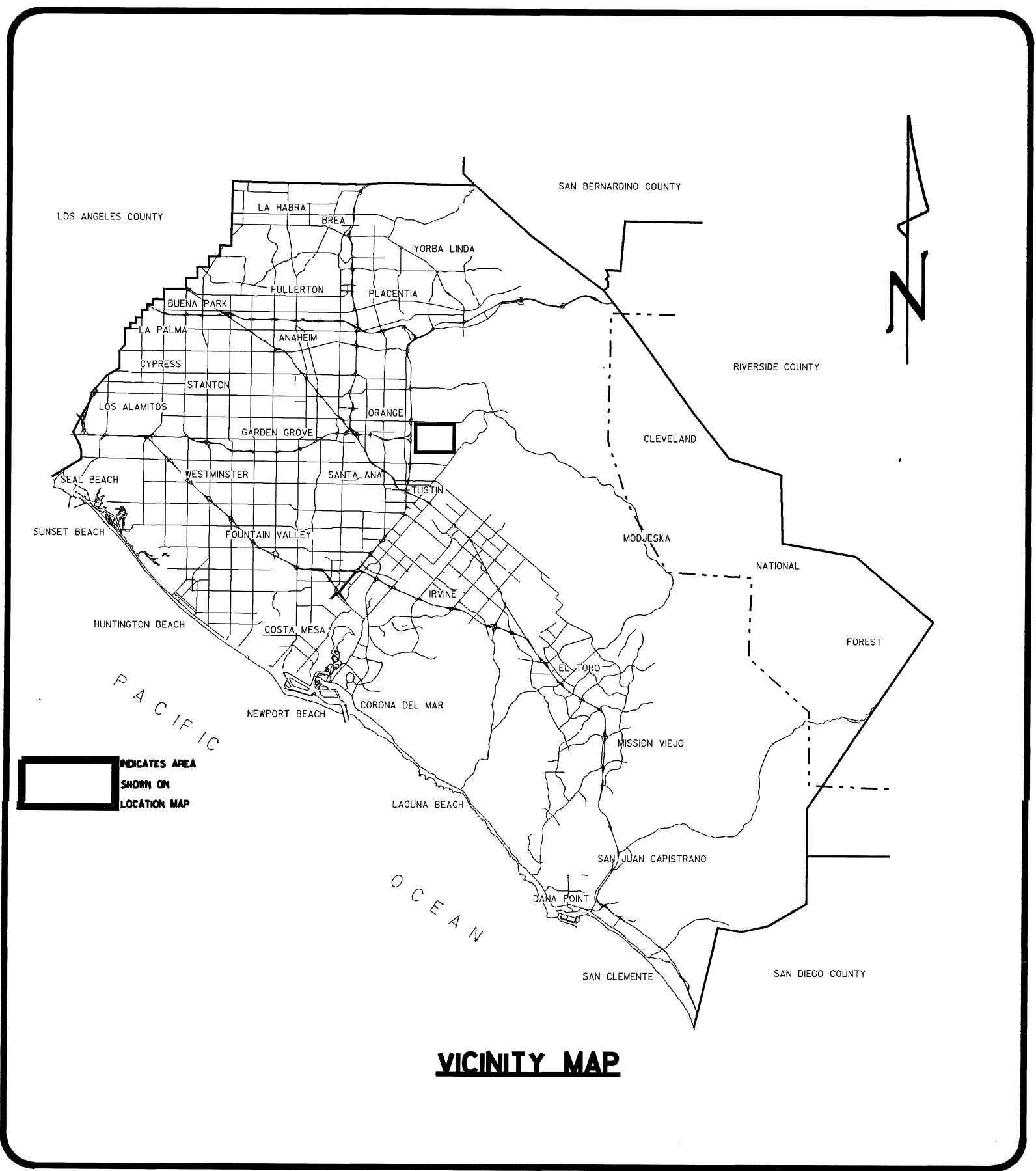
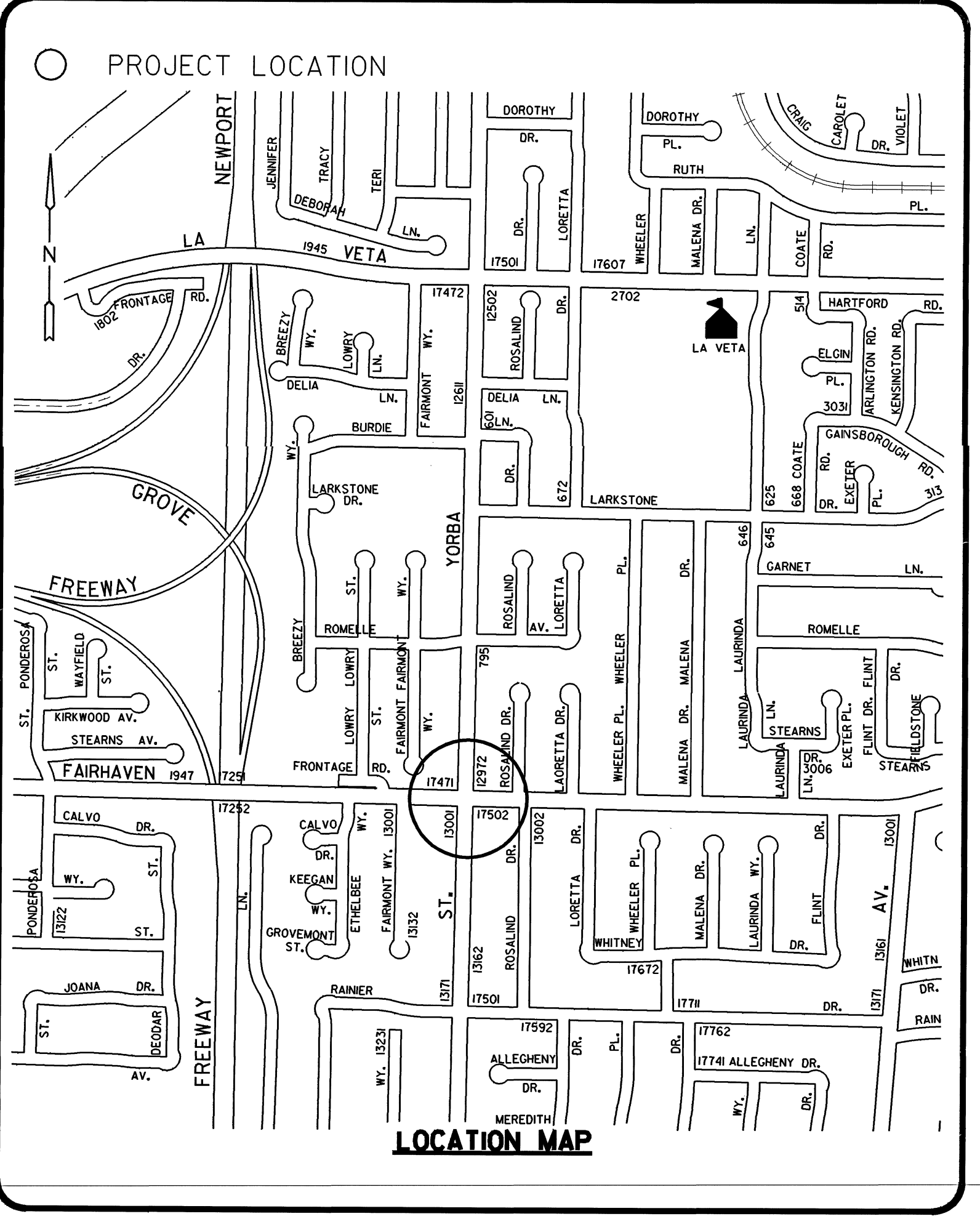




VICINITY MAP



LOCATION MAP

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY

SANTA ANA, CALIFORNIA
M. RUANE, DIRECTOR

PLANS FOR CONSTRUCTION OF TRAFFIC SIGNAL AT FAIRHAVEN AVENUE

AT

YORBA STREET

APRIL 1994

FUNDED BY: ROAD FUNDS

CITY OF ORANGE

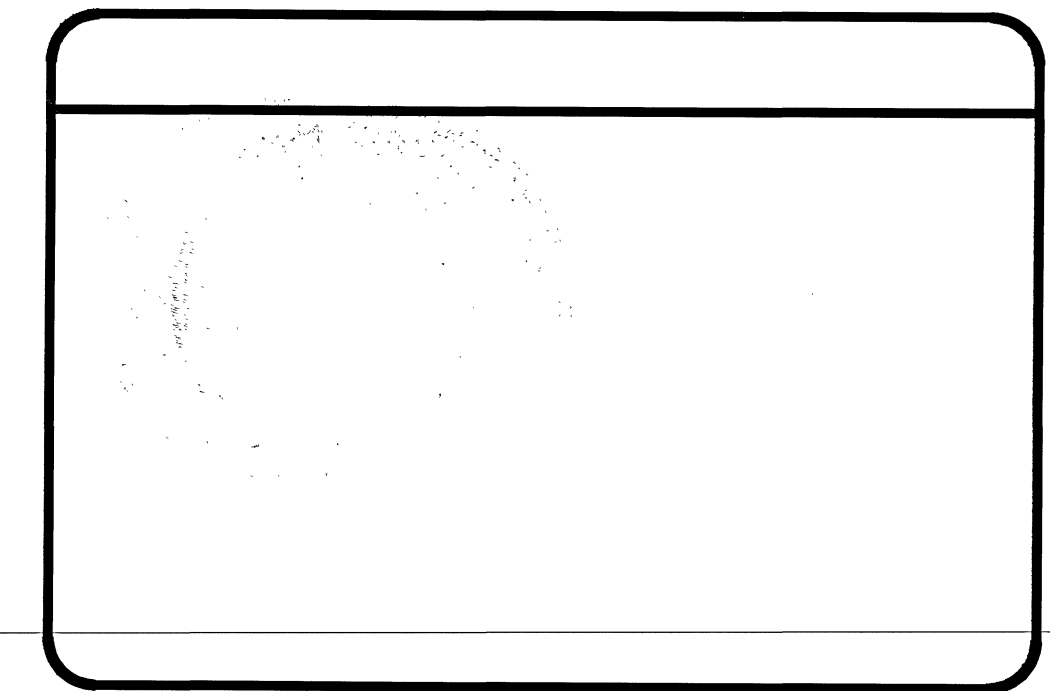
APPROVED: *[Signature]* 4-4-94
CITY ENGINEER DATE

EMA-TRANSPORTATION

SUBMITTED: *[Signature]* 4/11/94
ST. CIVIL ENGINEER
DOMINGO L. CRUZ

RECOMMENDED: *[Signature]* 4/11/94
TRAFFIC ENGINEER
I. G. OCHOA

APPROVED: *[Signature]* 4/13/94
DIRECTOR OF TRANSPORTATION
KEN R. SMITH



INDEX OF SHEETS	
SHEET	DESCRIPTION
1	TITLE SHEET
2	SIGNAL PLAN
3	DETAIL SHEET

UTILITY OWNER	CONTACT	PHONE NO.
PACIFIC BELL	STEVE RANDALL	(714)259-4473
THE GAS COMPANY	JOE MORENO	(714)634-3115
CITY OF ORANGE /WATER	RAMONA TAKAHASHI	(714)288-2475
CITY OF ORANGE /SEWER	FERN JEFFERS	(714)744-5527
CITY OF TUSTIN /WATER	MICHAEL MARTIN	(714)573-3380
SOUTHERN CALIFORNIA EDISON	GLEN LARSON	(714)939-4732
UNDERGROUND SERVICE ALERT		800-422-4133

BENCH MARK:

BASIS OF BEARINGS:

NO.	DESCRIPTION	SHT.	APPROVED	DATE
REVISIONS				

W. O. NO. ER10040

SHEET 1 OF 3

CONDUCTOR SCHEDULE							CONDUCTOR SCHEDULE						
AWG	CIRCUIT	RUN					AWG	CIRCUIT	RUN				
		1	2	3	4	5			1	2	3	4	5
# 14	Ø1						3 # 20	EVP	1	1	1	2	2
	Ø2	3	3	3	6	6		TOTAL	1	1	1	2	2
	Ø3	4	4		4	4		SIGNAL COMMON	1	1	1	2	2
	Ø4			4	4	4		LUMINAIRE	1	1	1	2	
	Ø5						# 10	TOTAL	2	2	2	4	2
	Ø6		3		6	6		Ø1					
	Ø7							Ø2		4		4	4
	Ø8							Ø3				2	2
	Ø2P	2	2		2	2	DLC	Ø4	1	1		1	1
	Ø3P		2		4	4		Ø5					
	Ø6P			2	2	2		Ø6	2	2	2	4	4
	Ø8P							Ø7					
	Ø2PPB	1	1		1	1		Ø8					
	Ø3PPB		1		1	1		TOTAL	3	7	2	11	11
	Ø6PPB			1	1	1		CONDUIT SIZE	3"	3"	3"	2-3"	2-3"
	Ø8PPB												
PPB COMMON	1	1	1	2	2								
ISNS	1	1	1	2									
SPARES	3	3	3	6	6								
TOTAL	15	21	15	41	39								



45" X 36" BLACK ON WHITE
DETAIL "N"
N.T.S.

STREET

R61 DETAIL "M"
THIS SHEET

YORBA

SCALE: 1" = 20'



45" X 36" BLACK ON WHITE
DETAIL "M"
N.T.S.

CONSTRUCTION NOTES:

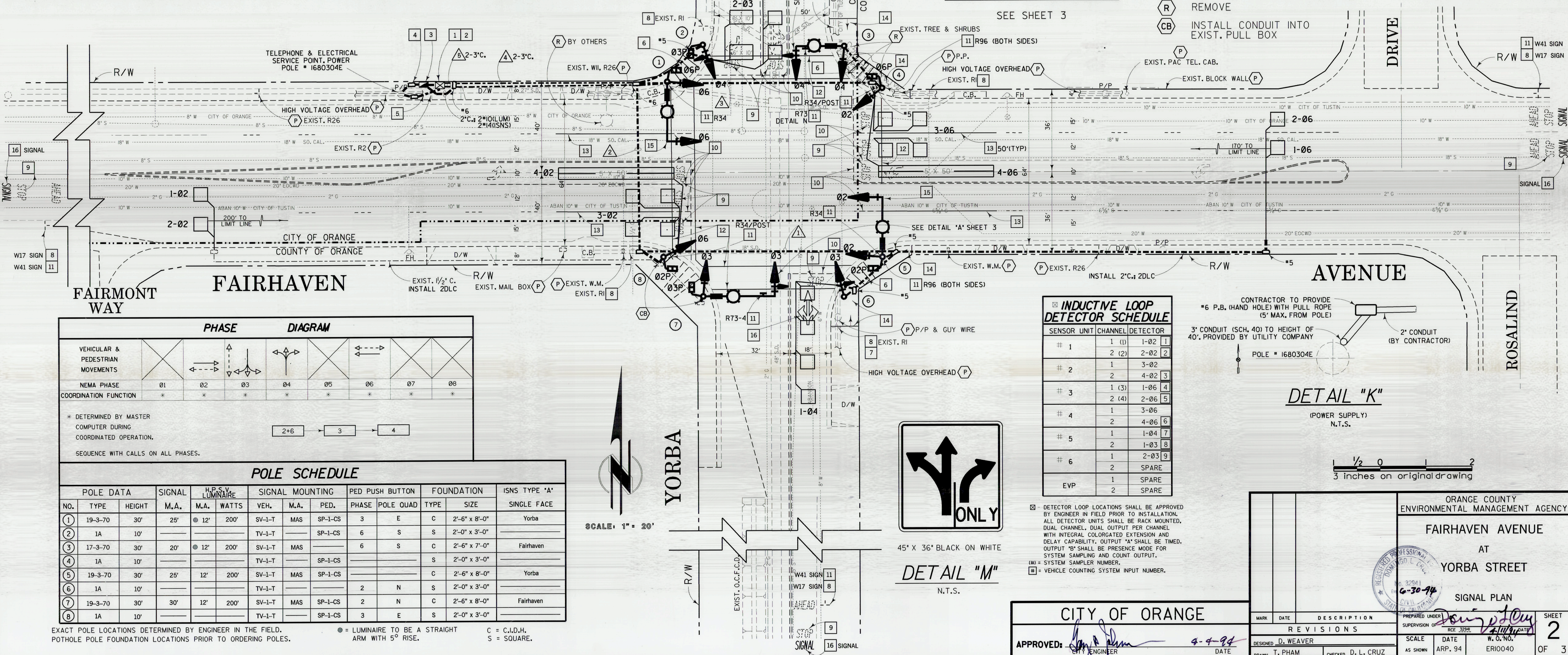
- CONSTRUCT P.C. CONCRETE TYPE "P" CONTROLLER CABINET FOUNDATION.
- FURNISH & INSTALL TRAFFIC CONTROLLER IN TYPE "P" ALUMINUM CABINET, PER THIS PLAN AND THE SPECIAL PROVISIONS.
- FURNISH & INSTALL TYPE III SERVICE & FOUNDATION.
- FURNISH & INSTALL 2" CONDUIT, NO. 6 PULL BOX, AND PULL ROPE TO ELECTRICAL SERVICE AND PER DETAIL "K" THIS SHEET.
- FURNISH & INSTALL 2" CONDUIT, NO. 5 PULL BOX AND 6 PAIR #22 TWISTED SHIELDED INTERCONNECT CABLE FOR TELEPHONE SERVICE CONNECTION PER DETAIL "D" SHEET 3.
- CONSTRUCT WHEELCHAIR ACCESS RAMP PER OCMA STD. PLAN 102-0-0C.
- REMOVE AND RELOCATE MAIL BOX PER EMA STD. PLAN 1211 AND AS DIRECTED BY ENGINEER IN FIELD.
- REMOVE & SALVAGE THE EXISTING SIGN AS SHOWN PER PLAN.
- SANDBLAST & REMOVE THE EXISTING "STOP" LEGENDS OFF THE PAVEMENT (IN BLOCK FORM).
- SANDBLAST & REMOVE ALL STRIPING WITHIN THE INTERSECTION LIMITS.(LIMIT LINES AND/OR LANE LINES)
- FURNISH & INSTALL SIGN AS SHOWN PER PLAN.
- PAINT 12" SOLID WHITE.
- PAINT 4" SOLID WHITE.
- CONSTRUCT 4' WIDE P.C.C. SIDEWALK AT CURB RETURNS PER EMA STANDARD PLAN III. MATCH EXISTING CONDITIONS.
- PROVIDE AND INSTALL EVP CABLE FROM END OF MAST ARM TO CONTROLLER CABINET. TERMINATE EVP CABLE INTO SPECIAL FUNCTION PANEL ON LEFT CABINET WALL.
- STENCIL & PAINT PAVEMENT MARKINGS PER PLAN.

GENERAL NOTES:

SEE SHEET 3

LEGEND

- (P) PROTECT IN PLACE
(R) REMOVE
(CB) INSTALL CONDUIT INTO EXIST. PULL BOX



PHASE	DIAGRAM
VEHICULAR & PEDESTRIAN MOVEMENTS	
NEMA PHASE	Ø1 Ø2 Ø3 Ø4 Ø5 Ø6 Ø7 Ø8
COORDINATION FUNCTION	* * * * * * * *
* DETERMINED BY MASTER COMPUTER DURING COORDINATED OPERATION.	
SEQUENCE WITH CALLS ON ALL PHASES.	

POLE SCHEDULE											
POLE DATA			SIGNAL		H.P.S.V. LUMINAIRE		SIGNAL MOUNTING		PED PUSH BUTTON		FOUNDATION
NO.	TYPE	HEIGHT	M.A.	M.A.	WATTS	VEH.	M.A.	PED.	PHASE	POLE QUAD	TYPE
1	19-3-70	30'	25'	Ø 12'	200'	SV-1-T	MAS	SP-1-CS	3	E	C
2	1A	10'				TV-1-T		SP-1-CS	6	S	S
3	17-3-70	30'	20'	Ø 12'	200'	SV-1-T	MAS	SP-1-CS	6	S	C
4	1A	10'				TV-1-T		SP-1-CS			S
5	19-3-70	30'	25'	Ø 12'	200'	SV-1-T	MAS	SP-1-CS			C
6	1A	10'				TV-1-T		SP-1-CS	2	N	S
7	19-3-70	30'	30'	Ø 12'	200'	SV-1-T	MAS	SP-1-CS	2	N	C
8	1A	10'				TV-1-T		SP-1-CS	3	E	S

EXACT POLE LOCATIONS DETERMINED BY ENGINEER IN THE FIELD.
POTHOLE POLE FOUNDATION LOCATIONS PRIOR TO ORDERING POLES.

Ø = LUMINAIRE TO BE A STRAIGHT ARM WITH 5° RISE.

C = C.I.D.H.
S = SQUARE.

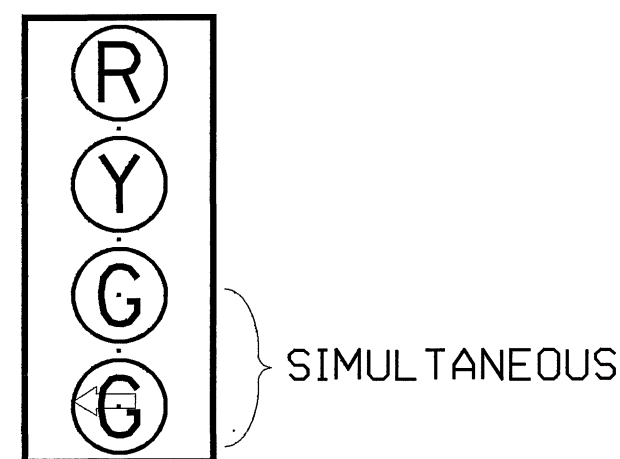
INDUCTIVE LOOP DETECTOR SCHEDULE			
SENSOR UNIT	CHANNEL	DETECTOR	
# 1	1 (1)	1-02	1
	2 (2)	2-02	2
# 2	1	3-02	1
	2	4-02	3
# 3	1 (3)	1-06	4
	2 (4)	2-06	5
# 4	1	3-06	1
	2	4-06	6
# 5	1	1-04	7
	2	1-03	8
# 6	1	2-03	9
	2	SPARE	
EVP	1	SPARE	
	2	SPARE	

Ø - DETECTOR LOOP LOCATIONS SHALL BE APPROVED BY ENGINEER IN FIELD PRIOR TO INSTALLATION. ALL DETECTOR UNITS SHALL BE RACK MOUNTED, DUAL CHANNEL, DUAL OUTPUT PER CHANNEL WITH INTEGRAL COLORATED EXTENSION AND DELAY CAPABILITY. OUTPUT "A" SHALL BE TIMED. OUTPUT "B" SHALL BE PRESENCE MODE FOR SYSTEM SAMPLING AND COUNT OUTPUT.
(H) = SYSTEM SAMPLER NUMBER.
(V) = VEHICLE COUNTING SYSTEM INPUT NUMBER.

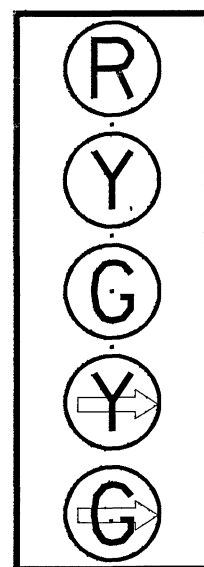
APPROVED:
DATE: 4-4-94

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
FAIRHAVEN AVENUE AT YORBA STREET	
SIGNAL PLAN	
MARK	DATE
REVISIONS	
DESIGNED: D. WEAVER	PREPARED UNDER:
DRAWN: T. PHAM	CHECKED: D. L. CRUZ
SCALE: AS SHOWN	DATE: APR. 94
W. O. NO. ERI0040	SHEET 2 OF 3

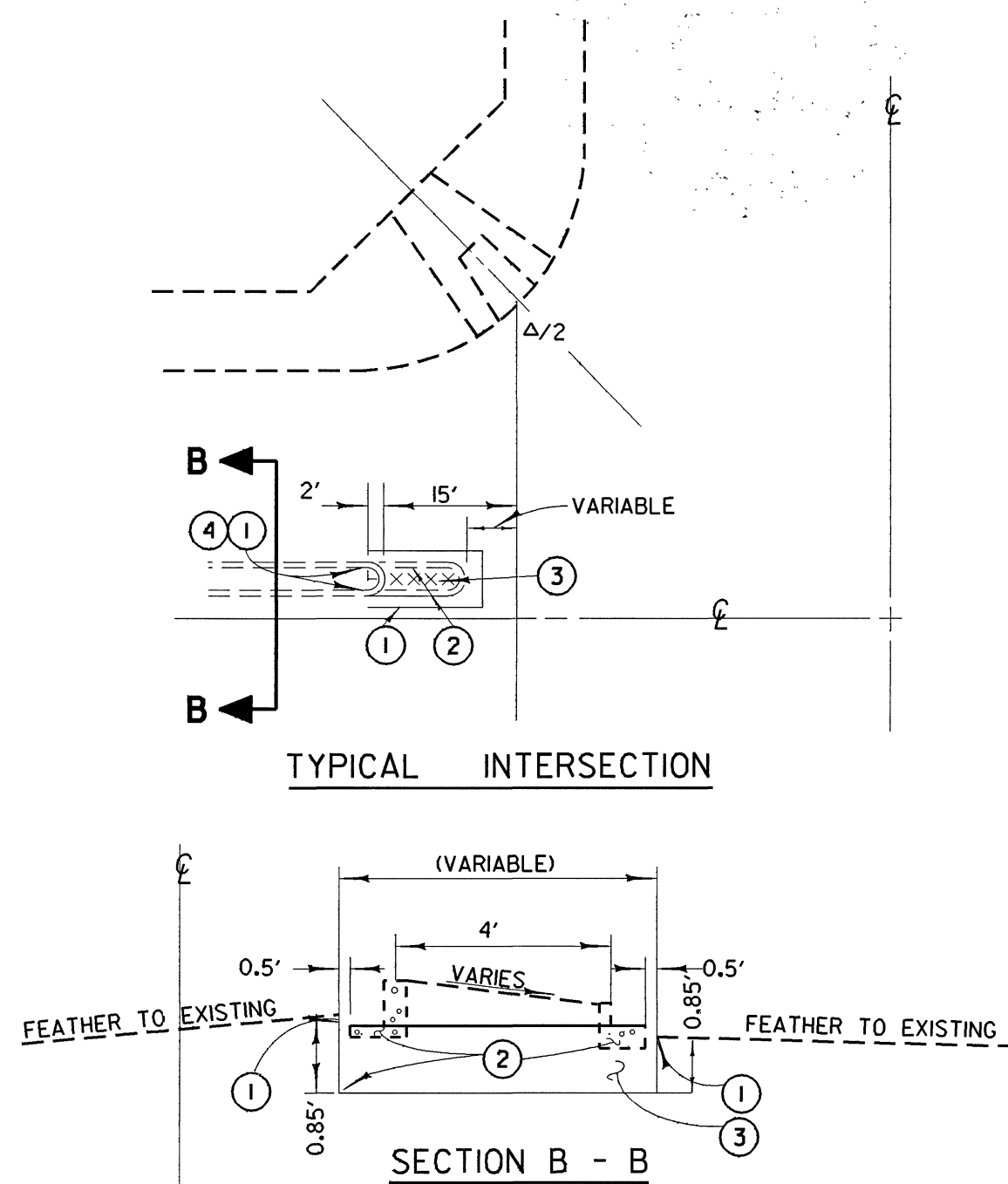
DETAIL A
4-SECTION SIGNAL HEAD
12" LENSES



DETAIL E
5-SECTION SIGNAL HEAD
12" LENSES



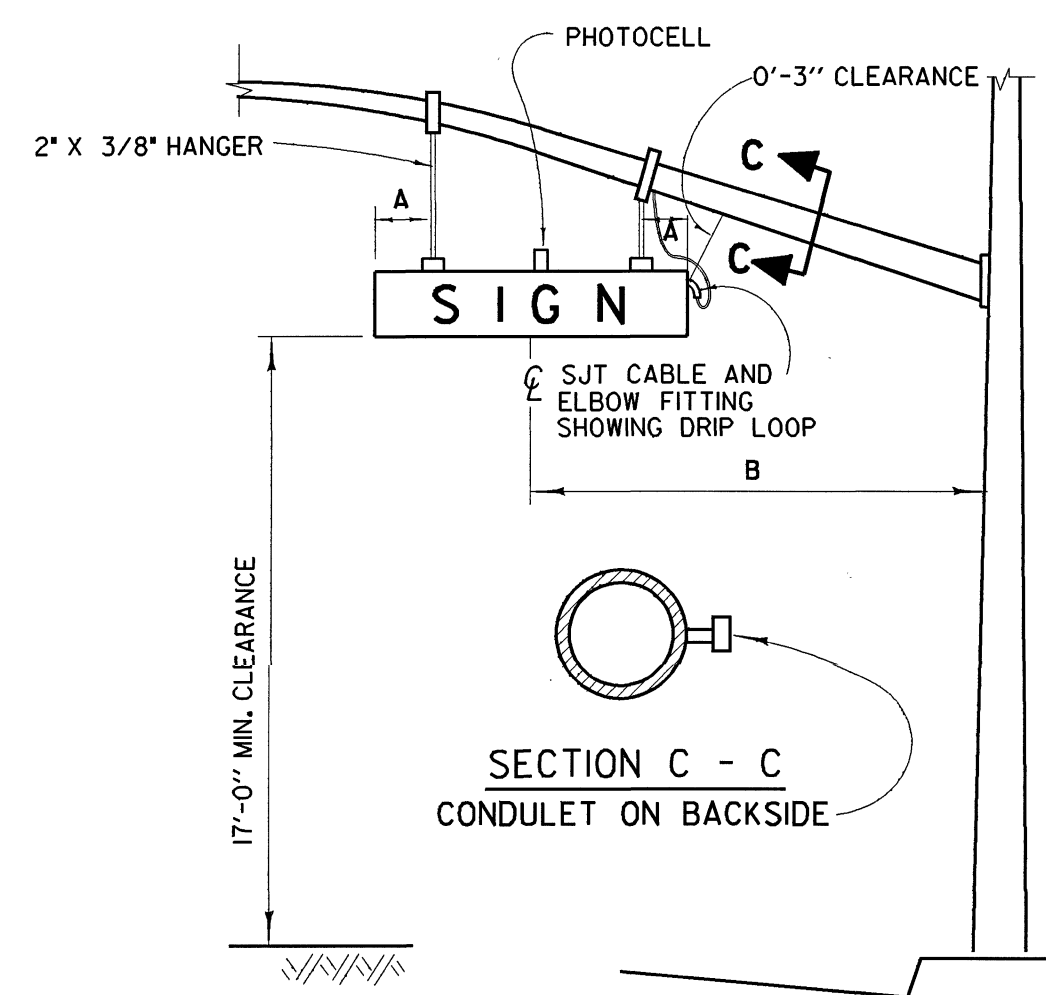
DETAIL B
INTERSECTIONS RAISED MEDIAN



NOTES - DETAILS B

1. SAWCUT AND JOIN EXISTING
2. REMOVE CONCRETE
3. CONSTRUCT 0.85' AC OVER NATIVE SOIL
4. CONSTRUCT TYPE CI-8 CONCRETE CURB PER EMA STD. PLAN 104-0-0.C.

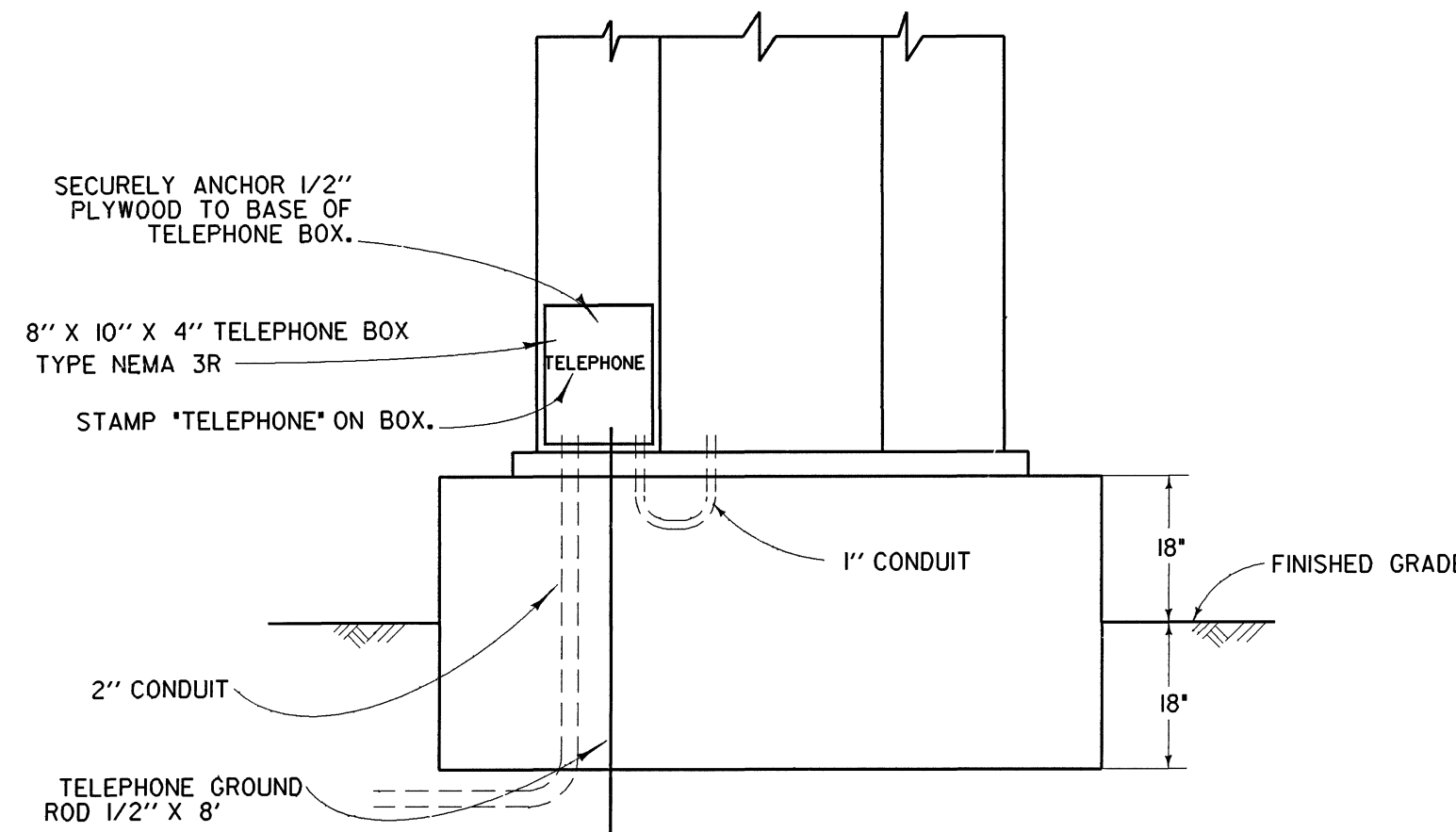
DETAIL C
STREET NAME SIGN COMPONENTS



NOTES - DETAIL C

- A 1'-6" MINIMUM
B 10'-6" CENTERLINE OF SIGN TO FACE OF POLE

DETAIL D
TELEPHONE SERVICE BOX

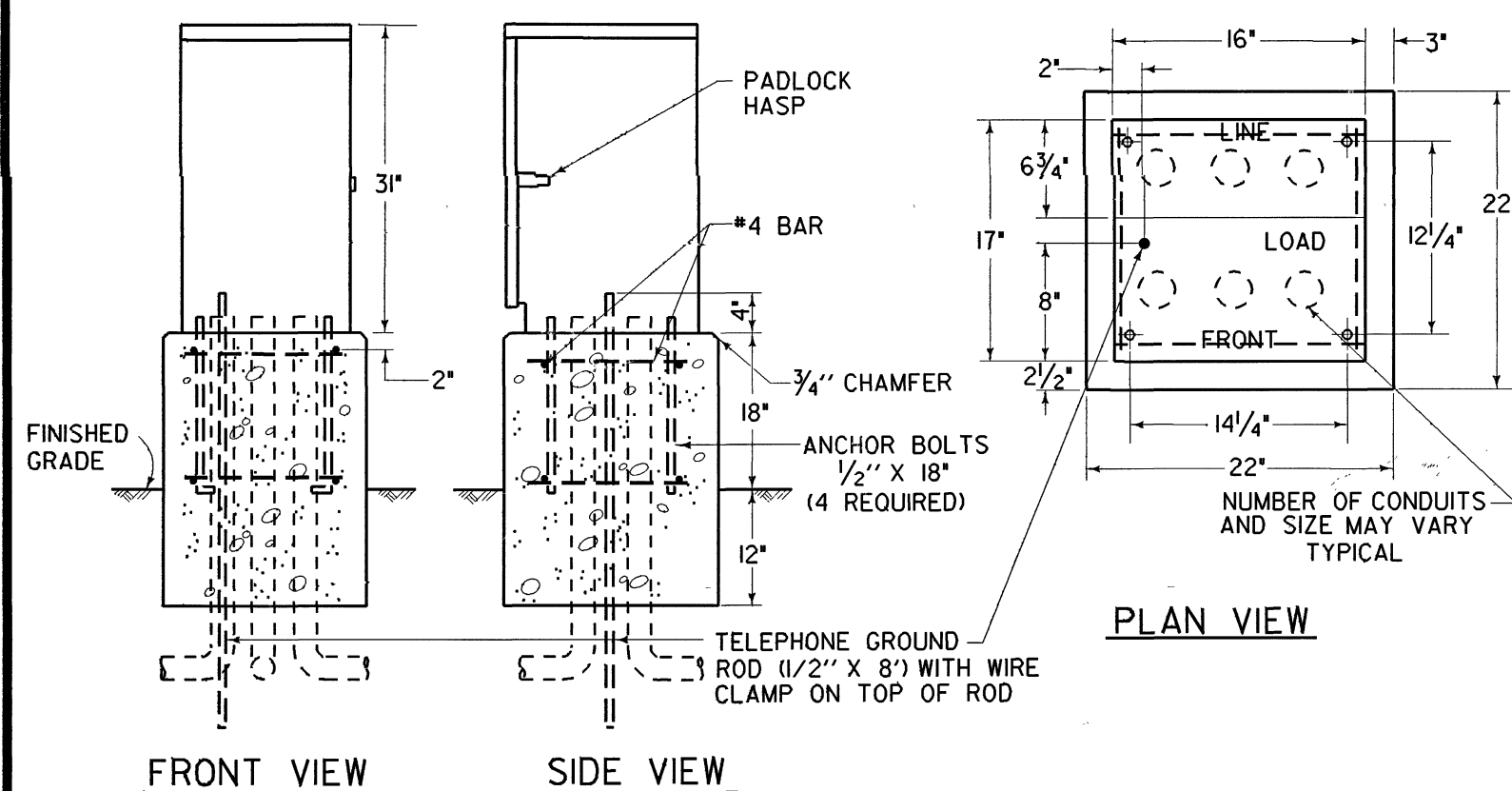


GENERAL NOTES :

1. ALL WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE REQUIREMENTS OF THE CALIFORNIA, DEPT. OF TRANSPORTATION, STANDARD PLANS AND STANDARD SPECIFICATIONS DATED JULY 1991 AND THE SPECIAL PROVISIONS FOR THIS PROJECT.
2. UTILITIES SHOWN ON THESE PLANS ARE CORRECT AND ACCURATE TO THE EXTENT OF AVAILABLE RECORDS AND KNOWLEDGE. THE CONTRACTOR, HOWEVER, IS REQUIRED TO ASCERTAIN THE EXACT LOCATION OF UNDERGROUND FACILITIES PRIOR TO DOING WORK THAT MAY DAMAGE SUCH FACILITIES OR INTERFERE WITH THEIR SERVICE.
3. 48 HOURS PRIOR TO BEGINNING OF CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ORANGE COUNTY E.M.A. FOR INSPECTION AT 567-7800.
4. THE ENGINEER SHALL APPROVE POLE AND LOOP DETECTION PLACEMENT IN THE FIELD PRIOR TO INSTALLATION.
5. ALL CONDUIT SHALL BE 2" UNLESS OTHERWISE NOTED.
6. ALL PULL BOXES SHALL BE #5 UNLESS OTHERWISE NOTED.
7. ALL SALVAGED EQUIPMENT SHALL BE DELIVERED BY CONTRACTOR TO ORANGE COUNTY YARD AT 1152 EAST FRUIT ST. SANTA ANA, CA. CONTRACTOR SHALL GIVE A 48-HOUR NOTICE TO THE COUNTY PRIOR TO THE DELIVERY DATE.
8. CONTRACTOR SHALL PROVIDE ALL NECESSARY TELEPHONE AND ELECTRICAL SERVICE LINES AND INTERCONNECT HOOK-UPS BETWEEN THE LOCAL CONTROLLER AND THE SYSTEM MASTER.
9. PEDESTRIAN INDICATION SHALL BE INTERNATIONAL SYMBOL.
10. PEDESTRIAN PUSH BUTTON SHALL BE TYPE B WITH INTERNATIONAL SYMBOL PLATE.
11. ALL VEHICLE INDICATIONS SHALL BE 12" DIAMETER WITH BACKPLATES, GLASS REFLECTORS, AND GLASS LENSES, UNLESS SHOWN OTHERWISE.
12. CONTRACTOR SHALL POTHOLE CONFLICTING UTILITIES AS DIRECTED BY ENGINEER.
13. CONTRACTOR SHALL AVOID DAMAGING EXISTING UTILITIES. (SEE SPECIAL PROVISIONS).
14. INDUCTIVE LOOPS SHALL BE 6' X 6' WITH 9' SPACING IN THE DIRECTION OF TRAVEL UNLESS OTHERWISE NOTED.
15. ALL DETECTOR CABLE HOMERUNS SHALL BE IN THE CROSSWALK AREA.
16. ALL 6' X 6' DETECTOR LOOPS SHALL BE FOUR(4) TURNS.
17. ALL QUADRUPOLE DETECTOR LOOPS SHALL BE TWO (2-4-2) TURNS.
18. TRAFFIC CONTROLLER CABINET FOUNDATION SHALL BE 18" ABOVE AND BELOW FINISHED GRADE (SEE DETAIL D).

DETAIL F

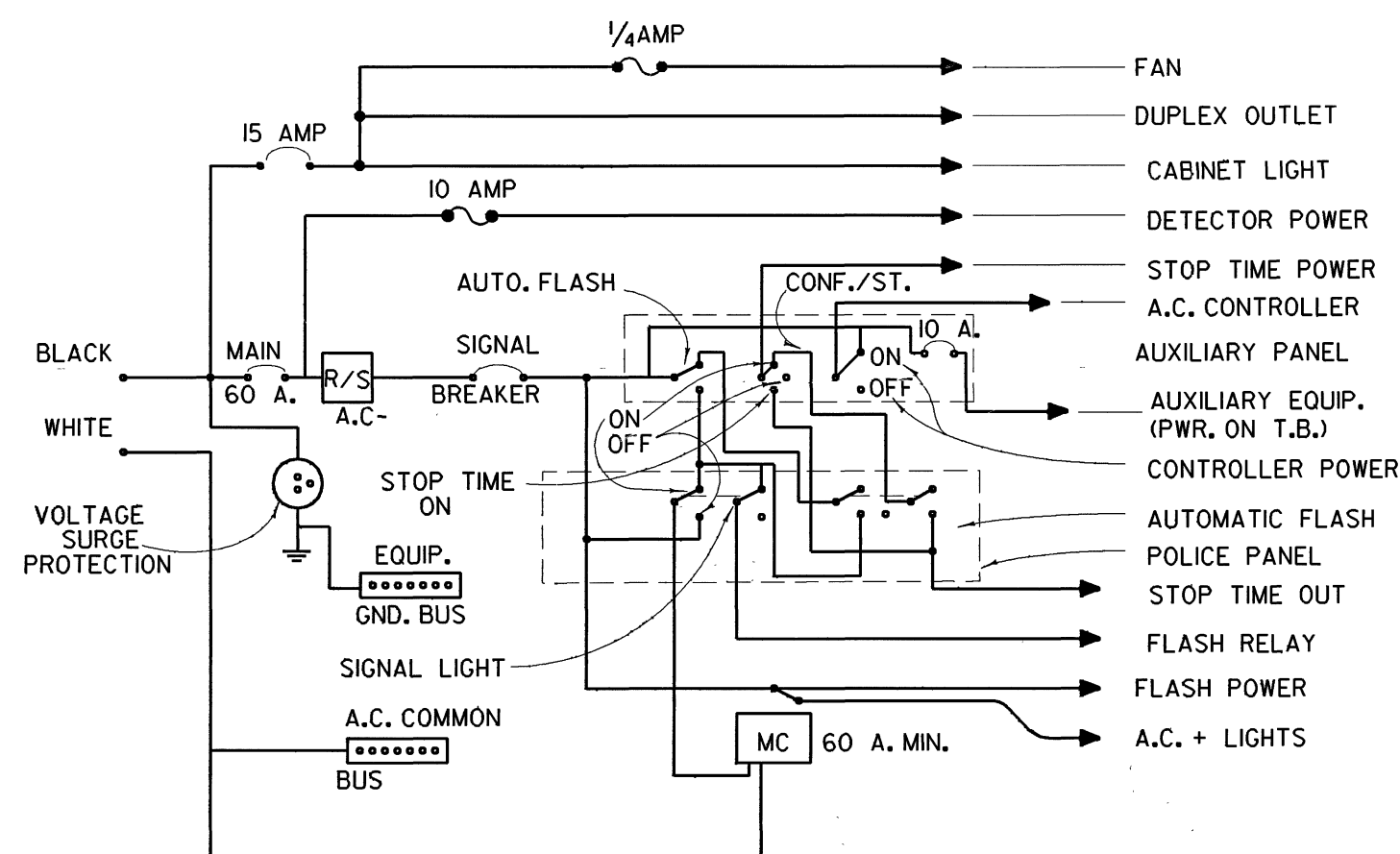
INTERCONNECT SPLICE CABINET



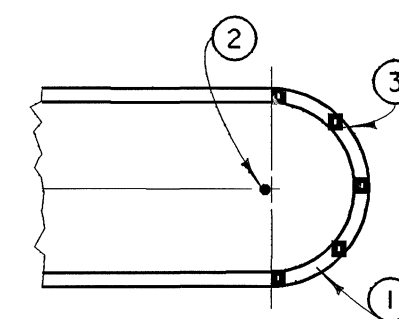
NOTES - DETAIL F

1. FOUNDATION TO BE 22" X 22". ANCHOR BOLT PLACEMENT PER CABINET MFG. TEMPLATE.
2. ENCLOSURE SHALL BE FURNISHED WITH A DETACHABLE MOUNTING BASE.
3. ALL FACTORY INSTALLED COMPONENTS SHALL BE U.L. LISTED OR PER PUBLISHED N.E.C. STANDARDS.
4. A 3/4" CONSTRUCTION GRADE PLYWOOD PANEL SHALL BE FASTENED TO THE REAR WALL. PANEL SHALL BE 12" X 24" AND SHALL HAVE A NO. M-25 AND R-841 STANDOFF FASTENED IN THE CENTER OF THE PANEL.
5. ENCLOSURE FINISH SHALL CONFORM TO A.S.T.M. B-117. COLOR SHALL BE PORCELAIN WHITE.
6. PROVIDE 1/2" CONDUIT FOR FUTURE IIS VAC SERVICE.
7. PROVIDE GROUND BUS INSIDE SPLICE CABINET.

DETAIL G
CONTROLLER CABINET WIRING



DETAIL H
RAISED MEDIAN MARKING



NOTES - DETAIL H

1. PAINT MEDIAN NOSE WITH HIGHLY REFLECTIVE PREMIXED WHITE TRAFFIC PAINT WITH GLASS BEADS.
2. INSTALL FLEXIBLE VERTICAL TYPE K MARKER, R7, R10 OR TYPE N-10N TELESAR POST AS INDICATED ON PLAN.
3. INSTALL YELLOW REFLECTIVE PAVEMENT MARKERS ON TOP SURFACE OF MEDIAN CURB NOSE AT 2' C.C. SPACING (MINIMUM 5 MARKERS). PLACE REFLECTIVE SURFACE OF MARKERS PARALLEL TO 1/2 OF ROADWAY.

1 1/2 0 1 2
3 inches on original drawing

ORANGE COUNTY ENVIRONMENTAL MANAGEMENT AGENCY	
SIGNAL DETAIL SHEET	
3-29-88	ADDED NOTE 16.
4-4-88	DELETED TYPE 11 SERVICE.
12-8-88	ADDED INTERCONNECT SPLICE CABINET.
11-18-91	MODIFIED INTERCONNECT SPLICE CABINET.
6-7-93	MODIFIED CONTROLLER CABINET WIRING.
6-7-93	MODIFIED INTERCONNECT SPLICE CABINET.
PREPARED UNDER SUPERVISION OF <i>[Signature]</i> SHEET 3 OF 3	
DESIGNED D. WEAVER	
DRAWN T. PHAM	
SCALE AS SHOWN	
DATE APR. 94	
W.O. NO. ERI0040	