REV.	DESCRIPTION	DRAWN	DATE
		APPD.	DATE

" ✕ " -- INDICATES LOCATION OF WATER FILTERS INSTALLED BETWEEN 95 DEGREE LCW COPPER SUPPLY AND RETURN LINES. IT IS A FULFLO FILTER, BY PARKER HANNIFIN, MODEL BS3820-3/4 SD, MAX. PRESSURE 150 PSI @ 100 DEGREE F OR 100 PSI @ 250 DEG F.

" ✕ " -- INDICATES LOCATION OF WATER VALVES, PRESSURE GAUGES, AND RETURN LINE FLOW SWITCHES, ON 2" COPPER 95 DEGREE LCW LINES. THESE ARE THE CROSSOVER POINTS FROM THE 6" STAINLESS STEEL PIPES.

" ✕ " -- INDICATES LOCATION OF 3" COPPER 95 DEGREE LCW WATER PIPES, BOTH SUPPLY AND RETURN, AND FLEXIBLE HOSES TO MAGNETS.

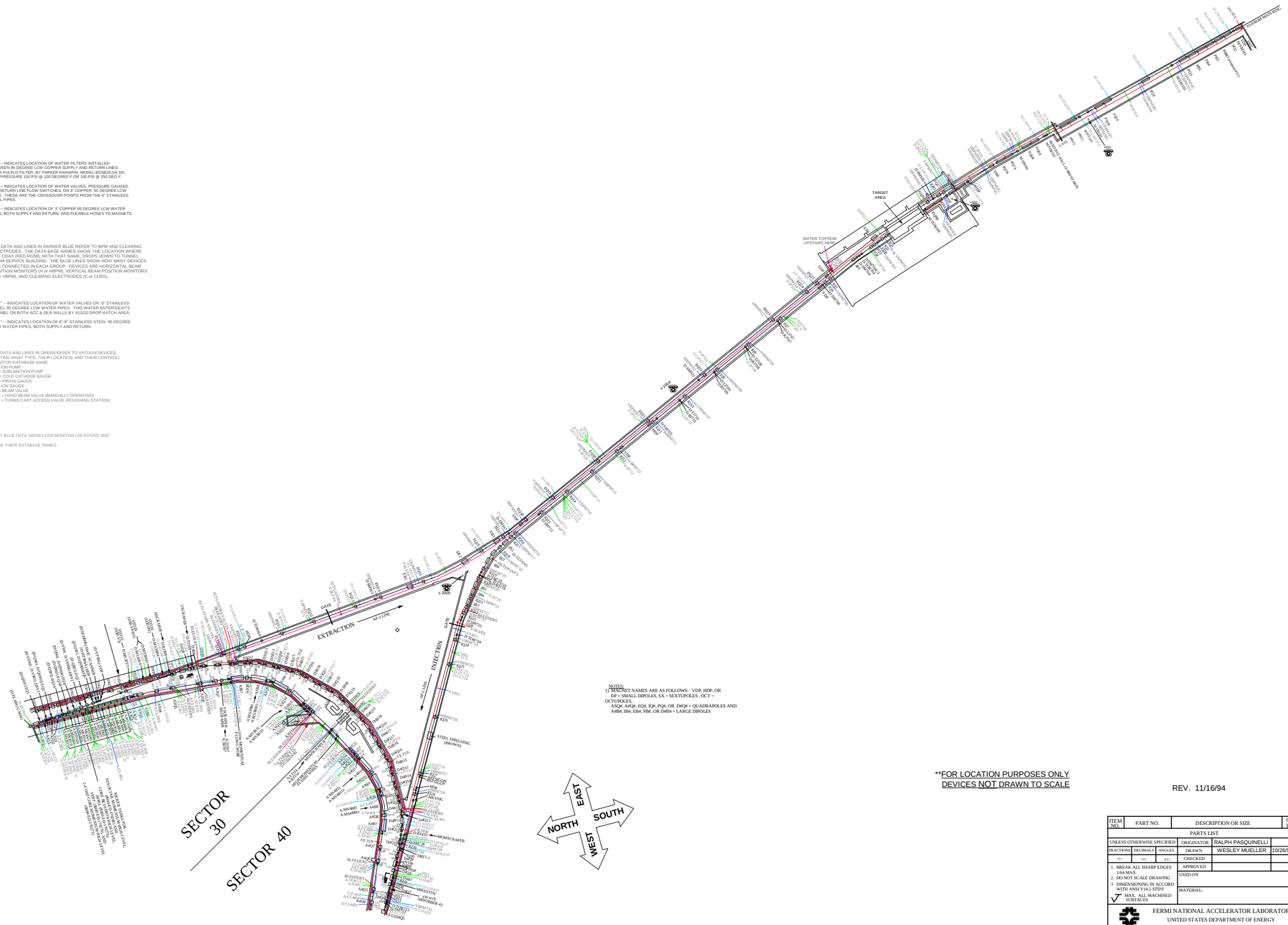
** ALL DATA AND LINES IN DARKER BLUE REFER TO BPM AND CLEARING ELECTRODES. THE DATA BASE NAMES SHOW THE LOCATION WHERE THE COAX (RED RG58), WITH THAT NAME, DROPS DOWN TO TUNNEL FROM SERVICE BUILDING. THE BLUE LINES SHOW HOW MANY DEVICES ARE CONNECTED IN EACH GROUP. DEVICES ARE HORIZONTAL BEAM POSITION MONITORS (H or HBPM), VERTICAL BEAM POSITION MONITORS (V or VBPM), AND CLEARING ELECTRODES (C or CLRG).

" ✕ " -- INDICATES LOCATION OF WATER VALVES ON 6" STAINLESS STEEL 95 DEGREE LCW WATER PIPES. THIS WATER ENTERS/EXITS TUNNEL ON BOTH ACC & DEB WALLS BY A1/D20 DROP HATCH AREA.

" ✕ " -- INDICATES LOCATION OF 6"-8" STAINLESS STEEL 95 DEGREE LCW WATER PIPES, BOTH SUPPLY AND RETURN.

** ALL DATA AND LINES IN GREEN REFER TO VACUUM DEVICES, STATING WHAT TYPE, THEIR LOCATION, AND THEIR CONTROL/ MONITOR DATABASE NAME.
IP = ION PUMP
SP = SUBLIMATION PUMP
CC = COLD CATHODE GAUGE
TC = PIRANI GAUGE
IG = ION GAUGE
BV = BEAM VALVE
HBV = HAND BEAM VALVE (MANUALLY OPERATED)
TCV = TURBO CART ACCESS VALVE (ROUGHING STATION)

**LIGHT BLUE DATA SHOW LOSS MONITOR LOCATIONS AND MOST SHOW THEIR DATABASE NAMES.



NOTES:
1) MAGNET NAMES ARE AS FOLLOWS: VDP, HDP, OR DP = SMALL DIPOLES, SX = SEXTUPOLES , OCT = OCTUPOLES,
ASQ#, AFQ#, EQ#, IQ#, PQ#, OR DfQ# = QUADRAPOLES AND
AnB#, IB#, EB#, PB#, OR DnB# = LARGE DIPOLES

**FOR LOCATION PURPOSES ONLY
DEVICES NOT DRAWN TO SCALE

REV. 11/16/94

ITEM NO.	PART NO.	DESCRIPTION OR SIZE	QTY. REQ.
PARTS LIST			

UNLESS OTHERWISE SPECIFIED		ORIGINATOR	RALPH PASQUINELLI
FRACTIONS	DECIMALS	ANGLES	DRAWN WESLEY MUELLER 10/26/93
+/-	+/-	+/-	CHECKED
1. BREAK ALL SHARP EDGES 1/64 MAX.			APPROVED
2. DO NOT SCALE DRAWING			USED ON
3. DIMENSIONING IN ACCORD WITH ANSI Y14.5 STD'S			MATERIAL-
√ MAX. ALL MACHINED SURFACES			

FERMI NATIONAL ACCELERATOR LABORATORY
UNITED STATES DEPARTMENT OF ENERGY

ANTI - PROTON SOURCE BEAMLINE LOCATION DRAWING

SCALE	FILMED	DRAWING NUMBER	REV.