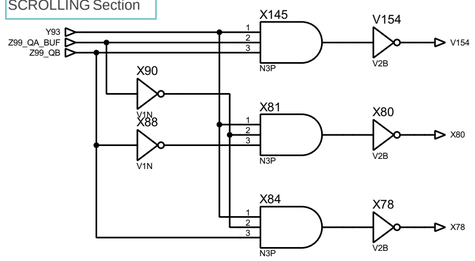
Y93 comes from SCROLLING Section



Y147 comes from SCROLLING Section

OHBK

NVBK

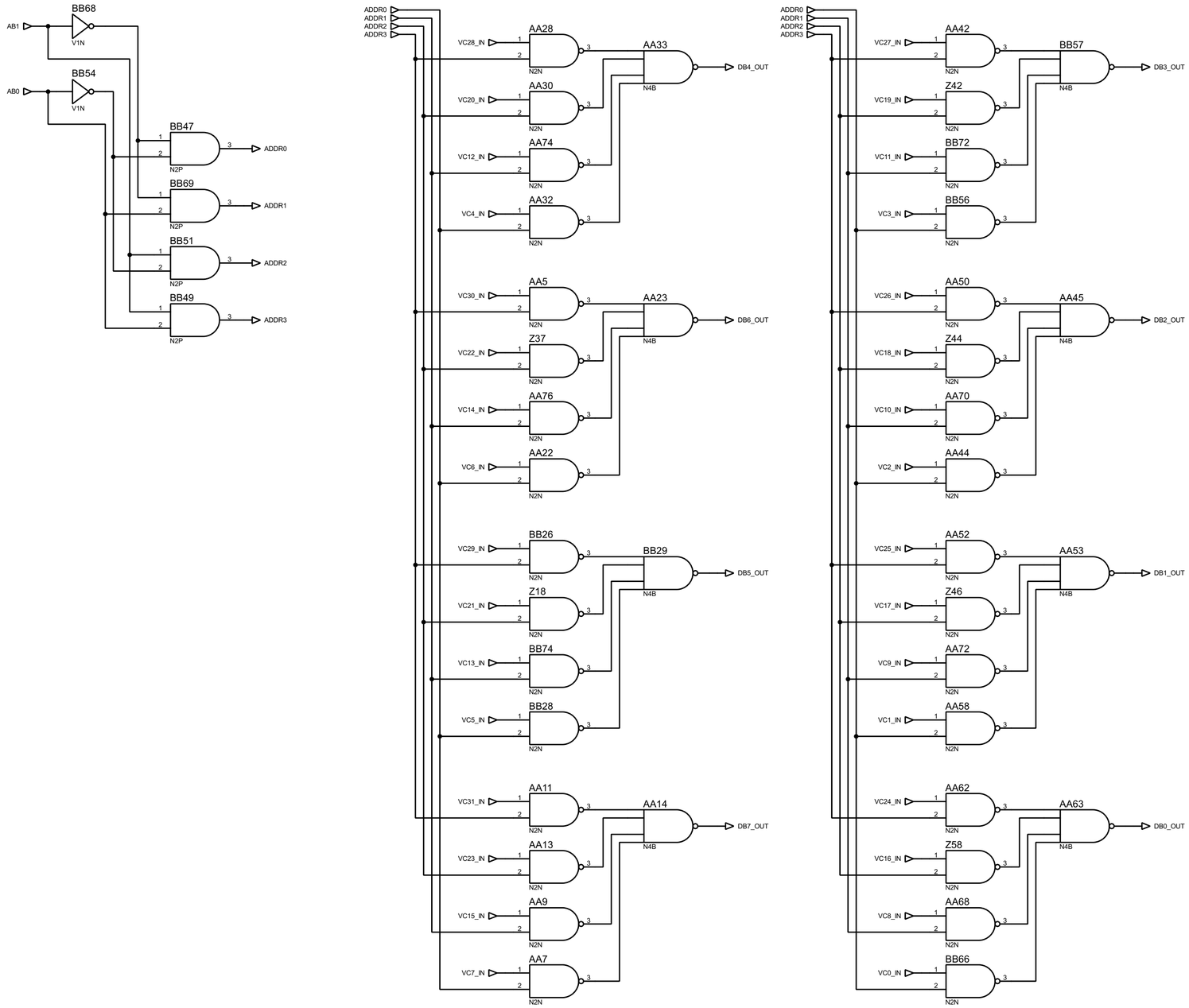
Y151 comes from SCROLLING Section

BB7 is a signal used to async clear multiple DFF and 4-bit counters

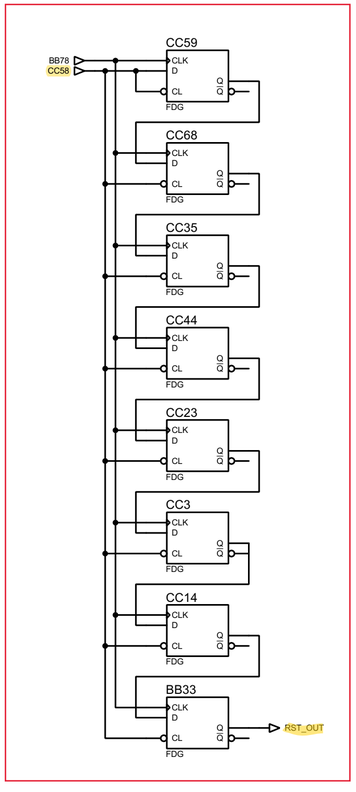
T61 is used to enable output latches for the data of three layers: Fix, LayerA, LayerB.

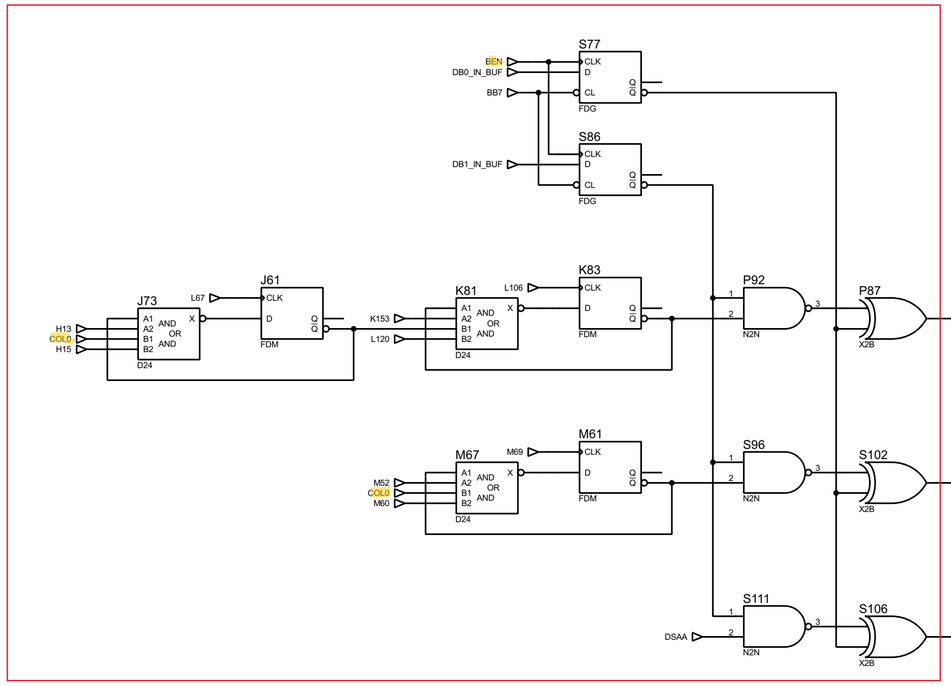
T70 is a signal used to clock multiple DFF and 4-bit counters. The **K2B** is a clock buffer.

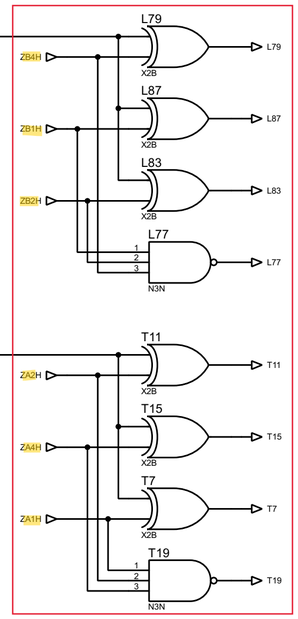
FILE NAME: k051962.pdsprj		DATE: 04/06/2021
DESIGN TITLE: Konami 051962 TIMING GEN		PAGE: 1 of 19
BY: Sean Gonsalves	REV: A	

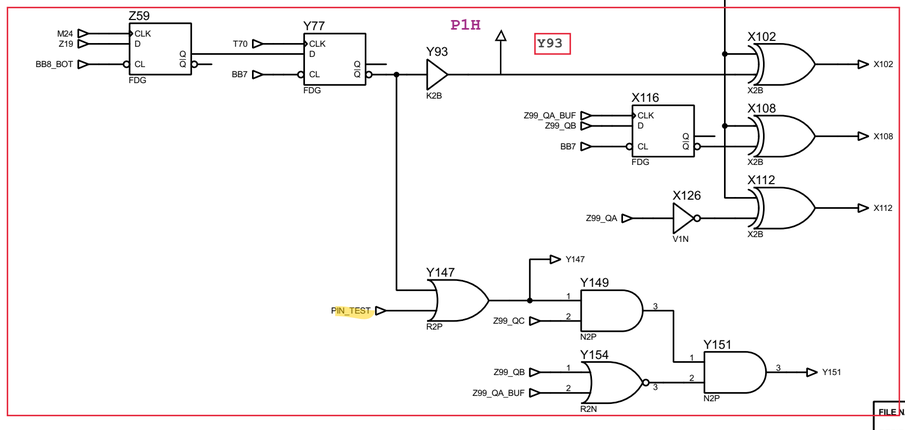


FILE NAME: **k051962.pdsprj**	DATE: **04/06/2021**
DESIGN TITLE: **Konami 051962** ROM READBACK MUX	PAGE: **2 of 19**
BY: **Sean Gonsalves** REV: **A**	

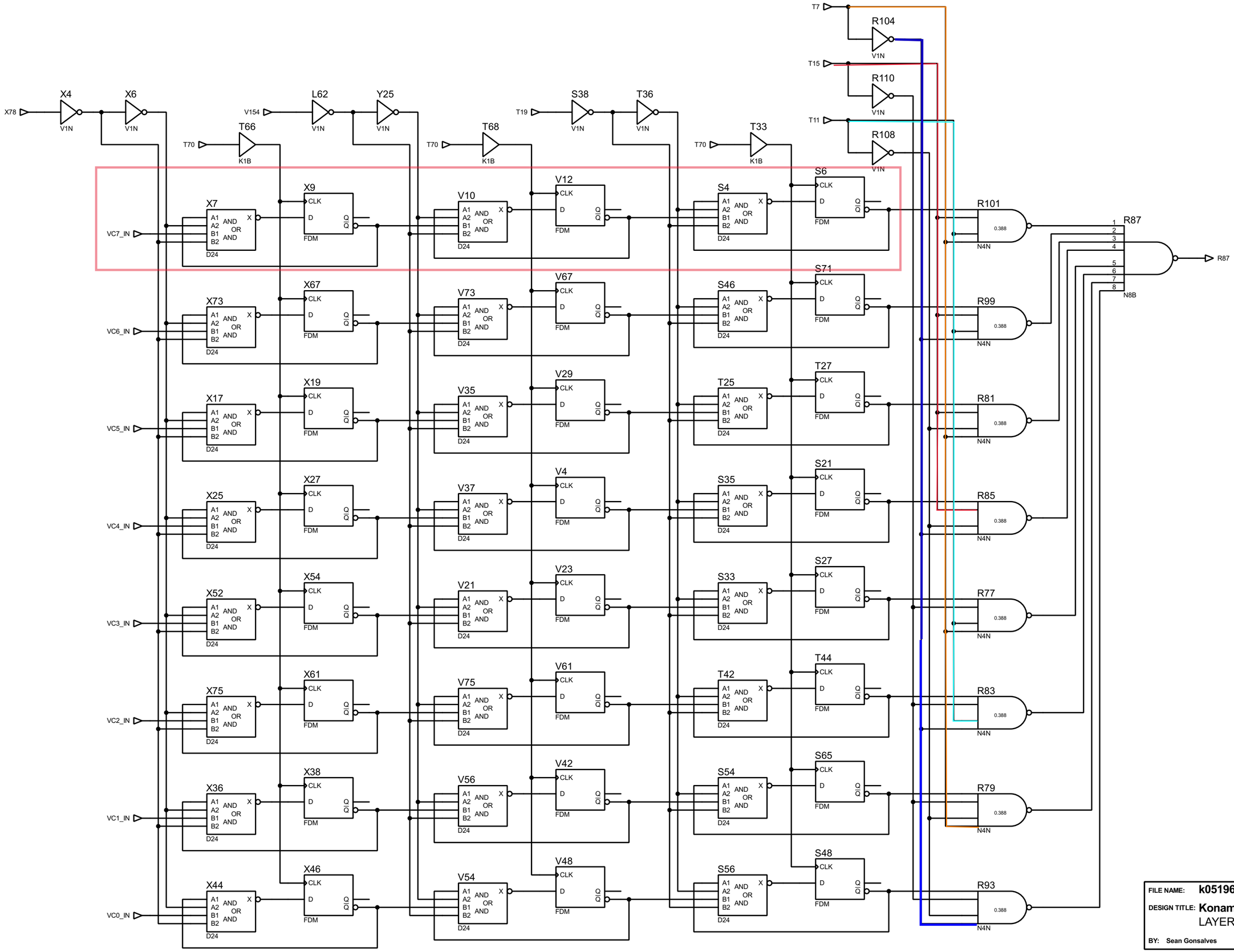




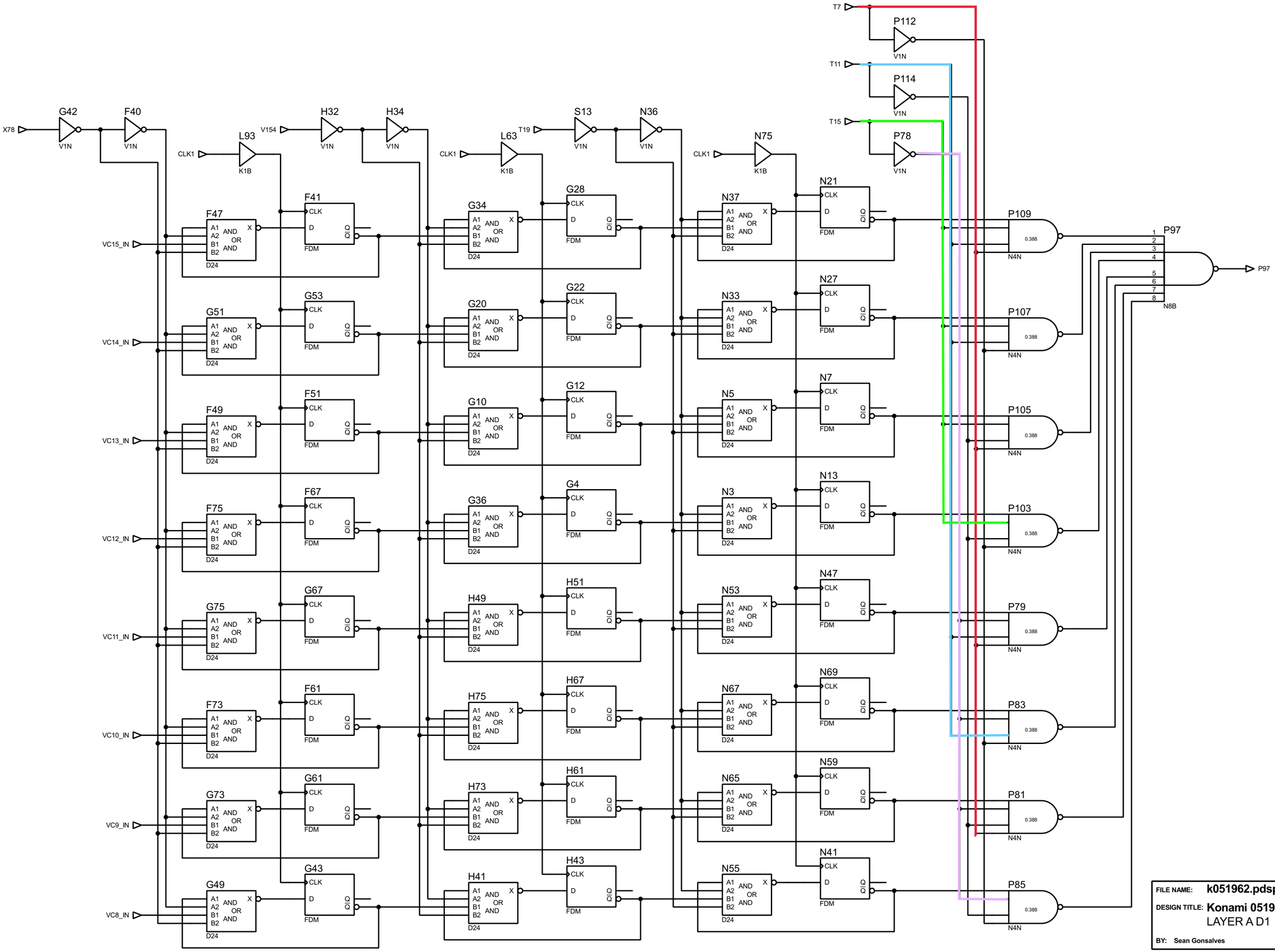




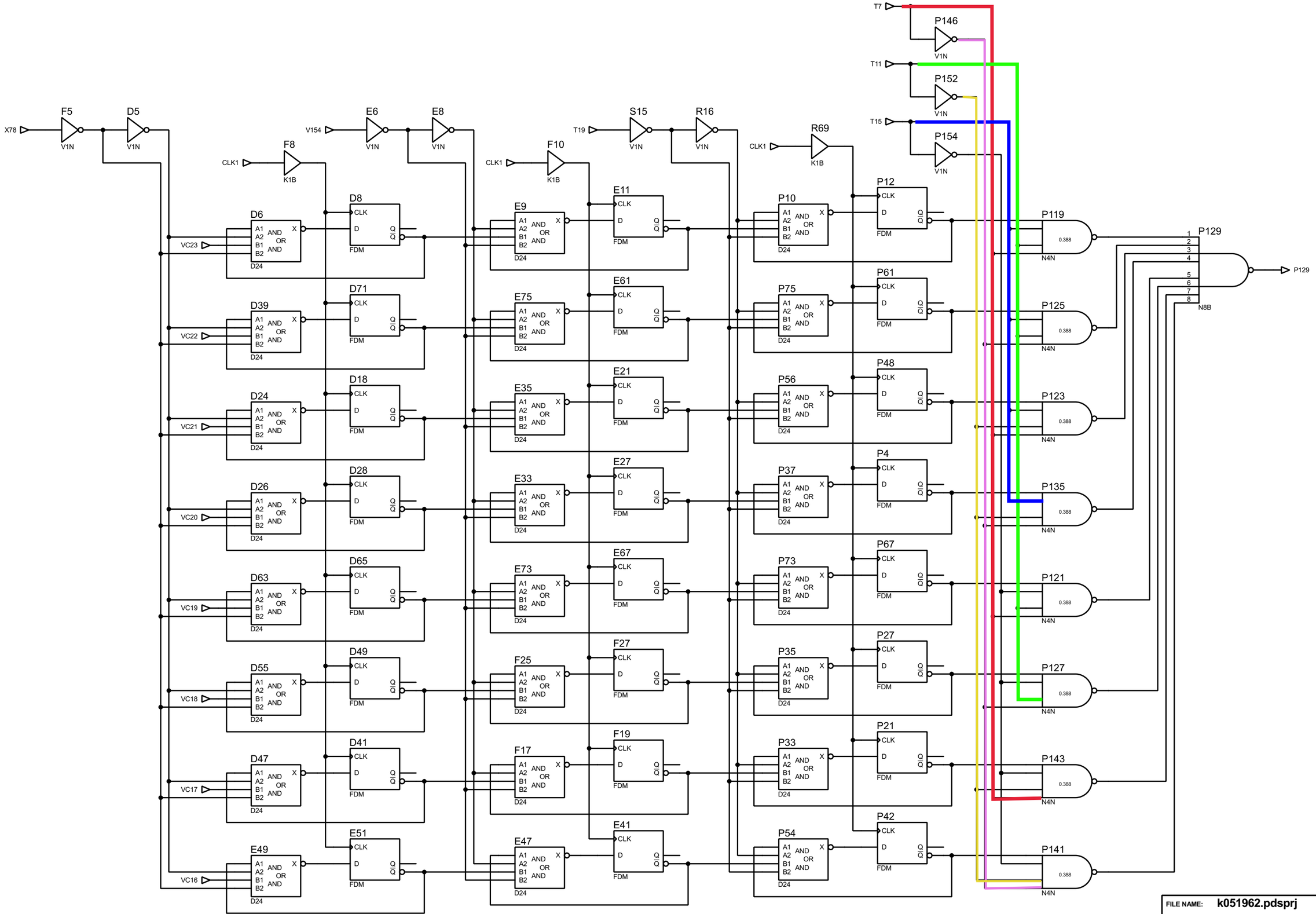
FILE NAME: k051962.pdsprj		DATE: 04/06/2021
DESIGN TITLE: Konami 051962 SCROLLING		PAGE: 3 of 19
BY: Sean Gonsalves	REV: A	



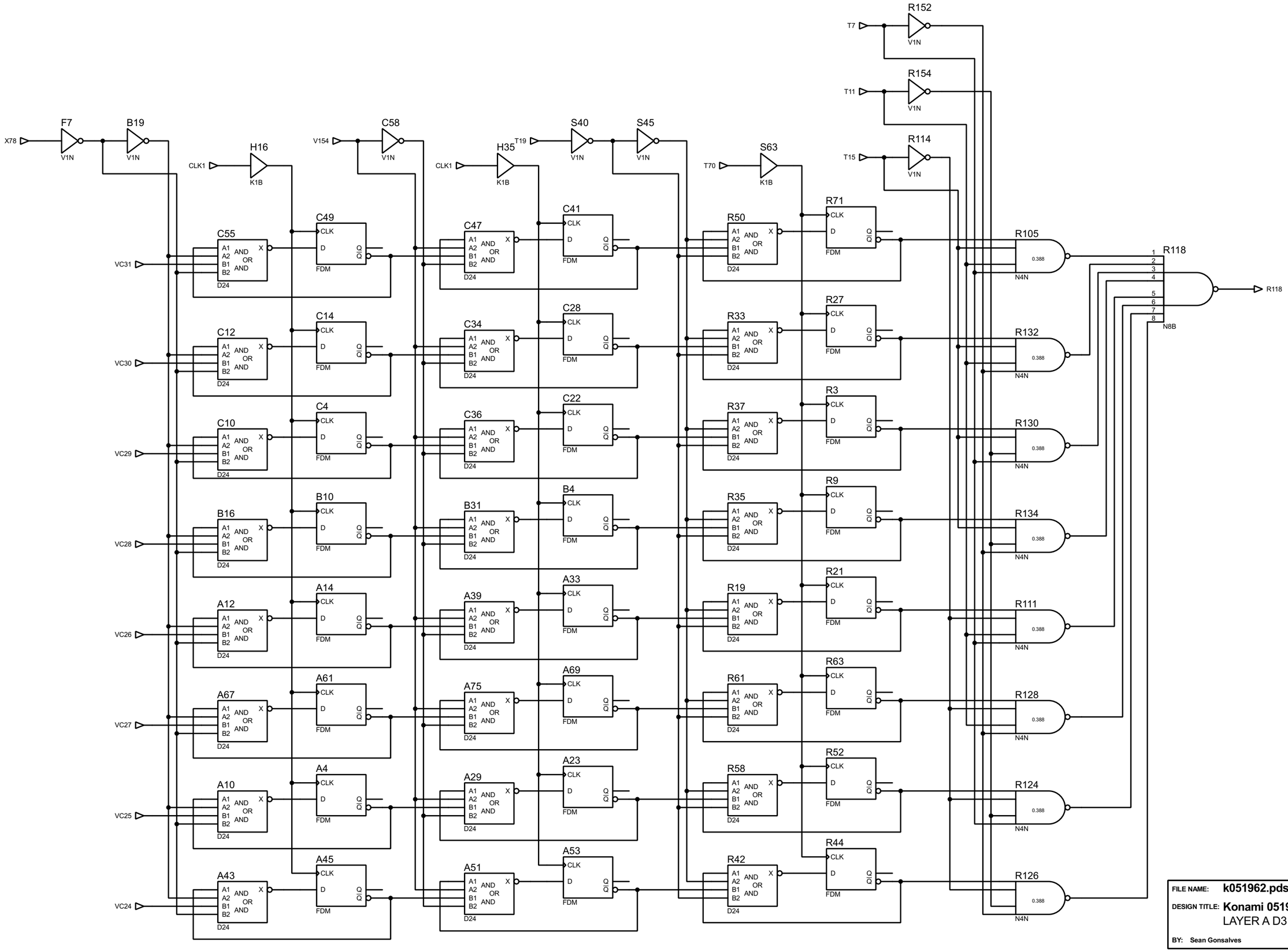
FILE NAME:	k051962.pdsprj	DATE:	04/06/2021
DESIGN TITLE:	Konami 051962 LAYER A D0	PAGE:	4 of 19
BY: Sean Gonsalves	REV: A		



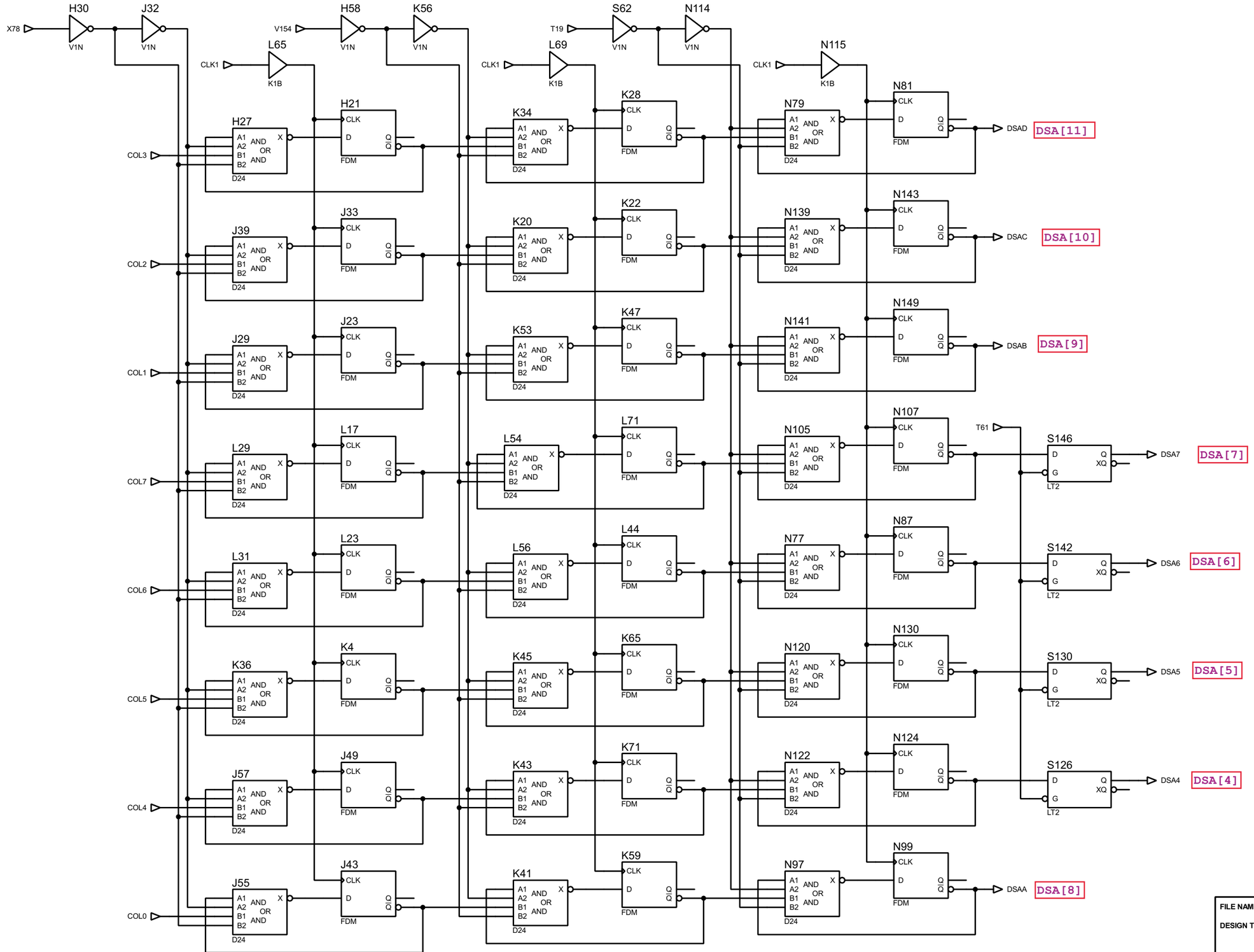
FILE NAME:	k051962.pdsprj	DATE:	04/06/2021
DESIGN TITLE:	Konami 051962 LAYER A D1	PAGE:	5 of 19
BY:	Sean Gonsalves	REV:	A



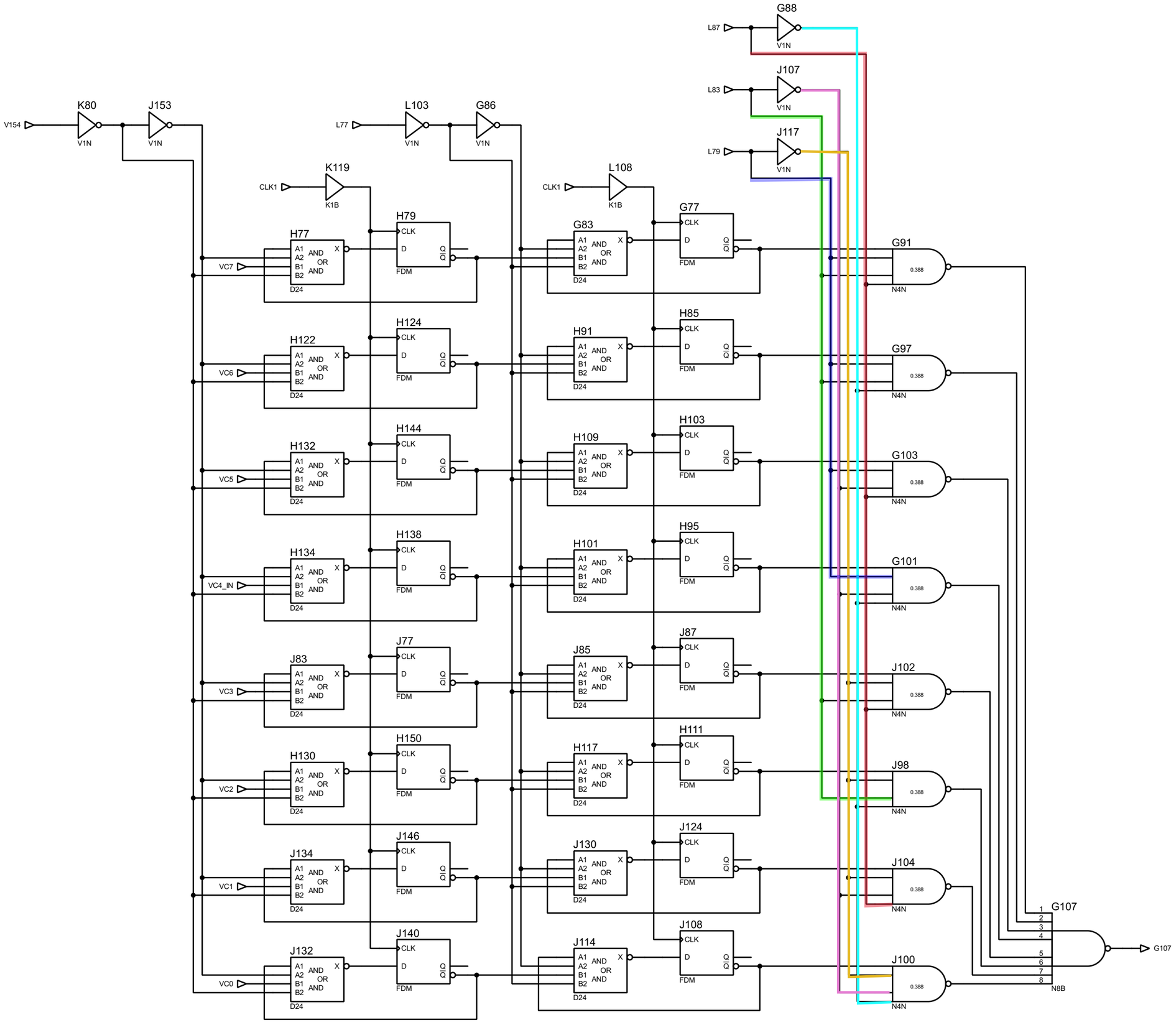
FILE NAME:	k051962.pdsprj	DATE:	04/06/2021
DESIGN TITLE:	Konami 051962 LAYER A D2	PAGE:	6 of 19
BY:	Sean Gonsalves	REV:	A



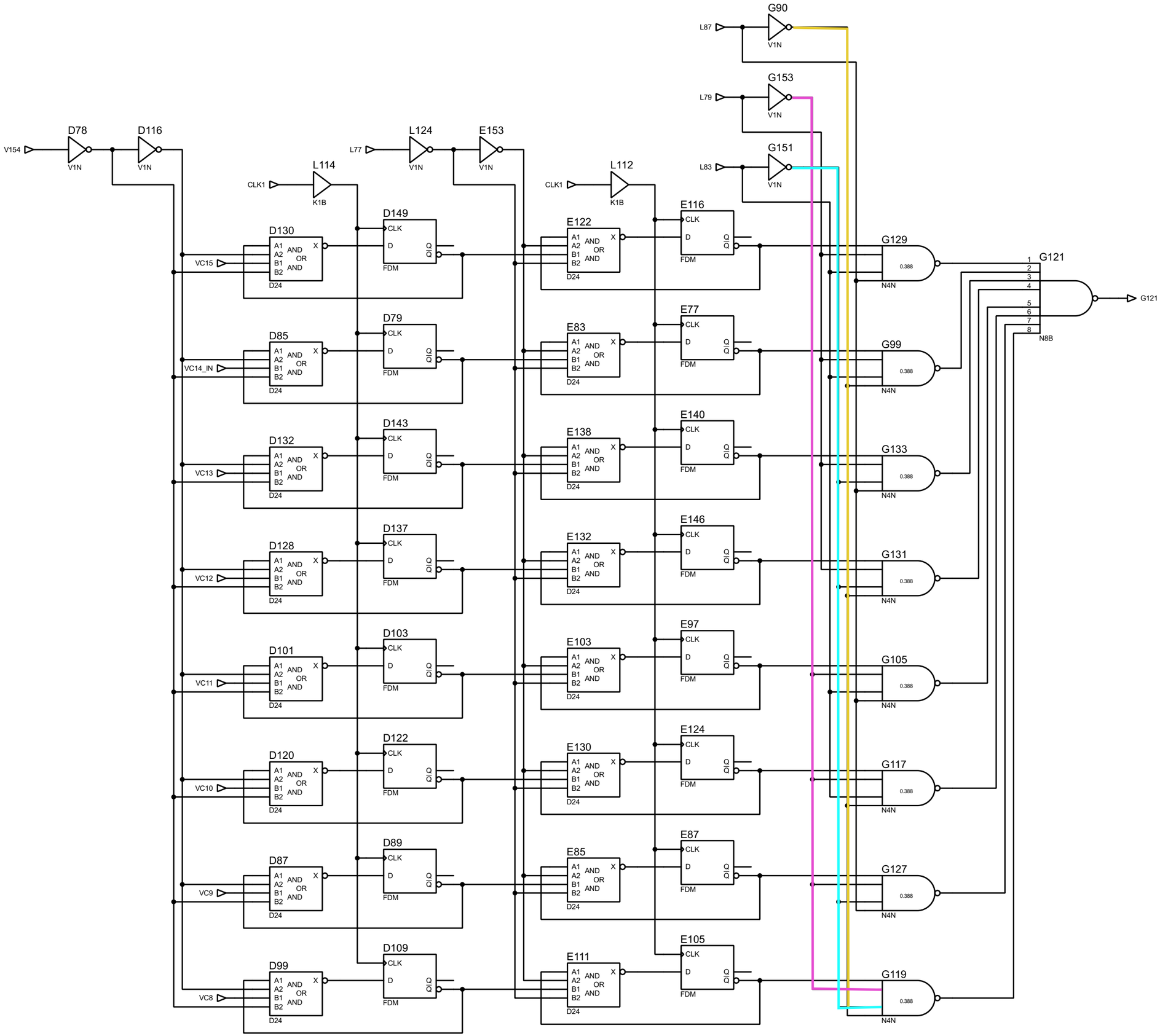
FILE NAME:	k051962.pdsprj	DATE:	04/06/2021
DESIGN TITLE:	Konami 051962 LAYER A D3	PAGE:	7 of 19
BY:	Sean Gonsalves	REV:	A



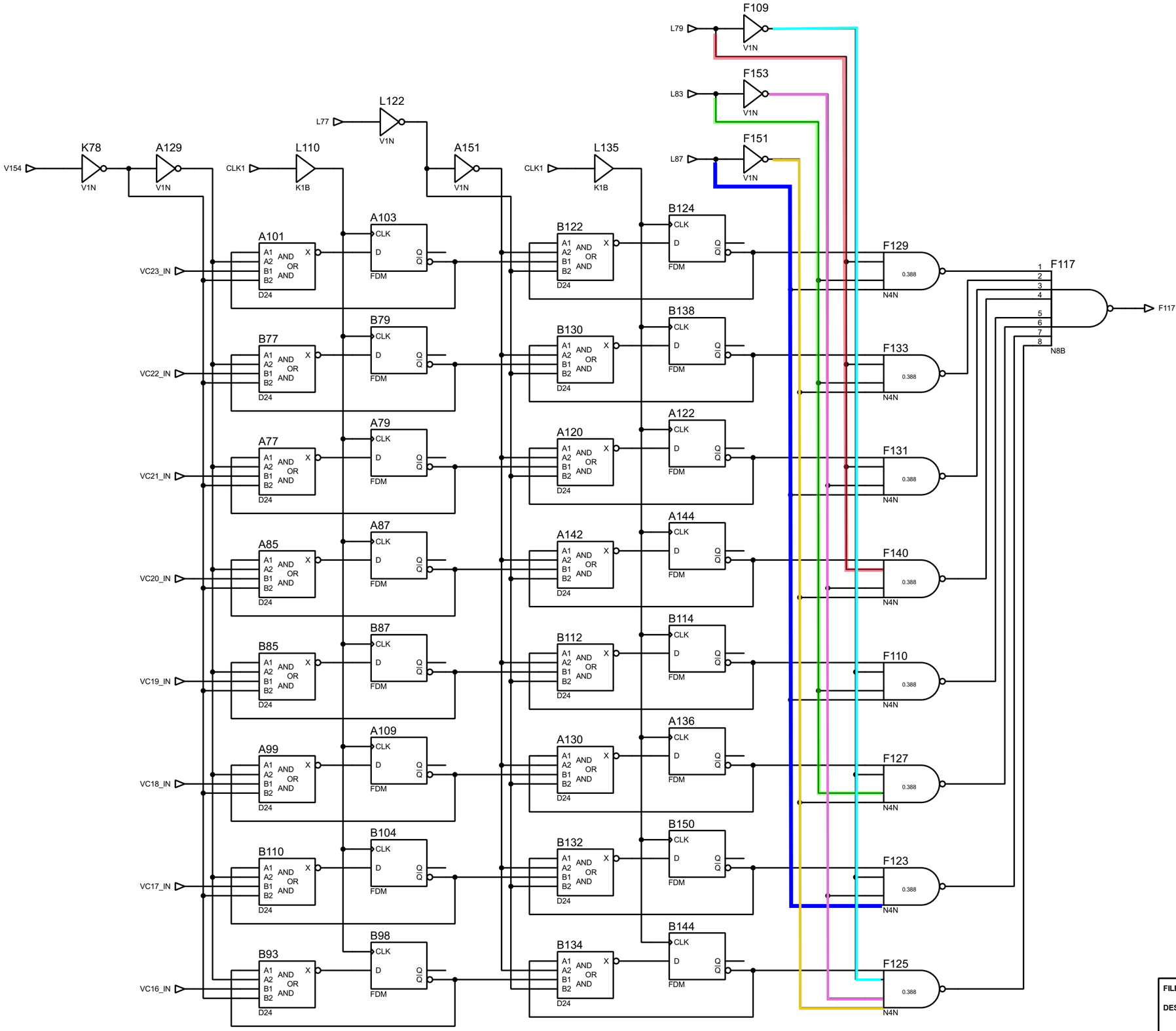
FILE NAME: k051962.pdsprj		DATE: 04/06/2021
DESIGN TITLE: Konami 051962 LAYER A MSBs		PAGE: 8 of 19
BY: Sean Gonsalves	REV: A	



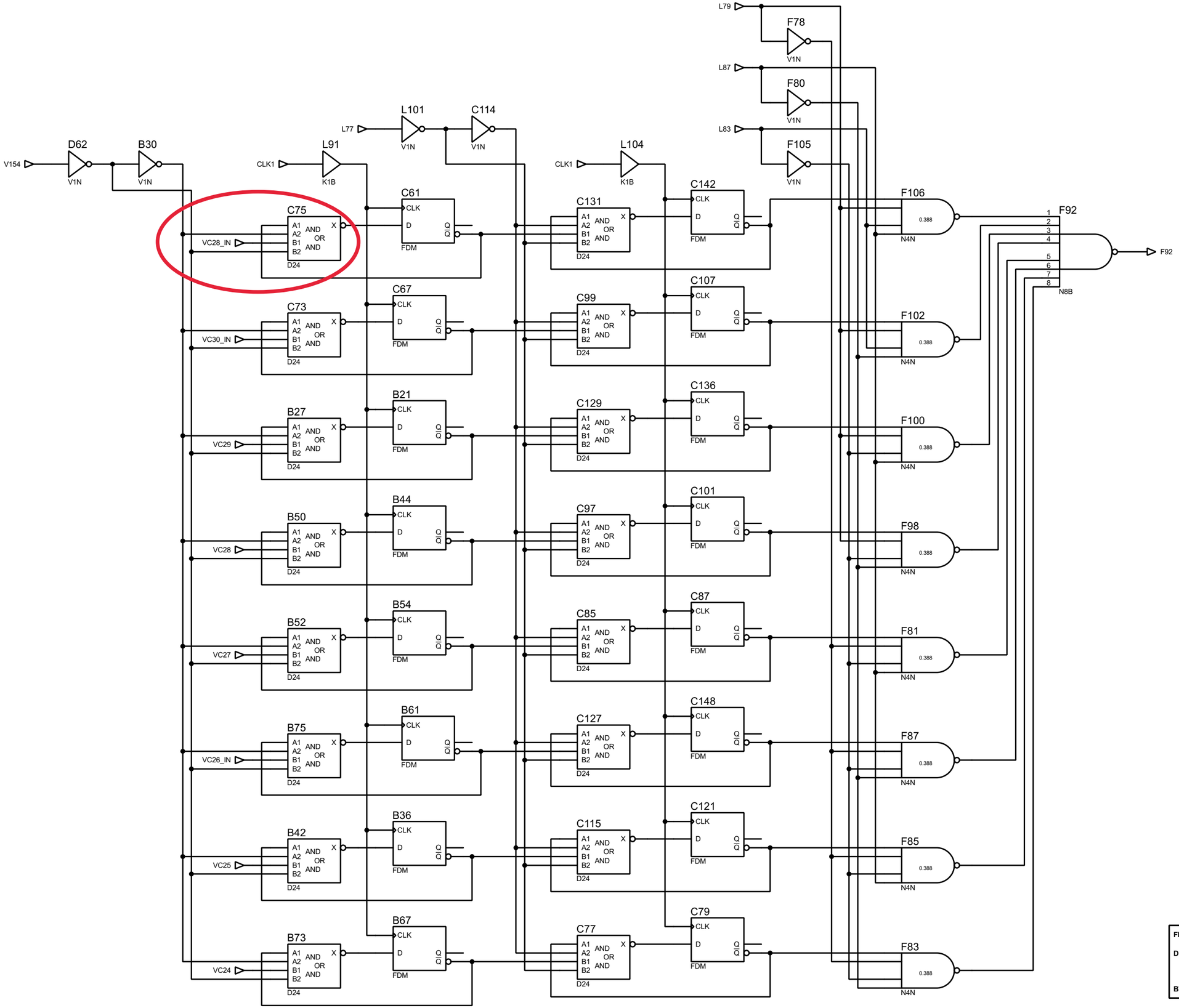
FILE NAME: **k051962.pdsprj**		DATE: **04/06/2021**
DESIGN TITLE: **Konami 051962** LAYER B D0		PAGE: **9 of 19**
BY: **Sean Gonsalves**	REV: **A**	



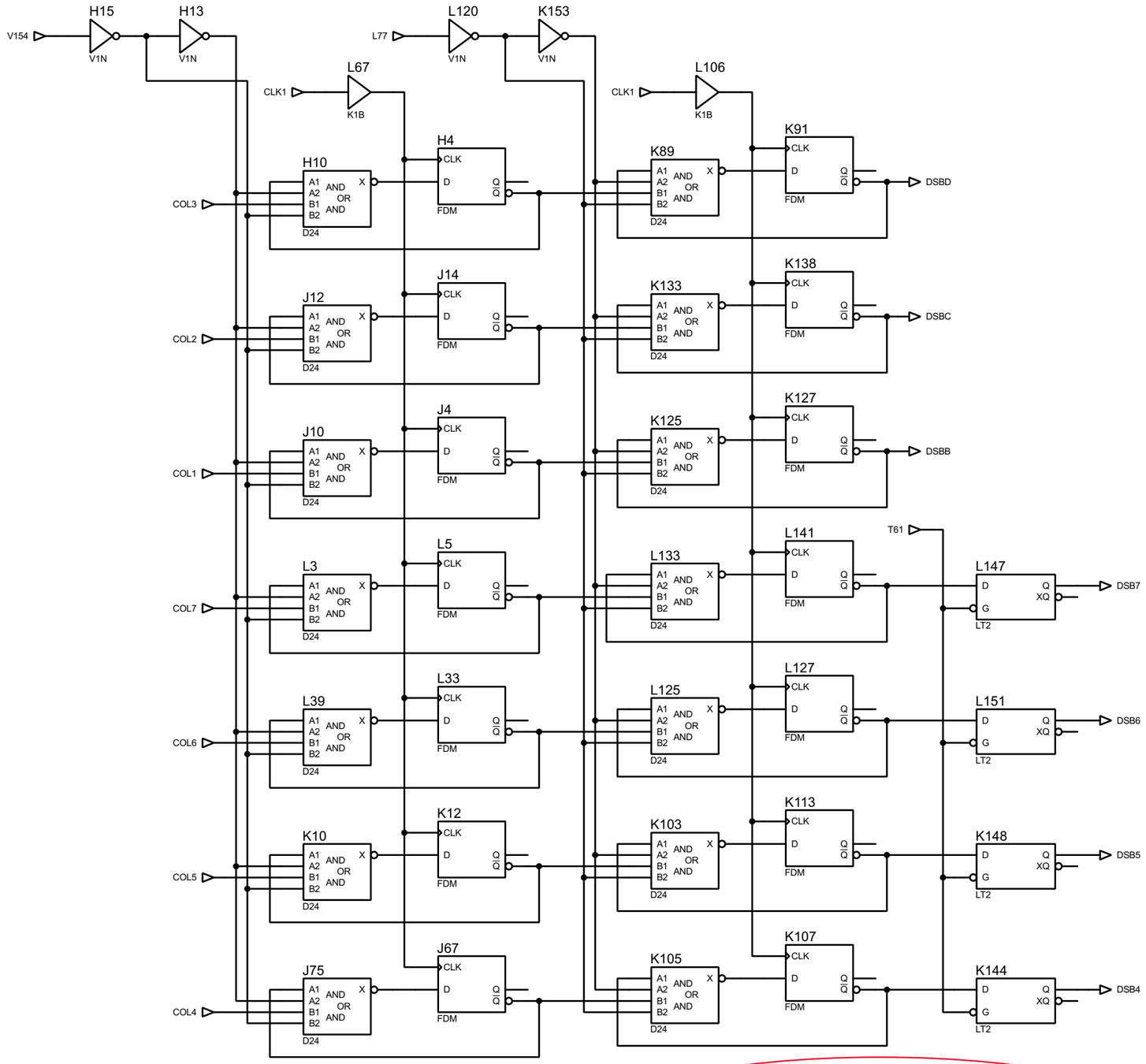
FILE NAME:	k051962.pdsprj	DATE:	04/06/2021
DESIGN TITLE:	Konami 051962 LAYER B D1	PAGE:	10 of 19
BY: Sean Gonsalves	REV: A		



FILE NAME:	k051962.pdsprj	DATE:	04/06/2021
DESIGN TITLE:	Konami 051962 LAYER B D2	PAGE:	11 of 19
BY:	Sean Gonsalves	REV:	A

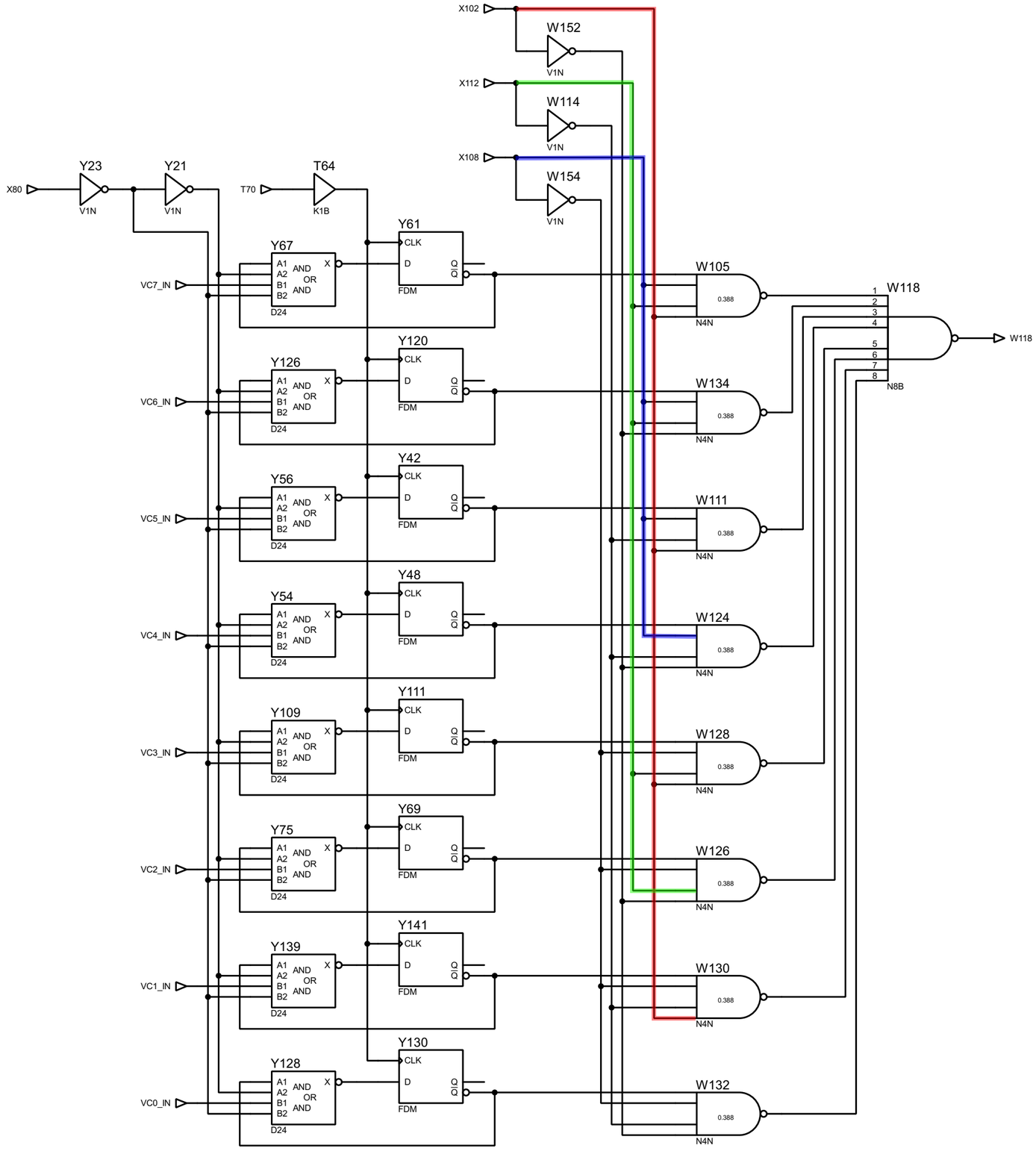


FILE NAME:	k051962.pdsprj		DATE: 04/06/2021
DESIGN TITLE:	Konami 051962 LAYER B D3		PAGE: 12 of 19
BY: Sean Gonsalves		REV: A	

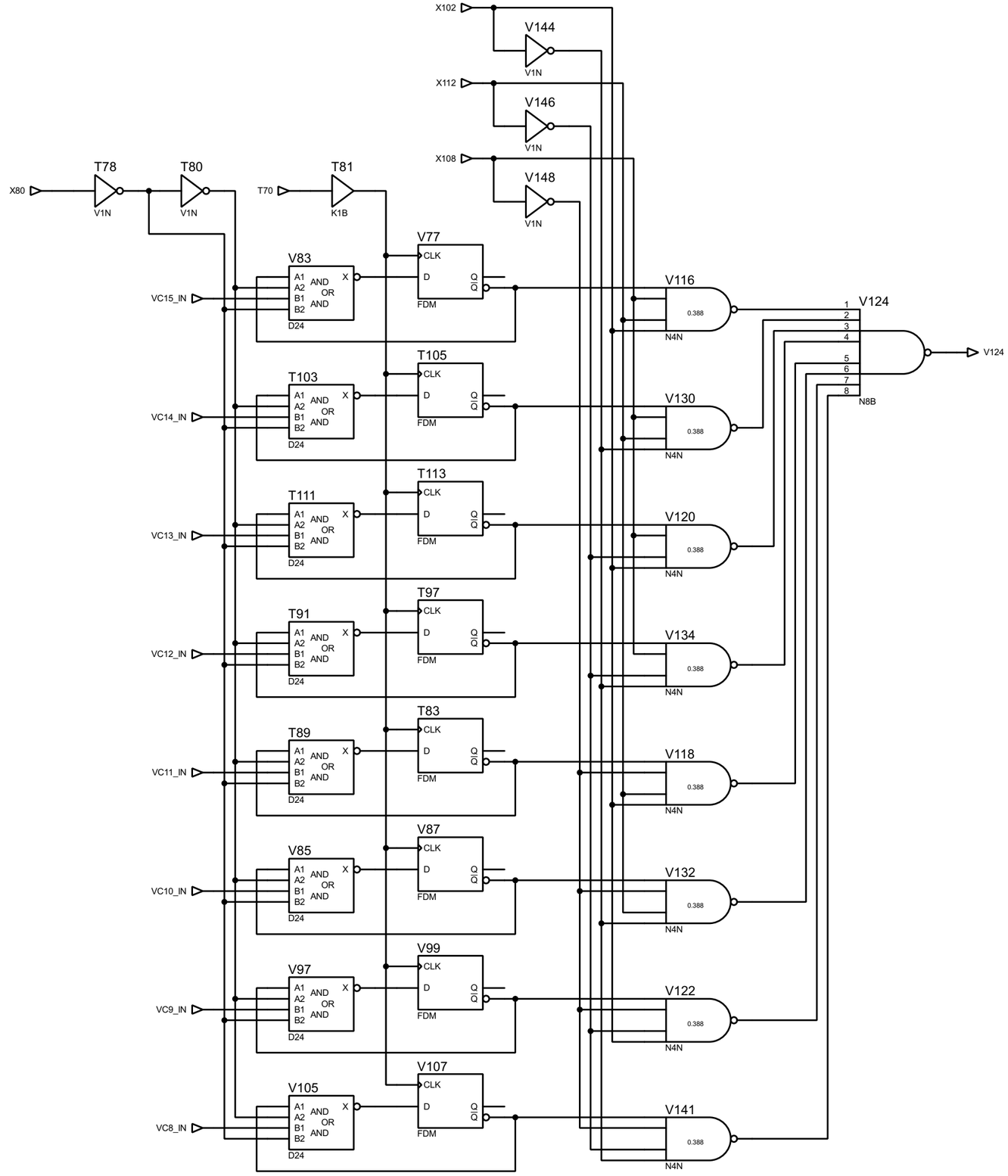


COL0 -> DSBA ???

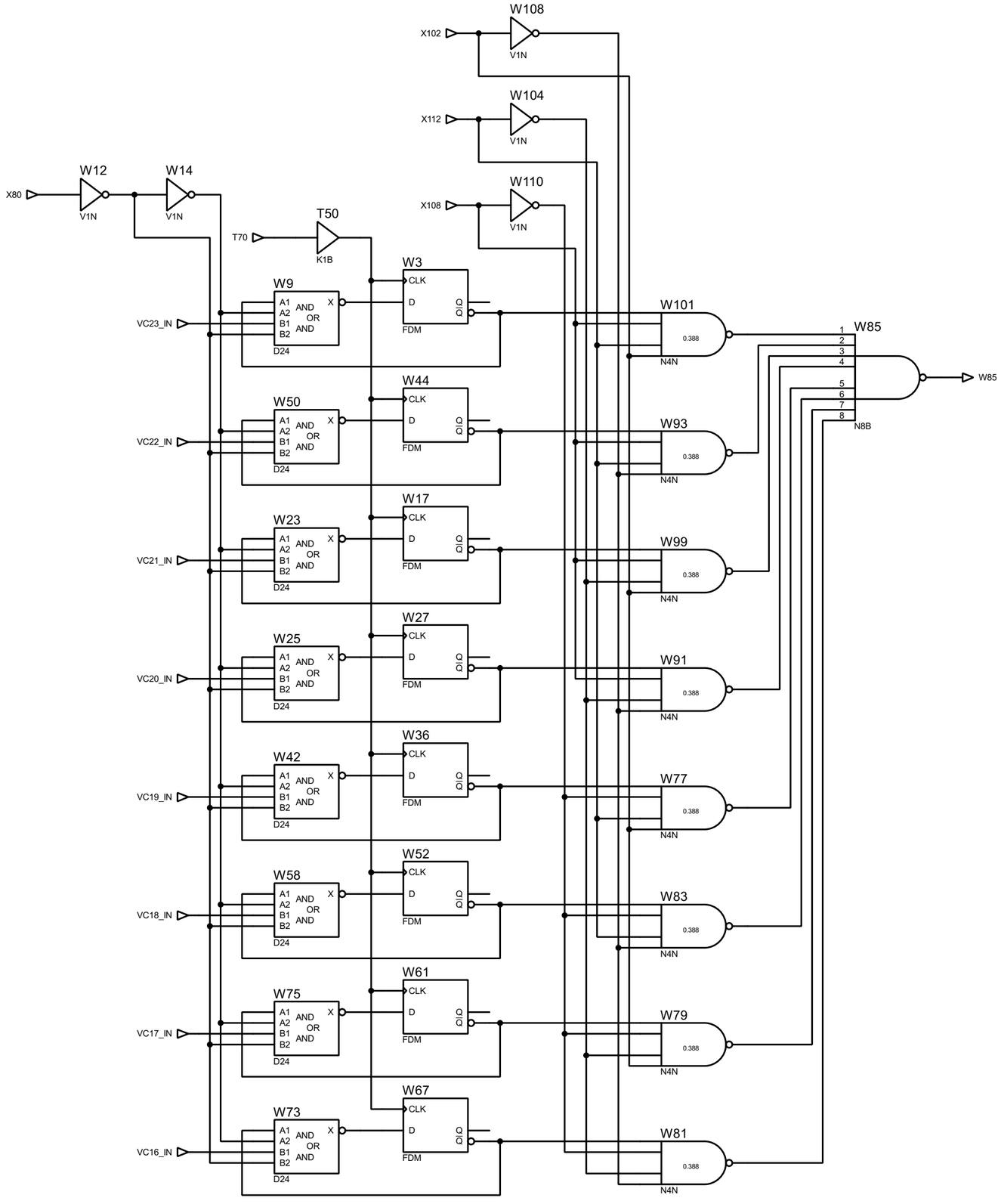
FILE NAME: **k051962.pdsprj**		DATE: **04/06/2021**
DESIGN TITLE: **Konami 051962** LAYER B MSBs		PAGE: 13 of 19
BY: **Sean Gonsalves**	REV: **A**	



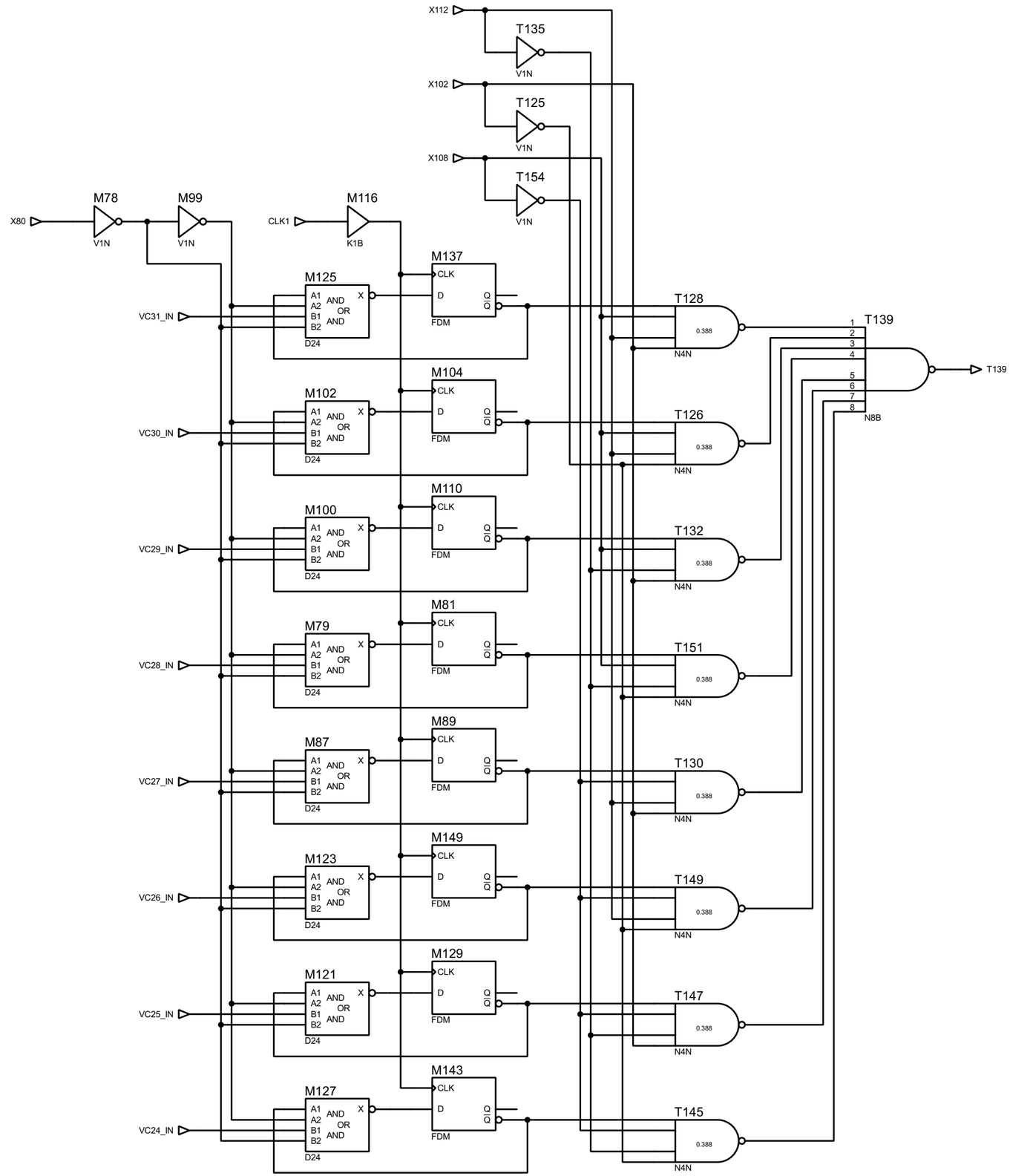
FILE NAME: **k051962.pdsprj**		DATE: **04/06/2021**
DESIGN TITLE: **Konami 051962** LAYER FIX D0		PAGE: **14 of 19**
BY: **Sean Gonsalves**	REV: **A**	



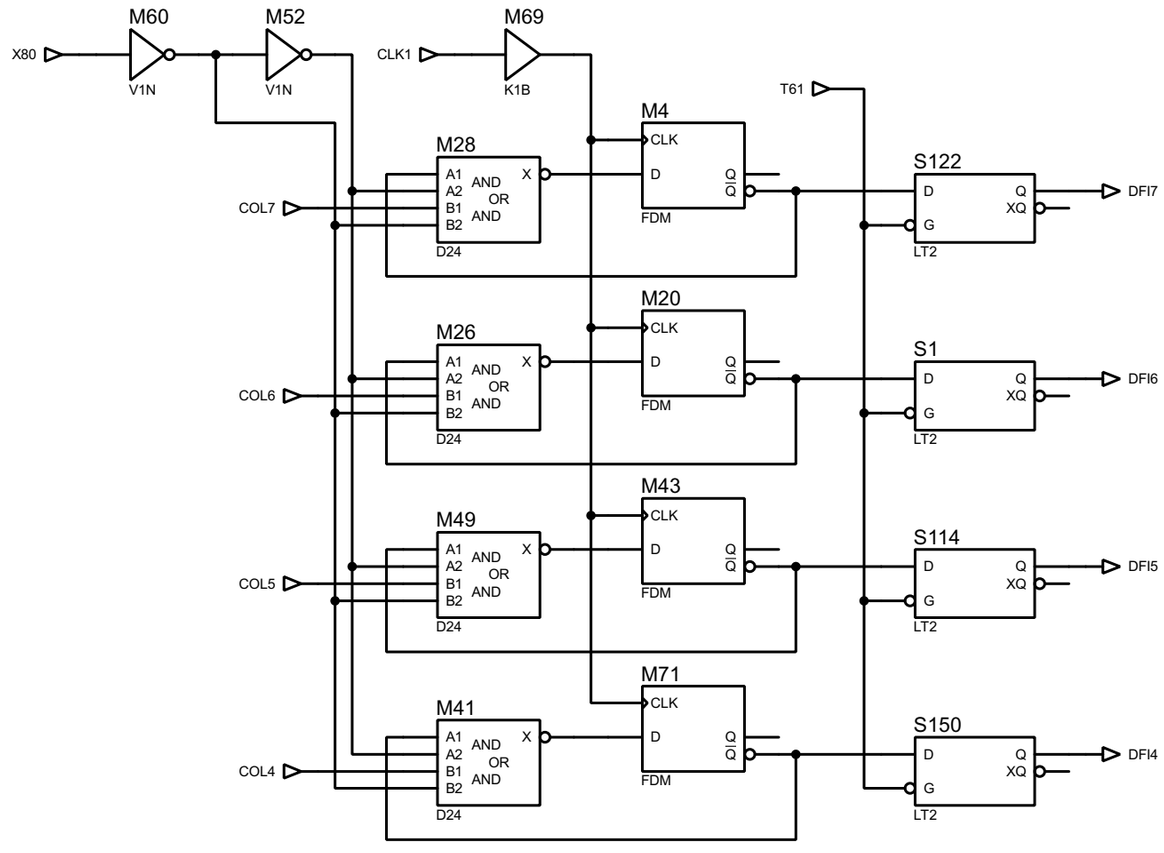
FILE NAME:	k051962.pdsprj		DATE: 04/06/2021
DESIGN TITLE:	Konami 051962 LAYER FIX D1		PAGE: 15 of 19
BY: Sean Gonsalves		REV: A	



FILE NAME: **k051962.pdsprj**		DATE: **04/06/2021**
DESIGN TITLE: **Konami 051962** LAYER FIX D2		PAGE: **16 of 19**
BY: **Sean Gonsalves**	REV: **A**	



FILE NAME: **k051962.pdsprj**		DATE: **04/06/2021**
DESIGN TITLE: **Konami 051962** LAYER FIX D3		PAGE: **17 of 19**
BY: **Sean Gonsalves**	REV: **A**	



FILE NAME: **k051962.pdsprj**		DATE: **04/06/2021**
DESIGN TITLE: **Konami 051962** LAYER FIX MSBs		PAGE: **18 of 19**
BY: **Sean Gonsalves**	REV: **A**	

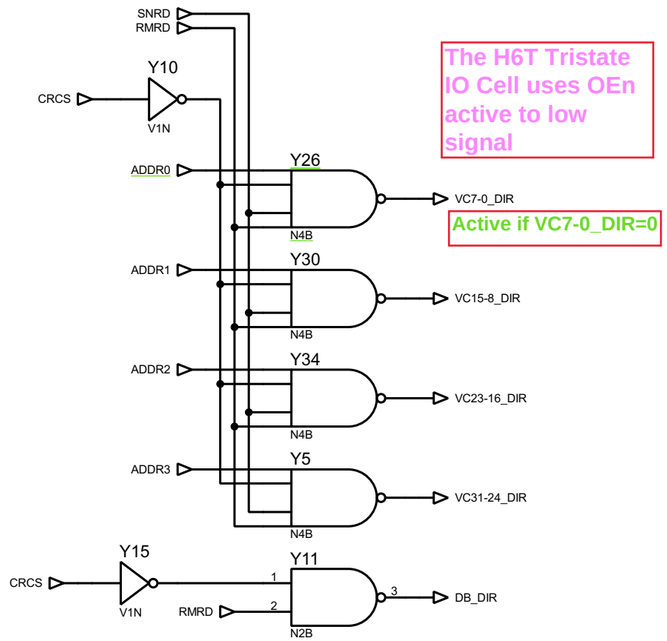
SNRD=1 W to 051962
SNRD=0 R from 051962
RMRD = 1 read VC ROM data into DB
(select VC byte using AB[1:0])
RMRD = 0 DON'T READ FROM ROM
CRCS = 0 ACTIVE -> I/0 ACTIVITY
BETWEEN CPU AND 051962/051961
CRCS = 1 INACTIVE -> DISCONECTED
FROM CPU BUS

ADDR0	RMRD	SNRD	~CRCS	VC7-0_DIR
0	0	0	0	1
0	0	0	1	1
0	0	1	0	1
...	...	...	...	...
1	1	1	1	0 ACTIVE

ADDR0=1
RMRD=1
SNRD=1 W
CRCS=1 NO ACTIVE

VC7-0_DIR = 1 ROM SPACE -> 051962 VC (NORMAL USE)
VC7-0_DIR = 0 051962 -> ROM SPACE (DEV & TESTING)

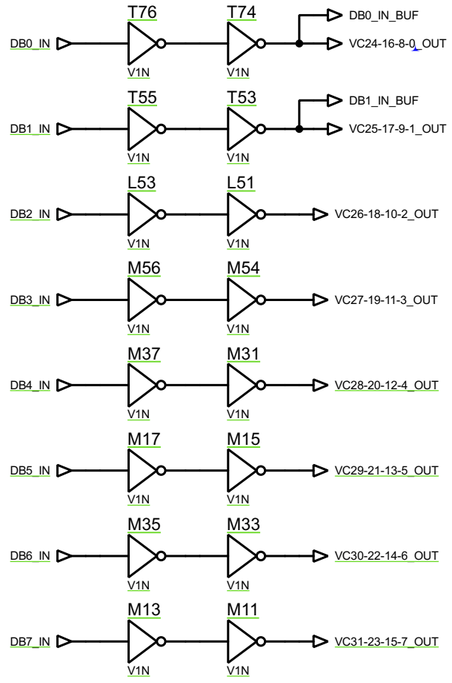
VC15-8_DIR ADDR1=1
VC23-16_DIR ADDR2=1
VC31-24_DIR ADDR3=1



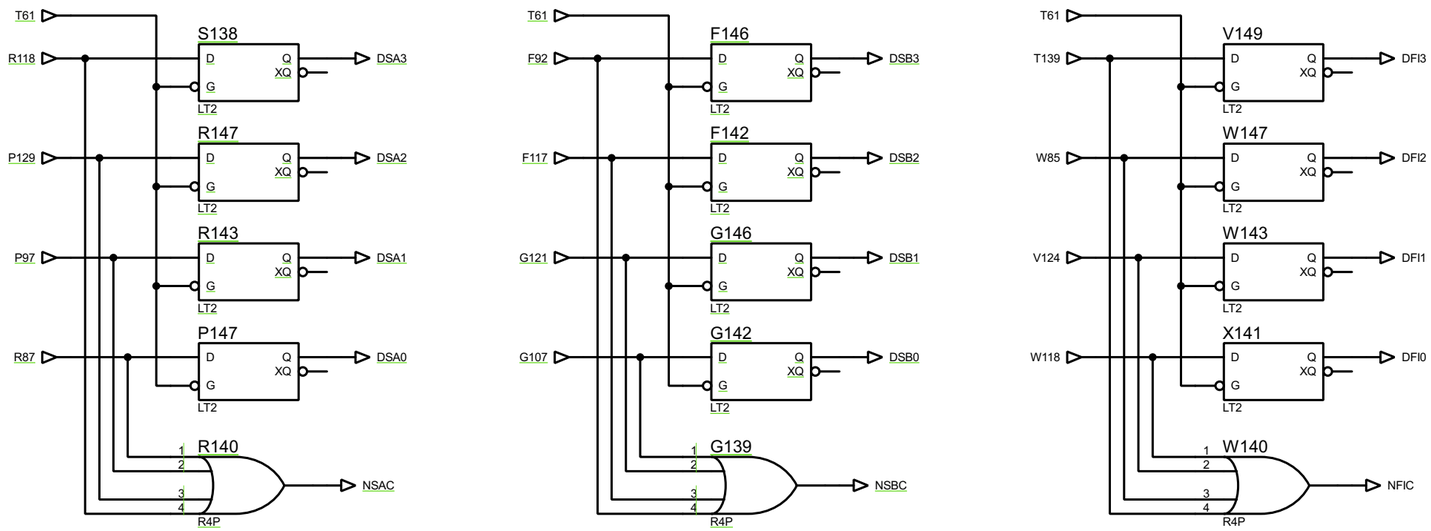
The H6T Tristate IO Cell uses OEn active to low signal

Active if VC7-0_DIR=0

CRCS	RMRD	DB_DIR ~(CRCS & RMRD)
0	0	1
0	1	1
1	0	1
1	1	0 ACTIVE



DB_IN -> VC_BYTE_OUT VC31-24_OUT
VC23-16_OUT
VC15-8_OUT
VC7-0_OUT



FILE NAME: k051962.pdsprj	DATE: 04/06/2021
DESIGN TITLE: Konami 051962 OUTPUT LATCHES	PAGE: 19 of 19
BY: Sean Gonsalves REV: A	