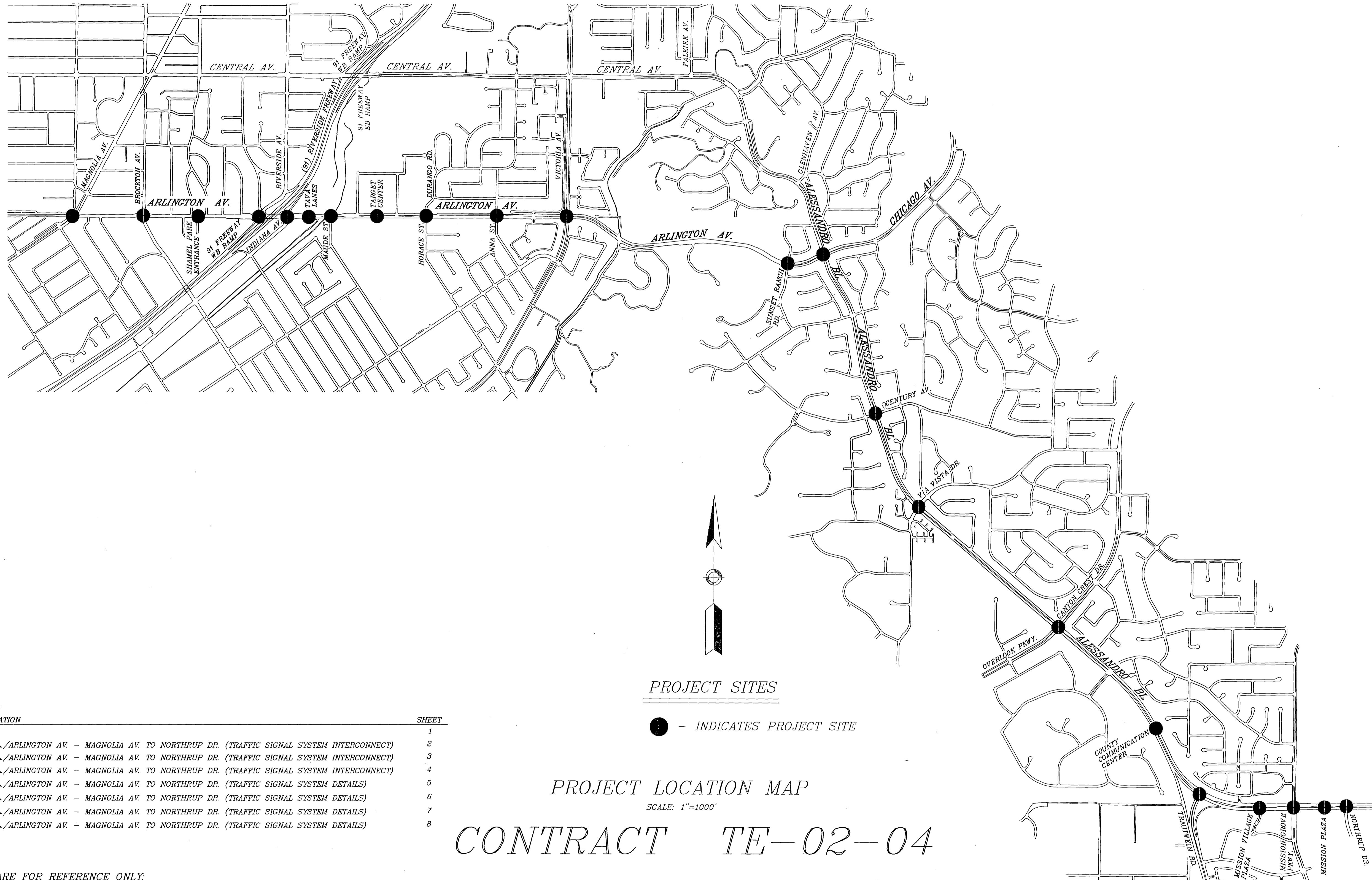




PUBLIC WORKS DEPARTMENT TRAFFIC ENGINEERING DIVISION



PROJECT SITES

● - INDICATES PROJECT SITE

PROJECT LOCATION MAP

SCALE: 1"=1000'

CONTRACT TE-02-04

INDEX OF SHEETS

DRAWING NO.	LOCATION	SHEET
X-054	COVER SHEET	1
X-054	ALESSANDRO BL./ARLINGTON AV. - MAGNOLIA AV. TO NORTHRUP DR. (TRAFFIC SIGNAL SYSTEM INTERCONNECT)	2
X-054	ALESSANDRO BL./ARLINGTON AV. - MAGNOLIA AV. TO NORTHRUP DR. (TRAFFIC SIGNAL SYSTEM INTERCONNECT)	3
X-054	ALESSANDRO BL./ARLINGTON AV. - MAGNOLIA AV. TO NORTHRUP DR. (TRAFFIC SIGNAL SYSTEM INTERCONNECT)	4
X-054	ALESSANDRO BL./ARLINGTON AV. - MAGNOLIA AV. TO NORTHRUP DR. (TRAFFIC SIGNAL SYSTEM DETAILS)	5
X-054	ALESSANDRO BL./ARLINGTON AV. - MAGNOLIA AV. TO NORTHRUP DR. (TRAFFIC SIGNAL SYSTEM DETAILS)	6
X-054	ALESSANDRO BL./ARLINGTON AV. - MAGNOLIA AV. TO NORTHRUP DR. (TRAFFIC SIGNAL SYSTEM DETAILS)	7
X-054	ALESSANDRO BL./ARLINGTON AV. - MAGNOLIA AV. TO NORTHRUP DR. (TRAFFIC SIGNAL SYSTEM DETAILS)	8

THE FOLLOWING PLANS ARE FOR REFERENCE ONLY:

DRAWING NO.	LOCATION	SHEET
X-212	ARLINGTON AV. @ MAGNOLIA AV.	9
X-249	ARLINGTON AV. @ SHAMEL PARK ENTRANCE	10
X-246	ARLINGTON AV. @ TAVA LANES	11
X-408	ARLINGTON AV. @ MAUDE ST.	12
X-510	ALESSANDRO BL. @ MISSION PLAZA	13
X-503A	ALESSANDRO BL. @ NORTHRUP DR.	14

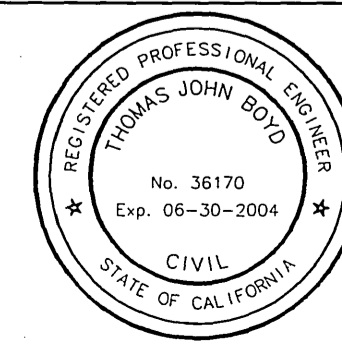
ENGINEER IN RESPONSIBLE CHARGE

Thomas John Boyd

THOMAS JOHN BOYD

R.C.E. NO. 36170

DATE 7/17/02



CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY: *[Signature]* DATE: 9/12/02
PRINCIPAL ENGINEER

P.M. INSPECTION: *[Signature]* DATE: 9-17-02
TRAFFIC DIVISION

CHIEF P.W. ENGR.

TRAFFIC SIGNAL COORDINATED SYSTEMS

ALESSANDRO BOULEVARD/
ARLINGTON AVENUE

TRAFFIC SIGNAL SYSTEM

ACCT. NO. 9754532203-44030100

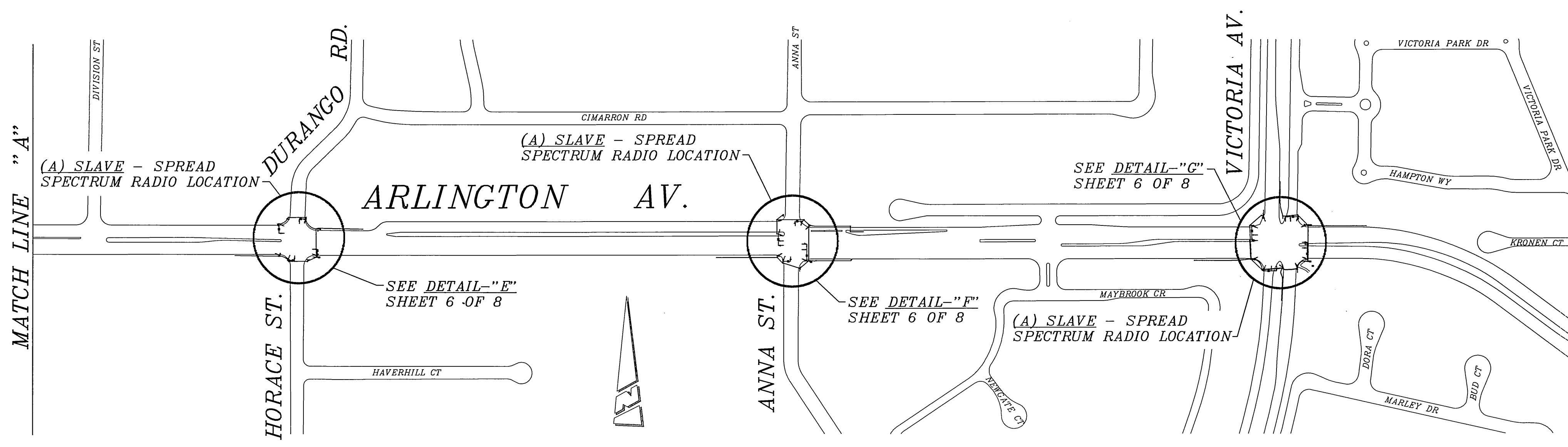
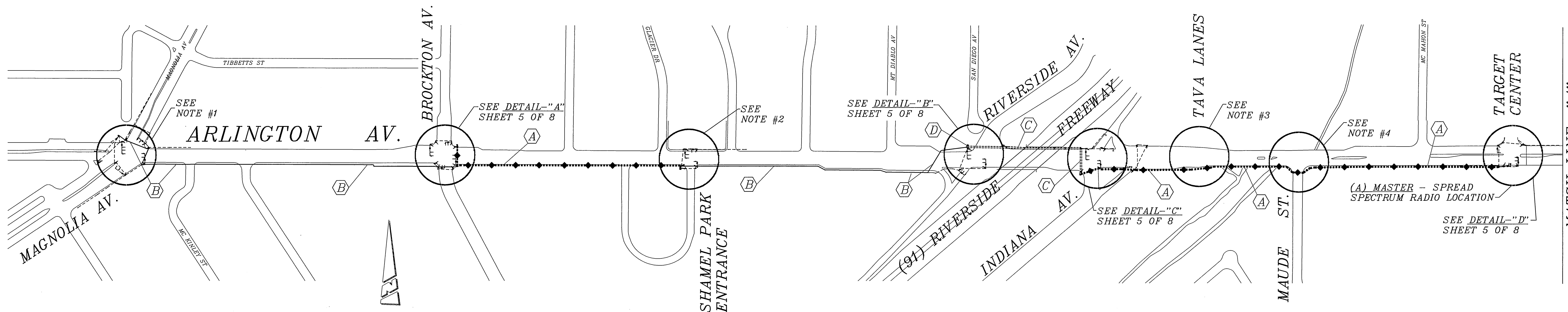
X-054

SHEET 1 OF 8

SCALE: 1"=1000'

FILE NAME: X054.DWG





**CONSTRUCTION NOTES
(INTERCONNECT CABLE AND CONDUIT)**

- (A) (---♦---♦---♦---) - EXISTING 6 PAIR #19 INTERCONNECT CABLE IN EXISTING CONDUIT.
- (B) (—) - INSTALL 6 PAIR #19 INTERCONNECT CABLE IN EXISTING CONDUIT.
- (C) (.....) - EXISTING 12 PAIR #22 INTERCONNECT CABLE IN EXISTING CONDUIT.
- (D) (#####) - INSTALL 6 PAIR #19 INTERCONNECT CABLE IN NEW CONDUIT, AND INSTALL 1 1/2" L.B. (CABINET ENTRY WILL BE DETERMINED IN FIELD)

NOTES:

1. EXISTING 170E CONTROLLER IN A 332 CABINET, SEE CITY PLAN X-212 FOR MORE INFORMATION ON EXISTING CONDUIT RUNS.
2. EXISTING 170E CONTROLLER IN A 332 CABINET, SEE CITY PLAN X-249 FOR MORE INFORMATION ON EXISTING CONDUIT RUNS.
3. EXISTING 170E CONTROLLER IN A 332 CABINET, SEE CITY PLAN X-246 FOR MORE INFORMATION ON EXISTING CONDUIT RUNS.
4. EXISTING 170E CONTROLLER IN A 332 CABINET, SEE CITY PLAN X-408 FOR MORE INFORMATION ON EXISTING CONDUIT RUNS.

ENGINEER IN RESPONSIBLE CHARGE

THOMAS JOHN BOYD
R.C.E. No. 36170



DATE _____

MARK	REVISIONS	APPR.	DATE

CITY OF RIVERSIDE, CALIFORNIA
DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE	APPROVED BY	DATE
PRINCIPAL ENGINEER	TH	9/12/02	THOMAS BOYD	9/12/02
P.W. INSPECTION			DIRECTOR OF PUBLIC WORKS	
TRAFFIC DIVISION				
CHIEF P.W. ENGR.				

TRAFFIC SIGNAL SYSTEM INTERCONNECT

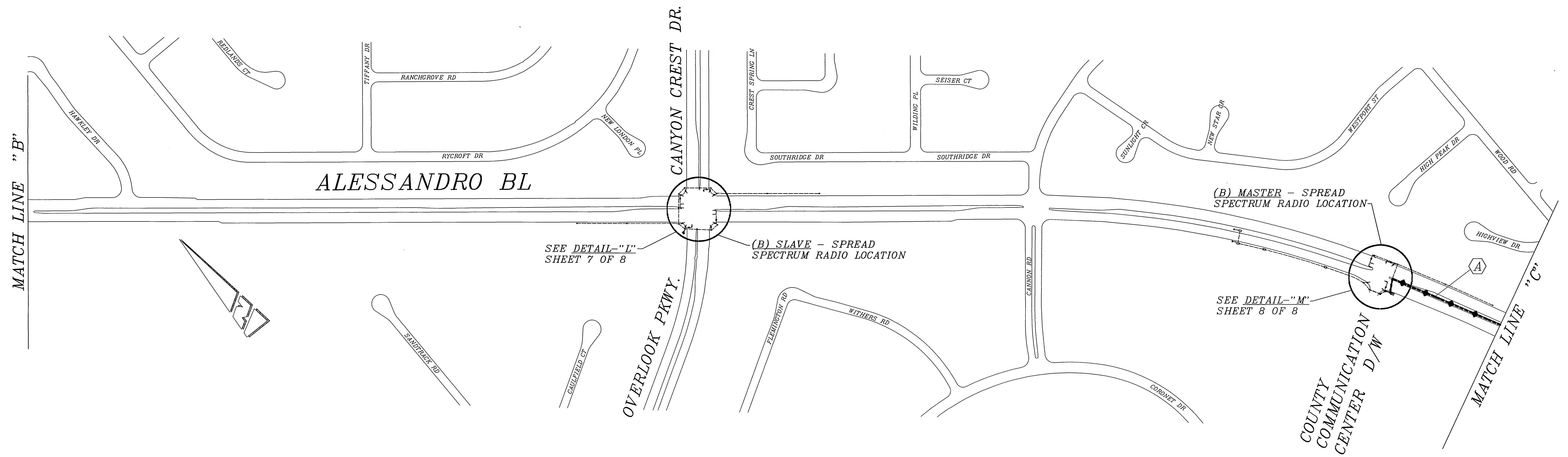
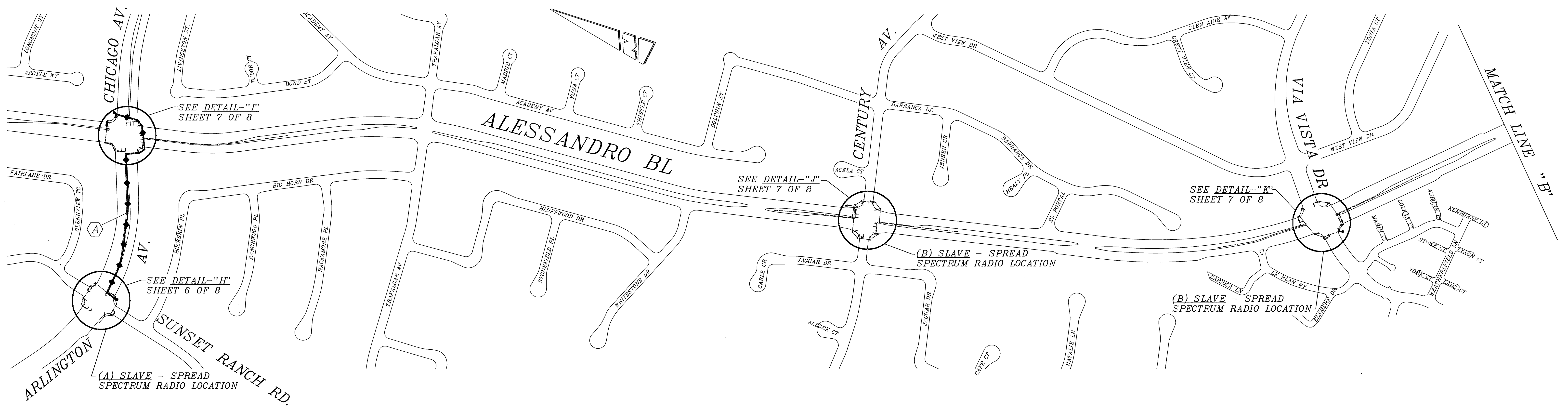
ALESSANDRO BOULEVARD/
ARLINGTON AVENUE
MAGNOLIA AV. TO
NORTHROP DR.

ACCT. No. 9754532203-44030100

X-054
SHEET 2 OF 8

FILE NAME: X054-1.DWG

SCALE: 1" = 200'



**CONSTRUCTION NOTES
(INTERCONNECT CABLE AND CONDUIT)**

(A) (---) - EXISTING 6 PAIR #19 INTERCONNECT CABLE IN EXISTING CONDUIT.

ENGINEER IN RESPONSIBLE CHARGE
Thomas John Boyd
 THOMAS JOHN BOYD
 R.C.E. No. 36170
 DATE 2/1/02



MARK	REVISIONS	APPR	DATE

DESIGNED BY: R.C.C. DRAWN BY: R.C.C. CHECKED BY: *R.C.C.*

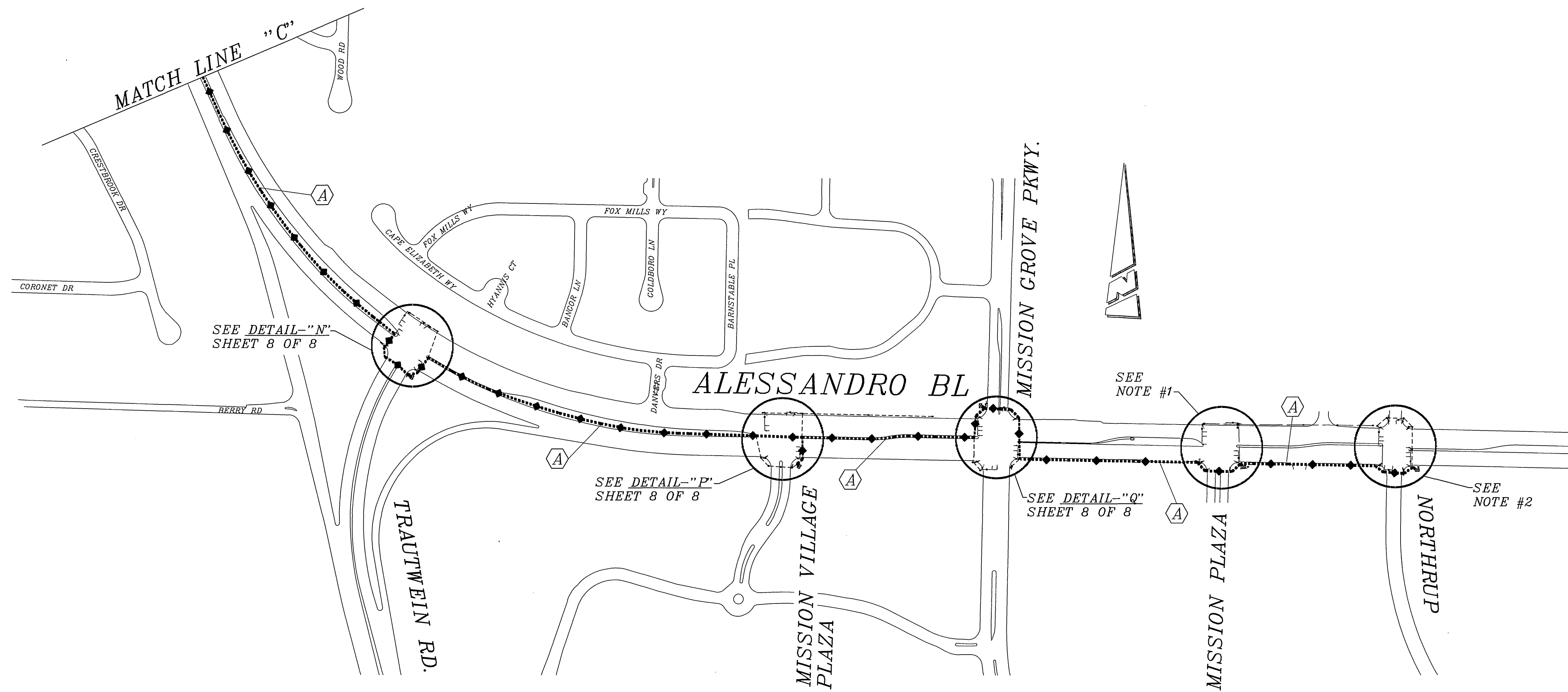
CITY OF RIVERSIDE, CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE	APPROVED BY
PRINCIPAL ENGINEER	<i>DA</i>	9/2/02	DIRECTOR OF PUBLIC WORKS
P.W. INSPECTION	<i>DA</i>	9-10-02	DATE
TRAFFIC DIVISION	<i>E</i>	9/6/02	
CHIEF P.W. ENGR.			

TRAFFIC SIGNAL SYSTEM INTERCONNECT
**ALESSANDRO BOULEVARD/
 ARLINGTON AVENUE**
 MAGNOLIA AV. TO
 NORTHRUP AV.

ACCT. No. 9754532203-44030100
X-054
 SHEET 3 OF 8
 FILE NAME: X054-2.DWG

SCALE: 1" = 200'



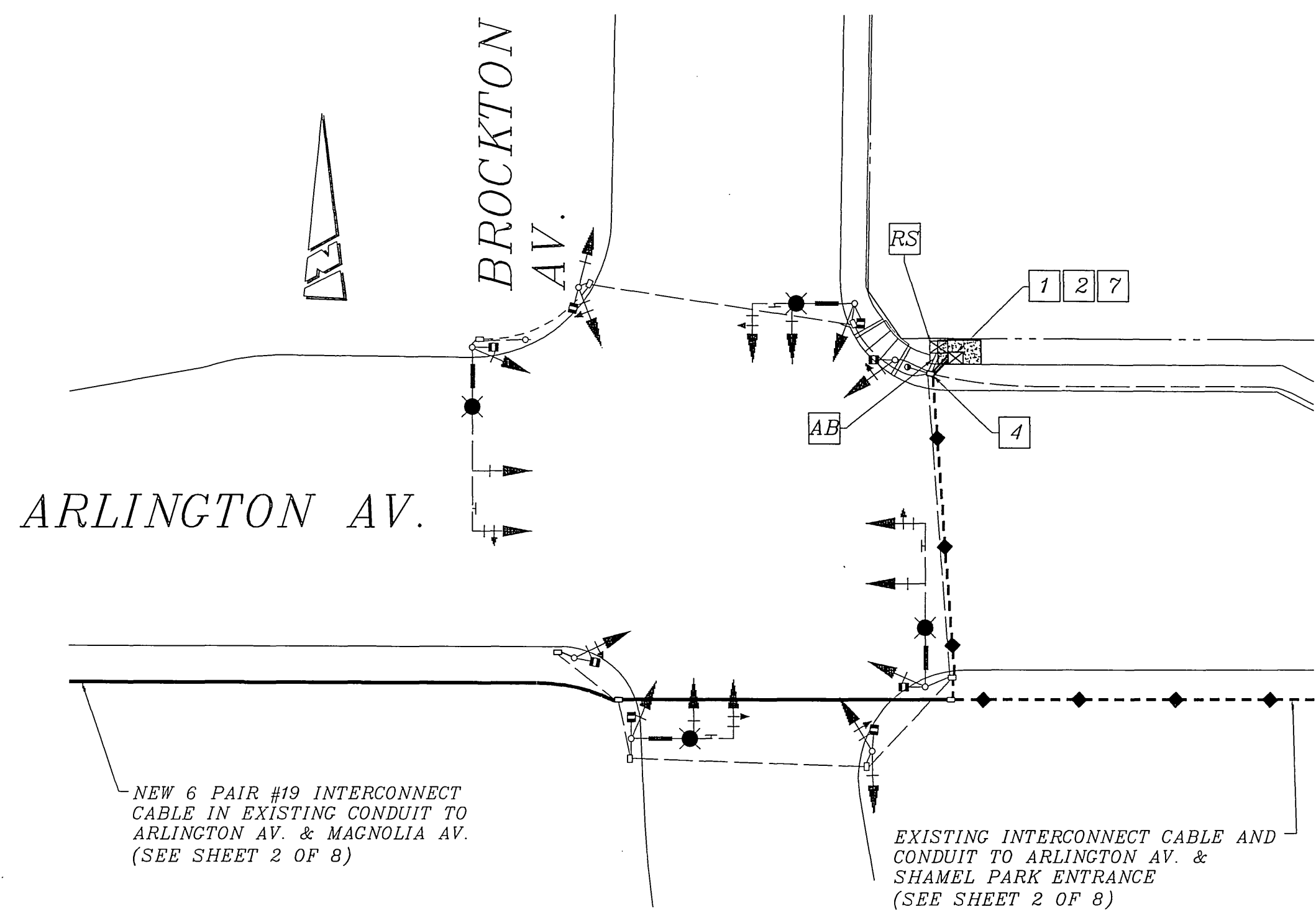
**CONSTRUCTION NOTES
(INTERCONNECT CABLE AND CONDUIT)**

A (---◆---) - EXISTING 6 PAIR #19 INTERCONNECT CABLE IN EXISTING CONDUIT.

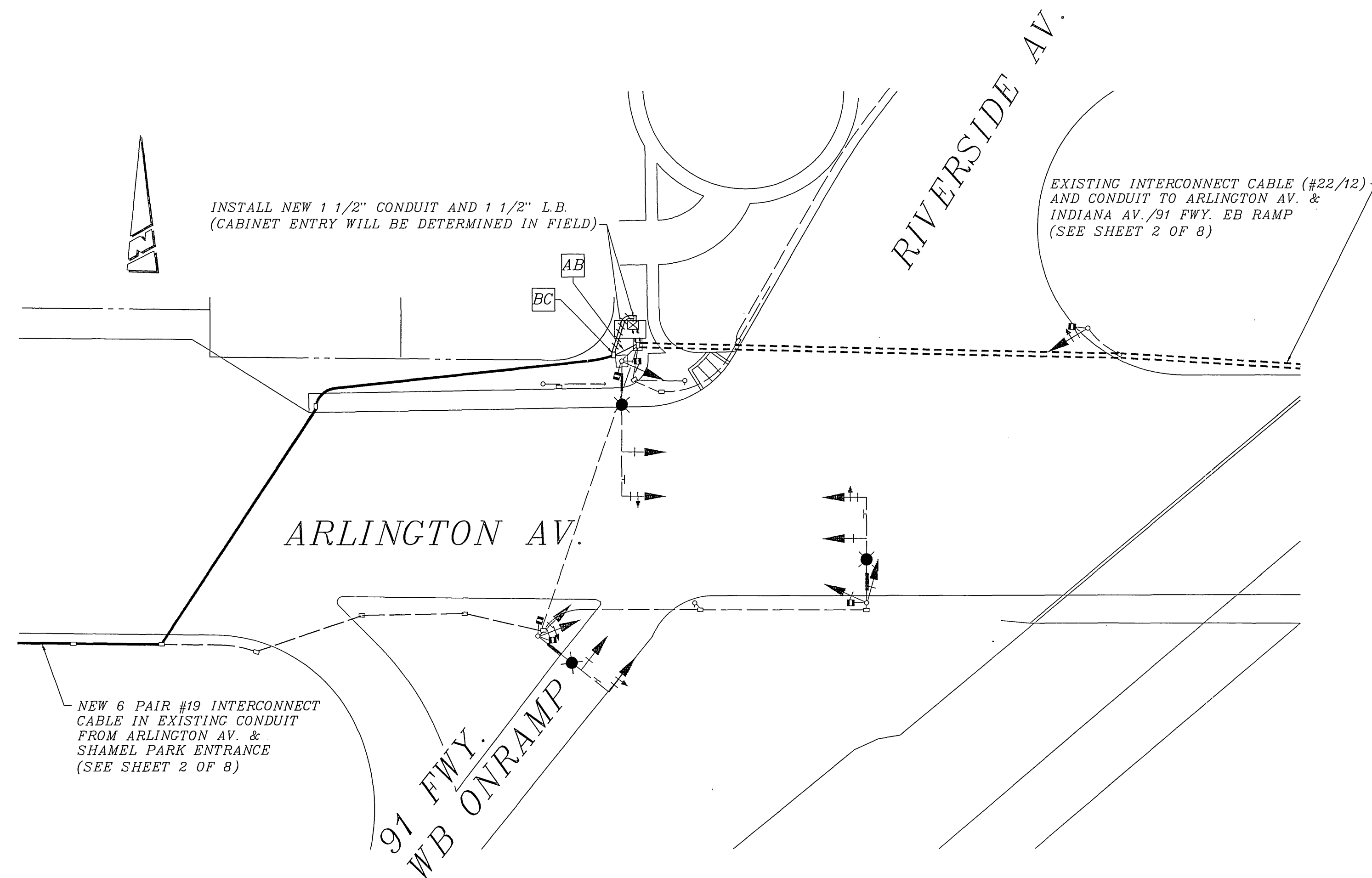
NOTES:

1. EXISTING 170E CONTROLLER IN A 332 CABINET, SEE CITY PLAN X-510 FOR MORE INFORMATION ON EXISTING CONDUIT RUNS.
2. EXISTING 170E CONTROLLER IN A 332 CABINET, SEE CITY PLAN X-503 FOR MORE INFORMATION ON EXISTING CONDUIT RUNS.

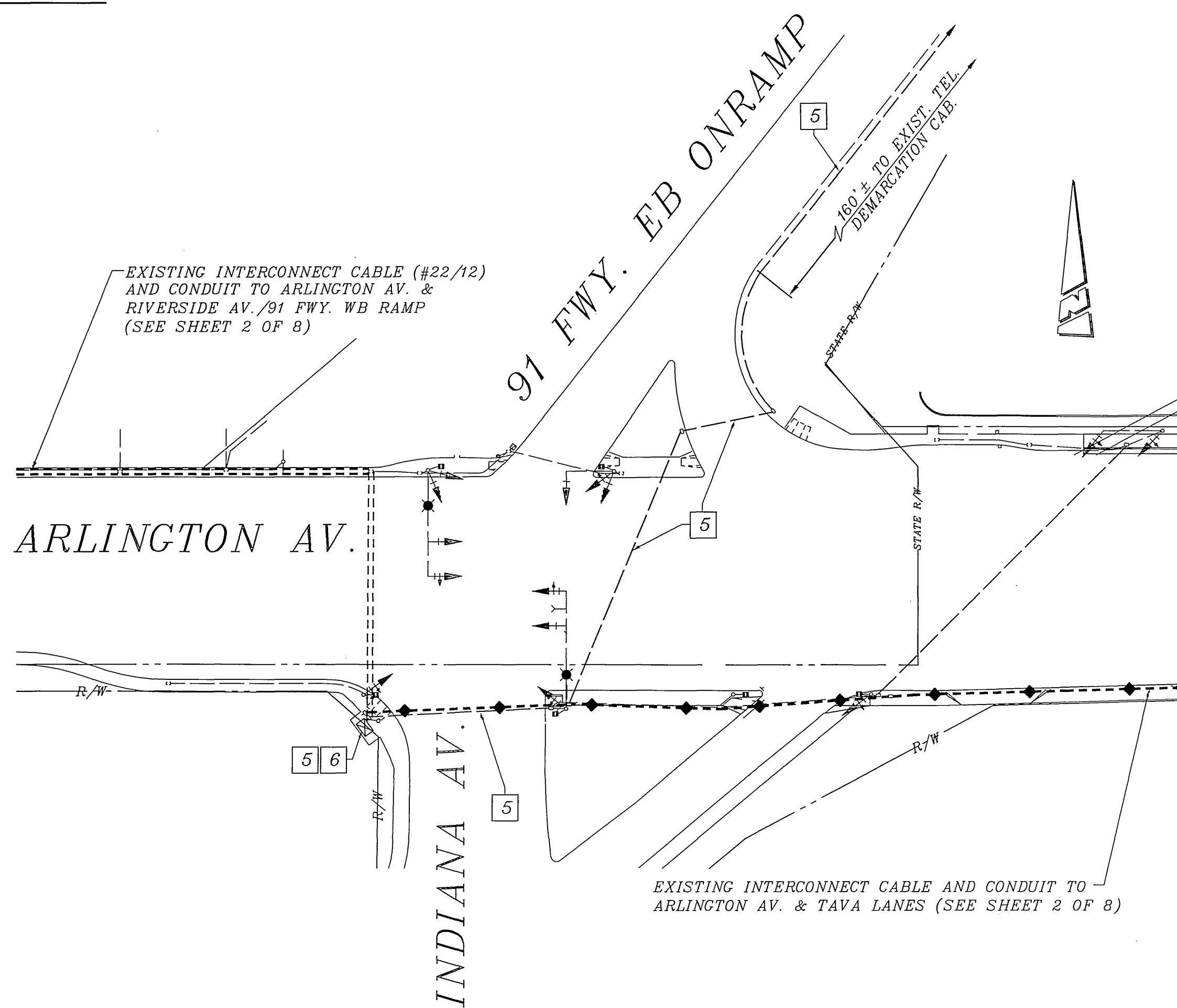
<p style="text-align: center;">ENGINEER IN RESPONSIBLE CHARGE</p> <p style="text-align: center;"><i>Thomas John Boyd</i></p> <p>THOMAS JOHN BOYD R.C.E. No. 36170 DATE: 9/10/02</p>		<p style="text-align: center;">CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>APPROVED BY</td> <td>BY</td> <td>DATE</td> <td>APPROVED BY</td> </tr> <tr> <td>PRINCIPAL ENGINEER</td> <td><i>[Signature]</i></td> <td>9/10/02</td> <td>DIRECTOR OF PUBLIC WORKS</td> </tr> <tr> <td>P.M. INSPECTION</td> <td><i>[Signature]</i></td> <td>9-17-02</td> <td></td> </tr> <tr> <td>TRAFFIC DIVISION</td> <td><i>[Signature]</i></td> <td>9/16/02</td> <td></td> </tr> <tr> <td>CHIEF P.M. ENGR.</td> <td></td> <td></td> <td></td> </tr> </table>	APPROVED BY	BY	DATE	APPROVED BY	PRINCIPAL ENGINEER	<i>[Signature]</i>	9/10/02	DIRECTOR OF PUBLIC WORKS	P.M. INSPECTION	<i>[Signature]</i>	9-17-02		TRAFFIC DIVISION	<i>[Signature]</i>	9/16/02		CHIEF P.M. ENGR.				<p style="text-align: center;">TRAFFIC SIGNAL SYSTEM INTERCONNECT ALESSANDRO BOULEVARD/ ARLINGTON AVENUE MAGNOLIA AV. TO NORTHRUP DR.</p> <p style="text-align: center;">SCALE: 1" = 200'</p>	<p>ACCT. NO. 9754532203-44030100</p> <p style="font-size: 2em; text-align: center;">X-054</p> <p style="text-align: center;">SHEET 4 OF 8</p> <p>FILE NAME: X054-3.DWG</p>
APPROVED BY	BY	DATE	APPROVED BY																					
PRINCIPAL ENGINEER	<i>[Signature]</i>	9/10/02	DIRECTOR OF PUBLIC WORKS																					
P.M. INSPECTION	<i>[Signature]</i>	9-17-02																						
TRAFFIC DIVISION	<i>[Signature]</i>	9/16/02																						
CHIEF P.M. ENGR.																								
DESIGNED BY: R.C.C. DRAWN BY: R.C.C. CHECKED BY: <i>[Signature]</i>		MARK REVISIONS APPR. DATE																						



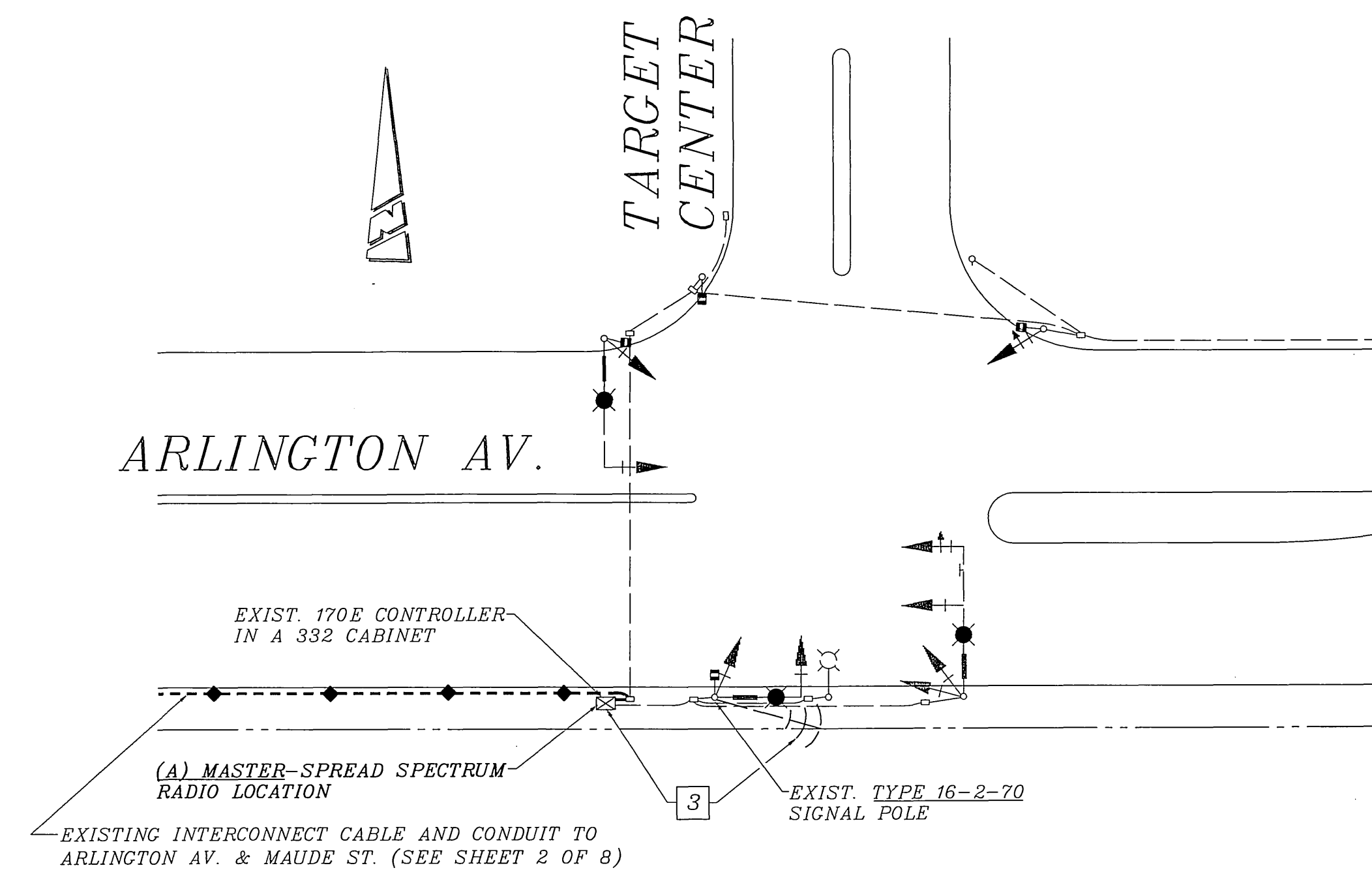
DETAIL - "A"



DETAIL - "B"



DETAIL - "C"

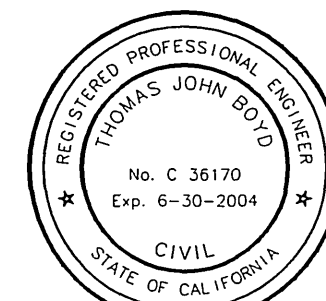


DETAIL - "D"

CONSTRUCTION NOTES

- 1 - REMOVE AND SALVAGE EXISTING TYPE 90 CONTROLLER ASSEMBLY. REMOVE FOUNDATION. INSTALL MODEL 170E/332 CABINET ASSEMBLY ON NEW FOUNDATION.
- 2 - WITHDRAW EXISTING CABLES AND CONDUCTORS FROM EXISTING CONDUIT RUN, AND INSTALL EXISTING CABLES AND CONDUCTORS IN NEW CONDUIT RUN (2-3" CONDUIT), FROM #6(E) PULL BOX TO CONTROLLER CABINET.
- 3 - INSTALL FULLY OPERATIONAL SPREAD SPECTRUM RADIO EQUIPMENT. (SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION)
- 4 - REPLACE EXISTING #6 PULL BOX WITH NEW #6(E) PULL BOX.
- 5 - INSTALL TELEPHONE CABLE IN EXISTING CONDUIT FROM EXISTING TELEPHONE DEMARCATION CABINET TO 332 CONTROLLER CABINET, TO TERMINATE TO AN RJ-11 MODULAR JACK INSIDE THE CABINET. TELEPHONE CABLE SHALL BE FOUR-WIRE, #18, IN COMPLIANCE WITH CALTRANS STANDARD SPECIAL PROVISIONS.
- 6 - INSTALL CALTRANS FURNISHED SOFTWARE PROGRAM 245-FM IN EXISTING MASTER CONTROLLER IN THE EXISTING 332 CABINET.
- 7 - INSTALL NEW OPTICOM HARNESS IN THE 332 CABINET AND RELOCATE THE EXISTING DETECTOR MODULES.

ENGINEER IN RESPONSIBLE CHARGE
Tom Boyd
 THOMAS JOHN BOYD
 R.C.E. No. 36170
 DATE 9/17/02



MARK	REVISIONS	APPR.	DATE

DESIGNED BY R.C.C. DRAWN BY R.C.C. CHECKED BY *CAH*

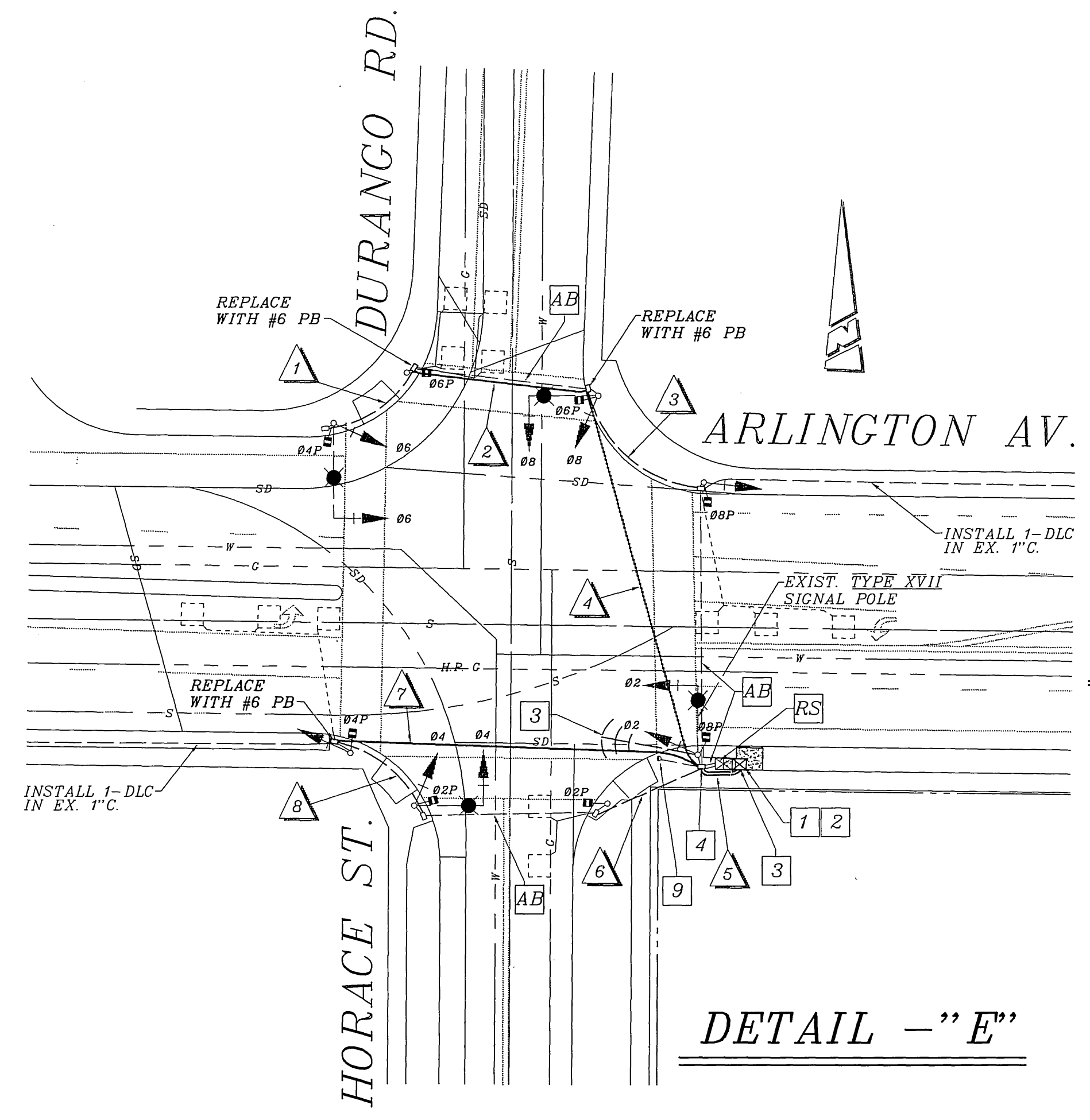
CITY OF RIVERSIDE, CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS

APPROVED BY	BY	DATE	APPROVED BY
PRINCIPAL ENGINEER	<i>CA</i>	9/10/02	DIRECTOR OF PUBLIC WORKS
P.W. INSPECTION	<i>CA</i>	9-17-02	DATE
TRAFFIC DIVISION	<i>CA</i>	9/16/02	
CHIEF P.W. ENGR.			

TRAFFIC SIGNAL SYSTEM DETAILS
**ALESSANDRO BOULEVARD/
 ARLINGTON AVENUE**
 MAGNOLIA AV. TO
 NORTHRUP DR.

ACCT. NO. 9754532203-44030100
X-054
 SHEET 5 OF 8
 FILE NAME: X054-4.DWG

SCALE: 1" = 30'

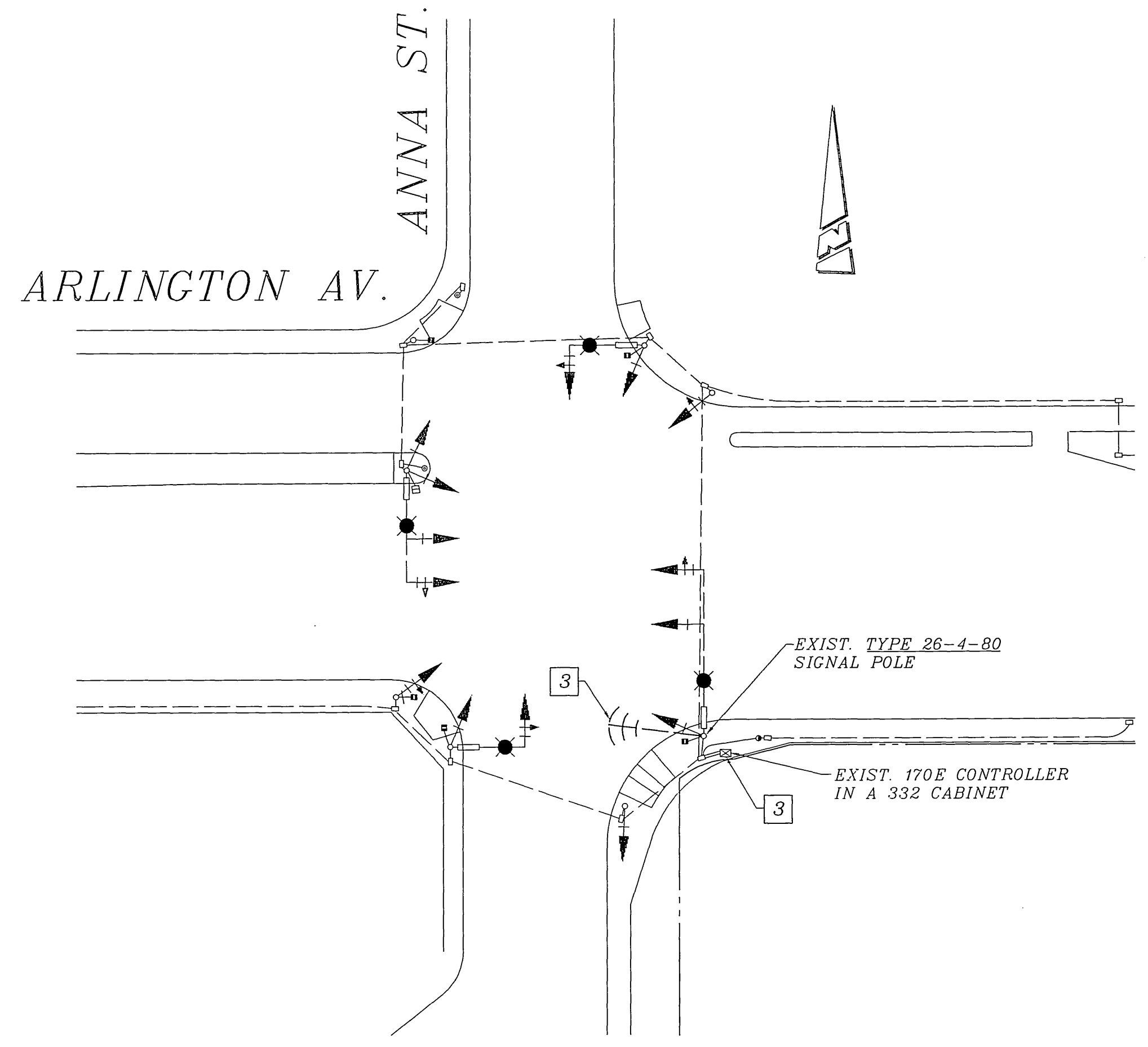


DETAIL - "E"

CONDUCTOR		TABLE							
CONTROL FUNCTION	CONDUCTORS	CONDUCTOR RUNS							
		1	2	3	4	5	6	7	8
VEHICLE & PEDESTRIAN HEADS, PEDESTRIAN PUSH BUTTONS, SPARES & COMMONS	12 WIRE IMSA 9 WIRE IMSA 5 WIRE IMSA 3 WIRE IMSA	1	2	1	4	8	1	2	1
DETECTOR CABLE	#16/2	-	-	-	-	-	-	-	-
PHASE 1		-	-	-	-	-	-	-	-
PHASE 2		-	-	-	-	2	-	2	-
PHASE 3		-	-	-	-	-	-	-	-
PHASE 4		-	-	1	1	1	-	-	-
PHASE 5		-	-	-	-	-	-	-	-
PHASE 6		-	-	2	2	2	-	-	-
PHASE 7		-	-	-	-	-	-	1	-
PHASE 8		-	-	-	-	-	-	-	-
TOTALS		-	1	2	3	6	1	2	-
LUMINAIRES	#8	2	2	-	2	-	-	2	2
SIGNAL SERVICE	#6	-	-	-	-	2	-	-	-
COAXIAL CABLE(RADIO)		-	-	-	-	1	-	-	-
CONDUIT SIZE		2"	3"	2"	3"	2-3"	2.5"	3"	2"

NOTE:
SIGNAL SYSTEM SHALL HAVE NEW CABLES AND CONDUCTORS; SEE CONTRACT SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION ON I.M.S.A. CABLE.

CONDUCTOR SCHEDULE FOR ARLINGTON AV. @ HORACE ST./DURANGO RD.

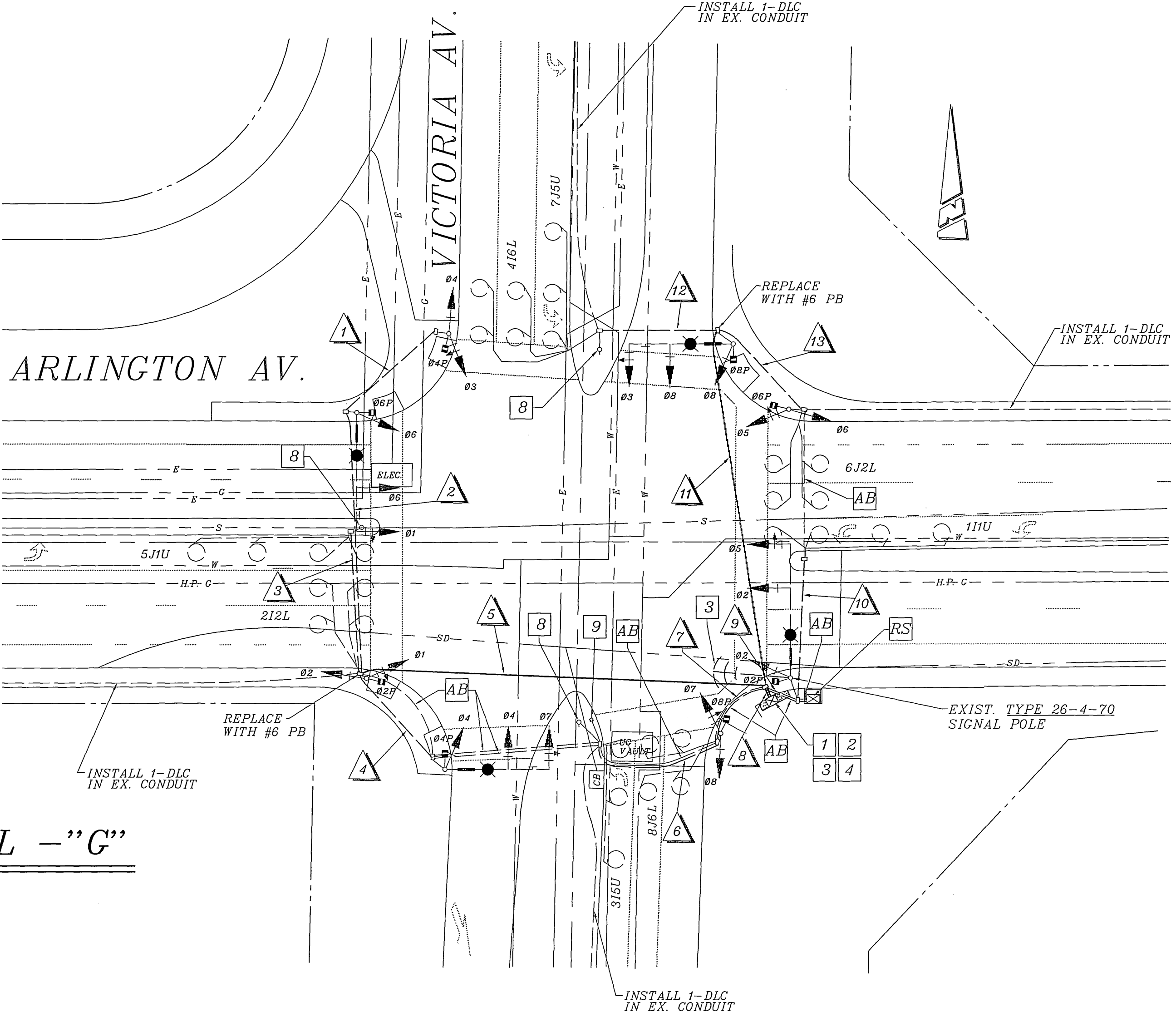


DETAIL - "F"

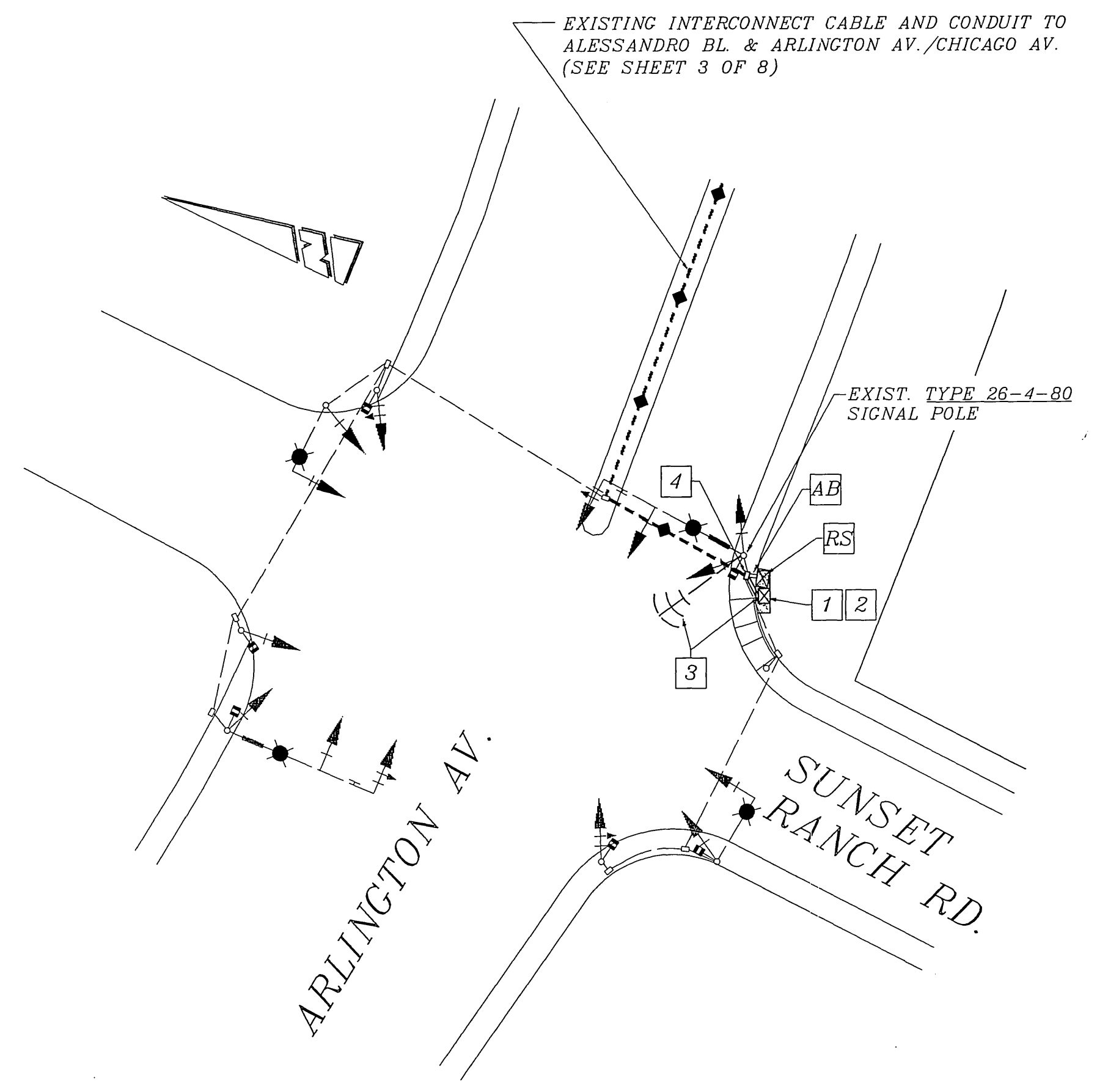
CONDUCTOR		TABLE												
CONTROL FUNCTION	CONDUCTORS	CONDUCTOR RUNS												
		1	2	3	4	5	6	7	8	9	10	11	12	13
VEHICLE & PEDESTRIAN HEADS, PEDESTRIAN PUSH BUTTONS, SPARES & COMMONS	12 WIRE IMSA 9 WIRE IMSA 5 WIRE IMSA 3 WIRE IMSA	1	2	-	1	4	-	1	8	1	-	2	-	1
DETECTOR CABLE	#16/2	-	-	-	-	-	-	-	-	-	-	-	-	-
PHASE 1		-	-	-	-	-	-	1	1	1	-	-	-	-
PHASE 2		-	-	-	-	-	-	2	-	-	-	-	-	-
PHASE 3		-	-	-	-	1	1	1	-	-	-	-	-	-
PHASE 4		-	-	-	-	-	-	2	-	-	2	2	-	-
PHASE 5		-	-	1	-	1	-	1	-	-	-	-	-	-
PHASE 6		-	-	-	-	-	-	2	-	-	2	-	2	-
PHASE 7		-	-	-	-	-	-	1	-	-	1	1	-	-
PHASE 8		-	-	-	-	2	2	2	-	-	-	-	-	-
TOTALS		-	-	1	-	3	3	12	1	1	5	3	2	-
LUMINAIRES	#8	-	2	-	2	2	-	-	-	-	-	2	-	-
SIGNAL SERVICE	#6	-	-	-	-	-	-	2	2	-	-	-	-	-
COAXIAL CABLE(RADIO)		-	-	-	-	-	-	1	1	-	-	-	-	-
CONDUIT SIZE		1.5"	2"	2"	2"	3.5"	2"	2"	2-3"	2"	3"	2"	2"	

NOTE:
SIGNAL SYSTEM SHALL HAVE NEW CABLES AND CONDUCTORS; SEE CONTRACT SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION ON I.M.S.A. CABLE.

CONDUCTOR SCHEDULE FOR ARLINGTON AV. @ VICTORIA AV.



DETAIL - "G"

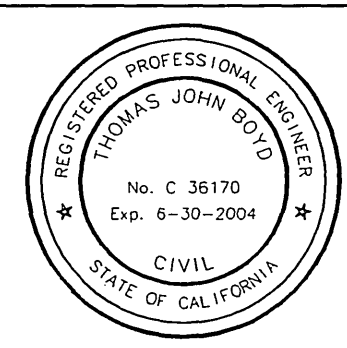


DETAIL - "H"

CONSTRUCTION NOTES

- 1 - REMOVE AND SALVAGE EXISTING TYPE 90 CONTROLLER ASSEMBLY. REMOVE FOUNDATION. INSTALL MODEL 170E/332 CABINET ASSEMBLY ON NEW FOUNDATION.
- 2 - WITHDRAW EXISTING CABLES AND CONDUCTORS FROM EXISTING CONDUIT RUN, AND INSTALL EXISTING CABLES AND CONDUCTORS IN NEW CONDUIT RUN (2-3" CONDUIT), FROM #6(E) PULL BOX TO CONTROLLER CABINET.
- 3 - INSTALL FULLY OPERATIONAL SPREAD SPECTRUM RADIO EQUIPMENT. (SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION)
- 4 - REPLACE EXISTING #6 PULL BOX WITH NEW #6(E) PULL BOX.
- 8 - REMOVE EXISTING PED P.B. POST.
- 9 - EXISTING SERVICE: INSTALL NEW BREAKER AND ENCLOSURE FOR 120V SIGNAL AND 240V ST. LT. SERVICE PER CITY OF RIVERSIDE STD. DWG. NO. 612.

ENGINEER IN RESPONSIBLE CHARGE
Thomas John Boyd
 THOMAS JOHN BOYD
 R.C.E. No. 38170
 DATE 9/1/02

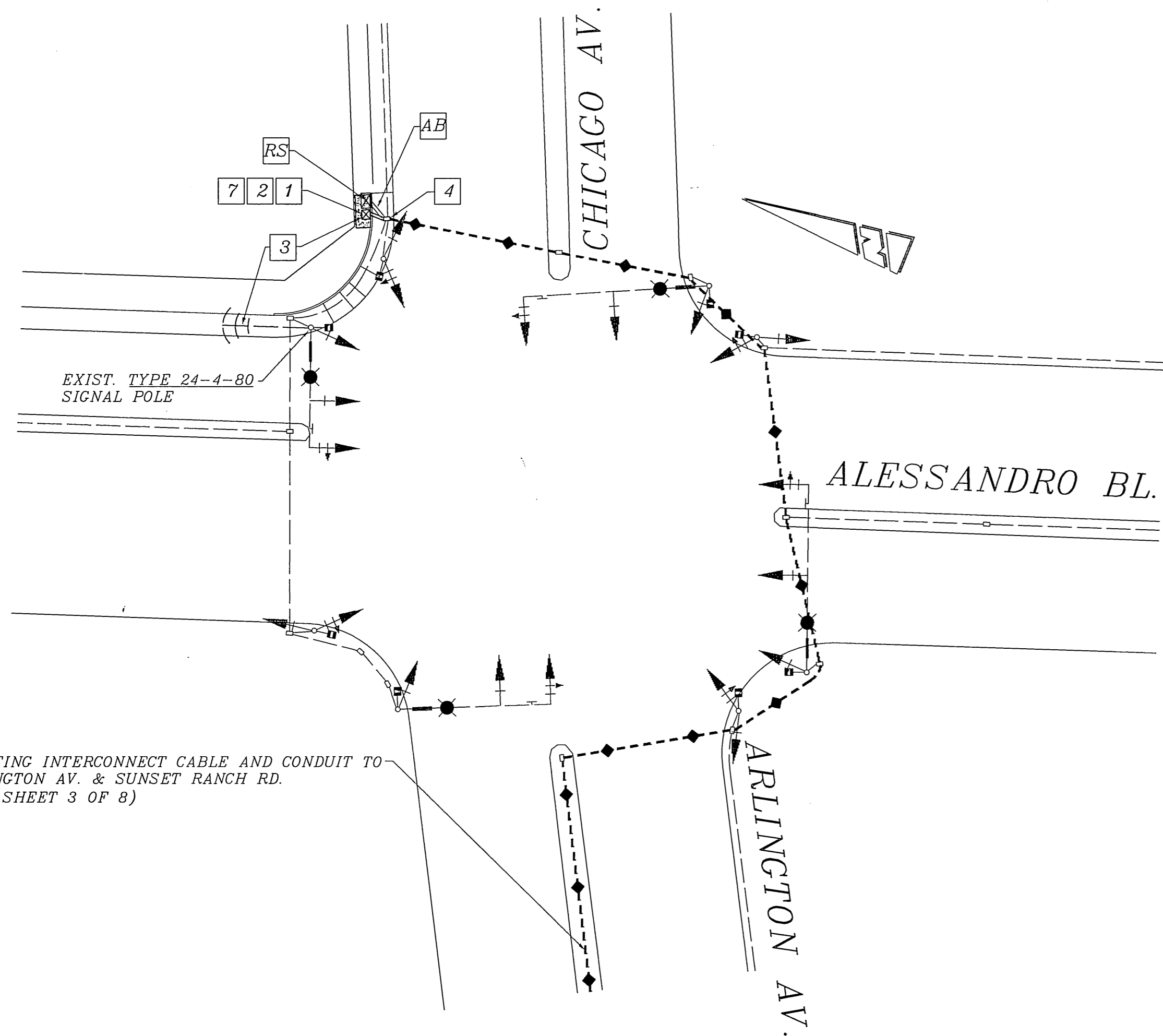


MARK	REVISIONS	APPR	DATE

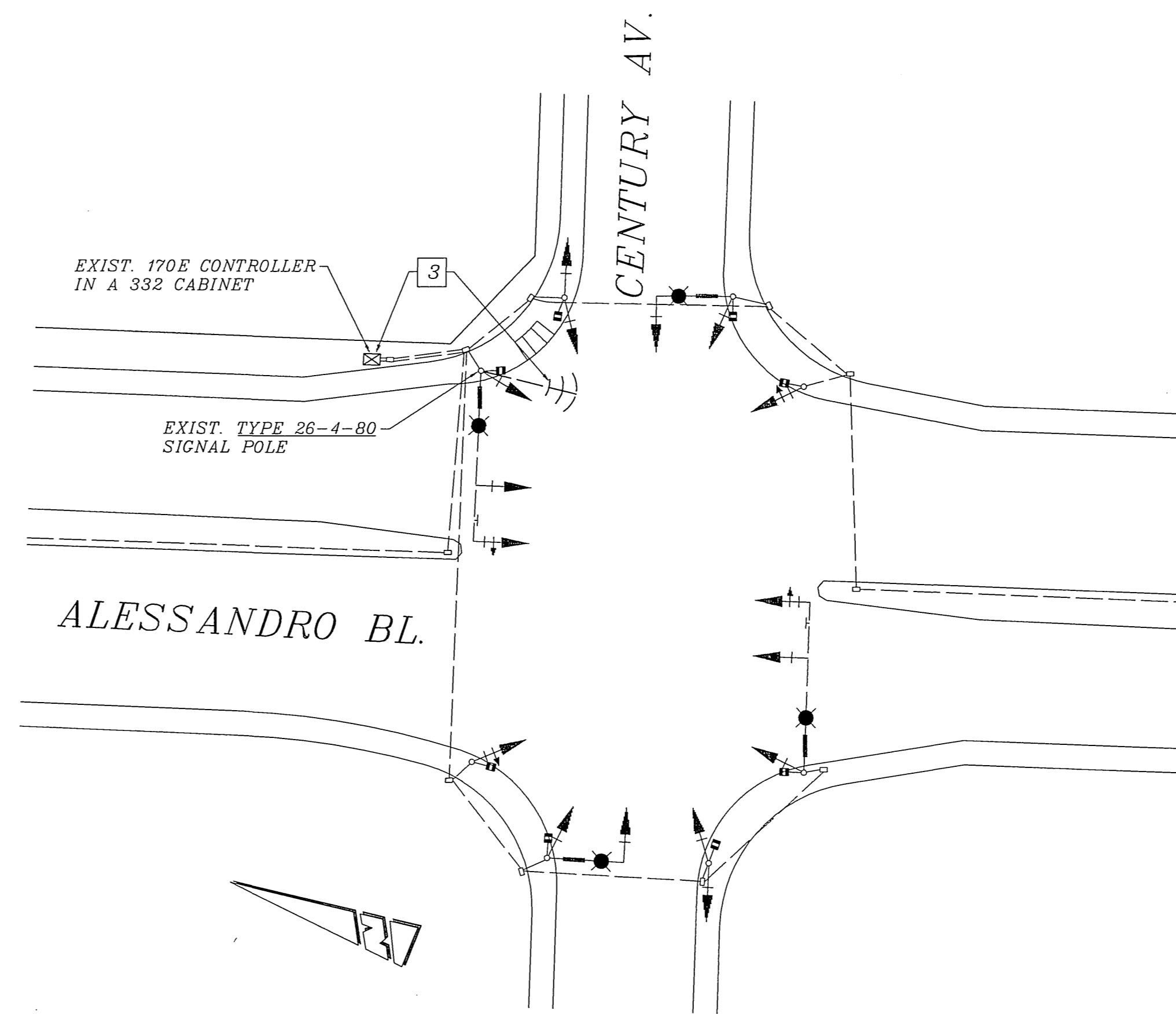
CITY OF RIVERSIDE, CALIFORNIA
 DEPARTMENT OF PUBLIC WORKS
 APPROVED BY: *[Signature]* DATE: 9/1/02
 PRINCIPAL ENGINEER
 P.W. INSPECTION: *[Signature]* DATE: 9/1/02
 TRAFFIC DIVISION
 CHIEF P.W. ENGR.

TRAFFIC SIGNAL SYSTEM DETAILS
 ALESSANDRO BOULEVARD/
 ARLINGTON AVENUE
 MAGNOLIA AV. TO
 NORTHRUP DR.
 SCALE: 1" = 30'

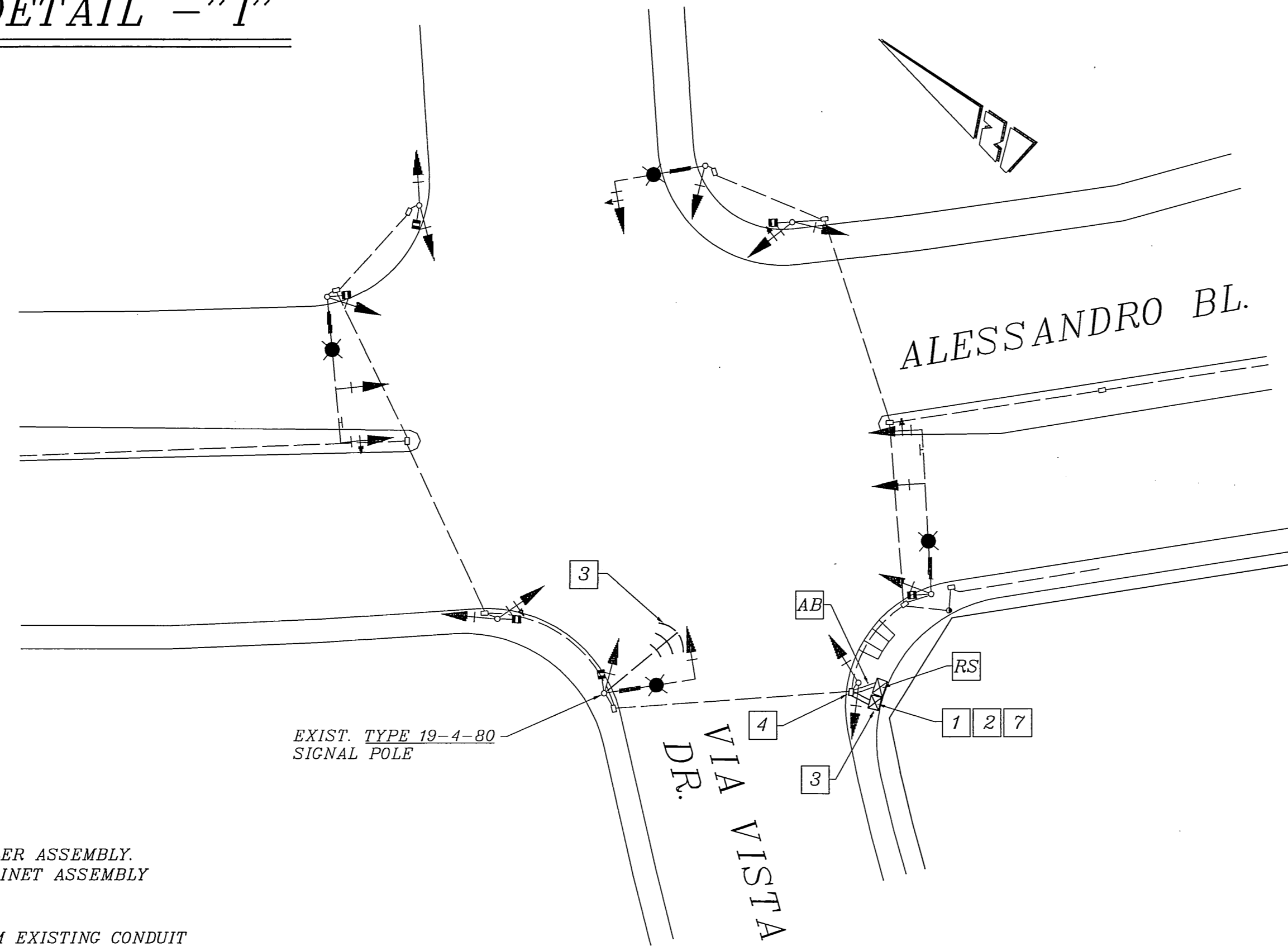
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 X-054
 SHEET 6 OF 8
 FILE NAME: X054-5.DWG



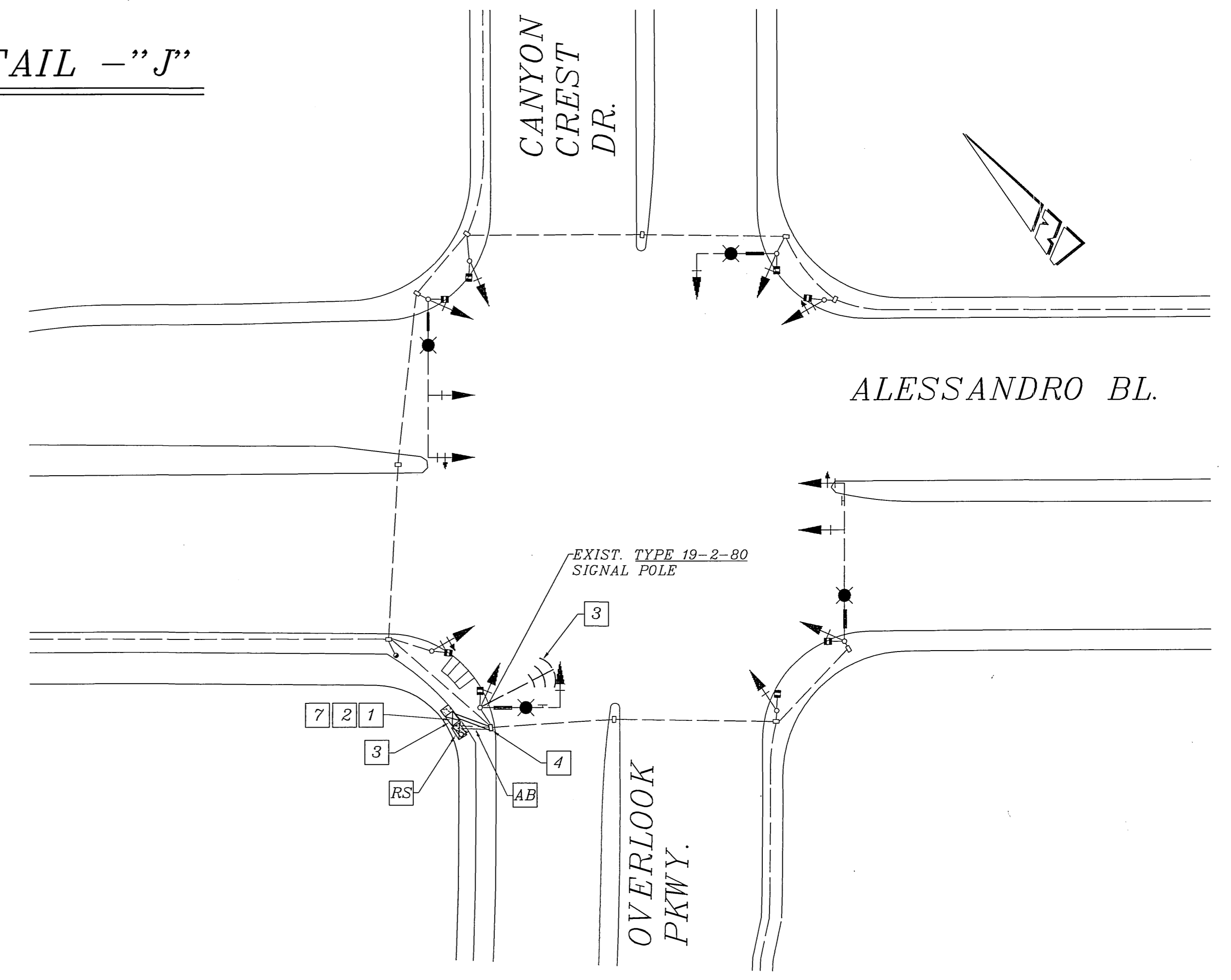
DETAIL - "I"



DETAIL - "J"



DETAIL - "K"



DETAIL - "L"

CONSTRUCTION NOTES

- 1 - REMOVE AND SALVAGE EXISTING TYPE 90 CONTROLLER ASSEMBLY. REMOVE FOUNDATION. INSTALL MODEL 170E/332 CABINET ASSEMBLY ON NEW FOUNDATION.
- 2 - WITHDRAW EXISTING CABLES AND CONDUCTORS FROM EXISTING CONDUIT RUN, AND INSTALL EXISTING CABLES AND CONDUCTORS IN NEW CONDUIT RUN (2-3" CONDUIT), FROM #6(E) PULL BOX TO CONTROLLER CABINET.
- 3 - INSTALL FULLY OPERATIONAL SPREAD SPECTRUM RADIO EQUIPMENT. (SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION)
- 4 - REPLACE EXISTING #6 PULL BOX WITH NEW #6(E) PULL BOX.
- 7 - INSTALL NEW OPTICOM HARNESS IN THE 332 CABINET AND RELOCATE THE EXISTING DETECTOR MODULES.

ENGINEER IN RESPONSIBLE CHARGE
Thomas Boyd
 THOMAS JOHN BOYD
 R.C.E. No. 36170
 DATE: 9/10/02



MARK	REVISIONS	APPR.	DATE

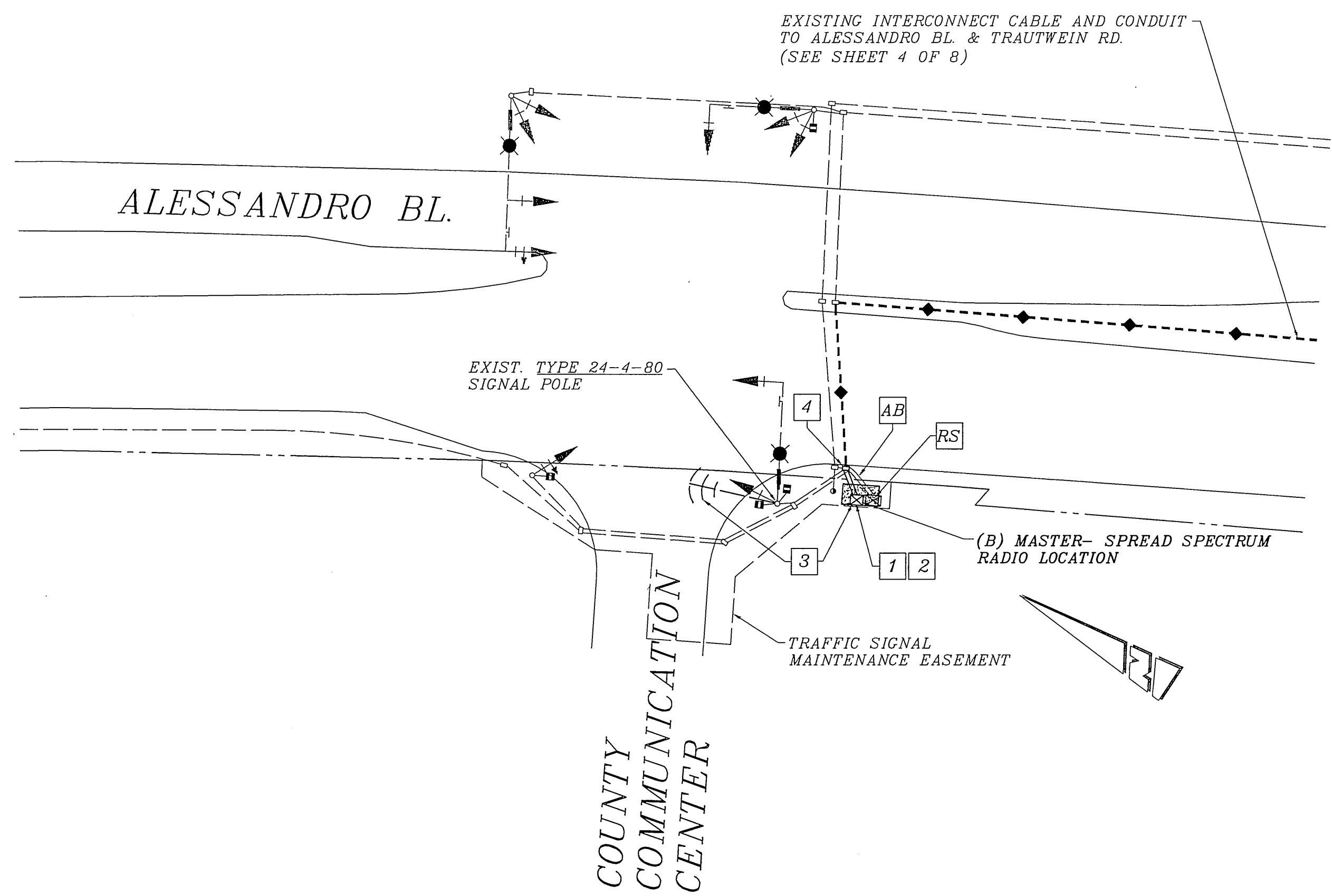
DESIGNED BY: R.C.C. DRAWN BY: R.C.C. CHECKED BY: *RCC*

CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
APPROVED BY	BY	DATE	APPROVED BY
PRINCIPAL ENGINEER	<i>RCC</i>	9/10/02	DIRECTOR OF PUBLIC WORKS
P.W. INSPECTION	<i>RCC</i>	9/10/02	DATE
TRAFFIC DIVISION	<i>RCC</i>	9/10/02	
CHIEF P.W. ENGR.			

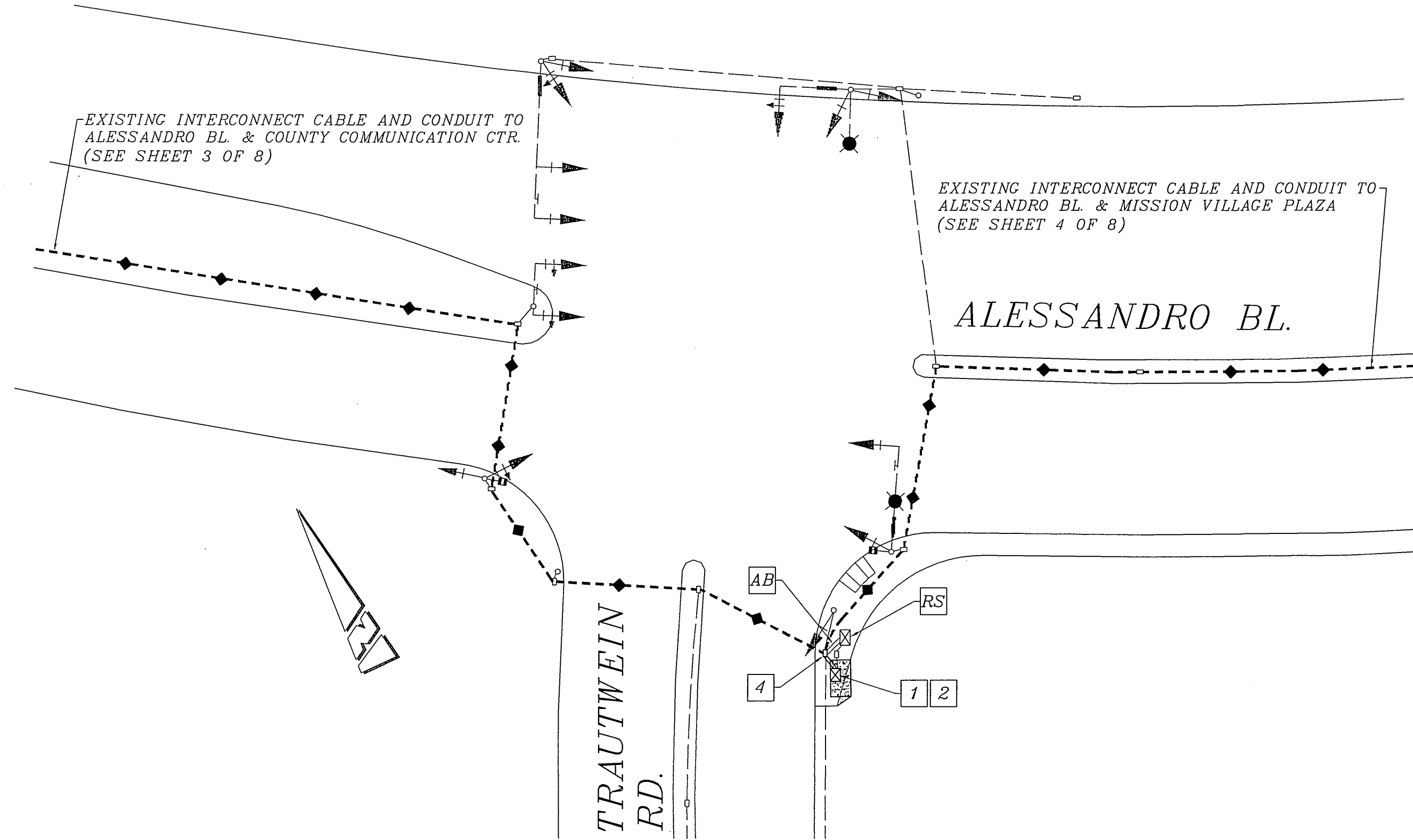
TRAFFIC SIGNAL SYSTEM DETAILS
 ALESSANDRO BOULEVARD/
 ARLINGTON AVENUE
 MAGNOLIA AV. TO
 NORTHRUP DR.
 SCALE: 1" = 30'

ACCT. NO.
9754532203-44030100
 X-054
 SHEET 7 OF 8
 FILE NAME: X054-6.DWG

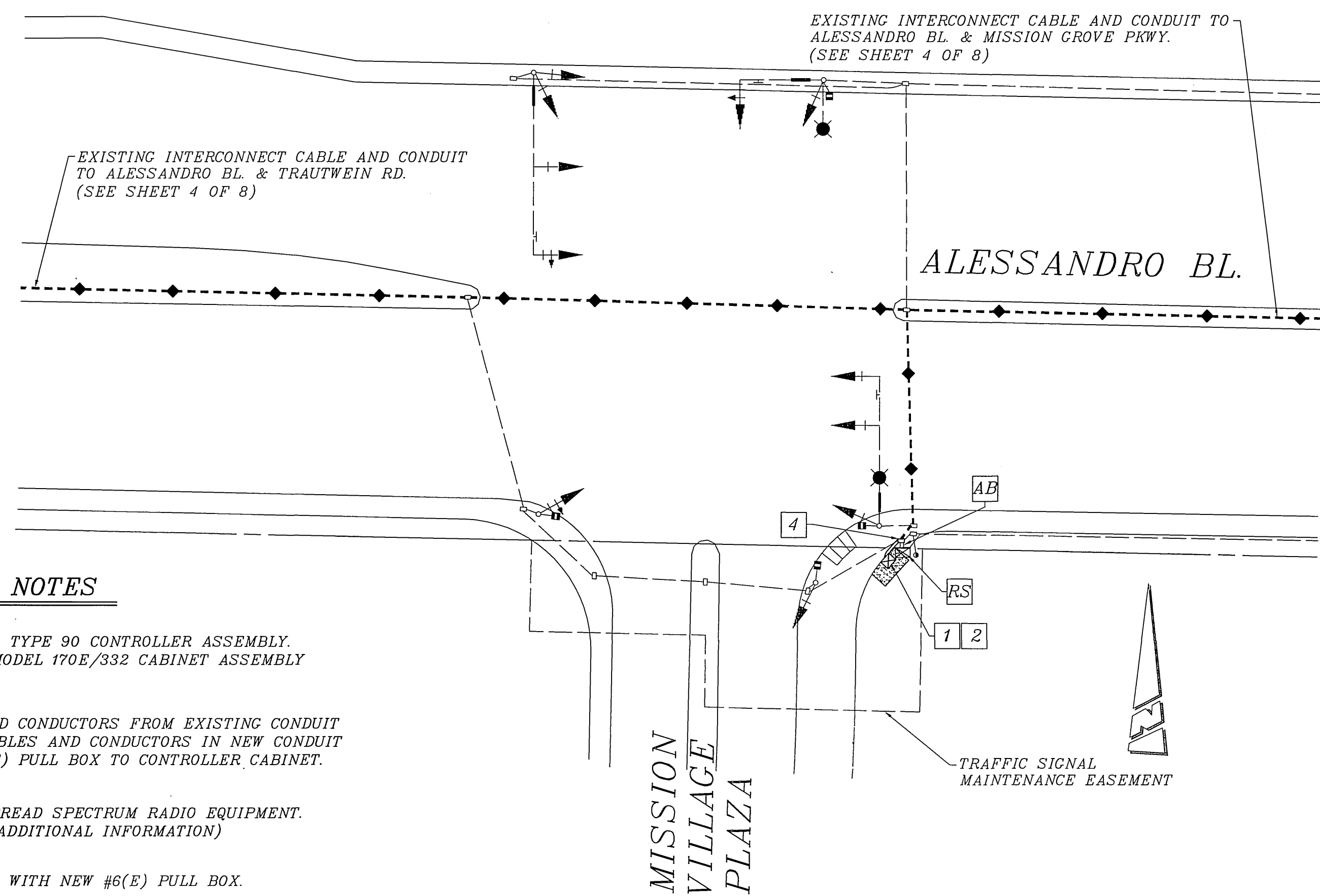
FOR REFERENCE ONLY



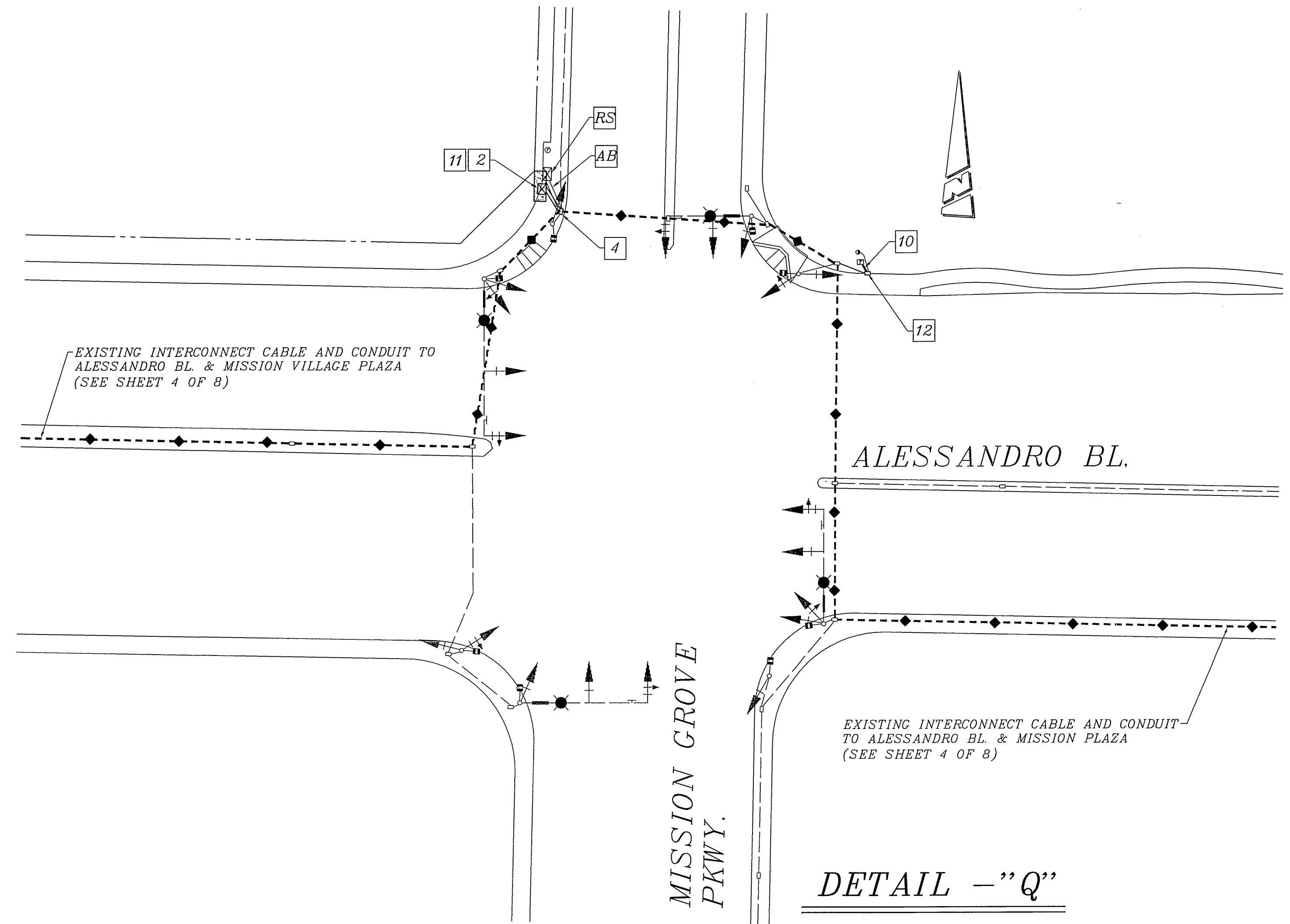
DETAIL - "M"



DETAIL - "N"



DETAIL - "P"



DETAIL - "Q"

CONSTRUCTION NOTES

- 1 - REMOVE AND SALVAGE EXISTING TYPE 90 CONTROLLER ASSEMBLY. REMOVE FOUNDATION. INSTALL MODEL 170E/332 CABINET ASSEMBLY ON NEW FOUNDATION.
- 2 - WITHDRAW EXISTING CABLES AND CONDUCTORS FROM EXISTING CONDUIT RUN, AND INSTALL EXISTING CABLES AND CONDUCTORS IN NEW CONDUIT RUN (2-3" CONDUIT), FROM #6(E) PULL BOX TO CONTROLLER CABINET.
- 3 - INSTALL FULLY OPERATIONAL SPREAD SPECTRUM RADIO EQUIPMENT. (SEE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION)
- 4 - REPLACE EXISTING #6 PULL BOX WITH NEW #6(E) PULL BOX.
- 10 - INSTALL 1" CONDUIT (SCHEDULE 40 PVC), WITH 1/4" PULLROPE. PACIFIC BELL CO. TO INSTALL TELEPHONE SERVICE FROM TELEPHONE PEDESTAL (FEED POINT) TO CONTROLLER CABINET.
- 11 - REMOVE AND SALVAGE EXISTING TYPE 90 CONTROLLER ASSEMBLY. REMOVE FOUNDATION. INSTALL 2 EA. MODEL 170E CONTROLLER UNITS TO BE HOUSED IN 1 EA. 332 CABINET ASSEMBLY ON NEW FOUNDATION. INSTALL CITY FURNISHED EXTERNAL MODEM FOR CONNECTION TO FIELD MASTER.
- 12 - REPLACE EXISTING PULL BOX

ENGINEER IN RESPONSIBLE CHARGE
Thomas John Boyd
 THOMAS JOHN BOYD
 R.C.E. No. 36770
 DATE: 9/10/02



MARK	REVISIONS	APPR.	DATE

DESIGNED BY: R.C.C. DRAWN BY: R.C.C. CHECKED BY: *RJB*

CITY OF RIVERSIDE, CALIFORNIA DEPARTMENT OF PUBLIC WORKS			
APPROVED BY	BY	DATE	APPROVED BY

TRAFFIC SIGNAL SYSTEM DETAILS
**ALESSANDRO BOULEVARD/
 ARLINGTON AVENUE
 MAGNOLIA AV. TO
 NORTHRUP DR.**

ACCT. NO. 9754532203-44030100
X-054
 SHEET 8 OF 8
 FILE NAME: X054-7.DWC

SCALE: 1" = 30'