

# SEWER IMPROVEMENT PLANS FOR: TRACT No. 32772

**GENERAL NOTES**

1. NO PERSON SHALL PERFORM ANY CONSTRUCTION ACTIVITY OR INSTALL ANY OBJECTS WITHIN THE PUBLIC RIGHT-OF-WAY OR EASEMENTS OF THE CITY OF RIVERSIDE WITHOUT A VALID CONSTRUCTION PERMIT OR, A STREET OPENING PERMIT OR AN ENCROACHMENT PERMIT ISSUED BY THE CITY'S PUBLIC WORKS DEPARTMENT.
2. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CLEAR THE RIGHT OF WAY IN ACCORDANCE WITH THE PROVISIONS OF LAW AS IT AFFECTS EACH UTILITY INCLUDING IRRIGATION LINES AND APPURTENANCES AND AT NO COST TO THE CITY.
3. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RIVERSIDE DEPARTMENT OF PUBLIC WORKS, STANDARD DRAWINGS, ITS SUPPLEMENTAL NOTES AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CURRENT EDITION.
4. THE PRIVATE ENGINEER SIGNING THESE PLANS IS RESPONSIBLE FOR ASSURING THE ACCURACY AND ACCEPTABILITY OF THE WORK HEREON. IN THE EVENT OF DISCREPANCIES ARISING DURING CONSTRUCTION, THE PRIVATE ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING AN ACCEPTABLE SOLUTION AND REVISING THE PLANS FOR APPROVAL BY THE CITY.
5. QUANTITIES SHOWN ARE FOR INFORMATION ONLY AND THE CITY OF RIVERSIDE IS NOT RESPONSIBLE FOR THEIR ACCURACY.
6. THE DEVELOPER SHALL BE RESPONSIBLE FOR PRESERVING OR RE-ESTABLISHING AND REFERENCING SURVEY MONUMENTS DESTROYED, DISTURBED OR BURIED AS A RESULT OF CONSTRUCTION SHOWN HEREON.
7. ALL FLAGGED ELEVATIONS SHALL BE STAKED IN THE FIELD BY THE PRIVATE ENGINEER.
8. THE CONTRACTOR SHALL CALL IN A LOCATION REQUEST TO UNDERGROUND SERVICE ALERT (USA), PHONE # 1-800-227-2600, TWO WORKING DAYS BEFORE DIGGING. NO CONSTRUCTION PERMIT WILL BE ISSUED BY THE PUBLIC WORKS DEPARTMENT INVOLVING EXCAVATION FOR UNDERGROUND FACILITIES UNLESS THE APPLICANT HAS BEEN PROVIDED AN INQUIRY IDENTIFICATION NUMBER BY U.S.A.
9. CONTRACTOR IS TO VERIFY EXISTING SEWER ELEVATION PRIOR TO CONSTRUCTION.
10. LOCATION OF LATERALS TO BE DETERMINED IN THE FIELD AT THE DIRECTION OF THE OWNER. AVOID CONFLICT WITH PROPOSED AND/OR EXISTING FACILITIES.
11. NO FINISHED FLOOR ELEVATION SHALL BE LESS THAN 6" ABOVE THE UPPER MANHOLE RIM ELEVATION OF THE SEWER LINE SEGMENT BEING CONNECTED TO, WITHOUT HAVING A PROPER BACKWATER VALVE INSTALLED IN THE LATERAL.
12. A PLUG SHALL BE INSTALLED AND WILL REMAIN IN PLACE WHERE THE NEW SEWER CONNECTS WITH THE EXISTING SEWER UNTIL THE NEW SEWER IS ACCEPTED BY THE CITY.
13. THE SEWER CONTRACTOR SHALL ADJUST MANHOLES TO FINAL GRADE AFTER PAVING IS COMPLETED.
14. PIPES JOINTS FOR VITRIFIED CLAY PIPE SHALL BE TYPE "G" AS SPECIFIED IN SECTION 208-2.3 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS PROJECTS. IF PLASTIC PIPE IS ALLOWED AS AN ALTERNATIVE, ALL PIPE JOINTS SHALL BE GASKETED. CEMENTED JOINTS SHALL NOT BE ALLOWED.
15. THE DEVELOPER IS RESPONSIBLE FOR PERFORMING A VIDEO INSPECTION OF THE NEW SEWER MAIN PRIOR TO FINAL ACCEPTANCE OF THE WORK. THE VIDEO INSPECTION MUST BE PERFORMED IN THE PRESENCE OF THE PUBLIC WORKS INSPECTOR. A RECORDING OF THE VIDEO INSPECTION MUST BE SUBMITTED TO THE CITY FOR REVIEW AND ACCEPTANCE.

**CONSTRUCTION NOTES AND QUANTITY ESTIMATE**

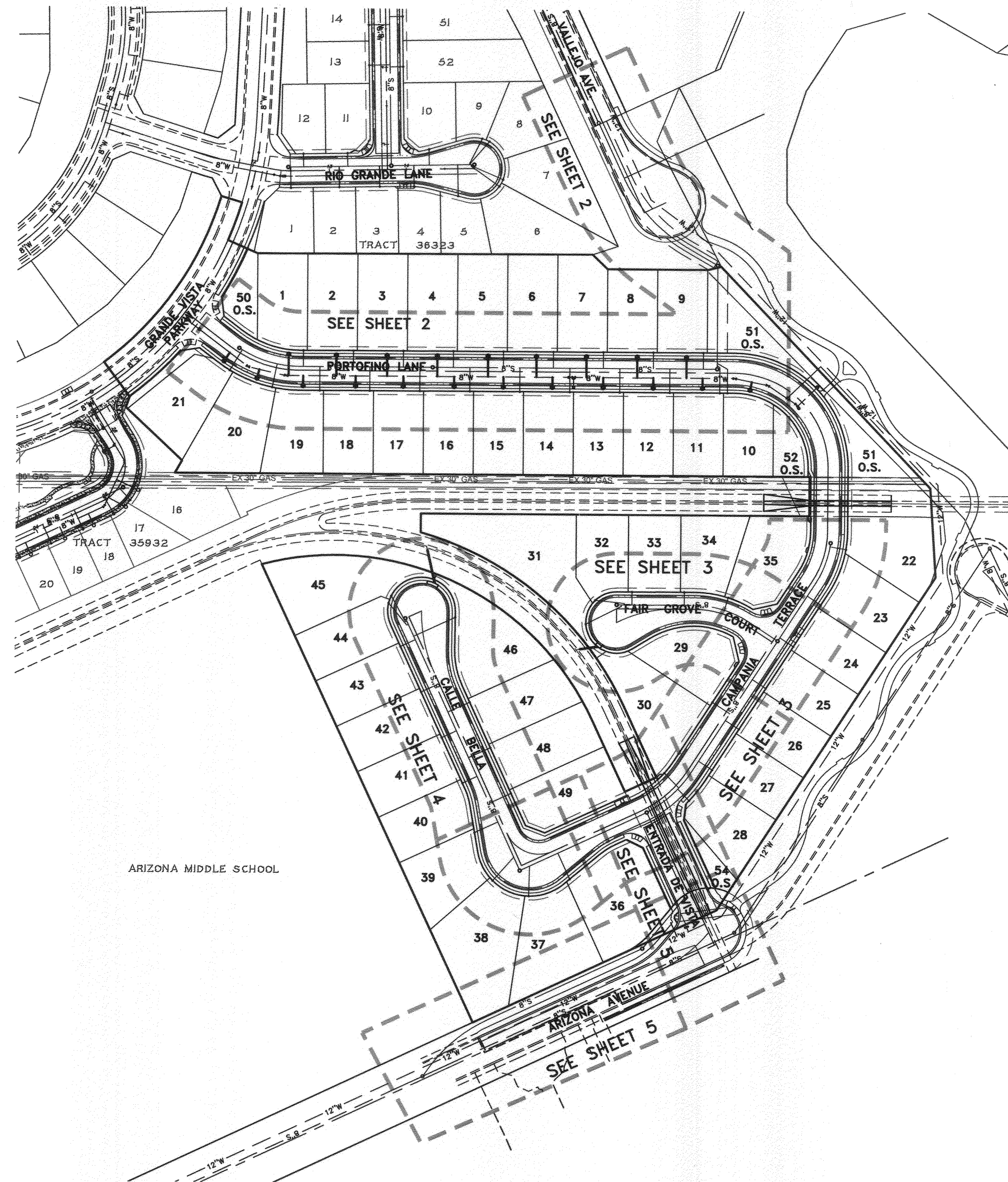
THE QUANTITIES SHOWN BELOW ARE FOR BONDING INFORMATION ONLY. THE CONTRACTOR IS TO CONSTRUCT PROJECT PER THESE PLANS AND SUBMIT CONSTRUCTION BID BASED ON THEIR OWN QUANTITY "TAKE-OFF".

① CONSTRUCT 8" V.C.P. SEWER WITH CASE III BEDDING PER CITY STD. DWD. NO. 452	2,697 LF
② CONSTRUCT MANHOLE PER C/RIV. STD. DWG. 500	12 EA
③ CONSTRUCT 4" V.C.P. SEWER LATERAL WITH C.O. AT R PER C/RIV. STD. DWG. 562	49 EA

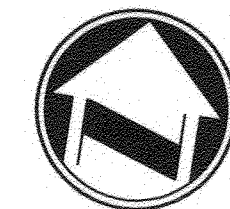
**NOTE:**

SEWER PIPE WITH A CURVE SHALL BE BEVELED PIPE

**DEVELOPER / APPLICANT**  
**TRI POINTE HOMES, LLC**  
 18520 HAMBORREE ROAD, SUITE 200  
 IRVINE, CA 92612  
 TEL: (949) 478-8600 FAX: (949) 478-8601



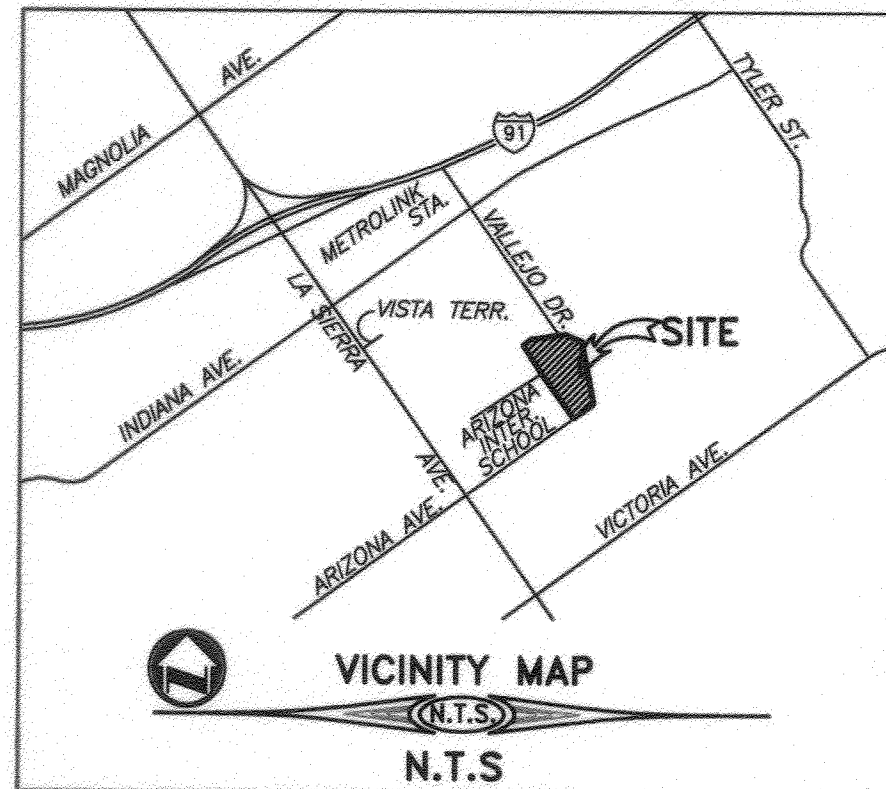
ARIZONA MIDDLE SCHOOL



**INDEX MAP**

SCALE 1" = 100'

**THOMAS GUIDE PAGE 744, G-2**



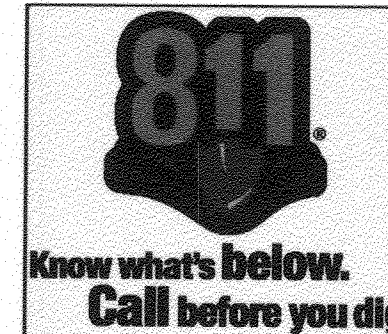
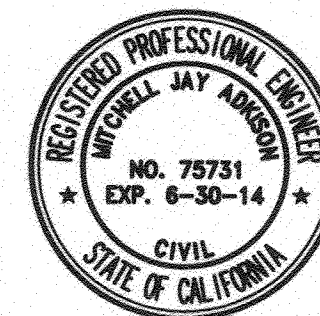
SECTION 24, T. 3S, R. 6W

**LEGEND**

- C ..... CENTERLINE
- R/W ..... RIGHT OF WAY
- P ..... PROPERTY LINE
- MH ..... MANHOLE
- CO ..... CLEANOUT
- ..... WATER SERVICE
- ⊕ ..... WATER SERVICE (BY CITY FORCES)
- ..... SEWER LATERAL

RIVERSIDE PUBLIC UTILITIES - WATER DIVISION

RIVERSIDE PUBLIC UTILITIES DEPT.  
ELECTRIC - OVERHEAD & UNDERGROUND



CITY OF RIVERSIDE BUSINESS TAX ACCT.#058833 EXP.1/1/14

PLANS PREPARED BY:  
**adkan ENGINEERS**  
 Civil Engineering - Surveying - Planning  
 6879 Airport Drive, Riverside, CA 92504  
 Tel: (951) 688-0711 Exp: (951) 688-0599  
 Under the Supervision of: *Michael Johnson* 10-24-13  
 MICHAEL JOHNSON, P.E. 75731 Exp. 06.30.14 Date:

BENCHMARK: D3-E3  
 P.K. NAIL AND CITY ENGINEER TAG IN CONCRETE BASE OF STREET LIGHT, 2 FEET NORTHWESTERLY OF THE NORTHERLY CURB RETURN AT FILLMORE STREET AND ARIZONA AVENUE. FORMERLY D3-D RESET  
 ELEVATION: 791.284  
 NGVD 1929(TYP)

DESIGNED BY	CECILIA	DRAWN BY	CECILIA	CHECKED BY	C-
DATE		DATE		DATE	

**CITY OF RIVERSIDE  
PUBLIC WORKS DEPARTMENT**

APPROVED BY	DATE	BY	APPROVED BY
PRINCIPAL ENGINEER	12/12/13	EA	<i>Alan Boyd</i>
CITY ENGINEER / PW DIRECTOR			
DATE	12/12/13		

**SEWER IMPROVEMENT PLANS  
TRACT 32772  
COVER SHEET**

A.P.N. 138-130-016, 138-130-019  
 HORIZ. SCALE: AS NOTED VERT. SCALE: N/A

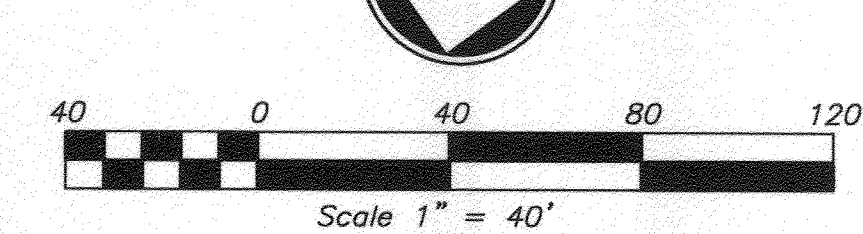
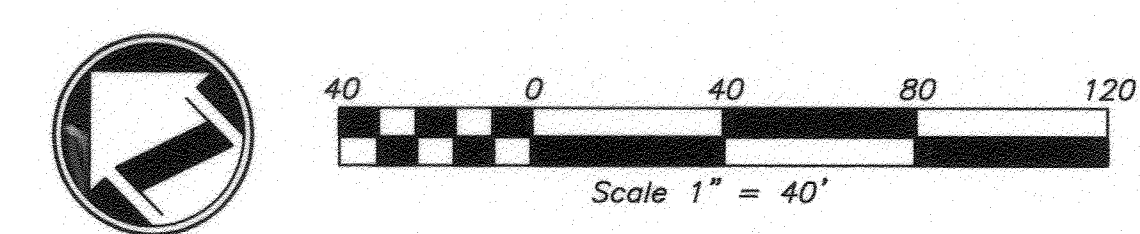
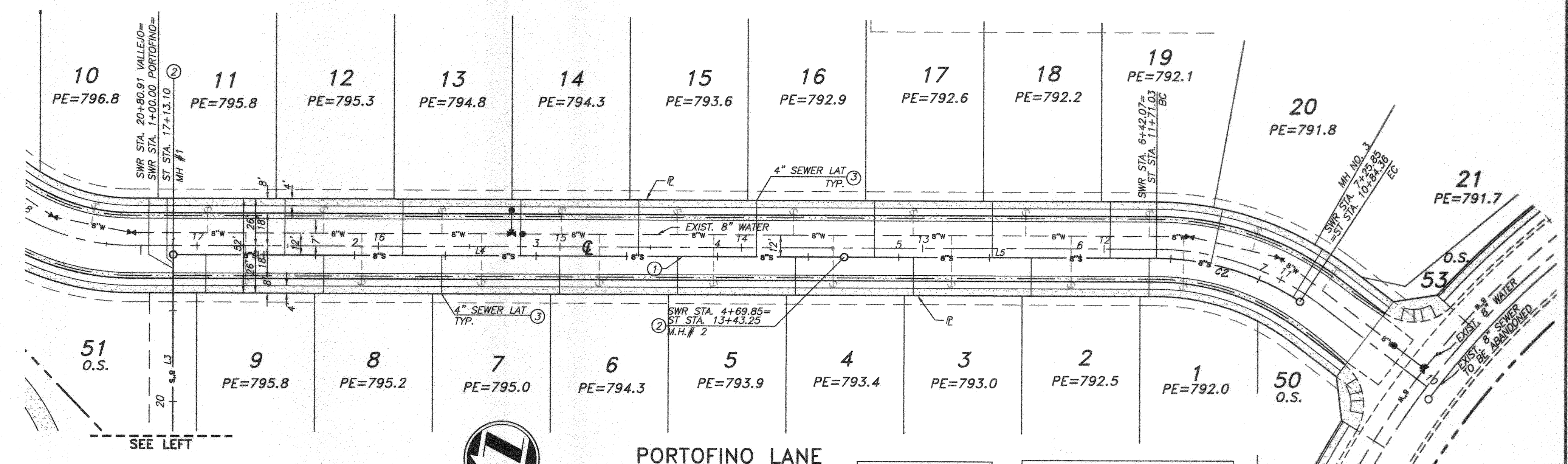
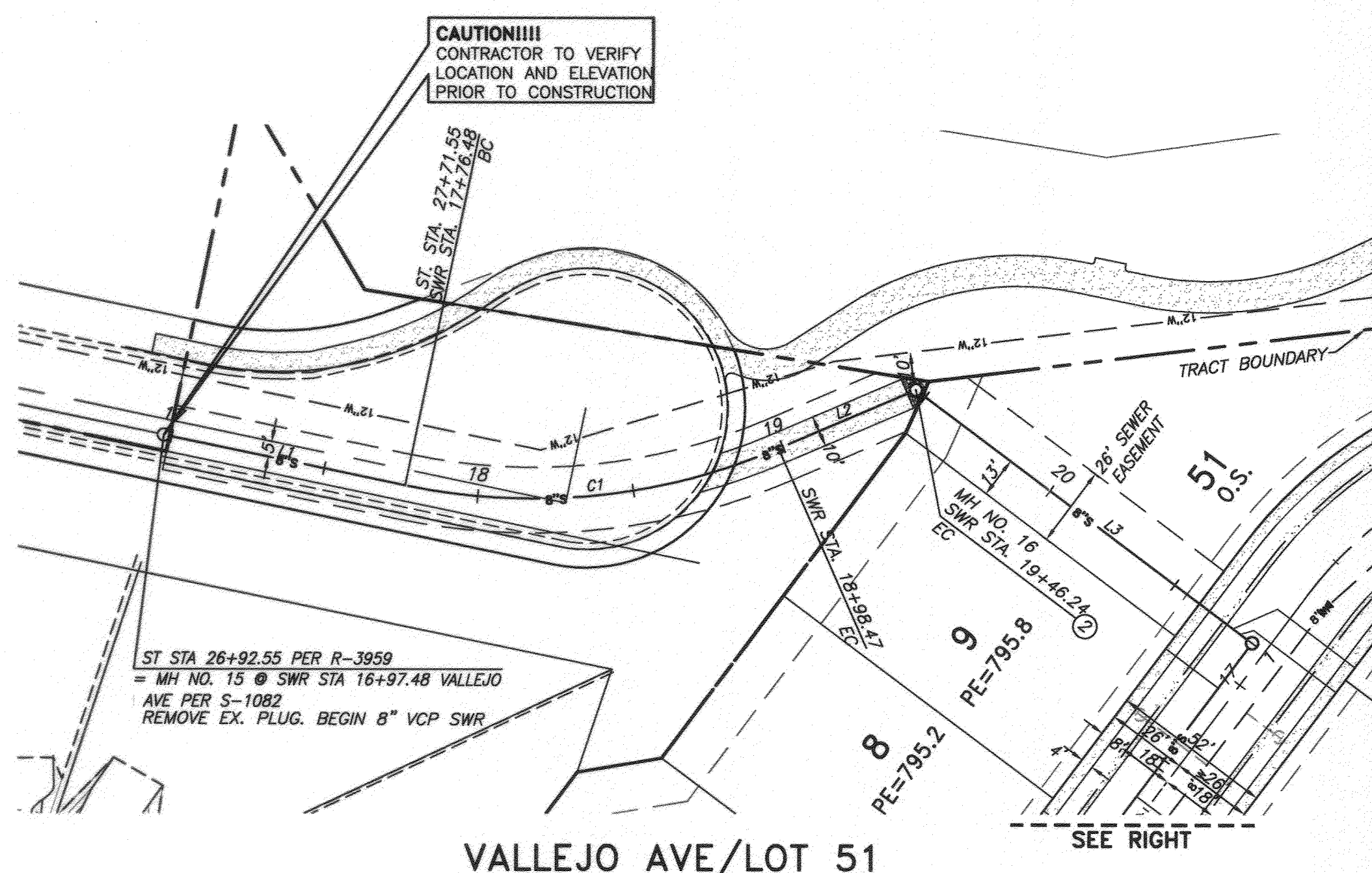
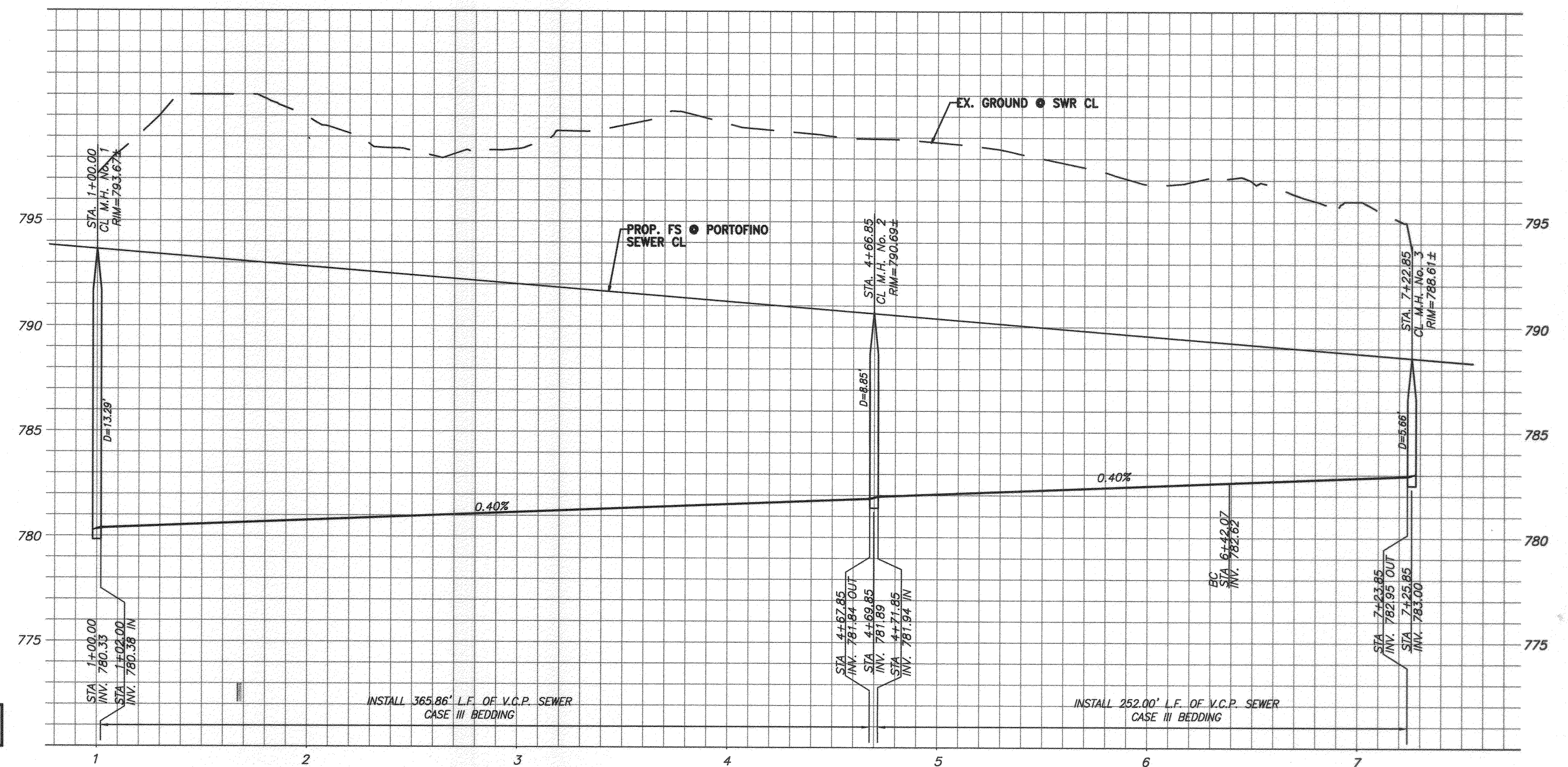
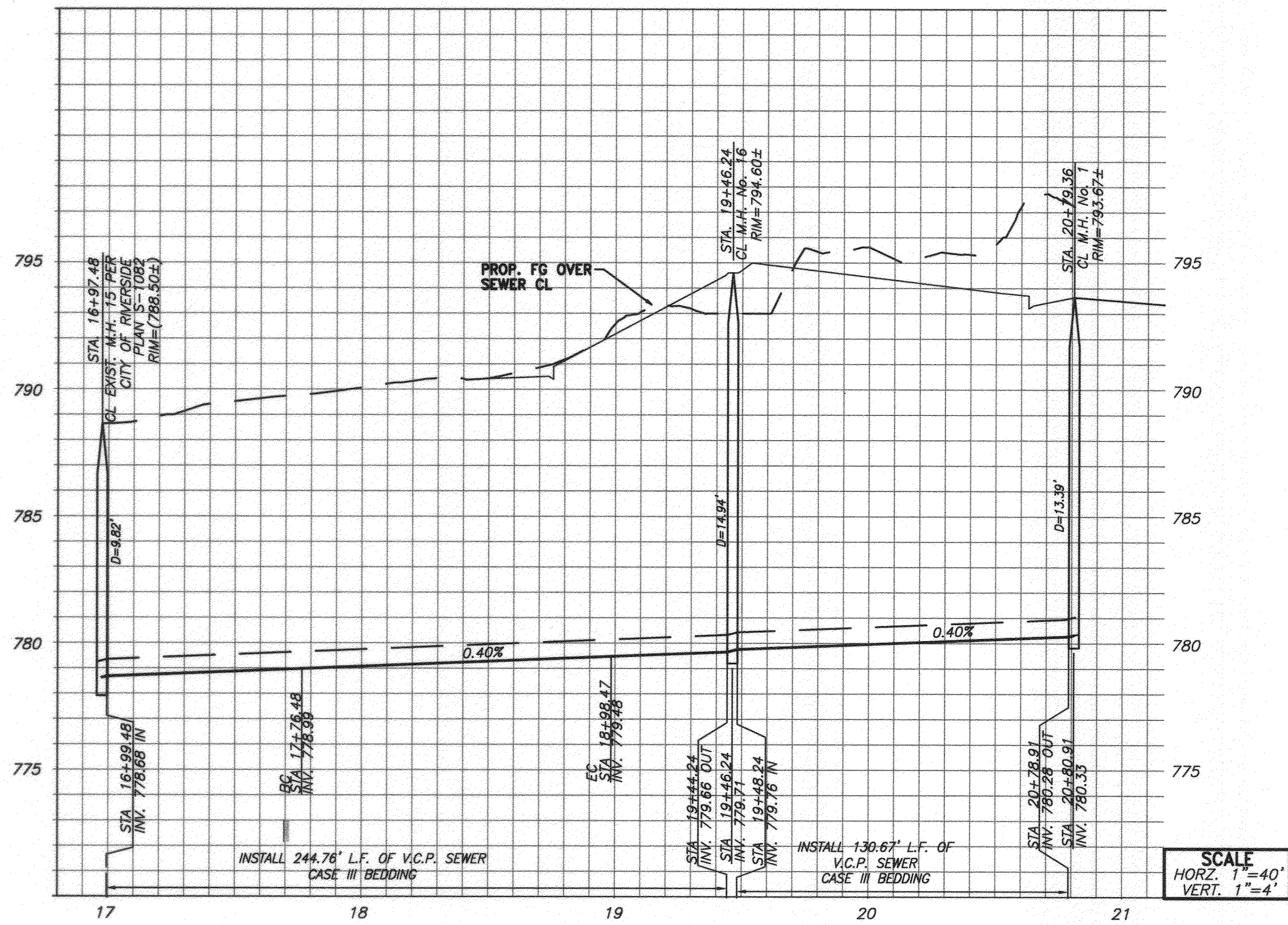
PW11-0320

ACCOUNT NO.

**S-2094**

SHEET **1** OF **5**

J.N. 7874



- CONSTRUCTION NOTES**
- CONSTRUCT 8" V.C.P. SEWER WITH CASE III BEDDING PER CITY STD. DWD. NO. 452
  - CONSTRUCT MANHOLE PER C/RIV. STD. DWG. 500
  - CONSTRUCT 4" V.C.P. SEWER LATERAL WITH C.O. AT R PER C/RIV. STD. DWG. 562

**LINE TABLE**

LINE	LENGTH	DIRECTION
L1	79.00'	S33°37'13"E
L2	47.77'	S68°34'02"E
L3	134.67'	S08°34'56"E
L4	369.85'	S81°25'04"W
L5	172.22'	S81°25'04"W

**CURVE TABLE**

CURVE	LENGTH	RADIUS	DELTA	TAN
C1	120.99'	200.03'	34°39'22"	62.41'
C2	81.79'	145.00'	32°19'02"	42.01'

CITY OF RIVERSIDE BUSINESS TAX ACCT.#058833 EXP.1/1/14

**adkan ENGINEERS**  
Civil Engineering - Surveying - Planning  
6878 Airport Drive, Riverside, CA 92504  
Tel: (951) 888-3241, Fax: (951) 888-0599

**BENCHMARK:** D3-E3  
P.K. NAIL AND CITY ENGINEER TAG IN CONCRETE BASE OF STREET LIGHT, 2 FEET NORTHWESTERLY OF THE NORTHERLY CURB RETURN AT FILLMORE STREET AND ARIZONA AVENUE. FORMERLY D3-D RESET  
ELEVATION: 791.284  
NGVD 1929(TYP)

**CITY OF RIVERSIDE PUBLIC WORKS DEPARTMENT**  
APPROVED BY: [Signature] DATE: 11/13/13  
PRINCIPAL ENGINEER

**SEWER IMPROVEMENT PLANS**  
**TRACT 32772**  
**PORTOFINO LANE & VALLEJO AVE/LOT 51**  
A.P.N. 138-130-016, 138-130-019  
HORIZ. SCALE: VERT. SCALE: J.N. 7874

**PW11-0320**  
ACCOUNT NO.  
**S-2094**  
SHEET **2** OF **5**

DESIGNED BY: CECILIA DRAWN BY: CECILIA CHECKED BY: C-  
DATE: 12/11/2013

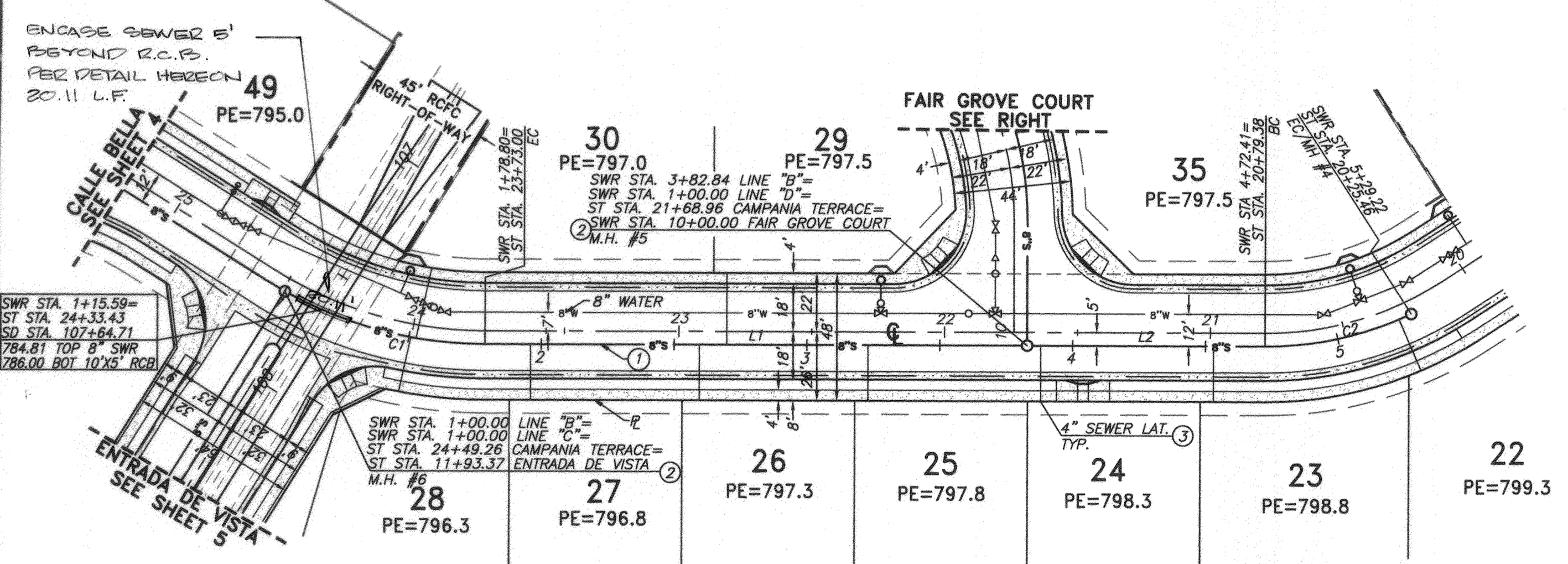
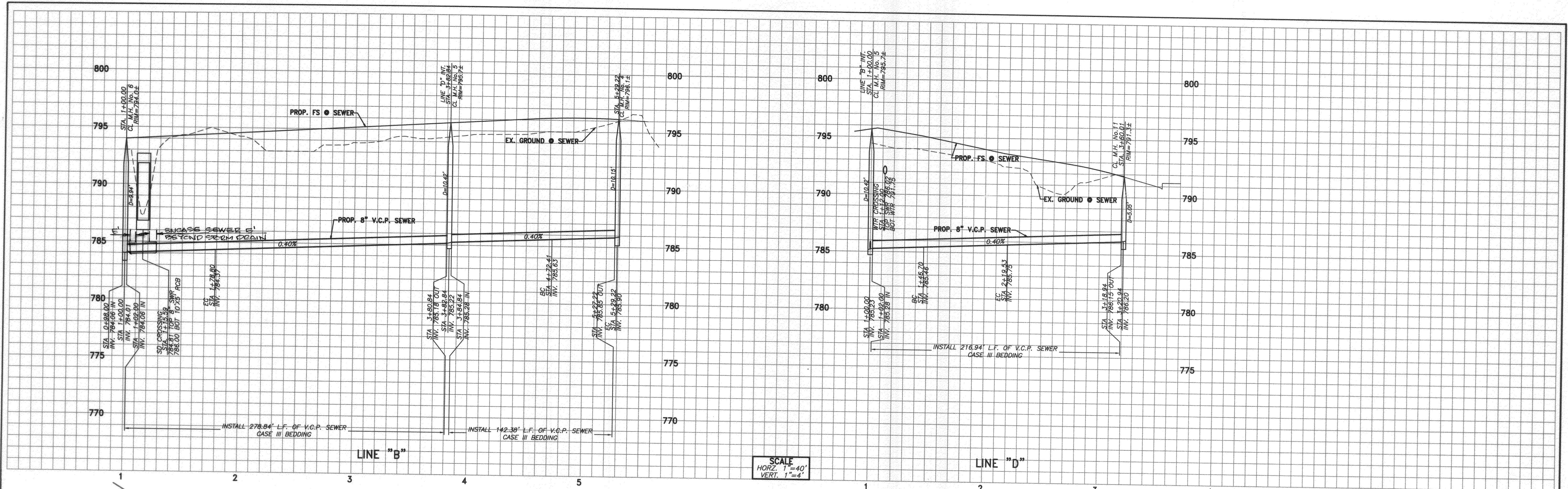
REVIEWED FOR CONFLICTS BY: DATE: 11-1-17

REVIEWED FOR CONFLICTS BY: DATE: 11-1-17

RECEIVED PROFESSIONAL ENGINEER  
MICHAEL JAY ADKIN  
NO. 75731  
EXP. 6-30-14  
CIVIL  
STATE OF CALIFORNIA

**811**  
Know what's below.  
Call before you dig.

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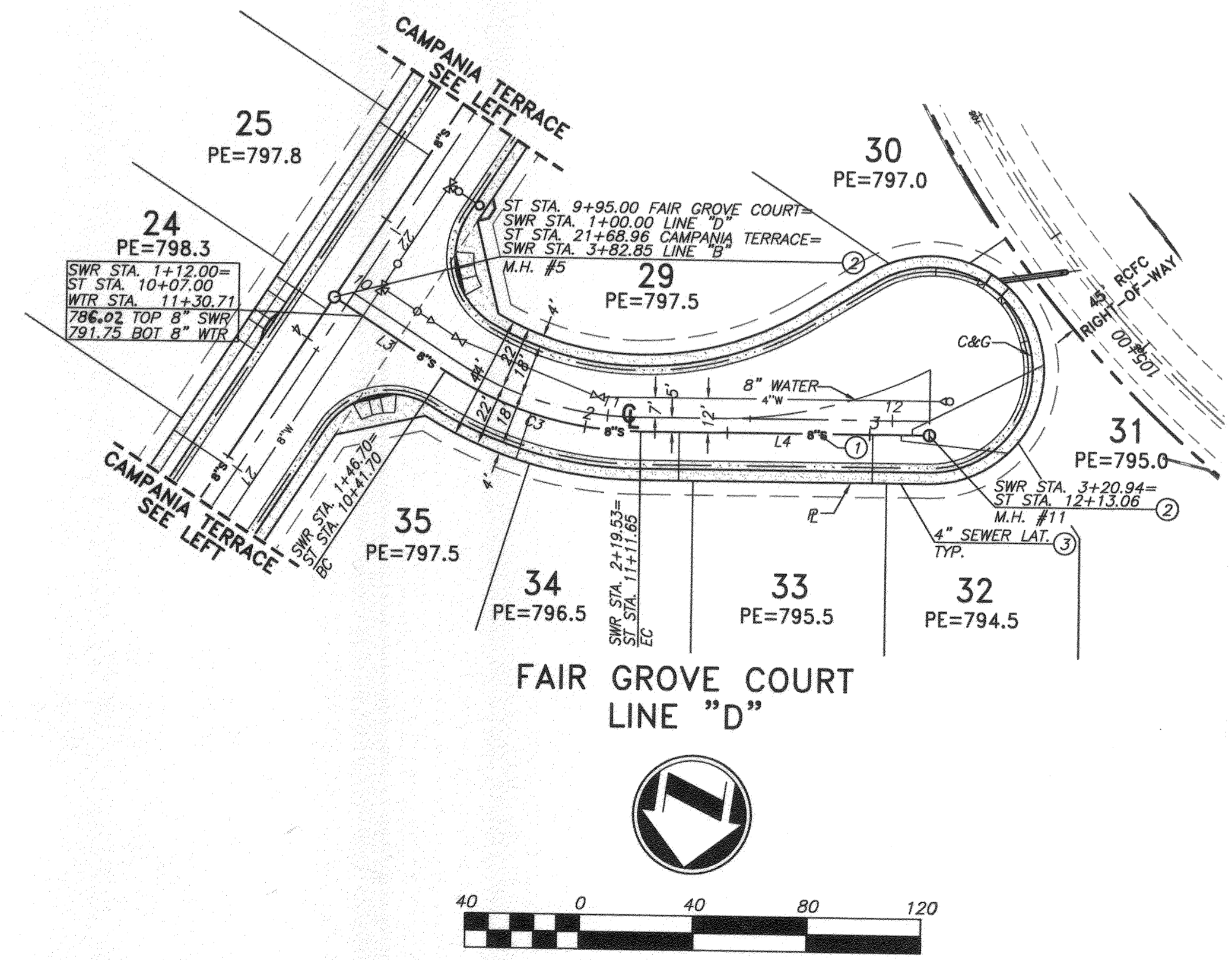
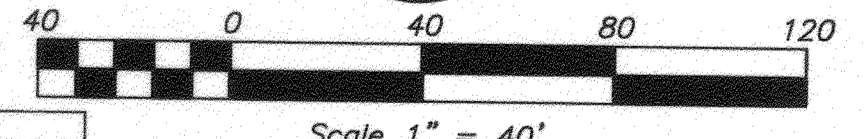


LINE TABLE

LINE	LENGTH	BEARING
L1	204.04	N24°24'49"E
L2	89.57	N24°24'49"E
L3	46.70	N65°35'11"W
L4	101.41	S81°25'04"W

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH	TAN
C1	29°07'45"	155.00	78.80	40.27
C2	25°37'47"	127.00	56.81	28.89
C3	32°51'18"	127.00	72.83	37.44



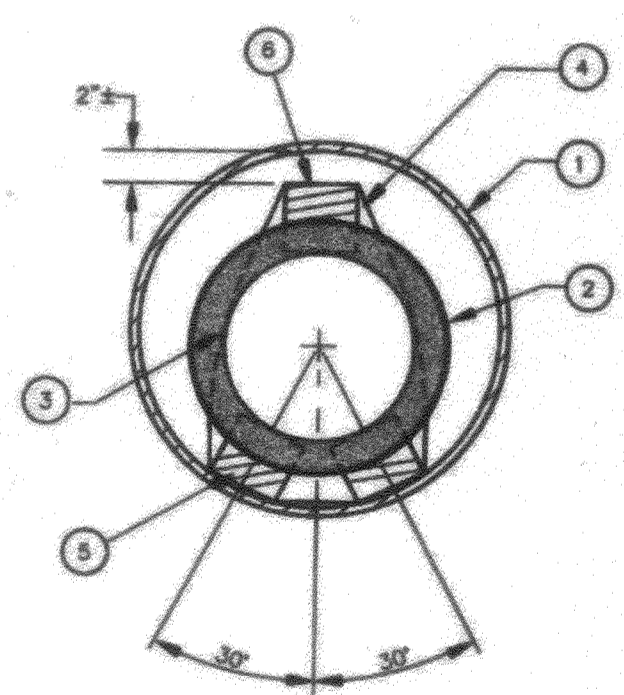
- CONSTRUCTION NOTES**
- CONSTRUCT 8" V.C.P. SEWER WITH CASE III BEDDING PER CITY STD. DWD. NO. 452
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  - CONSTRUCT 4" V.C.P. SEWER LATERAL WITH C.O. AT R PER C/RIV. STD. DWG. 562

STEEL CASING SCHEDULE

V.C.P. SIZE	BELL O.D.	MIN. CASING SIZE, I.D.	MIN. WALL THICKNESS
8"	11"	18"	5/16"
8"	14"	20"	3/8"
10"	16"	24"	3/8"
12"	19"	27"	3/8"
15"	24"	30"	1/2"
18"	27"	36"	1/2"

P.V.C. SIZE	BELL O.D.	MIN. CASING SIZE, I.D.	MIN. WALL THICKNESS
8"	7.1	18"	5/16"
8"	9.5	18"	5/16"
10"	11.9	20"	3/8"
12"	13.9	24"	3/8"
15"	18.0	27"	3/8"
18"	21.8	30"	1/2"

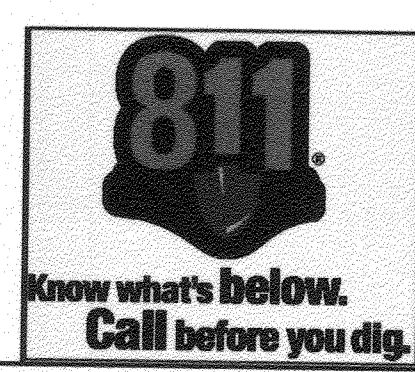
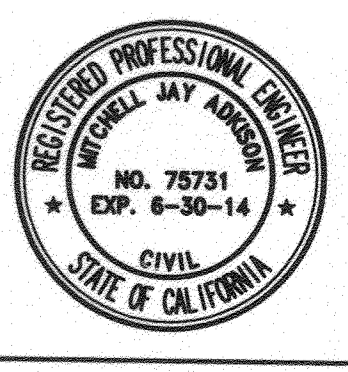


- NOTES**
- CASING SHALL BE INSTALLED BY THE BORE, JACK AND/OR TUNNEL METHOD.
  - SIZE AND THICKNESS OF CASING SHALL BE AS SHOWN IN THE ABOVE TABLE. FOR LONG BORE DISTANCES OR SPECIAL SITUATIONS, GREATER WALL THICKNESSES THAN SHOWN IN THE ABOVE TABLE MAY BE REQUIRED.
  - ALL STEEL CASING PIPE JOINTS SHALL BE FIELD WELDED AROUND THE FULL CIRCUMFERENCE USING A MULTI-PASS, FULL PENETRATION BEVEL WELD.
  - CARRIER PIPE SHALL BE PRESSURE TESTED PRIOR TO SEALING ENDS OF CASING.
  - EACH END OF CASING SHALL BE SEALED WITH APPROVED RUBBER CASING END SEALS.
  - SHOW ALL REQUIREMENTS SHALL BE AS SPECIFIED IN SECTION 306 OF THE MOST CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS STANDARDS, AND PER THE CITY OF RIVERSIDE STD. DWG NO. 453.

**ENCASEMENT DETAIL**

RIVERSIDE PUBLIC UTILITIES - WATER DIVISION  
REVIEWED FOR CONFLICTS BY: DATE

RIVERSIDE PUBLIC UTILITIES DEPT. ELECTRIC - OVERHEAD & UNDERGROUND  
REVIEWED FOR CONFLICTS BY: DATE



PLANS PREPARED BY: **adkan ENGINEERS**  
Civil Engineering - Surveying - Planning  
6879 Airport Drive, Riverside, CA 92504  
Tel: (951) 688-0211, Fax: (951) 688-0599  
Under the Supervision of: *[Signature]* 10-24-15  
Michael Adkan, P.E. 75731 Exp. 06/30/14 Date:

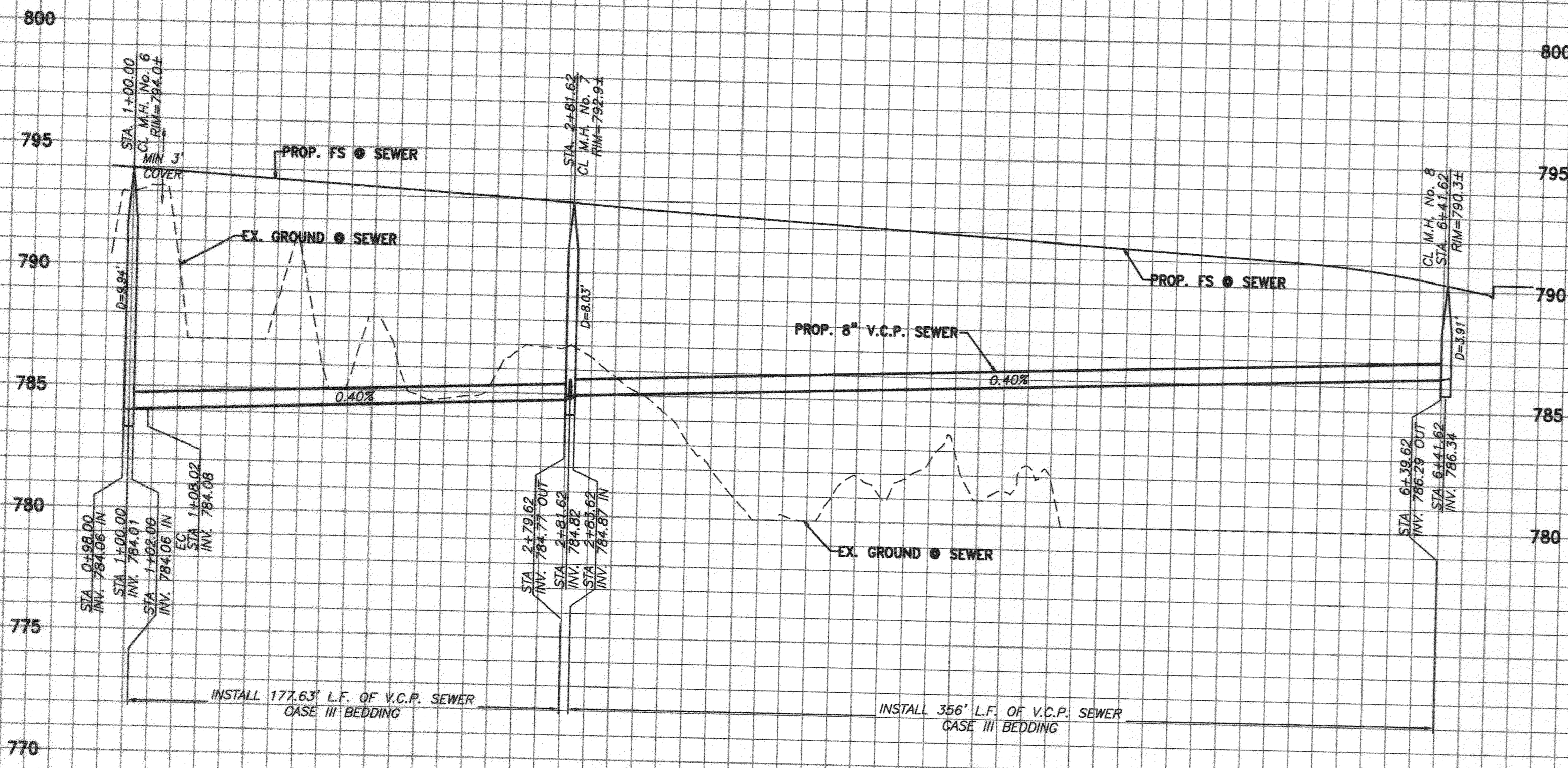
BENCHMARK: D3-E3  
P.K. NAIL AND CITY ENGINEER TAG IN CONCRETE BASE OF STREET LIGHT, 2 FEET NORTHWESTERLY OF THE NORTHERLY CURB RETURN AT FILLMORE STREET AND ARIZONA AVENUE. FORMERLY D3-D RESET ELEVATION: 791.284  
NGVD 1928(TYP)

MARK	REVISIONS	APPR.	DATE

**CITY OF RIVERSIDE PUBLIC WORKS DEPARTMENT**  
APPROVED BY: *[Signature]* DATE: 12/15/15  
PRINCIPAL ENGINEER  
CITY ENGINEER / PW DIRECTOR  
DATE: 12/15/15

**SEWER IMPROVEMENT PLANS**  
**TRACT 32772**  
**CAMPANIA TERRACE & FAIR GROVE COURT LINES "B" & "D"**  
A.P.N. 138-130-016, 138-130-019  
HORIZ. SCALE: VERT. SCALE:

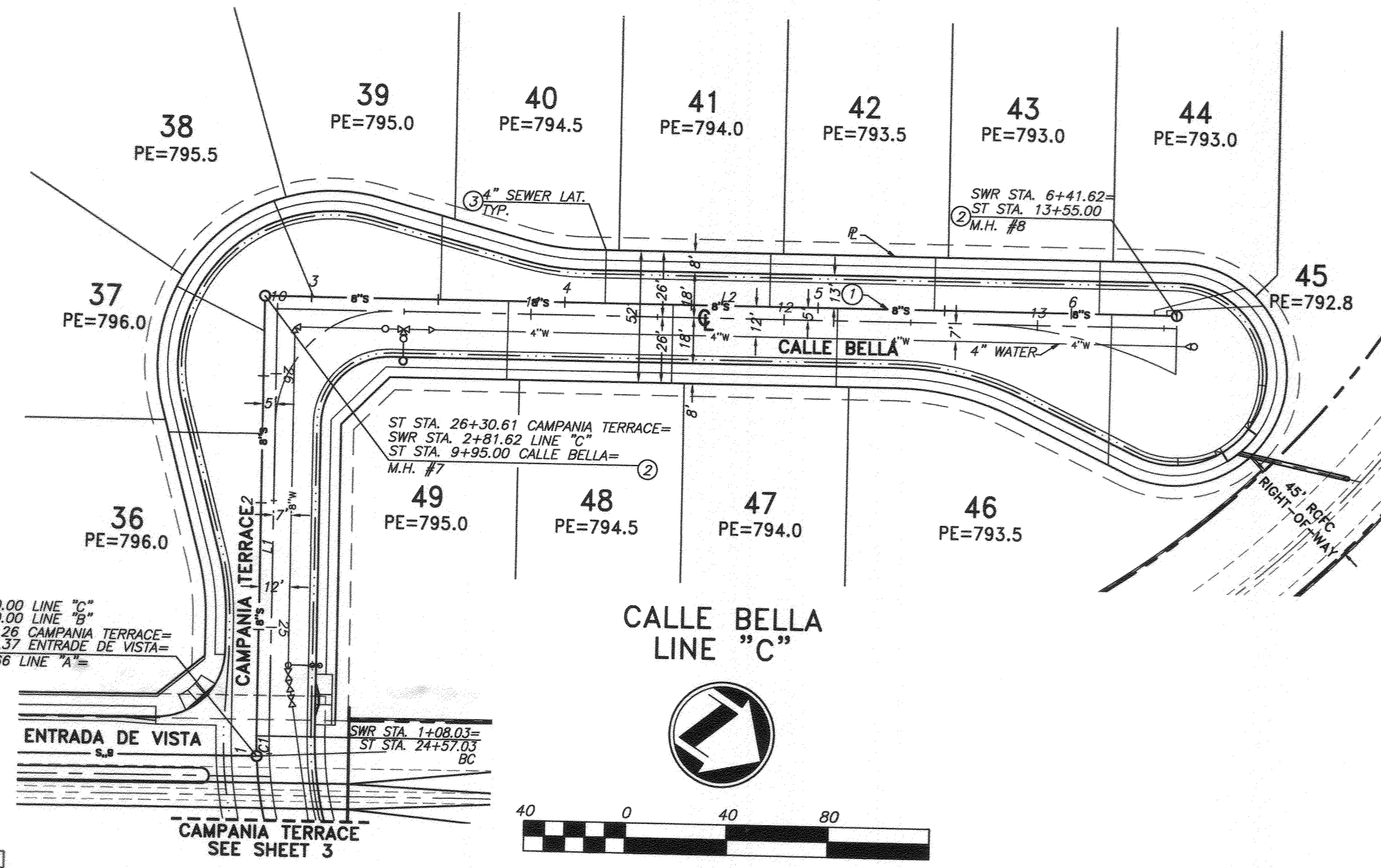
PW11-0320  
ACCOUNT NO.  
**S-2094**  
SHEET **3** OF **5**  
J.N. 7874



SCALE  
 HORZ. 1" = 40'  
 VERT. 1" = 4'

**CONSTRUCTION NOTES**

- ① CONSTRUCT 8" V.C.P. SEWER WITH CASE III BEDDING PER CITY STD. DWD. NO. 452
- ② CONSTRUCT MANHOLE PER C/RIV. STD. DWG. 500
- ③ CONSTRUCT 4" V.C.P. SEWER LATERAL WITH C.O. AT R PER C/RIV. STD. DWG. 562



LINE TABLE

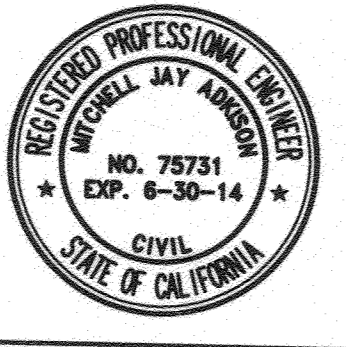
LINE	LENGTH	BEARING
L1	173.59	S56°30'42"W
L2	360.00	N33°20'10"W

CURVE TABLE

CURVE	DELTA	RADIUS	LENGTH	TAN
C1	2°58'08"	153.00	8.03	4.02

RIVERSIDE PUBLIC UTILITIES - WATER DIVISION  
 RIVERSIDE PUBLIC UTILITIES DEPT.  
 ELECTRIC - OVERHEAD & UNDERGROUND

REVIEWED FOR CONFLICTS BY: *[Signature]* DATE: 11-1-13



**adkan ENGINEERS**  
 CIVIL Engineering · Surveying · Planning  
 6679 Airport Drive, Riverside, CA 92504  
 Tel: (951) 688-0221 Fax: (951) 688-0599

Under the Supervision of: *[Signature]* 10-24-13  
 Mitchell Adcock, R.L.C.E. 75731 Exp. 06.30.14 Date:

BENCHMARK: D3-E3  
 P.K. NAIL AND CITY ENGINEER TAG IN  
 CONCRETE BASE OF STREET LIGHT, 2  
 FEET NORTHWESTERLY OF THE  
 NORTHERLY CURB RETURN AT  
 FILLMORE STREET AND ARIZONA  
 AVENUE, FORMERLY D3-D RESET  
 ELEVATION: 791.284  
 NGVD 1929(TYP)

PLANS PREPARED BY: \_\_\_\_\_

MARK	REVISIONS	APPR.	DATE

DESIGNED BY: CECILIA DRAWN BY: CECILIA CHECKED BY: C-

**CITY OF RIVERSIDE**  
 PUBLIC WORKS DEPARTMENT

APPROVED BY: *[Signature]* DATE: 12/11/2013  
 PRINCIPAL ENGINEER

APPROVED BY: *[Signature]*  
 CITY ENGINEER / PW DIRECTOR  
 DATE: 12/11/2013

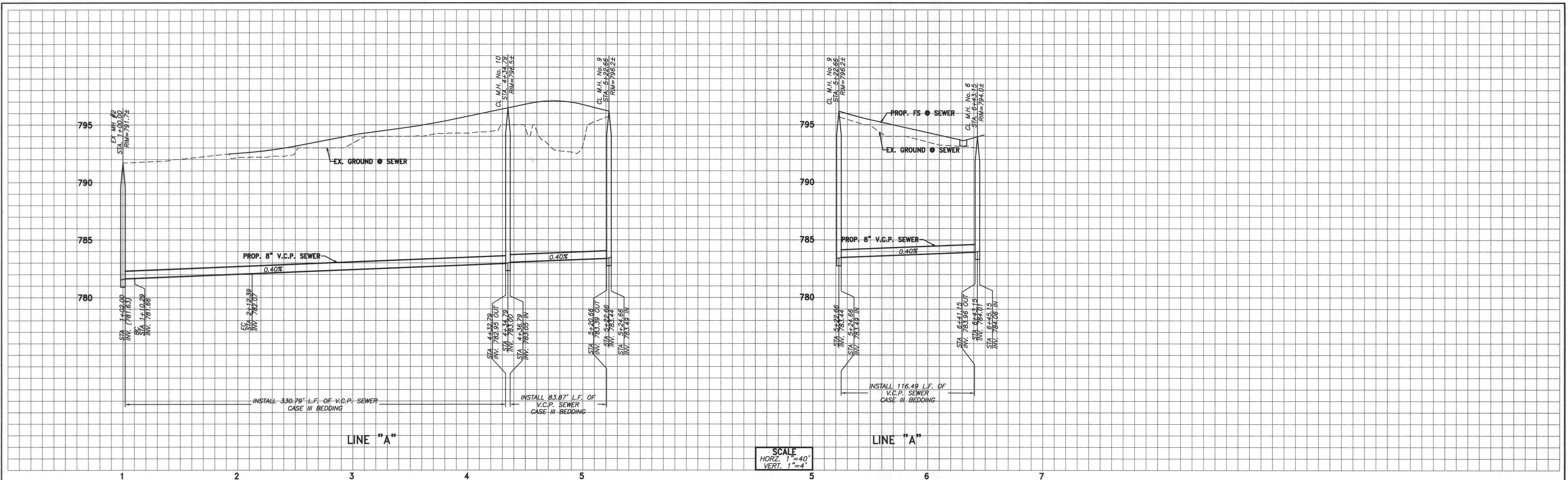
SEWER IMPROVEMENT PLANS  
 TRACT 32772  
 CAMPANIA TERRACE & CALLE BELLA  
 LINE "C"

A.P.N. 138-130-016, 138-130-019  
 HORIZ. SCALE: VERT. SCALE:

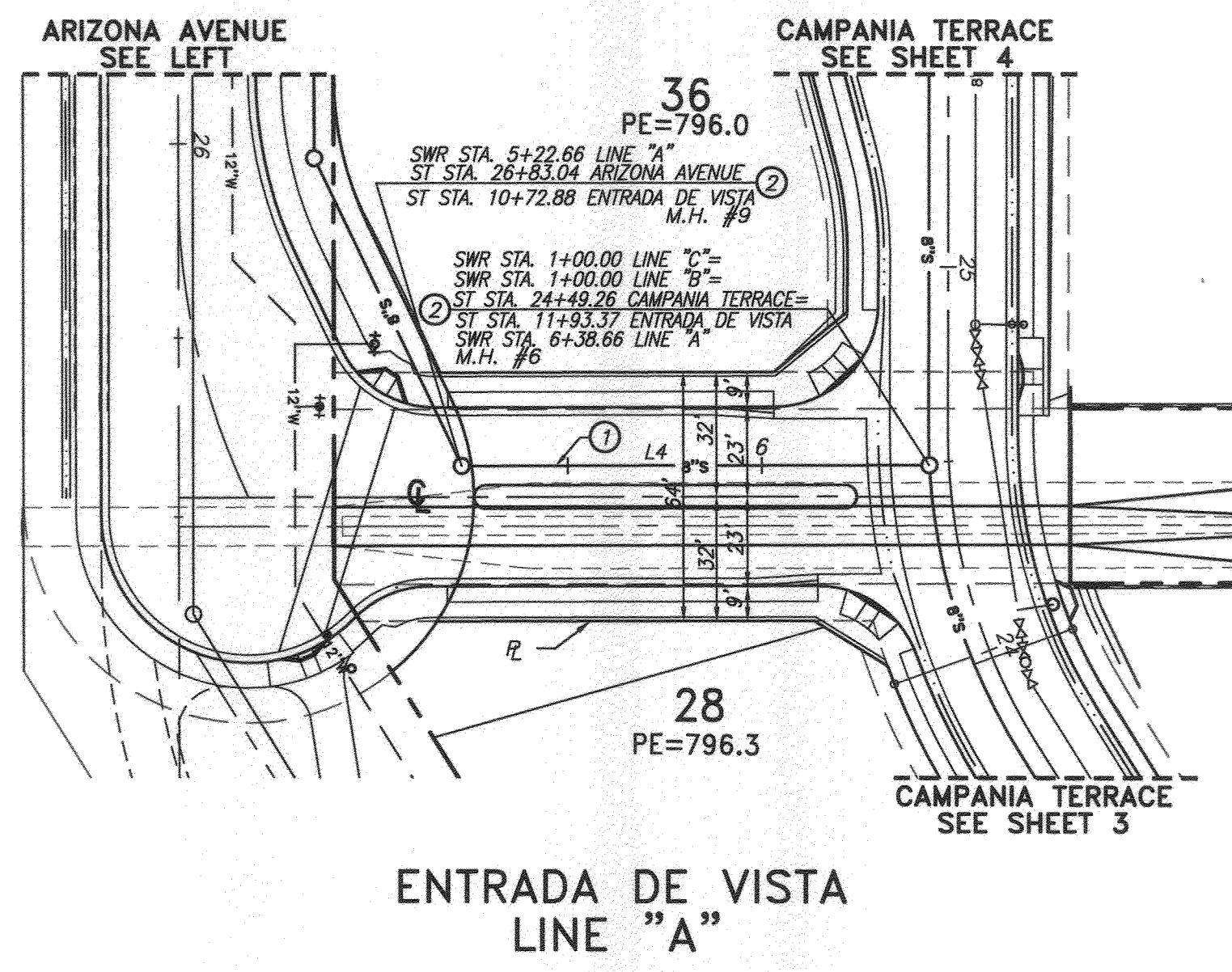
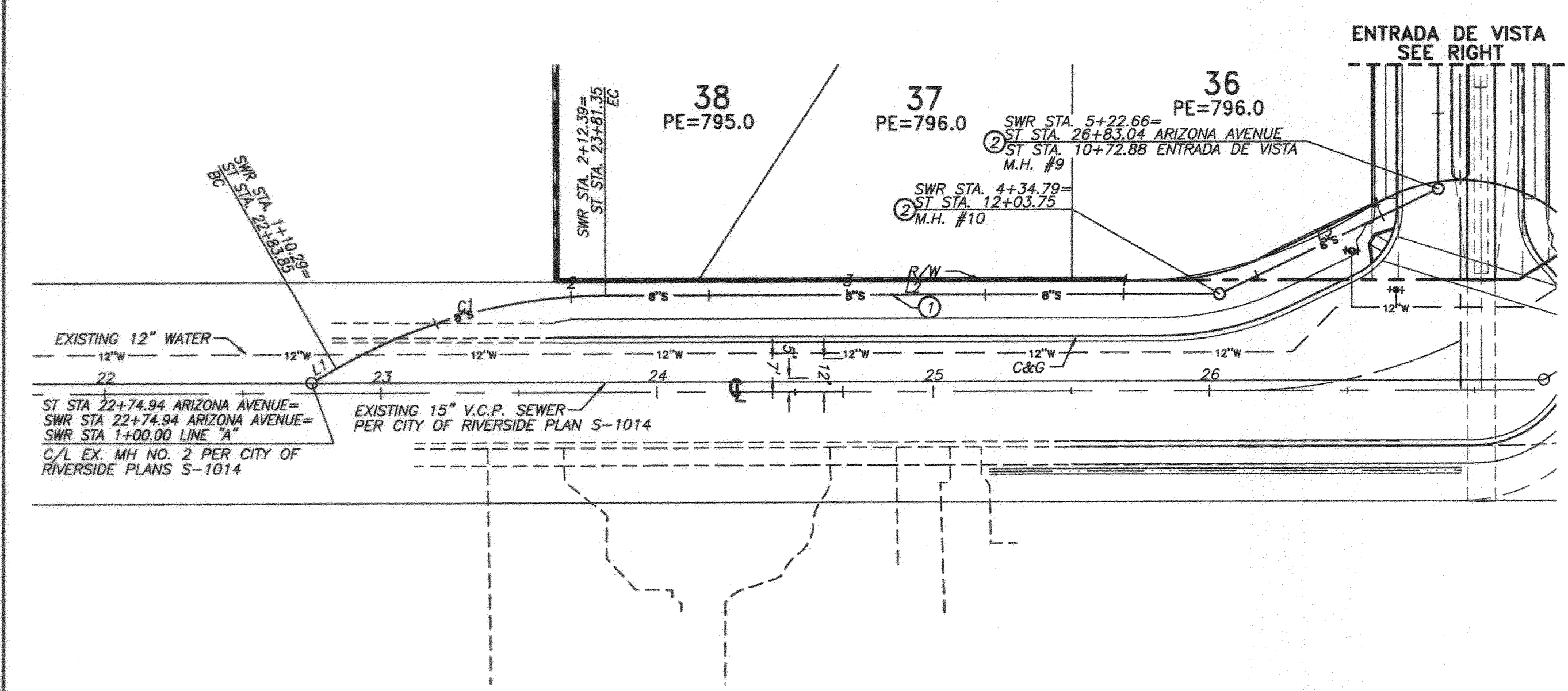
PW11-0320  
 ACCOUNT NO.

S-2094  
 SHEET 4 OF 5

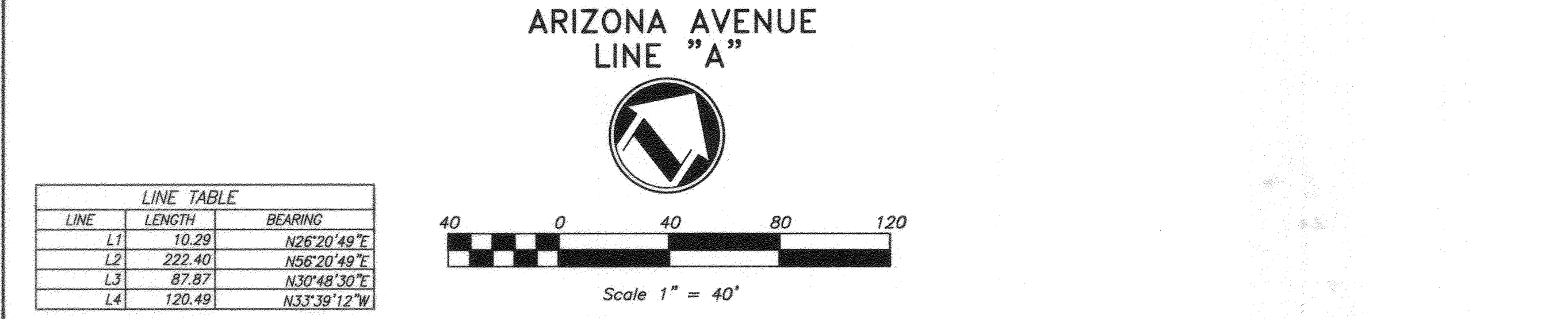
J.N. 7874



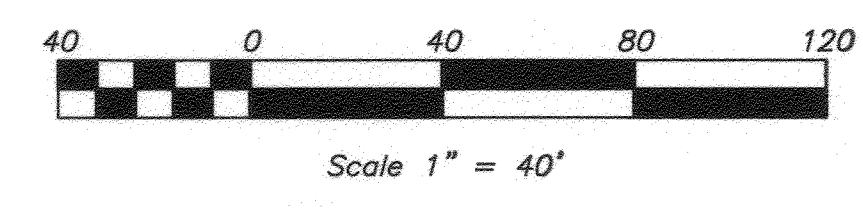
SCALE  
 HORZ. 1" = 40'  
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- CONSTRUCTION NOTES**
- 1 CONSTRUCT 8" V.C.P. SEWER WITH CASE III BEDDING PER CITY STD. DWD. NO. 452
  - 2 CONSTRUCT MANHOLE PER C/RV. STD. DWG. 500
  - 3 CONSTRUCT 4" V.C.P. SEWER LATERAL WITH C.O. AT R PER C/RV. STD. DWG. 562



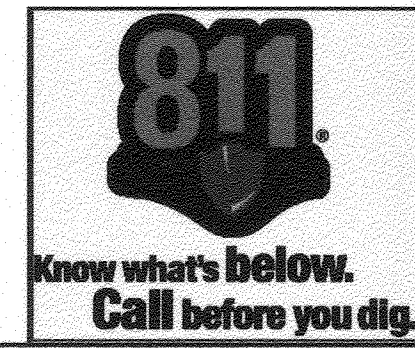
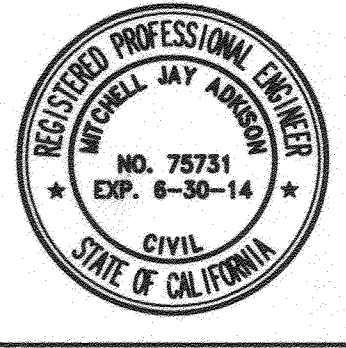
LINE	LENGTH	BEARING
L1	10.29	N26°20'49"E
L2	222.40	N56°20'49"E
L3	87.87	N30°48'30"E
L4	120.49	N33°39'12"W



CURVE	DELTA	RADIUS	LENGTH	TAN
C1	30°00'00"	195.00	102.10	52.25

RIVERSIDE PUBLIC UTILITIES - WATER DIVISION  
 REVIEWED FOR CONFLICTS BY: *[Signature]* DATE: 12/20/13

RIVERSIDE PUBLIC UTILITIES DEPT. ELECTRIC - OVERHEAD & UNDERGROUND  
 REVIEWED FOR CONFLICTS BY: *[Signature]* DATE: 11-1-13



CITY OF RIVERSIDE BUSINESS TAX ACCT. #058833 EXP. 1/1/14  
**adkan ENGINEERS**  
 Civil Engineering - Surveying - Planning  
 6879 Airport Drive, Riverside, CA 92504  
 Tel: (951) 688-0244 · Fax: (951) 688-0599  
 Under the Supervision of: *[Signature]* 10-24-15  
 Michael Addison, R.C.E. 75731 Exp. 06/30/14 Date:

BENCHMARK: D3-E3  
 P.K. NAIL AND CITY ENGINEER TAG IN CONCRETE BASE OF STREET LIGHT, 2 FEET NORTHWESTERLY OF THE NORTHERLY CURB RETURN AT FILLMORE STREET AND ARIZONA AVENUE. FORMERLY D3-D RESET ELEVATION: 791.284 NGVD 1929(TYP)

MARK	REVISIONS	APPR.	DATE

DESIGNED BY: CECILIA DRAWN BY: CECILIA CHECKED BY: C-

**CITY OF RIVERSIDE PUBLIC WORKS DEPARTMENT**  
 APPROVED BY: *[Signature]* DATE: 12/11/13  
 PRINCIPAL ENGINEER  
 APPROVED BY: *[Signature]*  
 CITY ENGINEER/ PW DIRECTOR  
 DATE: 12/11/2013

**SEWER IMPROVEMENT PLANS TRACT 32772 ARIZONA AVENUE & ENTRADA DE VISTA LINE "A"**  
 A.P.N. 138-130-016, 138-130-019  
 HORIZ. SCALE: VERT. SCALE: J.N. 7874

PW11-0320  
 ACCOUNT NO.  
**S-2094**  
 SHEET **5** OF **5**