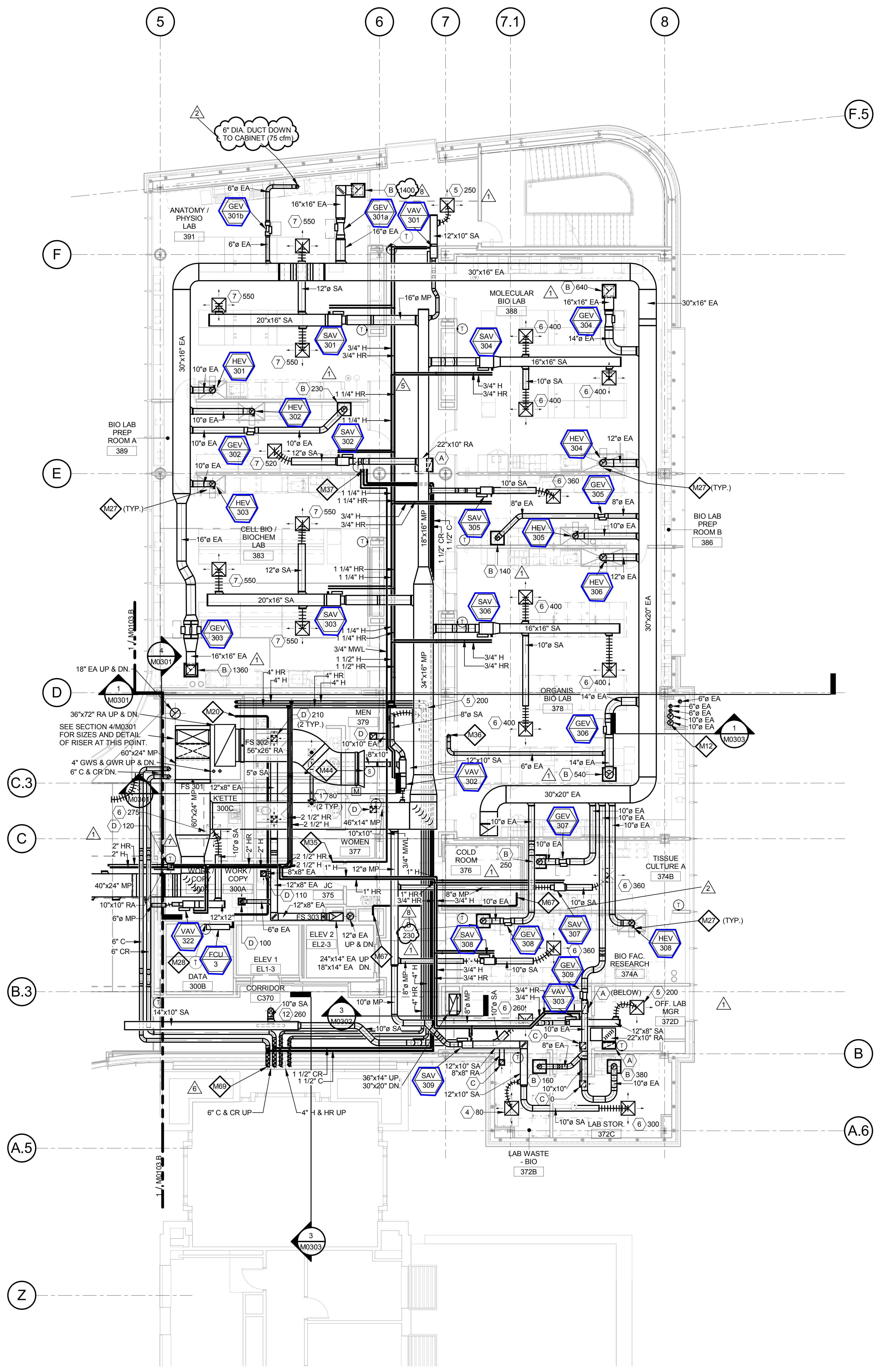
5
6
7
7.1
8
F.5
F
E
D
C.3
C
B.3
B
A.6
A.5
Z
6" DIA. DUCT DOWN TO CABINET (75 cfm)
ANATOMY / PHYSIO LAB 391
GEV 301b
GEV 301a
VAV 301
16"x16" EA
6"ø EA
16"ø EA
12"x10" SA
B 1400
5 250
7 550
30"x16" EA
12"ø SA
16"ø MP
20"x16" SA
SAV 301
3/4" H
3/4" HR
MOLECULAR BIO LAB 388
B 640
16"x16" EA
GEV 304
14"ø EA
6 400
SAV 304
16"x16" SA
10"ø SA
30"x16" EA
HEV 301
10"ø EA
B 230
1 1/4" HR
1 1/4" H
HEV 302
SAV 302
GEV 302
7 520
12"ø SA
22"x10" RA
BIO LAB PREP ROOM A 389
HEV 304
12"ø EA
M27 (TYP.)
10"ø SA
6 360
GEV 305
8"ø EA
HEV 303
M37
CELL BIO / BIOCHEM LAB 383
16"ø EA
SAV 305
HEV 305
10"ø EA
BIO LAB PREP ROOM B 386
18"x16" MP
1 1/2" CR
1 1/2" C
B 140
HEV 306
12"ø EA
SAV 306
16"x16" SA
SAV 303
GEV 303
16"x16" EA
B 1360
3/4" MWL
1 1/2" H
1 1/2" HR
4" HR
4" H
30"x20" EA
34"x16" MP
ORGANIS. BIO LAB 378
GEV 306
14"ø EA
1 M0303
M12
18" EA UP & DN.
4 M0301
1 M0301
36"x72" RA UP & DN.
SEE SECTION 4/M0301 FOR SIZES AND DETAIL OF RISER AT THIS POINT.
60"x24" MP
4" GWS & GWR UP & DN.
6" C & CR DN.
M20
D 210 (2 TYP.)
MEN 379
FS 302
56"x26" RA
M44
10"x10" EA
8"x10"
5 200
8"ø SA
M36
12"x10" SA
VAV 302
6"ø EA
B 540
FS 301
12"x8" EA
K'ETTE 300C
5"ø SA
1 80 (2 TYP.)
2 1/2" HR
2 1/2" H
46"x14" MP
WOMEN 377
M35
30"x20" EA
GEV 307
COLD ROOM 376
B 250
TISSUE CULTURE A 374B
6 275
D 120
2" HR
2" H
40"x24" MP
10"x10" RA
6"ø MP
WORK / COPY 300A
12"x8" EA
JC 375
D 110
FS 303
12"x12"
VAV 322
FCU 3
M28
DATA 300B
D 100
ELEV 1 EL1-3
ELEV 2 EL2-3
12"ø EA UP & DN.
24"x14" EA UP
18"x14" EA DN.
M67
8 230
8"ø MP
3/4" H
SAV 308
GEV 308
SAV 307
HEV 308
GEV 309
BIO FAC. RESEARCH 374A
VAV 303
A (BELOW)
5 200
OFF. LAB MGR 372D
CORRIDOR C370
12 260
10"ø SA
3 M0302
10"ø MP
14"x10" SA
6 260
12"x8" SA
22"x10" RA
M69
6" C & CR UP
1 1/2" CR
1 1/2" C
4" H & HR UP
36"x14" UP, 30"x20" DN.
SAV 309
12"x10" SA
8"x8" RA
B 160
10"x10"
B 380
4 80
LAB STOR. 372C
6 300
LAB WASTE - BIO 372B
3 M0303
1 / M0103.B

1 LEVEL 03 - AREA A - MECHANICAL PLAN

1/8" = 1'-0"

GENERAL NOTES:

A. Because of the limited space available to install all of the mechanical work, coordination between the various trades is of the utmost importance. This contractor shall coordinate with all other trades prior to the fabrication and installation of any work.
B. Refer to the reflected ceiling plans for ceiling construction, ceiling grid layout, ceiling mounted devices, and coordinate exact location and mounting type of all air devices.
C. All ductwork upstream of terminal units shall be Medium Pressure (MP). All ductwork downstream of terminal units shall be Low Pressure (LP). Refer to specifications.
D. All ductwork dimensions indicated on plans are sheet metal sizes. All medium pressure ductwork shall be unlined, externally insulated. All low pressure ductwork shall be lined. See specifications.
E. All mitered 90° rectangular elbows shall be furnished with turning vanes having maximum c = 0.12. All smooth radius rectangular elbows shall have a throat radius greater than one half the duct width, unless furnished with splitter vanes. Under no circumstances shall the throat radius be less than one third the duct width. Unless otherwise noted or specified.
F. Contractor shall furnish and install volume dampers for each duct take-off unless otherwise noted. See detail.
G. Maximum length of Low Pressure (LP) flexible ductwork shall be 8'-0". Round LP duct of lengths greater than 8'-0" shall be rigid round. Flexible duct sizes on plans shall be neck size of diffusers or as indicated. See specifications.
H. Maximum length of Medium Pressure (MP) flexible ductwork shall be 2'-0". Round MP duct of lengths greater than 2'-0" shall be rigid round. Flexible duct sizes on plans shall be air Terminal Unit inlet size or as indicated. See specifications.
I. All ductwork runouts to Air Terminal Units and diffusers shall be the connection size unless otherwise noted.
J. Piping runouts to terminal units shall be 3/4" unless otherwise noted. Refer to reheat box schedule.
K. Verify exact location of thermostats, humidistats, BAS sensors, and other exposed control sensors with architectural elevations and drawings before installation.
L. Schedule systems or equipment shut downs required for new construction with owner two weeks in advance. Some preminuim time work may be required.
M. Refer to piping details for final connections to equipment.
N. Provide service shut-off valves in major piping branch lines. All connections to risers and each building wing; A & B.

◇ KEYED NOTES

M12 BOILER AND DOMESTIC WATER HEATER FLUES UP THROUGH ROOF.

M20 REFRIGERANT LIQUID AND SUCTION PIPING BETWEEN DX COOLING COILS AND CONDENSING UNITS. COORDINATE PIPE SIZES WITH MANUFACTURER. PROVIDE 3/4" DRAIN LINE, ROUTE WITH REFRIGERANT PIPING, AND TERMINATE DRAINS FROM FCU-1, 2, 5A, 5B, AND 5C OVER FLOOR DRAIN IN LOWER LEVEL MECHANICAL ROOM. TERMINATE DRAINS FROM FCU-3 AND 4 OVER SERVICE SINK IN JANITORS CLOSET 375.

M27 INSTALL HOOD EXHAUST VALVE IN VERTICAL POSITION NEAR HOOD. ELBOWS SHALL HAVE 1.5 DIAMETER RADIUS, USE 1.0 DIAMETER RADIUS ELBOWS ONLY WHERE NECESSARY.

M28 BAS TEMPERATURE SENSOR TO MONITOR IT/TCOM SPACES. FCU CONTROLLED BY UNIT MOUNTED THERMOSTAT.

M35 3/4" MWL CONNECTED TO BACKFLOW DEVICE IN JANITOR'S CLOSET. SEE PLUMBING DRAWINGS. ROUTE TO LEVEL 04 FOR PROCESS COOLING SYSTEM.

M36 6" ROUND DUCT FOR AQUARIUM SPACE. BALANCE AIRFLOW TO 100 CFM. TERMINATE OPEN END AS HIGH AS POSSIBLE.

M37 1-1/2" C & CR, AND 3/4" MWL UP TO LEVEL 04.

M44 AIRFLOW MEASURING STATION, KELE MODEL KOAMS FURNISHED WITH INLET BELL FOR PLENUM APPLICATIONS LOCATED IN MINIMUM OA DUCT OR RETURN AIR INLET ON EACH FLOOR.

M67 LOCATION FOR REFRIGERANT PIPING FOR COOLER, SEE ARCHITECTURAL SPECIFICATIONS AND DRAWINGS. PIPING SHALL BE INSTALLED PER COOLER SUPPLIERS REQUIREMENTS.

M69 H/HR AND C/CR PIPING TO BE HEAT TRACED BY ELECTRICAL CONTRACTOR. REFER TO ELECTRICAL PLANS. COORDINATE INSTALLATION OF PIPE INSULATION OVER HEAT TRACE WITH ELECTRICAL CONTRACTOR. HEAT TRACE TO EXTEND 3 FT. INSIDE EACH BUILDING.

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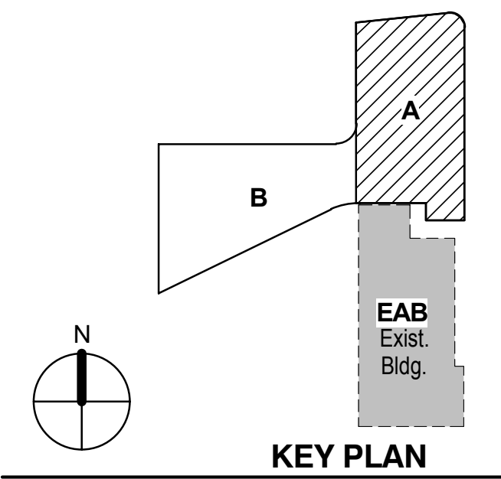
No.	Description	Date
8	ASI-067	06 JUN 2017
7	ASI-050	16 FEB 2017
6	ASI-045	18 JAN 2017
5	ASI-043	20 DEC 2016
4	ASI-034	04 NOV 2016
3	ASI-032	18 OCT 2016
2	ADDENDUM 2-2	19 APRIL 2016
1	ADDENDUM 2-1	17 MAR 2016
-	ISSUED FOR CONSTRUCTION (BP2)	01 MAR 2016


A
B
EAB
Exist.
Bldg.
N

KEY PLAN

Drawing Title:

LEVEL 03 AREA A FLOOR PLAN - MECHANICAL

Project No.: 04561.01 Checked by:

M0103.A

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