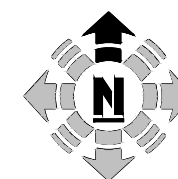
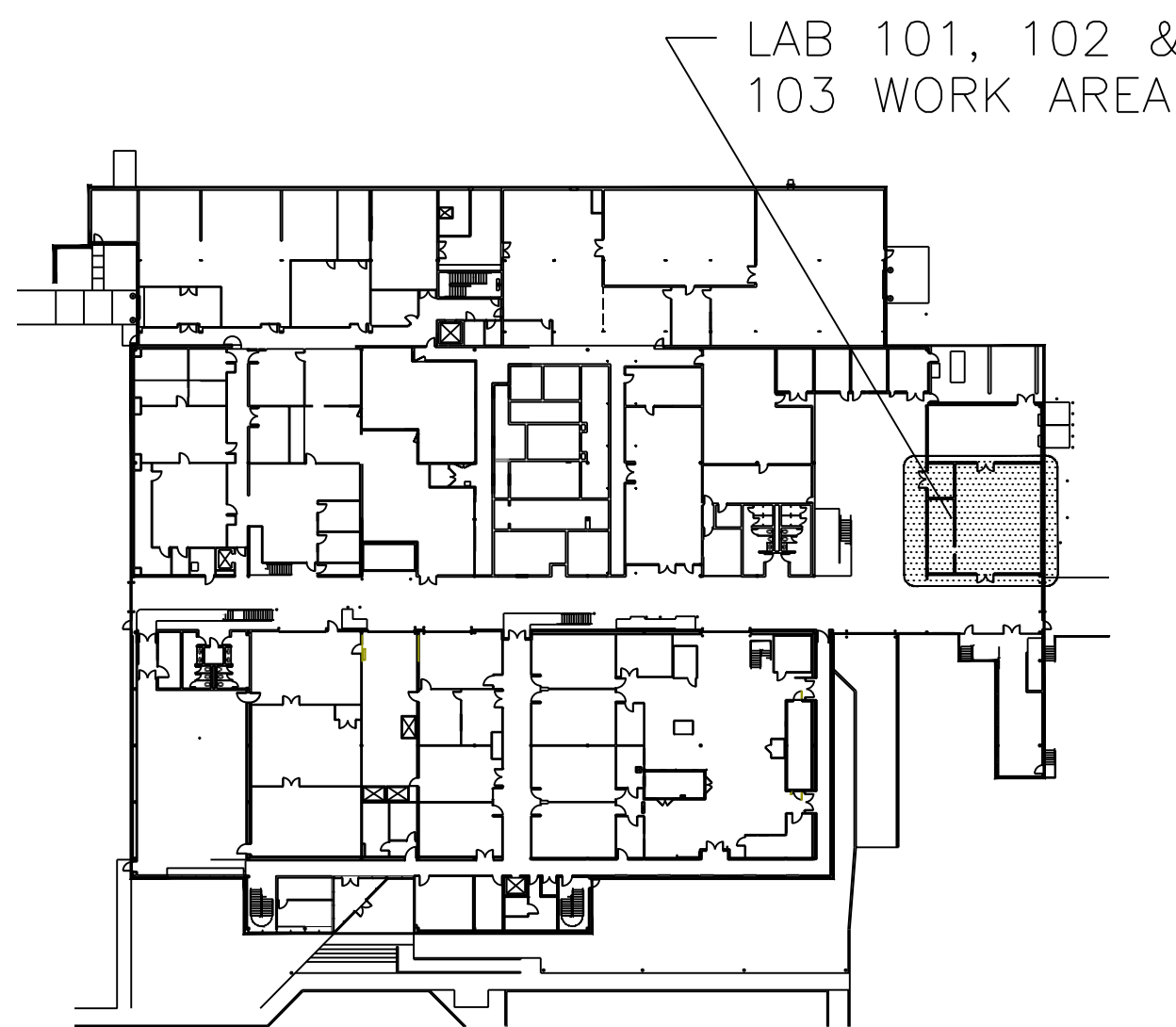


FIRST FLOOR PLUMBING PLAN
SCALE: 1/4" = 1'


PLUMBING KEYNOTES:

- 1 EXTEND AND CONNECT NEW GAS SERVICE PIPING TO EXISTING GAS METER.
- 2 4" WASTE PIPING TO LABORATORY 104.
- 3 ROUTE NEW 2" VENT PIPING UP. RE: P-02 FOR CONTINUATION.
- 4 EXTEND AND CONNECT NEW 4" COLD WATER PIPING TO EXISTING 4" COLD WATER SERVICE PIPING IN LOCATION SHOWN.
- 5 ROUTE GAS PIPING UP TO SECOND LEVEL. RE: P-02 FOR CONTINUATION.
- 6 3/4" TEMPERED HOT WATER, 3/4" HOT WATER, 3/4" COLD WATER, 1/2" DE-IONIZED WATER SUPPLY, 1/2" DE-IONIZED WATER RETURN, 1/2" N2, 1/2" CA (90 PSI), 1/4" HE, 1/4" ZERO AIR, 1/4" AR, 1/2" VAC, AND 3/4" NATURAL GAS PIPING UP IN PLUMBING CHASE. RE: P-02 FOR CONTINUATION.
- 7 1/2" N2, 1/2" CA (90 PSI), 1/4" HE, 1/4" ZERO AIR, 1/4" AR, 1/2" VAC DROPS TO QUICK CONNECT OUTLETS ON WALL/CHASE MOUNTED PANEL. RE: DIAGRAM ON SHEET A-10
- 8 PROVIDE 3/4" NATURAL GAS, 1/2" CA (90 PSI) 1/2" N2, 1/2" VAC. TO CONNECTIONS AT FUME HOOD. COORDINATE FINAL REQUIREMENTS WITH EQUIPMENT.
- 9 3/4" COLD WATER, 3/4" HOT WATER, 3/4" TEMPERED HOT WATER, 1/2" DI WATER, 2" WASTE, AND 2" VENT PIPING DOWN ON WALL TO FIXTURE (PROVIDED BY OTHERS). EYEWASH FIXTURE SHALL BE GUARDIAN BP5022 OR APPROVED EQUAL. MAKE ALL CONNECTIONS PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE ROUTING OF PIPING THROUGH CASEWORK AND THROUGH PLUMBING CHASE.
- 10 EXTEND AND CONNECT NEW GAS PIPING TO THE EXISTING GAS PIPING IN AREA SHOWN. ROUTE NEW PIPING UP TO ABOVE SECOND FLOOR LEVEL. RE: PD-04 FOR CONTINUATION.
- 11 4" COLD WATER PIPING UP. RE: P-02 FOR CONTINUATION.
- 12 CONNECT NEW 3/4" COLD WATER PIPING TO NEW HOSE BIB IN LOCATION SHOWN.
- 13 3/4" TEMPERED HOT WATER DOWN IN WALL TO EMERGENCY FIXTURE (PROVIDED BY GENERAL CONTRACTOR).
- 14 ROUTE NEW 4" WASTE PIPING BELOW NEW FLOOR IN EXISTING TRENCH. EXISTING TRENCH SHALL BE REMOVED IN NEW WORK.
- 15 ROUTE 3/4" NATURAL GAS, 1/2" N2, 1/2" CA (90 PSI), 1/4" HE, 1/4" ZERO AIR, 1/4" AR, 1/2" VAC, 1/2" DE-IONIZED WATER SUPPLY, 1/2" DE-IONIZED WATER RETURN, AND 3/4" TEMPERED HOT WATER IN ACCESSIBLE WALL CHASE TO HOODS AND QUICK CONNECT OUTLETS AT PLUMBING CHASE. ROUTE DOMESTIC HOT WATER AND DOMESTIC COLD WATER THROUGH CHASE.
- 16 EXISTING N2 SERVICE ENTRANCE AND DISTRIBUTION RISER TO REMAIN.
- 17 EXISTING O2 SERVICE ENTRANCE AND DISTRIBUTION RISER TO REMAIN.
- 18 2" DRAIN PIPING DOWN ON WALL FROM FLOOR DRAIN IN FANROOM AND MECHANICAL PENTHOUSE. RE: P-02, P-03. ROUTE PIPING BELOW FLOOR TO EXISTING WASTE PIPING IN AREA OF EXISTING FLOOR DRAIN. - FIELD VERIFY PRIOR TO START OF WORK.
- 19 NEW 4" FLOOR DRAIN WITH 2" VENT PIPING UP IN WALL.
- 20 EXTEND AND CONNECT NEW DOMESTIC COLD WATER, HOT WATER SUPPLY, HOT WATER CIRCULATION, COMPRESSED AIR, AND VAC PIPING TO EXISTING COLD WATER, HOT WATER, HOT WATER CIRCULATION, COMPRESSED AIR, AND VACUUM PIPING RACKED ON WALL IN AREA SHOWN. ROUTE NEW PIPING UP TO ABOVE SECOND FLOOR LEVEL. RE: P-02 FOR CONTINUATION.
- 21 ROUTE 3/4" CONDENSATE DRAIN FROM FAN COIL UNIT TO DISCHARGE INTO STANDPIPE IN WALL.
- 22 PROVIDE NEW CONDENSATE PUMP AND 3/4" DRAIN PIPING. CONNECT TO EXISTING CONDENSING UNIT AT COOLER.
- 23 PROVIDE 4" FLOOR CLEAN-OUT.
- 24 ROUTE 1/2" DE-IONIZED WATER FROM PLUMBING CHASE TO FIXTURE IN LOCATION INDICATED. RE: P-02 FOR CONTINUATION.
- 25 1/2" DE-IONIZED WATER DOWN IN WALL TO FIXTURE (PROVIDED BY CONTRACTOR). MAKE ALL CONNECTIONS TO FIXTURE PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE EXACT REQUIREMENTS WITH GENERAL CONTRACTOR.
- 26 DOMESTIC COLD WATER, DOMESTIC HOT WATER, HOT WATER CIRCULATION, COMPRESSED AIR, AND NITROGEN PIPING UP. RE: P-02 FOR CONTINUATION.
- 27 ROUTE 3/4" TEMPERED WATER BRANCH PIPING FROM 3/4" TEMPERED WATER PIPING IN PLUMBING CHASE TO EMERGENCY FIXTURE. COORDINATE ROUTING WITH NEW AND EXISTING STRUCTURE, LIGHTS, HVAC, EQUIPMENT, AND ALL OTHER TRADES PRIOR TO THE START OF WORK.
- 28 PROVIDE INTERCONNECTION BETWEEN ACID-WASTE PIPING SYSTEM (PP) AND CAST IRON WASTE PIPING BELOW FLOOR IN AREA INDICATED. REFER TO SPECIFICATIONS FOR MORE INFORMATION. FIELD VERIFY REQUIREMENTS.
- 29 PROVIDE TRAPPED 2" STANDPIPE IN WALL TO RECEIVE CONDENSATE DRAINAGE FROM MECHANICAL EQUIPMENT. ROUTE DRAINS DOWN IN WALL AND PROVIDE AIR-GAP.
- 30 EXTEND AND CONNECT NEW 2" WASTE PIPING TO 4" WASTE PIPING BELOW FLOOR AT FLOOR DRAIN.
- 31 EXTEND AND CONNECT NEW 2" WASTE PIPING TO 4" WASTE PIPING BELOW FLOOR AT FLOOR DRAIN.
- 32 ROUTE DRAIN PIPING FROM REDUCED PRESSURE ASSEMBLY, FULL-SIZED, TO AIR-GAP OVER FLOOR DRAIN. COORDINATE EXACT ROUTING IN FIELD.




KEY PLAN
SCALE: NTS

REVISIONS					REVISIONS					FILE INFORMATION				ENGINEERING REVIEW		
NO.		DATE	BY	APP'D.	BAE	NO.		DATE	BY	APP'D.	BAE	USER:	DATE:	TIME:	APPROVAL	DATE
0	50% CONSTRUCTION DOCUMENTS	8-25-11	-	-	-	-	-	-	-	-	-	USER:	DLD	DATE: 1/20/12	TIME:	XREF'S:
1	90% CONSTRUCTION DOCUMENTS	9-30-11	-	-	-	-	-	-	-	-	-	DWG. FILE:		LAYOUT:	DESIGNER	DPH
2	100% CONSTRUCTION DOCUMENTS	11-3-11	-	-	-	-	-	-	-	-	-	DWG. FOLDER:			ENGINEER	DPH
3	FOR CONSTRUCTION	1-20-12	-	-	-	-	-	-	-	-	-	ACAD VERSION: AUTOCAD 2010			CHECKED BY	MTM
-	-	-	-	-	-	-	-	-	-	-	-	PLATFORM: WINDOWS XP			A/E APPROVED BY	-
-	-	-	-	-	-	-	-	-	-	-	-	BORDER: ZBD2234D-3.DWG	PLOT SCALE: 1:1	UNITS: ARCH	NREL APPROVED BY	-
-	-	-	-	-	-	-	-	-	-	-	-	PLOT INFO.: NREL.STB			BLDG. AREA ENG.	-



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U.S. Department of Energy
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FLTB THERMO-CHEM LABORATORY 101 CONVERSION TASK ORDER 13 FIRST FLOOR PLUMBING PLAN	DRAWING NO. PREFIX FLTB-135-	DRAWING NO. P-01	REVISION NO. 3
NREL PROJECT NO. EX2010034	NREL WORK ORDER NO. 13	A/E PROJECT NO. 11261	