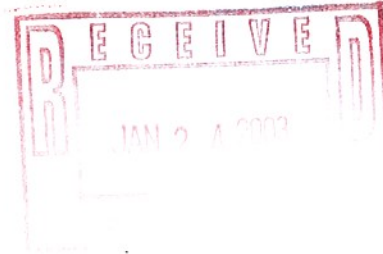




Memorandum



To: Vern Chang
From: Humberto Castellero *[Signature]*
Date: January 22, 2003
Re: Signal Timing Changes – North CBD and Hegenberger Road/73rd Avenue Controller and Signal Interconnect Upgrade, City Project No. H03610, Federal Project # CML-5012 (013)

Installed By:	<i>Ed Myrland / Stefan Janowski</i>	Installation Date:	<i>3/26/03</i>
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Intersection Location(s):
Grand Avenue at Harrison Street
Hegenberger Road at Pardee Drive
Hegenberger Road at Hegenberger ~~Place~~ Loop
Hegenberger Road at Edgewater Drive
Hegenberger Road at S. Coliseum Way
Hegenberger Road at Baldwin Street
Hegenberger Road at Office Complex Driveway

Please make the timing adjustments below:

Enclosed are the timing sheets for the locations listed above for the North CBD and Hegenberger Road/73rd Avenue Controller and Signal Interconnect Upgrade Project (PVEA). Controllers were upgraded from existing LS 180/240 or LMD 8000 to Type 170E with Bi Trans Program 233.

- ☐ This will be an **informal adjustment**. An engineer will meet with an electrician and changes will be made informally.
- ☐ This is a **semi-formal adjustment**. Enclosed are four copies of temporary data sheets. Make changes as they direct. Hold all existing data sheets.
- ☒ This is a **formal adjustment** or conforms a previous adjustment. Enclosed are four copies of initialed data sheets; put them in operation.
- ☐ Send Signal Timing Information to Caltrans

INTERSECTION: Hegenberger & Baldwin

Group Assignment: NONE

Field Master Assignment: NONE

System Reference Number: 31

N/S Street Name: Hegenberger

E/W Street Name: Baldwin

Change Record				
Change	By	Date	Change	By
Yellow Walk SW	SW	3/17/03		
Op4				

Notes:

Manual Plan

0 = Automatic

1-9 = Plan 1-9

14 = Free

15 = Flash

Manual Offset

0 = Automatic

1 = Offset A

2 = Offset B

3 = Offset C

Drop Number 1 <C/O+0+0>

Zone Number 1 <C/O+0+1>

Area Number 1 <C/O+0+2>

Area Address 72 <C/O+0+3>

QuickNet Channel 72 (QuickNet)

Communication Addresses

Manual Plan 0

Manual Offset 0

Manual Selection

Flash Start 0 <F/1+0+E>

Red Revert 5.0 <F/1+0+F>

All Red Start 5.0 <F/1+0+0>

Start / Revert Times

Exclusive Walk 0 <F/1+0+0>

Exclusive FDW 0 <F/1+0+1>

All Red Clear 0.0 <F/1+0+2>

Exclusive Ped Phase

(Outputs specified in Assignable

Outputs at E127/A+E & F)

Phase										
Column Numbers ---->	1	2	3	4	5	6	7	8		
Phase Names ---->	SBL NBT	EWL NBL SBT								
0 Ped Walk	0	0	0	4	0	7	0	0		
1 Ped FDW	0	0	0	25	0	9	0	0		
2 Min Green	5	5	0	5	5	5	0	0		
3 Type 2 Disconnect	0	0	0	0	0	0	0	0		
4 Added per Vehicle	2.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0		
5 Veh Extension	2.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0		
6 Max Gap	2.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0		
7 Min Gap	2.0	2.0	0.0	2.0	2.0	2.0	0.0	0.0		
8 Max Limit	10	20	0	20	10	20	0	0		
9 Max Limit 2	15	60	0	35	25	60	0	0		
A Adv / Delay Walk	0	0	0	0	0	0	0	0		
B PE Min Ped FDW	0	0	0	0	0	0	0	0		
C Cond Serv Check	10	10	0	10	10	10	0	0		
D Reduce Every	1.0	1.0	0.0	1.0	1.0	1.0	0.0	0.0		
E Yellow Change	3.0	3.0	0.0	3.0	3.0	3.0	0.0	0.0		
F Red Clear	0.0	1.0	0.0	2.0	0.0	1.0	0.0	0.0		

Phase Timing - Bank 1

<C+0+F=1>

9	A	B	C	D
Phase 1	0	0	0	0.0
Phase 2	20	0	0	0.0
Phase 3	0	0	0	0.0
Phase 4	20	0	0	0.0
Phase 5	0	0	0	0.0
Phase 6	20	0	0	0.0
Phase 7	0	0	0	0.0
Phase 8	20	0	0	0.0
Max Initial				
Alternate Walk				
Alternate FDW				
Alternate Initial				
Alternate Extension				

Alternate Timing <C+0+F=1>

E
RR-1 Delay 0
RR-1 Clear 0
EV-A Delay 0
EV-A Clear 0
EV-B Delay 0
EV-B Clear 0
EV-C Delay 0
EV-C Clear 0
EV-D Delay 0
EV-D Clear 0
RR-2 Delay 0
RR-2 Clear 0
View EV Delay ---
View EV Clear ---
View RR Delay ---
View RR Clear ---

Preempt Timing

F
Permit 12 455
Red Lock
Yellow Lock 4
Min Recall
Ped Recall
View Set Backs
Rest In Walk
Red Rest
Dual Entry
Max Recall
Soft Recall
Max 2
Cond Service
Man Cntrl Calls
Yellow Start
First Phases 2 6

Phase Functions<C+0+F=1>

Row	Column Numbers -->	1	2	3	4	5	6	7	8
	Overlap Name -->								
0	Load Switch Number	0	0	0	0	0	0	0	0
1	Veh Set 1 - Phases								
2	Veh Set 2 - Phases								
3	Veh Set 3 - Phases								
4	Neg Veh Phases								
5	Neg Ped Phases								
6	Green Omit Phases								
7	Green Clear Omit Phs								
8									
9									
A									
B									
C									
D									
E									
F									
G									
H									
I									
J									
K									
L									
M									
N									
O									
P									
Q									
R									
S									
T									
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V									
W									
X									
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ae									
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av									
aw									
ax									
ay									
az									
ba									
bb									
bc									
bd									

Extra J-Flags
1 = TBC Type 1
2 = NF MA Ext. Coord
3 = A to Daylight Savings
4 = LV Advance
5 = Extended Status
6 = International: Ped
7 = Flush - Clear Outputs
8 = No Link

- **Installation:**
 - **Prerequisites:**
 - **Operating System:** Windows 7 or later
 - **Java:** Java 8 or later
 - **Python:** Python 3.6 or later
 - **Steps:**
 - 1. Download the installer from the official website.
 - 2. Run the installer and follow the prompts.
 - 3. Choose the installation path (default is C:\Program Files\Google\Chrome).
 - 4. Select the components to install (Chrome, Chrome Sync, etc.).
 - 5. Click "Install" and wait for the process to complete.

... it is always a surprise

Item #	Configuration	E	F
0	Exclusive Phases		
1	IRK 1 Clear Phases		
2	IRK 2 Clear Phases		
3	IRK 3 Clear Phases		
4	IRK 4 Clear Phases		
5	IRK 5 Clear Phases		
6	IRK 6 Clear Phases		
7	IRK 7 Clear Phases		
8	Disable Own Yel Range		
9	Disable Own Yel Range		
10	Disable Own Yel Range		
11	Disable Own Yel Range		
12	Disable Own Yel Range		
13	Disable Own Yel Range		
14	Disable Own Yel Range		
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106	Disable Own Yel Range		
107	Disable Own Yel Range		
108	Disable Own Yel Range		
109	Disable Own Yel Range		
110	Disable Own Yel Range		
111	Disable Own Yel Range		

S = Offset Interrupter

122

INTERSECTION: Hegenberger & Baldwin

		Phase							
	Column Numbers ---->	1	2	3	4	5	6	7	8
Row	Phase Names --->								
0	Ped Walk	0	7	0	7	0	7	0	7
1	Ped FDW	0	15	0	15	0	15	0	15
2	Min Green	4	7	4	4	4	7	4	4
3	Type 3 Disconnect	0	20	0	20	0	20	0	20
4	Add'l per Vehicle	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
5	Veh Extension	2.0	4.0	2.0	2.5	2.0	4.0	2.0	2.5
6	Max Gap	3.0	6.0	3.0	3.0	3.0	6.0	3.0	3.0
7	Min Gap	0.5	2.0	0.5	1.5	0.5	2.0	0.5	1.5
8	Lead Delay	0.5	3.0	0.5	1.5	0.5	3.0	0.5	1.5
A	Adj. Lead Delay	0	0	0	0	0	0	0	0
B	SE Min Ped Delay	7	7	7	7	7	7	7	7
C	Coord Sec Adj.	10	10	10	10	10	10	10	10
D	Trail Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Phase Timing - Bank 2									
0	Ped Walk	0	7	0	7	0	7	0	7
1	Ped FDW	0	15	0	15	0	15	0	15
2	Min Green	4	7	4	4	4	7	4	4
3	Type 3 Disconnect	0	20	0	20	0	20	0	20
4	Add'l per Vehicle	0.0	2.0	0.0	2.0	0.0	2.0	0.0	2.0
5	Veh Extension	2.0	4.0	2.0	2.5	2.0	4.0	2.0	2.5
6	Max Gap	3.0	6.0	3.0	3.0	3.0	6.0	3.0	3.0
7	Min Gap	0.5	2.0	0.5	1.5	0.5	2.0	0.5	1.5
8	Lead Delay	0.5	3.0	0.5	1.5	0.5	3.0	0.5	1.5
A	Adj. Lead Delay	0	0	0	0	0	0	0	0
B	SE Min Ped Delay	7	7	7	7	7	7	7	7
C	Coord Sec Adj.	10	10	10	10	10	10	10	10
D	Trail Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Phase Timing - Bank 3 <C=0+F=3>									
E	Yellow Change	3.0	4.0	3.0	3.0	3.0	4.0	3.0	3.0
F	Red Clear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

	9	A	B	C	D
Phase 1	0	0	0	0	0.0
Phase 2	0	0	0	0	0.0
Phase 3	0	0	0	0	0.0
Phase 4	0	0	0	0	0.0
Phase 5	0	0	0	0	0.0
Phase 6	0	0	0	0	0.0
Phase 7	0	0	0	0	0.0
Phase 8	0	0	0	0	0.0

Max initia
Alternate We k
Average "000

Transition Type	0.3	$<C/5+1+9>$
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TBC Transition

Lag Hold Phases $\leq C/5 + 1 + A$

Sync Output Time	0.0	<0.5	μs
------------------	-----	------	----

7-Wire Master

Daylight Savings Time	0	<0/5+2-0
Begin Month	0	0
End Month	0	0
End Week	0	0

Time B4 Yellow	0.0	<F/1+D>
Phase Number	0	<F/1+D>

[illegible]

100

Max Time (minutes) | 255 | <f/1-0.9>

THE TAYLOR & FRANCIS GROUP

1. Introduction

Low Pri. Channel <E/125+C+8>
Disable Low Priority Channel

INTERSECTION: Hegenberger & Baldwin

Column Numbers ---->									
Row	Detector Name	C1 Pin Number	Attributes	Phase(s)	Assign	1	2	3	Carry-over
0		39	45 7	2	123 8	0.0	0.0	0.0	0.0
1		40	45 7	5	123 8	0.0	0.0	0.0	0.0
2		41	45 7	4	123 8	0.0	0.0	0.0	0.0
3		42	45 7	8	123 8	0.0	0.0	0.0	0.0
4		43	45 7	2	123 8	0.0	0.0	0.0	0.0
5		44	45 7	6	123 8	0.0	0.0	0.0	0.0
6		45	45 7	4	123 8	0.0	0.0	0.0	0.0
7		46	45 7	8	123 8	0.0	0.0	0.0	0.0
A		49	45 7	4	123 8	0.0	0.0	0.0	0.0
B		50	45 7	8	123 8	0.0	0.0	0.0	0.0
C		55	45 7	5	123 8	0.0	0.0	0.0	0.0
C1 Pin									
4		4	5	6	7	2	4	Carry-over	
5		5	6	7	8	3	5	Carry-over	
6		6	7	8	9	4	6	Carry-over	
7		7	8	9	10	5	7	Carry-over	
8		8	9	10	11	6	8	Carry-over	
9		9	10	11	12	7	9	Carry-over	
10		10	11	12	13	8	10	Carry-over	
11		11	12	13	14	9	11	Carry-over	
12		12	13	14	15	10	12	Carry-over	
13		13	14	15	16	11	13	Carry-over	
14		14	15	16	17	12	14	Carry-over	
15		15	16	17	18	13	15	Carry-over	
16		16	17	18	19	14	16	Carry-over	
17		17	18	19	20	15	17	Carry-over	
18		18	19	20	21	16	18	Carry-over	
19		19	20	21	22	17	19	Carry-over	
20		20	21	22	23	18	20	Carry-over	
21		21	22	23	24	19	21	Carry-over	
22		22	23	24	25	20	22	Carry-over	
23		23	24	25	26	21	23	Carry-over	
24		24	25	26	27	22	24	Carry-over	
25		25	26	27	28	23	25	Carry-over	
26		26	27	28	29	24	26	Carry-over	
27		27	28	29	30	25	27	Carry-over	
28		28	29	30	31	26	28	Carry-over	
29		29	30	31	32	27	29	Carry-over	
30		30	31	32	33	28	30	Carry-over	
31		31	32	33	34	29	31	Carry-over	
32		32	33	34	35	30	32	Carry-over	
33		33	34	35	36	31	33	Carry-over	
34		34	35	36	37	32	34	Carry-over	
35		35	36	37	38	33	35	Carry-over	
36		36	37	38	39	34	36	Carry-over	
37		37	38	39	40	35	37	Carry-over	
38		38	39	40	41	36	38	Carry-over	
39		39	40	41	42	37	39	Carry-over	
40		40	41	42	43	38	40	Carry-over	
41		41	42	43	44	39	41	Carry-over	
42		42	43	44	45	40	42	Carry-over	
43		43	44	45	46	41	43	Carry-over	
44		44	45	46	47	42	44	Carry-over	
45		45	46	47	48	43	45	Carry-over	
46		46	47	48	49	44	46	Carry-over	
47		47	48	49	50	45	47	Carry-over	
48		48	49	50	51	46	48	Carry-over	
49		49	50	51	52	47	49	Carry-over	
50		50	51	52	53	48	50	Carry-over	
51		51	52	53	54	49	51	Carry-over	
52		52	53	54	55	50	52	Carry-over	
53		53	54	55	56	51	53	Carry-over	
54		54	55	56	57	52	54	Carry-over	
55		55	56	57	58	53	55	Carry-over	
56		56	57	58	59	54	56	Carry-over	
57		57	58	59	60	55	57	Carry-over	
58		58	59	60	61	56	58	Carry-over	
59		59	60	61	62	57	59	Carry-over	
60		60	61	62	63	58	60	Carry-over	
61		61	62	63	64	59	61	Carry-over	
62		62	63	64	65	60	62	Carry-over	
63		63	64	65	66	61	63	Carry-over	
64		64	65	66	67	62	64	Carry-over	
65		65	66	67	68	63	65	Carry-over	
66		66	67	68	69	64	66	Carry-over	
67		67	68	69	70	65	67	Carry-over	
68		68	69	70	71	66	68	Carry-over	
69		69	70	71	72	67	69	Carry-over	
70		70	71	72	73	68	70	Carry-over	
71		71	72	73	74	69	71	Carry-over	
72		72	73	74	75	70	72	Carry-over	
73		73	74	75	76	71	73	Carry-over	
74		74	75	76	77	72	74	Carry-over	
75		75	76	77	78	73	75	Carry-over	
76		76	77	78	79	74	76	Carry-over	
77		77	78	79	80	75	77	Carry-over	
78		78	79	80	81	76	78	Carry-over	
79		79	80	81	82	77	79	Carry-over	
80		80	81	82	83	78	80	Carry-over	
81		81	82	83	84	79	81	Carry-over	
82		82	83	84	85	80	82	Carry-over	
83		83	84	85	86	81	83	Carry-over	
84		84	85	86	87	82	84	Carry-over	
85		85	86	87	88	83	85	Carry-over	
86		86	87	88	89	84	86	Carry-over	
87		87	88	89	90	85	87	Carry-over	
88		88	89	90	91	86	88	Carry-over	
89		89	90	91	92	87	89	Carry-over	
90		90	91	92	93	88	90	Carry-over	
91		91	92	93	94	89	91	Carry-over	
92		92	93	94	95	90	92	Carry-over	
93		93	94	95	96	91	93	Carry-over	
94		94	95	96	97	92	94	Carry-over	
95		95	96	97	98	93	95	Carry-over	
96		96	97	98	99	94	96	Carry-over	
97		97	98	99	100	95	97	Carry-over	
98		98	99	100	101	96	98	Carry-over	
99		99	100	101	102	97	99	Carry-over	
100		100	101	102	103	98	100	Carry-over	
101		101	102	103	104	99	101	Carry-over	
102		102	103	104	105	100	102	Carry-over	
103		103	104	105	106	101	103	Carry-over	
104		104	105	106	107	102	104	Carry-over	
105		105	106	107	108	103	105	Carry-over	
106		106	107	108	109	104	106	Carry-over	
107		107	108	109	110	105	107	Carry-over	
108		108	109	110	111	106	108	Carry-over	
109		109	110	111	112	107	109	Carry-over	
110		110	111	112	113	108	110	Carry-over	
111		111	112	113	114	109	111	Carry-over	
112		112	113	114	115	110	112	Carry-over	
113		113	114	115	116	111	113	Carry-over	
114		114	115	116	117	112	114	Carry-over	
115		115	116	117	118	113	115	Carry-over	
116		116	117	118	119	114	116	Carry-over	
117		117	118	119	120	115	117	Carry-over	
118		118	119	120	121	116	118	Carry-over	
119		119	120	121	122	117	119	Carry-over	
120		120	121	122	123	118	120	Carry-over	
121		121	122	123	124	119	121	Carry-over	
122		122	123	124	125	120	122	Carry-over	
123		123	124	125	126	121	123	Carry-over	
124		124	125	126	127	122	124	Carry-over	
125		125	126	127	128	123	125	Carry-over	
126		126	127	128	129	124	126	Carry-over	
127		127	128	129	130	125	127	Carry-over	
128		128	129	130	131	126	128	Carry-over	
129		129	130	131	132	127	129	Carry-over	
130		130	131	132	133	128	130	Carry-over	
131		131	132	133	134	129	131	Carry-over	
132		132	133	134	135	130	132	Carry-over	
133		133	134	135	136	131	133	Carry-over	
134		134	135	136	137	132	134	Carry-over	
135		135	136	137	138	133	135	Carry-over	
136		136	137	138	139	134	136	Carry-over	
137		137	138	139	140	135	137	Carry-over	
138		138	139	140	141	136	138	Carry-over	
139		139	140	141	142	137	139	Carry-over	
140		140	141	142	143	138	140	Carry-over	
141		141	142	143	144	139	141	Carry-over	
142		142	143	144	145	140	142	Carry-over	
143		143	144	145	146	141	143	Carry-over	
144		144	145	146	147	142	144	Carry-over	
145		145	146	147	148	143	145	Carry-over	
146		146	147	148	149	144	146	Carry-over	
147		147	148	149	150	145	147	Carry-over	
148		148	149	150	151	146	148	Carry-over	
149		149	150	151	152	147	149	Carry-over	
150		150	151	152	153	148	150	Carry-over	
151		151	152	153	154	149	151	Carry-over	
152		152	153	154	155	150	152	Carry-over	
153		153	154	155	156	151	153	Carry-over	
154		154	155	156	157	152	154	Carry-over	
155		155	156	157	15				

[illegible]

Row	6	7	8	9	A	B	C	D	E	F
	Clear	Time	Ped Call	Hold	Advance	Force Off	Vehicle Call	Permit Phases	Ped Omit	Output
0		0								
1		0								
2		0								
3		0								
4		0								
5		0								
6		0								
7		0								
8		0								
9		0								
A		0								
B		0								
C		0								
D		0								
E		0								
F		0								

Special Event Schedule -- Table 1 <C+0+E=27>

Notes:

0 <E/27+5+F>

Limited Service Interval

Row	6	7	8	9	A	B	C	D	E	F
	Clear	Time	Ped Call	Hold	Advance	Force Off	Vehicle Call	Permit Phases	Ped Omit	Output
0		0								
1		0								
2		0								
3		0								
4		0								
5		0								
6		0								
7		0								
8		0								
9		0								
A		0								
B		0								
C		0								
D		0								
E		0								
F		0								

Special Event Schedule -- Table 2 <C+0+E=28>

Notes:

0 <E/28+5+F>

Limited Service Interval