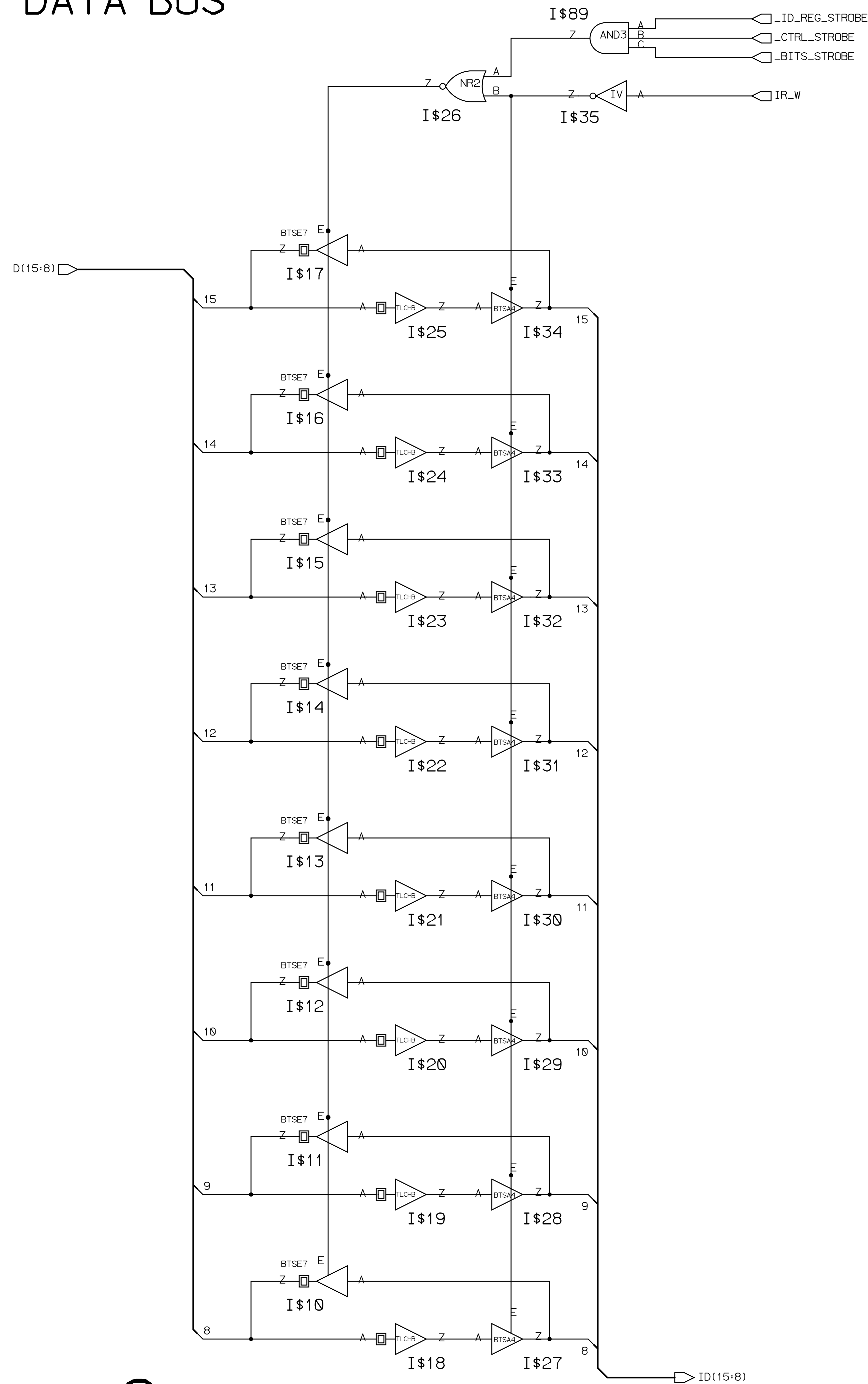
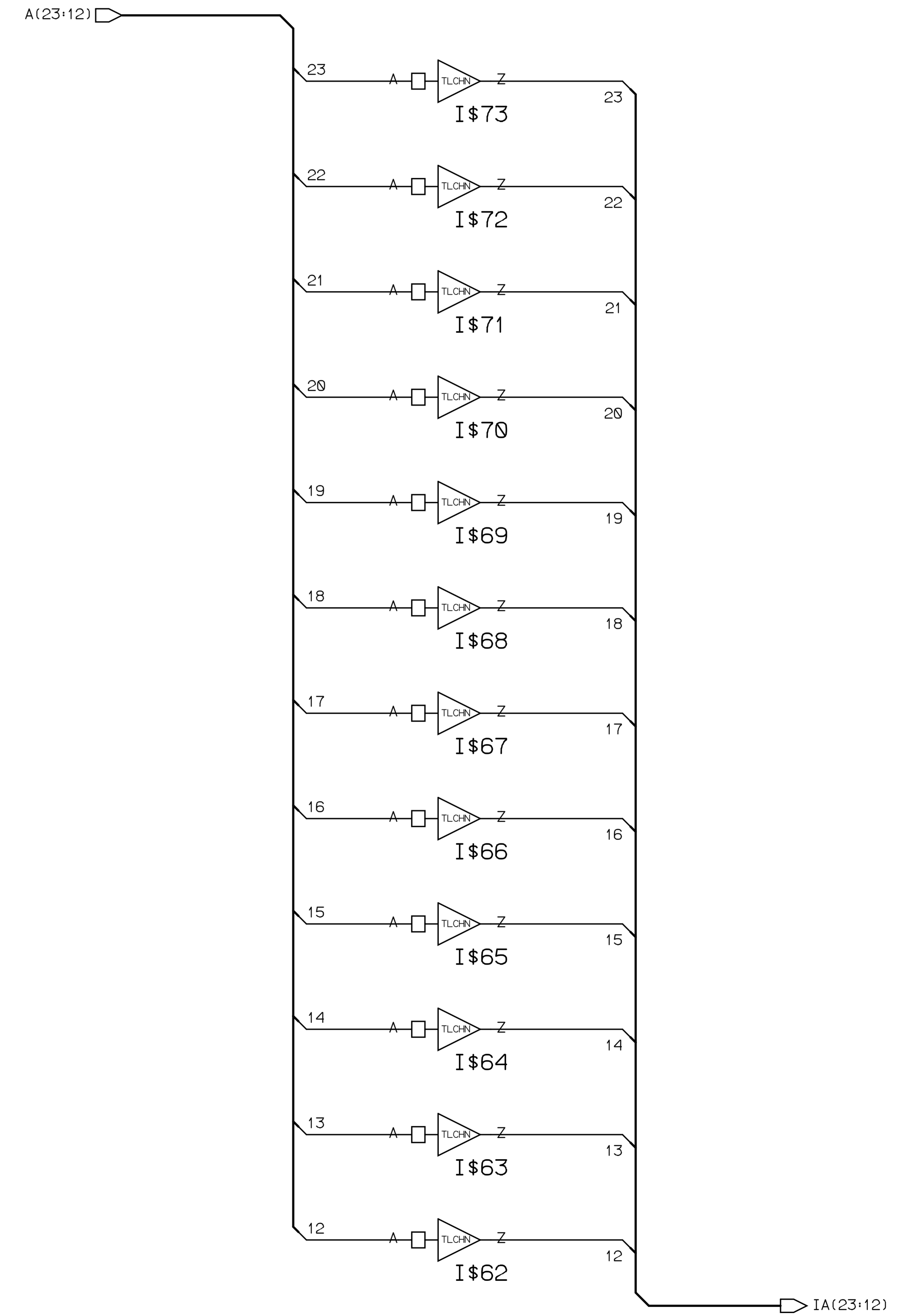




# DATA BUS

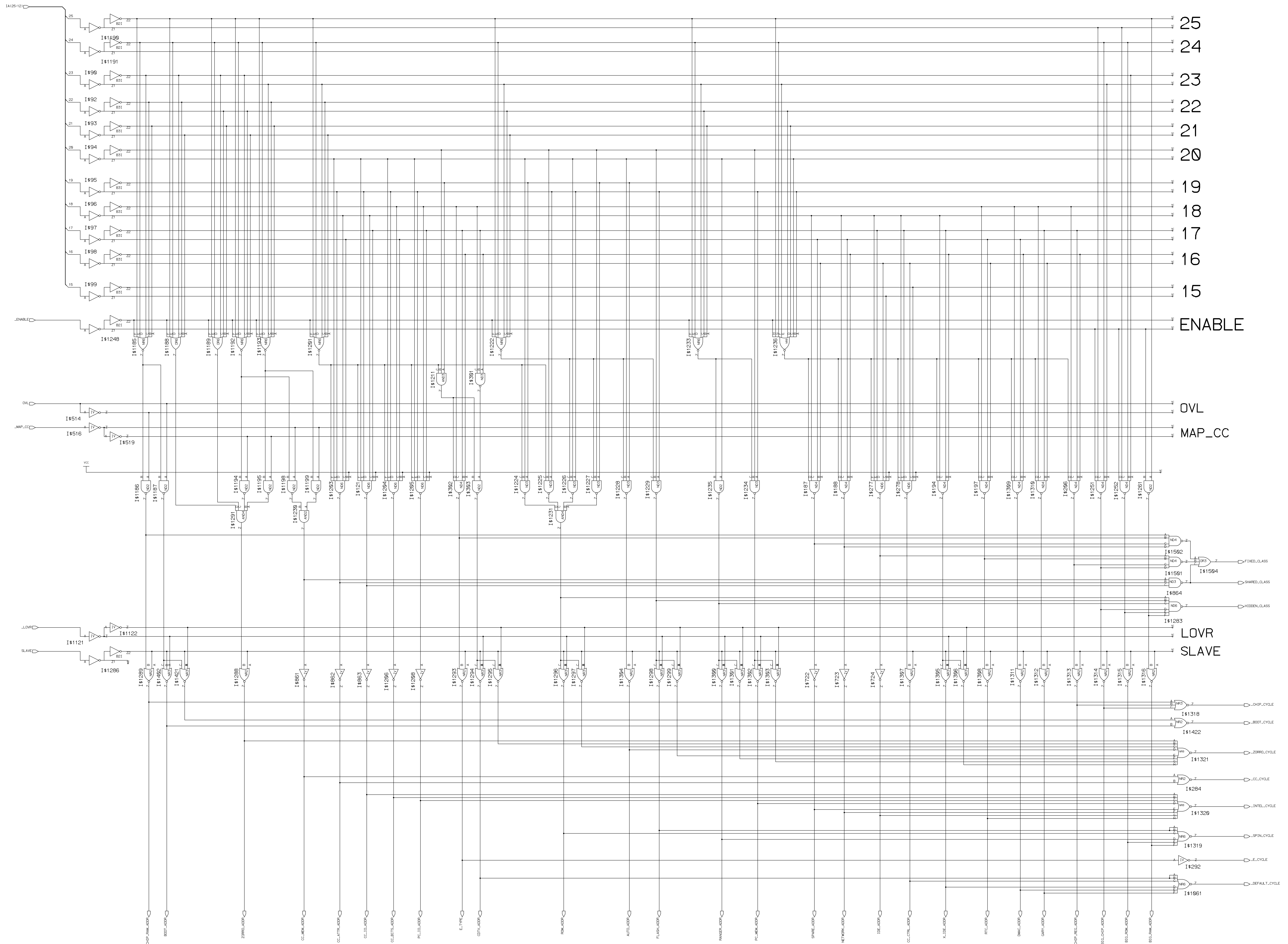


# ADDRESS BUS



gayle.rev0  
4145-020 Gate Array

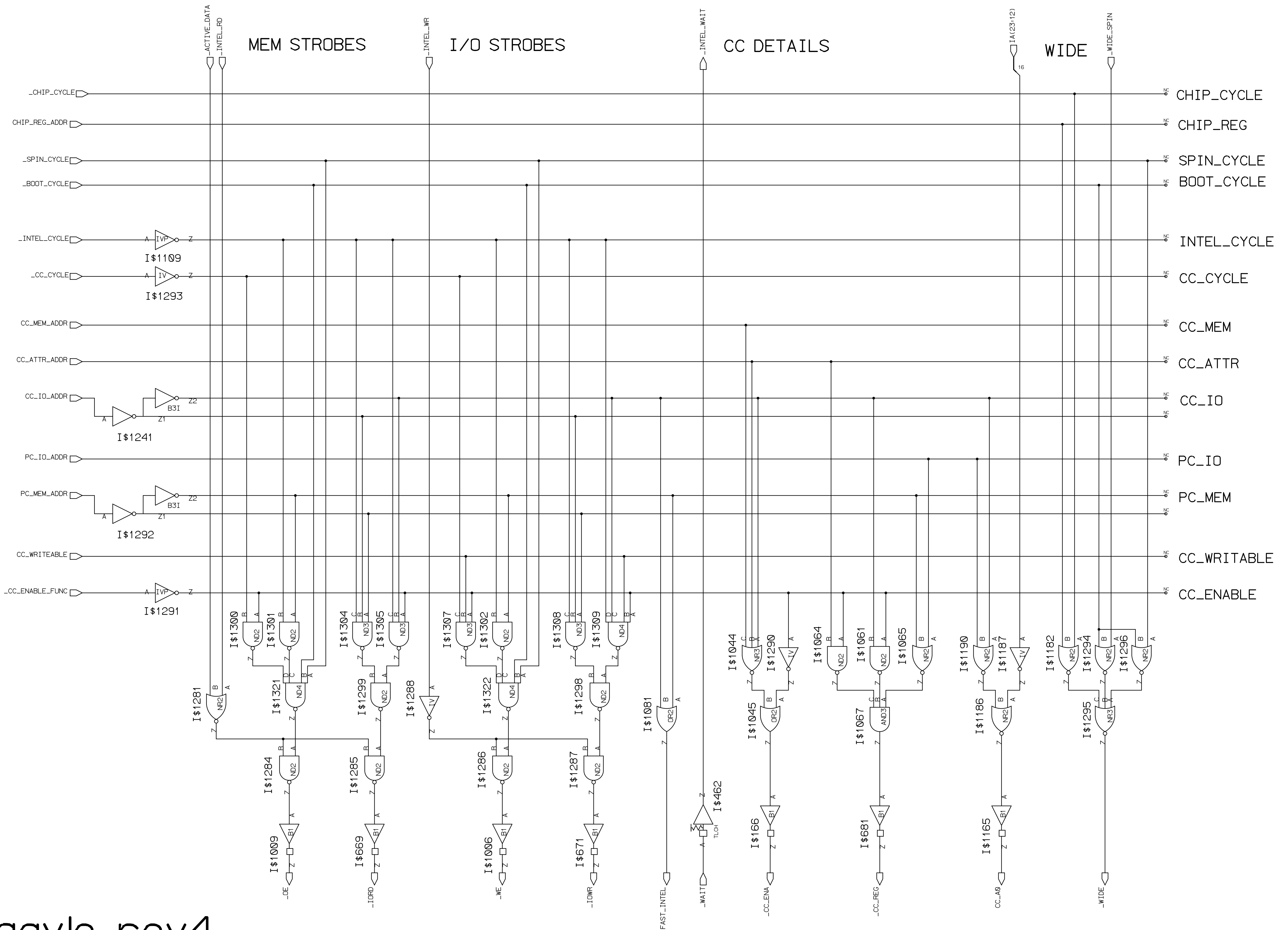
© 1991 Commodore Business Machines Information contained herein is the unpublished, confidential and trade secret property of Commodore Business Machines, Inc. Any use, reproduction or disclosure of this information without the prior written permission of Commodore is strictly prohibited.		PROC.BUS - PROCESSOR ADDRESS/DATA BUS	
DESIGN BY:	DATE:	Commodore	
DRAWN:	27/8/91	Schematic: 4145-020	
LAST:	27/8/91	A3900 Gate Array	
CHKD:	27/8/91	"Gayle"	
APPR:	27/8/91	C/3900 315986	
USED ON:	NEXT ASSY:	SIZE:	REV:
C/3900	315986	C	0
SCALE:	SHEET:	1	OF
C.A.D. Generated		No manual changes may be made to this document	
PATH: /project/a3900/gayle.rev0/proc_bus_sheet			



gayle.rev5  
 4145-023 Gate Array

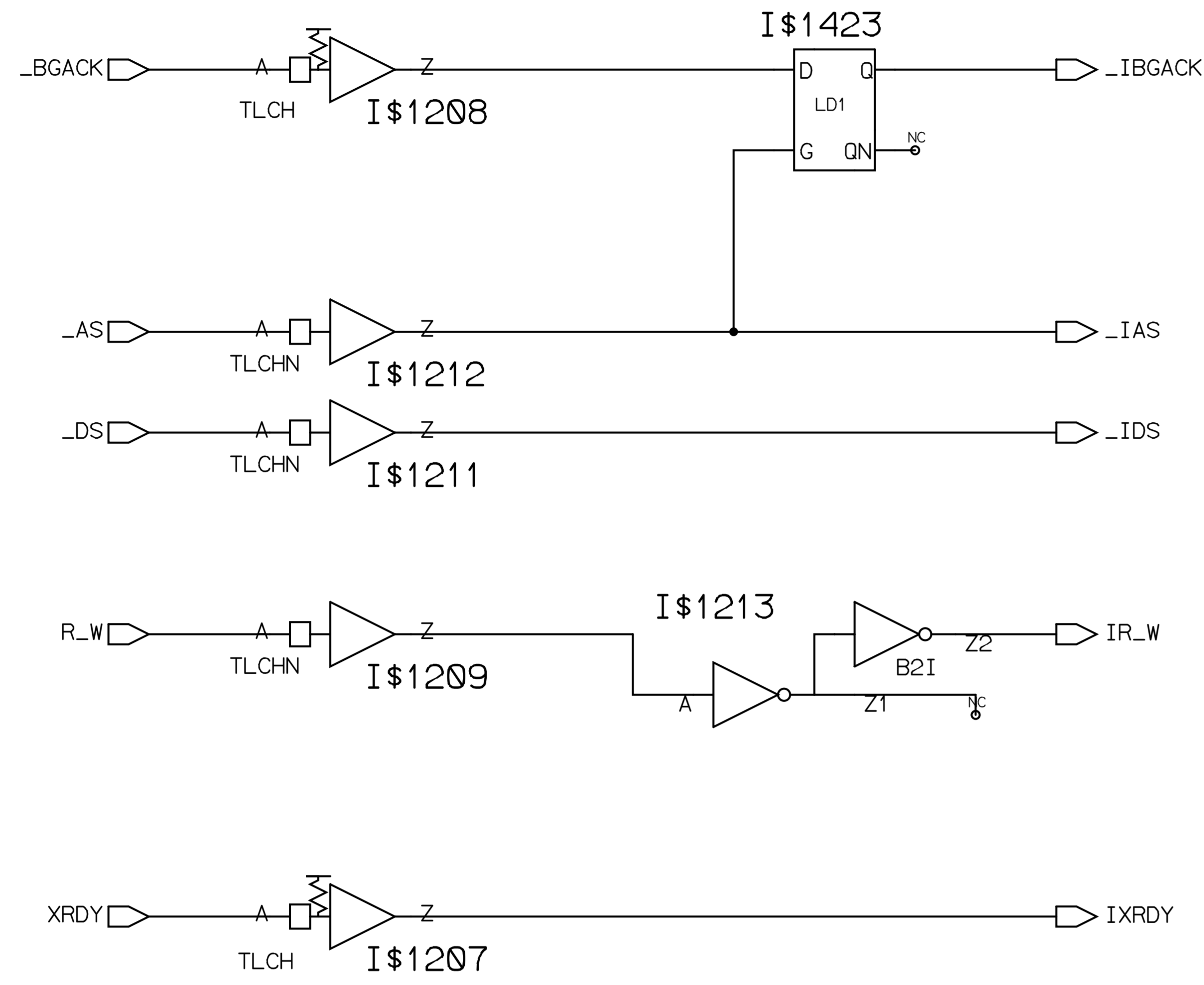
### ADDRESS DECODE

gayle.rev4  
4145-020 Gate Array

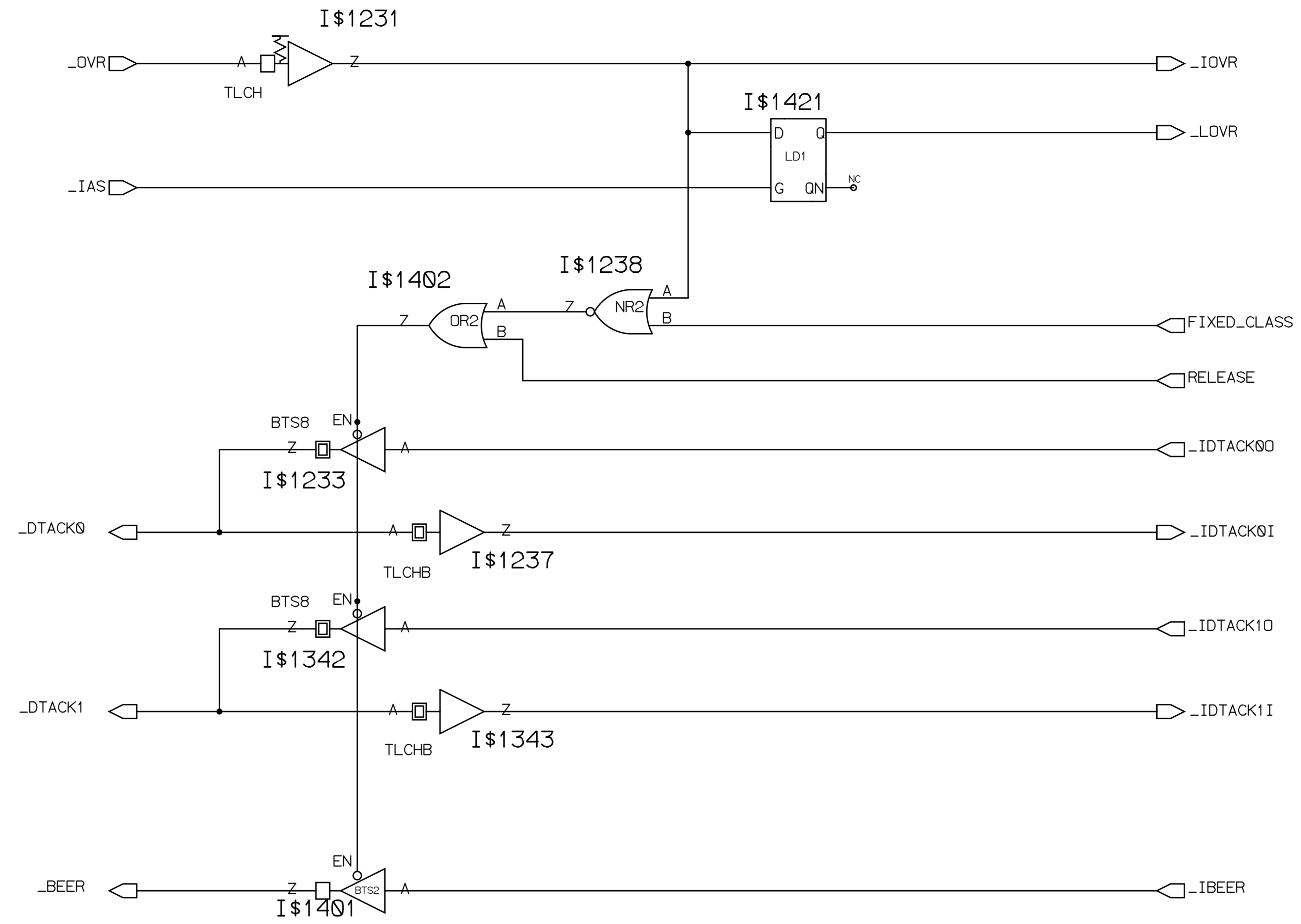


© 1991 Commodore Business Machines Information contained herein is the unpublished, confidential and trade secret property of Commodore Business Machines, Inc. Any use, reproduction or disclosure of this information without the prior written permission of Commodore is strictly prohibited.		DESIGN BY: [blank] DATE: 02/24/91 DRAWN: GBR LAST: GBR CHECKED: [blank] APPROVED: [blank]		Commodore Schematic 4145-020 A3900 Gate Array "Gayle"	
USED ON: C/4300	NEXT ASSY: 315986	SIZE: E	391155	REV: 4	SHEET: 1 OF 4
C.A.D. Generated No manual changes may be made to this document		PATH: /project/a3900/gayle.rev4/system_if sheet1			

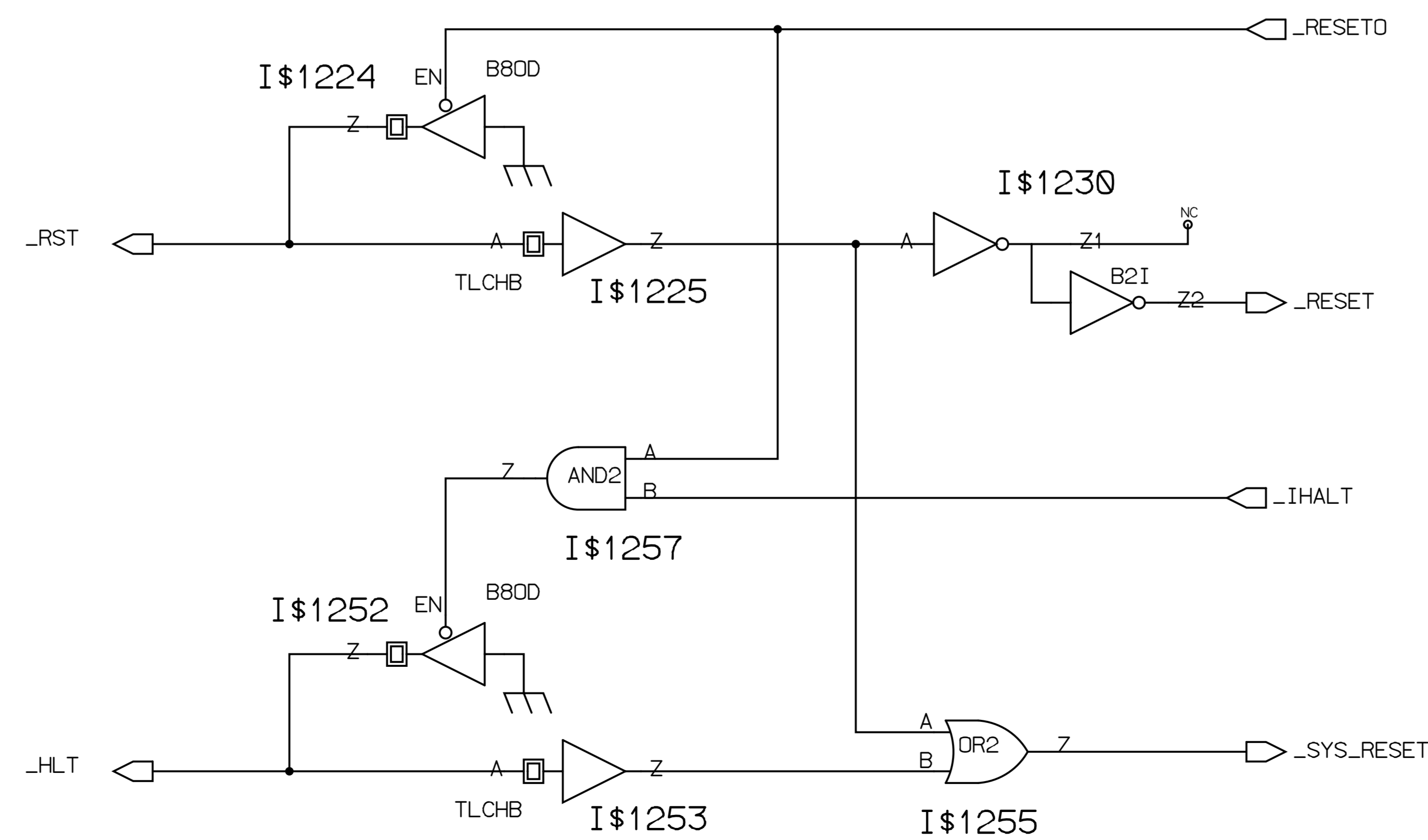
# ASSORTED SIGNALS



# DTACK vs. OVERRIDE



# RESET LOGIC

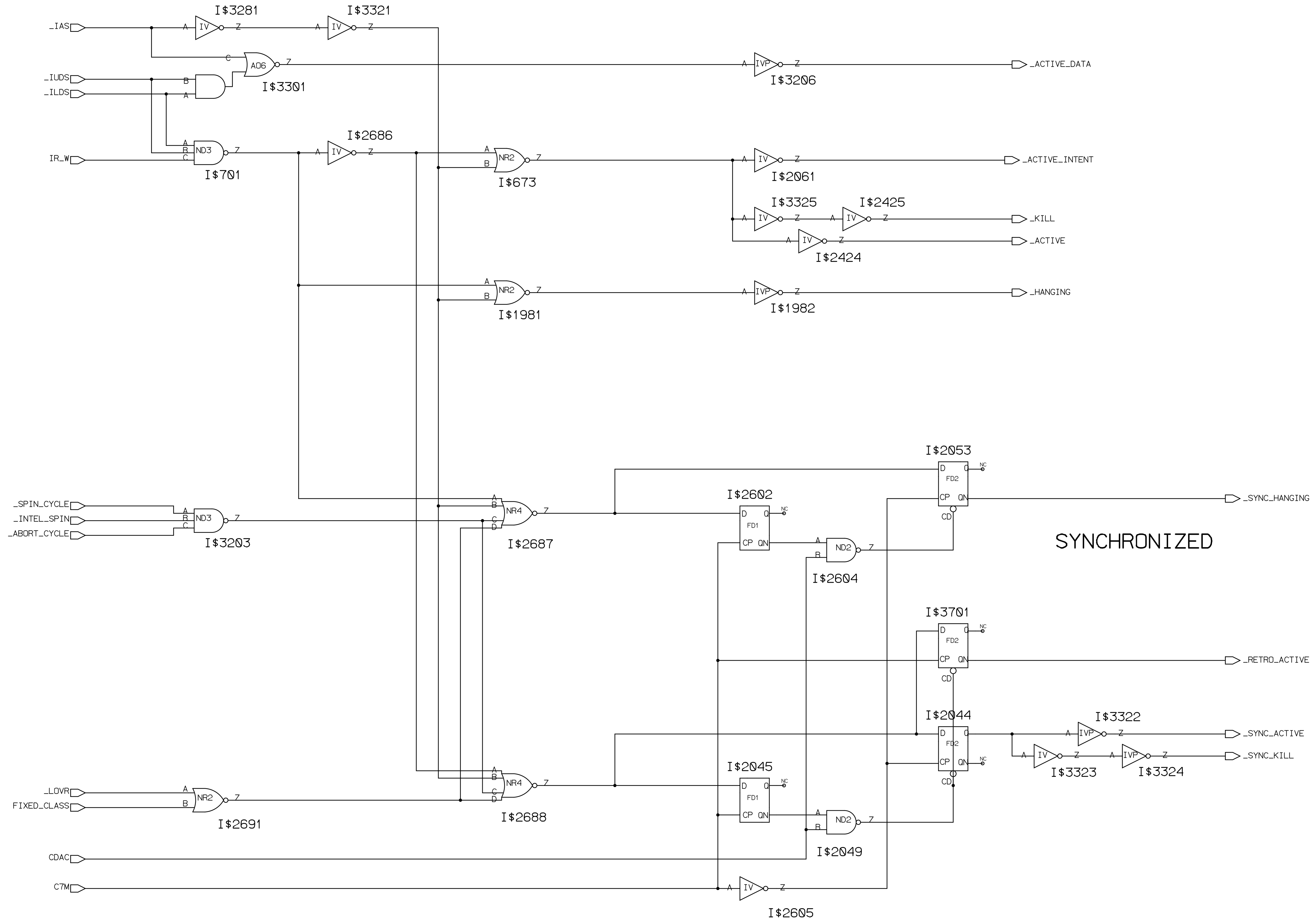


gayle.rev5  
4145-023 Gate Array

© 1991 Commodore Business Machines Information contained herein is the unpublished, confidential and trade secret property of Commodore Business Machines, Inc. Any use, reproduction or disclosure of this information without the prior written permission of Commodore is strictly prohibited.		DESIGN BY: 27/8322 DRAWN: GER 27/2522 LAST: GER 27/1722 CHECK: 777 APPROV: 777 USED ON: C/A390 NEXT: 315986		DATE: 27/8322 SCHEMATIC: 4145-023 AA600 Gate Array 'Gayle' SIZE: C SCALE: 391155 SHEET: 1 OF 5	
C.A.D. Generated No manual changes may be made to this document		PROC_IF - PROCESSOR INTERFACE		Commodore	

# CYCLE QUALIFICATION

ASYNCHRONOUS



gayle.rev5  
4145-023 Gate Array

GENNIE HAZARD FREE SYNCHRONIZER, SURE!

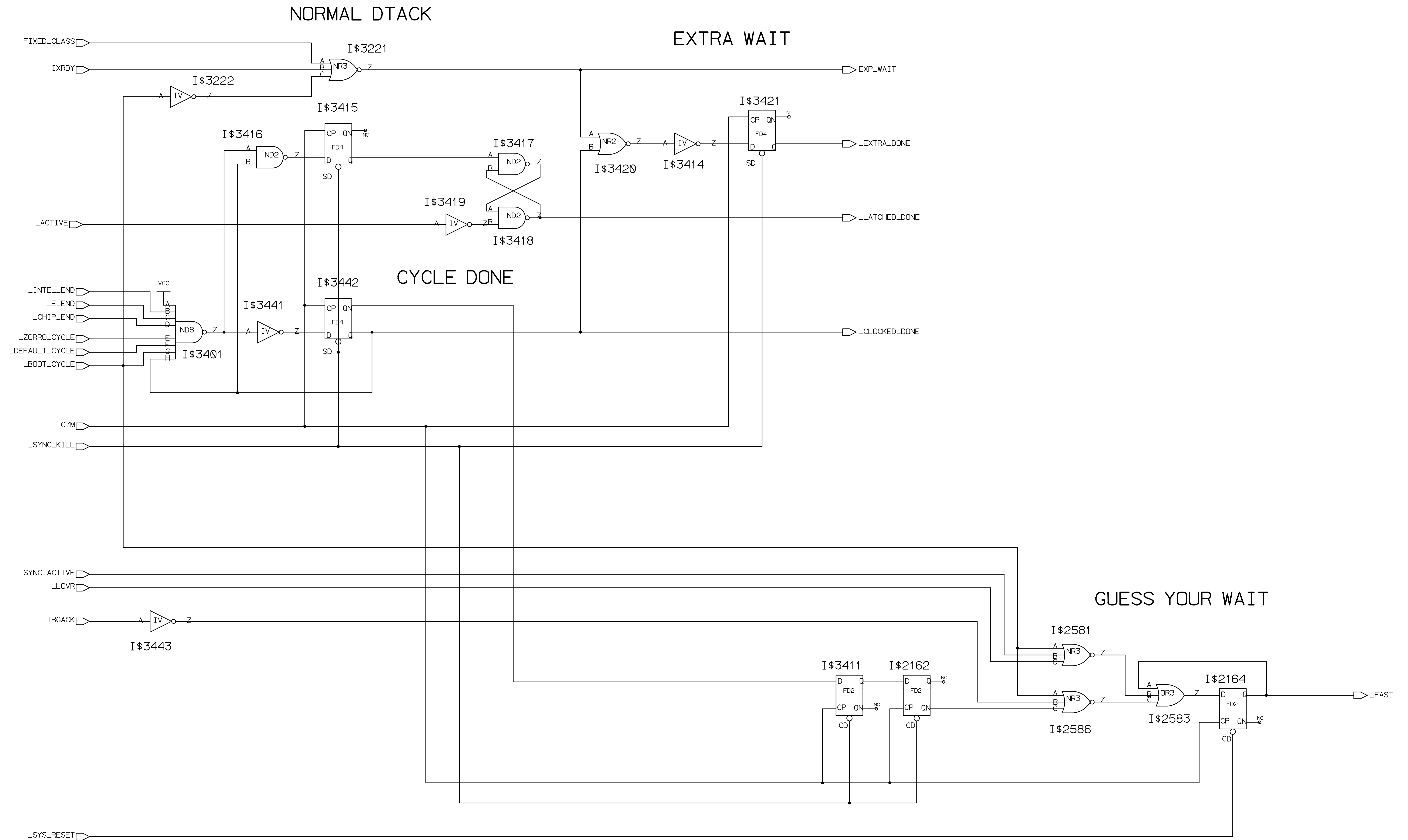
© 1991 Commodore Business Machines  
Information contained herein is the unpublished,  
confidential and trade secret property of  
Commodore Business Machines, Inc. Any use,  
reproduction or disclosure of this information  
without the prior written permission of  
Commodore is strictly prohibited.

C.A.D. Generated  
No manual changes may be made to this document

CYCLE_CTRL - PROCESSOR CYCLE CONTROL		DATE		Commodore	
DESIGN BY:	C. Robbins	27/2/92		4145-023	
DRAWN BY:	G.R.	27/2/92		AA606 Gate Array	
LAST BY:	G.R.	27/2/92		Gayle	
USED ON:	C/A390	315986		391155	REV 5
SCALE:				SHEET 1 OF 5	

PATH: /project/a390/gayle.rev5/cycle\_ctrl1 sheet

# CYCLE END AND WAIT ESTIMATION

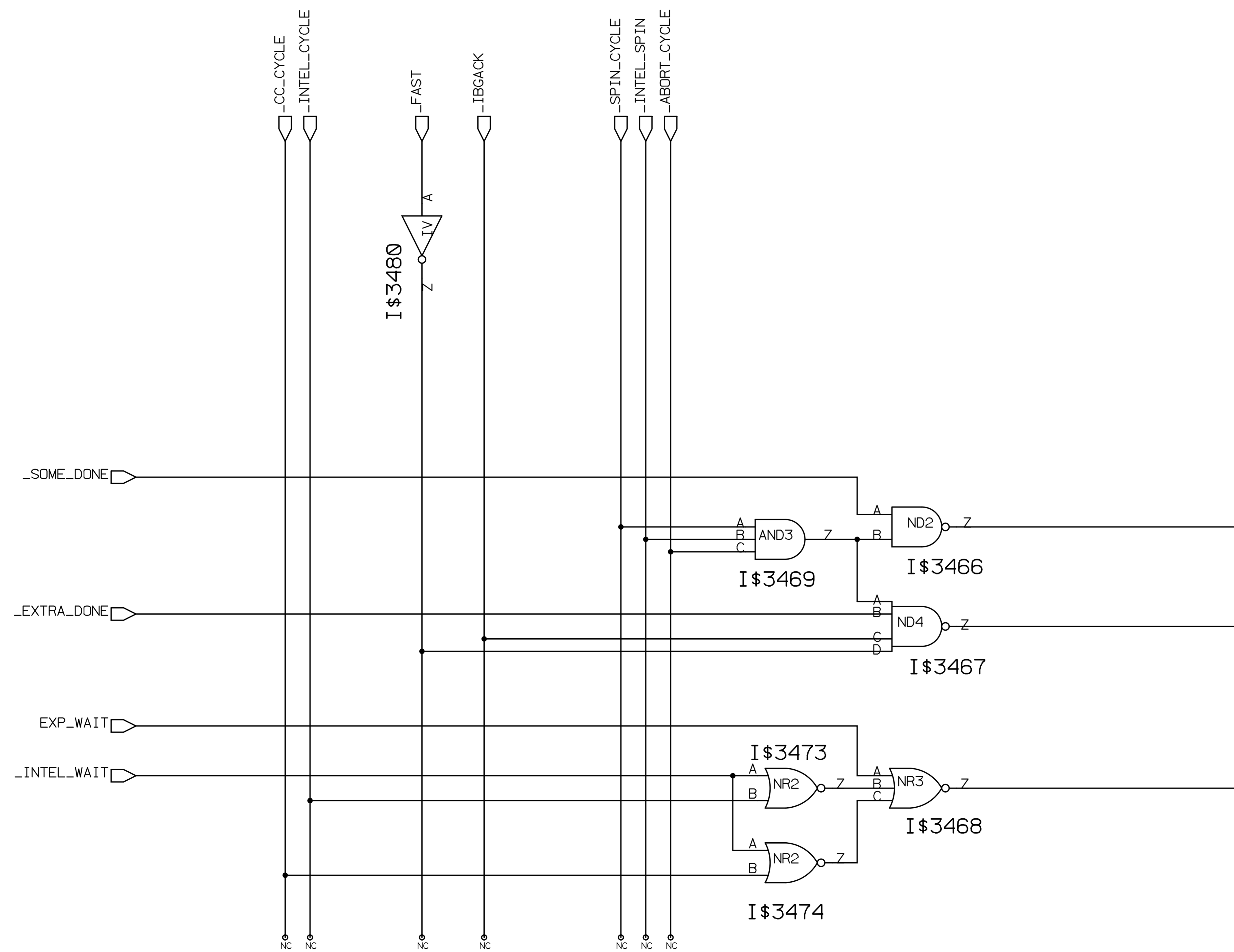


gayle.rev5  
4145-023 Gate Array

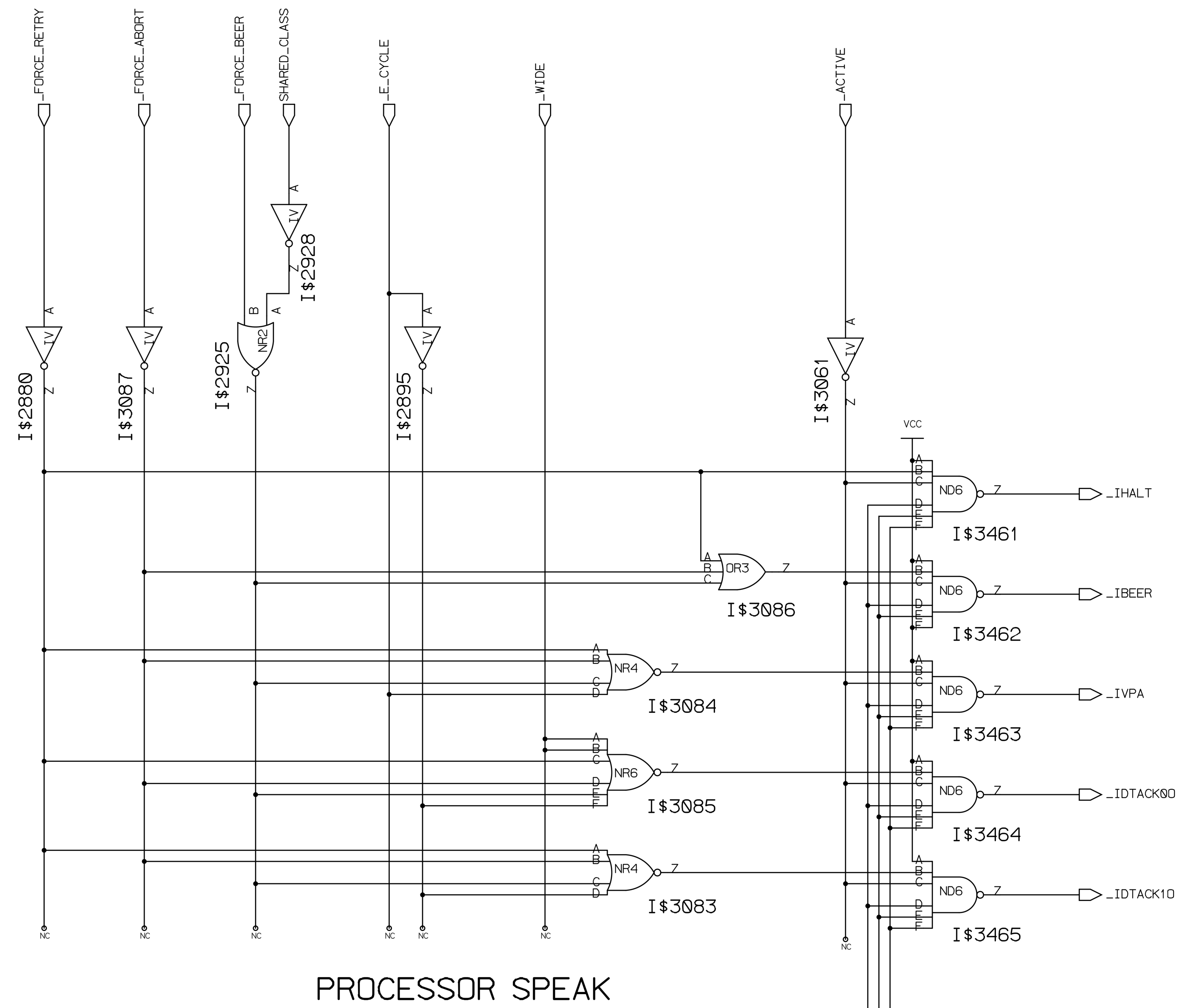
© 1991 Commodore Business Machines Information contained herein is the unpublished, confidential and trade secret property of Commodore Business Machines, Inc. Any use, reproduction or disclosure of this information without the prior written permission of Commodore is strictly prohibited.		<b>CYCLE_CTRL - 68K CYCLE TERMINATION</b>	
DESIGN BY:	DATE:	Commodore	
DRAWN BY:	27/2/91	Schematic: 4145-023	
LAST GR:	27/2/91	AAG00 Gate Array	
QSD:	1/1	SIZE:	391155
ASST:	1/1	SCALE:	SHEET 2 OF 5
USED ON:	C/A390	NEXT ASSY:	315986
C.A.D. Generated			
No manual changes may be made to this document			

# CYCLE TERMINATION CONT'D

OPTIMIZED FOR DONE!



WAIT CONDITIONS

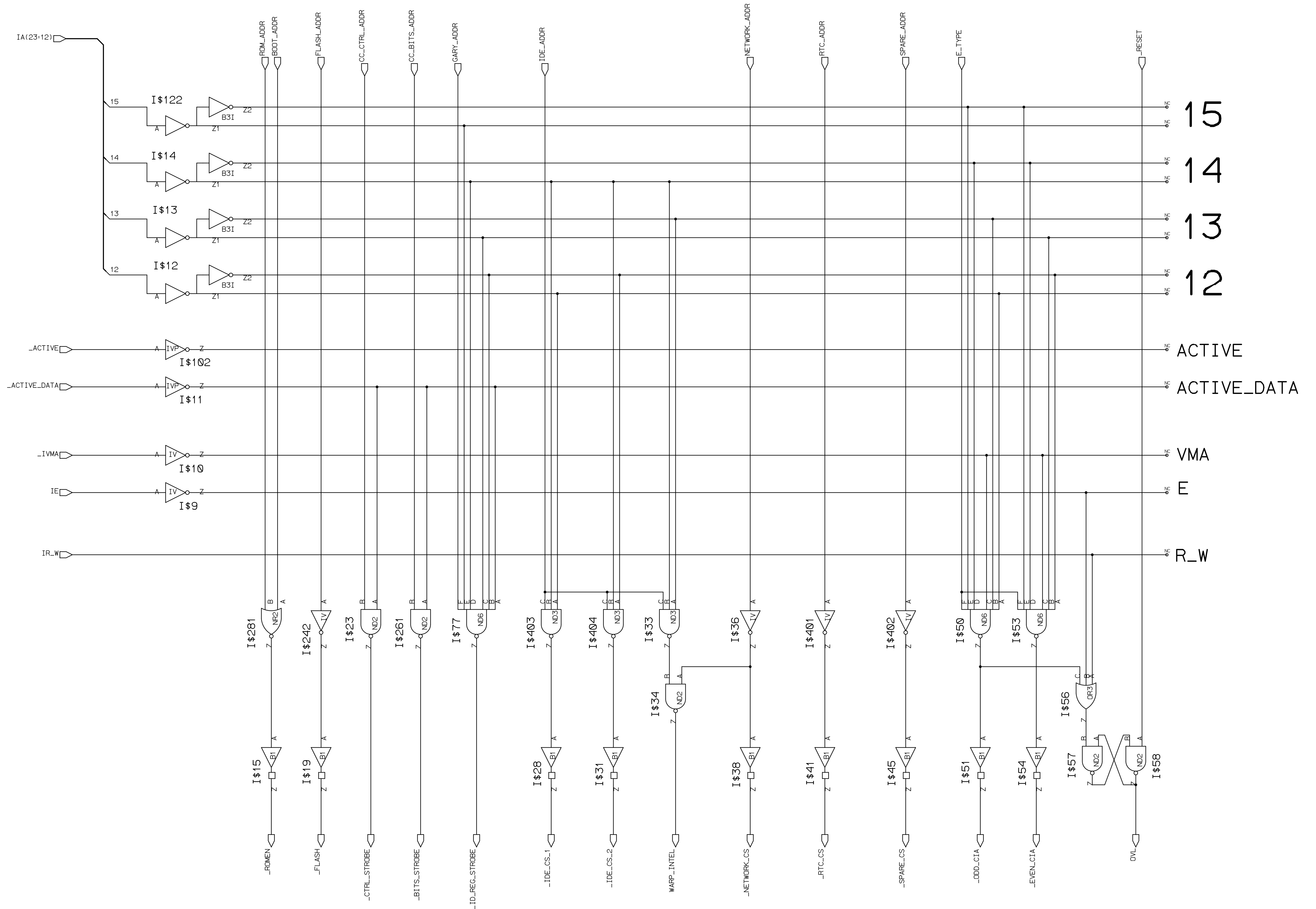


PROCESSOR SPEAK

gayle.rev5  
4145-023 Gate Array



# CHIP SELECT DECODE



gayle.rev2

4145-020 Gate Array

© 1991 Commodore Business Machines Information contained herein is the unpublished, confidential and trade secret property of Commodore Business Machines, Inc. Any use, reproduction or disclosure of this information without the prior written permission of Commodore is strictly prohibited.		<table border="1"> <tr> <th>DESIGN BY</th> <th>DATE</th> </tr> <tr> <td>C. Robbins</td> <td>07/24/91</td> </tr> <tr> <th>DRAWN</th> <th>GER</th> </tr> <tr> <td>LAST</td> <td>08/23/91</td> </tr> <tr> <th>APP'D</th> <th>DATE</th> </tr> <tr> <td>ZZ</td> <td>08/23/91</td> </tr> <tr> <th>USED ON</th> <th>NEXT ASSY</th> </tr> <tr> <td>C/A300</td> <td>315986</td> </tr> </table>		DESIGN BY	DATE	C. Robbins	07/24/91	DRAWN	GER	LAST	08/23/91	APP'D	DATE	ZZ	08/23/91	USED ON	NEXT ASSY	C/A300	315986
DESIGN BY	DATE																		
C. Robbins	07/24/91																		
DRAWN	GER																		
LAST	08/23/91																		
APP'D	DATE																		
ZZ	08/23/91																		
USED ON	NEXT ASSY																		
C/A300	315986																		
C.A.D. Generated No manual changes may be made to this document		<table border="1"> <tr> <th>SCALE</th> <th>SHEET</th> <th>OF</th> </tr> <tr> <td>C</td> <td>391155</td> <td>2</td> </tr> </table>		SCALE	SHEET	OF	C	391155	2										
SCALE	SHEET	OF																	
C	391155	2																	

CHIP\_SELECT - CHIP SELECT DETAILS

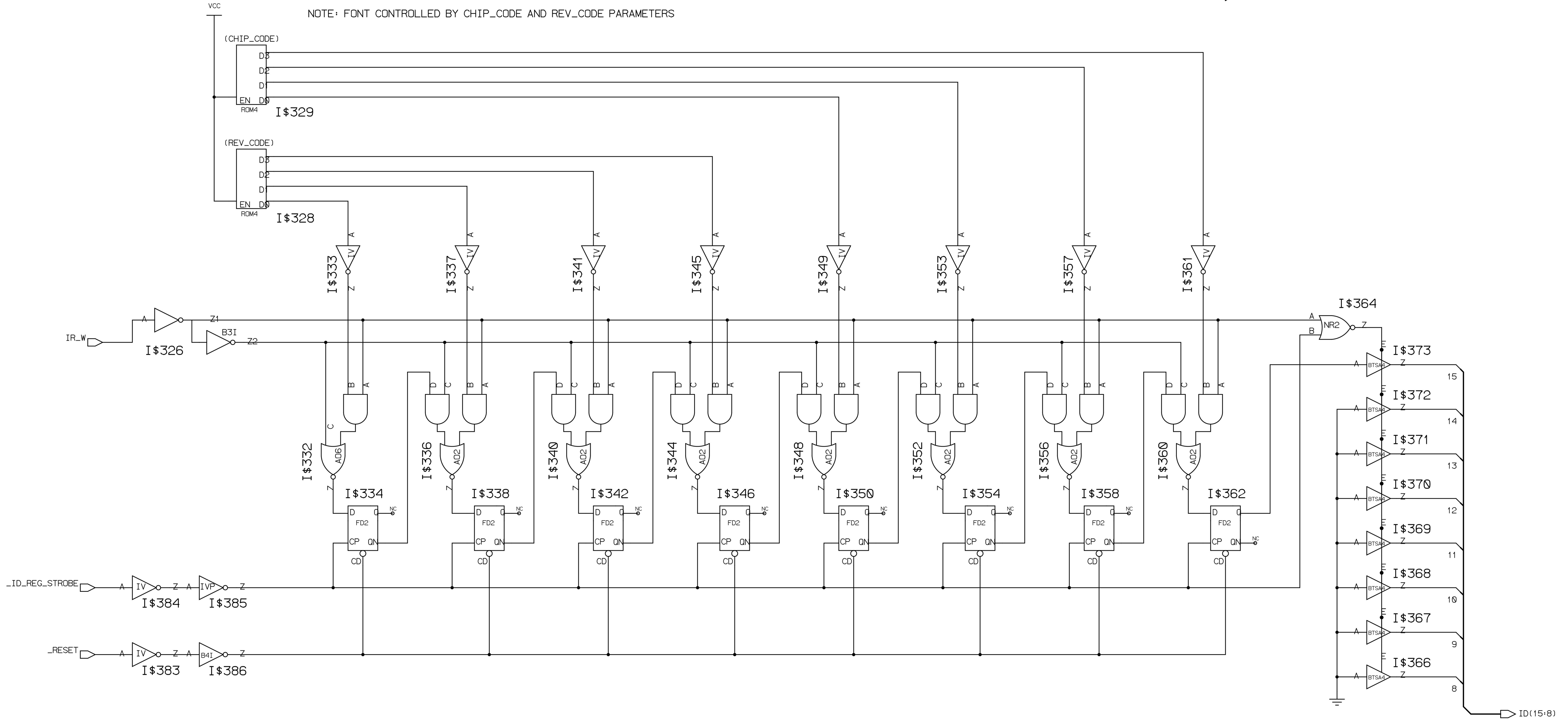
DATE: 07/24/91  
DRAWN: ZZ  
LAST: 08/23/91  
APP'D: ZZ  
USED ON: C/A300  
NEXT ASSY: 315986

Commodore  
Schematic: 4145-020  
A3000 Gate Array  
"Gayle"

PATH: /project/a3000/gayle.rev2/chip\_select1 sheet1

SHIFT OUT MSB FIRST 

NOTE: FONT CONTROLLED BY CHIP\_CODE AND REV\_CODE PARAMETERS

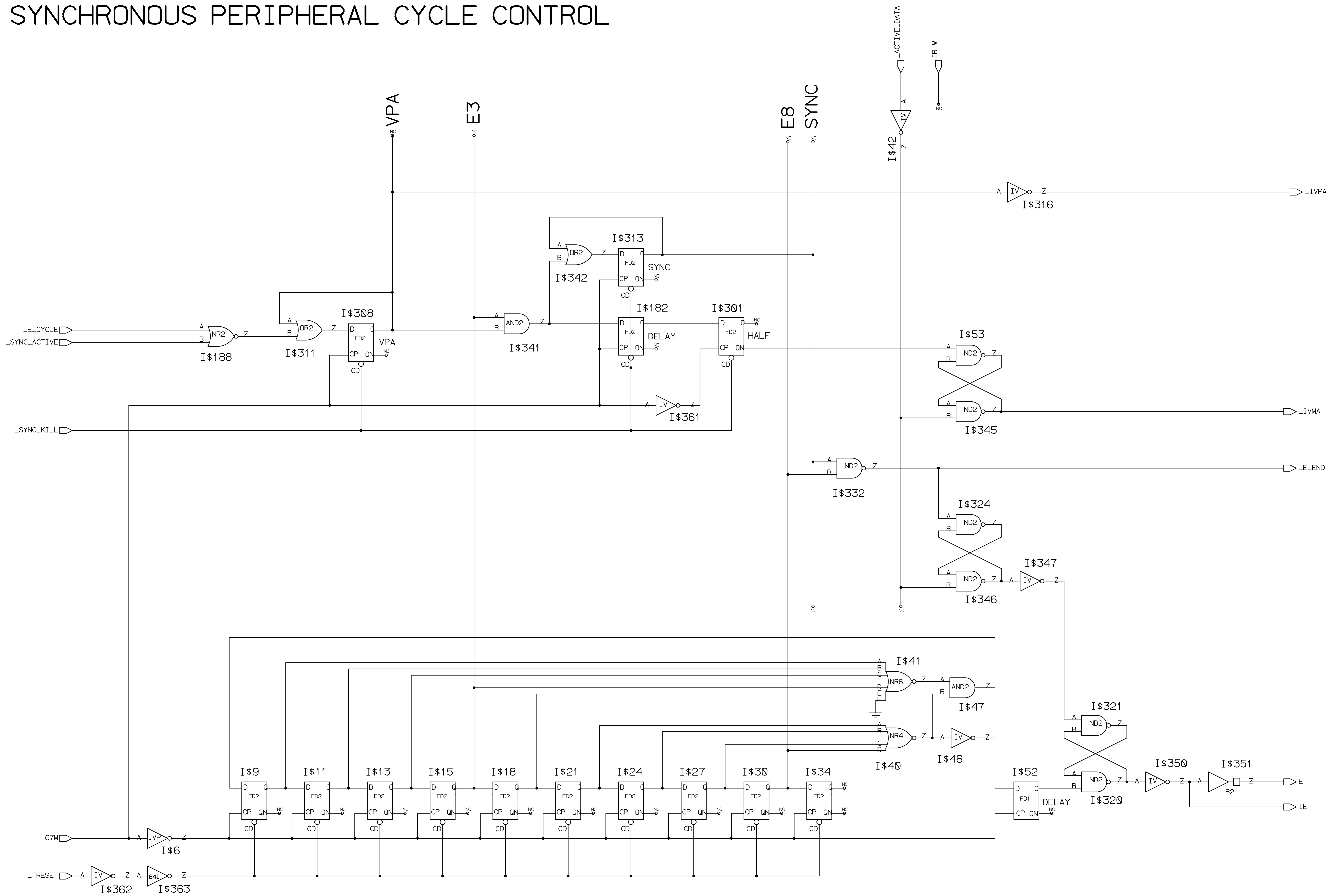


### AUGI'S ID REGISTER

gayle.rev4  
4145-020 Gate Array

© 1991 Commodore Business Machines Information contained herein is the unpublished, confidential and trade secret property of Commodore Business Machines, Inc. Any use, reproduction or disclosure of this information without the prior written permission of Commodore is strictly prohibited.		DESIGN BY: C. Robbers DRAWN: GRI LAST: GRI CHECK: J.Z. APPRO: J.Z. USED ON: C/A390 NEXT ASSY: 315986		DATE: 07/03/91 07/25/91 06/18/91 1/7/91 315986		Commodore Schematic: 4145-020 A390 Gate Array "Gayle" SIZE: C SCALE: 391155 SHEET: 1 OF 4	
C.A.D. Generated No manual changes may be made to this document				PATH: /project/a390/gayle.rev4/3_reg sheet1			

# SYNCHRONOUS PERIPHERAL CYCLE CONTROL



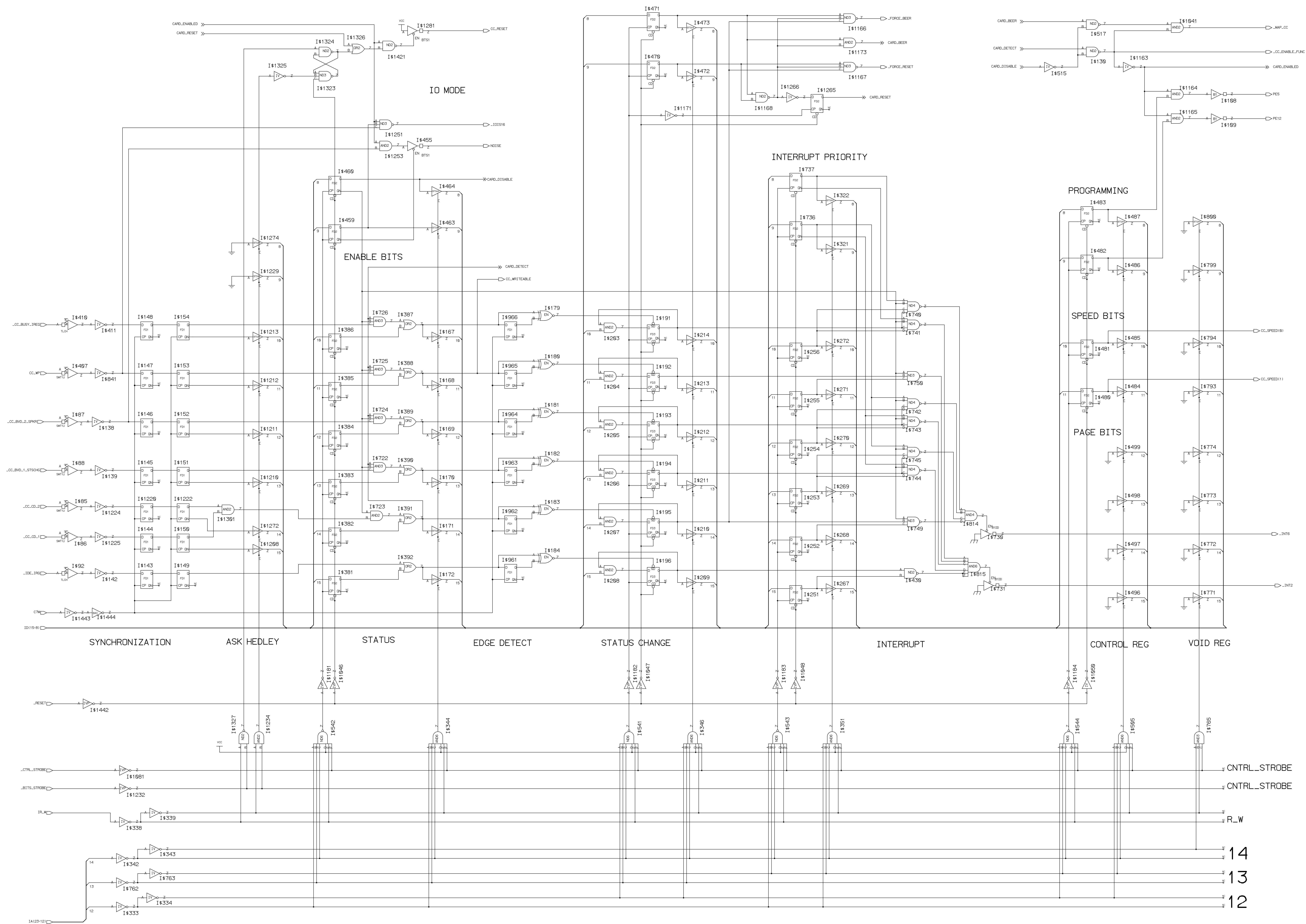
E-CLOCK GENERATOR (WALKING ONE)

gayle.rev4  
4145-020 Gate Array

© 1991 Commodore Business Machines Information contained herein is the unpublished, confidential and trade secret property of Commodore Business Machines, Inc. Any use, reproduction or disclosure of this information without the prior written permission of Commodore is strictly prohibited.		DESIGN BY: G. Robbins DATE: 07/03/82 DRAWN: GRR LAST: 07/03/82 CHECKED: JZZ APPROVED: JZZ USED ON: C/A390 NEXT ASSY: 315986		Schematic: 4145-020 A390 Gate Array "Gayle" SIZE: C SCALE: 391155 SHEET: 1 OF 4	
C.A.D. Generated No manual changes may be made to this document		E_CLOCK - E-CLOCK GEN AND SYNC CYCLE		PATH: /project/a390/gayle.rev4/e_clock sheet1	

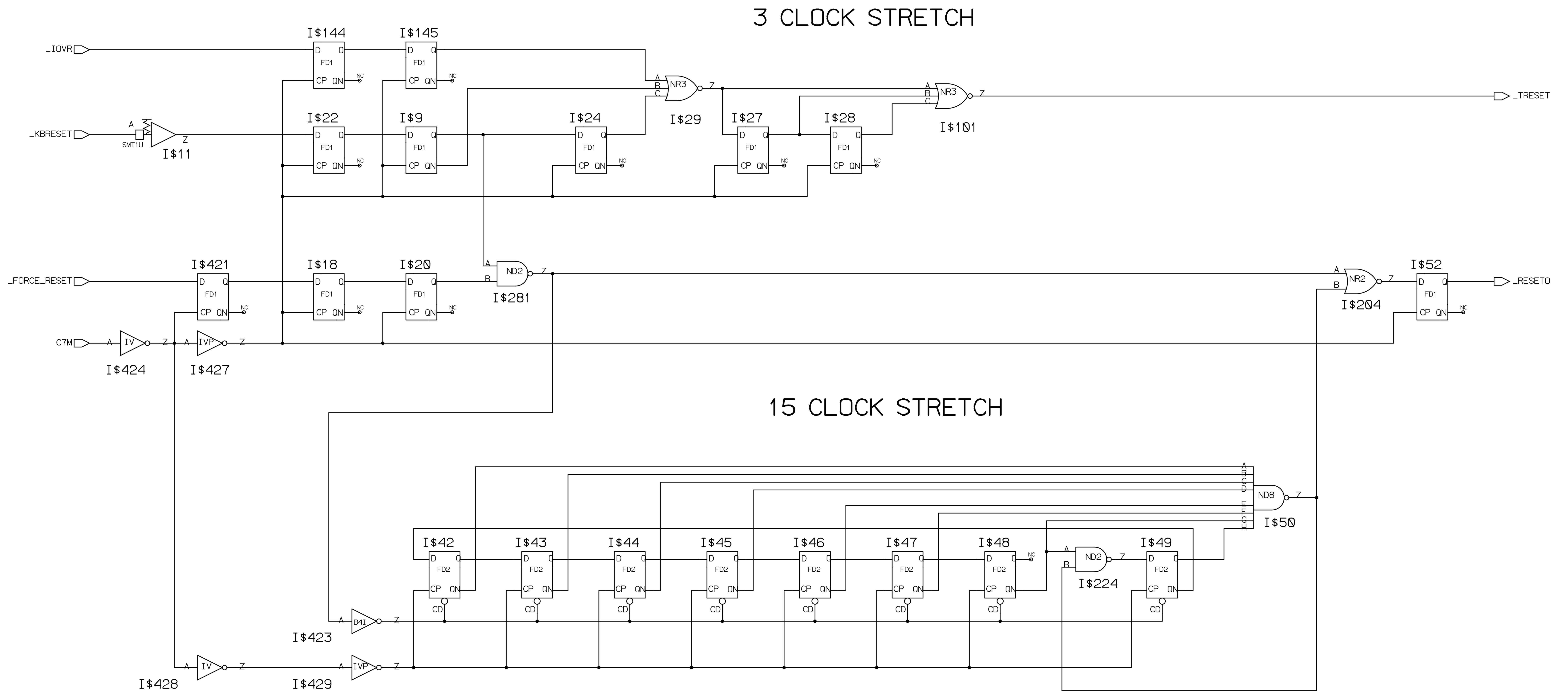
INSERT/WITHDRAW ACTION

CONTROL OUTPUTS



Note: only r4 change was ff substitution

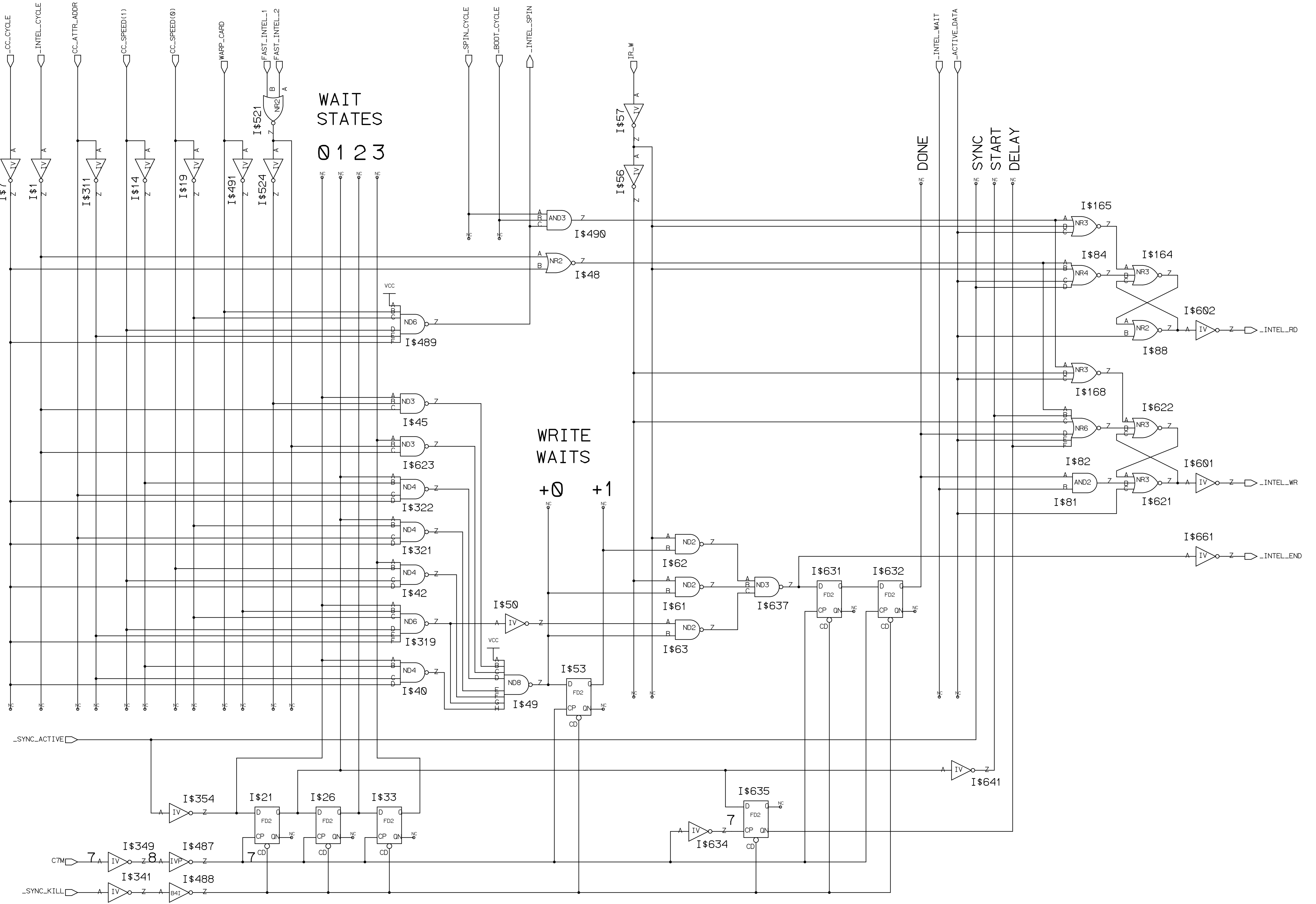
# RESET LOGIC



Note: \_TRESET is Test Reset

gayle.rev4  
4145-020 Gate Array

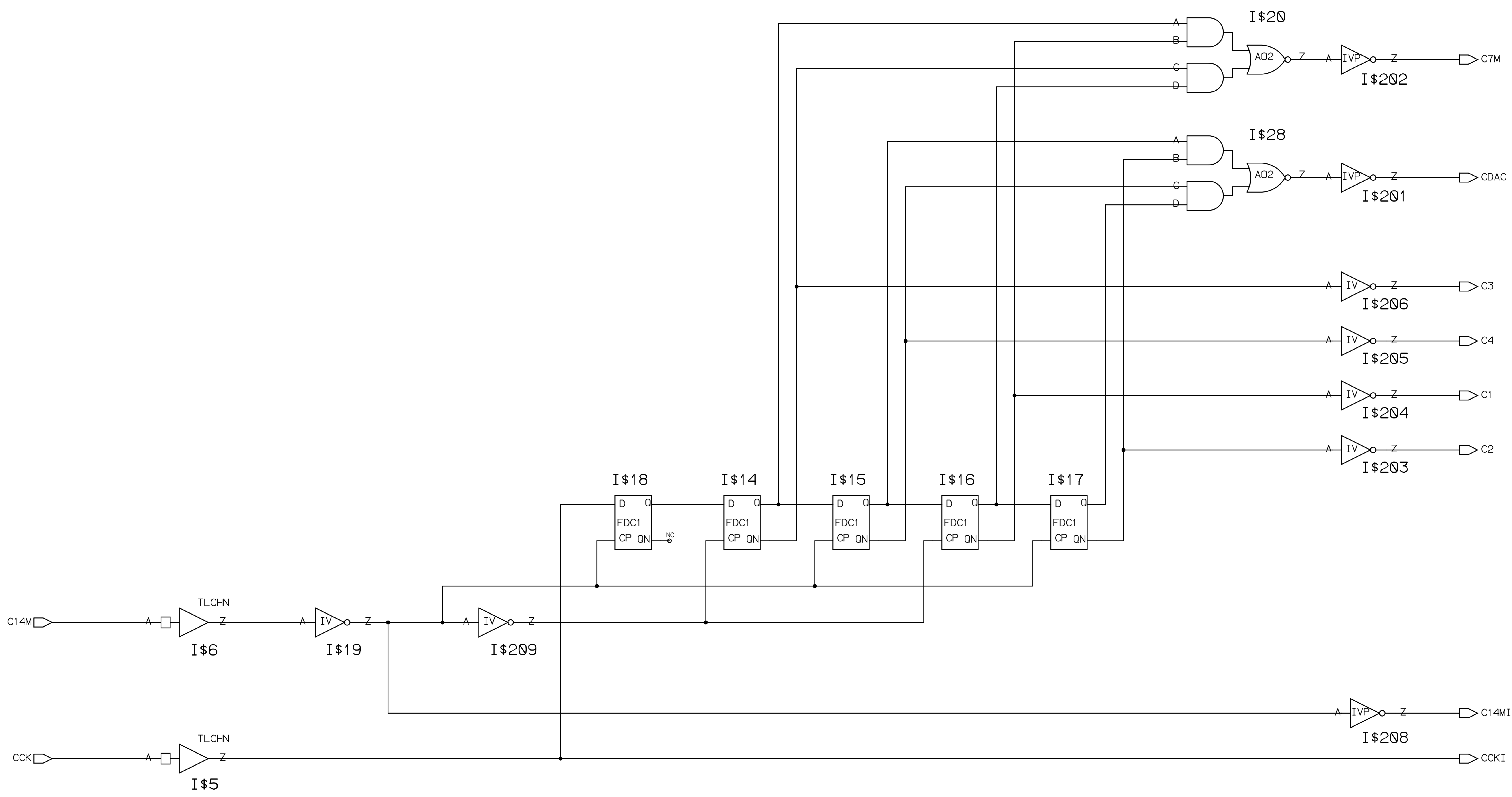
DESIGN BY:		DATE:		Commodore	
C. Robbins	22/2/82	Schematic: 4145-020			
LAST: GER	22/2/82	A390 Gate Array			
LAST: GER	22/2/82	"Gayle"			
USED ON	NEXT ASSY	SCALE	391155	REV	4
C/A390	315986	C			
C.A.D. Generated		SHEET 2 OF 4			
No manual changes may be made to this document		PATH: /project/a390/gayle.rev4/reset_logic_sheet1			



gayle.rev4  
4145-020 Gate Array

# INTEL CYCLE CONTROL

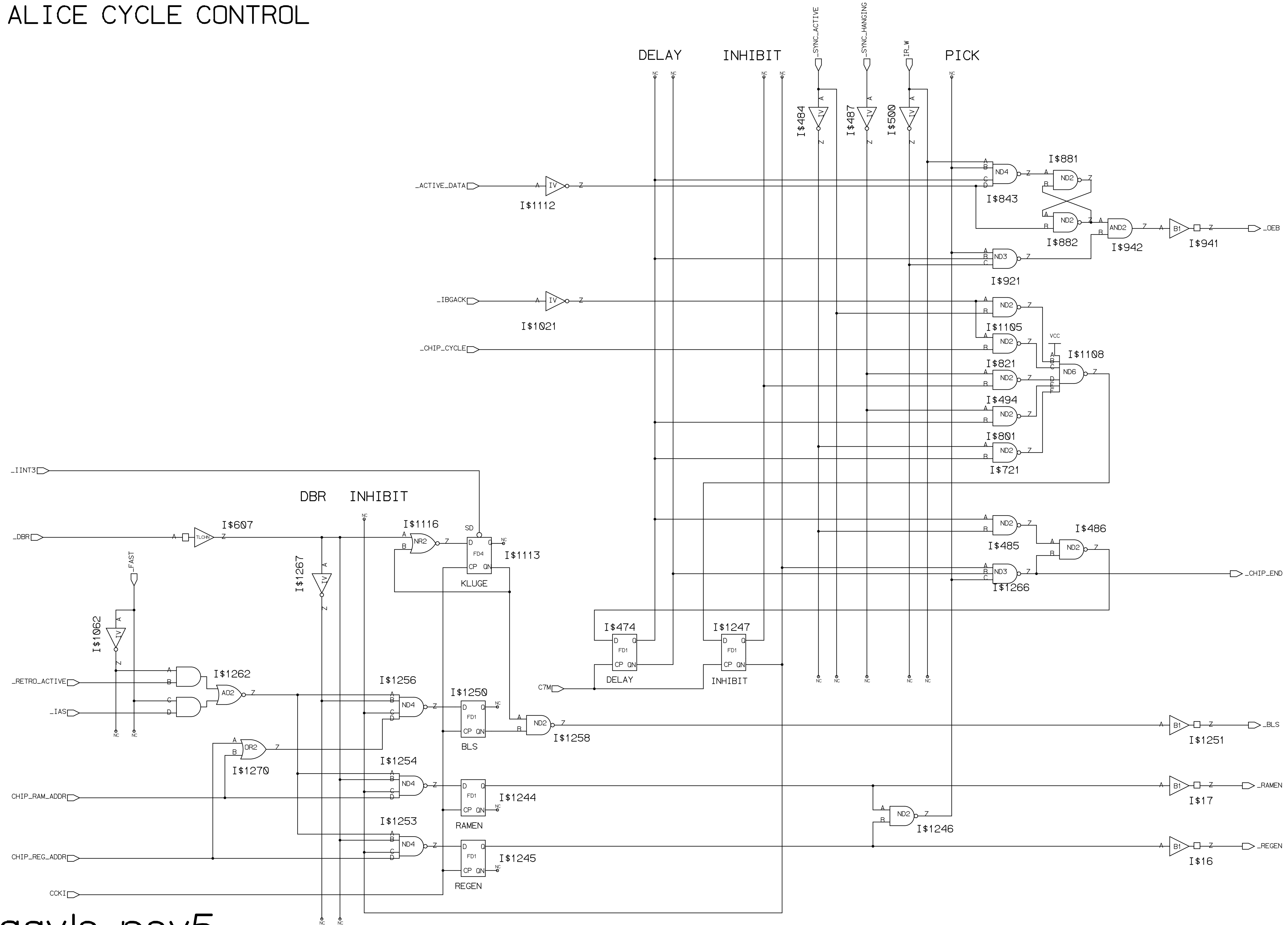
© 1991 Commodore Business Machines Information contained herein is the unpublished, confidential and trade secret property of Commodore Business Machines, Inc. Any use, reproduction or disclosure of this information without the prior written permission of Commodore is strictly prohibited.		DESIGN BY: [ ] DATE: [ ] C. Robbins 02/24/91 DRAWN: GBR 02/24/91 LAST: GBR 02/24/91 CHECK: [ ] APPRO: [ ] USED ON: C/A390 NEXT ASSY: 315986		Schematic: 4145-020 A390 Gate Array "Gayle" C 391155 REV 4 SCALE SHEET 1 OF 4	
C.A.D. Generated No manual changes may be made to this document				PATH: /project/a390/gayle.rev4/intel_cycle_sheet1	



gayle.rev0  
4145-020 Gate Array

© 1991 Commodore Business Machines Information contained herein is the unpublished, confidential and trade secret property of Commodore Business Machines, Inc. Any use, reproduction or disclosure of this information without the prior written permission of Commodore is strictly prohibited.		C.A.D. Generated No manual changes may be made to this document	
DESIGN BY: G. Robbins DRAWN: GBR LAST: GBR QAPP: J.L. APPR: J.L.		DATE: 07/25/91 07/25/91 07/25/91 1/2 315986	
PROJECT: /project/a390/gayle.rev0/clock_gen sheet1		COMMODORE Schematic: 4145-020 A390 Gate Array "Gayle" SIZE: C 391155 SCALE: SHEET 1 OF 0	

# ALICE CYCLE CONTROL



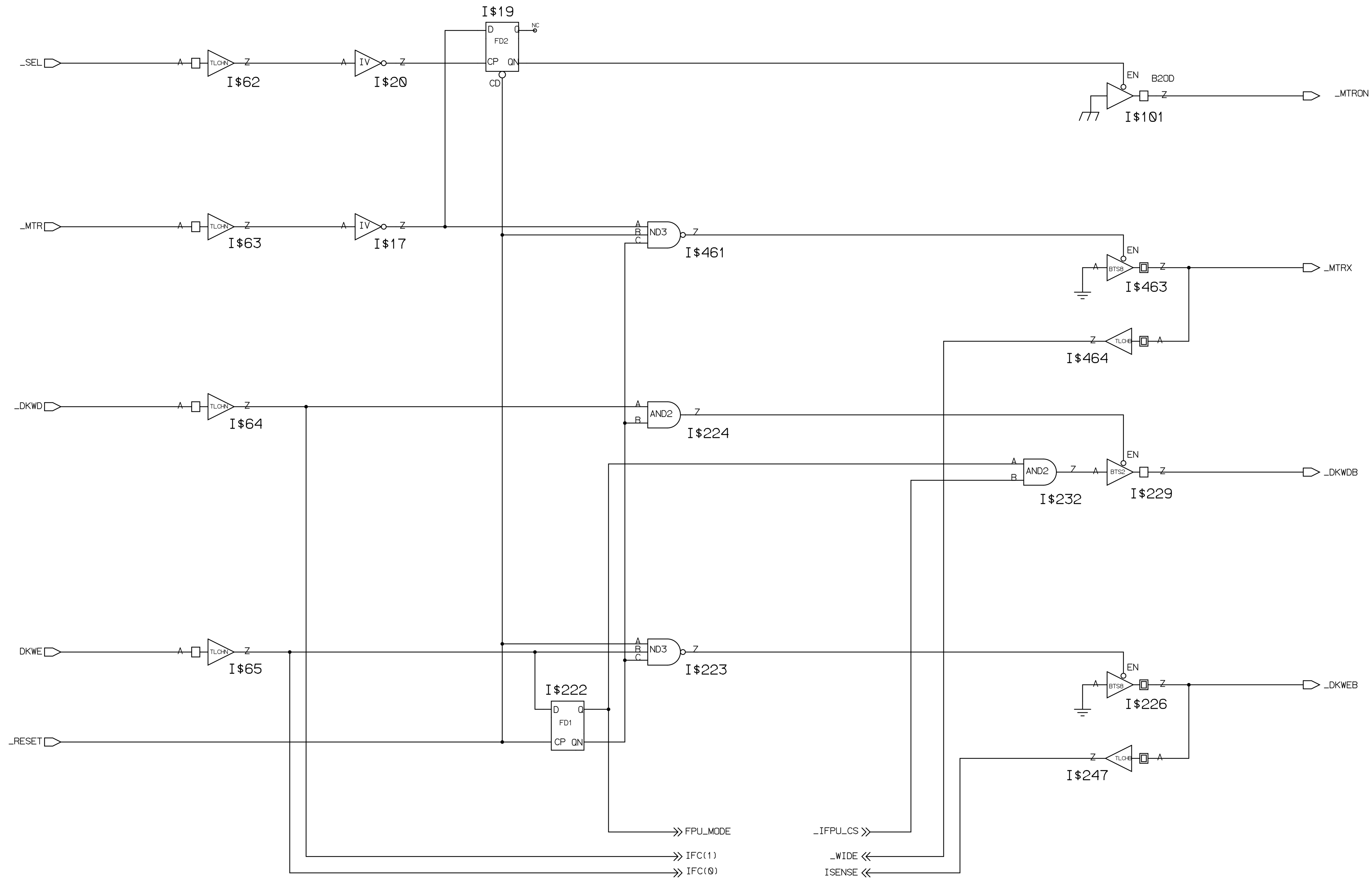
gayle.rev5

4145-023 Gate Array

© 1991 Commodore Business Machines Information contained herein is the unpublished, confidential and trade secret property of Commodore Business Machines, Inc. Any use, reproduction or disclosure of this information without the prior written permission of Commodore is strictly prohibited.		ALICE_IF - AMIGA CHIPSET INTERFACE	
DESIGN BY:	DATE:	Commodore	
DRAWN:	27/2/92		
LAST:	27/2/92	Schematic: 4145-023	
CHKD:	27/2/92	AA600 Gate Array	
APPR:	1/1	"Gayle"	
USED ON:	NEXT:	ASST:	
C/4300	315986		
SCALE:	C	391155	REV 5
		SHEET	1 OF



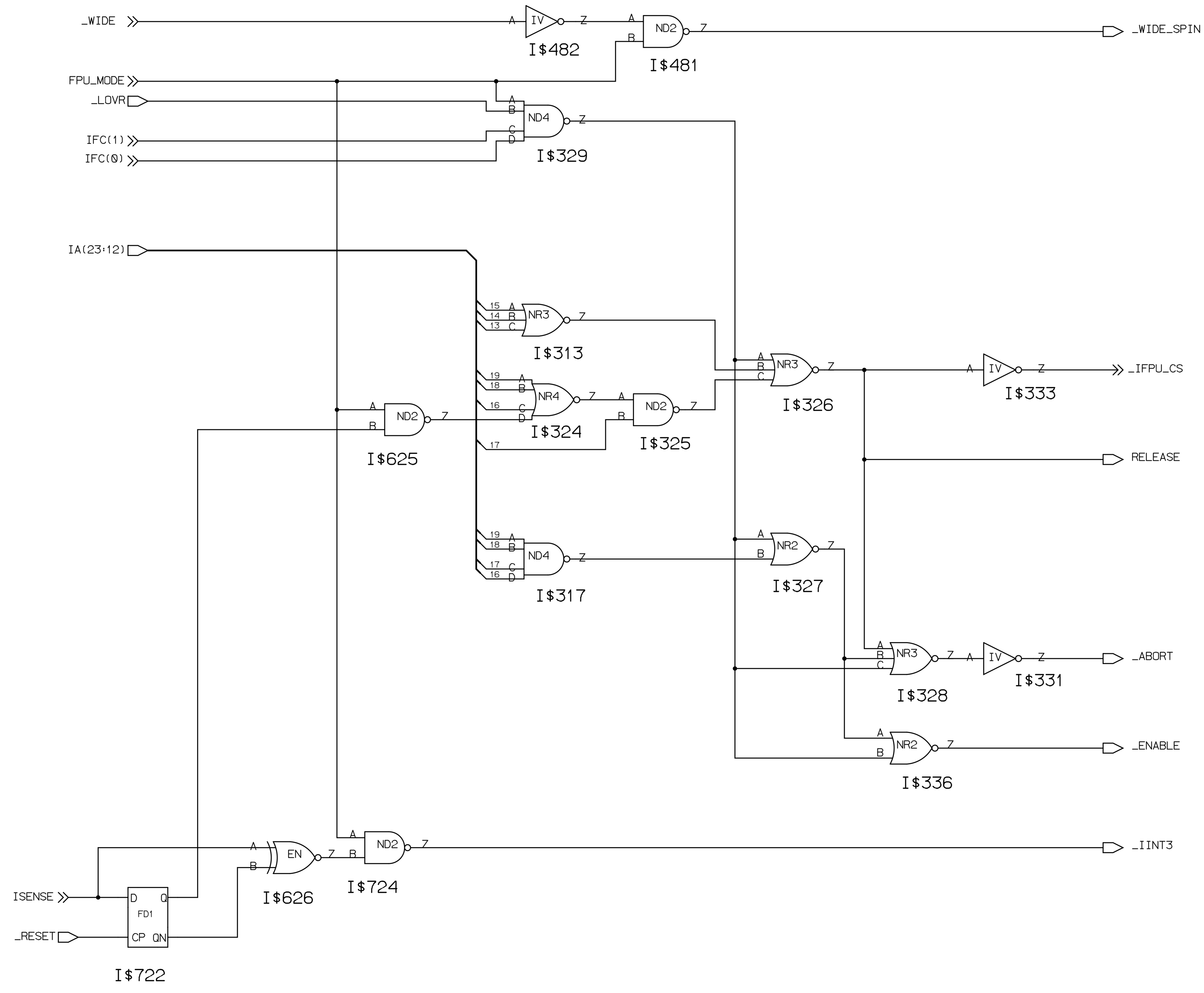
# FLOPPY LOGIC AND PERVERSIONS



DKWE high at reset enables FPU mode  
Kludges here, logic on the next page

gayle.rev5  
4145-023 Gate Array

# FUNCTION CODE FOLLIES



gayle.rev5  
4145-023 Gate Array

© 1991 Commodore Business Machines Information contained herein is the unpublished, confidential and trade secret property of Commodore Business Machines, Inc. Any use, reproduction or disclosure of this information without the prior written permission of Commodore is strictly prohibited.		<b>Commodore</b> Schematic 4145-023 AA606 Gate Array 'Gayle' SIZE C 391155 SCALE SHEET 2 OF 5	
DESIGN BY: C. Robbins	DATE: 07/03/91	DESIGN: C/A390	NEXT ASSY: 315986
DRAWN: GER	DATE: 07/25/91	APP'D: /	
USED ON: C/A390	315986		
C.A.D. Generated No manual changes may be made to this document			

FLOPPY\_LOGIC - FPU CHIP SELECT, ETC.  
 PATH: /project/a390/gayle.rev5/floppy\_logic\_sheet1