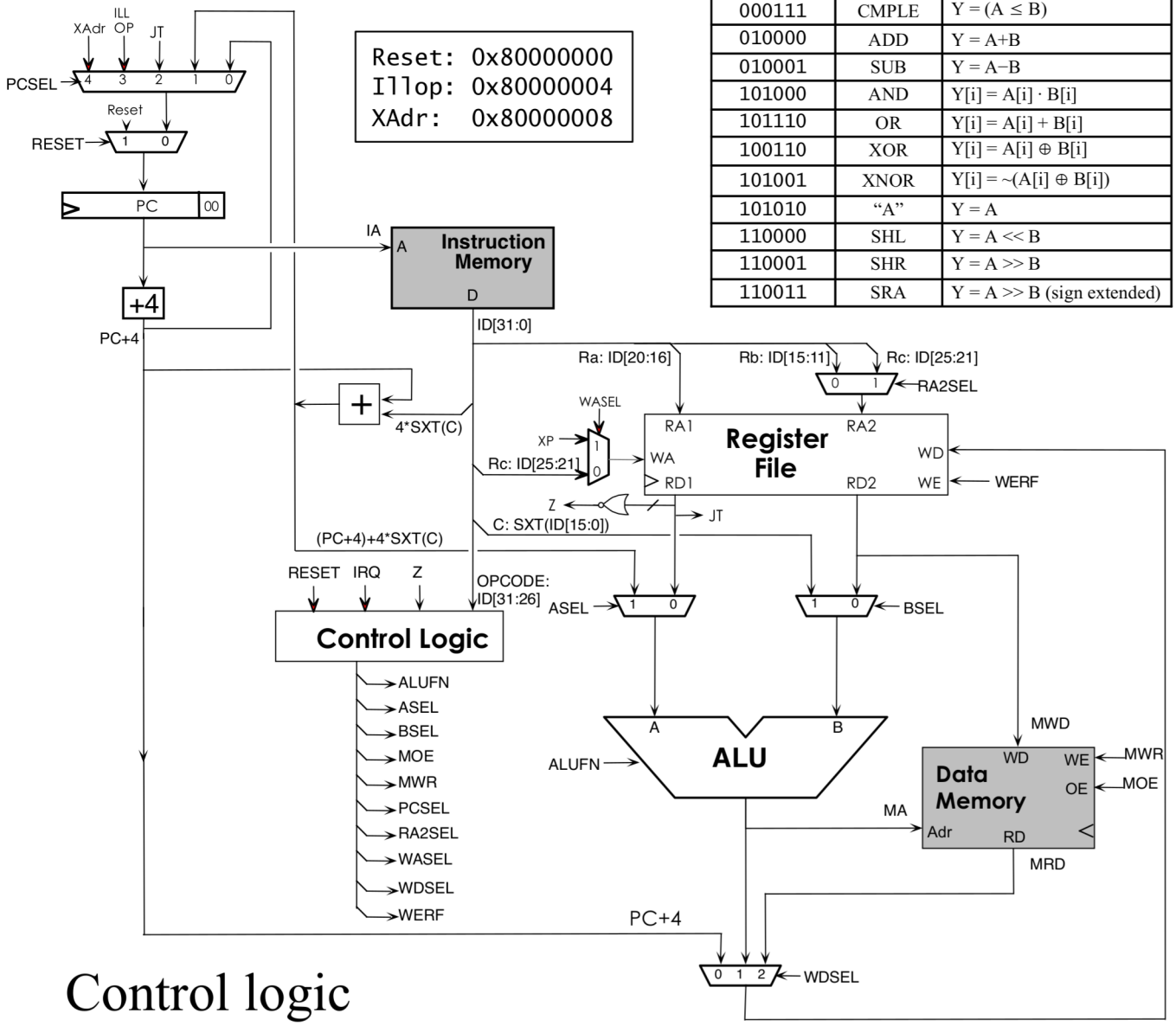
Unpipelined Beta

ALUFN[5:0]	Operation	Output value Y[31:0]
000011	CMPEQ	Y = (A == B)
000101	CMPLT	Y = (A < B)
000111	CMPLE	Y = (A ≤ B)
010000	ADD	Y = A+B
010001	SUB	Y = A−B
101000	AND	Y[i] = A[i] · B[i]
101110	OR	Y[i] = A[i] + B[i]
100110	XOR	Y[i] = A[i] ⊕ B[i]
101001	XNOR	Y[i] = ~(A[i] ⊕ B[i])
101010	"A"	Y = A
110000	SHL	Y = A << B
110001	SHR	Y = A >> B
110011	SRA	Y = A >> B (sign extended)



Control logic

	RESET	IRQ	OP	OPC	LD	LDR	ST	JMP	BEQ	BNE	ILLOP
ALUFN[5:0]	--	--	F(op)	F(op)	"+"	"A"	"+"	--	--	--	--
ASEL	--	--	0	0	0	1	0	--	--	--	--
BSEL	--	--	0	1	1	--	1	--	--	--	--
MOE	--	--	--	--	1	1	0	--	--	--	--
MWR	0	0	0	0	0	0	1	0	0	0	0
PCSEL[2:0]	--	4	0	0	0	0	0	2	Z ? 1 : 0	Z ? 0 : 1	3
RA2SEL	--	--	0	--	--	--	1	--	--	--	--
WASEL	--	1	0	0	0	0	--	0	0	0	1
WDSEL[1:0]	--	0	1	1	2	2	--	0	0	0	0
WERF	--	1	1	1	1	1	0	1	1	1	1