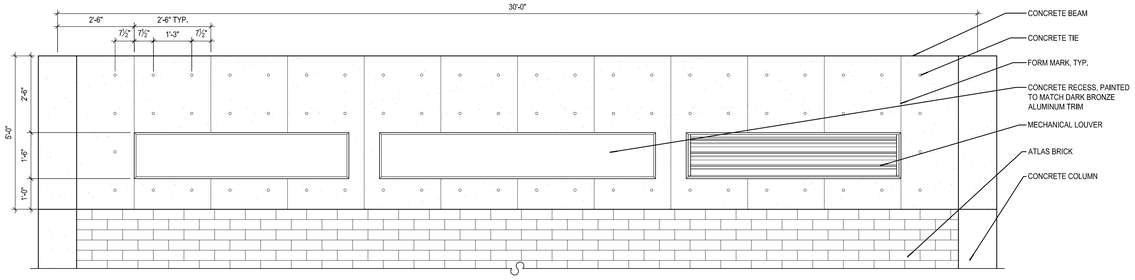
Rev #	Date	Description

Job #	05565
CAD File	ae 500 ada requirements.dwg
Drawn	Checked
Date	06/05/2006
Owner #	DFCM # 06005790
Ins. #	

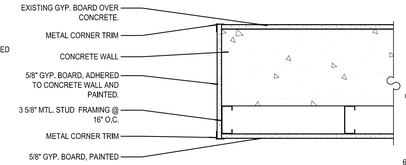
ADA REQUIREMENTS

AE 500

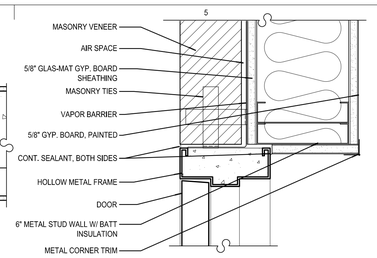
Sheet of Sheets



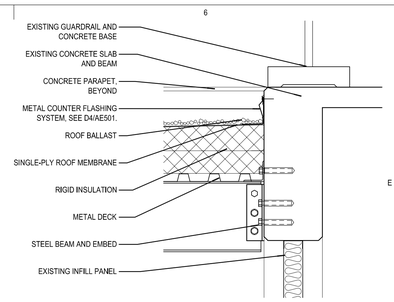
E1 CONCRETE BEAM
SCALE: 1/2" = 1'-0"



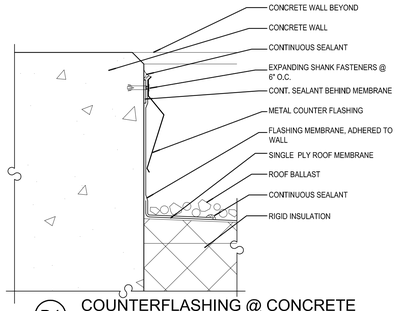
E4 OPENING @ FURRED CONCRETE WALL
SCALE: 1 1/2" = 1'-0"



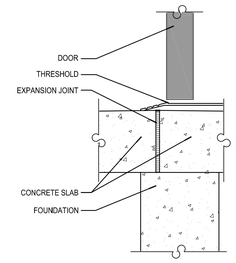
E5 H.M. JAMB @ BRICK VENEER
SCALE: 3" = 1'-0"



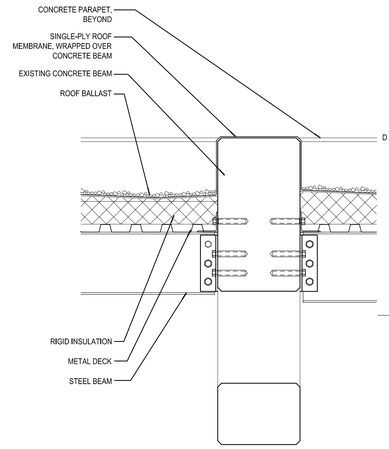
E6 ROOF DETAIL
SCALE: 1" = 1'-0"

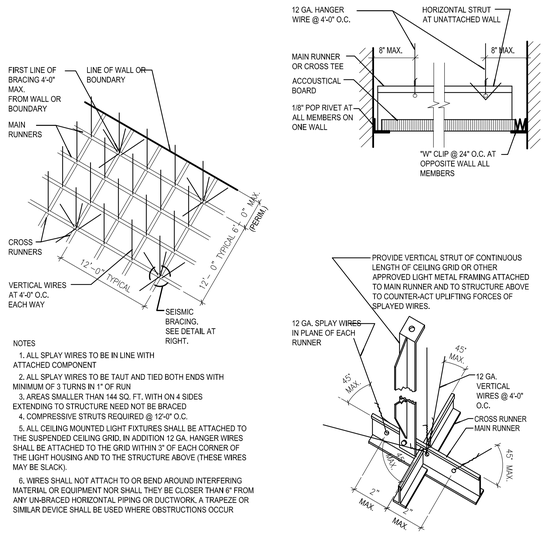


D4 COUNTERFLASHING @ CONCRETE
SCALE: 3" = 1'-0"



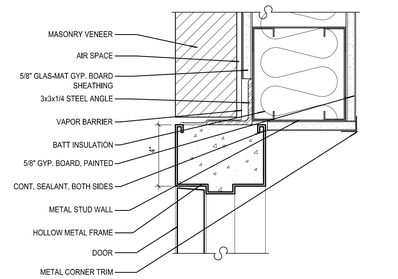
D5 TYPICAL THRESHOLD
SCALE: 3" = 1'-0"



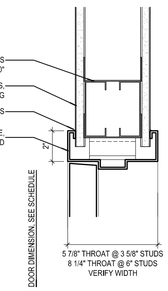


NOTES
1. ALL SPLAY WIRES TO BE IN LINE WITH ATTACHED COMPONENT
2. ALL SPLAY WIRES TO BE TAUT AND TIED BOTH ENDS WITH MINIMUM OF 3 TURNS IN 1" OF RUN
3. AREAS SMALLER THAN 144 SQ. FT. WITH ON 4 SIDES EXTENDING TO STRUCTURE NEED NOT BE BRACED
4. COMPRESSIVE STRUTS REQUIRED @ 12'-0" O.C.
5. ALL CEILING MOUNTED LIGHT FIXTURES SHALL BE ATTACHED TO THE SUSPENDED CEILING GRID. IN ADDITION 12 GA. HANGER WIRES SHALL BE ATTACHED TO THE GRID WITHIN 3" OF EACH CORNER OF THE LIGHT HOUSING AND TO THE STRUCTURE ABOVE (THESE WIRES MAY BE SLACK).
6. WIRES SHALL NOT ATTACH TO OR BEND AROUND INTERFERING MATERIAL OR EQUIPMENT NOR SHALL THEY BE CLOSER THAN 6" FROM ANY UN-BRACED HORIZONTAL PIPING OR DUCTWORK, A TRAPEZE OR SIMILAR DEVICE SHALL BE USED WHERE OBSTRUCTIONS OCCUR

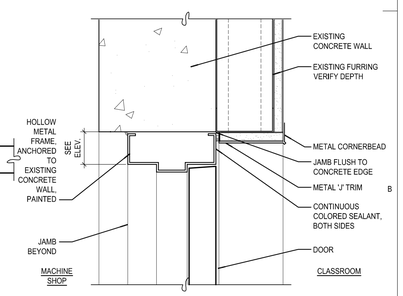
C2 TYP. CEILING SUSPENSION & SEISMIC BRACING
SCALE: N.T.S.



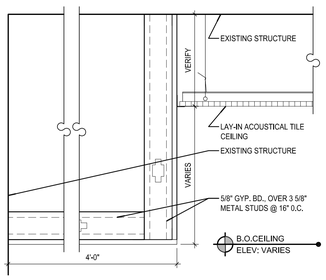
C4 H.M. HEAD @ BRICK VENEER
SCALE: 3" = 1'-0"



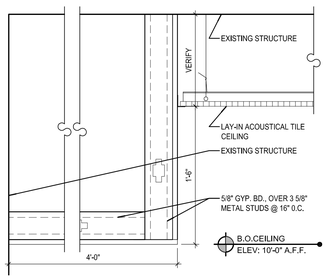
C5 H.M. HEAD @ STUD WALL
SCALE: 3" = 1'-0"



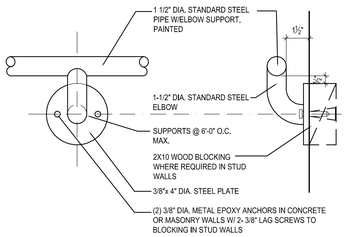
C6 ROOF DETAIL
SCALE: 1" = 1'-0"



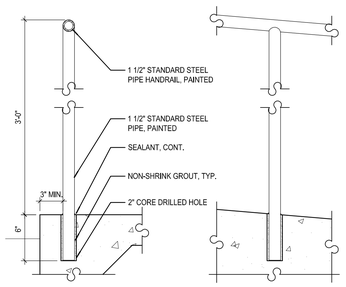
B1 CEILING DETAIL
SCALE: 1 1/2" = 1'-0"



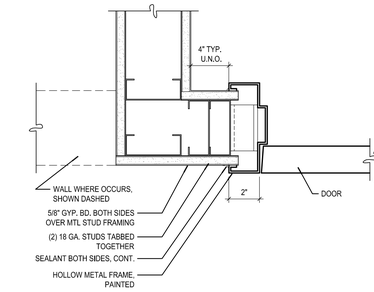
B2 CEILING DETAIL
SCALE: 1 1/2" = 1'-0"



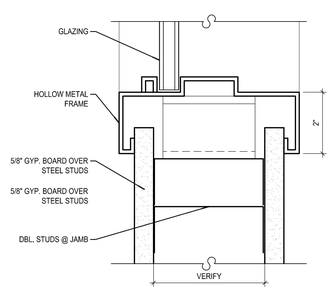
B3 HANDRAIL CONNECTION DETAIL
SCALE: 3" = 1'-0"



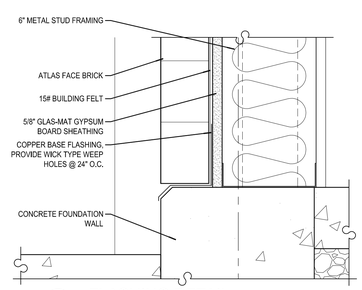
B4 GUARDRAIL DETAIL
SCALE: 1 1/2" = 1'-0"



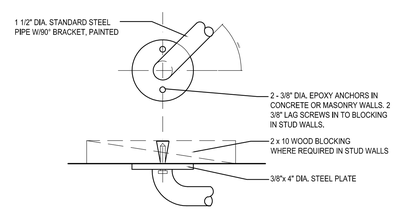
B5 H.M. DOOR JAMB
SCALE: 3" = 1'-0"



A2 H.M. SILL-JAMB DETAIL
SCALE: 6" = 1'-0"

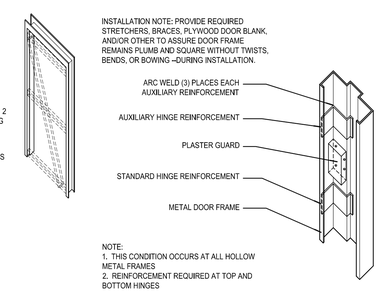


A3 FLASHING DETAIL
SCALE: 3" = 1'-0"



NOTES:
1. ALL HANDRAIL JOINTS TO BE WELDED & GROUND SMOOTH
2. ALL HANDRAILS TO BE MOUNTED 2'-10" ABOVE LANDING AND/OR LEADING EDGE OF STAIR TREAD

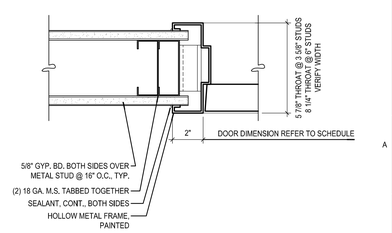
A4 HANDRAIL TERMINATION DETAIL
SCALE: 3" = 1'-0"



INSTALLATION NOTE: PROVIDE REQUIRED STRETCHERS, BRACES, PLYWOOD DOOR BLANK, AND/OR OTHER TO ASSURE DOOR FRAME REMAINS PLUMB AND SQUARE WITHOUT TWISTS, BENDS, OR BOWING –DURING INSTALLATION.

NOTE:
1. THIS CONDITION OCCURS AT ALL HOLLOW METAL FRAMES
2. REINFORCEMENT REQUIRED AT TOP AND BOTTOM HINGES

A5 H.M. FRAME INSTALLATION
SCALE: N.T.S.



A6 H.M. JAMB @ STUD WALL
SCALE: 3" = 1'-0"

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ARCHITECTURE
VALENTINER
CRANE
BRUNJES
ONYON

VCBO ARCHITECTURE
524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

UVSC SCIENCE BUILDING REMODEL
OREM, UTAH
DFCM # 06005790

Rev #	Date	Description

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CAD File	ae 501 details.dwg
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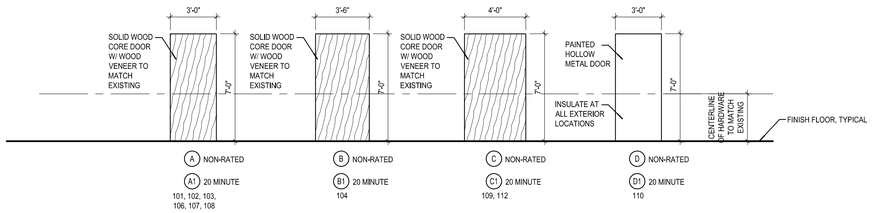
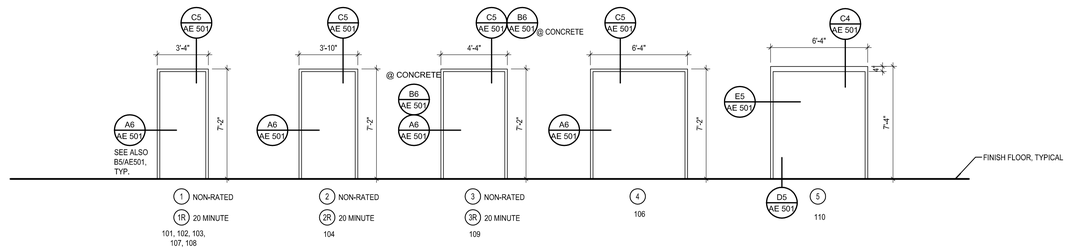
DETAILS

AE 501
Sheet of Sheets



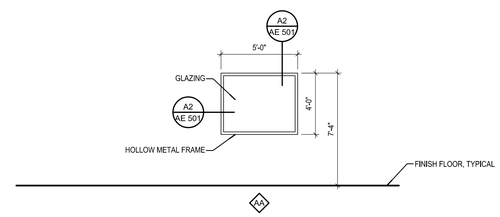
E4 DOOR TYPES

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



D4 HOLLOW METAL DOOR FRAMES

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



C5 WINDOW TYPES

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

NOTES:

1. ALL DOOR AND WINDOW FRAMES ARE TO BE 2" WIDE UNLESS OTHERWISE NOTED. ALL DOORS ARE 1-3/4" THICK.

2. PROVIDE THRESHOLD @ ALL EXTERIOR DOORS.

3. ALL 3'-8" OR LARGER DOORS REQUIRE FOUR HINGES TYP.

4. ALL HOLLOW METAL DOORS AND FRAMES TO BE PRIMED AND PAINTED PER THE SPECIFICATIONS - INSULATE @ EXTERIOR DOORS TYP.

5. EXTERIOR HOLLOW METAL FRAMES TO BE GALVANIZED.

6. ALL DOORS AND WINDOWS DIMENSIONS ARE TO BE VERIFIED WITH THE PLANS, ELEVATIONS, AND FIELD VERIFIED PRIOR TO FABRICATION TO ENSURE THE ACCURACY OF OPENING SIZE.

VCBO
ARCHITECTURE
VALENTINER
CRANE
BRUNJES
ONYON

VCBO ARCHITECTURE
524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

UVSC SCIENCE BUILDING REMODEL

OREM, UTAH

DFCM # 06005790

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CAD File ae 601 doors and windows.dwg
Drawn Checked
Date 06/05/2006
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Ins. #

DOORS AND WINDOWS

AE 601

Sheet of Sheets

I. Basis of Design

B1. Governing Building Code: 2003 International Building Code (IBC).

B2. Gravity Loading
A. Roof.....20 psf dead load
Snow Loads Plus Snowdrift
Pg= 43 psf
Pf= 33 psf
Ce= 1.0
Is= 1.0
Ct= 1.0

B3. Earthquake
A. Seismic Use Group.. II, IE = 1.0
B. SDS = .8, SD1 = .484,
C. Site Class = D
D. Lateral Force Resisting System = Dual System Special Concrete Moment Frame and Concrete Shear Wall
E. Base shear = .1W R= .8
F. Analysis procedure = Equivalent Lateral-Force Procedure
G. Seismic design category = D

B4. Wind velocity.....90 miles per hour (3 second gust speed) exposure C.
Net uplift force at roof equals 17 psf.
Importance Factor Iw.....1.15

B5. Foundation
A. Soil Bearing Pressure.....3000 psf as per original construction document November 1993.

II. Site Work

SW1. A minimum of 12" of topsoil shall be removed from the entire building site including all vegetation and debris.

SW2. The Contractor shall retain a Soils Engineer to verify 3000 psf soil pressure prior to placing any footing forms. Report to Architect any findings which may affect foundation and footing stability.

SW3. All bearing earth to be undisturbed earth or compacted fill. The area on which the fill is placed must be frost free. The fill shall then be placed in layers not to exceed 8 inches in depth and compacted.

SW4. All fill and back fill shall be compacted to a minimum of 95% of maximum relative density for footings and 90% for all other structural fill based on AASHTO T180.

SW5. Any fill to be placed under the building and footings shall be a well graded granular material within the limits of the following gradation, unless otherwise specified by Soils Engineer:

Sieve Size	Percent Passing
4"	100
1"	60–90
#4	30–60
#40	10–30
#200	5–12

SW6. All water shall be removed from foundation excavation prior to placing of concrete. Do not pour concrete under water.

SW7. Any unusual soil conditions (water, clay, soft layers, etc.) encountered during excavation for footings shall be immediately brought to the attention of the architect and soils engineer.

SW8. All foundation excavations shall be protected from all detrimental changes in environmental conditions such as rain and freezing.

SW9. Contractor shall coordinate the architectural, structural, and civil drawings for top of footing elevations and footing steps and excavations.

SW10. Contractor shall verify all existing and future grades. Footings shall be poured to maintain the minimum frost protection or confinement indicated on details. Footing steps shall be provided as per typical details where required by site conditions.

SW11. See geotechnical report for subgrade preparation typical.

III. Concrete and Reinforcing

C1. All work and materials shall comply with all areas of ACI318 and ACI 347 Publications and applicable ASTM Publications.

C2. Compressive strength of concrete at 28 days shall be as follows: (only 1–grade of concrete shall be poured on the job at one time). Use type II cement in contact with ground.

	Minimum Compressive Strength(psi) (At 28 Days)	% Slump (+/– 1/2")	Maximum Air Entrainment	Aggregate Size	Special Inspection Required
Footings	3000	4	NO	1 1/2"	NO
Foundations	4000	4	NO	3/4"	NO
Int.Slab on Grade	4000	3	NO	1 1/2"	NO
Ext.Slab on Grade	4000	3 5 1/2% to 7 1/2%		1 1/2"	NO
Other	4000	4	NO	3/4"	YES

C3. Hardrock aggregates shall conform to ASTM C–33. Their Maximum size shall be 3/4" except 1–1/2" shall be used for footings and slabs on grade.

C4. Admixtures
A. Concrete mix shall include flyash as per ASTM C618 class "F" except that maximum loss on ignition shall be limited to 1% to yield specified quantities. Flyash replacement of cement shall be limited to 20% by weight.

C5. The contractor shall submit mix design and 3, 7, and 28 days strength tests for review by the structural engineer before any concrete is poured at the job site.

C6. All concrete that is placed by pumping shall be medium range–plasticized with water reducing admixture which shall comply with specifications for chemical admixtures for concrete, ASTM designation C–494 non–chloride and shall be used in strict accordance with manufacturer's recommendations. Product specification publication shall be submitted to structural engineer for review.

C7. Unless otherwise noted all reinforcement bars shall be securely anchored to the forms and spaced from them as follows: Minimum Coverage
A. Cast against & exposed to earth.....3 inches
B. Concrete exposed to earth or weather:
#6 though #18 bars.....2 inches
#5 bar and smaller.....1 1/2 inches
C. Not exposed to weather or in contact with ground: slabs, walls, joists:.....3/4 inches

C8. Reinforcing Steel
A. All reinforcing steel shall be bent, detailed and chaired as per the "ACI Manual of Standard Practice for Detailing Reinforcing Concrete Structures."
B. All reinforcing steel to be welded shall comply with ASTM A706.
C. All reinforcing steel shall be of new stock deformed bars conforming to ASTM A–615 grade 60 unless otherwise noted. Placement of bars in accordance with ACI 315 and ACI 318. Use bar supports per ACI 315 chapter 7 for all rebar and welded wire fabric. As per ACI 318, Section 7.5.1: "All reinforcement shall be accurately placed and adequately supported before concrete is placed and shall be secured against displacement within tolerances permitted in 7.5.2." Wet stabbing reinforcing is not allowed.
D. Unless otherwise indicated, all anchors welded to steel plates or angles that are embedded in masonry or concrete shall be deformed bar anchors conforming to A36 Steel or ASTM A706.
E. Minimum lap lengths shall be, unless noted otherwise on drawings: #3=18" #4=19" #5=24" #6=29" #7=42" #8=48" #9=54" #10=58" #11=65".
Epoxy coated bar laps, see note M.
Leightweight concrete bar laps, multiply above values by 1.3.
See shear wall schedule for seismic lap lengths.
All vertical reinforcing bars (unless noted otherwise) shall be doweled to footing with 90 degree standard hook.
F. Reinforcing for concrete walls as follows:(unless otherwise noted on drawings)

Thickness	Horizontal Reinf	Vertical Reinf
6"	#4 at 16" o.c.	#4 at 18" o.c.
8"	#4 at 12" o.c.	#4 at 18" o.c.
10"	#4 at 15" o.c. each face	#4 at 18" o.c. each face
12"	#4 at 10" o.c. each face	#4 at 16" o.c. each face

G. All dowels shall have at least 38 bar diameter embedment.
H. Break out dowels may be used where required by contractor, however dowels shall be Grade 40 and spacing of dowels shall be decreased by 1/3.
I. Provide corner bars at all intersecting corners. Use same size bar and spacing as horizontal wall reinforcing.
J. Add 2–#5 bars around all openings (unless otherwise noted) and extend 24" beyond corner of openings. Add also 2–#5 x 4'–0 diagonally at corners. For reinforcing over opening see opening details on drawings.
K. When called for on the drawings or when directed by engineer bars that are to be epoxy doweled are to be put in holes larger than the bar diameter (1/4" larger for rebar and 1/8" larger for threaded bars). The holes shall be ten bar diameters deep for 4000 psi concrete or above and 15 bar diameters for concrete below 4000 psi and masonry. Fill holes with "Sika–Dur 31" Hi–Mod epoxy gel (or equal as approved by engineer).
All epoxy dowels and epoxy anchors are to be either threaded or deformed bars as per drawings. Apply epoxy as per manufacturer's recommendations. Mixing shall be done using a power mixer. For cold weather application gel shall be mixed at 70 degrees and kept at 40 degrees for 72 hours after application. Impact type drilling tools shall not be used for drilling holes or tightening anchors and shear bolt nuts into or through brick.
L. Top rebar in slabs and beams including top 6" of ties and column bars exposed to weather are to be epoxy coated after fabrication as per ASTM A 775–81 "Standard Specifications for Epoxy–coated Rebar." Splice length of epoxy–coated top bars shall be 1.7 times the length in Note E. Splice length for all other epoxy coated bars shall 1.5 times Note E.
M. Beam Rebars shall be spliced as follows, unless noted otherwise:
a. Top bars at midspan.
b. Bottom bars at support.

C9. Concrete tests shall be made by testing laboratory approved by the architect, with copies of all reports being mailed to the architect and the contractor. In general, one test shall be made for each 50 cubic yards of concrete, or each days' pour if less than 50 yards, or as directed by Architect. Each test shall consist of 5 cylinders of which one shall be tested at 7 days, 2 tested at 28 days, and two retained in reserve for later tests, if required. Specimens shall be made and tested in accordance with ASTM C–172, C–31 and C–39 standards. Slump and Air entrainment test shall also be made with each set of cylinders taken. Contractor shall provide the cylinders. The testing laboratory shall transport all cylinders. The owner shall pay for all tests.

C10. Before concrete is poured, check with all trades to insure proper placement of all openings, sleeves, curbs, conduits, bolts, inserts, etc. relating to work.

C11. Drypack concrete shall be one part Portland cement and one part sand with sufficient water to allow a small amount of paste to come to the surface. Use for grouting joists and beam pockets unless otherwise noted.

C12. Under steel column base plates, concrete grout shall be non–shrink with sufficient water to allow pouring. Ultimate compressive strength (F'C) at 28 days shall = 4,000 psi. Grout shall be non–metallic, meeting CRD–C621 and in accordance with the manufacturer's published specification for mixing and placing.

C13. Formwork not supporting weight of concrete, such as sides of beams, walls, columns, and similar parts of the work, may be removed after cumulatively curing at not less than 50 degrees for 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form removal operations, and provided curing and protection operations are maintained. Formwork supporting weight of concrete, such as beam soffits, joints, slabs and other structural elements, may not be removed in less than 14 days or until concrete has attained 75% of its design minimum compressive strength at 28 days. Support formwork from facing materials with structural members spaced sufficiently close to prevent deflection. Fit forms placed in successive units for continuous surfaces to be accurately aligned free from irregularities and within allowable tolerances.
Provide 1/16" camber per every 2.5 feet in concrete formwork of exposed to view concrete unless otherwise indicated by Architect/Engineer.

C14. Provide a continuous 2" x 4" key in all wall footings. Unless noted otherwise on drawings.

C15. All exposed to view concrete shall be stoned smooth while green, or as directed by Architect. No grout plaster shall be permitted.
Exposed to view concrete shall have 3/4" deep "V" groove placed vertically at 8'–0" o.c. or as directed by Architect.

C16. Protect freshly placed concrete from premature drying and excessive cold or hot temperature as per ACI 318 and maintain without drying at a relatively constant temperature for a period of time necessary for hydration of cement and proper hardening.

C17. Cold weather curing and protection requirements for concrete shall conform to the requirements of IBC Section 1905 when depositing concrete at freezing temperature or below, the concrete mix shall have a temperature of at least 50 degrees but not more than 80 degrees. The concrete shall be maintained at a temperature of not less than 50 degrees and in a moist condition for not less than 7 days after placing or as directed by the structural engineer. The use of chemicals or additives to prevent freezing will not be permitted. Contractor shall prevent frost from penetrating under footings or interior slabs on grade or postpone concrete pour. Refer also to specifications and to any directive by structural engineer for additional cold weather requirements.

C18. Architect/Engineer shall be notified 48 hours prior to pouring any concrete in order to observe reinforcing placement.

C19. All concrete shall be properly vibrated in place using internal vibrating rods.

C20. Unless otherwise noted all concrete slabs apply a liquid type membrane forming curing compound complying with ASTM C 309, type 1, class A Moisture loss shall be not more than 0.055 gr./sq. cm. applied at 200 sq.ft./gal. When temperature is 75 degrees or more during placement do not use membrane but moist cure slab for 7 days continuous minimum or see ACI Committee 305 Report "Hot Weather Concreting". Submit method of curing for approval.

V. Structural Steel

S1. All structural steel work shall comply with the latest edition of the AISC "Standard Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings", and "Code of Standard Practice". ASTM A–992 FY=50 ksi minimum specified for structural shapes, A36 steel for miscellaneous steel, and ASTM A–500 grade B for structural tubes, typical U.N.O. Cambering shall meet the standard mill practice shown on AISC "Manual of Steel Construction".

S2. Shop paint and remove all rust, oils, mill scale. Apply one coat zinc chromate 2 dry mills thick. Provide touch up field coat at all abraded and welded areas, two dry mills thick. All steel exposed to moisture conditions shall be galvanized. (Follow SSPC – Paint 20; ASTM A 780)

S3. Unless noted otherwise, all structural steel to steel bolted connections shall use 3/4" diameter high strength bolts conforming to ASTM A–325 (N) and shall have carbonized washers under the turning unit. All other bolts shall conform to ASTM A–307. A–325 bolts are to tightened by either turn of the nut method or load indicator washers. All A–325 bolt tightening shall be supervised by an independent testing agency who shall certify in writing that all bolts are properly tightened.

S4. Unless noted otherwise on plans, all steel beams shall have L/480 positive camber for 25 feet or greater spans.

S5. Welding
A. All welding to be made by certified welders using E–70 series electrodes. (For all welding of ASTM A–572 steel, E70X8 electrodes shall be used and welding shall be as per AWS D1.1 "Structural Welding Code".)
B. All welders to be currently certified for all type of welds on this project under latest AWS D1.1, Structural Welding Code. Welders to have passed the Qualification Requirements within preceding 6 month period.
C. Welds made against concrete are to be done under the supervision of an approved testing agency and that fillet welds should be made in 1/8" passes 2" long at 4" o.c
D. All steel to steel connections not shown bolted which is continuous, shall be welded to develop full strength capacity of connecting members.
E. Minimum size of fillet weld (unless noted otherwise on drawings):

Material thickness of thicker part joined	Minimum size of of fillet weld
to 1/4" inclusive	1/8" all around
over 1/4" to 1/2"	3/16" all around
over 1/2" to 3/4"	1/4" all around
over 3/4" to 1 1/2"	5/16" all around

F. Unless otherwise noted, all structural steel to steel connections shall be made in such a manner to develop full shear capacity of connecting members as per AISC specifications.
G. Field paint all abraded and welded surfaces for joists and metal deck. Use SSPC – Paint 20 (Galvanic).
H. Unless otherwise indicated, all anchors welded to steel plates or angles that are embedded in masonry or concrete shall be deformed bar anchors conforming to A36 Steel or ASTM A706.
I. All deck bearing angles or plates shall have full penetration welds at splices and corners typical unless noted otherwise.
J. All full penetration welds shall be tested by x–ray or ultrasonic procedures by an independent testing agency approved by the architect. Where testing procedures are not physically possible, visual inspection before and during welding shall be done by an independent testing agency.
K. 10% of all shop and field welds shall be done under the direct supervision of an independent testing agency approved by the architect and tested by magnetic particle procedures.
L. Copies of all tests results are to be sent to structural engineer. Welds found to be defective shall be corrected at no extra cost to the owner.
M. All weld testing shall be paid for by the owner.

S6. Steel Deck
A. All metal deck shall meet requirements of Steel Deck Institute (SDI) for wide rib deck. See drawings for type of deck. Manufacture shall be a member of SDI.
B. Deck manufacturer shall have ICBO certification showing lateral shear capacities of deck equalling 1300 plf and with F (Flexibility Factor) less than 10.
C. Provide 18 gage sheet metal reinforcing at all openings through metal deck. For openings 15" and larger frame opening with angle 3 x 3 x 1/4" unless otherwise noted. End laps to occur at supports and shall have minimum lap of 2". The deck shall be attached to all supports and the side lap of adjacent units.
D. All deck splices shall occur over supporting members and shall have a minimum of 4" of flat bearing surface contact.
E. Deck Welding (unless otherwise noted):
a. Supports parallel to deck 3/4" diameter puddle welds at 12" o.c.
b. Supports perpendicular to deck 3/4" diameter at each valley.
c. Top seam welds 1 1/2" at 12" o.c. Deck shall be crimped prior to all side or top seam welding. For composite floor deck, side lap use 1/4" diameter button punch at 24" o.c..
d. Welder shall be certified as a light gage welder in accordance with AWS.
e. Use E60 electrodes.
a,b, and c are minimum deck welding, deck supplier is to indicate deck welds on shop drawings to develop stated shear capacities.
F. Unless noted otherwise on drawings all deck shall bear on and be welded to continuous angle 3 x 3 x 1/4 x cont. at all deck boundaries fastened to concrete or masonry wall with weld plates as per typical details or 3/4" diameter x 8" x 3" J–bolts at 16" o.c. Provide angle 3 1/2 x 2 1/2 x 3/16 under all changes in deck direction.
G. All continuous deck bearing angles shall have full penetration welds at splices and corners.
H. Architect/Engineer shall be notified 48 hours prior to application of roofing material in order to observe deck attachment.
I. Roof deck and joists and girders shall be designed for 17 psf uplift force minimum, U.N.O.

S7. Steel Studs
A. Structural steel studs shall be as specified in this note and shown on drawings with minimum effective properties.

Stud Size	Gage	Gross Area (In.2)	EFFECTIVE IXX (in.4)
6"x 1 5/8	18	.43	2.22
6"x 1 5/8	16	.54	2.76
4"x 1 5/8	16	.42	1.06
3 5/8 x 1 5/8	16	.41	.84

B. All studs shall be spaced at 16" o.c. unless noted otherwise and to be standard painted unless otherwise noted.
Fy for 16 ga. and heavier material..50 Ksi
Fy for 18 ga. and lighter material..33 Ksi
C. Unless otherwise noted all bridging to be 1 1/2" minimum x 18 ga. x continuous cold rolled channels positioned through stud punch–outs and weld attached on both sides to stud punch–out. Bridging shall be spaced at 4'–6" o.c. to match punch–outs. Where punch–outs do not line up use weld attached bridge clip angles.
D. All track to be stud size by 1 1/2" flange by 16 gage standard painted unless noted otherwise. Attach track to concrete slab at 16" o.c. using .177" diameter x 1 1/2" powder driven fasteners. Tracks and bridging to have Fy = 33,000 psi.
E. All splices of structural studs to be full strength. Use 2'–0" minimum section lapped 1'–0" above and below splice fully welded. Alternate all splices 24" minimum. Spot paint all welds after cleaning.
F. Load bearing stud walls must be fabricated with the stud ends seated against the track web. Full web and flange bearing must be provided.
G. All structural studs shall be welded to top and bottom tracks with 1/8" x 1 1/2" fillet at each stud flange and 1/8" x 3" at stud web.

S8. Steel columns and beams that are located inside concrete or masonry walls or that are in contact with the walls shall have deformed bar anchors (KSM or Nelson) welded to the steel members at the shop. The deformed bar anchors (abbreviated DBA) shall match the size and location of the horizontal or vertical wall rebar that is interrupted by the steel members and shall be of such length to lap 38 bar diameters with the concrete wall reinforcing and 48 bar diameter with the masonry wall reinforcing.

VII. General Conditions

G1. If discrepancies exist between specifications, general notes and drawings use the more expensive option.

G2. All dimensions on structural drawings shall be checked and verified against architectural drawings. All dimensions relating to existing site, buildings, installations or construction shall be field verified, all discrepancies shall be submitted to the architect. Do not proceed with fabrication and erection of materials affected until discrepancies are resolved.

G3. All omissions or discrepancies in the working drawings and or specifications shall be brought to the attention of the Architect and/or Structural Engineer before proceeding with any work involved.

G4. Shoring
A. Until all permanent members, including walls, slabs, floors and roof are in place and all connections are completed, stability of structure and all parts thereof shall be contractor's responsibility. During construction contractor shall keep construction loads within the design load limits shown on drawings. After construction is completed building owner shall keep loads on roof and floor within design limits shown on drawings.
B. Do not backfill walls until floor at top of wall is in place or adequate temporary bracing is provided.
C. Contractor shall provide shoring design calculations and drawings stamped by a Utah Registered Professional Engineer.

G5. All Construction shall be in accordance with the IBC 2003 and supplements unless higher standard is called for.

G6. Unless a more stringent requirement is specified, design all members with minimum Live Load deflection of L/360.

G7. Contractor shall be responsible for safety and protection in and around job site and or adjacent properties.

G8. Observation visits to the site by Bsumek Mu and Associates Field Representative shall neither be construed as inspection nor approval of construction.

G9. Contractor shall provide 5 sets of shop drawings for review by structural engineer for: all reinforcing bars, structural steel, glu–lam beams, wood joist and all prefab. structural items including structural calculations.

G10. All openings through floors and walls shall be verified with architectural, mechanical and electrical drawings. Do not cut openings in concrete or masonry without approval of structural engineer and architect.

G11. Contractor/Window/Door – Supplier shall provide 1/2" minimum vertical movement capability in frame system.
Window/Door– Supplier shall design for wind load specified under "Basis for Design" and shall submit professional engineer stamped design calculations showing compliance with Wind Load Capacity and vertical movement capacity.

G12. Seismic bracing of electrical, mechanical equipment, and ceiling system shall be designed by their respective supplier and stamped by a Utah Professional Engineer and submitted for design review.

G13. The appearance of all exposed structural elements shall be approved by architect or owner.
All blemishes, dents, or shipping damage in structural elements that are exposed to view shall be repaired before erection and shall be approved by the architect. All sweeps in beams joists, and girders greater than 1/2" shall be corrected. Repairs shall be made at no cost to the owner. For tolerances in wide flange shapes, follow AISC specifications.

VIII. Special Inspections

Special inspections shall be done by Special Inspectors that are qualified and approved for each area of work stated below or as required by the Building Official. All special inspections shall be paid for by the OWNER. The special inspector shall observe the work assigned for conformance with the approved design drawings and specifications. The special inspector shall submit reports to the owner, the Building Official, the Contractor, Architect, and Bsumek Mu and Associates. The special inspectors shall conform to and fulfill all other responsibilities as outlined in section 1704 of the IBC 2003. The special inspector shall submit written reports of observations stating time, date, location of work and observation of work being done.

A. See note C2 for concrete above 2500 psi not requireing special inspections. Some higher strength concrete is specified for durability only.
B. Special inspections are required for the following work:
1. Concrete and reinforcing placement. Except for the following conditions:
a. For foundations satisfying requirement of IBC 2003,Table 1805.4.2.
b. Non–Structural slab on grade.
c. Site work concrete where no special hazards exist.
C. Special inspections are required for all epoxy doweling reinforcing bars and threaded rod anchors.

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VCBO ARCHITECTURE
524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

UVSC SCIENCE BUILDING REMODEL

Rev #	Date	Description

Job # 26005
CAD File 26005-S001
Drawn Dale Checked Rein
Date April 24, 2006
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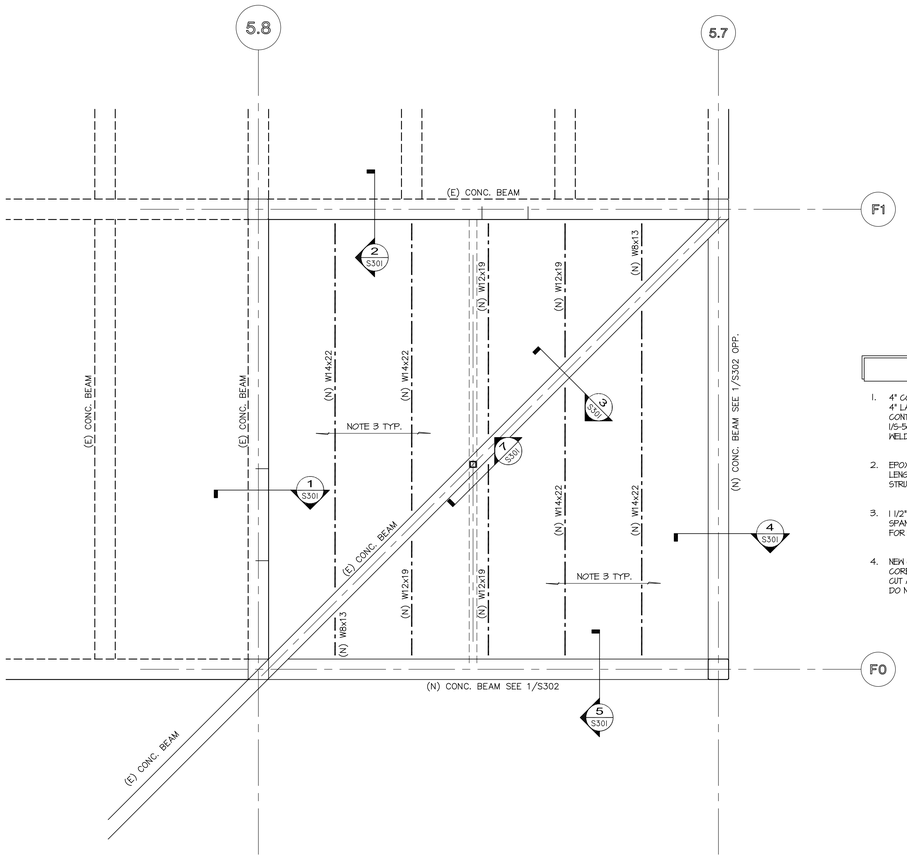
Structural General Notes

S001

Sheet of Sheets

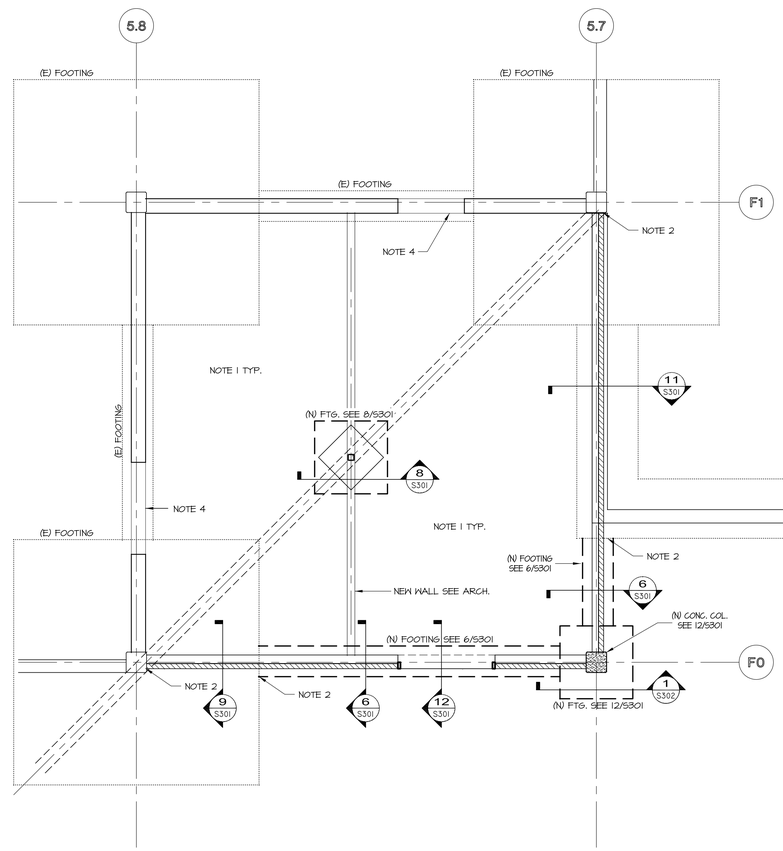


2 Roof Framing Plan

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

PLAN NOTES

1. 4" CONCRETE SLAB-ON-GRADE PLACED OVER 4" LAYER OF GRAVEL BASE. FOR CRACK CONTROL AND CONSTRUCTION JOINTS SEE 1/S-501. REINFORCE WITH 6x6-W1.4xW1.4 WIRE WELDED MESH.
2. EPOXY DOWEL ALL HORIZONTAL WALL AND LENGTHWISE FOOTING REBARS INTO EXISTING STRUCTURE TYP.
3. 1 1/2" x 20 GAGE METAL ROOF DECK (3) CONT. SPANS MINIMUM. SEE GENERAL NOTES ON S-001 FOR DECK SPECIFICATIONS AND WELDING.
4. NEW OPENING THRU EXISTING CONCRETE WALL. CORE DRILL CORNERS FOR NEW OPENING. SAW CUT AND REMOVE CONCRETE FOR NEW OPENING. DO NOT OVER CUT CORNERS OF NEW OPENING.



1 Footing & Foundation Plan

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

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VCBO ARCHITECTURE
524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

UVSC SCIENCE BUILDING REMODEL

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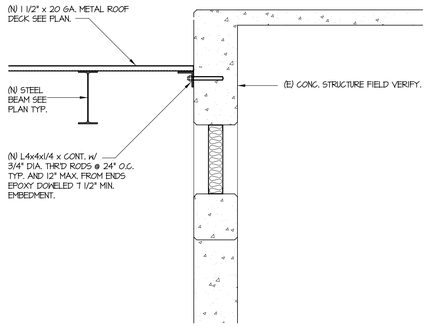
Footing & Foundation and Roof Framing Plans

S101

Sheet of Sheets



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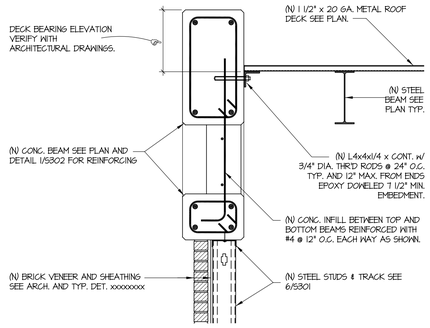

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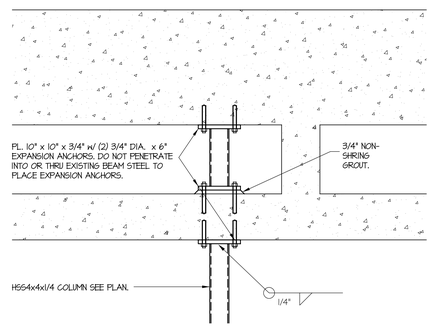

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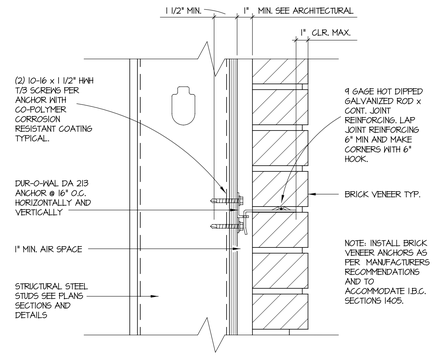

TYPICAL BRICK VENEER ATTACHMENT TO STEEL STUDS

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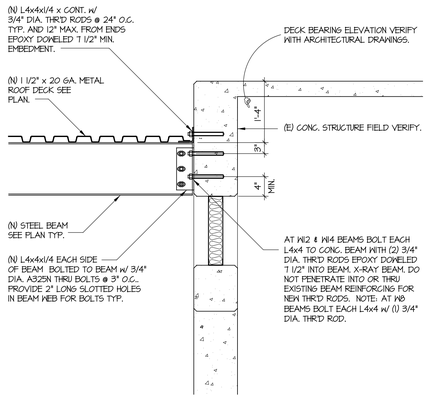

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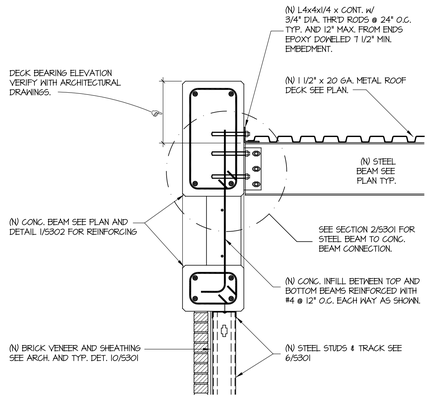

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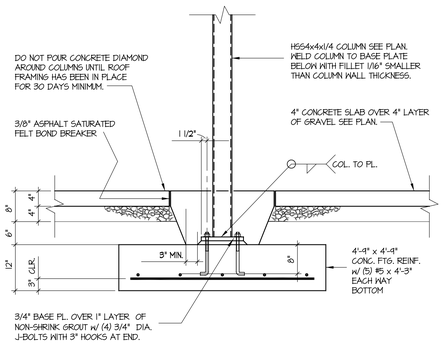

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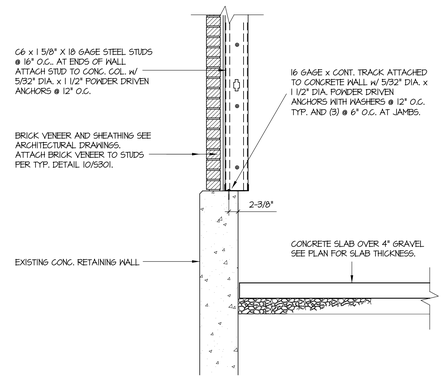

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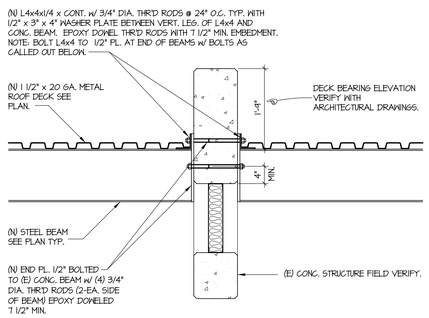

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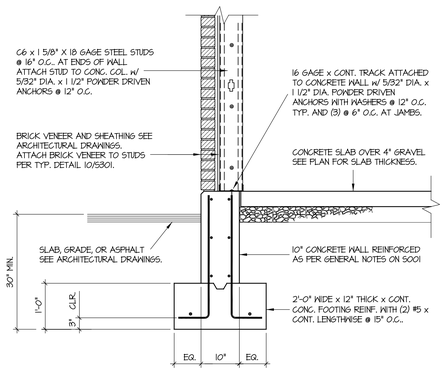

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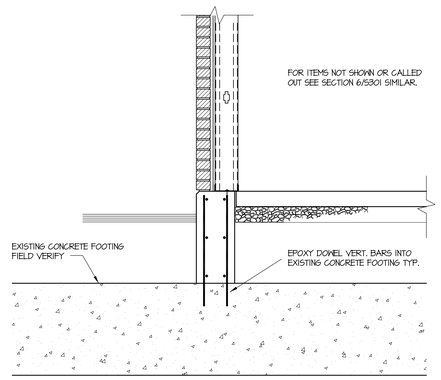

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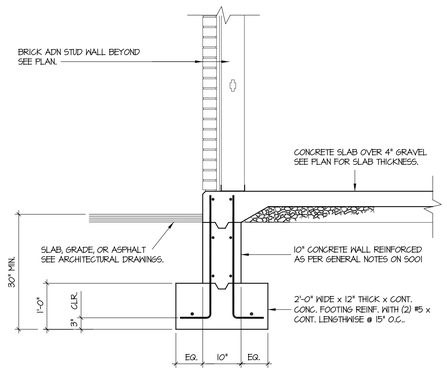

12
SCALE: 3/4" = 1'-0" S301

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ONYON

VCBO ARCHITECTURE
524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

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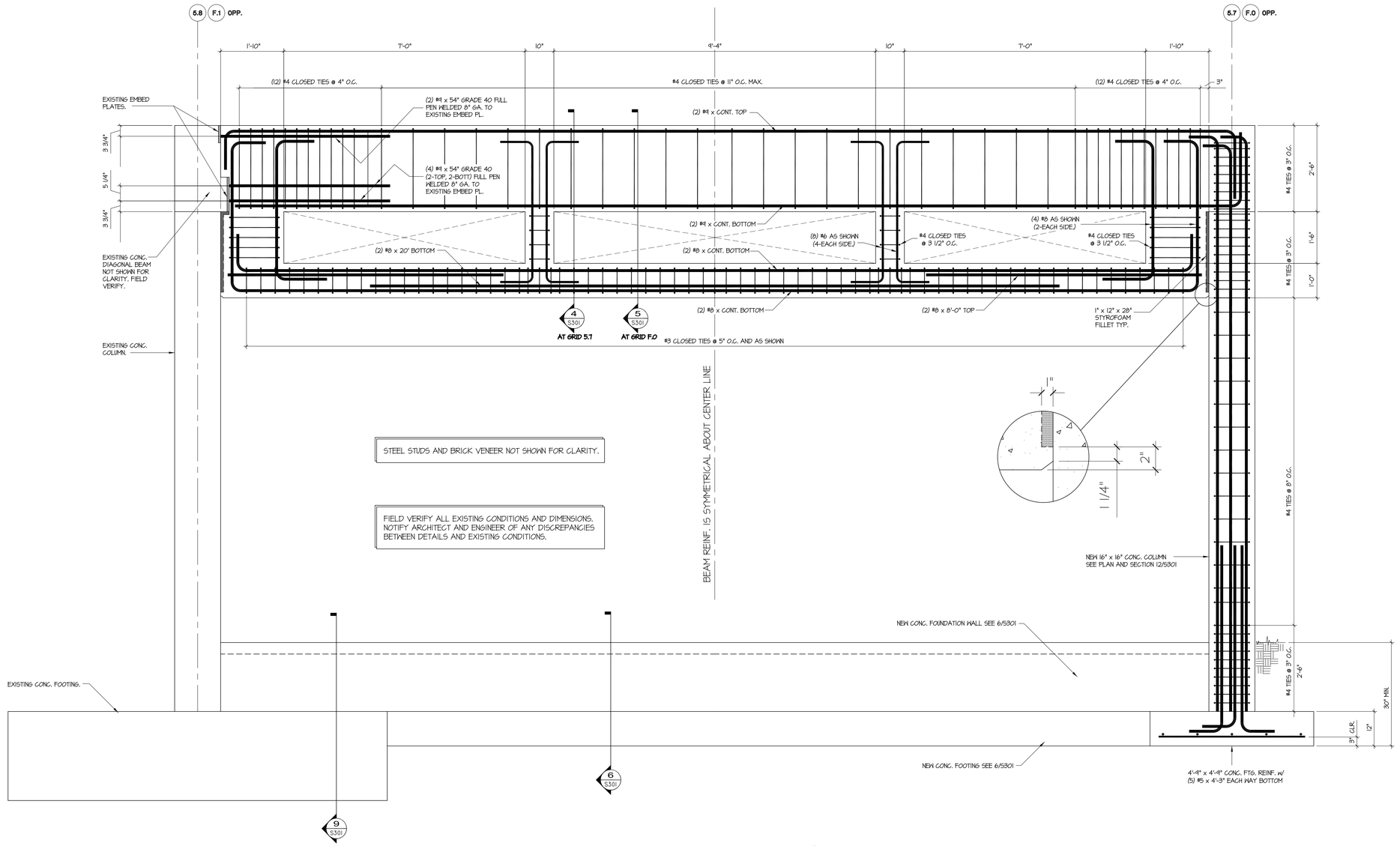
Sections

S301

Sheet of Sheets



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524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

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Sections

S302

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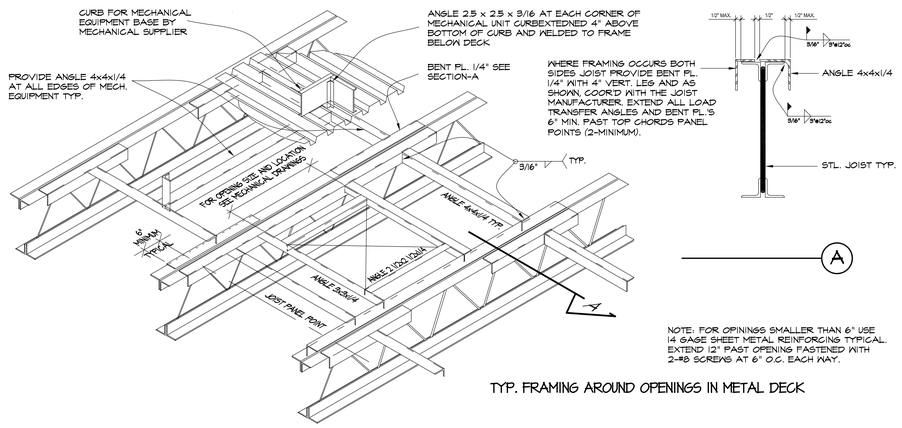

NOTE: FOR OPENINGS SMALLER THAN 6" USE 14 GAGE SHEET METAL REINFORCING TYPICAL. EXTEND 12" PAST OPENING FASTENED WITH 2-#8 SCREWS AT 6" O.C. EACH WAY.

TYP. FRAMING AROUND OPENINGS IN METAL DECK

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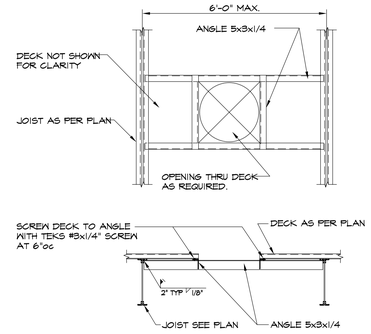
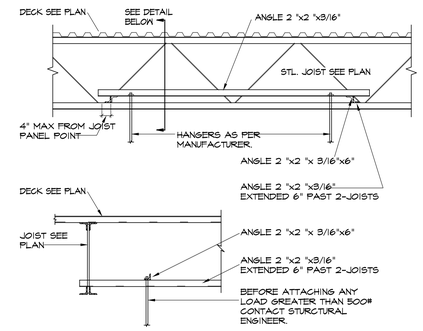


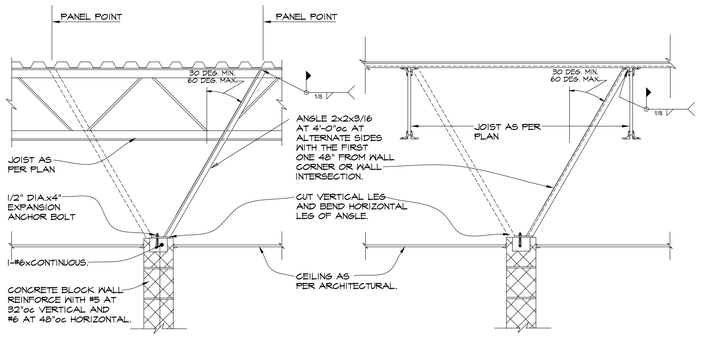
TYPICAL CONDITION REQUIRED AT ROOF AREA WITH LOADS OF 150# OR LESS AND AT ALL ROOF DRAINS.

6 / S501 — SCALE: NOT TO SCALE



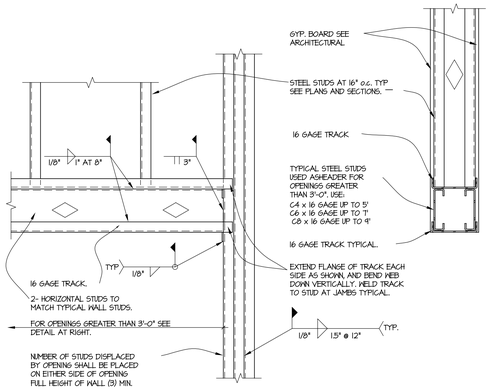
THIS ATTACHMENT IS TO BE USED FOR HANGING UNITS WEIGHING 100# UP TO 500# MAXIMUM.

9 / S501 — SCALE: NOT TO SCALE



TYPICAL AT ALL NON-BEARING MASONRY WALLS

2 / S501 — SCALE: NOT TO SCALE



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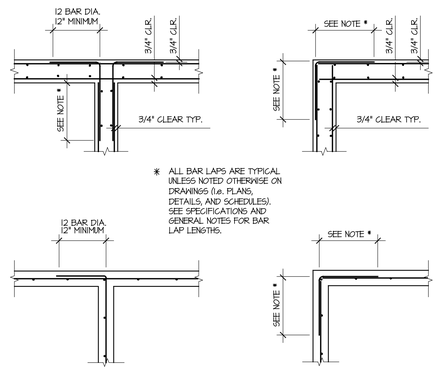

TYPICAL CONCRETE WALL INTERSECTION

TYPICAL CONCRETE WALL CORNER

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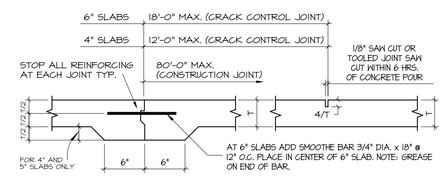
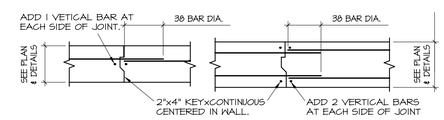
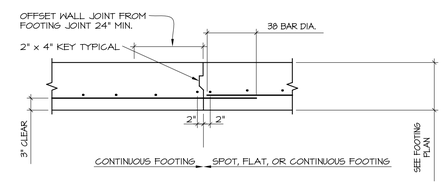


CONCRETE SLAB-ON-GRADE/THICKENED SLAB



TYPICAL CONCRETE WALL CONSTRUCTION JOINT



TYPICAL FOOTING CONSTRUCTION JOINT

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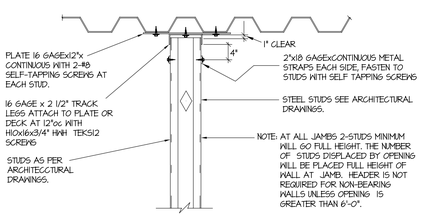
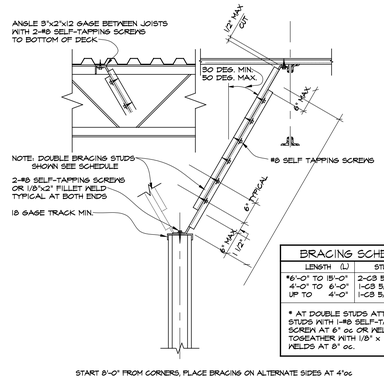


SUPPORT OF NON-BEARING STUD WALLS

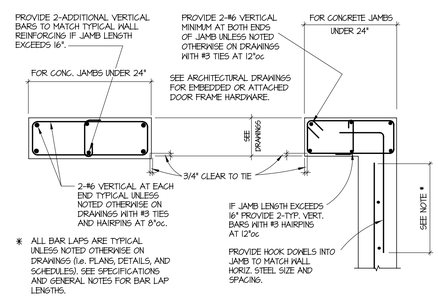
3 / S501 — SCALE: NOT TO SCALE



BRACING SCHEDULE	
LENGTH (L)	STUD SIZE
*6'-0" TO 18'-0" 4'-0" TO 6'-0" UP TO 4'-0"	2-C8 5/8"x1.86A 1-C8 5/8"x1.86A 1-C8 5/8"x2.06A
* AT DOUBLE STUDS ATTACH STUDS WITH 1-#8 SELF-TAPPING SCREW AT 6" oc OR WELD STUDS TOGEATHER WITH 1/8" x 1" FILLET WELDS AT 8" oc.	

TYPICAL BRACING OF A NON-BEARING STEEL STUD PARTITION WALL

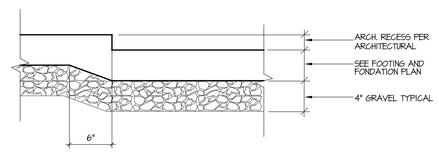
5 / S501 — SCALE: NOT TO SCALE



TYPICAL CONCRETE JAMB

TYP. CORNER JAMB DETAILS

8 / S501 — SCALE: NOT TO SCALE



TYPICAL SLAB RECESS DETAIL

11 / S501 — SCALE: NOT TO SCALE

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Fax: (801) 531-9850
WWW: www.vcbo.com

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Typical Details

S501

Sheet of Sheets

DRAWINGS INDEX

SHEET NUMBER	SHEET TITLE	REVISIONS: BID SET 6-14-2006			
MH001	INDEX	*			
MD101	MECHANICAL DEMOLITION PLAN	*			
MD102	MECHANICAL DEMOLITION PLAN	*			
MD103	MECHANICAL DEMOLITION PLAN	*			
MD104	MECHANICAL DEMOLITION PLAN	*			
MH101	MECHANICAL PLAN	*			
MH102	MECHANICAL PLAN	*			
MH103	MECHANICAL PLAN	*			
MH104	MECHANICAL PLAN	*			
MH121	MECHANICAL ROOF PLAN	*			
MH122	MECHANICAL ROOF PLAN	*			
MH501	MECHANICAL DETAILS	*			
PD101	PLUMBING DEMOLITION PLAN	*			
PD102	PLUMBING DEMOLITION PLAN	*			
PL101	PLUMBING PLAN	*			
PL102	PLUMBING PLAN	*			
PL103	PLUMBING PLAN	*			

ABBREVIATIONS

ø	ROUND OR DIAMETER	LWT	LEAVING WATER TEMPERATURE
AD	ACCESS DOOR	MAX	MAXIMUM
AF	AIRFOIL	MBH	THOUSAND BRITISH THERMAL UNITS/HOUR
AFF	ABOVE FINISHED FLOOR	MECH	MECHANICAL
ALT	ALTERNATE	MIN	MINIMUM
BI	BACKWARD INCLINED	NC	NOISE CRITERIA OR NORMALLY CLOSED
BOD	BOTTOM OF DUCT	NIC	NOT IN CONTRACT
BOP	BOTTOM OF PIPE	NO	NUMBER
BTU/H	BRITISH THERMAL UNITS PER HOUR	NOM	NOMINAL
CAP	CAPACITY	NTS	NOT TO SCALE
CFM	CUBIC FEET PER MINUTE	OA	OUTSIDE AIR
CV	CONSTANT VOLUME	OBD	OPPOSED BLADE DAMPER
DB	DRY BULB	OD	OVERFLOW DRAIN
DN	DOWN	OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
DIA	DIAMETER	OFOI	OWNER FURNISHED, OWNER INSTALLED
DSN	DOWN SPOUT NOZZLE	PD	PRESSURE DROP
DW	DISHWASHER	POC	POINT OF CONNECTION
(E)	EXISTING	PRV	PRESSURE REDUCING VALVE
EA	EXHAUST AIR	PSI	POUNDS PER SQUARE INCH
EAT	ENTERING AIR TEMPERATURE	PSIG	POUNDS PER SQUARE INCH GAUGE
EFF	EFFICIENCY	RA	RETURN AIR
ELEV	ELEVATION	RAD	RADIUS
ENCL	ENCLOSURE	RD	ROOF DRAIN
ESP	EXTERNAL STATIC PRESSURE	RPBP	REDUCED PRESSURE BACKFLOW PREVENTER
ET	EXPANSION TANK	SA	SUPPLY AIR
EWC	ELECTRIC WATER COOLER	SEN	SENSIBLE
EWT	ENTERING WATER TEMPERATURE	SIM	SIMILAR
FCO	FLOOR CLEANOUT	SL	SEA LEVEL
FD	FLOOR DRAIN	SP	STATIC PRESSURE
FO	FLAT OVAL	SQ FT	SQUARE FEET
FPM	FEET PER MINUTE	SS	SERVICE SINK OR STAINLESS STEEL
FS	FLOOR SINK	TOD	TOP OF DUCT
FT	FEET	TSP	TOTAL STATIC PRESSURE
FV	FACE VELOCITY	U	URINAL
GA	GAUGE	VAV	VARIABLE AIR VOLUME
GAL	GALLON	VD	VOLUME DAMPER
GD	GARAGE DRAIN	VFD	VARIABLE FREQUENCY DRIVE
GPM	GALLONS PER MINUTE	VOL	VOLUME
HP	HORSEPOWER	VTR	VENT THROUGH ROOF
HR	HOUR	W/	WITH
HT	HEIGHT	W/O	WITHOUT
IN	INCH	WB	WET BULB
INWC	INCHES OF WATER COLUMN	WC	WATER CLOSET
INWG	INCHES OF WATER GAUGE	MVD	MANUAL VOLUME DAMPER
L	LAVATORY OR LOUVER	WCO	WALL CLEANOUT
LAT	LEAVING AIR TEMPERATURE	WPD	WATER PRESSURE DROP
LBS	POUNDS	WT	WEIGHT

MECHANICAL LEGEND

NOTE: ALL ITEMS MAY NOT APPEAR ON DRAWINGS

GATE VALVE
OS & Y PATTERN GATE VALVE
BALL VALVE
BUTTERFLY VALVE
MOTORIZED VALVE OPERATOR
GAS COCK
PLUG VALVE
CHECK VALVE (SWING OR LIFT AS REQ'D)
SOLENOID VALVE
AUTOMATIC CONTROL VALVE (2-WAY)
AUTOMATIC CONTROL VALVE (3-WAY)
PRESSURE REDUCING VALVE
P & T RELIEF VALVE
AIR VENT (AUTOMATIC)
CURB COCK
THERMAL EXPANSION VALVE
STRAINER
CALIBRATED BALANCE VALVE
VENTURI FLOW METER
REDUCER
PET COCK OR GAUGE COCK
PRESSURE GAUGE W/GAUGE COCK
THERMOMETER
TEMPERATURE & PRESSURE TEST PLUG
IN-LINE PUMP
FLOW SWITCH
AQUASTAT
TEMPERATURE SENSING WELL
HOSE BIBB OR SILLCOCK
YARD HYDRANT
FLOOR DRAIN
FLOOR SINK
MANHOLE
WALL CLEANOUT — CH
FLOOR OR GRADE CLEANOUT
GRADE CLEANOUT W/ CONCRETE PAD
VENT THROUGH ROOF
POST TYPE FDC CONNECTION
WALL TYPE FDC CONNECTION
FIRE HOSE CABINET
FIRE DEPT. HORN & LIGHT
EXPANSION JOINT
FLEXIBLE PIPE CONNECTION
REDUCED PRESSURE BACKFLOW PREVENTER — RPBP
DIRECTION OF FLOW
ELBOW DOWN
ELBOW UP
PIPE CAP
TEE DOWN
UNION
ACID WASTE — AW
DOMESTIC COLD WATER
DOMESTIC HOT WATER
HOT WATER CIRC.
TEMPERED WATER — T
SANITARY (PLBG) VENT
SANITARY SEWER ABOVE GRADE
SANITARY SEWER BELOW GRADE
GREASE WASTE ABOVE GRADE — GW
DRAIN — D
ROOF DRAIN — RD

OVERFLOW DRAIN — OD
STORM DRAIN ABOVE GRADE — SD
STORM DRAIN BELOW GRADE — SD
FIRE SERVICE — F
NATURAL GAS — G
PROPANE — P
HEAT TRACING
CHILLED WATER SUPPLY — CHS
CHILLED WATER RETURN — CHR
CONDENSER WATER SUPPLY — CS
CONDENSER WATER RETURN — CR
HEATING WATER SUPPLY — HWS
HEATING WATER RETURN — HWR
INDUSTRIAL COLD WATER — ICW
INDUSTRIAL HOT WATER — IHW
STEAM — S
STEAM CONDENATE RETURN — SCR
REFRIGERANT LIQUID — RL
REFRIGERANT SUCTION — RS
HOT GAS — HG
HOT GAS BYPASS — HGBP
DUCT SIZE (IN), FIRST FIGURE IS SIDE SHOWN — 18/12
BURIED OR UNDERFLOOR DUCT
DUCT W/ ACOUSTICAL LINING
FLEXIBLE DUCT (HELICAL)
SPIN-IN FITTING W/ MVD
FLEXIBLE DUCT CONNECTION
SUPPLY SLOT DIFFUSER
SUPPLY DIFFUSER
RETURN GRILLE
RADIAL SUPPLY DIFFUSERS
RETURN AIR DUCT SECTION
RETURN AIR DUCT UP
RETURN AIR DUCT DOWN
SUPPLY AIR DUCT SECTION
SUPPLY AIR DUCT UP
SUPPLY AIR DUCT DOWN
EXHAUST AIR DUCT SECTION
EXHAUST AIR DUCT UP
EXHAUST AIR DUCT DOWN
ACCESS PANEL
MANUAL VOLUME DAMPER
GRAVITY BACKDRAFT DAMPER
MOTORIZED DAMPER
AIR FLOW STATION
FIRE DAMPER
SMOKE DAMPER
COMBINATION FIRE/SMOKE DAMPER
DUCT TRANSITION
ELBOW W/ TURNING VANES
TEE W/ 45° ENTRY
WYE W/ 45° ENTRY
THERMOSTAT OR TEMP SENSOR
HUMIDISTAT OR HUMIDITY SENSOR
POINT OF REMOVAL FROM EXISTING
POINT OF CONNECTION TO EXISTING
DETAIL TAG — DETAIL NO. / DRAWING NO.
KEYED NOTE — NOTE NO.
SECTION CUT LINE — SECTIONS NO. / DRAWING NO.

EXHAUST FAN SCHEDULE (EF)

PLAN CODE	VOLUME (CFM)	CLASS	TSP (IN)	MOTOR H.P.	MOTOR VOLTAGE	MOTOR PHASE	FAN SPEED CONTROL	ON/OFF CONTROL	MANUFACTURER/ MODEL NO.	REMARKS
EF-1	1000	–	5	1	208	3	NONE	WALL SWITCH	NEDERMAN N24	MOUNTING STAND FOR CEILING MOUNTING
EF-2	500	II	1.5	1/2	120	1	NONE	WALL SWITCH	COOK 120CA-5WSI	LORENIZED COATING, VERTICAL UPBLAST, DRAIN PLUG MOTOR WEATHER ENCLOSURE, VIBRATION ISOLATION
EF-3	2420	II	2.5	2	208	3	VSD	WALL SWITCH	COOK 135CA-5WSI	LORENIZED COATING, VERTICAL UPBLAST, DRAIN PLUG MOTOR WEATHER ENCLOSURE, VIBRATION ISOLATION
EF-4	2420	II	2.5	2	208	3	VSD	WALL SWITCH	COOK 135CA-5WSI	LORENIZED COATING, VERTICAL UPBLAST, DRAIN PLUG MOTOR WEATHER ENCLOSURE, VIBRATION ISOLATION
EF-5	4810	II	3.0	5	208	3	VSD	WALL SWITCH	COOK 195CA-5WSI	LORENIZED COATING, VERTICAL UPBLAST, DRAIN PLUG MOTOR WEATHER ENCLOSURE, VIBRATION ISOLATION
EF-7	2350	–	1.75	1.5	208	3	NONE	WALL SWITCH	COOK 165SQN-B	VIBRATION ISOLATION

AIR DEVICE SCHEDULE

PLAN CODE — GRILLE — CFM

PLAN CODE	TYPE & DUTY	FACE SIZE	NECK SIZE	CEILING TYPE (1)	MAX. CFM	MAX. T.P. (IN. W.C.)	N.C. LEVEL MAX	MIN. THROW (FT) (T50)	MANUFACTURER & MODEL NO.	REMARKS
1	RADIAL BLADE DIFFUSER	24" X 24"	8"ø	GRID	210	0.14	29	8	AIR DIFFUSION PRODUCTS, INC. DNR	–
2	RADIAL BLADE DIFFUSER	24" X 24"	10"ø	GRID	330	0.14	29	10	AIR DIFFUSION PRODUCTS, INC. DNR	–
3	RADIAL BLADE DIFFUSER	15"ø	10"ø	DUCT	330	0.14	29	10	AIR DIFFUSION PRODUCTS, INC. DNR	–
4	RADIAL BLADE DIFFUSER	24" x 24"	12"ø	GRID	450	0.14	29	10	AIR DIFFUSION PRODUCTS, INC. DNR	–
5	SIDEWALL SUPPLY	8" x 10"	6" x 8"	WALL	150	0.14	29	10	TITUS 300 RS	REFERENCE 2/ MH501
6	PERFORATED RETURN	24" X 24"	22" X 22"	GRID	1200	0.05	17	–	TITUS PXP	REFERENCE 7/MH501
7	SIDEWALL RETURN	26" x 14"	24" x 12"	WALL	6	–	–	–	TITUS 350 RL	REFERENCE 1/MH501
8	RADIAL BLADE DIFFUSER	12"ø	12"	DUCT	500	0.14	29	11	AIR DIFFUSION PRODUCTS, INC. DNR	–
9	PERFORATED EXHAUST	24" x 12"	6"ø	GRID	125	–	–	–	TITUS PXP	INSTALL WITH LINED BOOT REFERENCE PLANS
10	PERFORATED RETURN	24" x 12"	24" x 12"	GRID	–	–	–	–	TITUS PXP	INSTALL WITH LINED BOOT REFERENCE 7/MH501

(1) VERIFY FRAME TYPE OF ALL AIR DEVICES WITH ARCHITECTURAL REFLECTED CEILING PLAN BEFORE ORDERING.

PLUMBING FIXTURE SCHEDULE

PLAN CODE	DESCRIPTION	ROUGH-IN SIZE C.W.	H.W.	AIR	GAS	VACUUM	REMARKS
F-1	DECK MOUNTED HOT AND COLD FITTING WITH SWING VACUUM BREAKER GOOSENECK, REMOVABLE SERRATED HOSE NOZZLE, CROSS HANDLES. 8" CENTER	1/2"	1/2"	–	–	–	CHICAGO FAUCET 947-CP
F-2	DECK MOUNTED HOT AND COLD FITTING WITH RIGID VACUUM BREAKER GOOSENECK, REMOVABLE SERRATED HOSE NOZZLE, SINGLE HOLE	1/2"	1/2"	–	–	–	CHICAGO FAUCET 930-CP
GC-1	GAS COCK: NEEDLE VALVE, REMOVABLE SERRATED HOSE NOZZLE, GAS BUTTON.	–	–	–	3/8"	–	CHICAGO FAUCET 909-AGVCP
AC-1	AIR COCK: NEEDLE VALVE, REMOVABLE SERRATED HOSE NOZZLE, AIR BUTTON.	–	–	3/8"	–	–	CHICAGO FAUCET 909-AGVCP
WC-1	WATER COCK: REMOVABLE SERRATED HOSE NOZZLE, WATER BUTTON.	3/8"	–	–	–	–	CHICAGO FAUCET 937-CP
VC-1	VACUUM COCK: DECK MOUNTED SERRATED HOSE NOZZLE, VACUUM BUTTON, 2 VALVES @ 90°	–	–	–	–	3/8"	CHICAGO FAUCET 982-909-957-3KAGVCP
ES-1	VERTICAL SAFETY DRENCH SHOWER, ABS HEAD, STAINLESS STEEL PULL ROD. 20 GPM FLOW RESTRICTOR	1 1/4"	–	–	–	–	CHICAGO FAUCET 9100-VNF
ES-2	FLOOR MOUNTED COMBINATION DRENCH SHOWER/ ABS HEAD, DUAL STRAY HEADS, STAINLESS STEEL PULL ROD, 30 GPM FLOW RESTRICTOR HANDICAP ACCESSIBLE	1 1/4"	–	–	–	–	CHICAGO FAUCET 9205-NF
S-1	WALL-HUNG VITREOUS CHINA SINK NO FAUCET HOLES	–	–	–	–	–	AMERICAN STANDARD 9061.292 GRID STRAINER 7716.020
WWB-1	WASHER WALL BOX 1 1/2" CENTER DRAIN SINGLE COLD WATER BALL VALVE WITH THREADED END.	3/8"	–	–	–	–	6UY GRAY T200

AIR COMPRESSOR (AC)

PLAN CODE	DUTY	ACFM @ 110 PSI	RECEIVER CAP. (GAL)	ELECTRICAL VOLT/PH	ELECTRICAL HP	TYPE
AC-1	LABORATORY	4	10	208/3	1 1/2	OILLESS

LOUVER SCHEDULE (L)

PLAN CODE	CFM	VELOCITY FPM	FREE AREA SQ. FT.	MAX. DIMENSIONS (W x H) (IN)	MANUFACTURER & MODEL NO.
L-1	2000	–	4.2	84 x 18	RUSKIN ELF-375

VACCUM PUMP SCHEDULE (VP)

PLAN CODE	TYPE	CAPACITY (ALTITUDE) STANDARD AIR (SCFM)	ACTUAL-AIR (ACFM)	VACCUM (HGV)	ELECTRICAL MOTOR SIZE (HP)	VOLT	PHASE	RECEIVER SIZE (GALLON)	ACCESSORIES	MANUFACTURER & MODEL NO.
VP-1	LIQUID RING	25	65	19	5	208	3	120	LOW FLUID LEVEL SWITCH, HIGH FLUID LEVEL SWITCH, H-O-A CONTROL, VIBRATION ASSEMBLY, INLET FILTER ASSEMBLY VACUUM RELIEF VALVE, DISCHARGE CHECK VALVE.	TRAIVINI TRO-075VM1A

SNORKEL VENT

PLAN CODE	AIR FLOW (CFM)	LENGTH (FT)	HOOD MATERIAL	HOSE MATERIAL	MANUFACTURER / MODEL	REMARKS
SV-1	500	7	POLYCARBONATE	WIRE REINFORCED PVC	NEDERMAN 10522235	SWVEL ELBOW MOUNTING BRACKET
SV-2	500	7	POLYCARBONATE	WIRE REINFORCED PVC	NEDERMAN 10522235	SWVEL ELBOW MOUNTING BRACKET

ELECTRIC DUCT HEATER

PLAN CODE	AIRFLOW (CFM)	SIZE (IN x IN)	INPUT (KW)	VOLT/ PHASE	STAGES	CONTROL	MANUFACTURER & MODEL NO.	ACCESSORIES
EH-1	800	14 x 14	5	208/3	2	24 V THERMOSTAT	NAILOR DHR	AIR PRESSURE SWITCH. FUSED CONTROL TRANSFORMER DISCONNECT SWITCH STEP CONTROLLER DE-REATED (25 W/SQ IN)

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524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

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244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone (801) 322-2400 / Fax (801) 322-2410

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INDEX

MH001

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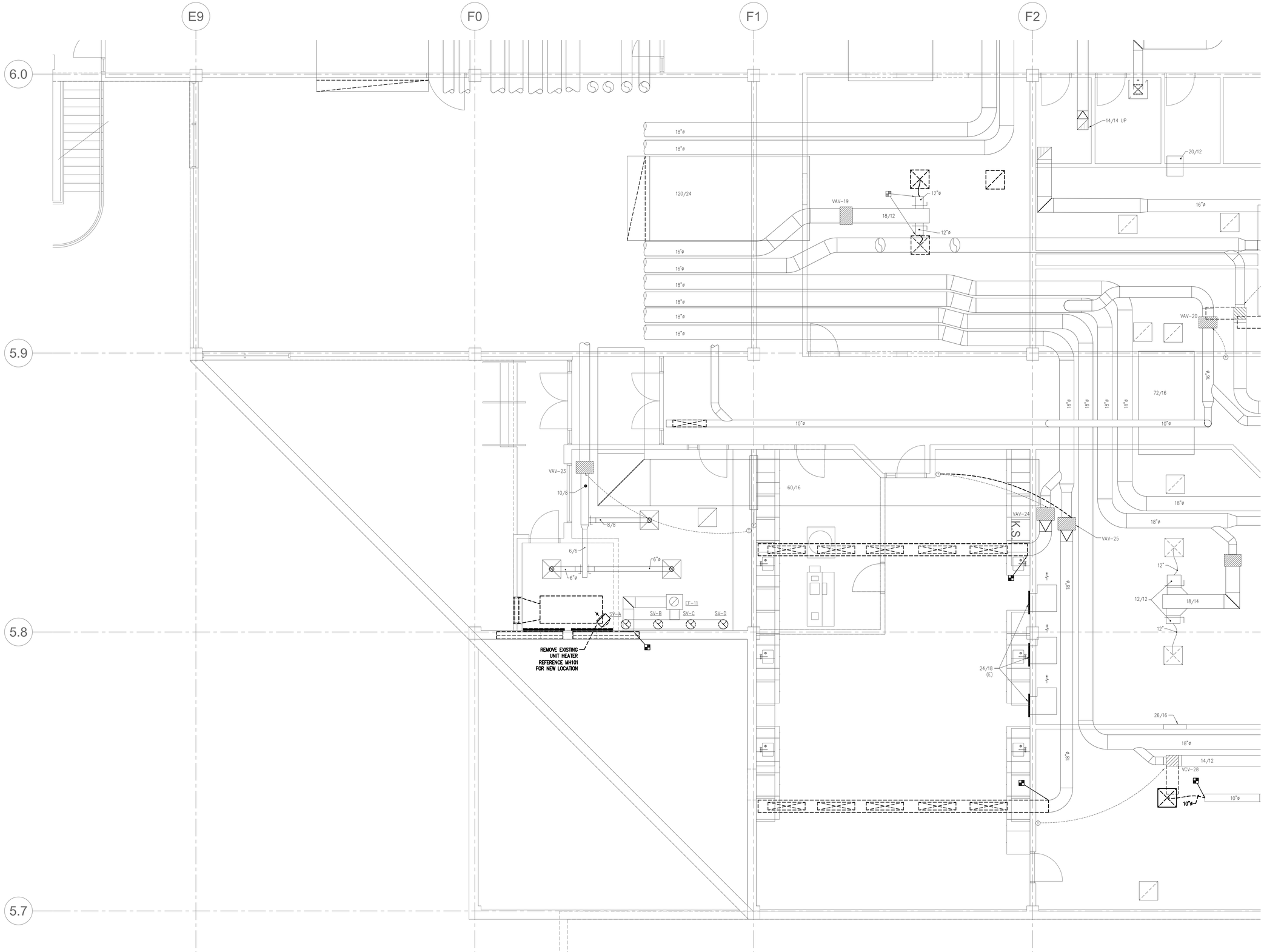

ORGANIC SCIENCE LAB
MECHANICAL DEMOLITION PLAN

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

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Fax: (801) 531-9850
WWW: www.vcbo.com

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244 West 300 North Suite 200
Salt Lake City, Utah 84103
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MECHANICAL
DEMOLITION PLAN

MD101

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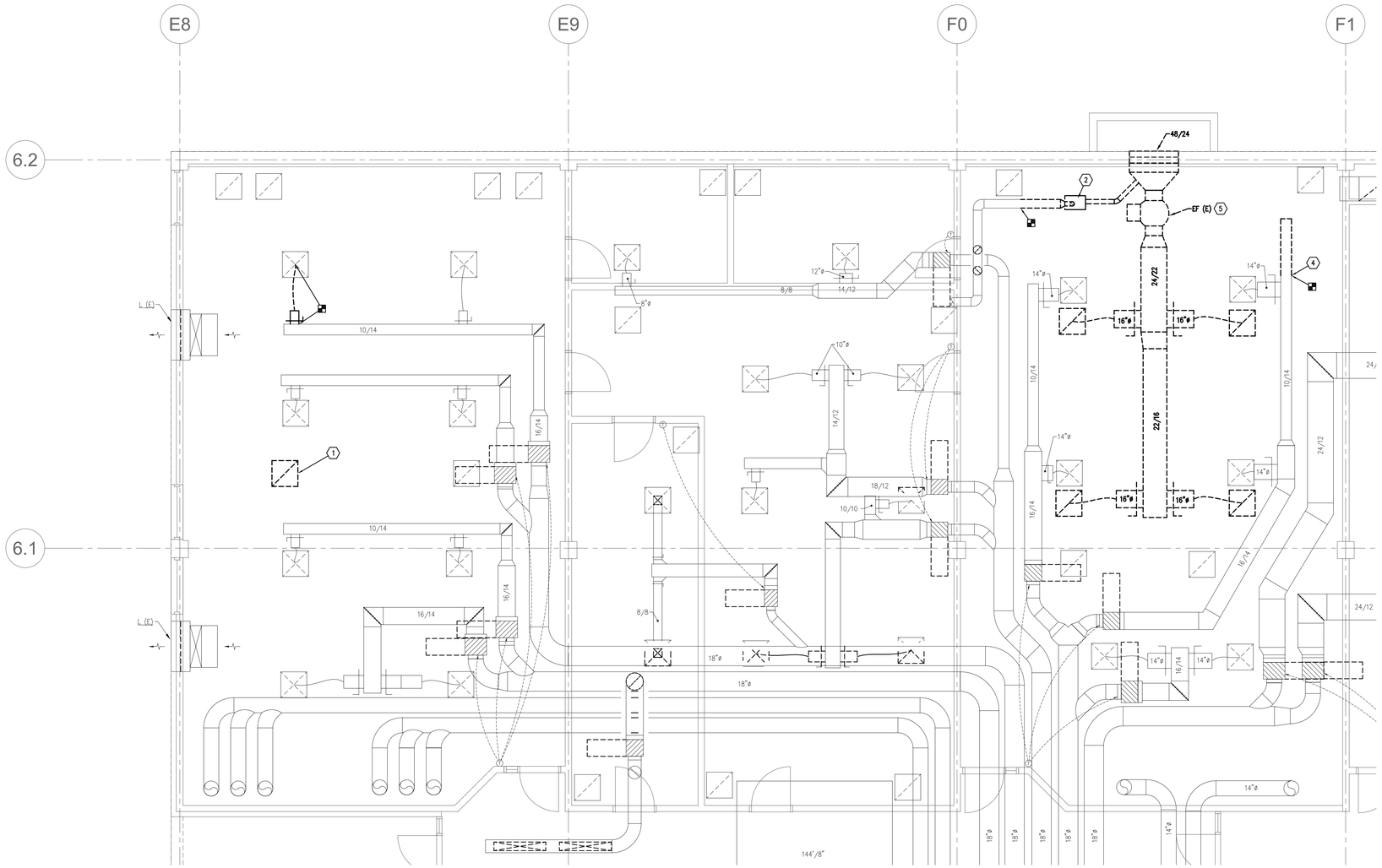

KEYED NOTES

1. RELOCATE EXISTING DIFFUSER. SEE MH102 FOR NEW LOCATION.
2. REMOVE AND RETAIN EXISTING EXHAUST FAN. REFERENCE MH102 FOR NEW LOCATION.
3. REMOVE EXISTING DUCT AFTER TAKE OFF AND CAP.
4. REMOVE EXISTING DUCT AFTER TAKE OFF AND CAP.
5. REMOVE EXHAUST FAN AND ALL ASSOCIATED DUCT AND DIFFUSERS.

1 ORGANIC SCIENCE LAB
MECHANICAL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

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524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 / Fax: (801) 322-2418

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MECHANICAL
DEMOLITION PLAN

MD102

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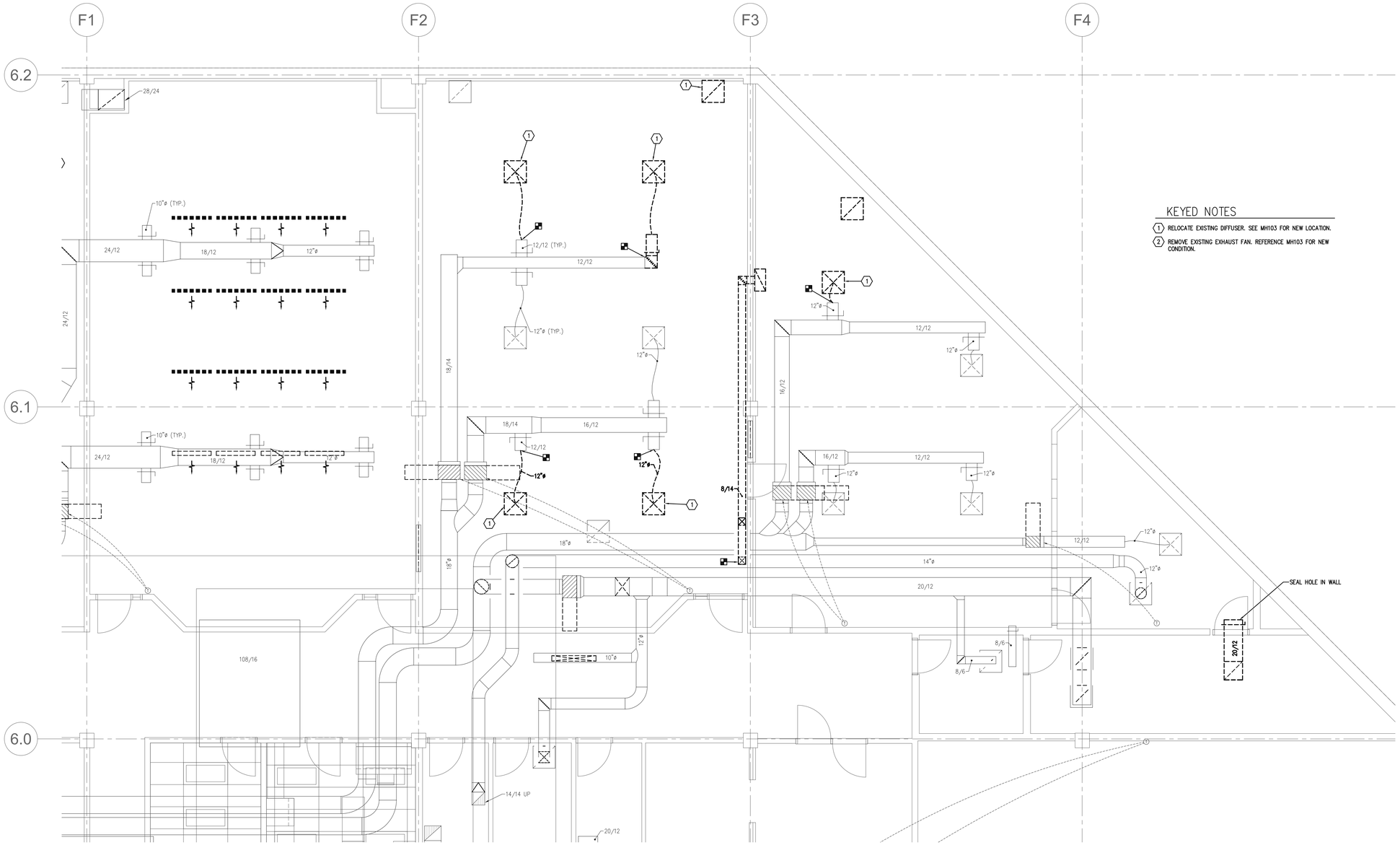
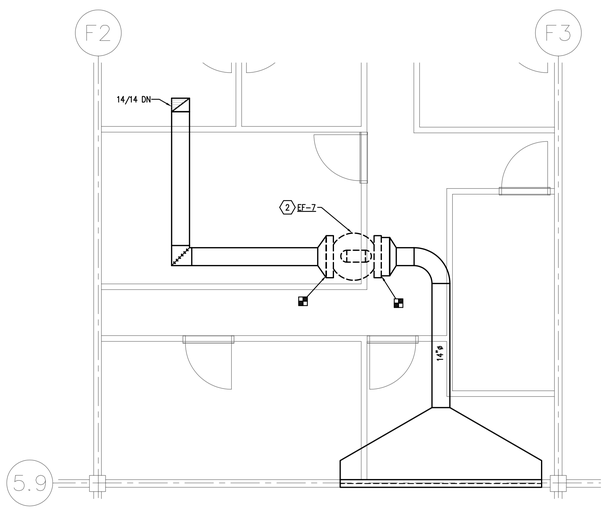


KEYED NOTES

1. RELOCATE EXISTING DIFFUSER. SEE MH103 FOR NEW LOCATION.
2. REMOVE EXISTING EXHAUST FAN. REFERENCE MH103 FOR NEW CONDITION.

1 ORGANIC SCIENCE LAB MECHANICAL DEMOLITION PLAN

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



2 MECHANICAL DEMOLITION PLAN LEVEL THREE

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

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VCBO ARCHITECTURE
524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 / Fax: (801) 322-2418

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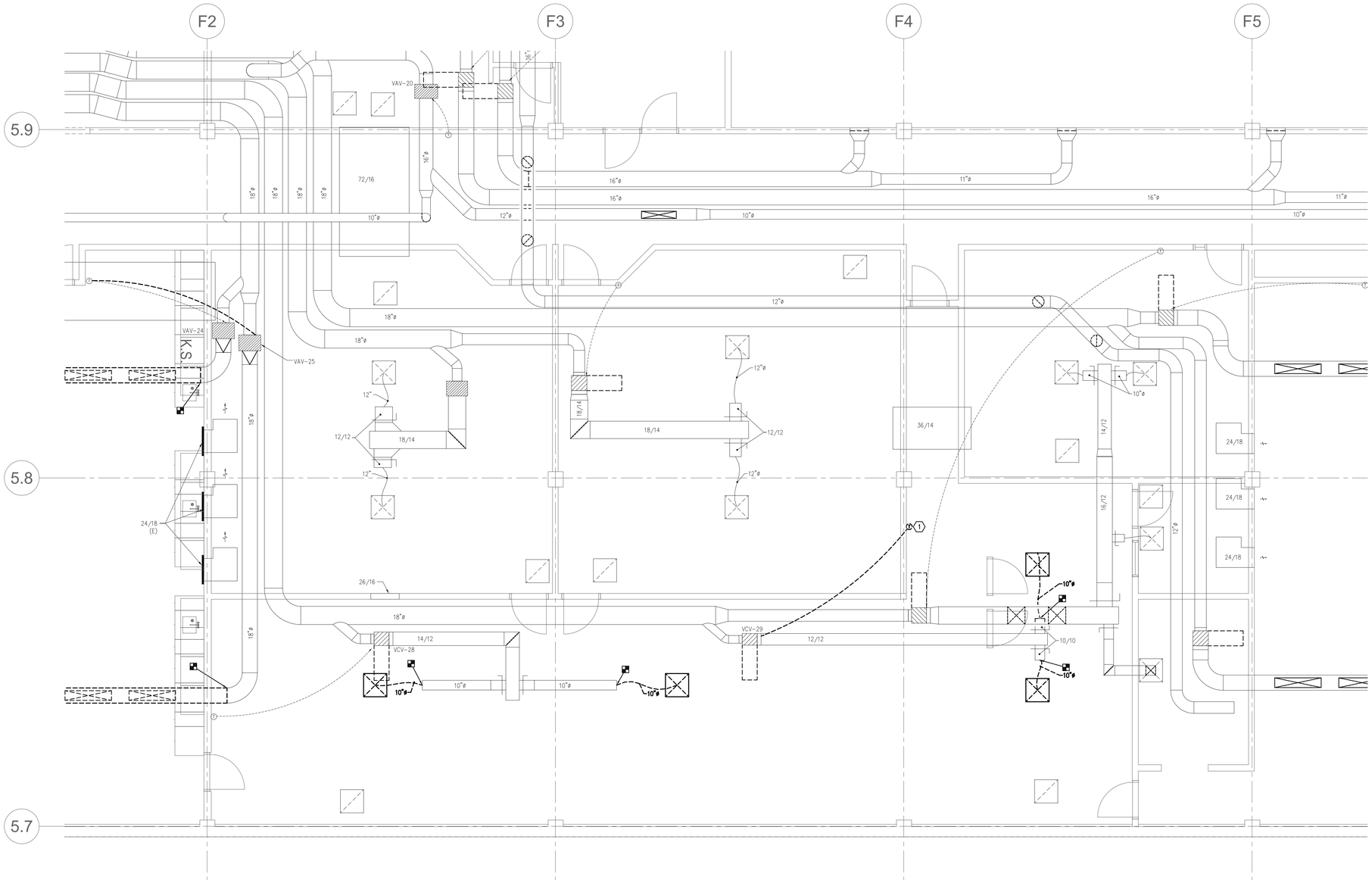
MECHANICAL
DEMOLITION PLAN

MD103

Sheet of Sheets

KEYED NOTES

1. RE-LOCATE THERMOSTAT. REFERENCE MH104 FOR NEW LOCATION.



1 ORGANIC SCIENCE LAB
MECHANICAL DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

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524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: www.vcbo.com

Colvin Engineering Associates, Inc.
244 West 300 North Suite 200
Salt Lake City, Utah 84103
Phone: (801) 322-2400 / Fax: (801) 322-2410

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MECHANICAL
DEMOLITION PLAN

MD104

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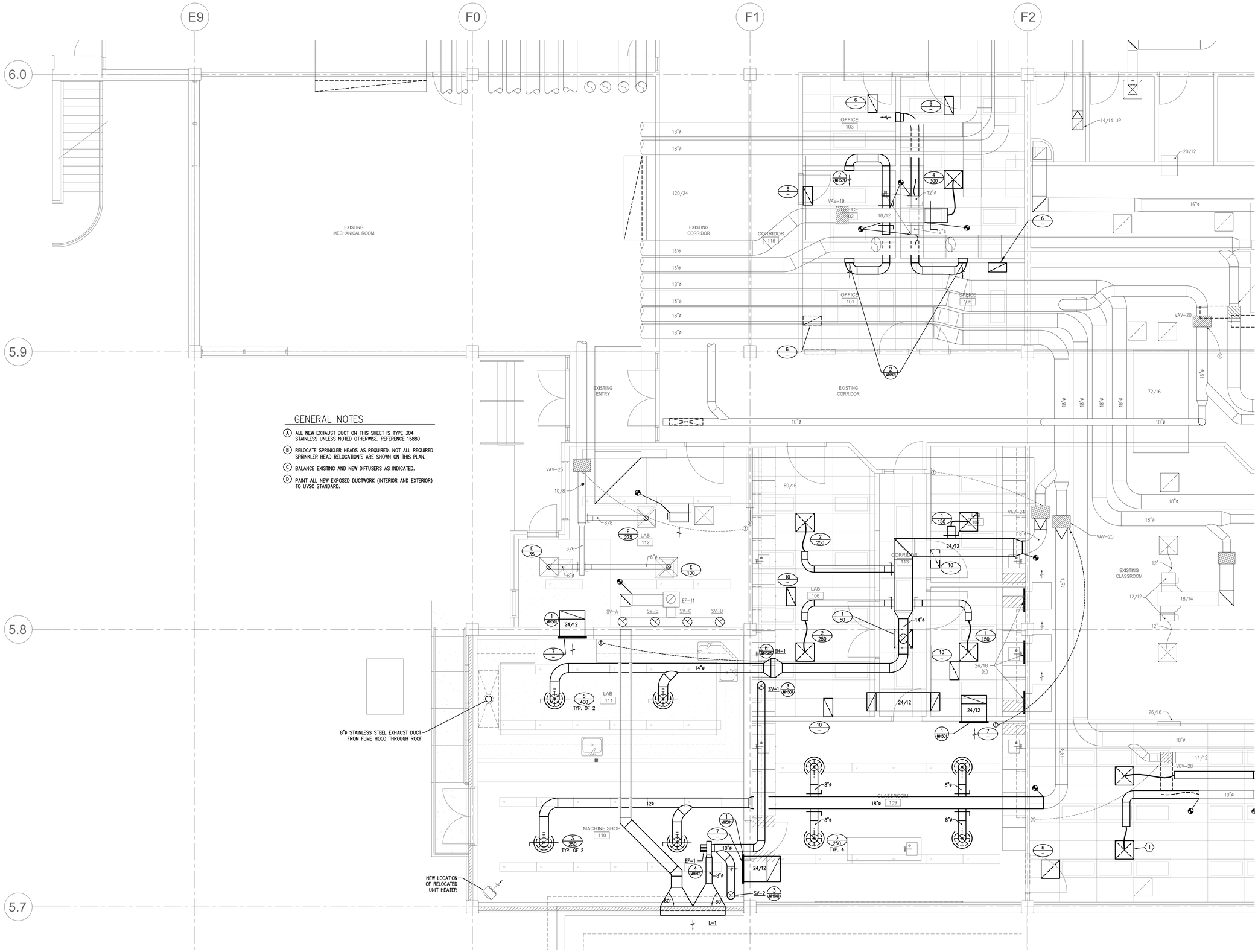

GENERAL NOTES

(A) ALL NEW EXHAUST DUCT ON THIS SHEET IS TYPE 304 STAINLESS UNLESS NOTED OTHERWISE. REFERENCE 15880

(B) RELOCATE SPRINKLER HEADS AS REQUIRED. NOT ALL REQUIRED SPRINKLER HEAD RELOCATION'S ARE SHOWN ON THIS PLAN.

(C) BALANCE EXISTING AND NEW DIFFUSERS AS INDICATED.

(D) PAINT ALL NEW EXPOSED DUCTWORK (INTERIOR AND EXTERIOR) TO UVSC STANDARD.

ORGANIC SCIENCE LAB MECHANICAL PLAN

1

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

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MH101

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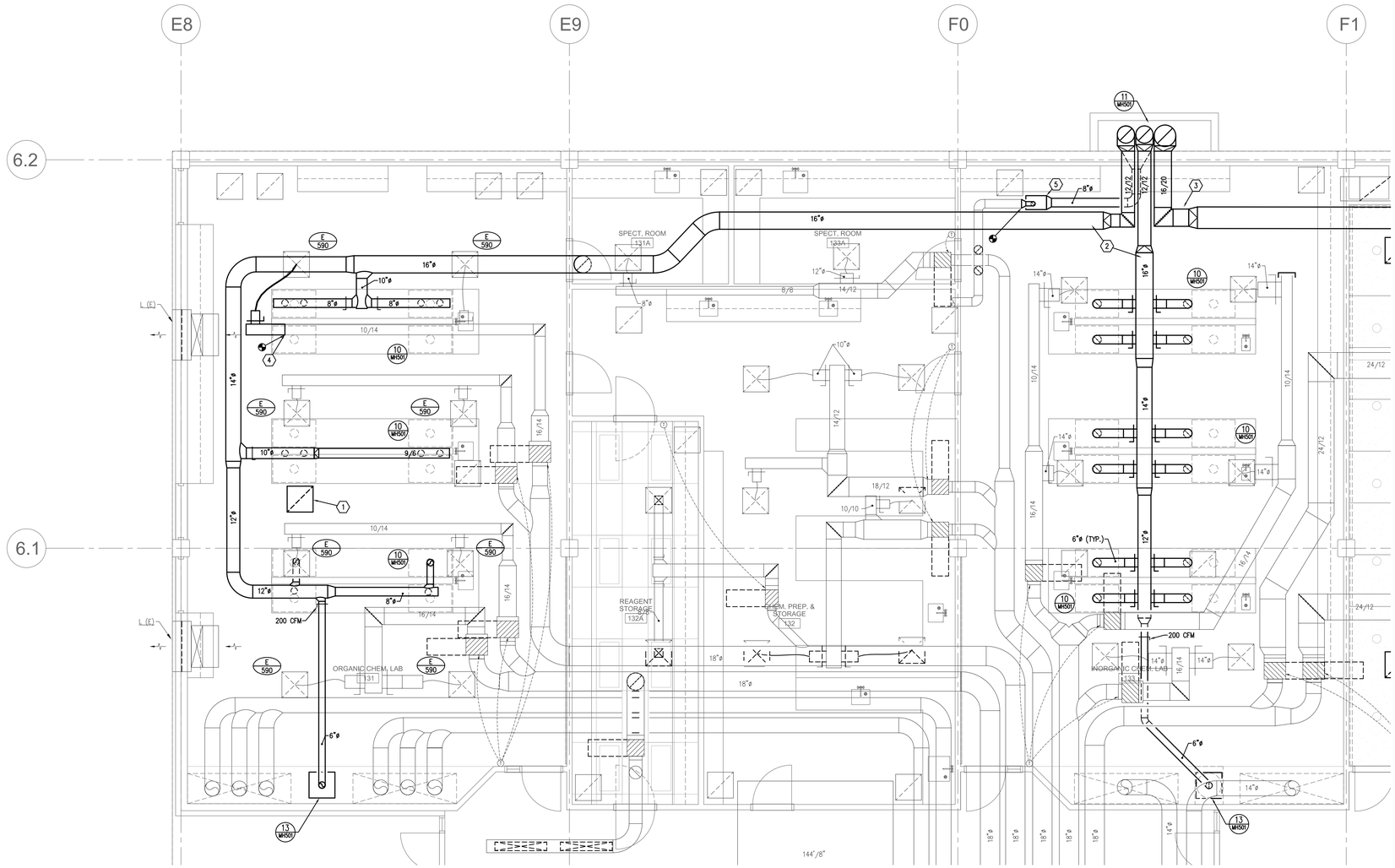

KEYED NOTES

1. RELOCATE EXISTING DIFFUSER TO THIS LOCATION.
2. TRANSITION 16"ø TO 12/12 EXTEND THROUGH WALL. TURN UP, OFFSET AS REQUIRED AND TRANSITION TO 16"ø. RISE TO ROOF (APPROXIMATELY 30 FEET).
3. TRANSITION 20"ø TO 16/20 EXTEND THROUGH WALL, TURN UP AND TRANSITION TO 20"ø. RISE TO ROOF (APPROXIMATELY 30 FEET).
4. EXTEND EXISTING DUCT 3 FEET AND RELOCATE SPIN IN TO END OF NEW DUCT. RECONNECT TO EXISTING DIFFUSER.
5. RELOCATE EXISTING EXHAUST FAN TO THIS LOCATION. EXTEND DISCHARGE AND TRANSITION TO 26/4 OPENING AT WALL.

GENERAL NOTES

A. ALL NEW EXHAUST DUCT ON THIS SHEET IS TYPE 304 STAINLESS. REFERENCE 15880

B. RELOCATE SPRINKLER HEADS AS REQUIRED. NOT ALL REQUIRED SPRINKLER HEAD RELOCATION'S ARE SHOWN ON THIS PLAN.

C. BALANCE EXISTING AND NEW DIFFUSERS AS INDICATED.

D. BALANCE NEW SNORKEL DROPS TO 185 CFM EACH.

E. PAINT ALL NEW EXPOSED DUCTWORK (INTERIOR AND EXTERIOR) TO UVSC STANDARD.

ORGANIC SCIENCE LAB MECHANICAL PLAN

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

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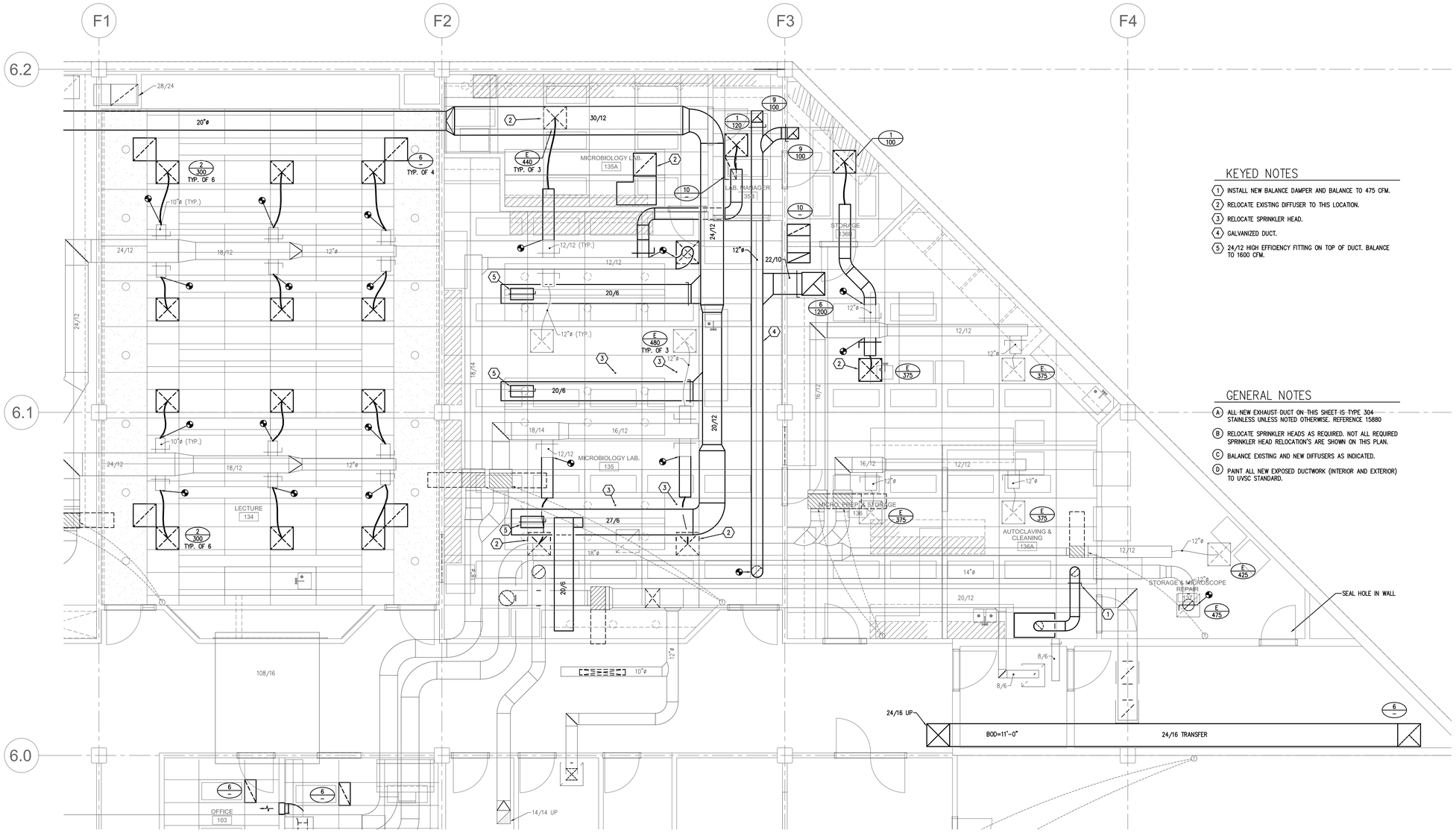
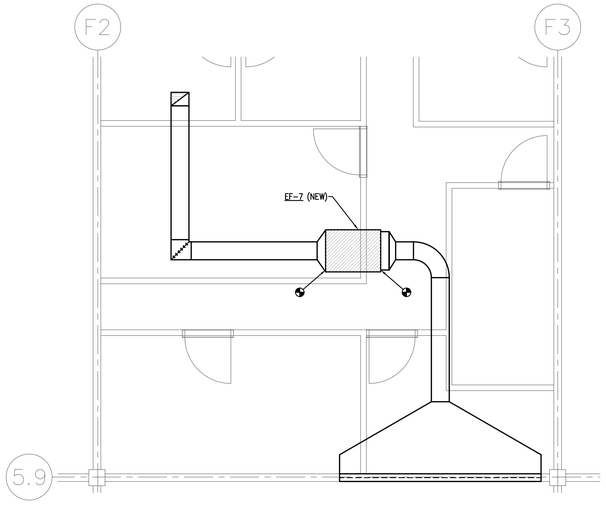


ORGANIC SCIENCE LAB MECHANICAL PLAN

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



MECHANICAL PLAN LEVEL THREE

2 SCALE: 1/4" = 1'-0"

KEYED NOTES

1. INSTALL NEW BALANCE DAMPER AND BALANCE TO 475 CFM.
2. RELOCATE EXISTING DIFFUSER TO THIS LOCATION.
3. RELOCATE SPRINKLER HEAD.
4. GALVANIZED DUCT.
5. 24/12 HIGH EFFICIENCY FITTING ON TOP OF DUCT. BALANCE TO 1600 CFM.

GENERAL NOTES

A. ALL NEW EXHAUST DUCT ON THIS SHEET IS TYPE 304 STAINLESS UNLESS NOTED OTHERWISE. REFERENCE 15880

B. RELOCATE SPRINKLER HEADS AS REQUIRED. NOT ALL REQUIRED SPRINKLER HEAD RELOCATION'S ARE SHOWN ON THIS PLAN.

C. BALANCE EXISTING AND NEW DIFFUSERS AS INDICATED.

D. PAINT ALL NEW EXPOSED DUCTWORK (INTERIOR AND EXTERIOR) TO UVSC STANDARD.

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GENERAL NOTES

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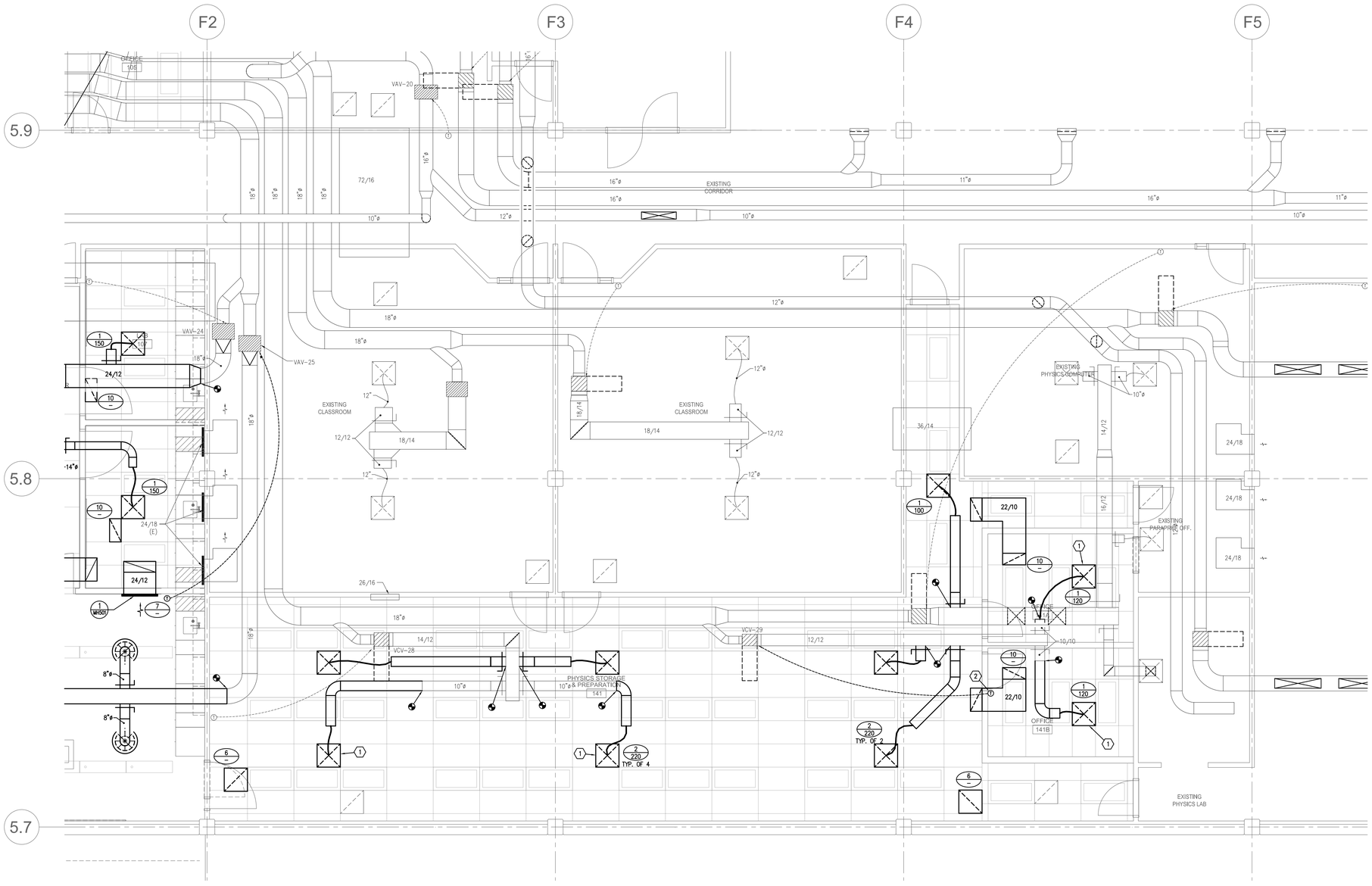
- (B) RELOCATE SPRINKLER HEADS AS REQUIRED. NOT ALL REQUIRED SPRINKLER HEAD RELOCATION'S ARE SHOWN ON THIS PLAN.
- (C) BALANCE EXISTING AND NEW DIFFUSERS AS INDICATED.
- (D) PAINT ALL NEW EXPOSED DUCTWORK (INTERIOR AND EXTERIOR) TO UVSC STANDARD.

KEYED NOTES

1. RELOCATE EXISTING DIFFUSER TO THIS LOCATION.
2. NEW LOCATION OF RELOCATED THERMOSTAT.



1 ORGANIC SCIENCE LAB MECHANICAL PLAN

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

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MECHANICAL PLAN

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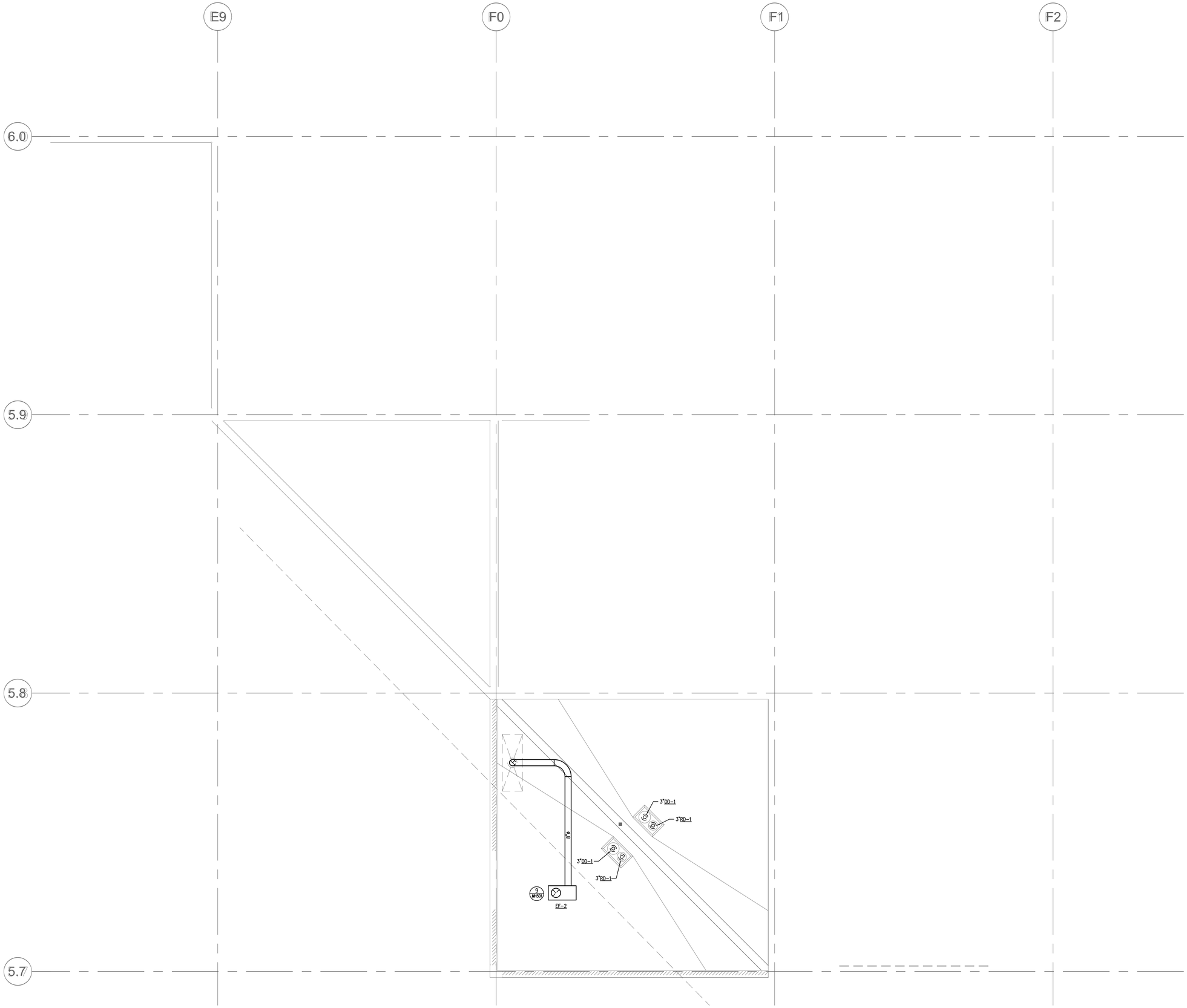

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ROOF PLAN

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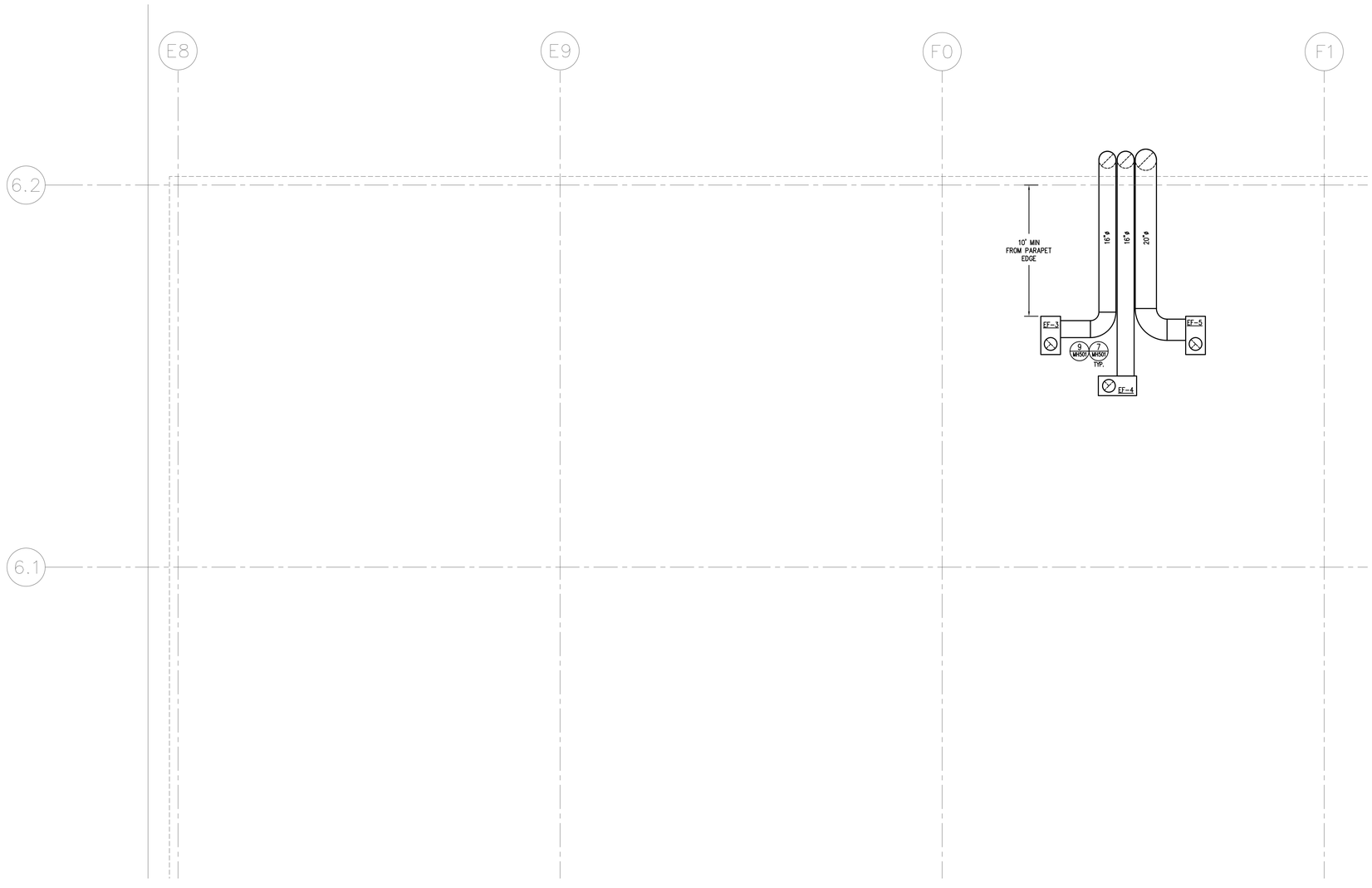

1 ORGANIC SCIENCE LAB
MECHANICAL ROOF PLAN
SCALE: 1/4" = 1'-0"

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MECHANICAL ROOF PLAN

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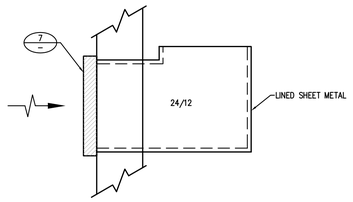
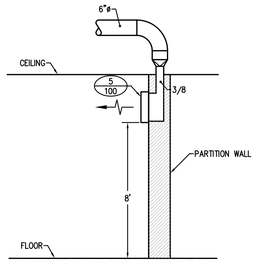


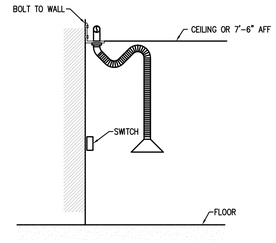
1 TRANSFER GRILLE TYPE 7

NO SCALE



2 SIDEWALL SUPPLY, AIR DEVICE 5

NO SCALE



3 SNORKEL VENT

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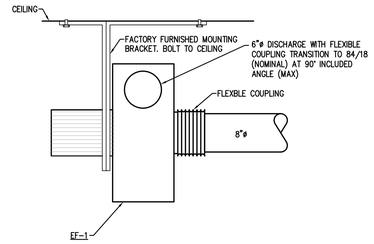
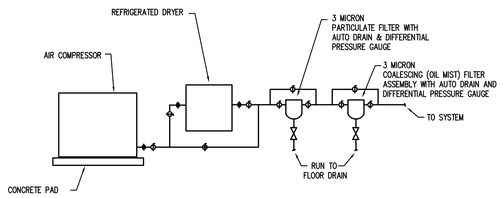


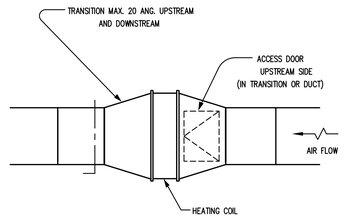
4 EXHAUST FAN

NO SCALE



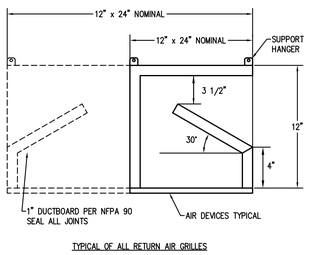
5 COMPRESSED AIR PIPING SCHEMATIC

NO SCALE



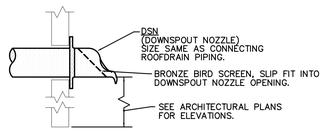
6 DUCT HEATING COIL DETAIL

NO SCALE



7 RETURN AIR GRILLE DUCTBOARD SOUND BOOT DETAIL

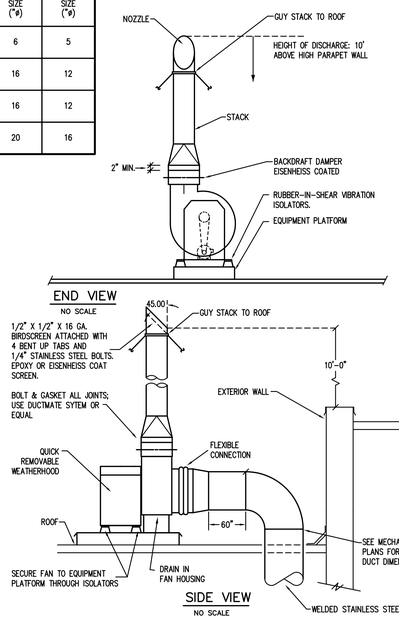
NO SCALE



8 DOWNSPOUT NOZZLE DETAIL

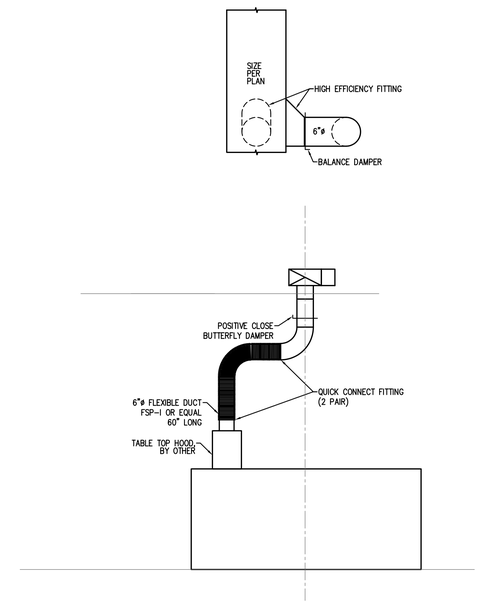
NO SCALE

FAN	STACK SIZE ("ø)	NOZZLE SIZE ("ø)
EF-2	6	5
EF-3	16	12
EF-4	16	12
EF-5	20	16



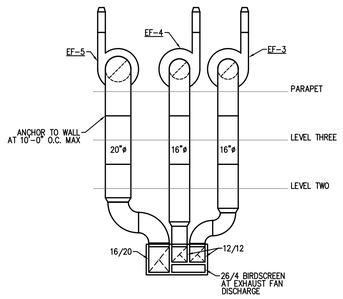
9 FUME EXHAUST FAN INSTALLATION DETAIL

NO SCALE



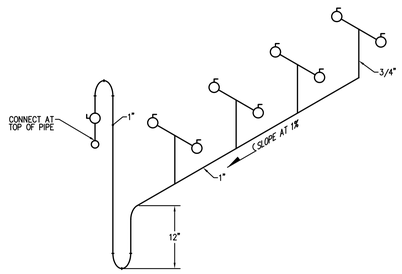
NOTE:
1. ALL HARD DUCT IS TYPE 304 STAINLESS STEEL
2. THIS DETAIL SHOWS BOTTOM AND SIDE CONNECTIONS. REFERENCE PLANS FOR FURTHER INFORMATION

10 PORTABLE HOOD CONNECTION



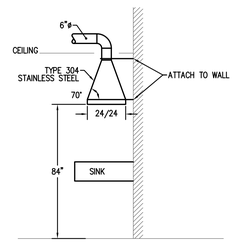
11 EXHAUST FAN DUCT TO ROOF

NO SCALE



12 VACCUM PIPING

NO SCALE



13 ACETONE HOOD

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MECHANICAL DETAILS

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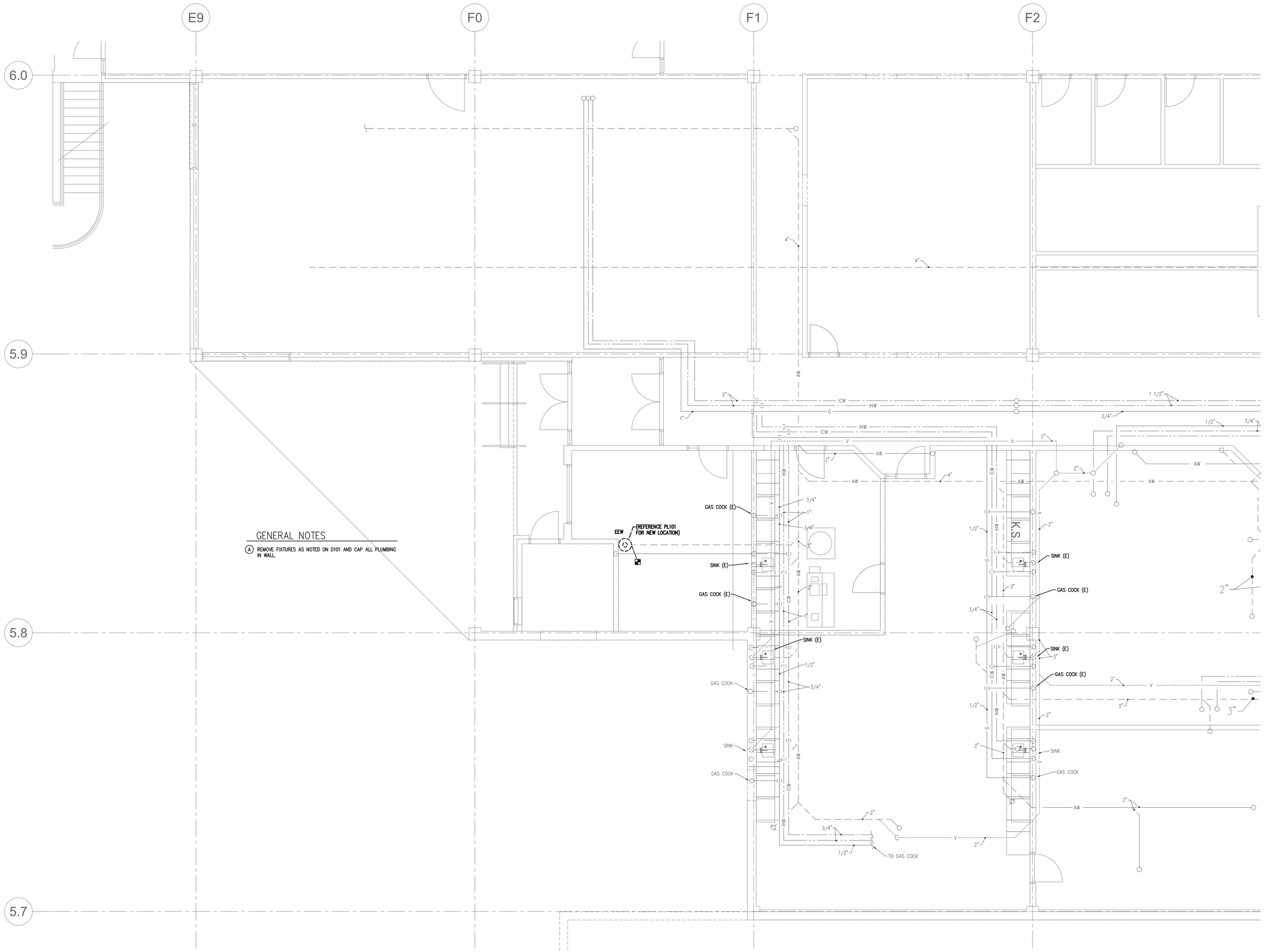

GENERAL NOTES

(A) REMOVE FIXTURES AS NOTED ON D101 AND CAP ALL PLUMBING IN WALL.

ORGANIC SCIENCE LAB
PLUMBING DEMOLITION PLAN

(1) SCALE: 1/4" = 1'-0"

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DEMOLITION PLAN

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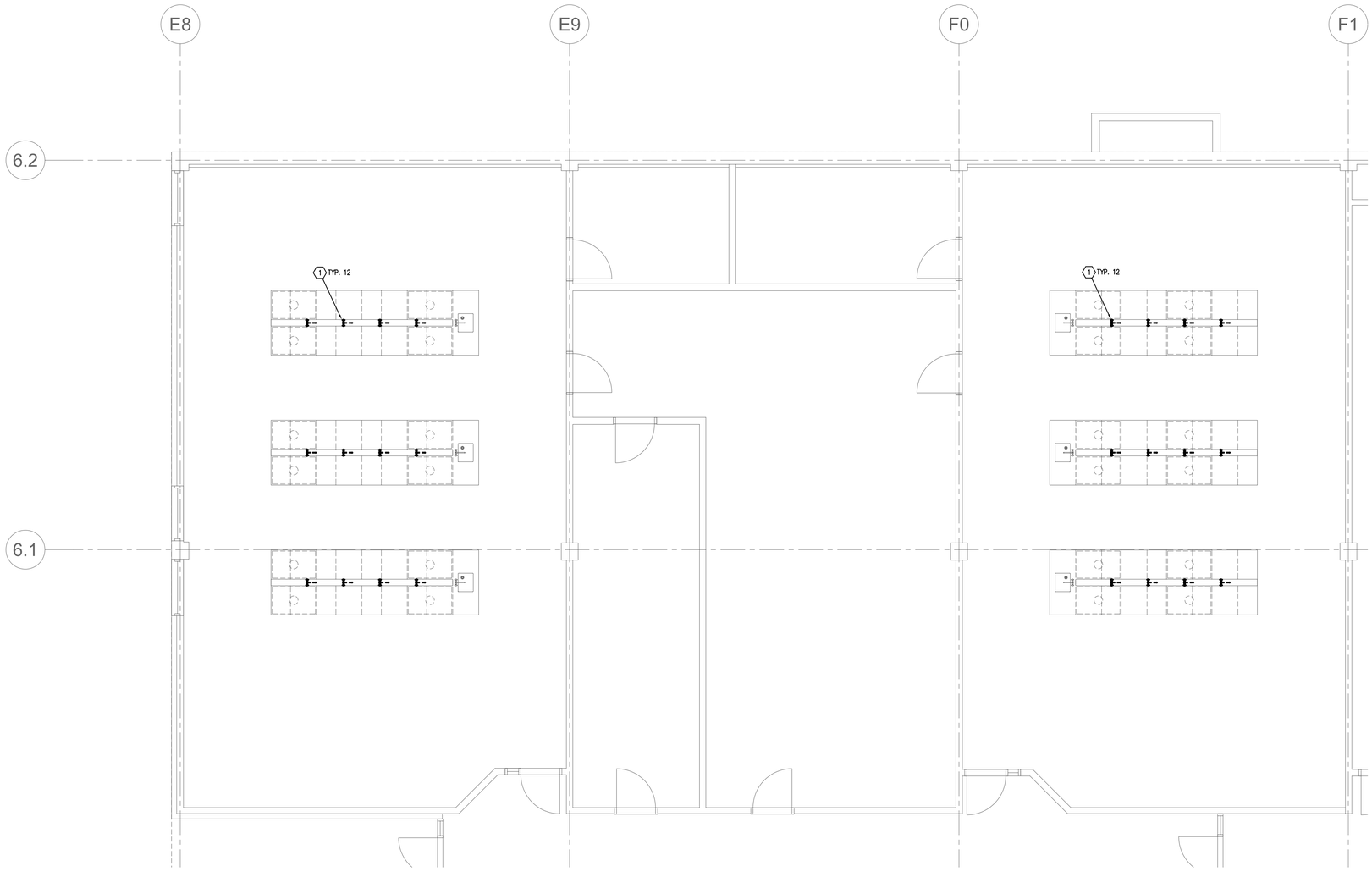
KEYED NOTES

1. REMOVE EXISTING 2 HANDLE FAUCET. CAP SUPPLY LINE. RETAIN 3 BEST FAUCETS FOR REUSE.



ORGANIC SCIENCE LAB
1 PLUMBING DEMOLITION PLAN
SCALE: 1/4" = 1'-0"

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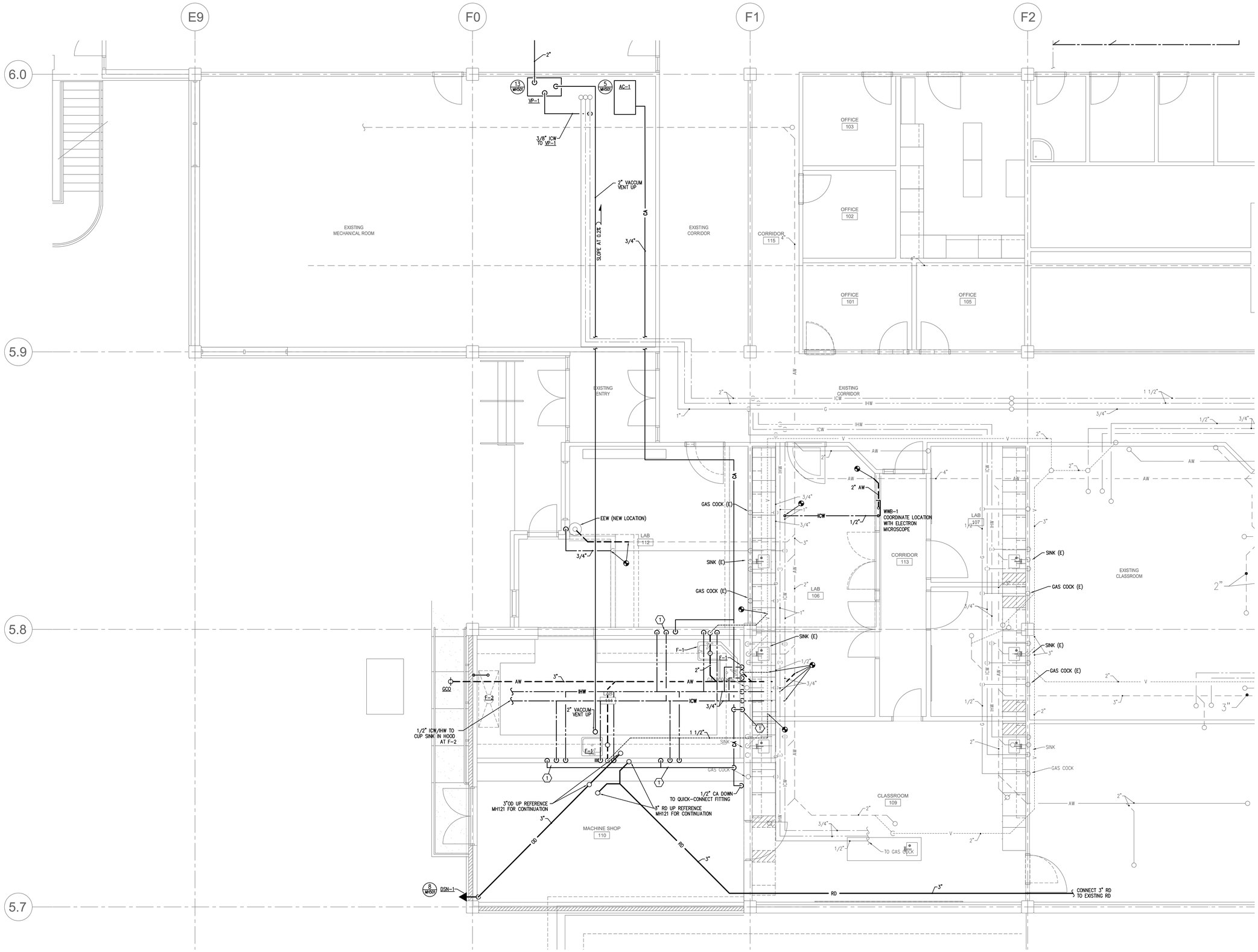

ORGANIC SCIENCE LAB
PLUMBING PLAN

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

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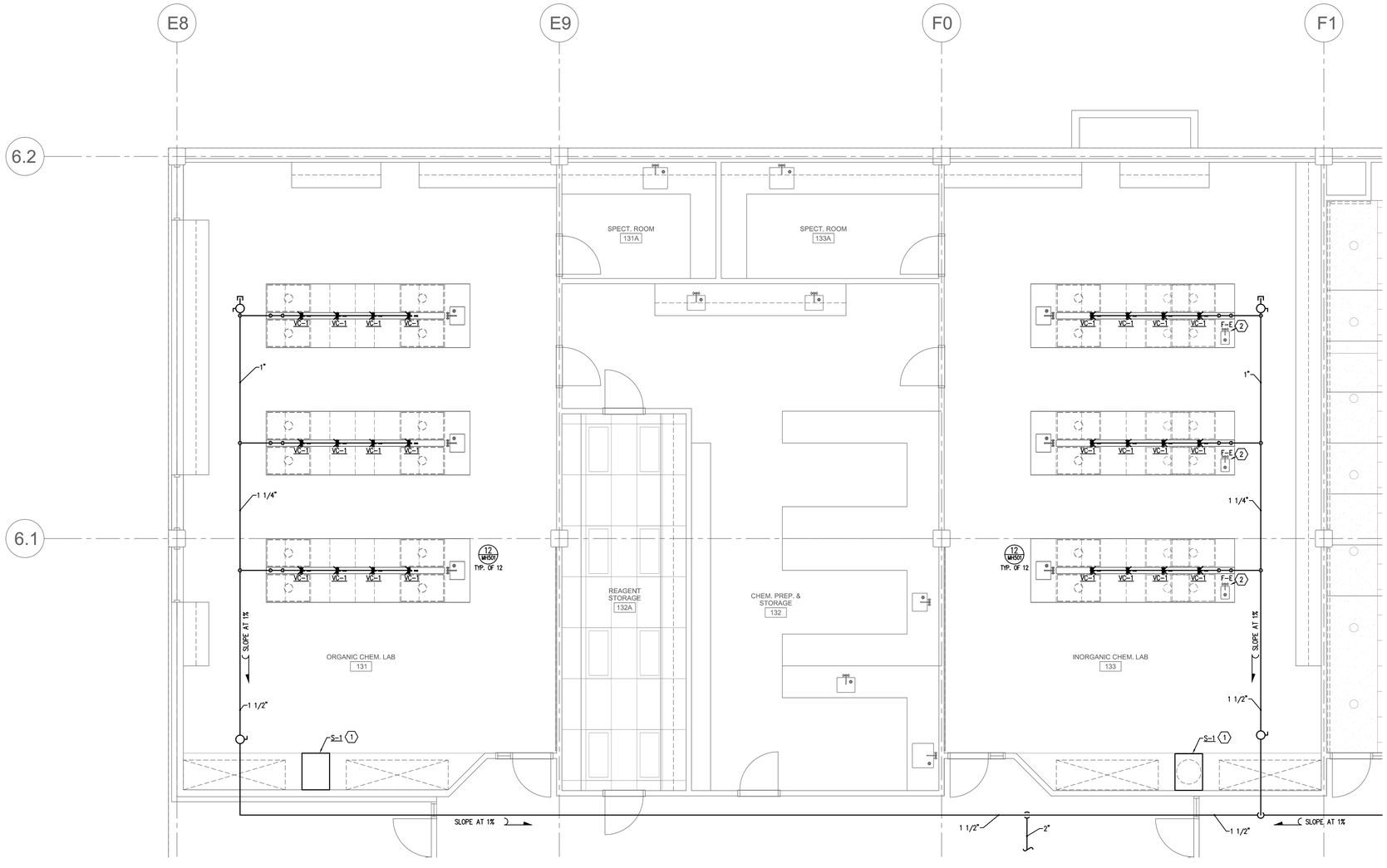
KEYED NOTES

1. INSTALL NEW S-1 WITH NO HW/CW SUPPLY. PROVIDE STRAINER AND TAILPIECE FOR INDIRECT DISCHARGE TO OWNER-FURNISHED RECEPTOR.
2. EXTEND 3/8" HW/CW FROM UNDER CABINET TO REUSED F-E. PROVIDE GRID STRAINER AND EXTEND TO EXISTING ACID WASTE UNDER CABINET.



1 ORGANIC SCIENCE LAB PLUMBING PLAN

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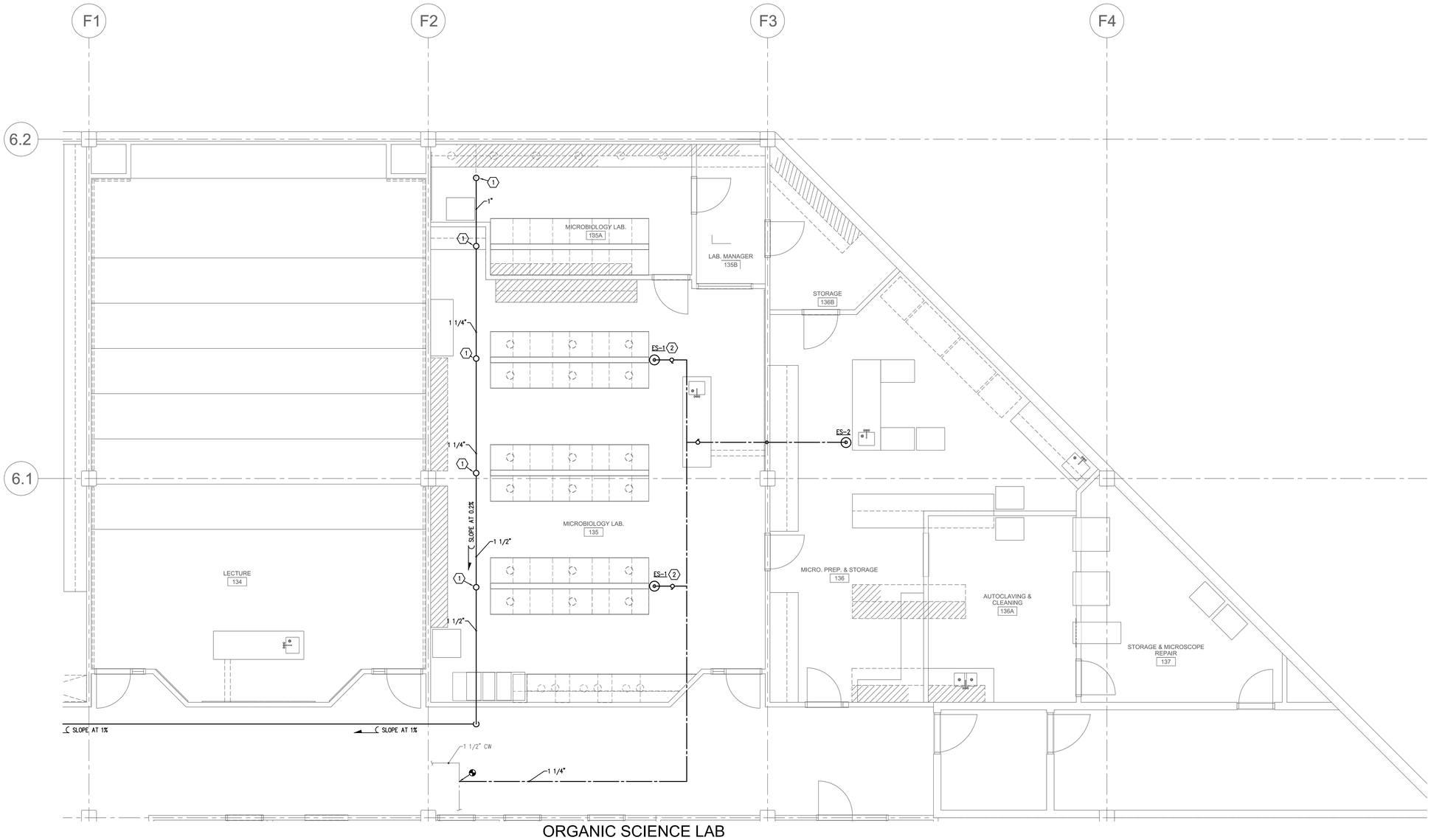
KEYED NOTES

1. 1" T AT TOP OF PIPE WITH BALL VALVE AND CAP.
2. MOUNT ES-1 TO STRUCTURAL DECK ABOVE.



ORGANIC SCIENCE LAB
PLUMBING PLAN

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

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PANELBOARD SCHEDULE

PANEL 1K (SECTION 1) — TYPE NQOD — 120/208 VOLTS — 3 PH — 4 W

MOUNTING: FLUSH; x SURFACE — DIMENSIONS: 20 W, 6 D (in.), H — LOCATION: Mechanical Rm — AMP: 225

MAINS: LUGS; x BREAKER; X SUBFEED LUGS; ISO GROUND; 200% NEUTRAL

BRANCH BREAKERS

ITEM	AMPS	POLE	WIRE SIZE	CIR. NO.	LEFT PHASE LOAD A	LEFT PHASE LOAD B	LEFT PHASE LOAD C	RIGHT PHASE LOAD A	RIGHT PHASE LOAD B	RIGHT PHASE LOAD C	CIR. NO.	AMPS	POLE	WIRE SIZE	ITEM
LAB WIREMOLD	20	1	12	1	720			900			2	20	1	12	WIREMOLD OUTLETS
LAB WIREMOLD	20	1	12	3		720			900		4	20	1	12	WIREMOLD OUTLETS
LAB OUTLETS	20	1	12	5			540			720	6	20	1	12	WIREMOLD OUTLETS
LAB OUTLETS	20	1	12	7	360			720			8	20	1	12	WIREMOLD OUTLETS
LAB CLG	20	1	12	9		360			720		10	20	1	12	WIREMOLD OUTLETS
OFFICE OUTLETS	20	1	12	11			1080			720	12	20	1	12	WIREMOLD OUTLETS
OFFICE OUTLETS	20	1	12	13	1080			540			14	20	1	12	LAB OUTLETS
LAB OUTLETS	20	1	12	15		540			360		16	20	1	12	MACHINE SHOP CO'S
LAB OUTLETS	20	1	12	17			360			180	18	20	1	12	MACHINE SHOP CO
CLASSROOM OUTLETS	20	1	12	19	540			180			20	20	1	12	MACHINE SHOP CO
EF-1	15	3	12	21		552			180		22	20	1	12	MACHINE SHOP CO
				23			552			2000	24	30	2	10	MACHINE SHOP CO
				25	552			2000			26				
SPARE	20	1		27					2000		28	30	2	10	MACHINE SHOP CO
SPARE	20	1		29						2000	30				
AIR COMPRESSOR	15	3	12	31	792			2000			32	30	2	10	MACHINE SHOP CO
				33		792			2000		34				
				35			792			2000	36	30	2	10	LAB CO
EH-1	25	3	10	37	1676			2000			38				
				39		1676			1175		40	20	1	12	EF-2
				41			1676			200	42	20	1	12	FUME HOOD
					5720	4640	5000	8340	7335	7820					
TOTAL CONNECTED LOAD FOR					14060	11975	12820	SEC 1 SUBTOTAL							CONNECTED LOAD SUBTOTAL
SECTIONS 1 & 2 OF PANEL 1K					117.17	99.79	106.83	SEC 1 AMPS/PHASE							38855 VA
58277 VA					19868	17783	20626	TOTAL							EQUIP RATING
					165.57	148.19	171.88	AMPS/PHASE							10,000 AMPS RMS SYM.

PANELBOARD SCHEDULE

PANEL 1K (SECTION 2) — TYPE NQOD — 120/208 VOLTS — 3 PH — 4 W

MOUNTING: FLUSH; x SURFACE — DIMENSIONS: 20 W, 6 D (in.), H — LOCATION: Mechanical Rm — AMP: 225

MAINS: X LUGS; BREAKER; SUBFEED LUGS; ISO GROUND; 200% NEUTRAL

BRANCH BREAKERS

ITEM	AMPS	POLE	WIRE SIZE	CIR. NO.	LEFT PHASE LOAD A	LEFT PHASE LOAD B	LEFT PHASE LOAD C	RIGHT PHASE LOAD A	RIGHT PHASE LOAD B	RIGHT PHASE LOAD C	CIR. NO.	AMPS	POLE	WIRE SIZE	ITEM
SPECIAL OUTLET	30	2	10	43							44	30	2	10	SPECIAL OUTLET
				45							46				
SPECIAL OUTLET	30	2	10	47							48	30	2	10	SPECIAL OUTLET
				49							50				
EF-3	20	3	12	51		900			2004		52	30	3	12	EF-5
	20			53			900			4002	54				
	20			55	900			2004			56				
EF-4	20	3	12	57		900			2004		58	30	3	12	VP-1
	20			59			900			2004	60				
	20			61	900			2004			62				
SPARE	20	1		63							64				SPACE ONLY
SPARE	20	1		65							66				SPACE ONLY
SPARE	20	1		67							68				SPACE ONLY
SPARE	20	1		69							70				SPACE ONLY
SPARE	20	1		71							72				SPACE ONLY
SPARE	20	1		73							74				SPACE ONLY
SPARE	20	1		75							76				SPACE ONLY
SPARE	20	1		77							78				SPACE ONLY
SPARE	20	1		79							80				SPACE ONLY
SPARE	20	1		81							82				SPACE ONLY
SPARE	20	1		83							84				SPACE ONLY
					1800	1800	1800	4008	4008	6006					
					5808	5808	7806	SEC 2 SUBTOTAL							CONNECTED LOAD SUBTOTAL 19422 VA
					48.40	48.40	65.05	SEC 2 AMPS/PHASE							EQUIP RATING 0 AMPS RMS SYM.

EQUIPMENT SCHEDULE

UNIT #	FUNCTION	LOAD	VOLT	PHASE	FULL LOAD AMPS	CONDUIT SIZE	NO. SETS	WIRES NO.	WIRES SIZE	OCPD TYPE	OCPD AMPS	REF. NOTES STARTER	REF. NOTES DISCONNECT	REF. NOTES OTHER	REMARKS
AC-1	AIR COMPRESSOR	1.5 HP	208	3	6.60	3/4"	1	3	12	CB	15	7A			
EF-1	EXHAUST FAN	1 HP	208	3	4.60	3/4"	1	3	12	CB	15	7A	1A		WALL SWITCHES
EF-2	EXHAUST FAN	.5 HP	120	1	9.80	3/4"	1	2	12	CB	20		4A		WALL SWITCH
EF-3	EXHAUST FAN	2 HP	208	3	7.50	3/4"	1	3	12	CB	20	9A	1A		PROVIDE LOCAL START SWITCH
EF-4	EXHAUST FAN	2 HP	208	3	7.50	3/4"	1	3	12	CB	20	9A	1A		PROVIDE LOCAL START SWITCH
EF-5	EXHAUST FAN	5 HP	208	3	16.70	3/4"	1	3	12	CB	30	9A	1A		PROVIDE LOCAL START SWITCH
EF-7	EXHAUST FAN	1.5 HP	208	3	6.60	3/4"	1	3	12	CB	EX				REUSE EXISTING STARTER
EH-1	DUCT HEATER	5 KW	208	3	13.88	3/4"	1	3	12	CB	20		2A		
VP-1	VACUUM PUMP	5 HP	208	3	16.70	3/4"	1	3	12	CB	30	7A			

NOTES:
1. NON-FUSED DISCONNECT SWITCH
2. FUSED DISCONNECT SWITCH
3. BREAKER IN ENCLOSURE
4. MANUAL STARTER W/THERMAL OVERLOAD
5. MAGNETIC STARTER
6. MAGNETIC STARTER/NON-FUSED DISCONNECT COMBINATION
7. MAGNETIC STARTER/FUSED DISCONNECT COMBINATION
8. MAGNETIC STARTER/BREAKER COMBINATION
9. VARIABLE FREQUENCY DRIVE
10. REDUCED VOLTAGE STARTER
11. DIRECT CONNECTION
12. RECEPTACLE/SPECIAL PURPOSE OUTLET/ETC.
13. TWO-SPEED STARTER, COORDINATE W/MOTOR TYPE

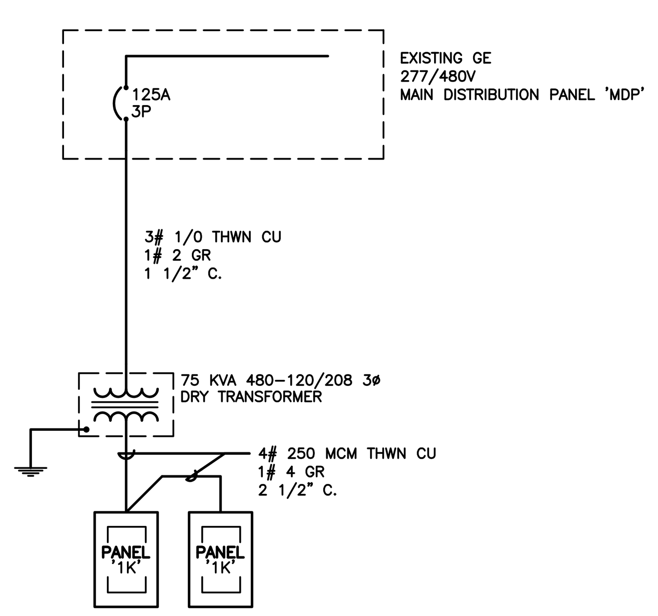
A. FURNISHED, INSTALLED, AND CONNECTED UNDER DIVISION 16
B. FURNISHED AND INSTALLED UNDER ANOTHER DIVISION REQUIRING CONNECTION UNDER DIVISION 16.
C. FURNISHED UNDER ANOTHER DIVISION BUT INSTALLED AND CONNECTED UNDER DIVISION 16.
D. FURNISHED, INSTALLED AND CONNECTED UNDER ANOTHER DIVISION.

OVER CURRENT PROTECTIVE DEVICES

CB = CIRCUIT BREAKER – THERMAL MAGNETIC
FN = FUSE – NON INDUCTIVE LOAD
FI = FUSE – INDUCTIVE LOAD
MO = MAGNETIC ONLY CIRCUIT BREAKER

FIXTURE SCHEDULE

TYPE	DESCRIPTION	CATALOG NUMBER	VOLTS	LAMPS
A	2 X 4 LAY-IN; A12.125 ACRYLIC LENS; 3-LAMPS TWO BALLASTS FOR DUAL LEVEL SWITCHING ELECTRONIC BALLAST; CAM LATCHES	LITHONIA 2SPG 332 A12.125 GLR EB	277	(3) F32 T8 835
C	2 X 4 LAY-IN; A12.125 ACRYLIC LENS; 2-LAMPS ELECTRONIC BALLAST; CAM LATCHES	LITHONIA 2SPG 232 A12.125 GLR EB	277	(2) F32 T8 835
D	PENDANT MOUNTED INDUSTRIAL; 2-LAMPS; 24" STEM' ELECTRONIC BALLAST	LITHONIA HL 232 277 GLR EB DSH24	277	(2) F32 T8 835 PER 4'
E	UNDERCABINET LIGHT	LITHONIA 2UC 32 277 GLR EB	277	(1) F32 T8 835
F	DARKROOM SAFELIGHT SODIUM VAPOR (OC) WITH FILTER (FBD)	THOMAS OC FBD	120	INCLUDED
G	SURFACE MOUNTED 2-LAMP; ELECTRONIC BALLAST	LITHONIA FCD 232 277 GLR EB	277	(2) F32 T8 835
H	LINEAR INDIRECT PENDANT; DUAL LEVEL SWITCHING ADJUSTABLE AIRCRAFT CABLE SUSPENSION; STANDARD WHITE FINISH	PEERLESS EGAM2 3 54T5HO 16 R8277 EB DCT F124 C200 ACG GMF	277	(3) 54T5HO
HE	SAME AS TYPE H WITH EMERGENCY CIRCUIT FOR INSIDE LAMPS; TWO NEUTRAL CORD			
J	RECESSED FLUORESCENT DOWNLIGHT HORIZONTAL LAMPS; ELECTRONIC BALLAST	LITHONIA AF2 42TRT 8 AR LD 277	277	(2) 42W TT 35K
K	LINEAR WALL WASH; ELECTRONIC BALLAST TANDEM MOUNTED	PEERLESS LWAR9G 54T5HO HOL U4 EB LST	277	(1) 54T5HO
L	4' INDUSTRIAL; 2-LAMP; ELECTRONIC BALLAST CHAIN HUNG	LITHONIA AF232 277 EB	277	(2) F32 T8 835
X1	DIECAST LED EXIT LIGHT; WHITE FACE, GREEN LETTERS SINGLE FACE	LITHONIA LESW 1G 277	277	INCLUDED



1 ONE-LINE DIAGRAM

NO SCALE

ELECTRICAL SYMBOL SCHEDULE

1. SEE FIXTURE SCHEDULE FOR TYPE, MOUNTING AND WATTAGE.
2. HEIGHT MEASURED TO CENTER LINE OF THE BOX FROM THE FINISH FLOOR.
3. REFER TO DRAWINGS FOR DIRECTIONAL ARROWS.
4. SUBSCRIPT KEYS SWITCH TO FIXTURES CONTROLLED.
5. NEMA TYPE 'ND' NON-FUSED UNLESS NOTED 'F' (FUSED). USE 'HD' 480 V.
6. HEIGHT TO BE THE LOWER OF EITHER 80" A.F.F. OR 6" BELOW CEILING.
7. PROVIDE H.O.A. AND S.S. PUSHBUTTONS AS REQUIRED.
8. DOUBLE ARROWS DENOTE A DOUBLE FACE UNIT.
9. COORDINATE WITH MILLWORK SHOP DRAWINGS AND ELEVATIONS FOR HEIGHT.
10. SUBSCRIPT DENOTES NEMA CONFIGURATION.
11. HEIGHT MEASURED TO BOTTOM OF THE BOX FROM FINISH FLOOR.

STANDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON PLANS

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
J	JUNCTION BOX ('F' IN FLOOR)	AS NOTED	
	MOTOR OUTLET	TO SUIT EQUIP.	
P	PHOTO-ELECTRIC CONTROL	AS NOTED	TORK 2000A
TC	TIME CLOCK	+5'-0"	2.
	PUSHBUTTON	+4'-0"	2.
	NON-FUSED DISCONNECT SWITCH	+5'-0"	5.
F	FUSED DISCONNECT SWITCH	+5'-0"	5.
$T	MANUAL STARTER THERMAL OVERLOAD SWITCH WITH PILOT LIGHT	+4'-0"	2.
	MAGNETIC STARTER	+5'-0"	7.
	MAGNETIC STARTER / DISCONNECT COMBINATION	+5'-0"	
VFD	VARIABLE FREQUENCY DRIVE	+6'-6"	
	PANEL BOARD	TOP AT +6'-0"	
	MAIN DISTRIBUTION PANEL		
	TELEPHONE TERMINAL BOARD		
	BELL	+7'-6"	
	CHIME	+7'-6"	
F	FIRE ALARM MANUAL STATION	+4'-0"	2.
H	FIRE ALARM SIGNAL HORN/STROBE PROJECTORS	+6'-8"	6.
H	FIRE ALARM SIGNAL HORN/STROBE	+6'-8"	6.
E	FIRE ALARM SIGNAL SPEAKER/STROBE	+6'-8"	6.
S	SMOKE DETECTOR	CEILING	
D	DUCT SMOKE DETECTOR		MTD. IN DUCT
H	HEAT DETECTOR	CEILING	
D	FIRE/SMOKE DAMPER		
	DOOR HOLDER	AS NOTED	
FS	FLOW SWITCH		
TS	TAMPER SWITCH		
WF	WATER FLOOD INDICATOR		
	O.S. & Y. VALVE		SEE DIAGRAM
R	FIRE ALARM RELAY		
CM	FIRE ALARM CONTROL MODULE		
MM	FIRE ALARM MONITOR MODULE		
S	FIRE ALARM STROBE	+6'-8"	6.
D	DURESS PUSHBUTTON	+4'-0"	
D 1	SECURITY SYSTEM DOOR SWITCH	DOOR JAMB	
D 2	SECURITY SYSTEM OVERHEAD DOOR SWITCH	CEILING	MOUNT AS PER. MAN
ML	MAGNETIC SHEAR LOCK		
A	SECURITY SYSTEM KEYED ACCESS SWITCH	+4'-0"	2.
I	INFRARED SENSOR	AS NOTED	
M	SECURITY MOTION DETECTOR		MOUNT AS PER. MAN
G	GLASS BREAK DETECTOR	CEILING	
ES	ELECTRIC DOOR STRIKE		
CR	ACCESS CONTROL CARD READER	+4'-0"	2.
	CLOSED CIRCUIT TELEVISION CAMERA	AS NOTED	
	DOOR POSITION INDICATING SWITCH		
#	SOUND SYSTEM SPEAKER	+8'-0" OR AS NOTED	
IC	INTERCOM SPEAKER	AS NOTED	
V	VOLUME CONTROL	+4'-0"	2.
M	MICROPHONE OUTLET	+16"	11.
M	MICROPHONE FLOOR OUTLET	FLOOR	
M	MICROPHONE CEILING OUTLET	CEILING	
	SOUND EQUIPMENT CABINET		CIRCUIT TO 120V
842	ARCHITECTURAL ROOM NUMBER		
A	LIGHT FIXTURE (LETTER DESIGNATES TYPE)		
EQ 34	EQUIPMENT NUMBER		
D	DIMMING CONTROL STATION		

ELECTRICAL SYMBOL SCHEDULE

1. SEE FIXTURE SCHEDULE FOR TYPE, MOUNTING AND WATTAGE.
2. HEIGHT MEASURED TO CENTER LINE OF THE BOX FROM THE FINISH FLOOR.
3. REFER TO DRAWINGS FOR DIRECTIONAL ARROWS.
4. SUBSCRIPT KEYS SWITCH TO FIXTURES CONTROLLED.
5. NEMA TYPE 'ND' NON-FUSED UNLESS NOTED 'F' (FUSED). USE 'HD' 480 V.
6. HEIGHT TO BE THE LOWER OF EITHER 80" A.F.F. OR 6" BELOW CEILING.
7. PROVIDE H.O.A. AND S.S. PUSHBUTTONS AS REQUIRED.
8. DOUBLE ARROWS DENOTE A DOUBLE FACE UNIT.
9. COORDINATE WITH MILLWORK SHOP DRAWINGS AND ELEVATIONS FOR HEIGHT.
10. SUBSCRIPT DENOTES NEMA CONFIGURATION.
11. HEIGHT MEASURED TO BOTTOM OF THE BOX FROM FINISH FLOOR.

STANDARD MOUNTING HEIGHT UNLESS OTHERWISE NOTED ON PLANS

SYMBOL	DESCRIPTION	MOUNTING HEIGHT	NOTES
	ONE CIRCUIT, TWO WIRE HOME RUN TO PANEL		
	2 CIRCUIT, 3 WIRE, COMMON NEUTRAL HOME RUN		
	3 CIRCUIT, 4 WIRE, COMMON NEUTRAL HOME RUN		
	CONDUIT RUN CONCEALED IN WALL OR CEILING		
	CONDUIT RUN CONCEALED IN FLOOR OR GROUND		
	CONDUIT UP		
	CONDUIT DOWN		
	CONDUIT STUB LOCATION	CAP CONDUIT	
	CABLE TRAY	AS NOTED	
	CEILING LIGHT FIXTURE	CEILING	1.
	WALL LIGHT FIXTURE	AS NOTED	1.
	RECESSED DOWNLIGHT FIXTURE	CEILING	1.
	FLUORESCENT LIGHT FIXTURE	AS NOTED	1
	FLUORESCENT EGRESS LIGHT FIXTURE	AS NOTED	UNSWITCHED
	AREA LIGHT POLE AND FIXTURE	CONCRETE BASE	SEE DIAGRAM
	FLOOD OR TRACK FIXTURE	AS NOTED	
	CEILING MOUNTED EXIT LIGHT	CEILING	1.3.8.
	WALL MOUNTED EXIT LIGHT	AS NOTED	1.3.8.
$	SINGLE POLE SWITCH	+4'-0"	2.
$a	SINGLE POLE SWITCH	+4'-0"	4. 2.
$3	THREE-WAY SWITCH	+4'-0"	2.
$4	FOUR-WAY SWITCH	+4'-0"	2.
$K	KEY OPERATED SWITCH	+4'-0"	2.
$P	SWITCH WITH PILOT LIGHT	+4'-0"	2.
$D	VARIABLE INTENSITY SWITCH	+4'-0"	2.
$TM	TIMER SWITCH	+4'-0"	2.
$	MOMENTARY CONTACT SWITCH, CENTER POSITION OFF	+4'-0"	2.
	OCCUPANCY SENSOR	CEILING	
	OCCUPANCY SENSOR	+4'-0"	2.
PP	POWER PACK	CEILING	SEE DIAGRAM, SPEC.
A	AUTOMATIC RELAY PACK	CEILING	SEE DIAGRAM. SPEC.
T	LOW VOLTAGE TRANSFORMER		
	DUPLEX RECEPTACLE — UPPER OUTLET SWITCH CONTROLLED	+16" OR AS NOTED	9. 11.
	SIMPLEX RECEPTACLE	+16" OR AS NOTED	9. 11.
	DUPLEX RECEPTACLE	+16" OR AS NOTED	9. 11.
A	DUPLEX RECEPTACLE		9.
W	ELECTRIC WATER COOLER RECEPTACLE		SEE DIAGRAM
WP	WEATHERPROOF RECEPTACLE	+24" OR AS NOTED	2. 9.
IG	ISOLATED GROUND RECEPTACLE	+16" OR AS NOTED	9. 11.
	GROUND FAULT INTERRUPTER DUPLEX RECEPTACLE	+16" OR AS NOTED	9. 11.
	DUPLEX RECEPTACLE EMERGENCY POWER (RED)	+16" OR AS NOTED	9. 11.
	FOURPLEX RECEPTACLE	+16" OR AS NOTED	9. 11.
	FOURPLEX RECEPTACLE EMERGENCY POWER (RED)	+16" OR AS NOTED	9. 11.
	FLOOR OUTLET WITH 20A DEVICE	FLOOR	
	MULTIPLE SERVICE FLOOR BOX	FLOOR	
	SPECIAL PURPOSE OUTLET	+16" OR AS NOTED	10. WITH CAP. 11.
	CORD DROP		SEE DIAGRAM
	PLUGMOLD	+46" OR AS NOTED	
	TELEVISION OUTLET	+16" OR AS NOTED	11.
	DATA OUTLET	+16" OR AS NOTED	9. 11.
	TELEPHONE OUTLET	+16" OR AS NOTED	9. 11.
	TELEPHONE/DATA OUTLET	+16" OR AS NOTED	9. 11.
	TELEPHONE OUTLET	FLOOR	
	CALL SWITCH	+4'-0"	2.
C	CLOCK OUTLET	+7'-6"	8.
C	CLOCK/SPEAKER COMBINATION	+7'-6"	

DEMOLITION NOTES

1. COORDINATE ALL NEW ELECTRICAL EQUIPMENT REQUIREMENTS AND MAKE CONNECTION TO EXISTING SYSTEMS. THIS INCLUDES LIGHTING, POWER, SIGNAL, RACEWAY AND OTHER SYSTEMS INCLUDED UNDER DIVISION 16.
2. RELOCATE, REWIRE AND/OR RECONNECT EXISTING ELECTRICAL DEVICES AND/OR EQUIPMENT THAT FOR ANY REASON OBSTRUCTS CONSTRUCTION.
3. CONCEAL ALL RACEWAY AND WIRING IN EXISTING WALLS, CEILINGS, FLOORS, ETC. EXCEPT WHERE THE USE OF SURFACE METAL RACEWAYS (E.G. WIRE MOLD) IS INDICATED ON DRAWINGS OR IN SPEC.
4. LEAVE ALL EXISTING EQUIPMENT, IN PORTIONS OF THE BUILDING NOT BEING REMODELED, IN WORKING CONDITION. RESTORE ALL INTERRUPTED BRANCH CIRCUITS, FEEDERS, ETC. TO WORKING CONDITION.
5. EXISTING RACEWAYS MAY BE REUSED (IN PLACE) WHERE POSSIBLE, AND WHERE IN COMPLIANCE WITH THE SPECIFICATIONS AND THE INTENT OF THE CONTRACT DOCUMENTS. INSURE INTEGRITY OF EXISTING RACEWAY BEFORE REUSE.
6. REMOVE ALL RACEWAYS, CONDUCTORS, BOXES, DEVICES, EQUIPMENT, ETC. THAT ARE NOT TO BE REUSED.
7. REMOVE EXISTING LIGHT FIXTURES WHICH ARE NOT TO BE REUSED, PLACE IN CARTON, LABEL APPROPRIATELY, AND RETURN TO OWNER, OR PROPERLY DISPOSE OF FIXTURES THAT THE OWNER CHOOSES NOT TO KEEP.
8. DO NOT PENETRATE STRUCTURAL ELEMENTS OF FLOORS, WALLS, CEILINGS, ROOFS, ETC.
9. DISCONNECT AND RECONNECT ANY/ALL FIXTURES, DEVICES, EQUIPMENT, ETC. REQUIRED FOR PROPER COMPLETION OF THE WORK.

GENERAL NOTES

1. CONSULT ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATION OF ALL LIGHTING FIXTURES.
2. VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGH IN. CONSULT ALL APPLICABLE CONTRACT DRAWINGS AND SHOP DRAWINGS TO INSURE NEC CODE CLEARANCES REQUIRED AROUND ALL ELECTRICAL EQUIPMENT.
3. CONTRACTOR SHALL VERIFY ALL ELECTRICAL LOADS (VOLTAGE, PHASE, CONNECTION REQUIREMENTS, ETC.) OF EQUIPMENT FURNISHED UNDER DIVISION 15 WITH APPROVED MECHANICAL SHOP DRAWINGS BEFORE BEGINNING ROUGH IN.
4. SEE SECTION 16510 OF THE SPECIFICATION REQUIRED COORDINATION MEETINGS WITH MECHANICAL AND CEILING CONTRACTORS.
5. SEE APPLICABLE SHOP DRAWINGS FOR ROUGH IN LOCATION OF ALL EQUIPMENT, WIRING DEVICES, ETC. WHERE APPLICABLE MOUNT ALL WIRING DEVICES ABOVE BACK SPLASH EXCEPT THOSE SERVING UNDER COUNTER EQUIPMENT.
6. SEE SPECIFICATION FOR ENERGY SAVING LAMP AND BALLAST REQUIREMENTS.
7. FINISHES OF ALL LIGHT FIXTURES SHALL BE AS SELECTED BY ARCHITECT.
8. THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR SUCH THAT NO PIPING, DUCTS, OR EQUIPMENT FOREIGN TO THE OPERATION OF THE ELECTRICAL EQUIPMENT SHALL BE PERMITTED TO BE INSTALLED IN, ENTER OR PASS THRU ELECTRICAL ROOMS OR SPACES, OR ABOVE OR BELOW ELECTRICAL EQUIPMENT IN OTHER AREAS.
9. ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY COLUMNS IN BRICK WALLS OR IN GROUTED CELLS ADJACENT TO OPENINGS. COORDINATE LOCATION OF BOXES WITH MASONRY CONTRACTOR.
10. ALL PENETRATIONS OF FIRE RATED FLOORS, WALLS, AND CEILINGS SHALL BE SEALED WITH APPROVED MATERIAL TO MAINTAIN FIRE RATING OF SURFACE PENETRATED.
11. CIRCUITS EXTENDING OVER 70' FOR 120 VOLT AND 165' FOR 277 VOLT 20 AMP CIRCUITS SHALL BE RUN WITH MINIMUM #10 CONDUCTORS.

INDEX OF ELECTRICAL DRAWINGS

E0.1 SYMBOLS, SCHEDULES AND NOTES
E1.0 DEMOLITION PLAN MAIN FLOOR
E2.0 LIGHTING PLAN MAIN FLOOR
E3.0 POWER PLAN MAIN FLOOR
E4.0 ELECTRICAL DIAGRAMS

VCBO
ARCHITECTURE
VALENTINER
CRANE
BRUNJES
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PROFESSIONAL ENGINEER — B. ELAINE FAWSON No. 295587 — LICENSED — STATE OF UTAH

VCBO ARCHITECTURE
524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: VCBOArchitecture.com

BNA CONSULTING
SALT LAKE ST.GEORGE LAS VEGAS PHOENIX
635 South State Street, Salt Lake City, Utah 84111
P:801.532.2196 F:801.532.2305
www.bnaconsulting.com

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UVSC SCIENCE BUILDING REMODEL PROJECT

Rev #	Date	Description
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Job # 05356B
CAD File
Drawn BNA Checked EF
Date 06/14/2006
Owner # 00
Ins. # 00

SYMBOLS, SCHEDULES AND NOTES

E0.1

By: Paul; Jun 14, 2006 – 9:26am
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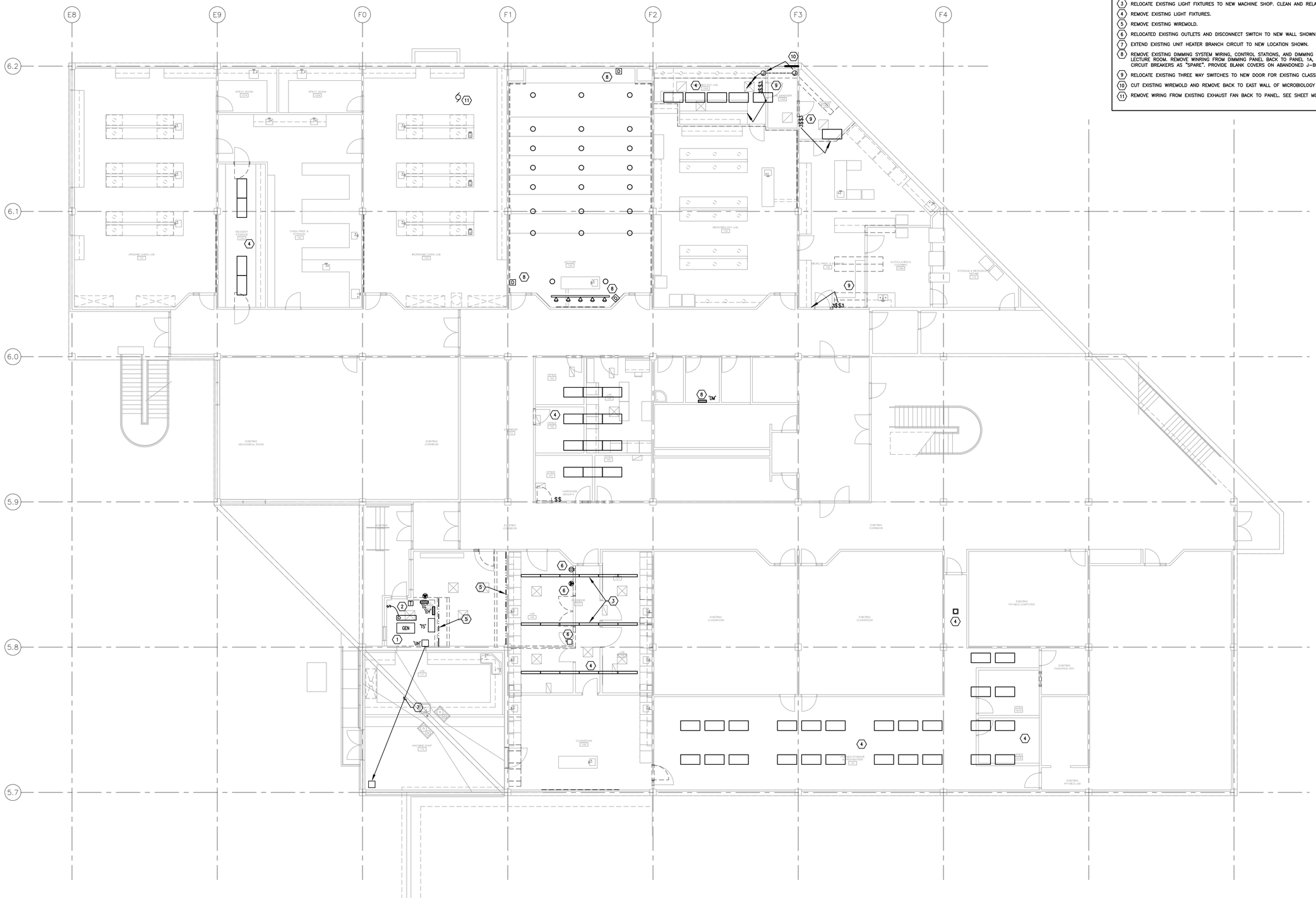
SHEET KEYNOTES

1. RELOCATE EXISTING GENERATOR, PANELS 'EL' AND 'EH', TRANSFER SWITCH AND TRANSFORMER PER POWER PLAN.
2. REMOVE EXISTING LIGHT FIXTURE.
3. RELOCATE EXISTING LIGHT FIXTURES TO NEW MACHINE SHOP. CLEAN AND RELAMP FIXTURES.
4. REMOVE EXISTING LIGHT FIXTURES.
5. REMOVE EXISTING WIREMOLD.
6. RELOCATED EXISTING OUTLETS AND DISCONNECT SWITCH TO NEW WALL SHOWN ON POWER PLAN.
7. EXTEND EXISTING UNIT HEATER BRANCH CIRCUIT TO NEW LOCATION SHOWN.
8. REMOVE EXISTING DIMMING SYSTEM WIRING, CONTROL STATIONS, AND DIMMING PANEL FOR LECTURE ROOM. REMOVE WINRING FROM DIMMING PANEL BACK TO PANEL 1A, AND LABEL CIRCUIT BREAKERS AS "SPARE". PROVIDE BLANK COVERS ON ABANDONED J-BOXES.
9. RELOCATE EXISTING THREE WAY SWITCHES TO NEW DOOR FOR EXISTING CLASSROOM LIGHTING.
10. CUT EXISTING WIREMOLD AND REMOVE BACK TO EAST WALL OF MICROBIOLOGY LAB.
11. REMOVE WIRING FROM EXISTING EXHAUST FAN BACK TO PANEL. SEE SHEET MD102, NOTE 5.



PLAN NORTH

DEMOLITION PLAN – MAIN FLOOR

1/8" = 1'-0"

0 4' 8' 16'

VCBO

ARCHITECTURE

VALENTINER
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LICENSED PROFESSIONAL ENGINEER
B. ELAINE FAWSON
No. 295587
STATE OF UTAH

VCBO ARCHITECTURE
524 SOUTH 600 EAST
SALT LAKE CITY, UTAH 84102
Phone: (801) 575-8800
Fax: (801) 531-9850
WWW: VCBOArchitecture.com

BNA CONSULTING
SALT LAKE ST.GEORGE LAS VEGAS PHOENIX
635 South State Street
Salt Lake City, Utah 84111
P 801.532.2196
F 801.532.2305

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UVSC SCIENCE BUILDING REMODEL PROJECT

Rev #	Date	Description
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Job # 05356B
CAD File
Drawn BNA Checked EF
Date 06/14/2006
Owner # 00
Ins. # 00

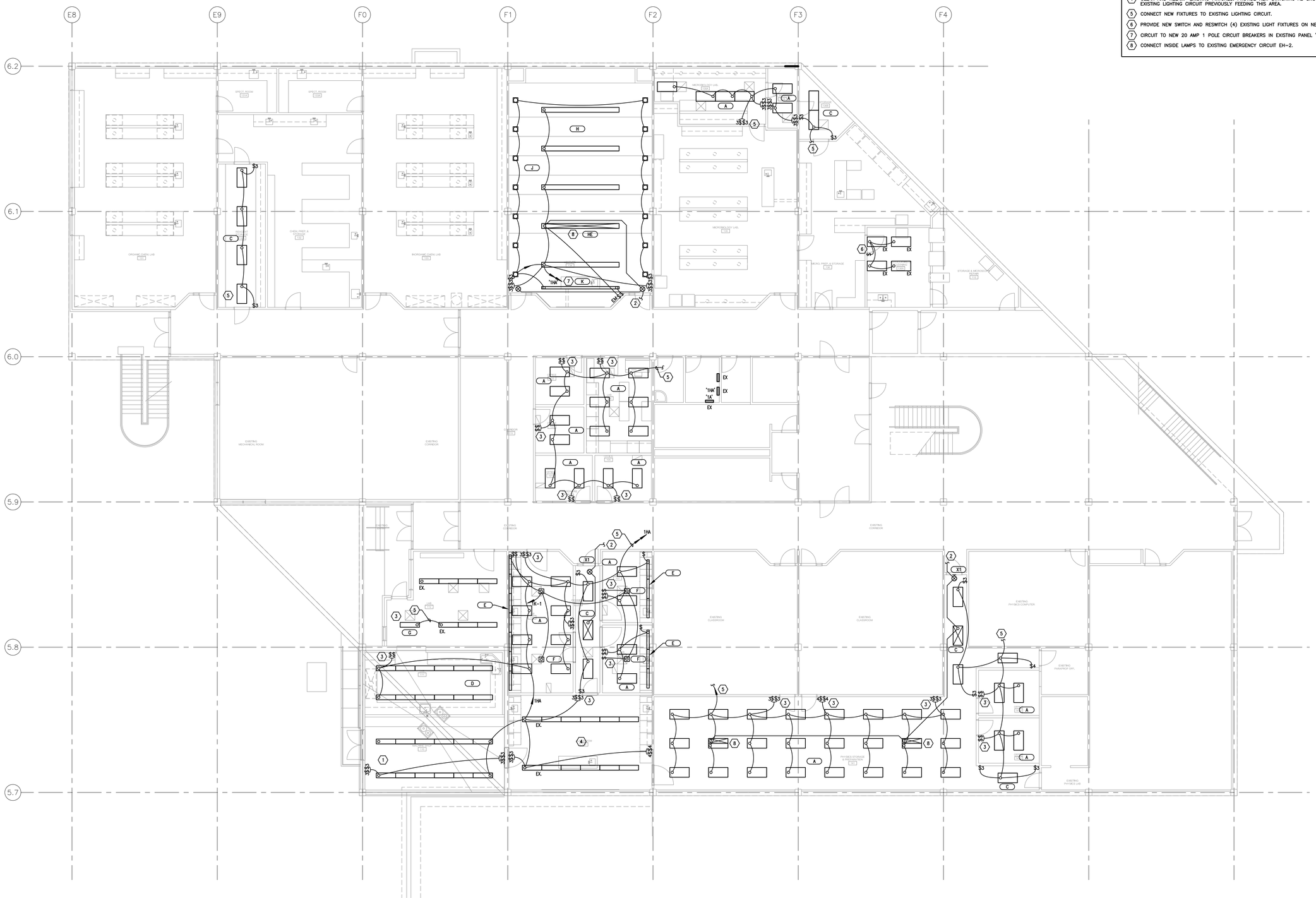
DEMOLITION PLAN
MAIN FLOOR

E1.0

By: Paul: Jun 14, 2006 – 9:26am
F: 2005 356B DRAW 356B-E10.dwg

SHEET KEYNOTES

1. EXISTING RELOCATED FIXTURES.
2. CONNECT TO EXISTING HALLWAY EMERGENCY CIRCUIT EH-2.
3. SWITCH INSIDE LAMPS WITH FIRST SWITCH AND OUTSIDE LAMPS WITH SECOND SWITCH.
4. CLEAN AND RELAMP EXISTING FIXTURES. PROVIDE NEW SWITCHING AS SHOWN. CONNECT TO EXISTING LIGHTING CIRCUIT PREVIOUSLY FEEDING THIS AREA.
5. CONNECT NEW FIXTURES TO EXISTING LIGHTING CIRCUIT.
6. PROVIDE NEW SWITCH AND RESWITCH (4) EXISTING LIGHT FIXTURES ON NEW SWITCH.
7. CIRCUIT TO NEW 20 AMP 1 POLE CIRCUIT BREAKERS IN EXISTING PANEL "1HA".
8. CONNECT INSIDE LAMPS TO EXISTING EMERGENCY CIRCUIT EH-2.



PLAN NORTH

LIGHTING PLAN – MAIN FLOOR

1/8" = 1'-0"

0 4' 8' 16'

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STATE OF UTAH — LICENSED PROFESSIONAL ENGINEER — B. ELAINE FAWSON — No. 295587

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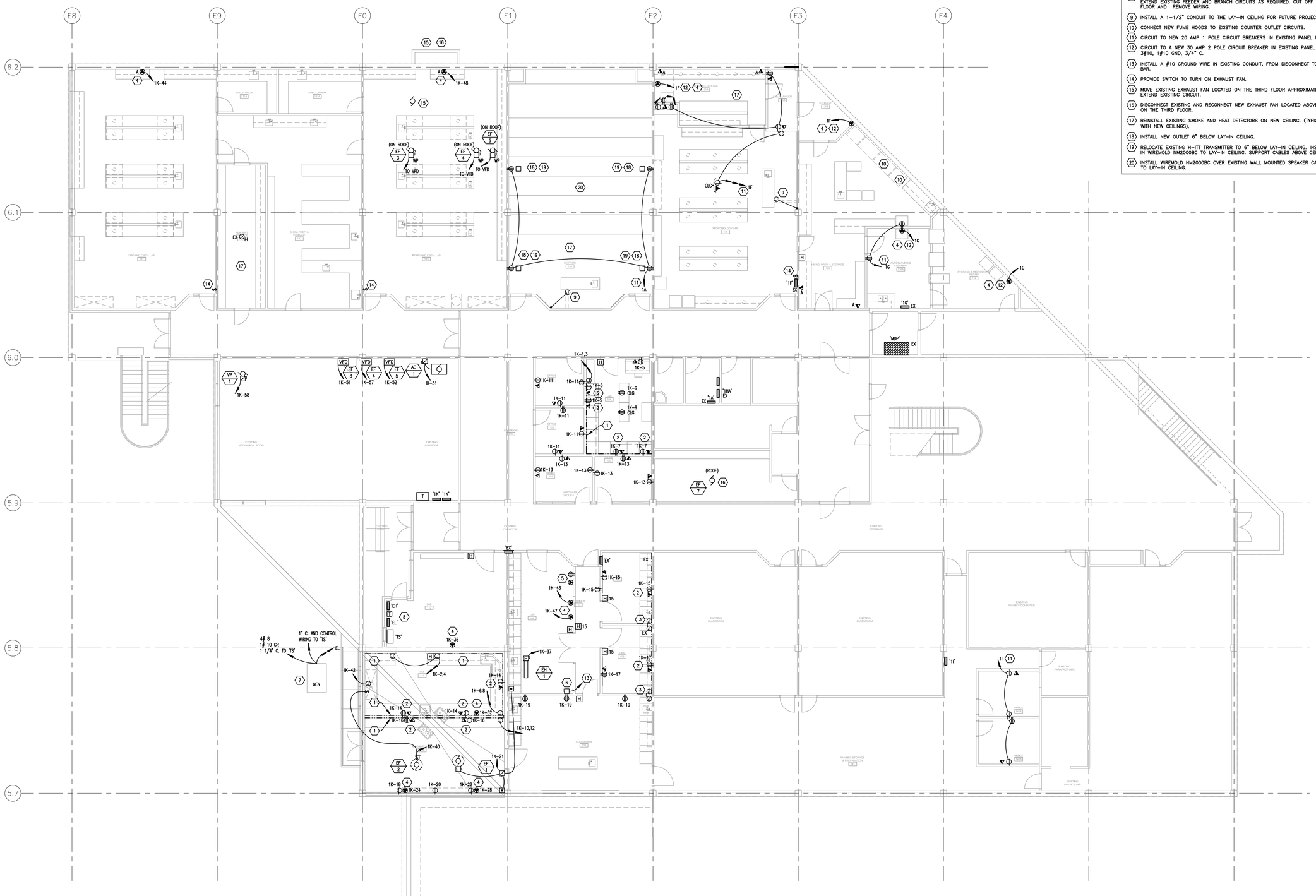
LIGHTING PLAN
MAIN FLOOR

E2.0

By: Paul: Jun 14, 2006 - 9:26am
F: 2005 356B DRAW 356B-E20.dwg

SHEET KEYNOTES

1. PROVIDE G-4000 SERIES RACEWAY WITH 20 AMP OUTLETS 3' ON CENTER. ALTERNATE EVERY OTHER OUTLET ON SAME CIRCUIT. MOUNT AT +44" AFF. PROVIDE GFI OUTLETS WITHIN 6' OF ANY SINK.
2. LOCATE OUTLETS AT +16" IN KNEE SPACE. COORDINATE EXACT LOCATION WITH CABINET INSTALLER.
3. CUT EXISTING WIRE MOLD AT INTERSECTION OF NEW WALL. PROVIDE JUNCTION BOX AND EXTEND EXISTING CIRCUITS THROUGH WALL IN CONDUIT.
4. PROVIDE 30 AMP 2 POLE TWIST LOCK RECEPTACLE. NEMA L14-30R.
5. RELOCATE EXISTING OUTLETS FROM PARTIAL HEIGHT WALL TO NEW WALLS SHOWN.
6. RELOCATE EXISTING DISCONNECT FROM WALL AT GRID 5.8 TO NEW LOCATION SHOWN.
7. RELOCATE EXISTING GENERATOR TO NEW LOCATION SHOWN. PROVIDE NEW WEATHER PROTECTIVE HOUSING PER SPECIFICATIONS.
8. RELOCATE EXISTING PANELS, TRANSFORMER, AND TRANSFER SWITCH TO NEW LOCATION SHOWN. EXTEND EXISTING FEEDER AND BRANCH CIRCUITS AS REQUIRED. CUT OFF EXISTING CONDUITS AT FLOOR AND REMOVE WIRING.
9. INSTALL A 1-1/2" CONDUIT TO THE LAY-IN CEILING FOR FUTURE PROJECTOR CABLE.
10. CONNECT NEW FUME HOODS TO EXISTING COUNTER OUTLET CIRCUITS.
11. CIRCUIT TO NEW 20 AMP 1 POLE CIRCUIT BREAKERS IN EXISTING PANEL INDICATED.
12. CIRCUIT TO A NEW 30 AMP 2 POLE CIRCUIT BREAKER IN EXISTING PANEL INDICATED WITH 3#10, 1#10 GND, 3/4" C.
13. INSTALL A #10 GROUND WIRE IN EXISTING CONDUIT, FROM DISCONNECT TO PANEL GROUND BAR.
14. PROVIDE SWITCH TO TURN ON EXHAUST FAN.
15. MOVE EXISTING EXHAUST FAN LOCATED ON THE THIRD FLOOR APPROXIMATELY 6' TO THE WEST. EXTEND EXISTING CIRCUIT.
16. DISCONNECT EXISTING AND RECONNECT NEW EXHAUST FAN LOCATED ABOVE MENS RESTROOM ON THE THIRD FLOOR.
17. REINSTALL EXISTING SMOKE AND HEAT DETECTORS ON NEW CEILING. (TYPICAL OF ALL SPACES WITH NEW CEILINGS).
18. INSTALL NEW OUTLET 6" BELOW LAY-IN CEILING.
19. RELOCATE EXISTING H-ITT TRANSMITTER TO 6" BELOW LAY-IN CEILING. INSTALL EXISTING CABLE IN WIREMOLD NM2000BC TO LAY-IN CEILING. SUPPORT CABLES ABOVE CEILING.
20. INSTALL WIREMOLD NM2000BC OVER EXISTING WALL MOUNTED SPEAKER CABLE FROM SPEAKER TO LAY-IN CEILING.



PLAN NORTH

POWER PLAN – MAIN FLOOR
1/8" = 1'-0"

0 4' 8' 16'

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POWER PLAN
MAIN FLOOR

E3.0

By: Paul: Jun 14, 2006 – 9:25am
F: 2005 5368 DRAW 5368-E30.dwg

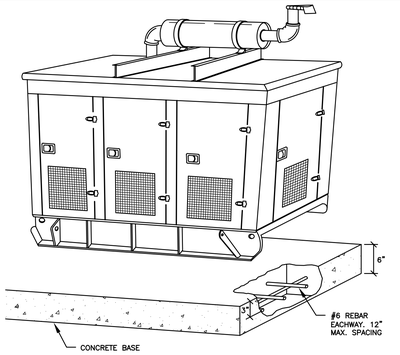


DIAGRAM N003 GENERATOR WITH COVER
NTS

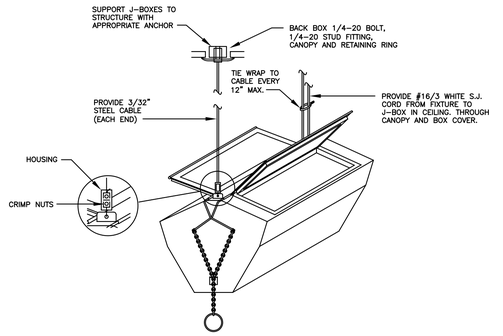
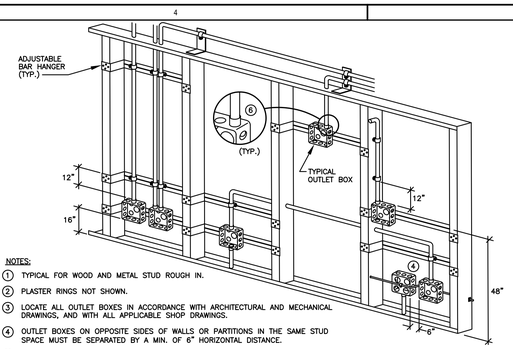


DIAGRAM B001 DARK ROOM SAFETY LIGHT FIXTURE
NTS



NOTES:
1. TYPICAL FOR WOOD AND METAL STUD ROUGH IN.
2. PLASTER RINGS NOT SHOWN.
3. LOCATE ALL OUTLET BOXES IN ACCORDANCE WITH ARCHITECTURAL AND MECHANICAL DRAWINGS, AND WITH ALL APPLICABLE SHOP DRAWINGS.
4. OUTLET BOXES ON OPPOSITE SIDES OF WALLS OR PARTITIONS IN THE SAME STUD SPACE MUST BE SEPARATED BY A MIN. OF 6" HORIZONTAL DISTANCE.
5. ELECTRICAL BOXES INSTALLED IN FIRE RESISTENT WALLS OR PARTITIONS SHALL COMPLY WITH UBC 709.7 (24" SEPARATION ON OPPOSITE SIDES.)
6. INSULATED THROAT EMT CONNECTOR.

DIAGRAM H004 TYPICAL ROUGH IN REQUIREMENTS
NTS

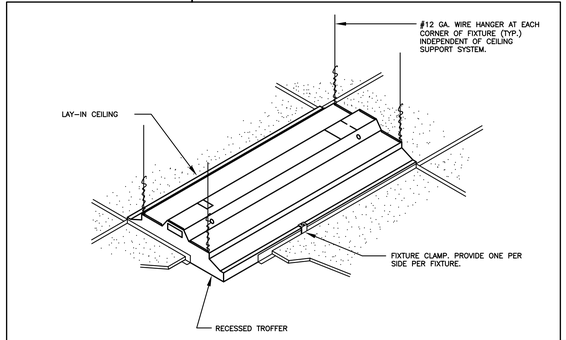
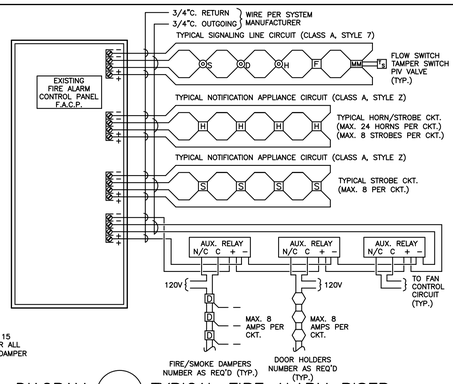


DIAGRAM A001 TYP. RECESSED FIXTURE MOUNTING
NTS



NOTE:
SEE DIVISION 15 DRAWINGS FOR ALL SMOKE/FIRE DAMPER LOCATIONS

DIAGRAM D002 TYPICAL FIRE ALARM RISER
NTS

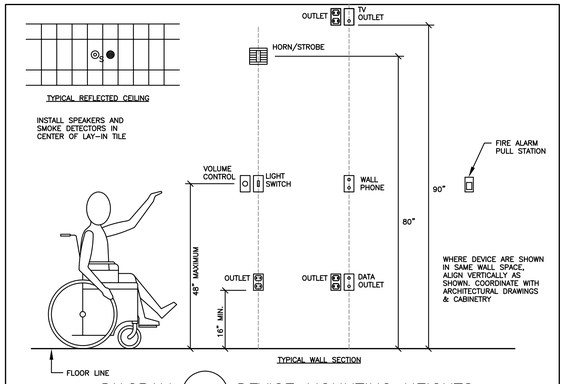


DIAGRAM R001 DEVICE MOUNTING HEIGHTS
NTS

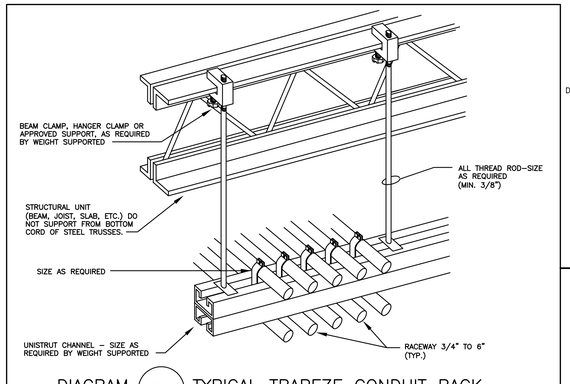


DIAGRAM H001 TYPICAL TRAPEZE CONDUIT RACK
NTS

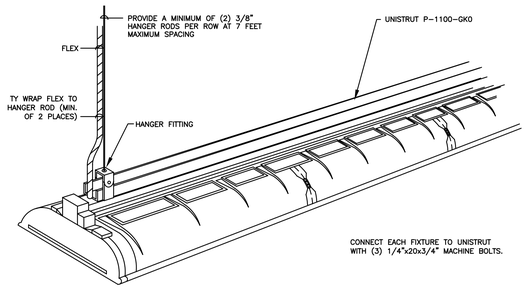


DIAGRAM A010 FIXTURE MOUNTING
NTS

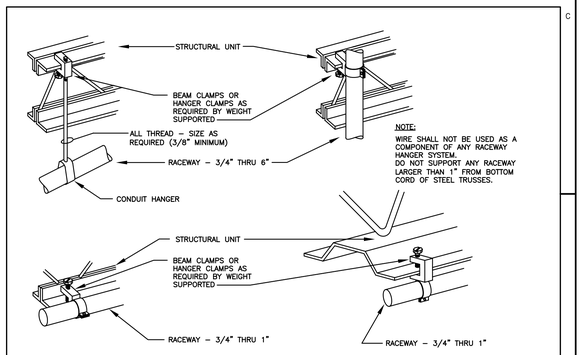
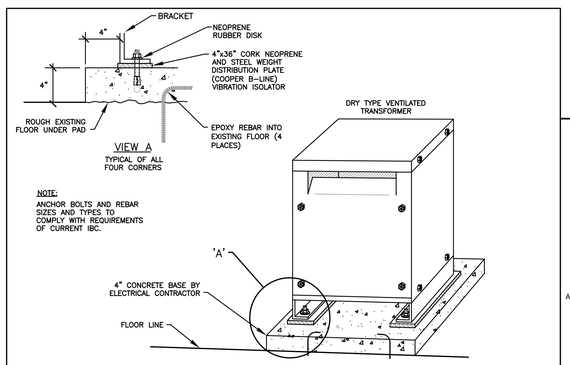


DIAGRAM H003 TYPICAL RACEWAY SUPPORT METHODS
NTS



NOTE:
ANCHOR BOLTS AND REBAR SIZES AND TYPES TO COMPLY WITH REQUIREMENTS OF CURRENT IBC.

DIAGRAM Q003 DRY TYPE TRANSFORMER MOUNTING
NTS

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ELECTRICAL DIAGRAMS

E4.0

By: Paul, Jun 14, 2006 – 9:24am
F: 2005 356B DRAW 356B-E40.dwg