

GENERAL NOTES

- A PERMIT SHALL BE OBTAINED AND ALL FEES AND DEPOSITS FOR CONSTRUCTION INSPECTION SHALL BE PAID TO THE DEPARTMENT OF PUBLIC WORKS AT THE PERMIT COUNTER, 900 SOUTH FLEMING AVENUE, 8TH FLOOR, PRIOR TO STARTING WORK UNDER THIS CONTRACT. ALSO, ALL OTHER NECESSARY PERMITS, SUCH AS ROAD OCCUPATION PERMITS, MUST BE OBTAINED PRIOR TO STARTING WORK.
- THE CONTRACTOR SHALL CONTACT THE DISTRICT OFFICE LISTED ON THE "APPLICATION FOR STORM DRAIN CONSTRUCTION INSPECTION FORM" TO ARRANGE FOR AN ACCEPTABLE CONSTRUCTION START DATE.
- APPROVAL OF THIS PLAN BY THE COUNTY OF LOS ANGELES DOES NOT CONSTITUTE A REPRESENTATION TO THE ACCURACY OF THE LOCATION OR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY, PIPE OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL SHEETS.
- ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF THE "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION," INCLUDING SUPPLEMENTS AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE DIRECTOR OF PUBLIC WORKS/CITY ENGINEER.
- THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 7-10.4.1 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION IN REGARD TO SAFETY DEVICES.
- ELEVATIONS ARE IN FEET ABOVE U.S.G. & G.S. MEAN SEA DATUM OF 1987, UNLESS OTHERWISE INDICATED.
- NO CONCRETE SHALL BE PLACED UNTIL THE FORMS AND REINFORCING STEEL HAVE BEEN PLACED, INSPECTED AND APPROVED.
- ALL STRUCTURAL CONCRETE SHALL BE PORTLAND CEMENT CONCRETE WITH AN ULTIMATE 28 DAY COMPRESSIVE STRENGTH OF 3000 P.S.I. UNLESS OTHERWISE NOTED.
- TRANSVERSE REINFORCEMENT AND TRANSVERSE JOINTS SHALL BE PLACED AT RIGHT ANGLES (OR RADIAL) TO THE CONDUIT CENTERLINE 2" DEPT AS OTHERWISE SHOWN ON THE DRAWINGS.
- ALL STEEL ADJACENT TO FACE OF CONCRETE SHALL HAVE A 1/2" INCH CLEARANCE UNLESS OTHERWISE SPECIFIED.
- REINFORCEMENT SHALL BE DEFORMED BARS OF INTERMEDIATE GRADE STEEL PER A.S.T.M. A-615-GRADE 60.
- ALL BAR BENDS AND HOOKS SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE "MANUAL OF STANDARD PRACTICE."
- DIMENSIONS FROM FACE OF CONCRETE TO CENTER 1/2" OF STEEL UNLESS OTHERWISE NOTED.
- ALL STEEL THAT IS TO BE CONTINUOUS SHALL HAVE A MINIMUM LAP OF 30 BAR DIAMETERS OR 18" WHICHEVER IS GREATER.
- ALL CONSTRUCTION JOINTS IN THE FOOTING OR SLABS AND WALLS SHALL BE IN THE SAME PLANE. NO STAGGERING OF JOINTS WILL BE PERMITTED.
- ALL EXPOSED EDGES SHALL BE FINISHED WITH A 3/4" CHAMFER.
- UNLESS OTHERWISE SHOWN, CONCRETE DIMENSIONS SHALL BE MEASURED VERTICALLY OR HORIZONTALLY AND PARALLEL OR AT RIGHT ANGLES (OR RADIAL) TO THE CENTER LINE OF CONSTRUCTION.
- CONCRETE BACKFILL IS REQUIRED WHEN THE PIPE HAS LESS THAN ONE FOOT OF COVER. THE CONCRETE BACKFILL SHALL CONSIST OF 1:3:5 MIX, PORTLAND CEMENT CONCRETE POLISHED FROM WALL TO WALL OF TRENCH AND FROM BOTTOM OF TRENCH TO A MINIMUM OF 4 INCHES OVER THE TOP OF THE PIPE.
- ALL PIPES SHALL BE PLACED IN TRENCH IN NATURAL GROUND AND/OR COMPACTED FILL. THE GROUND LEVEL BEFORE THE TRENCHING SHALL BE AT LEAST 3 FEET ABOVE THE TOP OF THE PIPE ELEVATION, OR AT FINISH SURFACE ELEVATION WHICHEVER IS LESS.
- ALL BACKFILL AND FILLS OUTSIDE OF STREET RIGHT OF WAY SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM SOIL COMPACTION TEST D 1557-78 METHOD "C" UNLESS OTHERWISE SPECIFIED. THIS SHALL BE CERTIFIED BY A GEOTECHNICAL ENGINEER. THIS CERTIFICATION SHALL BE SUBMITTED TO THE CITY ENGINEER PRIOR TO ACCEPTANCE OF THE WORK BY THE COUNTY.
- ALL BACKFILL AND FILLS WITHIN STREET RIGHTS OF WAY SHALL BE COMPACTED IN ACCORDANCE WITH CITY REQUIREMENTS UNLESS OTHERWISE NOTED AND INSPECTED BY THE CITY. THE SOIL COMPACTION SHALL BE CERTIFIED BY A GEOTECHNICAL ENGINEER.
- PIPE BEDDING SHALL BE:
 - ACCORDING TO STANDARD DRAWING NO. 2-D177, CASE B, EXCEPT BELL AND SPIGOT PIPE WHICH SHALL BE CASE B BEDDING UNLESS OTHERWISE SHOWN. "W" VALUES SHALL BE AS SPECIFIED ON STANDARD DRAWING NO. 2-D177 FOR CASE B BEDDING, NOTES 3 (A), 3 (B), AND 3 (C). IF THE "W" VALUE AT THE TIP OF THE PIPE IS EXCEEDED, THE BEDDING SHALL BE MODIFIED, AND/OR PIPE OF ADDITIONAL STRENGTH SHALL BE PROVIDED. THE PROPOSED MODIFICATION SHALL BE APPROVED BY THE DEPARTMENT.
- PIPE SHALL BE EMBEDDED 5 INCHES INTO ALL STRUCTURES INCLUDING INLET AND HEADWALLS, UNLESS OTHERWISE SPECIFIED.
- UNLESS OTHERWISE SPECIFIED IN THE PROFILE ON THESE PLANS, THE PIPE SHALL BE MANUFACTURED WITH A MINIMUM CONCRETE COVER OVER THE STEEL IN THE EVENT OF 0.75 INCHES FOR RCP UP TO 96 INCHES IN DIAMETER AND 2.25 INCHES FOR PIPE GREATER THAN 96 INCHES DIAMETER.
- ALL CATCH BASINS WITHIN THE DEDICATED STREET RIGHT-OF-WAY SHALL BE CONSTRUCTED PER STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION.
- THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTAL DRAINAGE PLAN, DESIGNED BY A CIVIL ENGINEER AND SHALL PROVIDE TO THE SATISFACTION OF THE CITY ENGINEER. A SYSTEM OF DISTRIBUTORY DRAINAGE TO BE OPERABLE AT ALL TIMES UNTIL THIS STORM DRAIN SYSTEM IS ACCEPTED.
- ALL REFERENCES ON THIS PLAN TO THE COUNTY ENGINEER, ROAD DEPARTMENT, OR FLOOD CONTROL DISTRICT SHALL APPLY TO THE APPROPRIATE ELEMENTS OF THE DEPARTMENT OF PUBLIC WORKS.
- EXISTING UTILITIES SHALL BE MAINTAINED IN PLACE BY THE CONTRACTOR, UNLESS OTHERWISE NOTED.
- WHERE THE UTILITIES ARE INDICATED ON THE DRAWINGS TO BE SUPPORTED, SLD SUPPORTS SHALL BE IN ACCORDANCE WITH STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION NO. 224 UNLESS OTHERWISE INDICATED.
- ALL OPENINGS RESULTING FROM THE CUTTING OR PARTIAL REMOVAL OF EXISTING CURBS, PIPES OR SIMILAR STRUCTURES SHALL BE SEALED WITH 6 INCHES OF BRICK AND MORTAR OR 6 INCHES OF CONCRETE, UNLESS OTHERWISE SHOWN.
- MANHOLES NO. 1, 2, 3, AND 4, SHALL USE THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION NO. 430 FOR THE FRAME AND COVER AND NO. 538 FOR THE STANDARD DROP STEP.
- THIS STORM DRAIN WILL NOT BE ACCEPTED FOR MAINTENANCE UNTIL THE STREETS HAVE BEEN PAVED, MANHOLES BROUGHT TO GRADE AND THE SYSTEM CLEANED TO THE SATISFACTION OF THE DIRECTOR OF PUBLIC WORKS.
- THE LATEST REVISED STANDARD PLAN OR DRAWING SHALL BE USED UNLESS OTHERWISE SPECIFICALLY NOTED.
- ALL TRENCH REPAIR SHALL BE PER WALNUT STD. W-6-907.

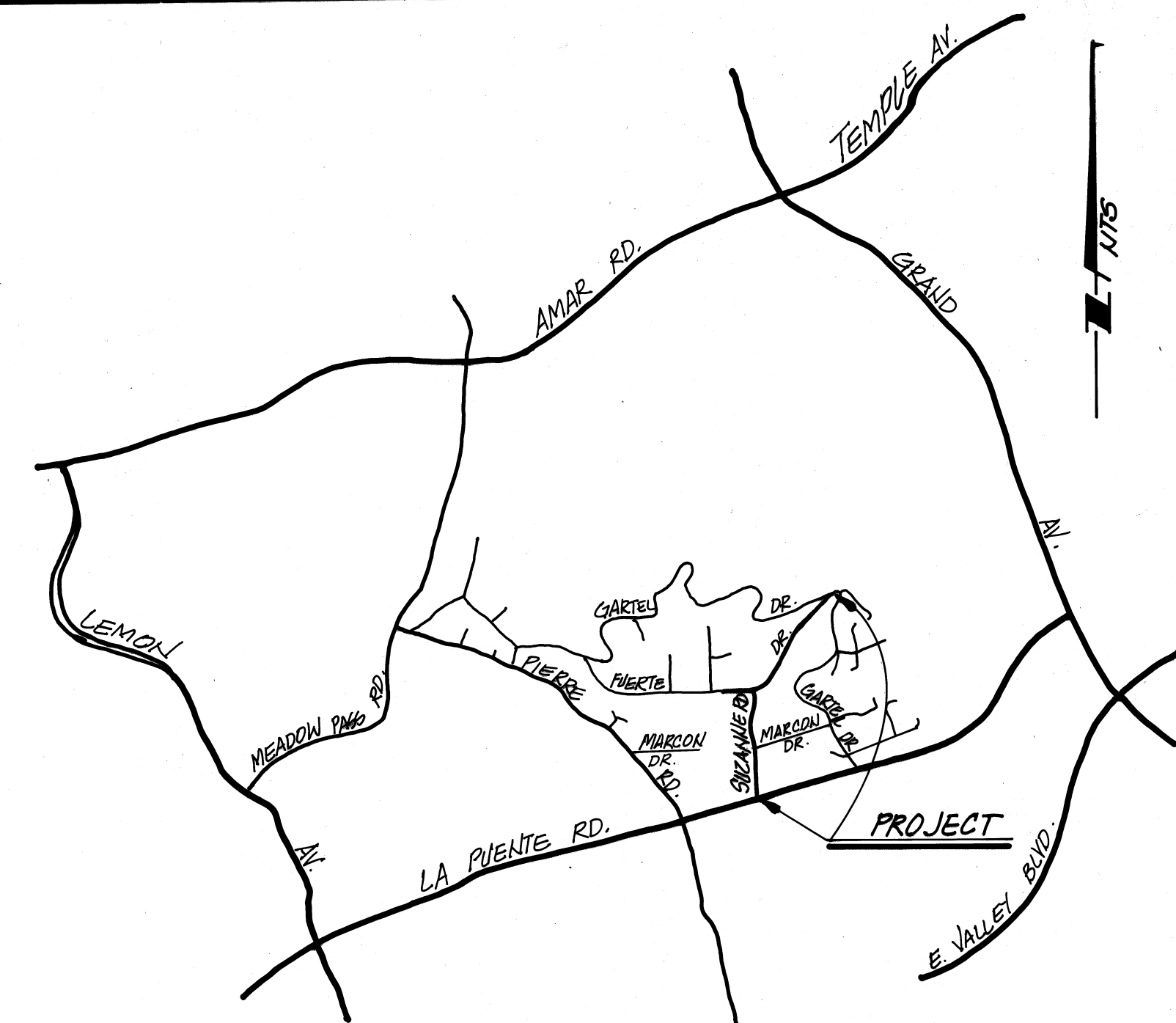
CITY OF WALNUT

SUZANNE ROAD STORM DRAIN

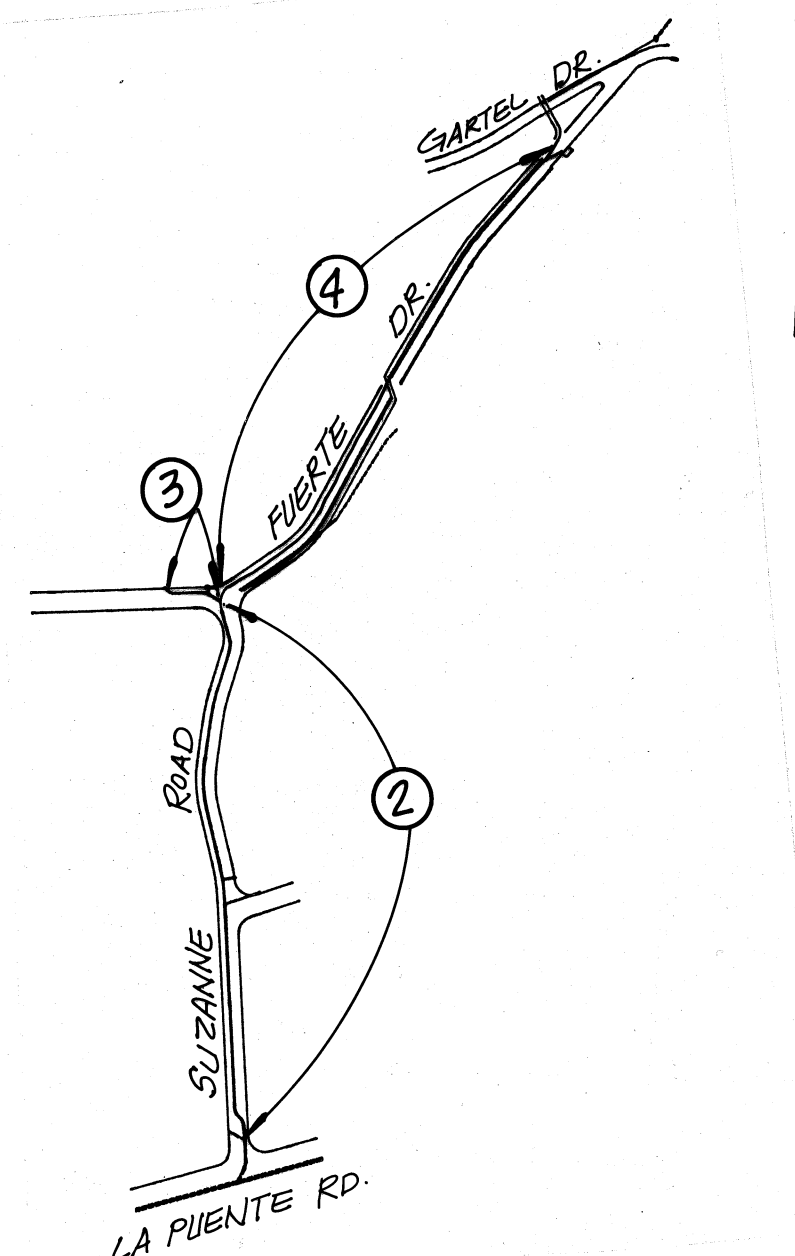
LIST OF STANDARD PLANS

CATCH BASIN, INLETS, AND APPURTENANCES		
APWA	300-0	Catch Basin
APWA	312-1	Manhole Frame and Cover
APWA	311-0	Frame and Grating*
APWA	310-0	Protection Bar
APWA	309-0	Reinforcement
LACFCO	2-D157	Reinforcement Around Manhole
APWA	308-0	Connections for Pipes 12 inches Through 72 inches
		Side Opening Detail
		Outlet Transition Structure
LACFCO	2-D256	Adjustable Protection Bar Stirrup
LACFCO	2-D264	Local Depression
APWA	313-0	
MANHOLES		
LACDPW	3020-0	Manhole No. 1 (Pipes, 33" or smaller)
LACDPW	3029-0	Manhole Shaft
MISCELLANEOUS		
LACDPW	3088-0	Concrete Collar
LACFCO	2-D171	Standard A-615 Reinforcing Bars
APWA	224-0	Pipe Support Across Trenches
LACFCO	2-D177	Pipe Bedding in Trenches
APWA	635-0	Standard Drop Step
APWA	630-1	Frame and Cover
APWA	255-0	Blanket Protection for Pipes

*SHALL HAVE A STANDARD WASHER AT EACH END OF THE TWO OUTSIDE 1/2" X 25 3/8" STEEL RODS IN ADDITION TO THE NUTS ON EACH END.



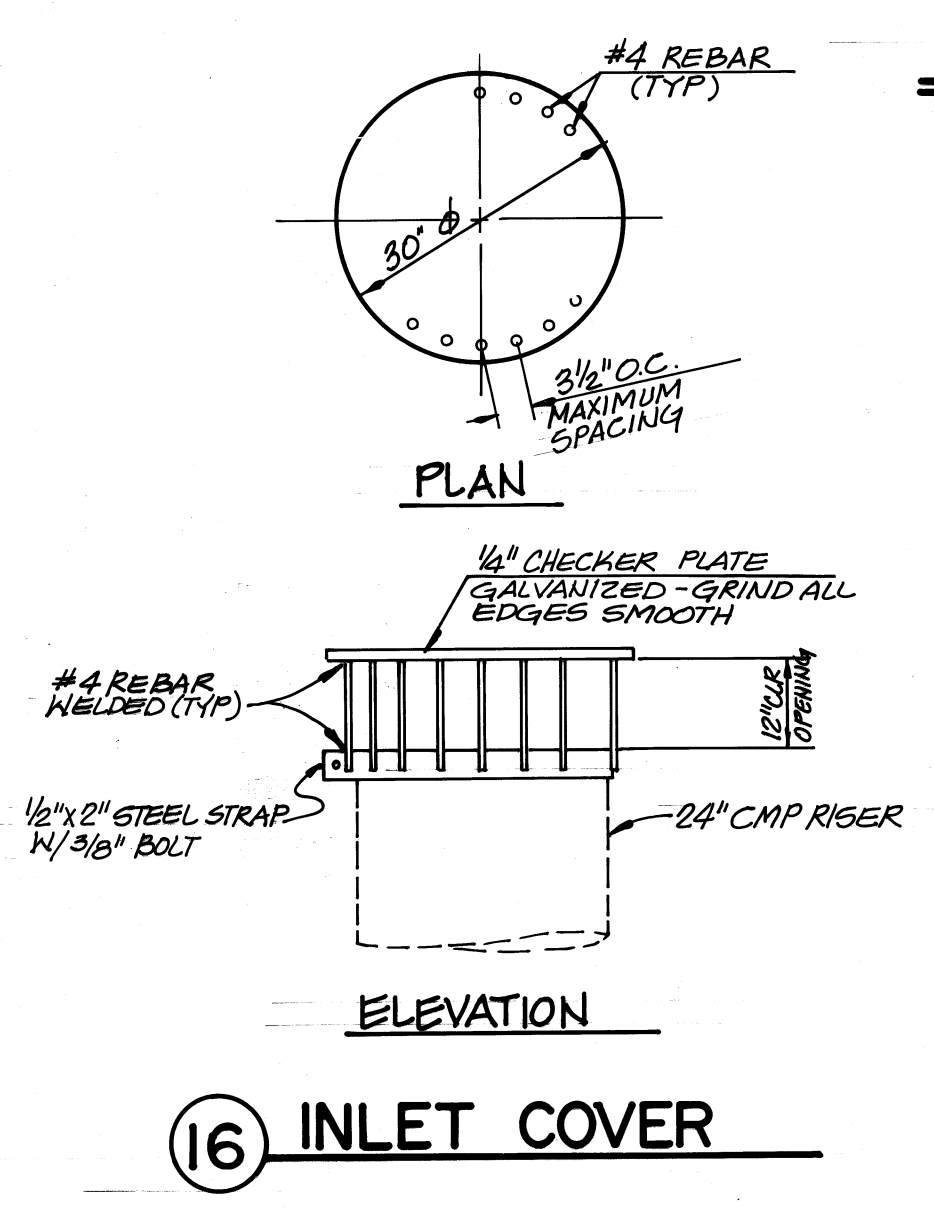
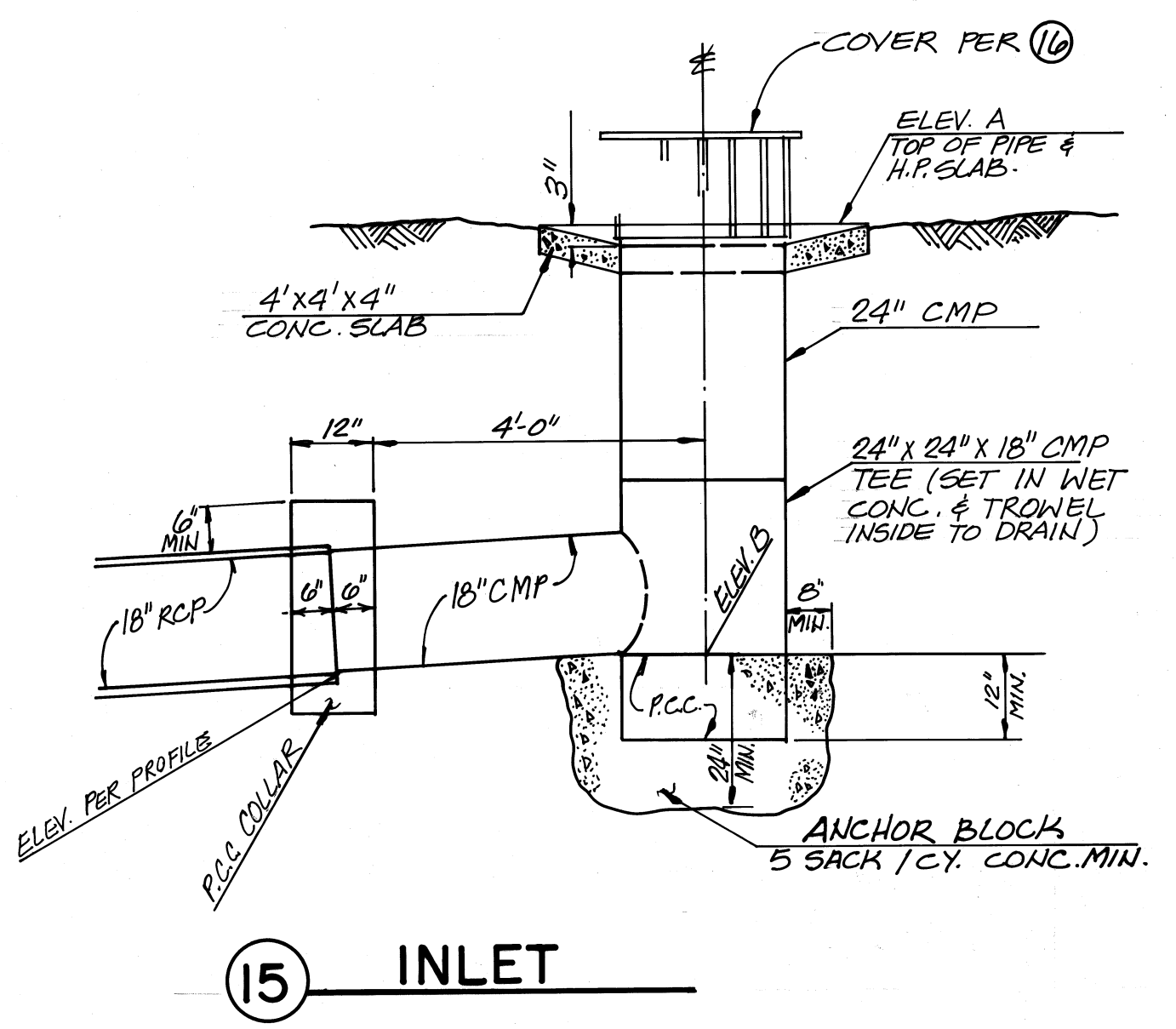
VICINITY MAP
N.T.S. T.G. 639-G6



○ DENOTES SHEET NO.
LOCATION MAP

CONSTRUCTION NOTES

1	CONST. 30" RCP D-LOAD PER PLAN	2,225 LF
2	CONST. 24" RCP D-LOAD PER PLAN	275 LF
3	CONST. 18" RCP D-LOAD PER PLAN	185 LF
4	CONST. CATCH BASIN PER A.P.W.A. STD. 300-0, W. PER PLAN	5 EA
5	CONST. LOCAL DEPRESSION TYPE E PER A.P.W.A. STD. 313-0.	5 EA
6	REMOVE BRICK & MORTAR PLUG.	LS
7	CONST. CATCH BASIN ENTRANCE MODIFICATION PER LAC.D.R.W. STD. 3014-D T=3.0	1 EA
8	CONST. MANHOLE NO. 1 PER L.A.C.D.R.W. STD. 3020.	13 EA.
9	CONST. CONCRETE COLLAR PER L.A.C.D.R.W. STD. 3088-0.	1 EA.
10	REMOVE EXISTING CATCH BASIN & P.V.C. LOW FLOW DISCHARGE PIPE.	LS
11	CONST. MODIFIED MANHOLE NO. 1 (NO MANHOLE SHAFT) PER L.A.C.D.R.W. STD. 3020	4 EA
12	SAWCUT & REMOVE EXIST. CONCRETE CURB AND GUTTER.	LS
13	SAWCUT & REMOVE EXIST. CONCRETE CROSS GUTTER.	LS
14	SAWCUT & REMOVE EXIST. CONCRETE SIDEWALK.	LS
15	CONST. RISER-TYPE INLET PER DETAIL SHT. 1.	2 EA
16	INSTALL INLET COVER PER DETAIL SHT. 1	2 EA
17	CONST. CATCH BASIN PER A.P.W.A. STD. 304-D W. PER PLAN.	1 EA



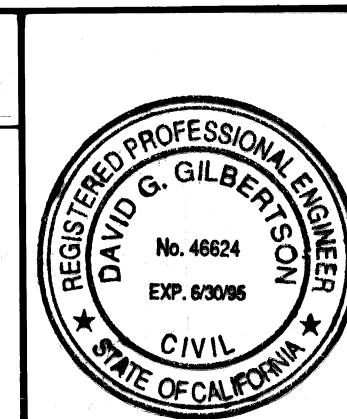
NOTE: THIS DRAIN IS TO BE MAINTAINED BY THE CITY OF WALNUT.

PRIVATE ENGINEER'S NOTICE TO CONTRACTOR:
CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.
THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THIS PLAN ARE OBTAINED BY A SEARCH OF AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN AND ANY OTHER LINES OR STRUCTURES NOT SHOWN ON THESE PLANS.

APPROVED BY:
CITY OF WALNUT
Jack G. Istik 7/21/97
JACK G. ISTIK RCE 26558 DEPUTY CITY ENGINEER DATE

IMPORTANT NOTICE
Section 4216/4217 of the Government Code requires a Dig Alert Identification Number be issued before a "Permit to Excavate" will be valid. For your Dig Alert I.D. Number Call Underground Service Alert TOLL FREE 1-800-422-4133 Two working days before you dig

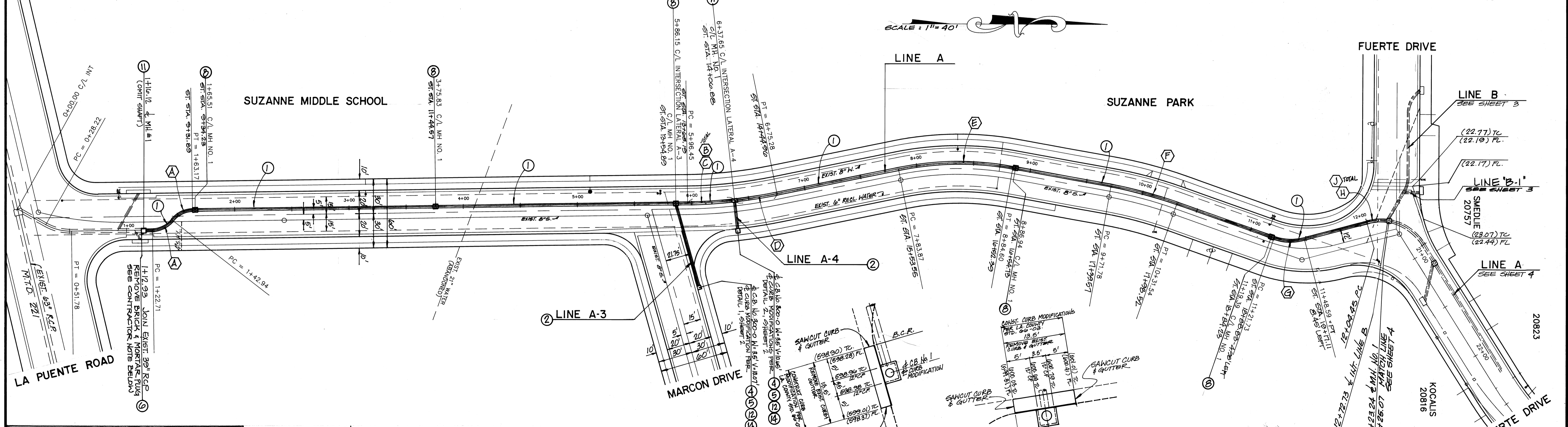
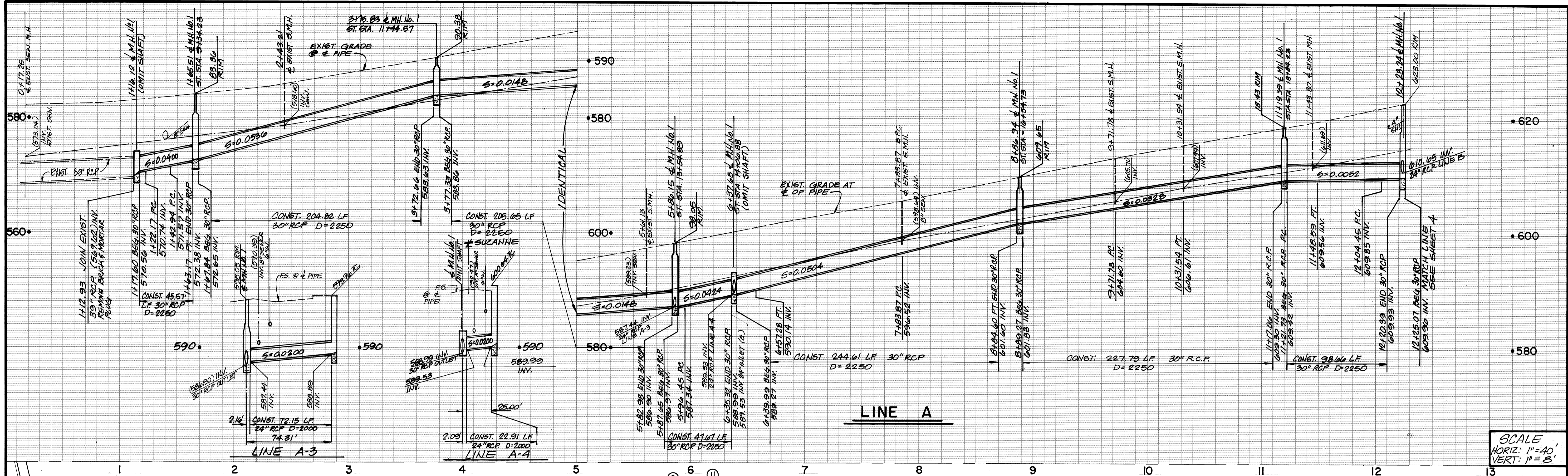
BENCHMARK
B.M. CG 4096 ELEV. 648.194
LET IN S. CB VALLEY BLVD. 42 FT. S. & 0.55 MILE E. GRAND AVE. 5 FT S/O PI MON. NR E. P/L OF BUILDING NO. 22040.
BASELINE QUAD. 1975



RKA
Civil Engineers Inc.
398 S. Lemmon Creek Drive, Suite E • Walnut • California 91789
(714) 504-9799 (918) 331-0323 FAX (714) 504-9268
David G. Gilbertson 7/21/97
DAVID G. GILBERTSON RCE 46624 DATE

NO.	DATE	BY	DESCRIPTION	APP'D	DATE
			REVISIONS		

CITY OF WALNUT
SUZANNE ROAD
STORM DRAIN IMPROVEMENTS
SHT 1 of 4 SHTS
178178



CURVE DATA

Δ	DELTA	RADIUS	LENGTH	TANGENT
A	51° 31' 17"	22.50'	20.73'	10.86'
B	10° 40' 59"	422.80'	78.83'	39.53'
C	5° 35' 00"	422.80'	41.20'	20.62'
D	5° 05' 59"	422.80'	37.63'	18.83'
E	21° 35' 28"	267.30'	100.73'	50.97'
F	9° 14' 24"	370.54'	59.70'	29.94'
G	34° 11' 51"	45.00'	26.86'	13.84'
H	23° 16' 11"	45.00'	18.28'	9.27'
J	72° 44' 14"	45.00'	57.13'	33.14'

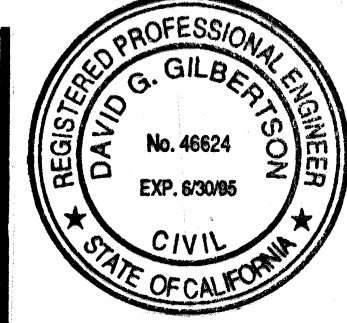
CONTRACTOR NOTE:
 1. CONTRACTOR SHALL VERIFY HORIZONTAL & VERTICAL LOCATION PRIOR TO START OF CONSTRUCTION AND SHALL NOTIFY OFFICE OF CITY ENGINEER OF ANY DISCREPANCY.

NOTE:
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APPROVED BY:
CITY OF WALNUT

Jack G. Istik
 JACK G. ISTIK RCE 26558
 DEPUTY CITY ENGINEER

7/21/93
 DATE



RKA
 Civil Engineers Inc.

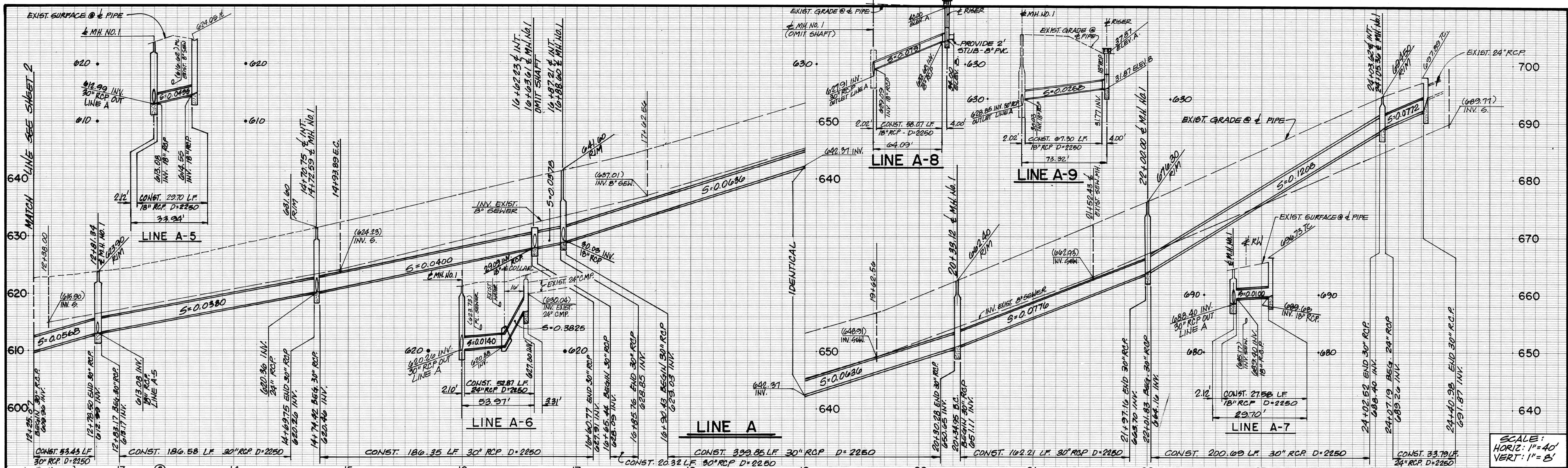
388 S. Lamon Creek Drive, Suite E • Walnut • California 91789
 (916) 331-8323 FAX (714) 594-2658

David G. Gilbertson
 DAVID G. GILBERTSON RCE 46624 DATE 7/21/93

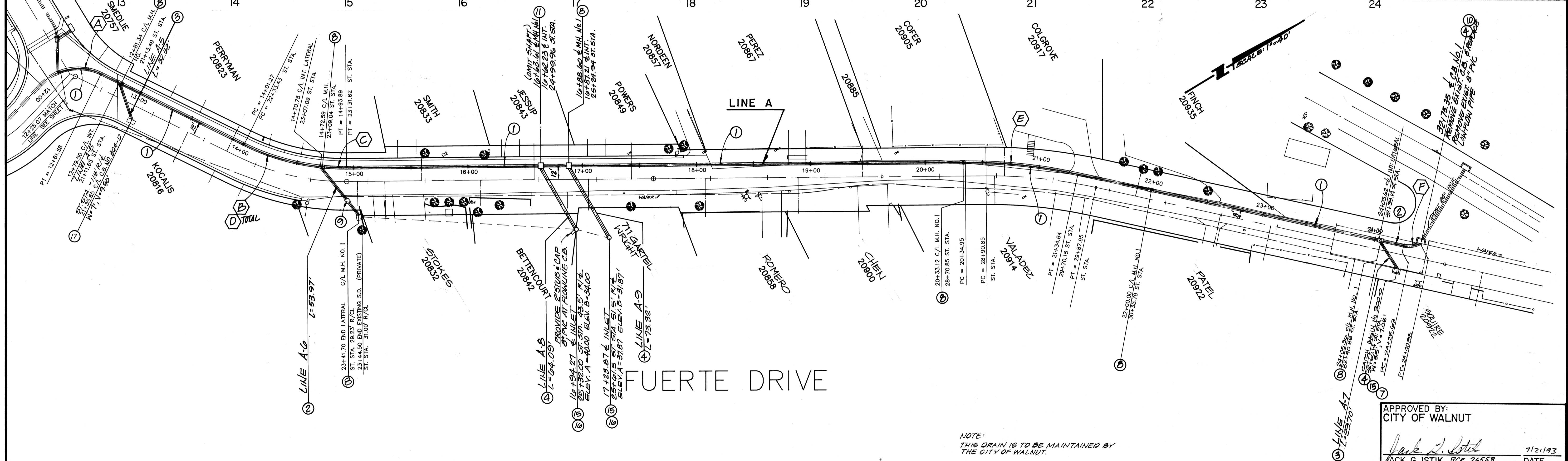
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CITY OF WALNUT
SUZANNE ROAD
STORM DRAIN IMPROVEMENTS

#177B SHT 2 of 4 SHTS

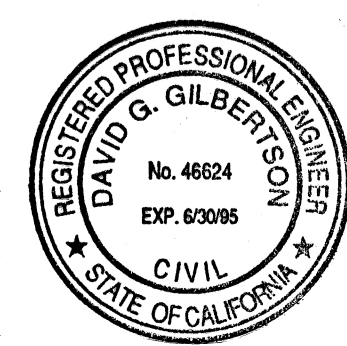


SCALE:
HORIZ: 1" = 40'
VERT: 1" = 8'



FUERTE DRIVE

Δ	DELTA	RADIUS	LENGTH	TANGENT
A	72° 44' 14"	45.00'	57.13'	33.14'
B	19° 58' 50"	199.22'	69.47'	35.09'
C	06° 39' 20"	199.22'	23.14'	11.58'
D	26° 38' 10"	199.22'	32.61'	47.16'
E	12° 41' 37"	460.00'	99.70'	50.05'
F	38° 56' 33"	22.50'	13.29'	7.95'



RKA
Civil Engineers Inc.
108 S. Lemon Creek Drive, Suite E • Walnut • California 91789
(714) 594-9702 (949) 331-8323 FAX (714) 594-2658
David G. Gilbertson RCE 46624 DATE

NOTE:
THIS DRAIN IS TO BE MAINTAINED BY THE CITY OF WALNUT.

NO.	DATE	BY	DESCRIPTION	APP.D	DATE

APPROVED BY:
CITY OF WALNUT
Jack G. Istik
JACK G. ISTIK RCE 26558
DEPUTY CITY ENGINEER
7/21/93
DATE

CITY OF WALNUT
SUZANNE ROAD
STORM DRAIN IMPROVEMENTS

#177 D SHT 4 of 4 SHTS