SEWER AREA STUDY

TTM No. 83442
P.C. 5899, P.C. 7615, Artesia Imp. No. 4-M, JO-p-0422
SMD Index 2029

Prepared for:
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Property:
TTM No. 83442
APN 7014-003-021, 022, 023, 024 ,025, 026, 027, 028
11700-11732 Arkansas Street & 16703-16707 Pioneer Boulevard
City of Artesia, CA 90701

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March 2022
Revised: April 2022

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INTRODUCTION

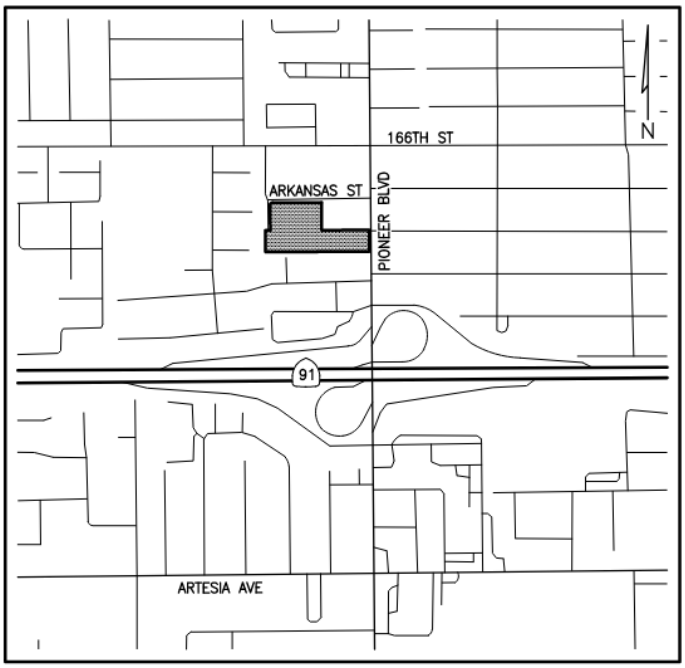
The following Area Study has been prepared by C&V Consulting, Inc. to determine and show:

- ***A.*** The capacity of the existing sewer segments from proposed development site to the Los Angeles County Sanitation District (LACSD) maintained trunk sewers.
- ***B.*** The existing sewer facility will adequately service the proposed development.

This analysis will include any and all tributary flow to the sewer system from the proposed development connection to the local sewers maintained by Los Angeles Department of Public Works to the LACSD trunk line downstream of the proposed development. All tributary area within this area study has been developed.

SITE DESCRIPTION

The project is located at 11700-11732 Arkansas Street and 16703-16707 Pioneer Boulevard, in the City of Artesia, California. The site is bounded by Arkansas Street to the north, Pioneer Boulevard to the east, existing single-family residential to the south and to the west.



VICINITY MAP
N.T.S.

PROJECT DESCRIPTION

The project proposes the construction of 10 buildings with 59 attached condominiums with private garages, private drive aisles, sidewalks, trash enclosures and common landscaped areas. The project site will be accessible with an entrance/ exit along Arkansas Street. Drive aisles and parking areas will be composed of asphalt concrete pavement, and landscaping will be incorporated in open space areas. The proposed project is located within the jurisdictional boundaries of Los Angeles County Sanitation District No. 2. The proposed sewer system will be gravity fed and flow will be towards the local sewers maintained by Los Angeles Department of Public Works located along Alburtis Ave, which conveys to the Gridley Road Interceptor Sewer and connects to the Districts' Trunk Sewer Outfall "C" Unit 8E.

AP Number	Size (ac)
7014-003-021, 022, 023, 024, 025, 026, 027, and 028	3.11

METHODOLOGY

This study will investigate the sewerage discharge route along Artesia Boulevard from the proposed development (TTM No. 82807) to the Districts' Interceptor Sewer. The subject route of the sewer main will be analyzed by segments based on sewer pipe size, slope, and tributary area.

Reach #1A segment is along Alburtis Avenue to 168th Street, from the connection of the project site from Manhole 65 to Manhole 64 and consisting of an existing 8" VCP sewer main with a slope of 0.40%. This segment includes the project site and the upstream tributary areas of Reach #1A. Refer to Figure 1 for Detail.

Reach #2A segment is along 168th Street, from Manhole 64 to Manhole 63 and consists of an existing 8" VCP sewer main with a slope of 0.24%. This segment includes Area #2 and #2A, and the upstream tributary areas of Reach #1A. Refer to Figure 2 for Detail.

Reach #2B segment is along 168th Street, from Manhole 63 to Manhole 60 and consists of an existing 8" VCP sewer main with a slope of 0.24%. This segment includes Area #2B and the upstream tributary areas of Reach #2A. Refer to Figure 2 for Detail.

Reach #3A segment is along Jersey Avenue, from Manhole 60 to Manhole 58 and consists of an existing 8" VCP sewer main with a slope of 0.24%. This segment includes Area #3 and the upstream tributary areas of Reach #2B. Refer to Figure 2 for Detail.

Reach #4A segment is along 169th Street, from Manhole 58 to Manhole 57 and consists of an existing 8" VCP sewer main with a slope of 0.24%. This segment includes Area #4 and #4A, and the upstream tributary areas of Reach #3A. Refer to Figure 3 for Detail.

Reach #4B segment is along 169th Street, from Manhole 57 to Manhole 55 and consists of an existing 8" VCP sewer main with a slope of 0.24%. This segment includes Area #4B and the upstream tributary areas of Reach #4A. Refer to Figure 3 for Detail.

Reach #5A segment is the portion from 169th Street before crossing the Artesia Freeway along Roseton Avenue, from Manhole 55 to Manhole 54 and consists of an existing 8" VCP sewer main with a slope of 0.30%. This segment includes Area #5 and the upstream tributary areas of Reach #4B. Refer to Figure 3 for Detail.

Reach #5B segment is the portion crossing the Artesia Freeway along Roseton Avenue, from Manhole 54 to Manhole 53 and consists of an existing 8" VCP sewer main with a slope of 0.30%. This segment includes the upstream tributary areas of Reach #5A. Refer to Figure 4 for Detail.

Reach #5C segment is along Roseton Avenue, from Manhole 53 to Manhole 52 and consists of an existing 8" VCP sewer main with a slope of 0.32%. This segment includes Area #5C and the upstream tributary areas of Reach #5B. Refer to Figure 4 for Detail.

Reach #5D segment is along Roseton Avenue, from Manhole 52 to Manhole 51 and consists of an existing 8" VCP sewer main with a slope of 0.32%. This segment includes Area #5D and the upstream tributary areas of Reach #5C. Refer to Figure 4 for Detail.

Reach #5E segment is along Roseton Avenue, from Manhole 51 to Manhole 49 and consists of an existing 8" VCP sewer main with a slope of 0.32%. This segment includes Area #5E and the upstream tributary areas of Reach #5D. Refer to Figure 4 for Detail.

Reach #6A segment is along Roseton Avenue, from Manhole 49 to Manhole 50 and consists of an existing 8" VCP sewer main with a slope of 1.04%. This segment includes Area #6 and #6A and the upstream tributary areas of Reach #5E. Refer to Figure 4 for Detail.

Reach #6B segment is along Roseton Avenue, from Manhole 50 to Manhole 282 and consists of an existing 8" VCP sewer main with a slope of 1.04%. This segment includes Area #6B and the upstream tributary areas of Reach #6A. Refer to Figure 4 for Detail.

Reach #7A segment is along Artesia Boulevard, from Manhole 282 to Manhole 280 and consists of an existing 10" VCP sewer main with a slope of 0.24%. This segment includes Area #7 and the upstream tributary areas of Reach #6B. Refer to Figure 5 for Detail.

Reach #8A segment is along Artesia Boulevard, from Manhole 280 to Manhole 618 and consists of an existing 12" VCP sewer main with a slope of 0.16%. This segment includes Area #8 and the upstream tributary areas of Reach #7A. Refer to Figure 5 for Detail.

Reach #8B segment is along Artesia Boulevard, from Manhole 618 to Manhole 275 and consists of an existing 12" VCP sewer main with a slope of 0.16%. This segment includes the upstream tributary areas of Reach #7A. Refer to Figure 5 for Detail.

Reach #9A segment is along Artesia Boulevard, from Manhole 275 to Manhole 274 and consists of an existing 12" VCP sewer main with a slope of 0.16%. This segment includes Area #9 and the upstream tributary areas of Reach #8B. Refer to Figure 5 for Detail.

Reach #9B segment is along Artesia Boulevard, from Manhole 274 to Manhole 272 and consists of an existing 12" VCP sewer main with a slope of 0.16%. This segment includes Area #9B and the upstream tributary areas of Reach #9A. Refer to Figure 5 for Detail.

Reach #10 segment is the Gridley Road Interceptor Sewer connection to the LACSD Joint Outfall "C" Unit 8E Trunk Sewer and consists of an existing 20" FRP sewer main with a slope of 0.08%. This segment includes Area #10 and the upstream tributary areas of Reach #9B. Refer to Figure 5 for Detail.

SEWER PIPE CAPACITY ANALYSIS

The existing sewer pipes were analyzed per Los Angeles County Public Works Sanitary Sewer Procedural Manual for depths, sizes, grades, and capacities. Data were obtained from corresponding Sewer As-Built plans and sewer atlas map in Appendix C for the analysis.

In order to calculate the pipe capacity, Kutter's formula was utilized a Manning's friction factor, n, of 0.013. Kutter's formula is shown below:

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685+\frac{0.00281}{S}+\frac{1.811}{n}}{1+\frac{\left(41.65+\frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Detailed results for each segment have been tabulated in Appendix B. Details of calculations for each reach of pipe has been included in Appendix B following the table.
The tributary sewer flow rate (Q) for the studied sewer lines are analyzed based on County standards as follows:

For Tributary Areas:
Q = Z*A
A = Tributary Area (Acre)
Z = Zoning Coefficients (Refer to the LACDPW guideline information within Appendix E)

For the Project Site
Q = (0.001 cfs/unit) x (59 units) = 0.059 cfs
(0.001 cfs/unit for proposed condominiums per County standard zoning coefficient within Appendix E)

The tributary areas were calculated by reference scaling the County of Los Angeles Sewer Maintenance Division's Atlas Index Maps and referencing County of Los Angeles Assessor's map. The zoning coefficients were referencing the LACDPW guidelines and the Zoning Map provided by the City of Artesia in Appendix G. City of Artesia's classification of Low-Density Residential matches the density description of Los Angeles County Zone R-1, so the zoning coefficient of R-1 is used for Artesia's zoning area of Low-Density

Residential. Medium-Density Residential applies County R-2 coefficient value. These values match the capacity/density represent for the land use per existing conditions.

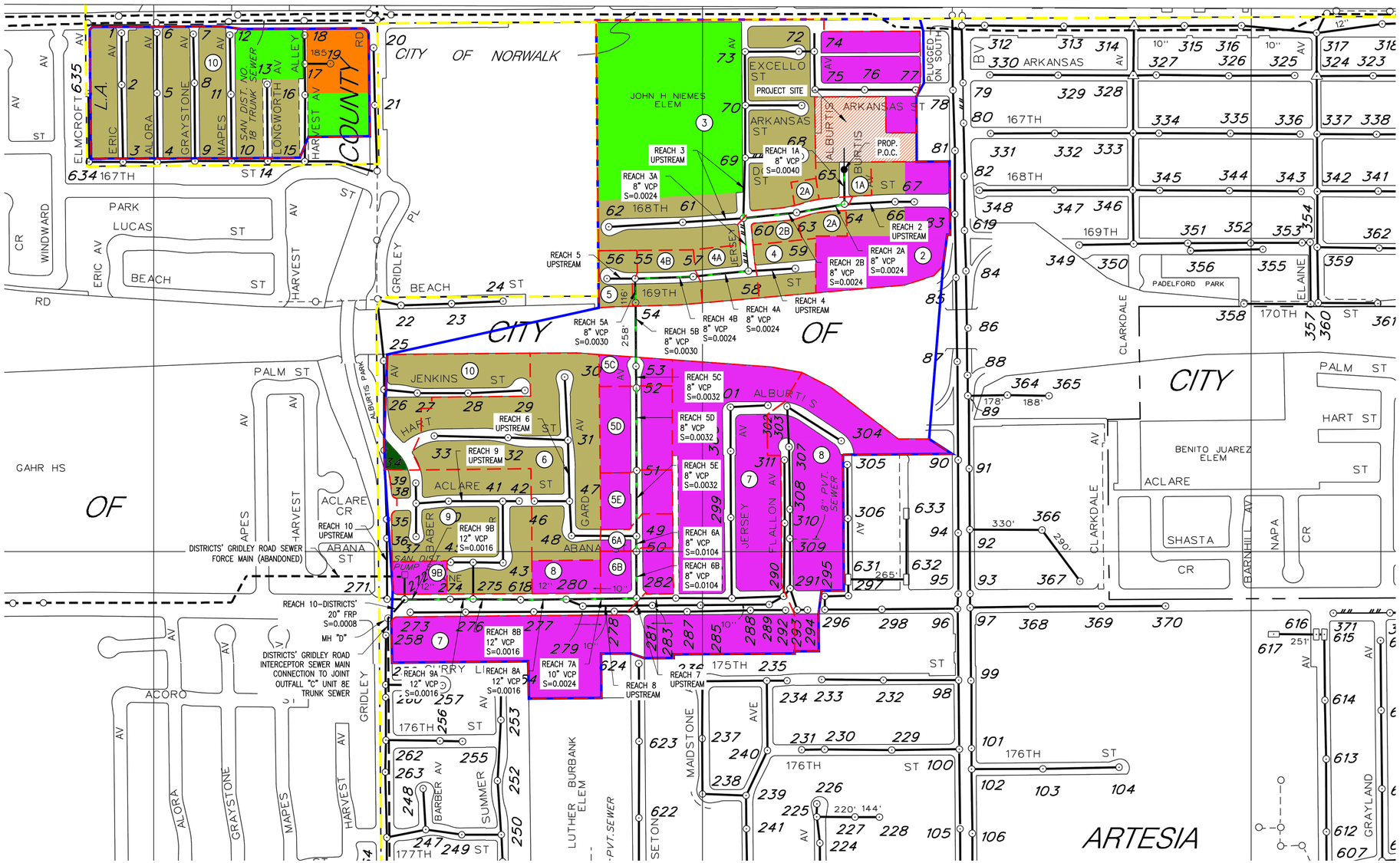
Per County requirements, we separately calculated the sewer discharge for schools based on the "Estimated Average Daily Sewage Flows for Various Occupancies" with a peaking factor of 2.5. Churches were taken into consideration of separate calculation, but the discharge calculated was insignificant compared to the zoning coefficient; therefore, the calculation for churches was analyzed by tributary area and corresponding zone. Unit counts were used to determine the flows on condominium sites where its unit density is greater than the tributary area and corresponding zone. The County Sewer Area Study guidelines indicate a zoning coefficient for R-1 Residential as 0.004 cfs/acre which allow up to 4 dwelling units per acre and matches the actual worse case density; For condominium, County recommends applying coefficient of 0.001 cfs/unit.

CONCLUSION

The existing sewer system being analyzed in this area study has a peak discharge flowrate of 0.9410 cfs with a flow depth of 6.82 inches for Reach 10 at the downstream District sewer system's 20" FRP pipe. The cumulative flow is determined to be at a 24% full capacity for the 20" pipe with depth of flow at a 34% capacity (d/D=0.34). Other Reaches that exceeded critical half-flow depth includes Reach 5E (d/D=0.51), 7A (d/D=0.60), 8A (d/D=0.55), 8B (d/D=0.55), 9A (d/D=0.56), 9B (d/D=0.56). Refer to Appendix B for calculations and tabulated results. Although The Reaches have exceeded the critical half depths, the most depreciated capacity segment per tributary flow is determined to be 7A's 10" pipe segment which calculate to operate at 68% full flow capacity, and the project total effluent contribute 8.7% to the cumulative flow. Therefore, we conclude that the overall existing sewer system downstream has sufficient capacity for the proposed development.

Appendix A

SEWER AREA STUDY EXHIBIT



LEGEND:

- SEWER AREA STUDY LIMITS
- CITY OF ARTESIA / CERRITOS / NORWALK LIMITS
- TRIBUTARY AREA BOUNDARY TO SEWER SYSTEM
- SEWER SYSTEM FLOW PATH
- TRIBUTARY AREA (REFER TO CALCULATION TABLE)
- PROJECT SITE (MULTI-FAMILY CONDOMINIUMS)
- SINGLE FAMILY RESIDENTIAL
- MEDIUM DENSITY RESIDENTIAL
- OPEN SPACE AND RECREATIONAL
- SCHOOL
- COMMERCIAL / LIGHT MANUFACTURING AND INDUSTRIAL
- POC (POINT OF CONNECTION)

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SEWER AREA STUDY EXHIBIT
TENTATIVE TRACT NO. 83442

11700-11732 ARKANSAS ST &
16703-16707 PIONEER BLVD, ARTESIA, CA

Sheet 1 of 1

PROJ#: CVEN-147
DWG: P:\CVC\CVEN-147\dwg\Sheets\EXH\EXH-SEWER-STUDY-01.dwg BY: klam Mar 04, 2022 - 10:13:19am

7014	3 SHEET	P. A. 7019-10 & 40	TRA 1967 13232 1964 9417 16086 1965 13186	REVISED 20020401 20080923020211001-12,26	20080923020211001-12,26 20090224070090001-26 20100217020003001-26	20130305120020001-26 20130416 20150106020005001-26	20150106020090001-26 20160823080010001-26		SEARCH NO		OFFICE OF THE ASSESSOR COUNTY OF LOS ANGELES COPYRIGHT © 2002

017

MAPPING AND GIS SERVICES
SCALE 1" = 100'

PROPOSED PROJECT SITE

PROP P.O.C. SSMH #65

BDRY LINE TR NO 25764

REACH 1A 8: V.C.P S=0.40%

SSMH #64

CONTINUE PER REACH 2A (FIGURE 2)

REACH 2 UPSTREAM

FIGURE 1

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Date Saved: 7/11/2016 2:27:44 PM

7014	4 SHEET	P. A. 7019-11	TRA 1967 13186	REVISED 8-8-61 3-1-62	11-2-62 8-15-63P 10-21-63ER	9-19-64 660621 680718414	740613813 820602563 20011114	2019030419003001-28	SEARCH NO		OFFICE OF THE ASSESSOR COUNTY OF LOS ANGELES COPYRIGHT © 2002

2019

REACH 3 UPSTREAM

CONTINUE PER REACH 1A (FIGURE 1)

REACH 2A 8" V.C.P S=0.24%

SSMH #63

REACH 2B 8" V.C.P S=0.24%

ALBURTIS AVE

PG 3

1967 — 13186

REACH 2 UPSTREAM

SSMH #60

SSMH #64

ST 60

R=970

R=340

R=460

R=15

R=25

1687 H

TRACT

MAPPING AND GIS SERVICES SCALE 1" = 80'

REACH 3 UPSTREAM

JERSEY AVE

REACH 3A 8" V.C.P S=0.24%

SSMH #58

REACH 4 UPSTREAM

1691TH

CONTINUE PER REACH 4A (FIGURE 3)

PG 5

NO

25764

0.42±AC

RANCHO LOS COYOTES

POR NE 1/4 SE 1/4 SEC 25 T3S R12W

3.28±AC

P 1 - 493 - 494
O R M 7425 - 20 - 21

M B 673 - 92

ARTESIA

RTE 91 FRWY

BK 7035

VARIES

PIONEER BLVD

FREEWAY APPROACHES

BK 7011

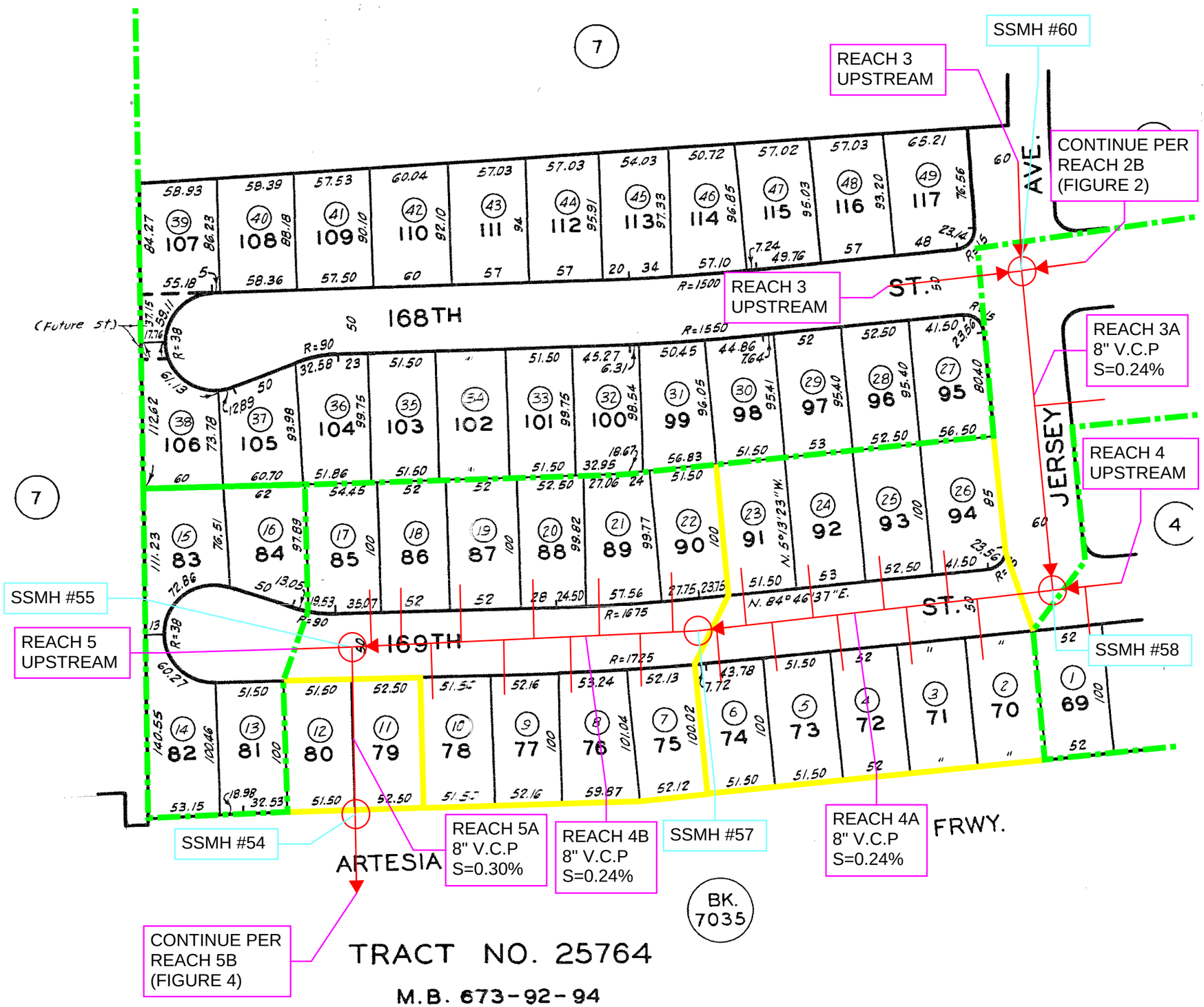
FIGURE 2

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Date Saved: 2/28/2019 10:36:49 AM

7014 | 6

CALE 1" = 80'

REVISED
3-1-62
7/0901



N

FIGURE 3

TRACT NO. 25764

M.B. 673-92-94

CODE
1967

FOR PREV. ASSM'T. SEE:
7019 - 42

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7035 | 4

SCALE 1" = 100'

2007

REVISED
11-23-64
3-9-65
7-12-65
10-30-65
5-11-64
8-27-64

6807/8415
700414313
700915603
710326
720602
721013202
731025301
740425501
761116603
771128803
790608218
8907250200500 1-27
9109/207006001-27
200108221101300 1-27
200108221101400 1-27
011108
200703/409008001-26

REACH 5C
8" V.C.P
S=0.32%

REACH 5D
8" V.C.P
S=0.32%

REACH 5E
8" V.C.P
S=0.32%

REACH 6A
8" V.C.P
S=1.04%

REACH 7
UPSTREAM

REACH 5B
8" V.C.P
S=0.30%

REACH 6B
8" V.C.P
S=1.04%

REACH 6
UPSTREAM

SSMH #51

SSMH #52

SSMH #53

SSMH #54

SSMH #49

SSMH #50

SSMH #282

CONTINUE PER REACH 5A (FIGURE 3)

CONTINUE PER REACH 7A (FIGURE 5)

MAIDSTONE AVE.

(Pvt. St.)

ARTESIA BLVD.

ROSETON AVE.

ABANA AVE.

GARD AVE.

ARTESIA ST.

HART ST.

ACLARE ST.

FRWY.

POR. SW. 1/4, SE. 1/4, SEC. 25

T. 3 S., R. 12 W.

SE. cor SW¼, SE¼ of Sec. 25 T. 3 S., R12 W.

BK. 7014

M.M. 395

F.M. 21003

22 | 16 | 17 | 15 | 3 | 2 | 1 | 14

FIGURE 4

CODE
1967
13186

RANCHO LOS COYOTES, SEC., TWP. & RGE. AS PER PAT. BOOK 1-493 494 AND O.R.M. 7425-20-21

TRACT NO. 28592 M.B. 728-29-31

FOR PREV. ASSM'T. SEE:
7019-15

ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7035 | 3

SCALE 1" = 100'

2002

11-23-64
12-17-64
2-1-65
3-9-65
8-26-65
10-30-65
690129602
85102380 9-86
011108

DETAIL
NO SCALE

POR. SW. 1/4, SE. 1/4, SEC. 25, T. 3 S., R. 12 W.

ACLARE AVE.

BABER AVE.

GARDDR.

ST.

ABANA ST.

ABANA ST.

ROSETON AVE.

GRIDLEY

CAINE

ARTESIA BLVD.

BK 7034

SEE DETAIL

1967 — 13186

WEST 330.80FT FROM S.E. COR. S.W. 1/4, SE. 1/4, SEC. 25

E. Line of W. 30.81 Ac. of SW 1/4, SE 1/4, SEC. 25

0.40±Ac.

0.46±Ac.

0.54±Ac.

0.54±Ac.

0.16±Ac.

0.17±Ac.

0.27±Ac.

0.18±Ac.

REACH 9 UPSTREAM

CONTINUE PER REACH 6B (FIGURE 4)

REACH 10 UPSTREAM

REACH 7 UPSTREAM

REACH 10 20" F.R.P. S=0.08%

SSMH #282

SSMH #272

SSMH #274

SSMH #275

SSMH #616

SSMH #280

REACH 9B 12" V.C.P. S=0.16%

REACH 9A 12" V.C.P. S=0.16%

REACH 8B 12" V.C.P. S=0.16%

REACH 8A 12" V.C.P. S=0.16%

REACH 8 UPSTREAM

REACH 7A 10" V.C.P. S=0.24%

REACH 7 UPSTREAM

CONNECTION TO GRIDLEY ROAD INERCEPTOR SEWER MAIN TO JOINT OUTFALL "C" UNIT 8E SEWER TRUNK

SSMH "D"

RANCHO LOS COYOTES, SEC., TWP. & RGE. AS PER PAT. BOOK 1-493-494 AND O.R.M. 7425-20-21

TRACT NO. 26740 M.B. 712 - 66 - 67

TRACT NO. 28592 M.B. 728 - 29 - 31

FOR PREV. ASSM'T. SEE: 7019 - 13

ASSESSOR'S MAP COUNTY OF LOS ANGELES, CALIF.

FIGURE 5

Appendix B

SEWER AREA STUDY TABLE & DEPTH OF FLOW CALCULATIONS

Sewer Area Study Table

TR 83442
11700-11732 Arkansas Street & 16703-16707 Pioneer Boulevard

Street Name	Segment		Pipe		*Capacity (cfs)	Tributary Area #	Tributary Area (Acres)	Zone	Zoning Coefficient	Calculated Flow (cfs)	**Cumulative Calculated Flow (cfs)	***Cumulative Depth (in)	PC Construction Plan #	Comments	Capacity Percentage	
	MH #	MH #	Size (in.)	Slope (%)											Flow Depth	Cumulative Flow
Reach #1A Upstream Tributary Area Alburtis Avenue	65	64	8	0.40%	0.697	1A	**3.11**	**Proposed Condominium Coefficient 0.001 cfs/DU**		**0.0590**				***Project Site*** Artesia 59 Units		
						1A	0.75	Single Family Residential	0.0040	0.00301	**0.0620**	1.69	P.C. 5899	Artesia	21%	9%
Reach #2A 168th Street	64	63	8	0.24%	0.538	2, 2A	2.09	Single Family Residential	0.0040	0.00835						
						2	4.35	Commercial / Industrial	0.0150	0.06532	**0.1357**	2.78	P.C. 5899	Artesia	35%	25%
Reach #2B 168th Street	63	60	8	0.24%	0.538	2B	0.48	Single Family Residential	0.0040	0.00192	**0.1376**	2.80	P.C. 5899	Artesia	35%	26%
Reach #3A Jersey Avenue	60	58	8	0.24%	0.538	3	7.17	Single Family Residential	0.0040	0.02868						
						3	2.81	Commercial / Industrial	0.0150	0.04208						
							John H Niemes Elementary	(675 Students)(10 gal/student/day) (2.5 peak factor)/ 646190.4 = 0.02611		0.02611	**0.2345**	3.70	P.C. 5899	Artesia	46%	44%
Reach #4A 169th Street	58	57	8	0.24%	0.538	4, 4A	2.27	Single Family Residential	0.0040	0.00907	**0.2435**	3.78	P.C. 5899	Artesia	47%	45%
Reach #4B 169th Street	57	55	8	0.24%	0.538	4B	1.32	Single Family Residential	0.0040	0.00527	**0.2488**	3.82	P.C. 5899	Artesia	48%	46%
Reach #5A 169th Street	55	54	8	0.30%	0.603	5	0.76	Single Family Residential	0.0040	0.00303	**0.2518**	3.63	P.C. 7615	Artesia	45%	42%
Reach #5B 169th Street	54	53	8	0.30%	0.603						**0.2518**	3.63	P.C. 7615	Artesia	45%	42%
Reach #5C Roseton Avenue	53	52	8	0.32%	0.623	5C	0.83	Commercial / Industrial	0.0150	0.01245	**0.2643**	3.65	Artesia Imp. No. 4-M	Artesia	46%	42%

Reach #5D Roseton Avenue	52	51	8	0.32%	0.623	5D	2.51	Commercial / Industrial	0.0150	0.03764	**0.3019**	3.93	Artesia Imp. No. 4-M	Artesia	49%	48%
Reach #5E Roseton Avenue	51	49	8	0.32%	0.623	5E	1.45	Commercial / Industrial	0.0150	0.02172	**0.3236**	4.09	Artesia Imp. No. 4-M	Artesia	51%	52%
Reach #6A Roseton Avenue	49	50	8	1.04%	1.128	6, 6A	8.50	Single Family Residential	0.0040	0.03401						
							0.65	Commercial / Industrial	0.0150	0.00976	**0.3674**	3.17	Artesia Imp. No. 4-M	Artesia	40%	33%
Reach #6B Roseton Avenue Artesia Boulevard	50	282	8	1.04%	1.128	6B	1.28	Commercial / Industrial	0.0150	0.01927	**0.3867**	3.26	Artesia Imp. No. 4-M	Artesia	41%	34%
Reach #7A Artesia Boulevard	282	280	10	0.24%	1.001	7	19.27	Commercial / Industrial	0.0150	0.28901	**0.6757**	5.98	Artesia Imp. No. 4-M	Artesia	60%	68%
Reach #8A Artesia Boulevard	280	618	12	0.16%	1.348	8	7.75	Commercial / Industrial	0.0150	0.11618	**0.7919**	6.59	Artesia Imp. No. 4-M	Artesia	55%	59%
Reach #8B Artesia Boulevard	618	275	12	0.16%	1.348						**0.7919**	6.59	Artesia Imp. No. 4-M	Artesia	55%	59%
Reach #9A Artesia Boulevard	275	274	12	0.16%	1.348	9	5.64	Single Family Residential	0.0040	0.02254	**0.8144**	6.70	Artesia Imp. No. 4-M	Artesia	56%	60%
Reach #9B Artesia Boulevard	274	272	12	0.16%	1.348	9B	0.85	Commercial / Industrial	0.0150	0.01281	**0.8272**	6.76	Artesia Imp. No. 4-M	Artesia	56%	61%
Reach #10 Districts' Gridley Road Interceptor Sewer	272	MH "D"	20	0.08%	3.848	10	11.79	Single Family Residential	0.0040	0.04714						
							1.88	Medium Family Residential	0.0120	0.02262						
							2.92	School / Church	0.0150	0.04382						
							0.20	Recreational	0.0010	0.00020	**0.9410**	6.82	JO-p-422	LACSD Connection	34%	24%

* Calculated using the Kutter's Equation with n=0.013

** Based on current land use and coefficients per LA County, (Attach supporting calculations)

***Calculations for pipe flow, and flow depth shown on following sheets

Note: 1/2 full std. flow capacity / depth for pipe dia. < 15", 3/4 full std. flow capacity / depth for pipe dia > 15"

Lines exceeding 1/2 full flow capacity / depth

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 1A Pipe Capacity

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.667	ft
Slope	0.0040	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.349	sf
Wetted Perimeter	2.094	ft
Hydraulic Radius	0.167	ft
Pipe Capacity	0.697	cfs

Reach 1A Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.14	ft
Depth of Flow	1.69	in
Slope, S	0.0040	ft/ft
Manning's n	0.013	(unitless)
Central Angle	4.373	radians
Flow Area, A	0.054	sf
Wetted Perimeter	0.637	ft
Hydraulic Radius, R	0.084	ft
Cumulative Flow, Q	0.062	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 2A Pipe Capacity

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.667	ft
Slope	0.0024	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.349	sf
Wetted Perimeter	2.094	ft
Hydraulic Radius	0.167	ft
Pipe Capacity	0.538	cfs

Reach 2A Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.23	ft
Depth of Flow	2.78	in
Slope, S	0.0024	ft/ft
Manning's n	0.013	(unitless)
Central Angle	3.759	radians
Flow Area, A	0.108	sf
Wetted Perimeter	0.841	ft
Hydraulic Radius, R	0.128	ft
Cumulative Flow, Q	0.135	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 2B Pipe Capacity

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.667	ft
Slope	0.0024	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.349	sf
Wetted Perimeter	2.094	ft
Hydraulic Radius	0.167	ft
Pipe Capacity	0.538	cfs

Reach 2B Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.23	ft
Depth of Flow	2.80	in
Slope, S	0.0024	ft/ft
Manning's n	0.013	(unitless)
Central Angle	3.749	radians
Flow Area, A	0.109	sf
Wetted Perimeter	0.845	ft
Hydraulic Radius, R	0.129	ft
Cumulative Flow, Q	0.137	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 3A Pipe Capacity

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.667	ft
Slope	0.0024	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.349	sf
Wetted Perimeter	2.094	ft
Hydraulic Radius	0.167	ft
Pipe Capacity	0.538	cfs

Reach 3A Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.31	ft
Depth of Flow	3.70	in
Slope, S	0.0024	ft/ft
Manning's n	0.013	(unitless)
Central Angle	3.291	radians
Flow Area, A	0.158	sf
Wetted Perimeter	0.997	ft
Hydraulic Radius, R	0.158	ft
Cumulative Flow, Q	0.234	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 4A Pipe Capacity

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.667	ft
Slope	0.0024	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.349	sf
Wetted Perimeter	2.094	ft
Hydraulic Radius	0.167	ft
Pipe Capacity	0.538	cfs

Reach 4A Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.31	ft
Depth of Flow	3.78	in
Slope, S	0.0024	ft/ft
Manning's n	0.013	(unitless)
Central Angle	3.253	radians
Flow Area, A	0.162	sf
Wetted Perimeter	1.010	ft
Hydraulic Radius, R	0.161	ft
Cumulative Flow, Q	0.243	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 4B Pipe Capacity

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.667	ft
Slope	0.0024	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.349	sf
Wetted Perimeter	2.094	ft
Hydraulic Radius	0.167	ft
Pipe Capacity	0.538	cfs

Reach 4B Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.32	ft
Depth of Flow	3.82	in
Slope, S	0.0024	ft/ft
Manning's n	0.013	(unitless)
Central Angle	3.231	radians
Flow Area, A	0.165	sf
Wetted Perimeter	1.017	ft
Hydraulic Radius, R	0.162	ft
Cumulative Flow, Q	0.248	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 5A Pipe Capacity

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.667	ft
Slope	0.0030	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.349	sf
Wetted Perimeter	2.094	ft
Hydraulic Radius	0.167	ft
Pipe Capacity	0.603	cfs

Reach 5A Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.30	ft
Depth of Flow	3.63	in
Slope, S	0.0030	ft/ft
Manning's n	0.013	(unitless)
Central Angle	3.329	radians
Flow Area, A	0.154	sf
Wetted Perimeter	0.985	ft
Hydraulic Radius, R	0.156	ft
Cumulative Flow, Q	0.252	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 5B Pipe Capacity

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.667	ft
Slope	0.0030	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.349	sf
Wetted Perimeter	2.094	ft
Hydraulic Radius	0.167	ft
Pipe Capacity	0.603	cfs

Reach 5B Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.30	ft
Depth of Flow	3.63	in
Slope, S	0.0030	ft/ft
Manning's n	0.013	(unitless)
Central Angle	3.329	radians
Flow Area, A	0.154	sf
Wetted Perimeter	0.985	ft
Hydraulic Radius, R	0.156	ft
Cumulative Flow, Q	0.252	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 5C Pipe Capacity

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.667	ft
Slope	0.0032	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.349	sf
Wetted Perimeter	2.094	ft
Hydraulic Radius	0.167	ft
Pipe Capacity	0.623	cfs

Reach 5C Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.30	ft
Depth of Flow	3.65	in
Slope, S	0.0032	ft/ft
Manning's n	0.013	(unitless)
Central Angle	3.317	radians
Flow Area, A	0.155	sf
Wetted Perimeter	0.989	ft
Hydraulic Radius, R	0.157	ft
Cumulative Flow, Q	0.264	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 5D Pipe Capacity

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.667	ft
Slope	0.0032	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.349	sf
Wetted Perimeter	2.094	ft
Hydraulic Radius	0.167	ft
Pipe Capacity	0.623	cfs

Reach 5D Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.33	ft
Depth of Flow	3.93	in
Slope, S	0.0032	ft/ft
Manning's n	0.013	(unitless)
Central Angle	3.176	radians
Flow Area, A	0.171	sf
Wetted Perimeter	1.036	ft
Hydraulic Radius, R	0.165	ft
Cumulative Flow, Q	0.302	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 5E Pipe Capacity

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.667	ft
Slope	0.0032	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.349	sf
Wetted Perimeter	2.094	ft
Hydraulic Radius	0.167	ft
Pipe Capacity	0.623	cfs

Reach 5E Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.34	ft
Depth of Flow	4.09	in
Slope, S	0.0032	ft/ft
Manning's n	0.013	(unitless)
Central Angle	3.097	radians
Flow Area, A	0.179	sf
Wetted Perimeter	1.062	ft
Hydraulic Radius, R	0.169	ft
Cumulative Flow, Q	0.324	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 6A Pipe Capacity

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.667	ft
Slope	0.0104	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.349	sf
Wetted Perimeter	2.094	ft
Hydraulic Radius	0.167	ft
Pipe Capacity	1.128	cfs

Reach 6A Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.26	ft
Depth of Flow	3.17	in
Slope, S	0.0104	ft/ft
Manning's n	0.013	(unitless)
Central Angle	3.558	radians
Flow Area, A	0.129	sf
Wetted Perimeter	0.909	ft
Hydraulic Radius, R	0.142	ft
Cumulative Flow, Q	0.367	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 6B Pipe Capacity

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.667	ft
Slope	0.0104	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.349	sf
Wetted Perimeter	2.094	ft
Hydraulic Radius	0.167	ft
Pipe Capacity	1.128	cfs

Reach 6B Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	8	in
Pipe Diameter	0.667	ft
Depth of Flow	0.27	ft
Depth of Flow	3.26	in
Slope, S	0.0104	ft/ft
Manning's n	0.013	(unitless)
Central Angle	3.513	radians
Flow Area, A	0.134	sf
Wetted Perimeter	0.923	ft
Hydraulic Radius, R	0.145	ft
Cumulative Flow, Q	0.387	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 7A Pipe Capacity

Pipe Diameter	10	in
Pipe Diameter	0.833	ft
Depth of Flow	0.833	ft
Slope	0.0024	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.545	sf
Wetted Perimeter	2.618	ft
Hydraulic Radius	0.208	ft
Pipe Capacity	1.001	cfs

Reach 7A Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	10	in
Pipe Diameter	0.833	ft
Depth of Flow	0.50	ft
Depth of Flow	5.98	in
Slope, S	0.0024	ft/ft
Manning's n	0.013	(unitless)
Central Angle	2.748	radians
Flow Area, A	0.340	sf
Wetted Perimeter	1.473	ft
Hydraulic Radius, R	0.231	ft
Cumulative Flow, Q	0.676	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 8A Pipe Capacity

Pipe Diameter	12	in
Pipe Diameter	1.000	ft
Depth of Flow	1.000	ft
Slope	0.0016	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.785	sf
Wetted Perimeter	3.142	ft
Hydraulic Radius	0.250	ft
Pipe Capacity	1.348	cfs

Reach 8A Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	12	in
Pipe Diameter	1.000	ft
Depth of Flow	0.55	ft
Depth of Flow	6.59	in
Slope, S	0.0016	ft/ft
Manning's n	0.013	(unitless)
Central Angle	2.945	radians
Flow Area, A	0.442	sf
Wetted Perimeter	1.669	ft
Hydraulic Radius, R	0.265	ft
Cumulative Flow, Q	0.792	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 8B Pipe Capacity

Pipe Diameter	12	in
Pipe Diameter	1.000	ft
Depth of Flow	1.000	ft
Slope	0.0016	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.785	sf
Wetted Perimeter	3.142	ft
Hydraulic Radius	0.250	ft
Pipe Capacity	1.348	cfs

Reach 8B Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	12	in
Pipe Diameter	1.000	ft
Depth of Flow	0.55	ft
Depth of Flow	6.59	in
Slope, S	0.0016	ft/ft
Manning's n	0.013	(unitless)
Central Angle	2.945	radians
Flow Area, A	0.442	sf
Wetted Perimeter	1.669	ft
Hydraulic Radius, R	0.265	ft
Cumulative Flow, Q	0.792	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 9A Pipe Capacity

Pipe Diameter	12	in
Pipe Diameter	1.000	ft
Depth of Flow	1.000	ft
Slope	0.0016	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.785	sf
Wetted Perimeter	3.142	ft
Hydraulic Radius	0.250	ft
Pipe Capacity	1.348	cfs

Reach 9A Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	12	in
Pipe Diameter	1.000	ft
Depth of Flow	0.56	ft
Depth of Flow	6.70	in
Slope, S	0.0016	ft/ft
Manning's n	0.013	(unitless)
Central Angle	2.908	radians
Flow Area, A	0.451	sf
Wetted Perimeter	1.688	ft
Hydraulic Radius, R	0.267	ft
Cumulative Flow, Q	0.814	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 9B Pipe Capacity

Pipe Diameter	12	in
Pipe Diameter	1.000	ft
Depth of Flow	1.000	ft
Slope	0.0016	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	0.785	sf
Wetted Perimeter	3.142	ft
Hydraulic Radius	0.250	ft
Pipe Capacity	1.348	cfs

Reach 9A Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	12	in
Pipe Diameter	1.000	ft
Depth of Flow	0.56	ft
Depth of Flow	6.76	in
Slope, S	0.0016	ft/ft
Manning's n	0.013	(unitless)
Central Angle	2.886	radians
Flow Area, A	0.456	sf
Wetted Perimeter	1.698	ft
Hydraulic Radius, R	0.269	ft
Cumulative Flow, Q	0.827	cfs

Kutter's Formula

$$Q = Ac\sqrt{RS}$$

Where A = Flow area (sf)
R = Hydraulic Radius (ft)
S = Pipe slope (ft/ft)

$$c = \frac{41.685 + \frac{0.00281}{S} + \frac{1.811}{n}}{1 + \frac{\left(41.65 + \frac{0.00281}{S}\right)n}{\sqrt{R}}}$$

Reach 10 Pipe Capacity

Pipe Diameter	20	in
Pipe Diameter	1.667	ft
Depth of Flow	1.667	ft
Slope	0.0008	ft/ft
Manning's n	0.013	(unitless)
Central Angle	0.000	radians
Flow Area	2.182	sf
Wetted Perimeter	5.236	ft
Hydraulic Radius	0.417	ft
Pipe Capacity	3.848	cfs

Reach 9A Cumulative Depth of Flow "What-If Analysis"

Pipe Diameter	20	in
Pipe Diameter	1.667	ft
Depth of Flow	0.57	ft
Depth of Flow	6.82	in
Slope, S	0.0008	ft/ft
Manning's n	0.013	(unitless)
Central Angle	3.790	radians
Flow Area, A	0.656	sf
Wetted Perimeter	2.078	ft
Hydraulic Radius, R	0.316	ft
Cumulative Flow, Q	0.941	cfs

Appendix C

SEWER MAINTENANCE DIVISION INDEX MAPS, SEWER AS-BUILTS, AND AP MAPS

C-136
C-137
C-138
C-139

Project Site

THIS MAP IS INTENDED FOR USE ONLY AS OPERATIONS MAP BY LOS ANGELES COUNTY SEWER MAINTENANCE DISTRICTS. LOS ANGELES COUNTY EXPRESSLY DISCLAIMS ANY LIABILITY FOR ANY INACCURACIES WHICH MAY BE PRESENT IN THIS MAP.

SEE SHT. NO. C-1976

SEE SHT. NO. C-2030

E 4,257,000
N 4,061,500

AUTOMATED GRAPHICS

METERS
0 50 100 200 250
0 200 400 600 800
FEET

LEGEND

- CLAY SEWERS MAINTAINED BY SMD. 8" UNLESS OTHERWISE NOTED
- PLASTIC SEWERS
- CONCRETE SEWERS
- CLAY SEWERS, LINED
- CEMENT SEWERS, LINED
- FORCE MAINS
- SEWERS NOT MAINTAINED BY SMD
- TRUNK SEWERS
- CITY BOUNDARY
- STANDARD MANHOLE
- COMPOSITE MANHOLE COVER
- DROP MANHOLE
- SHALLOW MANHOLE
- TRAP MANHOLE
- WEIR MANHOLE
- C.O. CLEANOUT
- L.H. LAMP HOLE
- PUMP STATION

TOTAL MH'S THIS MAP: 632

MAP REV.
04-22-15

C-2029

MAP REV
04-21-16

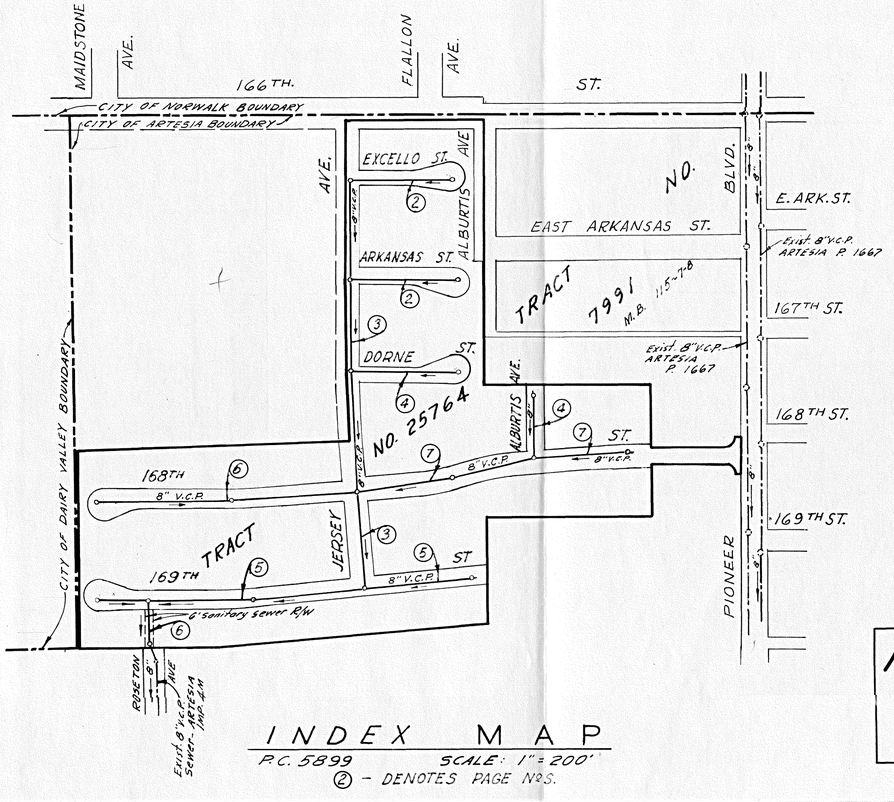
DATA BASE REV
11-27-90

CONSOLIDATED S.M.D.

C-2029

0523.0525.2029

T:766:H1



INDEX MAP

P.C. 5899 SCALE: 1" = 200'

② - DENOTES PAGE NOS.

ARTESIA BLDG. DIST. NO. 4.09

NOTE:

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS ARE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE DRAWINGS.

THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE DRAWINGS.

REVISION

RAISE INVERT ELEVATIONS 0.20' TO MEET EXISTING MANHOLE ELEVATION.

John L. Exton 9-7-61
OFFICE OF CITY ENGINEER REG. C.E. 3871

NO CHARGE FOR CONNECTIONS

Riley 6-27-61

NOTES:

1. PROVIDE STAKES ON THE PROPERTY LINE OR PROPERTY LINES PRODUCED AT RIGHT ANGLES TO THE SEWER LINE AT THE CENTER LINE OF EACH MANHOLE.
2. NO REPRESENTATIVE OF THE CITY ENGINEER WILL SURVEY OR LAY OUT ANY PORTION OF THE WORK.
3. THE OWNER OR HIS AUTHORIZED REPRESENTATIVE SHALL FURNISH THE CITY ENGINEER WITH GRADE SHEETS AND STATIONING FOR ALL HOUSE LATERALS AND Y BRANCHES AND SHALL PROVIDE STAKES FOR THEM AT THEIR PROPER LOCATIONS WITH STATIONING PLAINLY MARKED. ANY CHANGE IN LOCATION SHALL BE REQUESTED IN WRITING BY THE OWNER OR HIS REPRESENTATIVE
4. THE PRIVATE ENGINEER SHALL FURNISH THE HOUSE LATERAL DEPTH AT THE PROPERTY LINE BELOW THE TOP OF CURB ELEVATION FOR EACH HOUSE LATERAL ON THE GRADE SHEET.
5. NO REVISIONS SHALL BE MADE IN THESE PLANS WITHOUT THE APPROVAL OF THE CITY ENGINEER.
6. USE STANDARD MANHOLE FRAMES AND COVERS, S-a-117A
7. USE STANDARD STRENGTH PIPE EXCEPT AS NOTED.
8. USE CEMENT MORTAR OR "WEDGE-LOCK" OR "SPEED-SEAL" FOR ALL V.C.P. JOINTS PER SPEC'S., SECS. 36 & 48.
9. RESURFACE ALL TRENCH WITHIN PAVED AREA TO MEET L.A. COUNTY ROAD DEPT. OR CALIF. STATE HIGHWAY REQUIREMENTS IN ACCORDANCE WITH PERMITS.
10. ENCASE FOUR FEET OF SEWER AT POINTS OF INTERFERENCE WITH POLES, CASE III, S-a-172.
11. HOUSE LATERALS TO BE CONSTRUCTED WITH **INVERTS AT PROPERTY LINE 6 FT. BELOW CURB GRADE EXCEPT AS NOTED.**
12. ALL STRUCTURES SHALL BE BRICK SEWER STRUCTURES, S-a-104.
13. FOR ALLOWABLE LEAKAGE TEST USE FORMULA NO. 1 SPEC'S., SEC. 54.
14. MANHOLE TOPS IN UNIMPROVED RIGHTS-OF-WAY TO BE SIX INCHES ABOVE FINISHED GRADE.
15. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION DIVISION BY TELEPHONE, MADISON 9-4747, EXT 8181 AT LEAST TWENTY-FOUR HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.
16. STANDARD SPECIFICATIONS DATED OCTOBER 10, 1960, ON FILE IN THE CITY, SHALL APPLY IN THE CONSTRUCTION OF THIS PROJECT.

DO NOT ISSUE PERMITS UNTIL OUTLET IS BUILT

BENCH MARK

S.Y. 3423 SET L & B. N. & I' N. OF B.C.R.
N.W. COR. PIONEER BLVD. & ARKANSAS ST.

ELEV. 64.362 ARTESIA QUAD 1955

NO CONNECTIONS FOR THE DISPOSAL OF INDUSTRIAL WASTES SHALL BE MADE TO SEWERS SHOWN ON THESE DRAWINGS WITHOUT WRITTEN PERMISSION FROM THE CHIEF ENGINEER AND GENERAL MANAGER OF THE COUNTY SANITATION DISTRICTS.

PROFILE ALIGNMENT AND GRADE OF P.C. 5899 PAGE 1

SANITARY SEWERS

TO BE CONSTRUCTED IN

TRACT Nº 25764

PRIVATE CONTRACT NO. 5899

W.S. 33

4 SHEETS; 7 PAGES

SCALE: VERT. 1" = 4' HORIZ. 1" = 40' MAY, 1961

PREPARED IN THE OFFICES OF

KEMMERER ENGR. CO. INC.

By: Robert R. Flores
REG. C. E. NO. 11349

FOR LEGEND SEE PLAN NO. S-A-64

NOTE:

GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR TOP OF CURBS, CENTER LINE OF STREETS, OR CENTER LINE OF ALLEYS ARE SHOWN BY CIRCLES ON PROFILES. AT ALL POINTS BETWEEN DESIGNATED POINTS THE GRADE SHALL BE ESTABLISHED SO AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGNATED POINTS.

ELEVATIONS ARE IN FEET ABOVE U.S.C. & G.S. SEA LEVEL DATUM OF 1929.

THIS DRAWING AND THE DATA HEREON ARE HEREBY MADE A PART OF THE SPECIFICATIONS.

WORK SHALL BE CONSTRUCTED ACCORDING TO SPECIFICATIONS ON FILE IN THE OFFICE OF THE CITY ENGINEER AND SHALL BE PROSECUTED ONLY IN THE PRESENCE OF THE CITY ENGINEER.

BEFORE WORK CAN BE STARTED, THE CONTRACTOR MUST OBTAIN A PERMIT TO EXCAVATE IN CITY STREETS FROM THE L. A. COUNTY ROAD DEPT., DISTRICT OFFICE NO. 4 AND MAKE A DEPOSIT WITH THE CITY OF ARTESIA 18615 S. PIONEER BLVD., ARTESIA SUFFICIENT TO COVER THE COST OF CONSTRUCTION INSPECTION AND RECORD PLANS.

APPROVAL OF THIS PLAN BY THE CITY OF ARTESIA DOES NOT CONSTITUTE A REPRESENTATION AS TO THE ACCURACY OF THE LOCATION OF OR THE EXISTENCE OR NON-EXISTENCE OF ANY UNDERGROUND UTILITY PIPE, OR STRUCTURE WITHIN THE LIMITS OF THIS PROJECT. THIS NOTE APPLIES TO ALL PAGES.

IF WORK IS TO BE DONE IN A STATE HIGHWAY, A PERMIT MUST BE OBTAINED FROM THE STATE OF CALIFORNIA, DIVISION OF HIGHWAYS, 120 SOUTH SPRING STREET.

CITY OF ARTESIA, CALIFORNIA

APPROVED, JOHN A. LAMBIE, CITY ENGINEER APPROVED, C. P. COMPTON, CHIEF ENGINEER

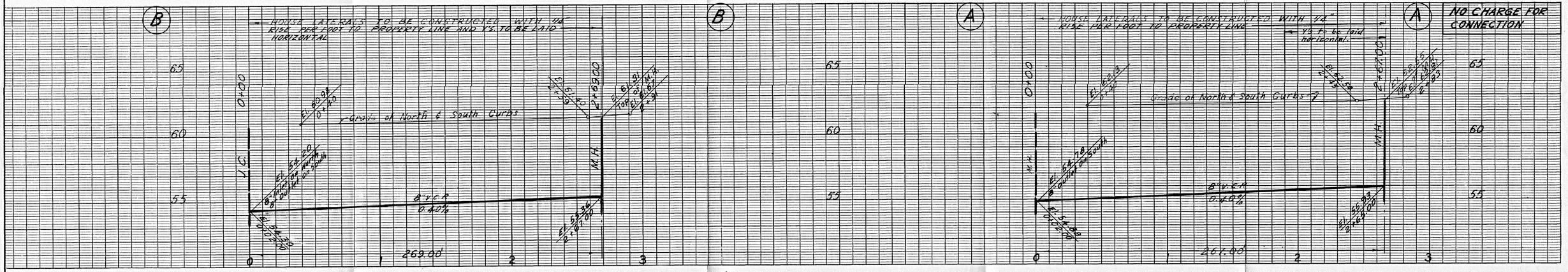
CO. SAN. DIST. NO. 2

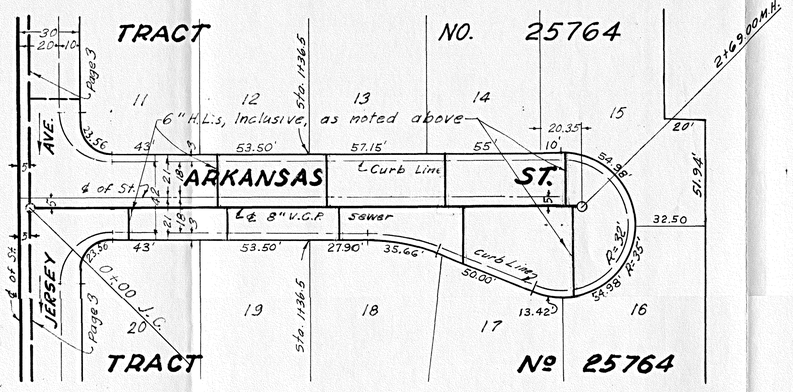
BY C. H. Hughes SANITATION ENGINEER BY G. Parthemore OFFICE ENGINEER

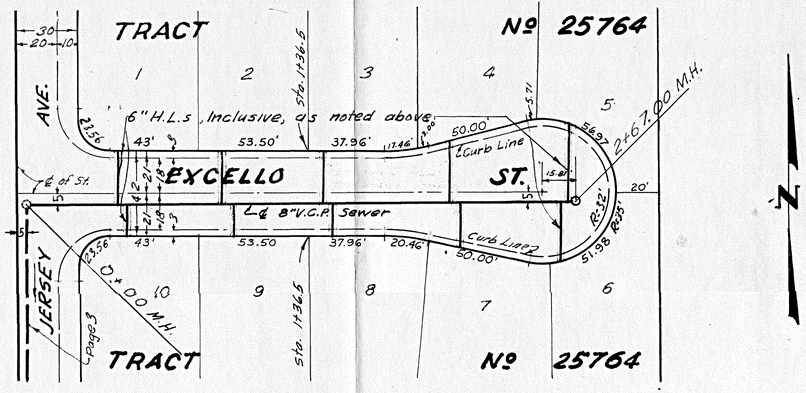
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OFFICE OF CITY ENGINEER, REG. C. E. NO. 3406

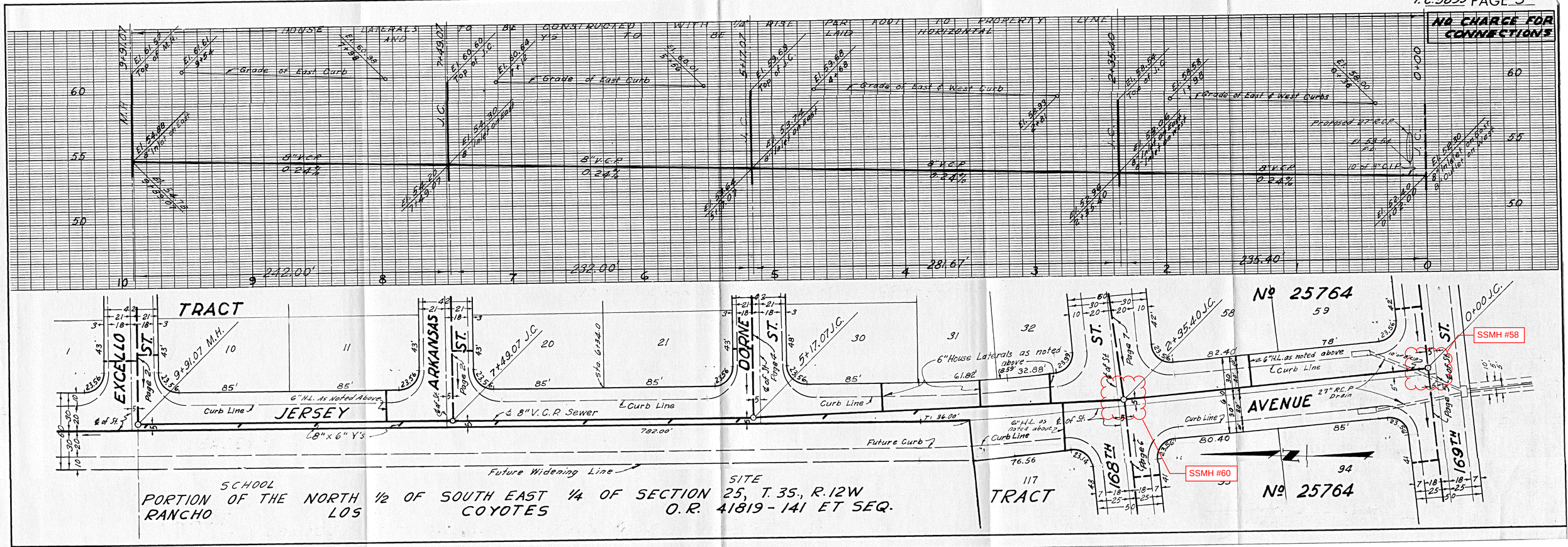
SUBMITTED BY: John L. Exton 6-26-61
LOS/CERRITOS REGIONAL ENGINEER C.E. 3871


B
HOUSE LATERALS TO BE CONSTRUCTED WITH 1/4" RISE PER FOOT TO PROPERTY LINE AND Y'S TO BE LAID HORIZONTAL
Grade of North & South Curbs
0+00
2+69.00 M.H.
8" V.C.P. 0.40%
269.00'
B
A
HOUSE LATERALS TO BE CONSTRUCTED WITH 1/4" RISE PER FOOT TO PROPERTY LINE
Y's to be laid horizontal
Grade of North & South Curbs
2+67.00 M.H.
8" V.C.P. 0.40%
267.00'
NO CHARGE FOR CONNECTION


TRACT NO. 25764
6" H.L.s, Inclusive, as noted above
ARKANSAS ST.
℄ of St.
Curb Line
L & 8" V.G.P. Sewer
JERSEY AVE.
0+00 J.C.
2+69.00 M.H.
Sta. 11+36.5
Page 3
TRACT Nº 25764

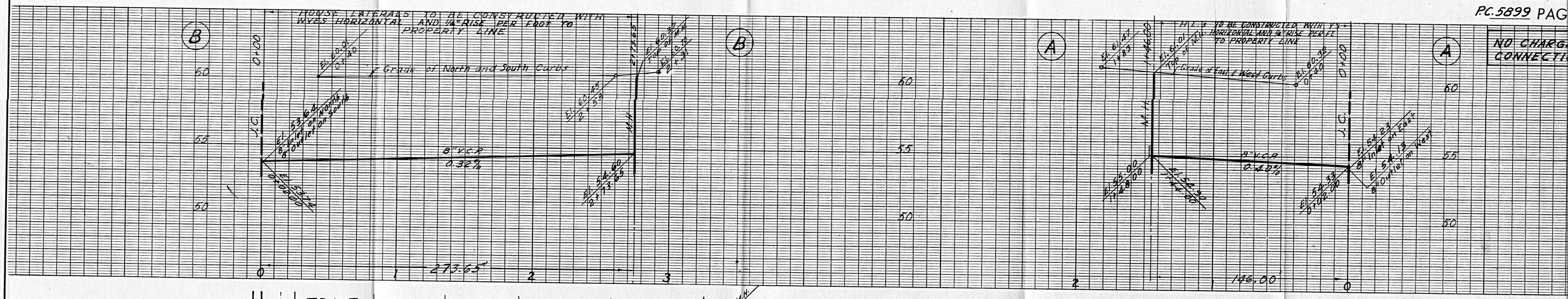

TRACT Nº 25764
6" H.L.s, Inclusive, as noted above
EXCELLO ST.
℄ of St.
Curb Line
L & 8" V.G.P. Sewer
JERSEY AVE.
0+00 M.H.
2+67.00 M.H.
Sta. 11+36.5
Page 3
TRACT Nº 25764

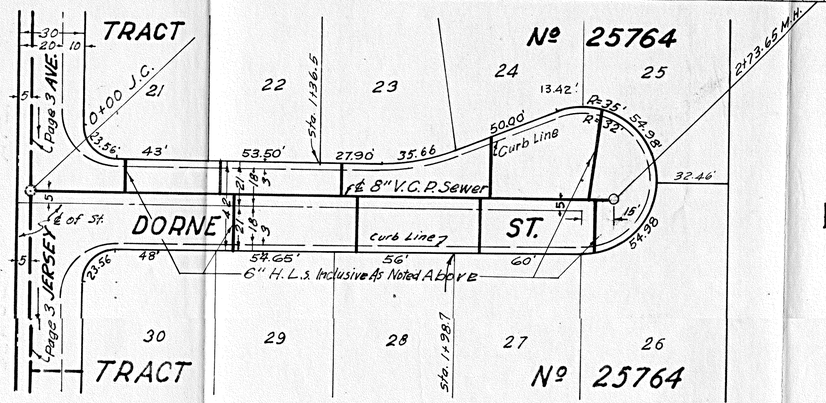
P.C. 5899 PAGE 3

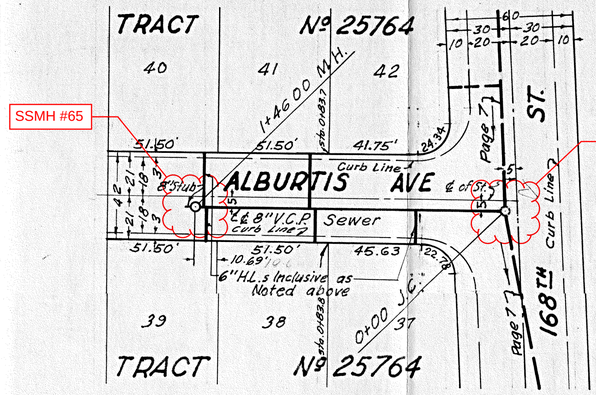


P.C. 5899 PAG

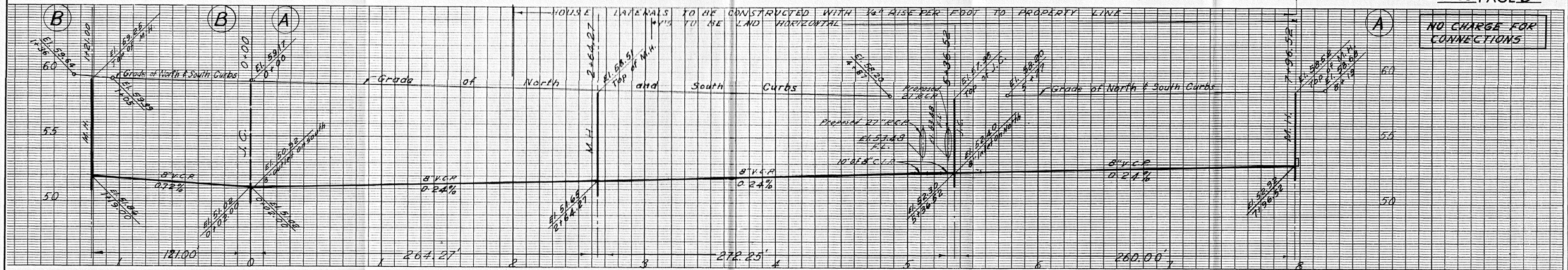
NO CHARG
CONNECTI



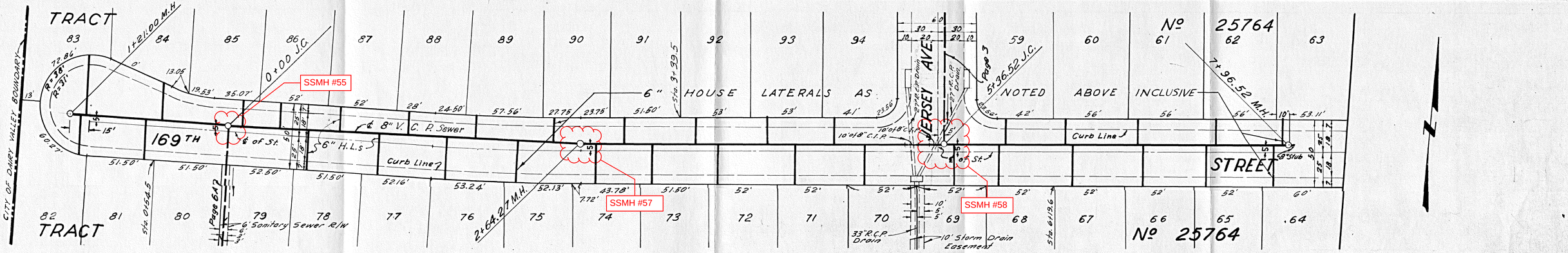




P.C. 5899 PAGE 5



NO CHARGE FOR CONNECTIONS



PC. 5899 PAGE 6

HOUSE LATERALS TO BE CONSTRUCTED WITH WYES HORIZONTAL AND ¼" RISE PER FOOT TO PROPERTY LINE

USE EXTRA STRENGTH PIPE IN MAIN LINE

NO CHARGE FOR CONNECTION

Grade of North & South Curbs

8" V.C.P. 0.24%

8" V.C.P. 0.24%

8" V.C.P. 0.24%

Surface over sewer

Proposed 48" R.C.P. S.D.

Exist. 8" V.C.P. Sewer, ART. I.M.P. A.M.

Exist. Rock Fill Pavement

Sanitary Sewer R/W

℄ 8" V.C.P. Sewer

℄ 8" V.C.P. Sewer

Curb Line

℄ of St.

℄ of St.

℄ of St.

Storm Drain R/W

329.86

303.88

192.00

47.37

TRACT No 25764

RANCHO LOS COYOTES

168TH

169TH

ST.

AVE.

JERSEY

ROSETON AVE.

CITY OF DAIRY VALLEY BOUNDARY

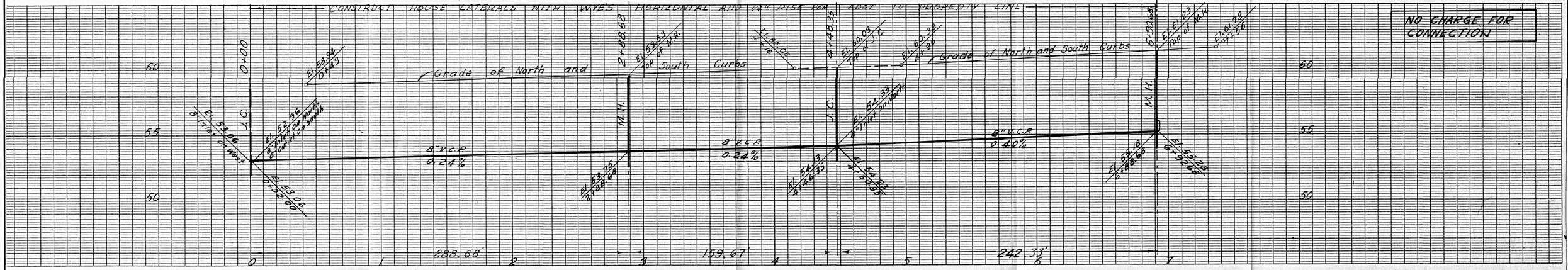
6" HOUSE LATERALS INCLUSIVE AS NOTED ABOVE

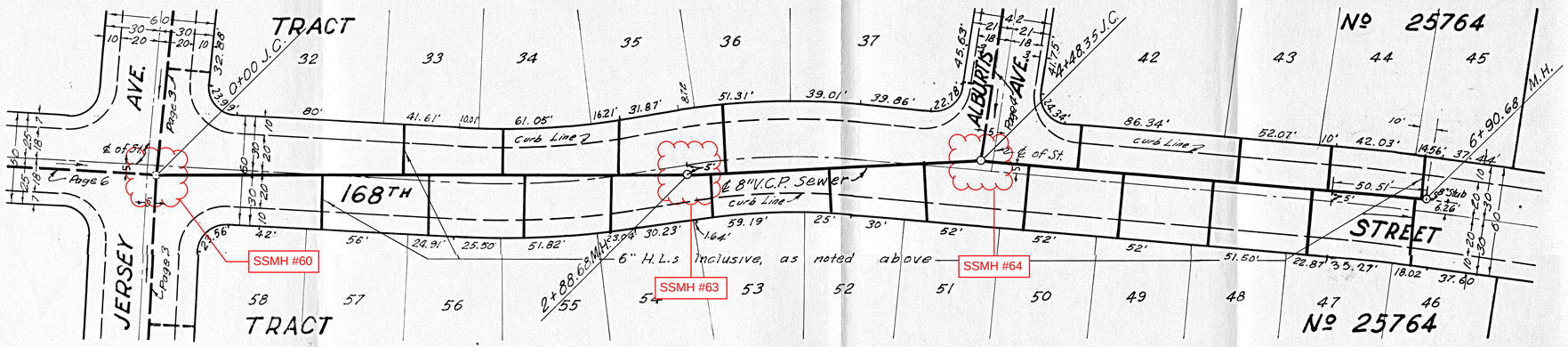
TRACT 81 No 25764

SSMH #53

SSMH #54

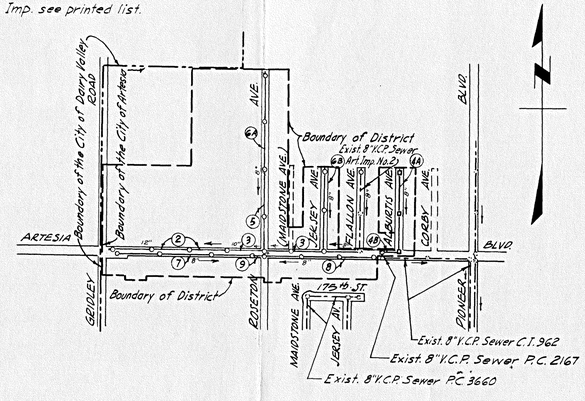
SSMH #55


CONSTRUCT HOUSE LATERALS WITH WYES HORIZONTAL AND 1/4" RISE PER FOOT TO PROPERTY LINE
NO CHARGE FOR CONNECTION
Grade of North and South Curbs
8" V.C.P. 0.24%
8" V.C.P. 0.40%
M.H.
J.C.
288.66'
159.67'
242.33'


TRACT
№ 25764
AVE.
JERSEY
168TH
STREET
ALBURTIS
℄ of St.
℄ 8" V.C.P. Sewer
Curb Line
SSMH #60
SSMH #63
SSMH #64
6" H.L.s inclusive, as noted above
TRACT
№ 25764

B.M. M.V.ST. EL. 61.203 ARTESIA BLVD. & GRIDLEY RD. N.E. CORNER BT. SPK. IN CONC. HEAD WALL 2.6 FT. FROM SELY. END. F.B. 2199-23

For additional B.M's used on this Imp. see printed list.



INDEX MAP
Scale 1" = 600'

Note: Figure in circles indicate page numbers.

ARTESIA BUILDING DISTRICT NO. 4.09

USE STANDARD STRENGTH PIPE EXCEPT AS NOTED.

USE PLASTISOL FOR ALL VITRIFIED CLAY PIPE JOINTS.

ALL STRUCTURES SHALL BE BRICK SEWER STRUCTURES AS PER PLAN NO. S-A-104, EXCEPT AS NOTED.

USE STANDARD MANHOLE FRAMES AND COVERS AS PER PLAN NO. S-A-117A, EXCEPT AS NOTED.

RESURFACE TRENCH WITHIN PAVED AREA WITH PREMIX ROCK AND OIL 3 INCHES IN THICKNESS ON 6 INCHES OF AGGREGATE BASE MATERIAL EXCEPT AS NOTED.

USE FORMULA NO. 2 SEC. 54 OF SPECIFICATIONS TO COMPUTE ALLOWABLE LEAKAGE.

THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION ~~AND STORM DRAIN~~ DIVISION BY TELEPHONE MADISON 9-4747, EXT. 8151 AT LEAST 24 HOURS BEFORE STARTING ANY WORK UNDER THIS CONTRACT.

CONSTRUCT HOUSE LATERALS WITH INVERTS AT PROPERTY LINE 6 FEET BELOW CURB GRADE, OR GRADE OF CENTER LINE OF STREET EXCEPT AS NOTED.

(7.2 FT) ~~FIGURES IN CIRCLES AT ENDS OF HOUSE LATERALS INDICATE DEPTH BELOW CURB GRADE, OR GRADE OF CENTER LINE OF STREET.~~

(1/4"/FT.) ~~FIGURES IN CIRCLES AT ENDS OF HOUSE LATERALS INDICATE HOUSE LATERALS SHALL BE CONSTRUCTED WITH 1/4" RISE PER FOOT TO PROPERTY LINE.~~

(Y, Flat 1/4"/FT.) ~~WORDS IN CIRCLES AT ENDS OF HOUSE LATERALS INDICATE Y's SHALL BE LAID HORIZONTAL AND HOUSE LATERALS SHALL BE CONSTRUCTED WITH 1/4" RISE PER FOOT TO PROPERTY LINE.~~

CONSTRUCTION IN STATE HIGHWAYS SHALL CONFORM WITH STATE HIGHWAY PERMIT.

NO CONNECTIONS FOR THE DISPOSAL OF INDUSTRIAL WASTES SHALL BE MADE TO SEWERS SHOWN ON THESE DRAWINGS WITHOUT WRITTEN PERMISSION FROM THE CHIEF ENGINEER AND GENERAL MANAGER OF THE COUNTY SANITATION DISTRICTS.

ARTESIA IMPROVEMENT NO. 4-M

PROFILE, ALIGNMENT AND GRADE OF

SANITARY SEWERS

TO BE CONSTRUCTED IN

ARTESIA BOULEVARD

AND OTHER RIGHTS OF WAY

PAGE 1 OF 9 PAGES

SCALE VERT. 1" = 4 FT. HORIZ. 1" = 40 FT.

FEBRUARY, 1961

CITY OF ARTESIA, CALIFORNIA

JOHN A. LAMBIE — CITY ENGINEER

SUBMITTED John L. Eaton — LOS CERRITOS REGIONAL ENGINEER

APPROVED C. E. Brumley — A.S.S.T. SANITATION ENGINEER

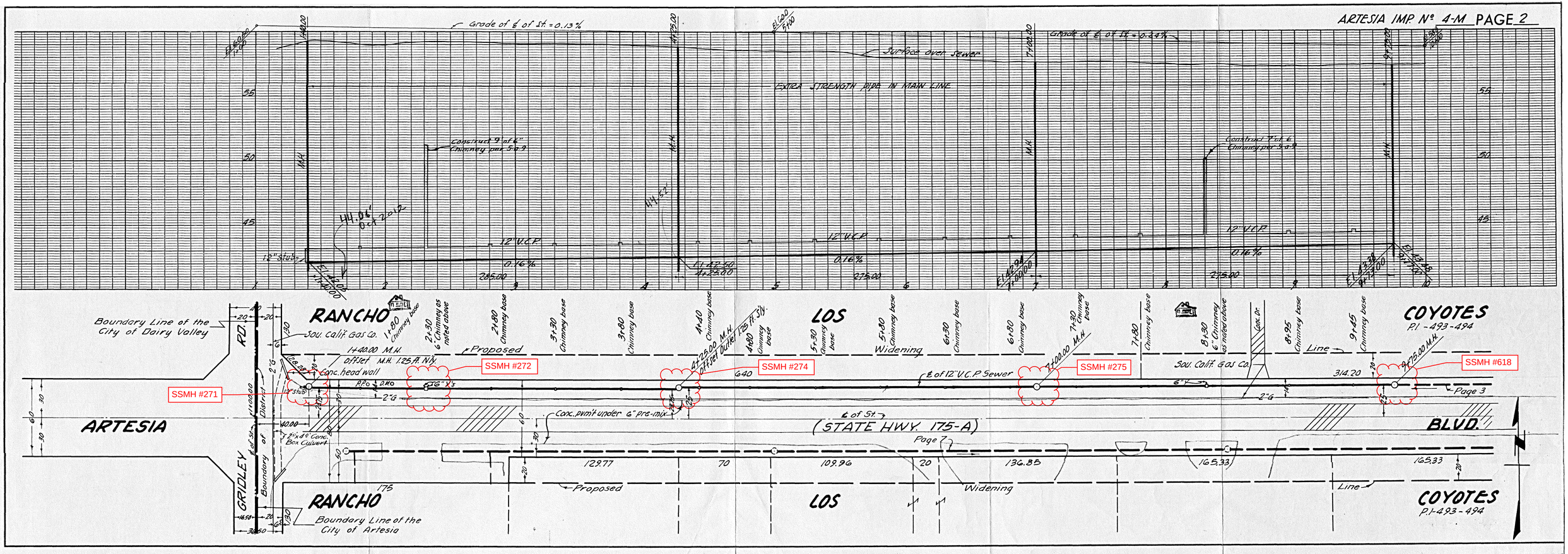
C. R. COMPTON
CHIEF ENGINEER OF COUNTY SANITATION DISTRICT NO. 2

BY — OFFICE ENGINEER

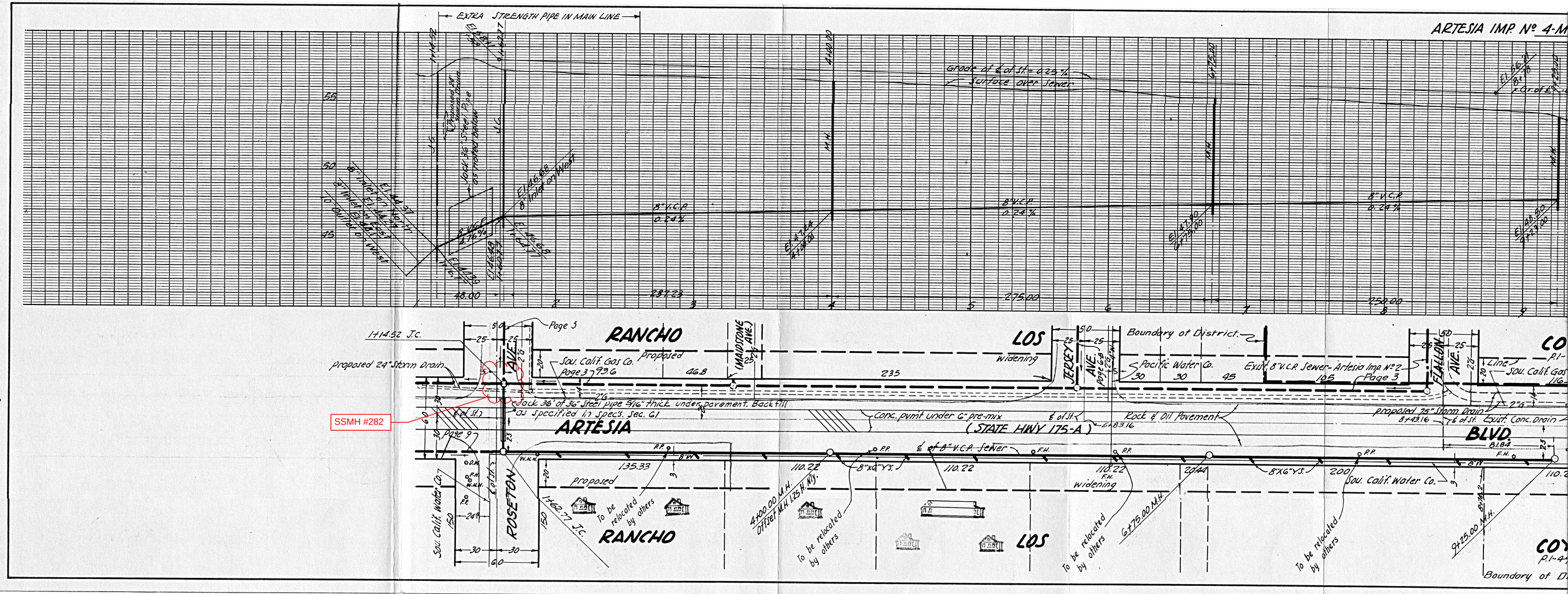
FOR LEGEND
SEE PLAN NO. S-A-64

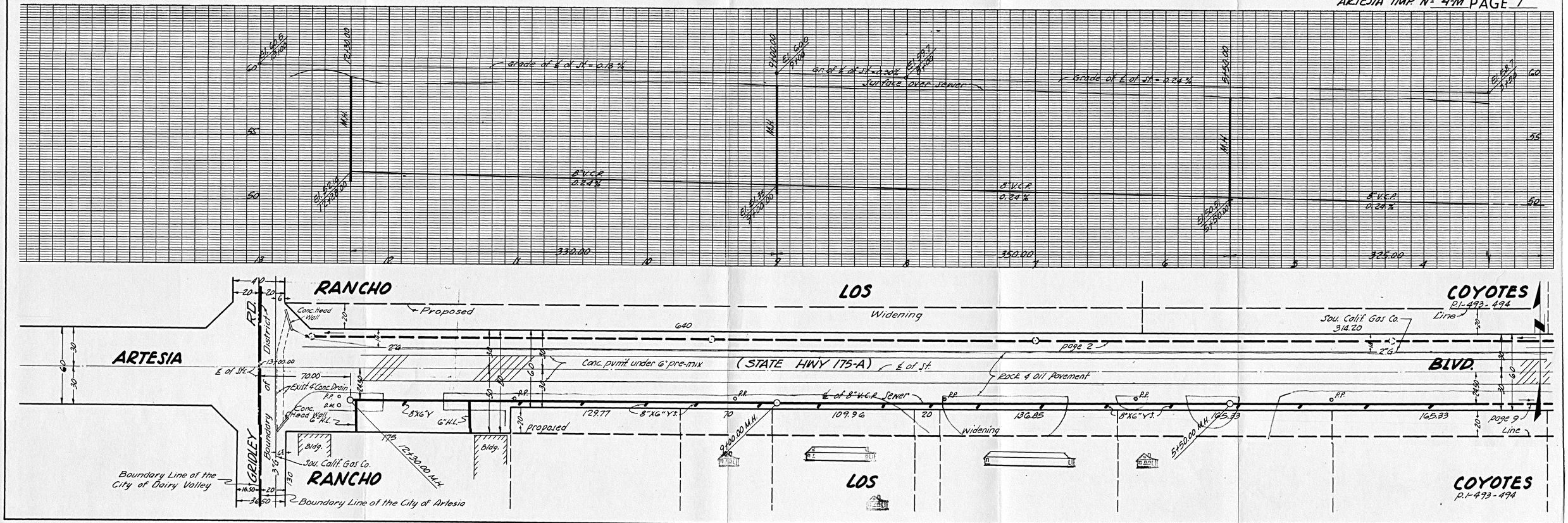
NOTE.
GRADES TO WHICH THIS IMPROVEMENT IS TO BE CONSTRUCTED ARE SHOWN ON PLANS AND PROFILES. GRADE POINTS FOR TOP OF CURB, CENTER LINE OF STREET OR CENTER LINE OF ALLEY ARE SHOWN BY CIRCLES ON PROFILES. AT ALL POINTS BETWEEN DESIGNATED POINTS THE GRADE SHALL BE ESTABLISHED SO AS TO CONFORM TO A STRAIGHT LINE DRAWN BETWEEN SAID DESIGNATED POINTS.
ELEVATIONS ARE IN FEET ABOVE U. S. C. & G. S. SEA LEVEL DATUM AS OF 1929
UNIT PRICES FOR ADDITIONAL WORK WHICH MAY BE REQUIRED BUT WHICH CANNOT BE ASCERTAINED IN ADVANCE, SHALL BE SUBMITTED IN THE PROPOSAL.
THIS DRAWING AND THE DATA HEREON ARE HEREBY MADE A PART OF THE SPECIFICATIONS.

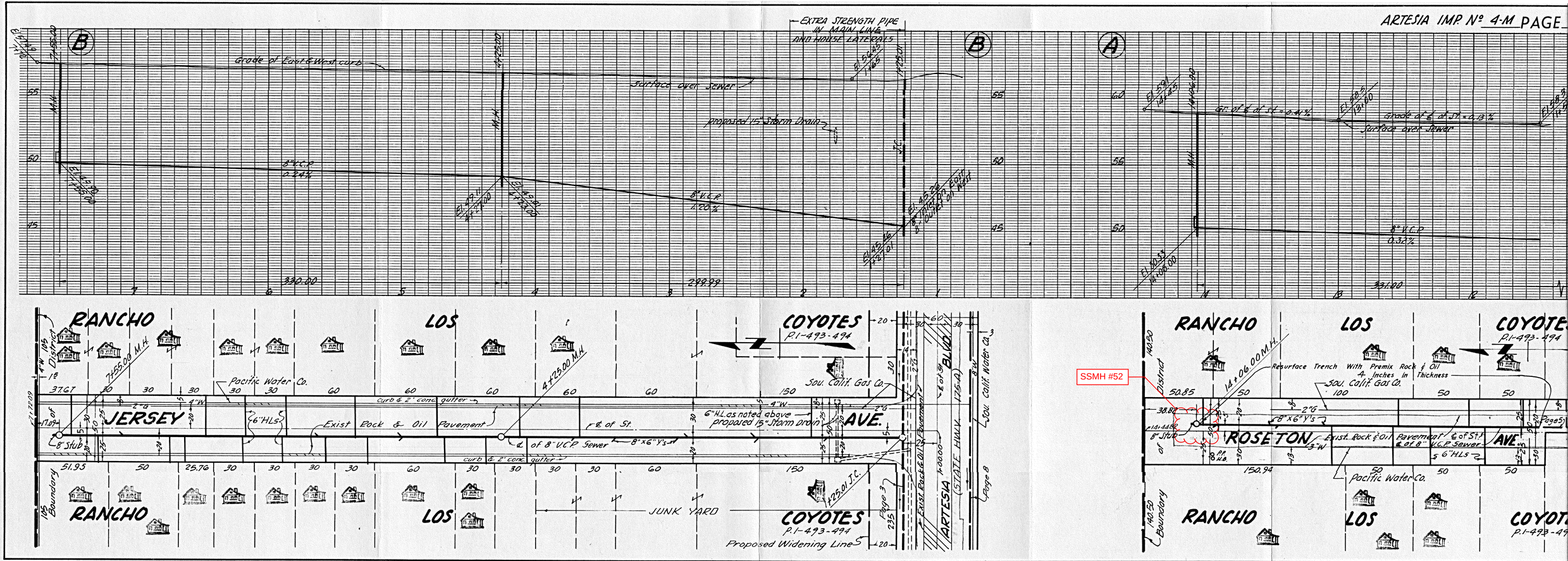
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W. S. 33	DESIGNED	ESQUER, WICKLAND	JAN. 1961
A. B. 7019 & 7035	TRACED	ESQUER, WICKLAND	FEB. 1961
F. B. 1899, 2199	CHECKED	UNG	FEB. 1961

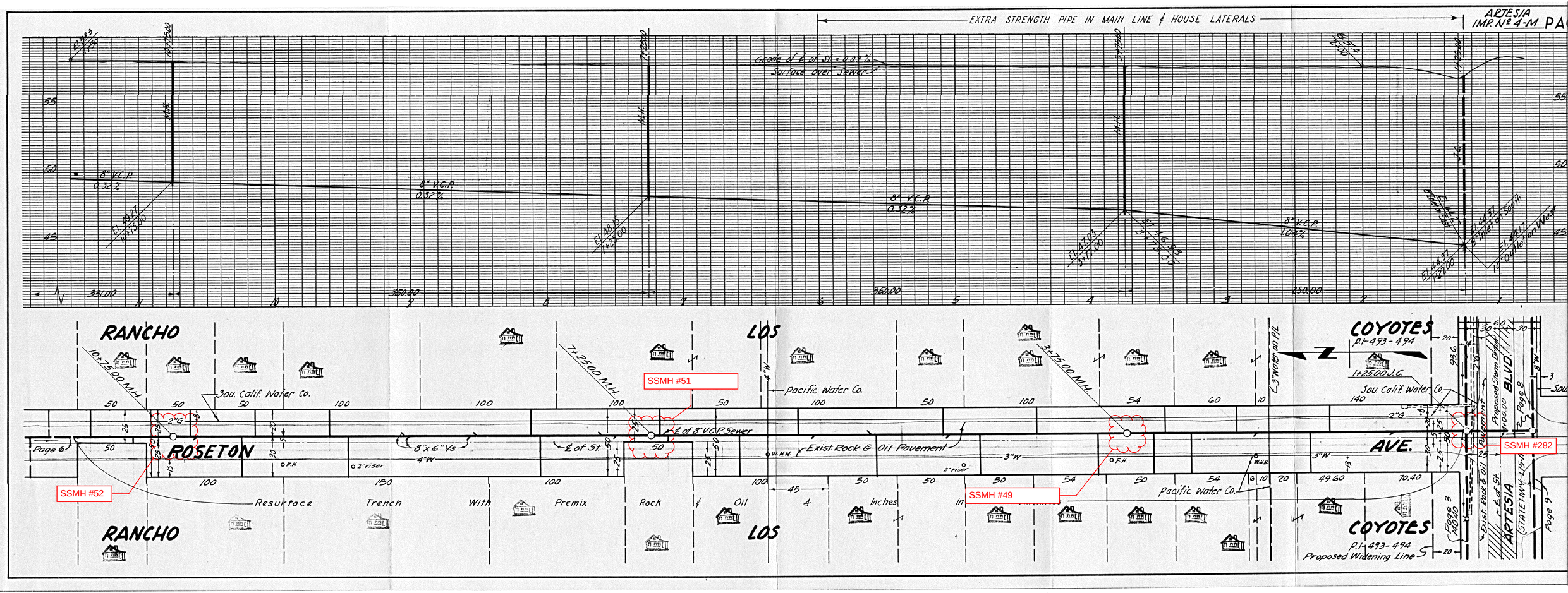

Grade of ℄ of St. = 0.13%
Surface over Sewer
EXTRA STRENGTH PIPE IN MAIN LINE
Grade of ℄ of St. = 0.24%
Construct 9" of 6" Chimney per S-3-3
Construct 7" of 6" Chimney per S-3-3
44.06' Oct 2012
12" V.C.P.
0.16%
12" stub
M.H.
285.00
275.00
215.00
Boundary Line of the City of Dairy Valley
RANCHO
LOS
COYOTES
P.I. - 493 - 494
Sou. Calif. Gas Co.
14+00.00 M.H.
Offset M.H. 1.25 ft. N'ly.
Conc. head wall
SSMH #271
SSMH #272
SSMH #274
SSMH #275
SSMH #618
Proposed
Widening
℄ of 12" V.C.P. Sewer
Sou. Calif. Gas Co.
Line
Page 3
Page 7
ARTESIA
GRIDLEY
Boundary of District
℄ of St.
(STATE HWY. 175-A)
BLVD.
2'6" x 4'0" Conc. Box Culvert
Conc. pvmt under 6" pre-mix
128.77
70
109.96
20
136.85
165.33
175
Boundary Line of the City of Artesia

ARTESIA IMP. Nº 4-M



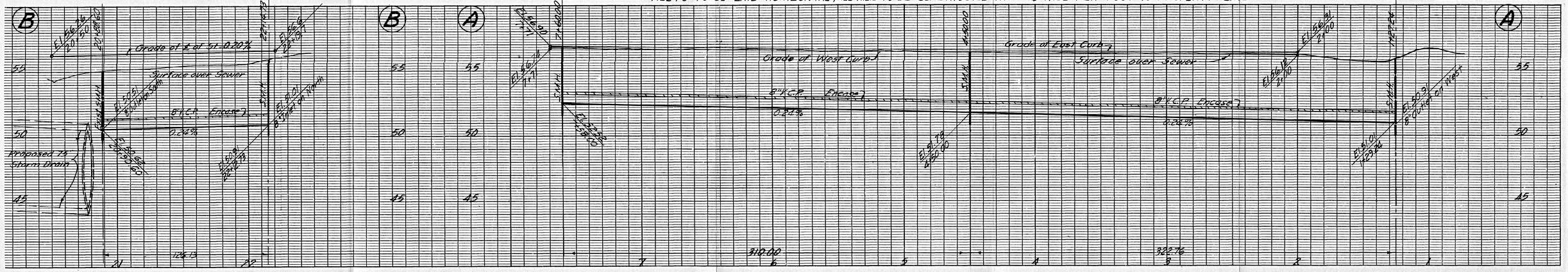

RANCHO
LOS
COYOTES
P.I-493-494
Widening
Proposed
Conc. Head Wall
ARTESIA
R.D.
District
Boundary
GRIDLEY
℄ of St.
Conc. pvmt under 6" pre-mix
(STATE HWY 175-A)
℄ of St.
Rock & Oil Pavement
BLVD.
Sou. Calif. Gas Co.
314.20
page 2
page 9
Line
Exist. 4 Conc. Drain
Conc. Head Wall
8"XG"Y
6"H.L.S
8"XG"Y.S.
℄ of 8" V.C.P. Sewer
9+00.00 M.H.
5+50.00 M.H.
12+30.00 M.H.
Bldg.
Sou. Calif. Gas Co.
Boundary Line of the City of Dairy Valley
Boundary Line of the City of Artesia
RANCHO
LOS
COYOTES
P.I-493-494
8" V.C.P.
0.24%
0.34%
0.13%
Grade of ℄ of St. = 0.13%
Gr. of ℄ of St. = 0.00%
Surface over Sewer
Grade of ℄ of St. = 0.24%
330.00
350.00
325.00
129.77
109.96
136.85
165.33
70.00

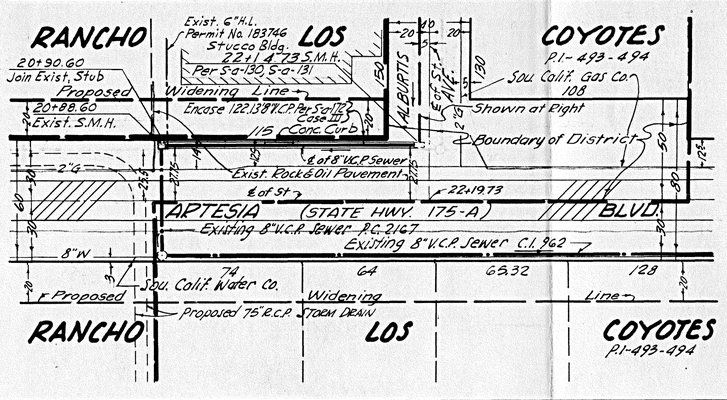

EXTRA STRENGTH PIPE IN MAIN LINE AND HOUSE LATERALS
Grade of East & West curb
Surface over Sewer
proposed 15" Storm Drain
8" V.C.P 0.24%
8" V.C.P 1.20%
8" V.C.P 0.31%
Grade of ℄ of St. = 0.41%
Grade of ℄ of St. = 0.13%
330.00
299.99
337.00
RANCHO
LOS
COYOTES
P.I-493-494
JERSEY
AVE.
ROSETON
ARTESIA BLVD. (STATE HWY. 126-A)
7+55.00 M.H.
4+25.00 M.H.
14+06.00 M.H.
Pacific Water Co.
Southern Calif. Gas Co.
So. Calif. Water Co.
6" HLS
Exist Rock & Oil Pavement
℄ of St.
8" Stub
8" x 6" Y's
curb & 2' conc. gutter
6" HLS as noted above prepared 15" Storm drain
℄ of 8" V.C.P Sewer
Resurface Trench With Premix Rock & Oil 4 Inches in Thickness
SSMH #52
JUNK YARD
Proposed Widening Line
105 Boundary
140.50 Boundary
District

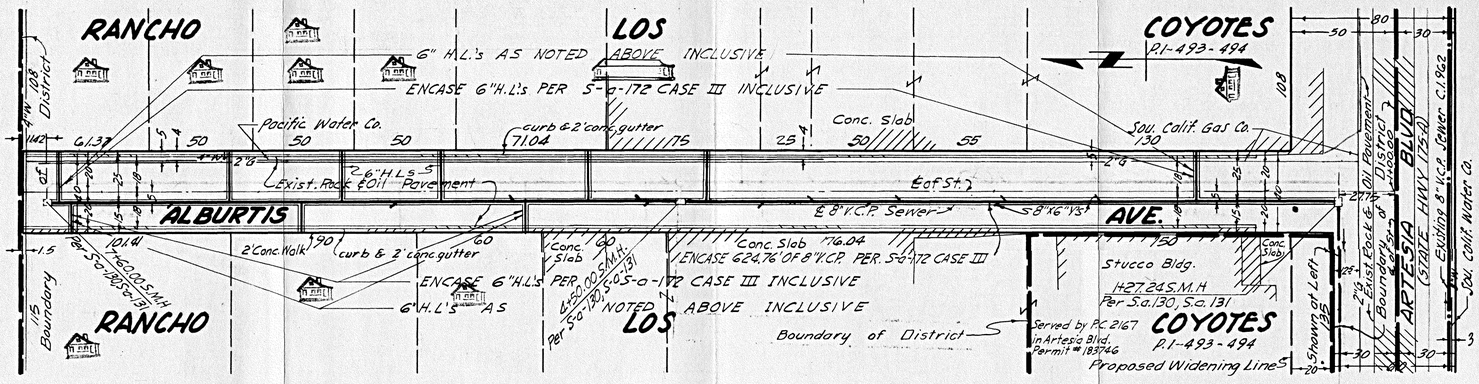

EXTRA STRENGTH PIPE IN MAIN LINE & HOUSE LATERALS
ARTESIA
IMP. No 4-M
8" V.C.P. 0.52%
8" V.C.P. 0.52%
8" V.C.P. 0.52%
8" V.C.P. 1.04%
Grade of ℄ of St. = 0.08%
Surface over Sewer
RANCHO
LOS
COYOTES
ROSETON
AVE.
ARTESIA
(STATE HWY. 1-254)
Sou. Calif. Water Co.
Pacific Water Co.
Sou. Calif. Water Co.
Pacific Water Co.
SSMH #51
SSMH #52
SSMH #49
SSMH #282
℄ of 8" V.C.P. Sewer
℄ of St.
Exist. Rock & Oil Pavement
Exist. Pad & Oil Pavement
Proposed Storm Drain
Proposed Widening Line
P.I. 493+494
Resurface
Trench
With
Premix
Rock
Oil
Inches
Page 6
Page 8
Page 9
Page 3

ALL Y's TO BE LAID HORIZONTAL & ALL H.L.'s TO BE CONSTRUCTED WITH ½" RISE PER FOOT TO PROPERTY LINE

ARTESIA IMP. Nº 4-M PAGE 4







COUNTY SANITATION DISTRICT No. 2
OF LOS ANGELES COUNTY, CALIFORNIA
OFFICE OF CHIEF ENGINEER
CONTRACT DRAWINGS

GRIDLEY ROAD INTERCEPTOR SEWER

SUBMITTED _____ DATED JANUARY 12, 2011
OFFICE ENGINEER
C.E. No. 30537

RECOMMENDED _____ DATED JANUARY 12, 2011
ASST. CHIEF ENGINEER
C.E. No. 41891

APPROVED _____ DATED JANUARY 12, 2011
CHIEF ENGINEER
C.E. No. 23089

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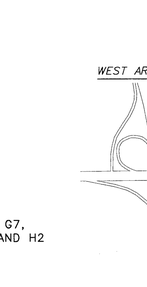
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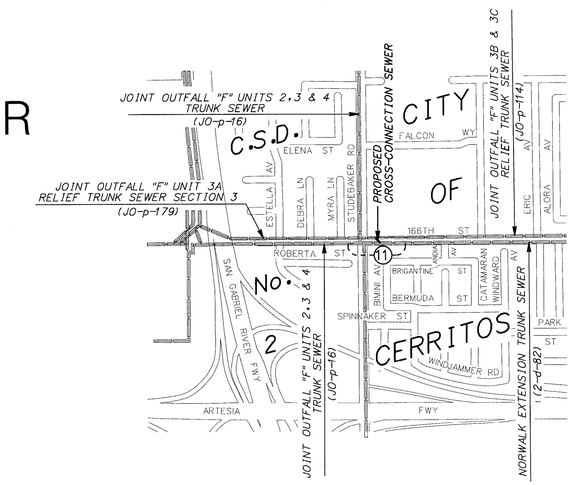


GENERAL LOCATION

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VICINITY MAP
SCALE: 1"=600'
TG: 736 F6 AND G7,
766 G1, H1 AND H2



NO.	SHEET	REVISION	INITIAL	DATE
3	2-14	REVISED PER AS-BUILT AND FINAL SURVEY	SP	9/9/13
2	5.11.14 16.17	ADJUSTED MH. UPDATED UTILITIES & REVISED STRUCTURE DESIGN	MT	6-9-11
1	2.5.7-10. 13.20-24	REVISED PER ADDENDUM NOS. 1 & 2	MT	3-29-11

RECORD DRAWING 3

JO - p - 422
SHEET NO. 1
OF 25 SHEETS

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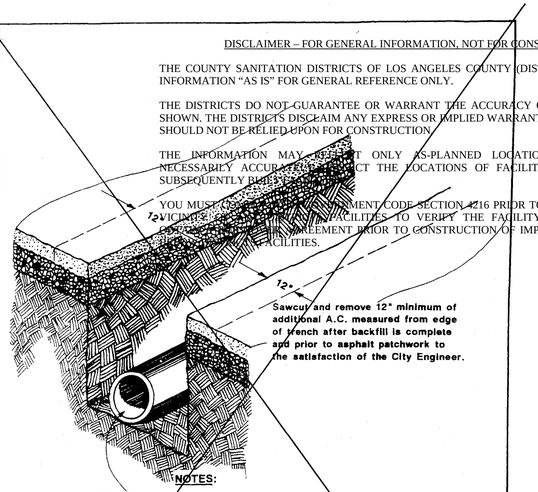
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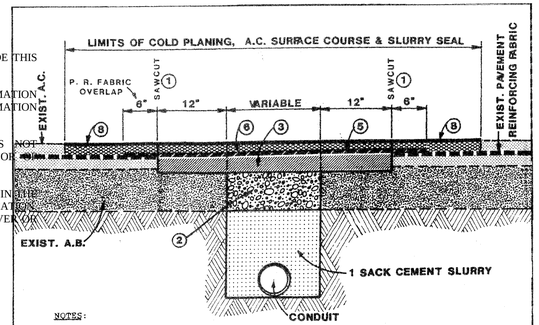
YOU MUST CONTACT THE DISTRICTS AT (562) 908-4288, EXTENSION 2717 AT LEAST TWO WORKING DAYS PRIOR TO EXCAVATING IN THE VICINITY OF DISTRICTS' FACILITIES TO VERIFY THE FACILITY'S EXACT LOCATION. YOU MAY ALSO BE REQUIRED TO SIGN AN AGREEMENT PRIOR TO CONSTRUCTION OF IMPROVEMENTS OVER OR ADJACENT TO DISTRICTS' FACILITIES.



NOTES:

1. **Backfill shall be placed as specified in Subsections 306-1.3.1, 306-1.3.2, and 306-1.3.4 of the Standard Specifications for Public Works Construction, Latest Edition.**
2. **Asphalt patch shall be per City standards and shall be a minimum of one (1") inch thicker than existing pavement.**
3. **On arterial streets where open trench is allowed, a minimum of 8' wide shall be grinded to 1½" thick, cold planed and replaced with the same material using machine, then to be slurried after 30 days and restripe as necessary.**

REVISIONS	CITY OF CERRITOS
ADDED SHEET 2 12/1/88 REV. NOTE 1 2/6/92	REPAIR OF OPEN TRENCH DETAIL
	APPROVED FOR USE IN THE CITY OF CERRITOS
	William J. Morris, Jr. 12/1/81 CITY ENGINEER DATE — PLAN NO. S-D-25 1 of 2



NOTES:

1. Sawcut a minimum of one foot from edge of trench after backfill is completed and remove existing A.C.
2. Construct crushed aggregate base - thickness to match existing.
3. Construct base course of new A.C., C2-AR-4000 unless otherwise specified.
4. Cold plane a minimum of 8 ft. wide area or a full traffic lane width (appropriate alternate to be determined by the City Engineer) to a depth of 1½" minimum. Where existing reinforcing fabric is 1½" below finish surface, cold plane depth may be 1½" minimum.
5. Install pavement reinforcing fabric with a minimum of 6 inches overlap over existing pavement reinforcing fabric on either side in accordance with the manufacturer's recommendation. A tack coat shall be applied to provide adequate bonding between existing pavement, pavement reinforcing fabric and new asphalt concrete overlay.
6. Construct surface course of asphalt concrete.
7. If existing pavement reinforcing fabric is damaged during the cold planing operation, new pavement reinforcing fabric shall be installed to the full width of the cold planed area with required overlap.
8. In areas where the existing pavement has been slurry sealed within the last 18 months, slurry the repaired width after 30 days from repaving.
9. Restripe as necessary.

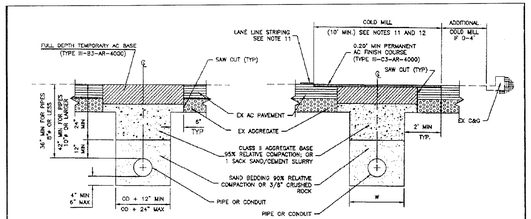
GENERAL NOTES:

1. Pavement reinforcing fabric shall be Petromat, Petrotac, or approved equal.
2. New A.C. pavement section shall be 1" thicker than existing pavement.

REVISIONS	CITY OF CERRITOS
	REPAIR OF OPEN TRENCH WITH EXIST. PAVEMENT REINFORCING FABRIC
	APPROVED FOR USE IN THE CITY OF CERRITOS
	William J. Morris, Jr. 12/5/88 CITY ENGINEER DATE — PLAN NO. S-D-25 2 of 2

NOTES FOR CERRITOS PLAN NO. S-D-25 AND ARTESIA STANDARD PLAN NO. 1001-1:

1. BEDDING REQUIREMENTS ON THE CITY PLANS DO NOT APPLY. SEE THE DETAILS ON SHEET 10 AND SECTIONS 3.6.1 AND 3.6.3 OF THE SPECIAL PROVISIONS FOR BEDDING REQUIREMENTS.
2. BACKFILL REQUIREMENTS ON THE CITY PLANS DO NOT APPLY. SEE SECTIONS 3.6.1 AND 3.6.3 OF THE SPECIAL PROVISIONS FOR BACKFILL REQUIREMENTS.
3. SEE SECTION 5 OF THE SPECIAL PROVISIONS FOR COMPLETE RESURFACING REQUIREMENTS.
4. CLASS II AGGREGATE BASE CALLED FOR IN CITY OF ARTESIA STANDARD PLAN SHALL BE PER CALTRANS SPECIFICATIONS.
5. TRENCH WIDTH REQUIREMENTS ON THE CITY PLANS DO NOT APPLY. SEE SECTION 10.9 OF THE SPECIAL PROVISIONS FOR FRP TRENCH WIDTH REQUIREMENTS. SEE SECTION 306-1.1.3 OF THE STANDARD SPECIFICATIONS FOR VCP TRENCH WIDTH REQUIREMENTS.
6. ASPHALT CLASS AND GRADE ON THE CITY PLANS DO NOT APPLY. SEE SECTION 5 OF THE SPECIAL PROVISIONS FOR ASPHALT CLASS AND GRADE.
7. NOTES 1-13 ON THE CITY OF ARTESIA STANDARD PLAN DO NOT APPLY.
8. NOTES 3,8 AND 9 ON SHEET 2 OF 2 ON THE CITY OF CERRITOS PLAN DO NOT APPLY.



TEMPORARY ASPHALT REPAIR — PERMANENT ASPHALT REPAIR

NOTES:

1. All compaction shall be by mechanical methods. Jetting, ponding or flooding in lieu of mechanical compaction shall not be allowed.
2. All trenches shall be backfilled and temporary AC base placed at the end of each work day. The engineer may authorize steel plating with AC ramps.
3. All traffic lanes shall be cleaned and restored to use immediately upon placement of temporary AC pavement and final AC pavement.
4. All traffic striping and/or markings removed or damaged during construction shall be replaced as directed by the Engineer in the field, using thermoplastic coatings as specified in the plans.
5. Permanent pavement repair shall be accompanied by cold milling temporary AC base. Permanent repair to be accomplished within 14 days of temporary repair.
6. The Engineer may require wider grinding area than what shows above, to suit field conditions.
7. The thickness of replacement asphalt shall be a minimum of 1" greater than existing and meet minimum design thickness using Caltrans pavement design method.
8. See special provisions for required traffic control.
9. As an alternate to C.A.B. backfill, street native material may be used if the S.E. value is 30 or greater, as determined and monitored by the Project Soils Engineer.
10. For street crossings, one (1) sack sand slurry should be used and as approved by the Engineer in the field.
11. Cold milling of 0.1 FT shall be required for all streets with pavement condition index of higher than 75; or less than three years old. Cold milling for older streets shall be as required by the City Engineer.
12. Extend the cold mill width to lane line striping as required by the City Engineer.
13. Longitudinal trenches: Construct slurry seal for half street on local streets and one traffic lane minimum on major streets. Replace striping as required. Transverse trenches: slurry seal minimum of 10 ft. centered on the trench. replace existing striping as required.

REVISED	DRAWN: A.C.E. DATE: 1-2001	CITY OF ARTESIA PUBLIC WORKS DEPARTMENT	
2-20-2004	REVIEWED: C.A.A. DATE: 5-2001		
	APPROVED: DATE:	TRENCH BACKFILL & PAVEMENT REPAIRS--ASPHALT PAVEMENTS	STD-PLAN 1001-1
	CITY ENGINEER R.C.E. NO. 54843	SCALE: N.T.S.	SHEET 1 OF 1

STANDARD DRAWINGS

THE 2009 EDITION OF THE DISTRICT'S STANDARD DRAWINGS FOR CONSTRUCTION, LISTED BELOW, ARE HEREBY MADE A PART OF THE PLANS FOR THE WORK. COPIES ARE AVAILABLE AT THE DISTRICT'S JOINT ADMINISTRATION OFFICE, 1955 WORKMAN MILL ROAD, WHITTIER, CA 90601 AND CAN BE DOWNLOADED FROM THE DISTRICTS' WEB SITE (WWW.LACSD.ORG).

DRAWING NO.	TITLE
S-a-79	STANDARD METHOD OF INSTALLING SADDLES
S-a-86	STANDARD METHOD FOR CONNECTION TO PIPES AND STRUCTURES
S-a-201	STANDARD MANHOLE, TYPE "A"
S-a-202	STANDARD MANHOLE, TYPE "B"
S-a-203	STANDARD MANHOLE, TYPE "C"
S-a-204	STANDARD MANHOLE, TYPE "D"
S-a-205	STANDARD DROP MANHOLE
S-a-206	STANDARD MANHOLE, TYPE "E"
S-a-207	STANDARD 24" LOCKING MANHOLE FRAME AND COVER
S-a-208	STANDARD 24" PRESSURE MANHOLE FRAME AND COVER
S-a-209	STANDARD MANHOLE STEP
S-a-210	STANDARD TRAP MANHOLE BASE
S-a-211	STANDARD TRAP CASTING
S-a-212	STANDARD CONCRETE CRADLES AND ENCASEMENTS
S-a-213	STANDARD "T" FOUNDATION
S-a-214	STANDARD CHIMNEY PIPE
S-a-215	STANDARD 36" MANHOLE FRAME AND COVER
S-a-216	STANDARD HOUSE CONNECTION GAS TRAP
S-a-217	STANDARD CONCRETE PIPE SUPPORT
S-a-218	STANDARD ABANDONMENT OF EXISTING MANHOLES TYPE "A" OR "D"
S-a-219	STANDARD RECONSTRUCTION OF BRICK MANHOLES
S-a-220	STANDARD PULL RING
S-a-221	STANDARD PROJECT SIGN
S-a-222	STANDARD TEMPORARY PIPE SUPPORT
S-a-223	STANDARD 30" MANHOLE FRAME AND COVER
S-a-224	STANDARD PIPE BARREL
S-a-225	STANDARD CONCRETE COLLAR
S-a-226	STANDARD 36" MANHOLE FRAME WITH 30" COVER
S-a-227	STANDARD CONCRETE BEAM FOR HOUSE CONNECTIONS
S-a-228	STANDARD 24" TRAFFIC MANHOLE FRAME AND COVER
S-a-229	STANDARD 36" PRESSURE MANHOLE FRAME AND COVER
S-a-230	STANDARD LIFTING EYE

SHEET INDEX

SHEET NO.	STRUCTURAL SHEET NO.	TITLE
1		COVER SHEET
2		LEGEND, STANDARD DRAWINGS, AND SHEET INDEX
3		PLAN AND PROFILE - STA 0 + 00.00 TO STA 9 + 50
4		PLAN AND PROFILE - STA 9 + 50 TO STA 18 + 50
5		PLAN AND PROFILE - STA 18 + 50 TO STA 28 + 00
6		PLAN AND PROFILE - STA 28 + 00 TO STA 38 + 50
7		PLAN AND PROFILE - STA 38 + 50 TO STA 44 + 50
8		PLAN AND PROFILE - STA 44 + 50 TO STA 54 + 50
9		PLAN AND PROFILE - STA 54 + 50 TO STA 64 + 50
10		PLAN AND PROFILE - STA 64 + 50 TO STA 69 + 87.92
11		PLAN AND PROFILE - STA 100 + 00.00 TO STA 100 + 34.18 166TH STREET CROSS-CONNECTION SEWER
12		MANHOLE DETAILS
13		GRIDLEY ROAD PUMPING PLANT AND FORCE MAIN ABANDONMENT
14		MANHOLE, STOPLOG, AND STOPLOG NOTCH DETAILS 166TH STREET CROSS-CONNECTION SEWER
15	S-1	GENERAL NOTES AND TYPICAL DETAILS 166TH STREET CROSS-CONNECTION SEWER
16	S-2	JUNCTION STRUCTURE AT STA 100 + 00.00 PLAN AND SECTIONS 166TH STREET CROSS-CONNECTION SEWER
17	S-3	JUNCTION STRUCTURE AT STA 100 + 00.00 PLAN, SECTIONS AND DETAILS 166TH STREET CROSS-CONNECTION SEWER
18	S-4	MISCELLANEOUS DRAWINGS PLASTIC LINER DETAILS 166TH STREET CROSS-CONNECTION SEWER
19	S-5	MISCELLANEOUS DRAWINGS PLASTIC LINER DETAILS 166TH STREET CROSS-CONNECTION SEWER
20		SPECIAL PROVISIONS
21		SPECIAL PROVISIONS
22		SPECIAL PROVISIONS
23		SPECIAL PROVISIONS
24		SPECIAL PROVISIONS
25		SPECIAL PROVISIONS

LEGEND

———	PROPOSED TRUNK SEWER	TP •----------• DM	EXISTING TELEPHONE POLE AND DEAD MAN
———	PROPOSED TRUNK SEWER REHABILITATION	PP •----------• DM	" POWER POLE AND DEAD MAN
———	EXISTING TRUNK SEWER	FH ⊠	" FIRE HYDRANT
———	FUTURE OR UNDER CONSTRUCTION	GP •	" GUY POLE
——EC——	EXISTING ELECTRICAL CONDUIT	LP ✧	" LIGHT POLE
——G——	" GAS LINE	TS •	" TRAFFIC SIGNAL
——GASO——	" GASOLINE LINE	WV ⊠ GV ⊠	" WATER AND GAS VALVE
——HC——	" HOUSE CONNECTION	WM ▭ GM ▭	" WATER AND GAS METER
——IRR——	" IRRIGATION LINE	×—×—×	" FENCE
——S——	" LOCAL SEWER		" AC PAVEMENT
——O——	" OIL LINE		" CONCRETE
——P——	" PIPE LINE		" CSD BOUNDARY
——SD——	" STORM DRAIN		" CITY BOUNDARY
——TC——	" TELEPHONE CONDUIT		RIGHT-OF-WAY
——TS——	" TRAFFIC SIGNAL		EASEMENT/ OCCUPATIONAL RIGHT-OF-WAY
——TV——	" TV CABLE		BENCH MARK
——W——	" WATER LINE		TEST HOLE
——(2)——	PLAN AND PROFILE SHEET INDEX		

NO.	DATE	REVISIONS	INITIALS
2	9/9/13	REVISED PER AS-BUILT AND FINAL SURVEY	SP CH
1	3/29/11	REVISED PER ADDENDUM NO. 1	MT MT

COUNTY SANITATION DISTRICT NO. 2 OF LOS ANGELES COUNTY, CALIFORNIA

REFERENCE DWG. NO. —

FIELD BOOK NO. S-379

		DATE
DESIGNED	S. PEGADIOTES	JAN. 2011
DRAWN	E. ANDRADE	JAN. 2011
CHECKED	M. TATALOVICH	JAN. 2011
REVIEWED	M. TREMBLAY	JAN. 2011

GRIDLEY ROAD INTERCEPTOR SEWER

LEGEND, STANDARD DRAWINGS AND SHEET INDEX

SCALE : AS SHOWN

SHEET NO. 2

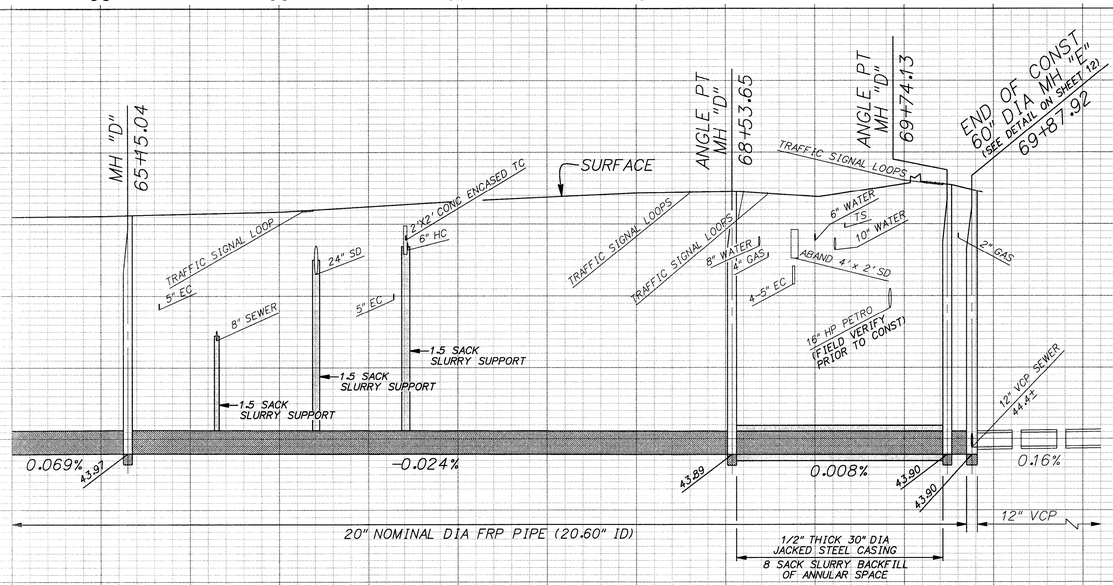
OF 25 SHEETS

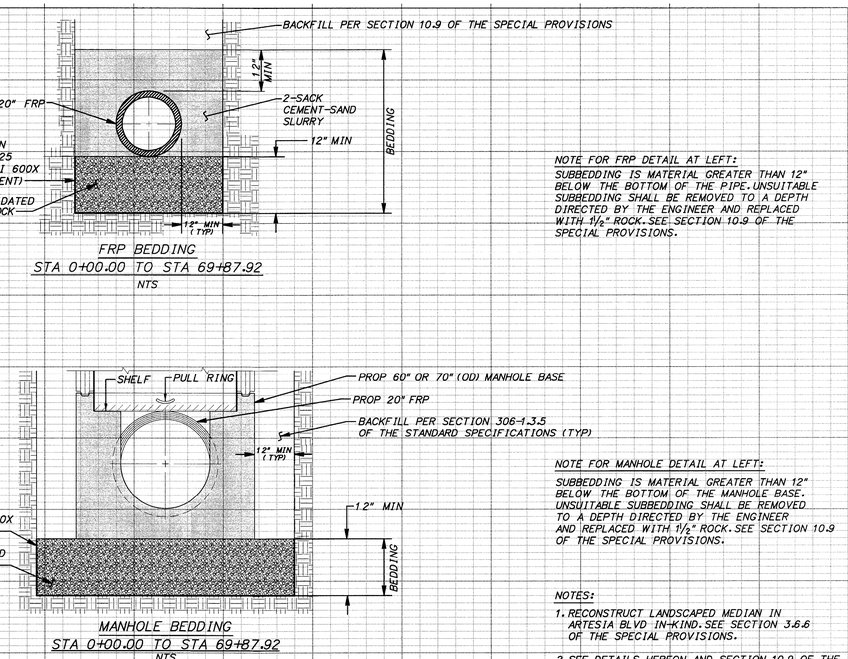
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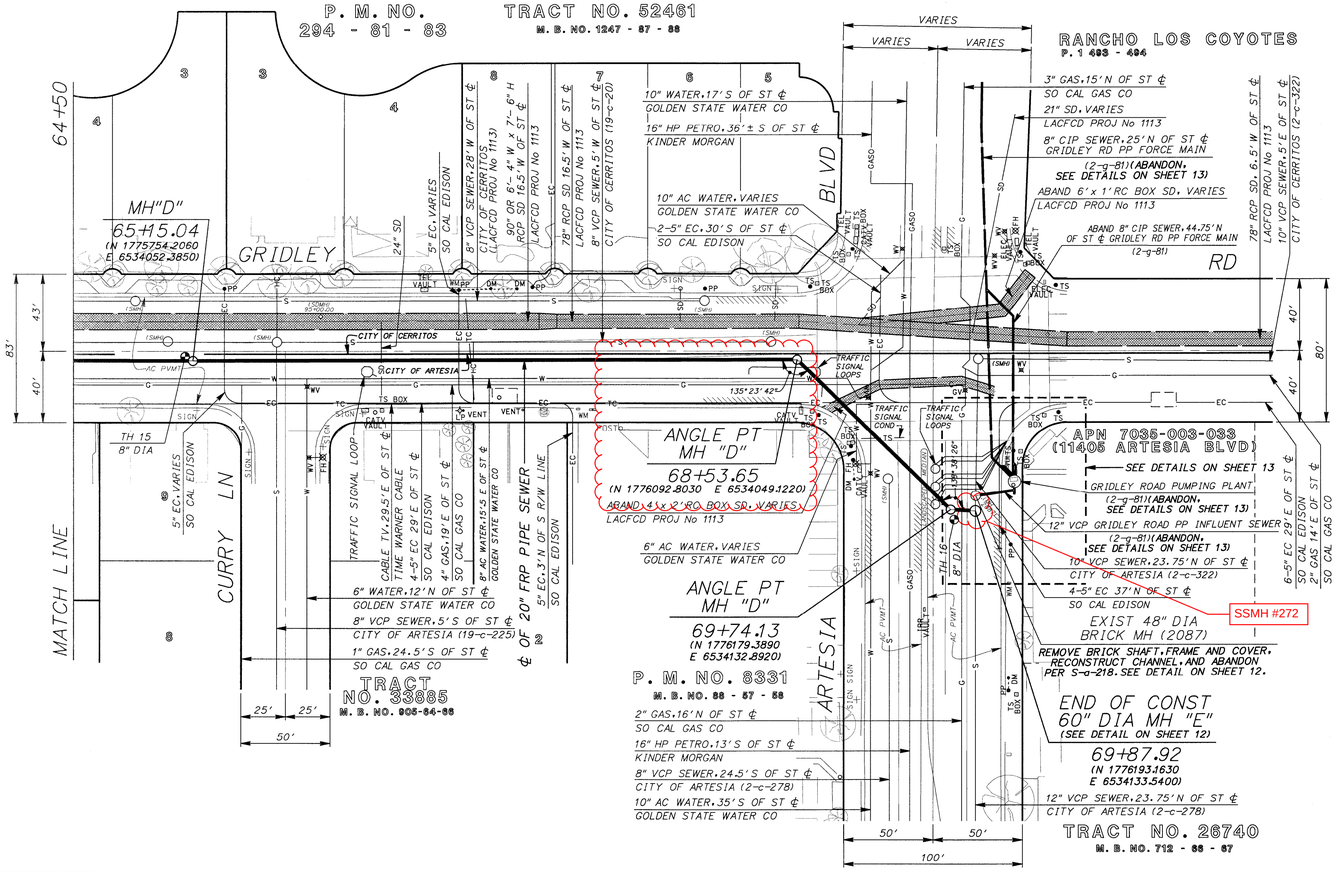
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SCALES
HORIZ: 1" = 40'
VERT: 1" = 5'

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RECORD DRAWING

WARNING 1" IF THIS LINE IS NOT 1" LONG, THEN DWG IS NOT TO SCALE.

NO.	REVISIONS	INITIALS	DATE
3	REVISED PER AS-BUILT AND FINAL SURVEY	SPOB	9/9/13
2	RELISSUED SHEET PER ADDENDUM NO. 1	WT MT	3-29-11

DATUMS		
HORIZONTAL	NAD83 ZONE 5 EPOCH (2002.0000)	JAN. 2011 DATE
VERTICAL	NAVD88 (2005) ARTESIA QUAD	JAN. 2011 DATE
FIELD BOOK NO.	S-379	JAN. 2011 DATE

DESIGNED S. PEGADIOTES
DRAWN E. ANDRADE
CHECKED M. TATALOVICH
REVIEWED M. TREMBLAY

COUNTY SANITATION DISTRICT NO. 2 OF LOS ANGELES COUNTY, CALIFORNIA

GRIDLEY ROAD INTERCEPTOR SEWER

PLAN AND PROFILE

SHEET NO. 10
OF 25 SHEETS

DWG. NO.
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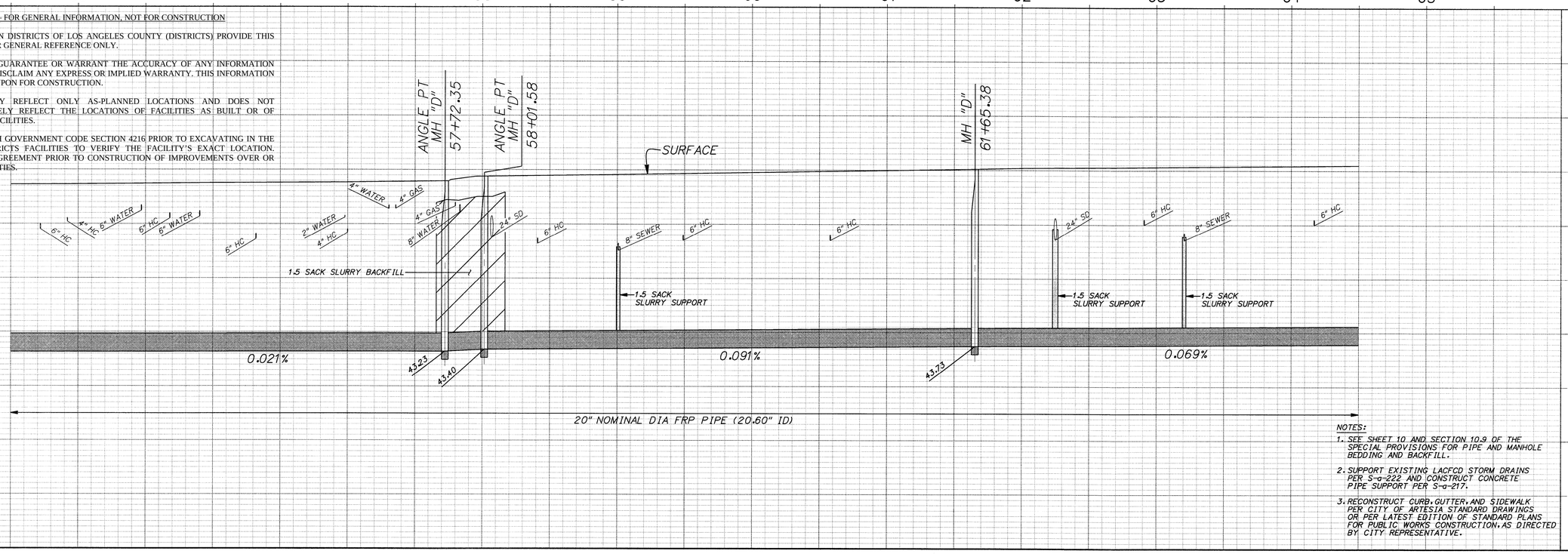
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NOTES:

1. SEE SHEET 10 AND SECTION 10.9 OF THE SPECIAL PROVISIONS FOR PIPE AND MANHOLE BEDDING AND BACKFILL.
2. SUPPORT EXISTING LACFCD STORM DRAINS PER S-a-222 AND CONSTRUCT CONCRETE PIPE SUPPORT PER S-a-217.
3. RECONSTRUCT CURB, GUTTER, AND SIDEWALK PER CITY OF ARTESIA STANDARD DRAWINGS OR PER LATEST EDITION OF STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION, AS DIRECTED BY CITY REPRESENTATIVE.

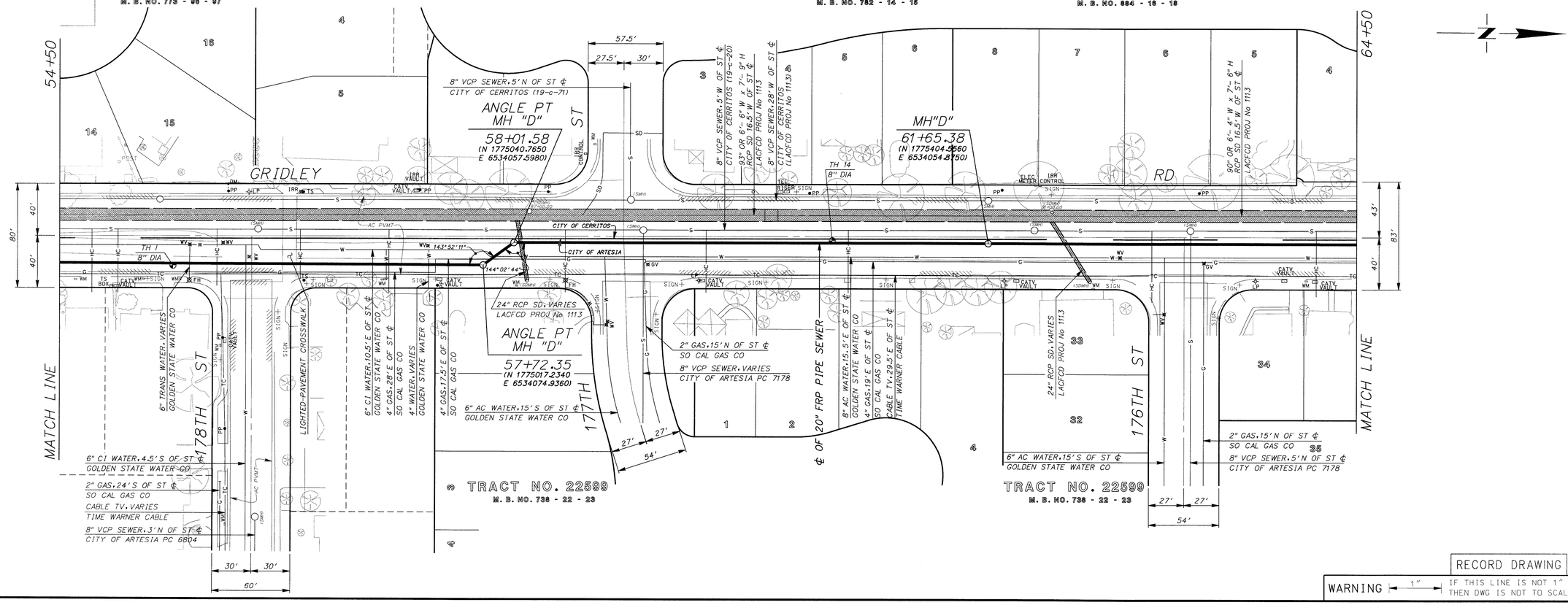
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HORIZ: 1" = 40'
VERT: 1" = 5'

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M. B. NO. 1247 - 01 - 02

TRACT NO. 27574
M. B. NO. 773 - 98 - 07

TRACT NO. 26351
M. B. NO. 782 - 14 - 15

TRACT NO. 33365
M. B. NO. 884 - 18 - 19



RECORD DRAWING

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NO.	REVISIONS	INITIALS	DATE
2	REVISED PER AS-BUILT AND FINAL SURVEY	MT MT	9/9/13 3-29-11
1	REVISED PER ADDENDUM NO. 1		

COUNTY SANITATION DISTRICT NO. 2
OF LOS ANGELES COUNTY, CALIFORNIA

DATUMS		
HORIZONTAL	NAD83 ZONE 5 EPOCH (2002.0000)	JAN, 2011
VERTICAL	NAVD88 (2005) ARTESIA QUAD	JAN, 2011
FIELD BOOK NO.	S-379	JAN, 2011

DESIGNED S. PEGADIOTES DATE JAN, 2011
DRAWN E. ANDRADE DATE JAN, 2011
CHECKED M. TATALOVICH DATE JAN, 2011
REVIEWED M. TREMBLAY DATE JAN, 2011

GRIDLEY ROAD INTERCEPTOR SEWER

PLAN AND PROFILE

SHEET NO. 9
OF 25 SHEETS

DWG. NO.
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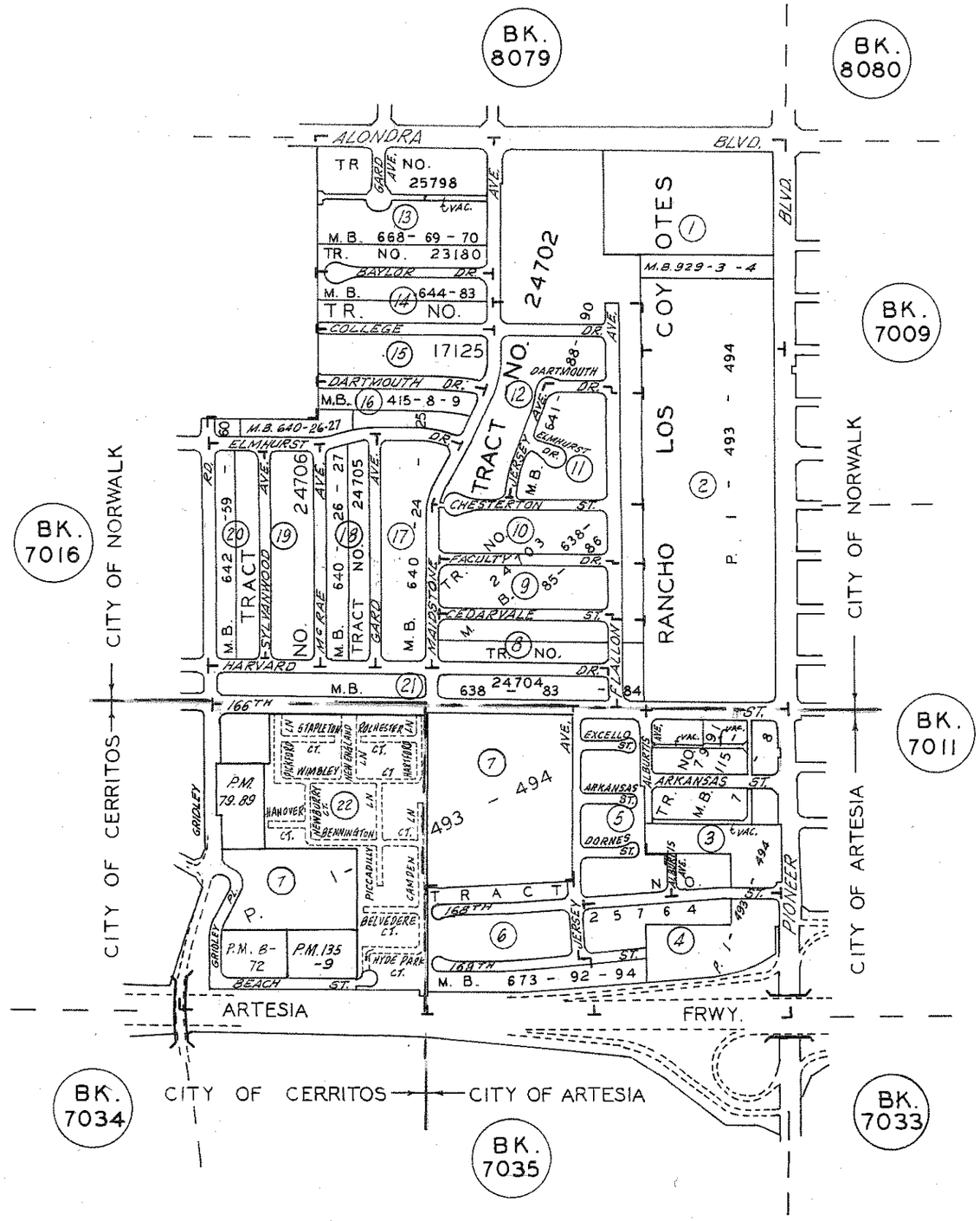
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7014

SCALE 1" = 600'

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INDEX
BOOK 7014

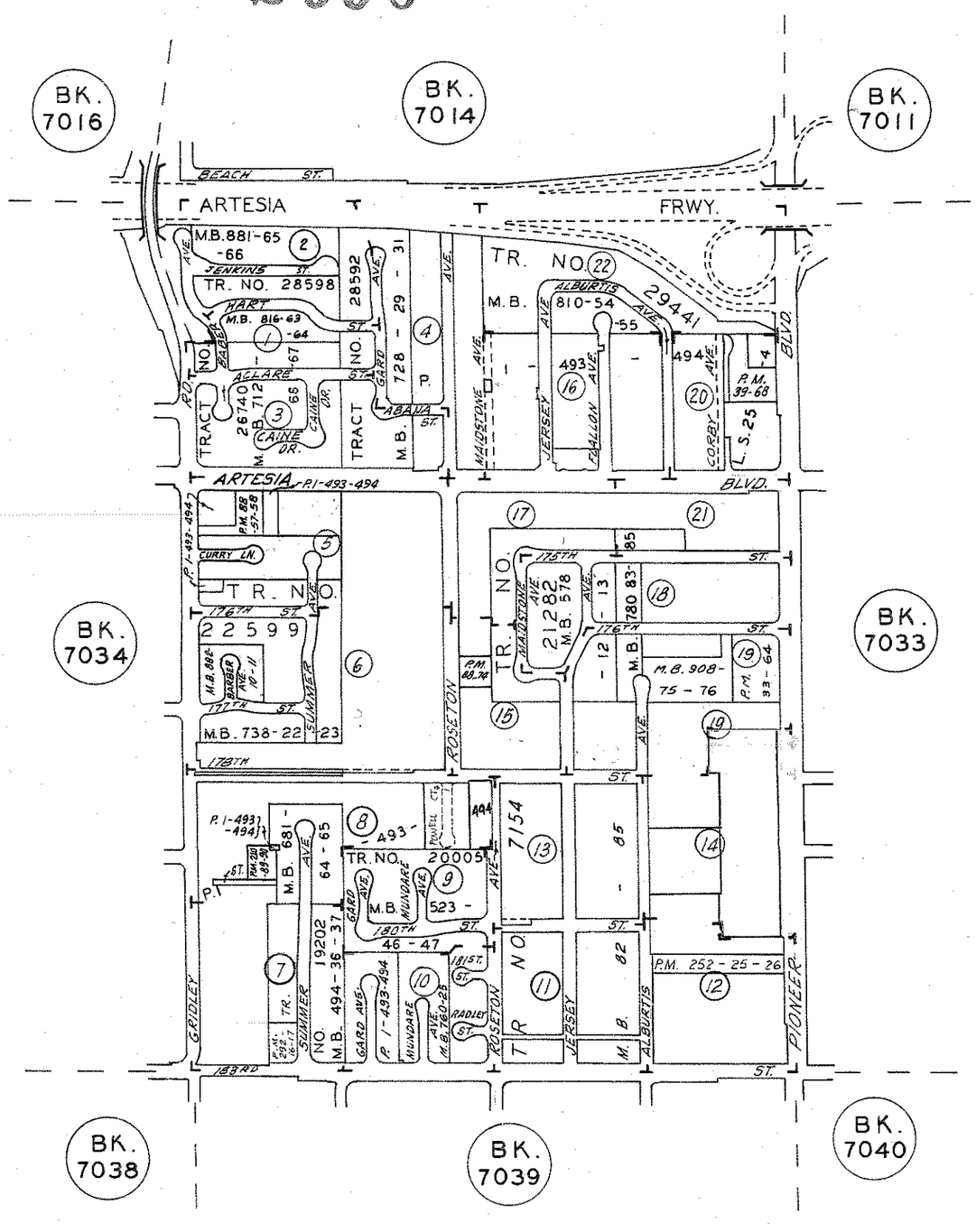
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

7035

SCALE 1" = 600'

731025
751027
770831
770919
780310
781215
790214
881110
920629
20000217
20040113
20050607 07

2006



INDEX
BOOK 7035
CITY OF ARTESIA

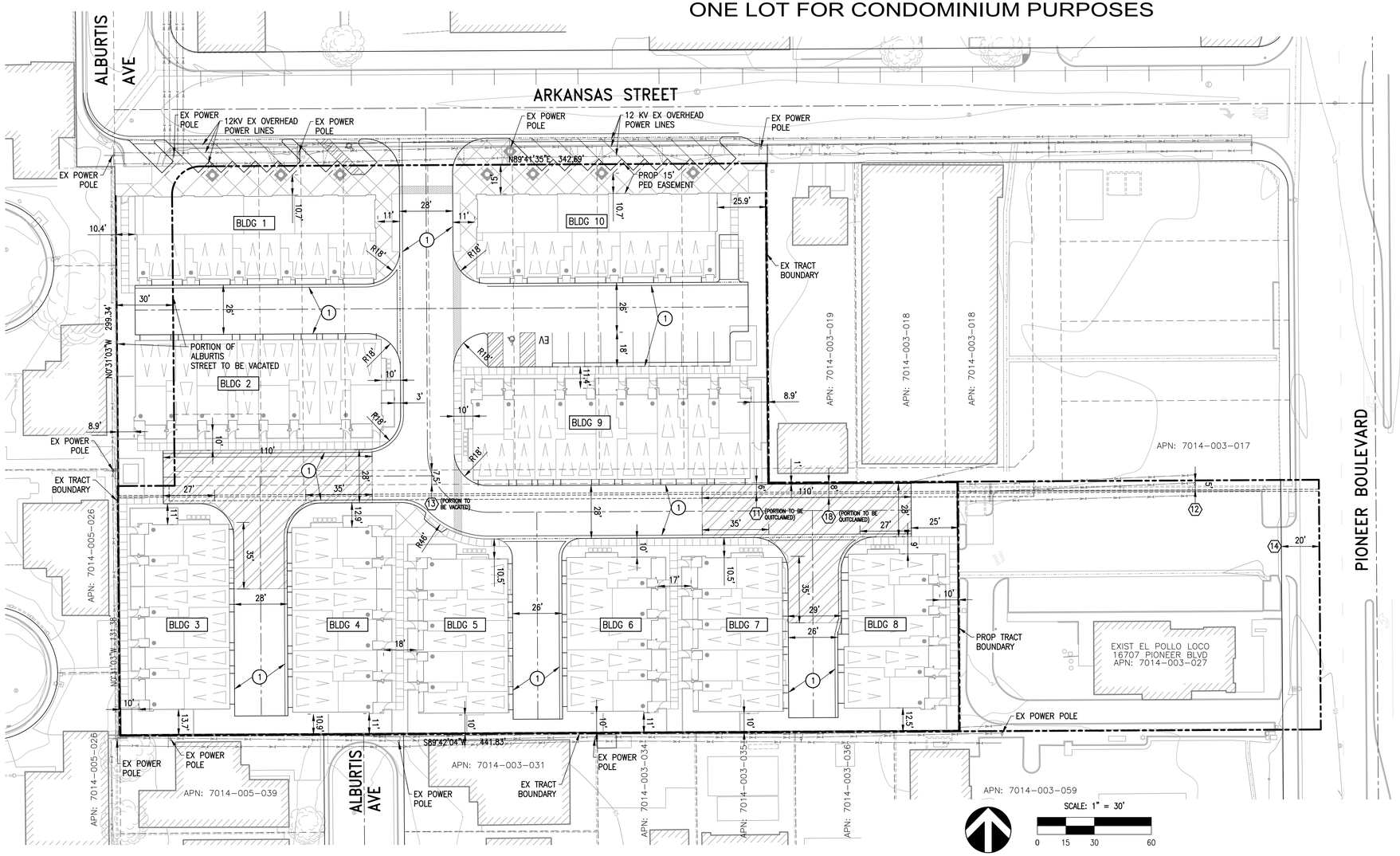
ASSESSOR'S MAP
COUNTY OF LOS ANGELES, CALIF.

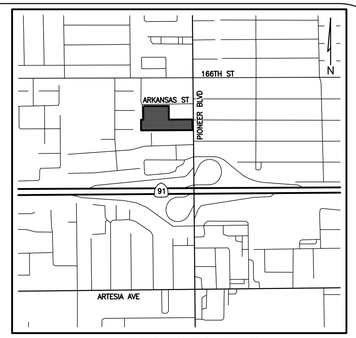
Appendix D

TENTATIVE TRACT MAP

(PROJECT SITE)

CITY OF ARTESIA
TENTATIVE TRACT MAP No. 83442
ONE LOT FOR CONDOMINIUM PURPOSES





VICINITY MAP
N.T.S.

SHEET INDEX

SHEET 1: TITLE SHEET, TENTATIVE MAP
SHEET 2: CONCEPTUAL GRADING PLAN
SHEET 3: SECTIONS
SHEET 4: CONCEPTUAL UTILITY PLAN
SHEET 5: FIRE ACCESS PLAN

PRELIMINARY EARTHWORK QUANTITIES

RAW FILL:	3660 CY
RAW CUT:	637 CY
ST UNDERCUT:	2587 CY
TOTAL CUT (IMPORT)	436 CY

NOTE: QUANTITIES DO NOT INCLUDE UTILITY SPOILS, FOOTING SPOILS, OR REMEDIAL GRADING

TITLE INFORMATION:

THE FOLLOWING TITLE INFORMATION WAS DERIVED FROM A COMMITMENT FOR TITLE INSURANCE ISSUED BY FIRST AMERICAN TITLE INSURANCE COMPANY, ORDER NO.: NCS-1012281-SA1 DATED JUNE 22, 2020

(#) DENOTES PLOTTED ITEM.

(11) AN EASEMENT FOR PUBLISH UTILITIES AND INCIDENTAL PURPOSES, RECORDED APRIL 14, 1954 AS INSTRUMENT NO. 2693 OF OFFICIAL RECORDS.
IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION
AFFECTS: PARCEL FOUR, AS DESCRIBED THEREIN

(12) AN EASEMENT FOR PUBLIC UTILITIES AND INCIDENTAL PURPOSE, RECORDED MAY 3, 1954 AS INSTRUMENT NO. 2482 OF OFFICIAL RECORDS.
IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION
AFFECTS: PARCEL FOUR, AS DESCRIBED THEREIN

(13) THE RIGHTS, IF ANY, OF A CITY, PUBLIC UTILITY OR SPECIAL DISTRICT TO PRESERVE A PUBLIC EASEMENT IN ALLEY AS THE SAME WAS VACATED BY THE DOCUMENT RECORDED JANUARY 15, 1970 AS INSTRUMENT NO. 3708 OF OFFICIAL RECORDS.

(14) AN EASEMENT FOR PUBLIC ROAD AND HIGHWAY AND INCIDENTAL PURPOSES, RECORDED MARCH 19, 1970 AS INSTRUMENT NO(S). 1457 AND 1458 BOTH OF OFFICIAL RECORDS.

IN FAVOR OF: CITY OF ARTESIA
AFFECTS: PARCEL FOUR, AS DESCRIBED THEREIN

(18) AN EASEMENT FOR OVERHEAD ELECTRICAL SUPPLY SYSTEMS AND COMMUNICATION SYSTEMS AND INCIDENTAL PURPOSES, RECORDED OCTOBER 3, 2001 AS INSTRUMENT NO. 01-18799741 OF OFFICIAL RECORDS.

IN FAVOR OF: SOUTHERN CALIFORNIA EDISON COMPANY, A CORPORATION
AFFECTS: PARCEL FOUR, AS DESCRIBED THEREIN

LEGAL DESCRIPTION:

PARCEL ONE:

LOTS 34, 35, 36, 37, 38 AND THE EAST 1/2 OF LOT 39, OF TRACT NO. 7991, IN THE CITY OF ARTESIA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 115, PAGES 7 AND 8 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
TOGETHER WITH THAT PORTION OF THE ALLEY ADJOINING ON THE SOUTH VACATED BY CITY OF ARTESIA, RESOLUTION NO. 409, RECORDED JANUARY 15, 1970 UNDER INSTRUMENT NO. 3708, OFFICIAL RECORDS, LYING WITHIN THE SOUTHERLY PROLONGATION OF THE EASTERLY AND WESTERLY LINES OF SAID LOTS.

PARCEL TWO:

PARCEL A:

THE WESTERLY HALF OF LOT 39 OF TRACT NO. 7991, IN THE CITY OF ARTESIA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 115 PAGES 7 AND 8 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.
TOGETHER WITH THE 7.5 FOOT ALLEY ADJOINING SAID LOT ON THE SOUTH LYING BETWEEN THE SOUTHERLY PROLONGATION OF THE EASTERLY AND WESTERLY LINES OF THE WESTERLY HALF OF LOT 39 AS SET FORTH IN THE ORDER OF VACATION RECORDED JANUARY 15, 1970 AS INSTRUMENT NO. 3708 OF OFFICIAL RECORDS.

PARCEL B:

LOT 40 OF TRACT NO. 7991, IN THE CITY OF ARTESIA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 115 PAGES 7 AND 8 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

EXCEPT THE SOUTHERLY 30 FEET THEREOF.

PARCEL THREE:

THE SOUTHERLY THIRTY FEET (30 FEET) OF LOT 40 IN TRACT NO. 7991, AS PER MAP RECORDED IN BOOK 115, PAGES 7 AND 8 OF MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

TOGETHER WITH THAT PORTION OF VACATED 7.50 FEET PUBLIC ALLEY, PURSUANT TO THAT CERTAIN DOCUMENT ENTITLED "RESOLUTION NO. 409" RECORDED AS JANUARY 15, 1970 AS INSTRUMENT NO. 3708 OF OFFICIAL

PARCEL FOUR:

THE SOUTH 2 ACRES OF THE NORTHEAST QUARTER OF THE NORTHEAST QUARTER OF THE SOUTHEAST QUARTER OF SECTION 25, TOWNSHIP 3 SOUTH RANGE 12 WEST IN THE RANCHO LOS COYOTES, IN THE CITY OF ARTESIA, COUNTY OF LOS ANGELES, STATE OF CALIFORNIA, AS SHOWN ON MAP MADE BY CHARLES T. HEALEY UPON SURVEY MADE BY HIM ABOUT 1870 FOR THE STEARNS RANCHO COMPANY.
RECORDS.
EXCEPT FROM SAID 2 ACRES THE EAST 30 FEET THEREOF, AS CONVEYED TO THE COUNTY OF LOS ANGELES BY DEED RECORDED IN BOOK 1429 PAGE 218 OF DEEDS.
FOR CONVEYANCING PURPOSES ONLY: APN 7014-003-020 (AFFECTS: LOT 34 OF PARCEL ONE)
7014-003-021 (AFFECTS: LOT 35 OF PARCEL ONE)
7014-003-022 (AFFECTS: LOT 36 OF PARCEL ONE)
7014-003-023 (AFFECTS: LOT 37 OF PARCEL ONE)
7014-003-024 (AFFECTS: LOT 38 AND EAST 1/2 OF LOT 39 OF PARCEL ONE)
7014-003-025 (AFFECTS: PARCEL TWO)
7014-003-026 (AFFECTS: PARCEL THREE)
7014-003-027 (AFFECTS: PORTION OF PARCEL FOUR) AND
7014-003-028 (AFFECTS: PORTION OF PARCEL FOUR)

BASIS OF BEARINGS:

THE BEARINGS SHOWN HEREON ARE BASED ON THE BEARING NORTH 15°17'21" EAST BETWEEN CALIFORNIA SPATIAL REFERENCE CENTER, CSRS, CONTINUOUSLY OPERATING REFERENCE STATIONS, CORS, "LBC1" AND "BKMS".

DATUM STATEMENT:

ALL COORDINATES SHOWN HEREON ARE GRID VALUES BASED ON THE CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE V, NORTH AMERICAN DATUM OF 1983, 2010.00 EPOCH, NAD83(2011), IN ACCORDANCE WITH THE CALIFORNIA PUBLIC RESOURCES CODE SECTIONS 8801-8819. ALL DISTANCES SHOWN HEREON ARE GROUND VALUES UNLESS OTHERWISE NOTED. A GENERALIZED COMBINATION SCALE FACTOR OF 1.00003950 WAS USED FOR THIS PROJECT AT NORTHING 1778293.844, EASTING 6536175.997. TO OBTAIN GRID DISTANCES, MULTIPLY GROUND DISTANCES BY THE COMBINATION SCALE FACTOR.

BENCHMARK STATEMENT:

LA COUNTY BENCHMARK NO. 2Y12315 ELEV: 66.092 FT
DESCRIBED AS: L&DPW IN E CB 3M(10') N/O BCR @ SE COR PIONEER BL & 166TH ST (TABLE A-5)

FLOOD NOTE:

THE SUBJECT PROPERTY FALLS WITHIN "ZONE X; AREAS OF 0.2% ANNUAL CHANCE FLOOD, AREAS OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD." PER FEMA MAP NO. 06037C1839F, A PRINTED PANEL, EFFECTIVE SEPTEMBER 26, 2008 (TABLE A-3).

TOPOGRAPHY NOTE:

TOPOGRAPHY AND CONTOURS SHOWN HEREON ARE BASED ON 1' CONTOUR INTERVALS FROM AERIAL PHOTOGRAMETRY FLOWN BY C&V CONSULTING INC. ON 4/2/2019. THE RELATIVE POSITIONAL ACCURACY OF CALLED OUT IMPROVEMENTS SHOWN ON THE SURVEY IS WITHIN 0.1' OF THEIR ACTUAL LOCATIONS.

LEGEND:

- CENTERLINE
- EX. TRACT BOUNDARY/ RIGHT-OF-WAY LINE
- PROP. TRACT BOUNDARY/ RIGHT-OF-WAY LINE
- EX EASEMENT LINE
- PROP. EASEMENT LINE

ARCHITECT:

WHA
680 NEWPORT CENTER DRIVE
SUITE 300
NEWPORT BEACH, CA 92660
(949) 250-0607
CONTACT: LOUISA FELLETTO

GEOTECHNICAL ENGINEER:

ALTA CALIFORNIA GEOTECHNICAL, INC.
170 N. MAPLE STREET
CORONA, CA 92880
(951) 509-7090
CONTACT: SCOTT A. GRAY

AREA SUMMARY:

115,622.91 SQ. FT. (2.65 AC) NET
PROPOSED UNITS: 60 UNITS

PROPOSED EASEMENTS

(1) INGRESS, EGRESS AND PUBLIC EMERGENCY ACCESS EASEMENT

VESTED OWNER:

PARCEL ONE: PIONEER REALITY DEVELOPMENT LLC
PARCEL TWO: ROLAND C. SPONGBERG
PARCEL THREE: DONALD L. BROWN AND CATHERINE F. BROWN, TRUSTEES OF THE BROWN FAMILY TRUST
PARCEL FOUR: QSR REALTY HOLDINGS

DEVELOPER:

CITY VENTURES
3121 MICHELSON DR. SUITE 150
IRVINE, CA 92612
(949) 258-7555
CONTACT: KIM PRIJATEL

CIVIL ENGINEER:

C&V CONSULTING, INC.
9830 IRVINE CENTER DRIVE
IRVINE, CA 92618
(949) 916-3800
CONTACT: DAVID TERRY

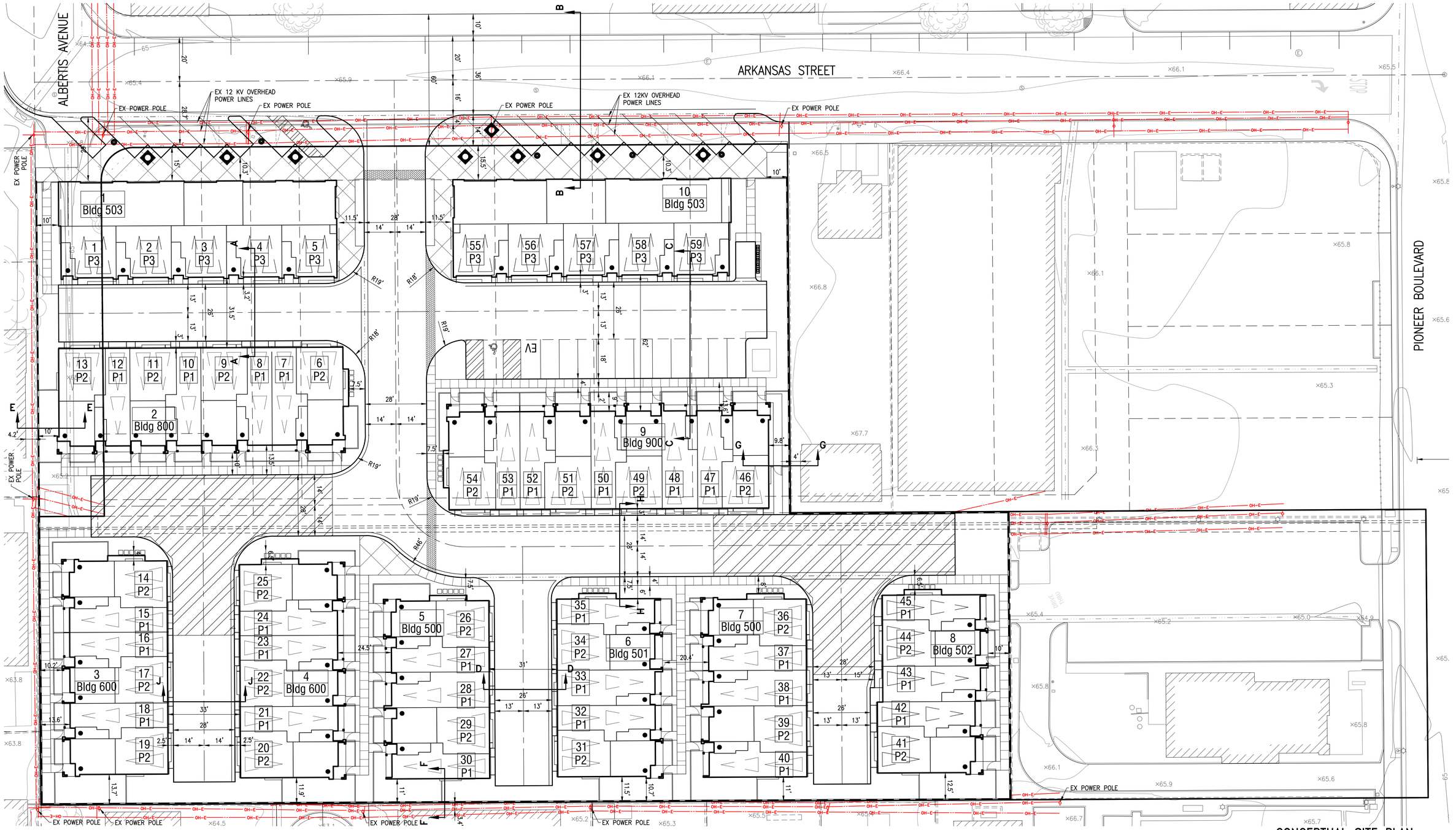
PREPARED BY:

C&V CONSULTING, INC.
CIVIL ENGINEERING
LAND PLANNING & SURVEYING
9830 IRVINE CENTER DRIVE
IRVINE, CALIFORNIA 92618
(949) 916-3800
INFO@CVC-INC.NET
WWW.CVC-INC.NET

TITLE SHEET
TENTATIVE TRACT MAP NO. 83442
11700-11732 ARKANSAS ST &
16703-16707 PIONEER BLVD ARTESIA, CA
Sheet 1 of 5

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CITY OF ARTESIA
CONCEPTUAL SITE PLAN



PREPARED BY:

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CIVIL ENGINEERING
LAND PLANNING & SURVEYING

9830 IRVINE CENTER DRIVE
IRVINE, CALIFORNIA 92618
(949) 916-3800
INFO@CVC-INC.NET
WWW.CVC-INC.NET

SCALE: 1" = 20'

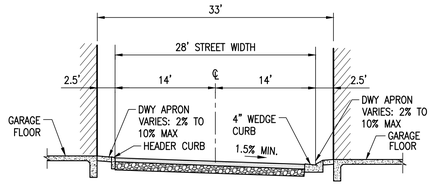
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CONCEPTUAL SITE PLAN
TENTATIVE TRACT MAP NO. 83442

11700–11732 ARKANSAS ST &
16703–16707 PIONEER BLVD ARTESIA, CA

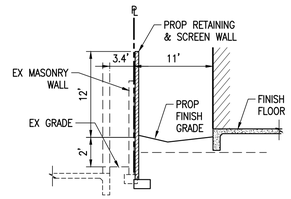
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SECTIONS



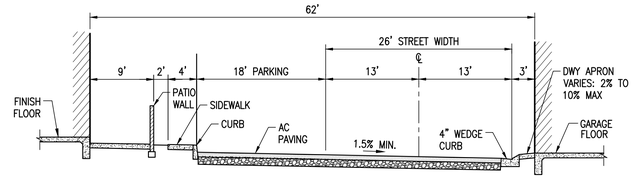
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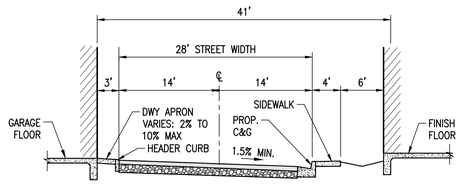
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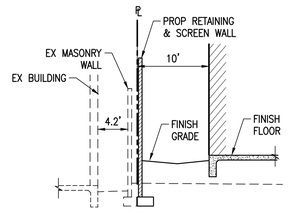
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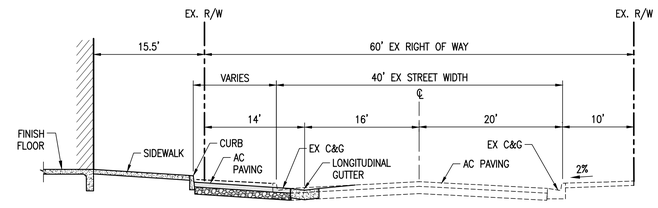
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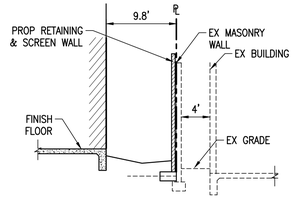
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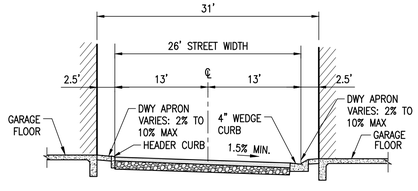
SECTION 'B–B' ARKANSAS STREET

N.T.S.



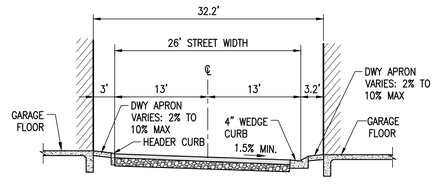
SECTION 'G–G'

N.T.S.



SECTION 'D–D'

N.T.S.



SECTION 'A–A'

N.T.S.

PREPARED BY:

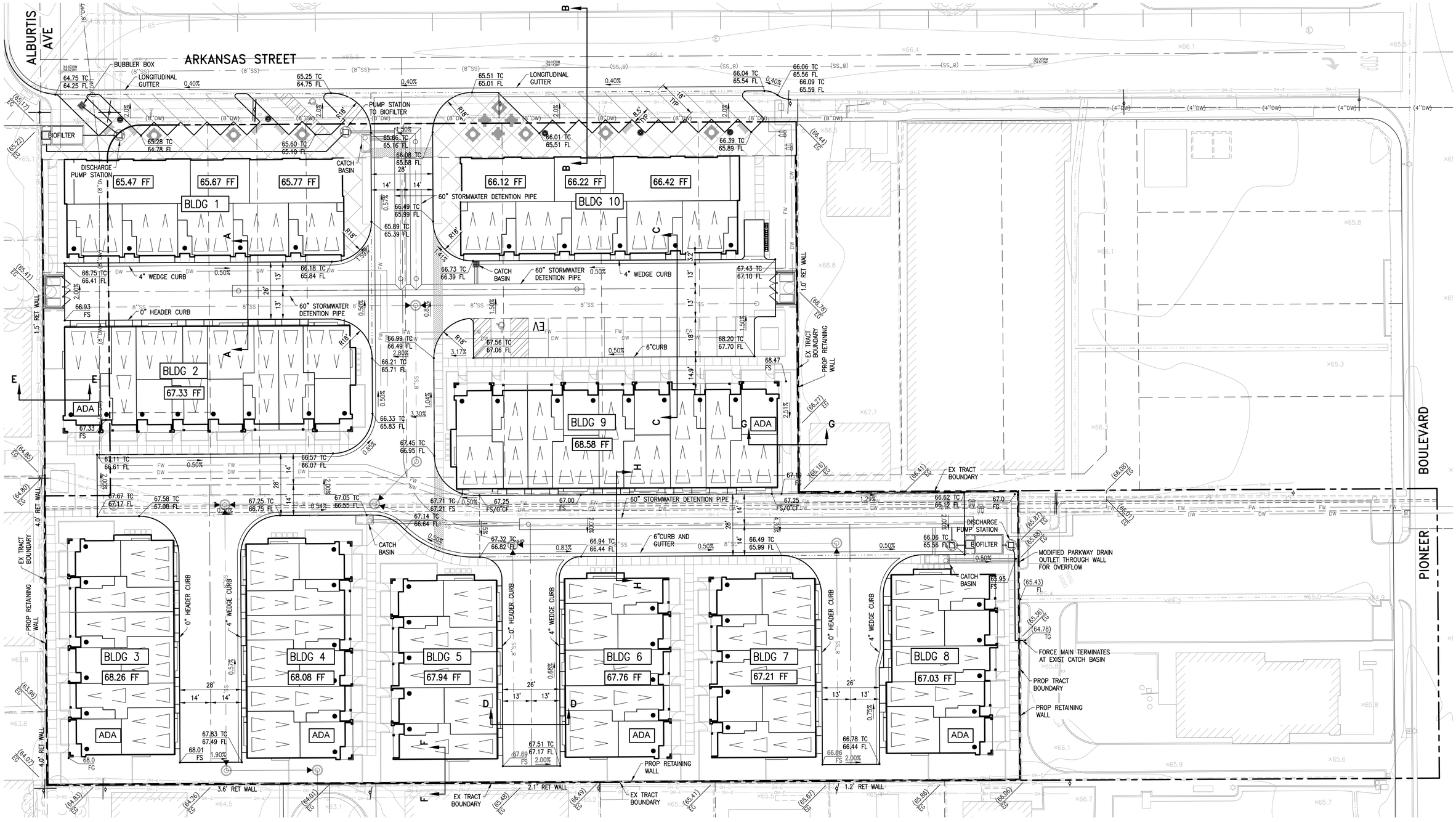
C&V CONSULTING, INC.
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LAND PLANNING & SURVEYING

9830 IRVINE CENTER DRIVE
IRVINE, CALIFORNIA 92618
(949) 916-3800
INFO@CVC-INC.NET
WWW.CVC-INC.NET

SECTIONS
TENTATIVE TRACT MAP NO. 83442
11700–11732 ARKANSAS ST &
16703–16707 PIONEER BLVD ARTESIA, CA
Sheet 3 of 5

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PROJ: CVEN-147

CONCEPTUAL GRADING PLAN



PREPARED BY:

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LAND PLANNING & SURVEYING
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IRVINE, CALIFORNIA 92618
(949) 916-3800
INFO@CVC-INC.NET
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SCALE: 1" = 20'

0 10 20 40

CONCEPTUAL GRADING PLAN
TENTATIVE TRACT MAP NO. 83442

11700–11732 ARKANSAS ST &
16703–16707 PIONEER BLVD ARTESIA, CA

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CONCEPTUAL UTILITY PLAN

ARKANSAS STREET

ALBURTIS AVE

PIONEER BOULEVARD

EX 8" DW (NORWALK WATER)

EX 8" DW (NORWALK WATER)

EX 8" SS

EX 8" DW (NORWALK WATER)

PUMP STATION TO BIOFILTER

BIOFILTER

DISCHARGE PUMP STATION

PORTION OF EX 8" DW TO BE ABANDONED

PROP FW DDCA

PROP DW RPPA

BLDG 1

BLDG 10

60" STORMWATER DETENTION PIPE

PROP FW

PROP DW

PROP SS

BLDG 2

BLDG 9

PROP SSMH

PROP SEWER

BLDG 3

BLDG 4

BLDG 5

BLDG 6

BLDG 7

BLDG 8

PROP SSCO

PROP FW DDCA

PROP DW RPPA

DISCHARGE PUMP STATION

BIOFILTER

PROP FW (LIBERTY UTILITIES)

PROP DW (LIBERTY UTILITIES)

MODIFIED PARKWAY DRAIN OUTLET THROUGH WALL FOR OVERFLOW

FORCE MAIN TERMINATES AT EXIST CATCH BASIN

PROP TRACT BOUNDARY

JOIN EX SSMH

PROP. PORJECT POC

SCALE: 1" = 20'

0 10 20 40

LEGEND:

- CENTERLINE
- EX. WATER LINE
- PROP. WATER LINE
- EX. SEWER LINE
- PROP. SEWER LINE
- EX. FENCE
- PROP. WALL
- EX. CONTOUR LINE
- PROP. WATER METER
- PROP. WATER VALVE
- PROP. SEWER MANHOLE
- PROP. CLEANOUT
- EX. POWER POLE
- EX. STREET LIGHT
- EX. SEWER MANHOLE
- EX. FIRE HYDRANT

PREPARED BY:

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CONCEPTUAL UTILITY PLAN
TENTATIVE TRACT MAP NO. 83442
11700-11732 ARKANSAS ST &
16703-16707 PIONEER BLVD ARTESIA, CA
Sheet 5 of 5

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Appendix E

LACDPW SEWER AREA STUDY GUIDELINES

LOS ANGELES COUNTY
DEPARTMENT OF PUBLIC WORKS
LAND DEVELOPMENT DIVISION

AREA STUDY

An area study must be made for all private contract sewer projects. See attached sample. The area study must include the following items:

1. Area being served - In Acres
2. Determined Tributary area to main line being designed (incl. areas of future devel.)- In Acres
3. Existing and Land Use Zoning
4. Anticipated Sewer Discharge in cfs of total area based on zoning, and/or heavy water users
5. Existing or proposed utilities if in conflict
6. Existing and proposed sewers showing pipe size and grade leading up to the trunk line in order for you to evaluate the impact of your proposed development on the existing system
7. Direction of sewer flow
8. Contour lines
9. Scale not to be less than 1"=600'
10. North arrow pointing up or to the left

ZONING COEFFICIENTS

ZONE	COEFFICIENT (cfs/Acre)
Agriculture	0.001
Residential	
R-1	0.004
R-2	0.008
R-3	0.012
R-4	0.016 *
Commerical	
C-1 through C-4	0.015 *
Heavy Industrial	
M-1 through M-4	0.021 *

* Individual building, commercial or industrial plant capacities shall be the determining factor when they exceed the coefficients shown.

The coefficient to be used for any zoned areas not listed will be determined by the County based upon the intended development and use.

The County shall determine which of the coefficients or combination of coefficients shall be used for design as determined by the established or proposed zoning in the study area. Any modifications to these coefficients due to topography, development, or hazard areas, shall be approved by the Department of Public Works.

Estimated Average Daily Sewage Flows for Various Occupancies

Occupancy	Abbreviation	*Average daily flow	
Apartment Buildings:			
Bachelor or Single dwelling units	Apt	100	gal/D.U. → 150
1 bedroom dwelling units	Apt	150	gal/D.U. → 200
2 bedroom dwelling units	Apt	200	gal/D.U. → 250
3 bedroom or more dwelling units	Apt	250	gal/D.U. → use 300 GPD per SMD
Auditoriums, churches, etc.	Aud	5	gal/seat
Automobile parking	P	25	gal/1000 sq ft gross floor area
Bars, cocktails lounges, etc.	Bar	20	gal/seat
Commercial Shops & Stores	CS	100	gal/1000 sq ft gross floor area
Hospitals (surgical)	HS	500	gal/bed
Hospitals (convalescent)	HC	85	gal/bed
Hotels	H	150	gal/room
Medical Buildings	MB	300	gal/1000 sq ft gross floor area
Motels	M	150	gal/unit
Office Buildings	Off	200	gal/1000 sq ft gross floor area
Restaurants, cafeterias, etc.	R	50	gal/seat
Schools:			
Elementary or Jr. High	S	10	gal/student
High Schools	HS	15	gal/student
Universities or Colleges	U	20	gal/student
College Dormitories	CD	85	gal/student

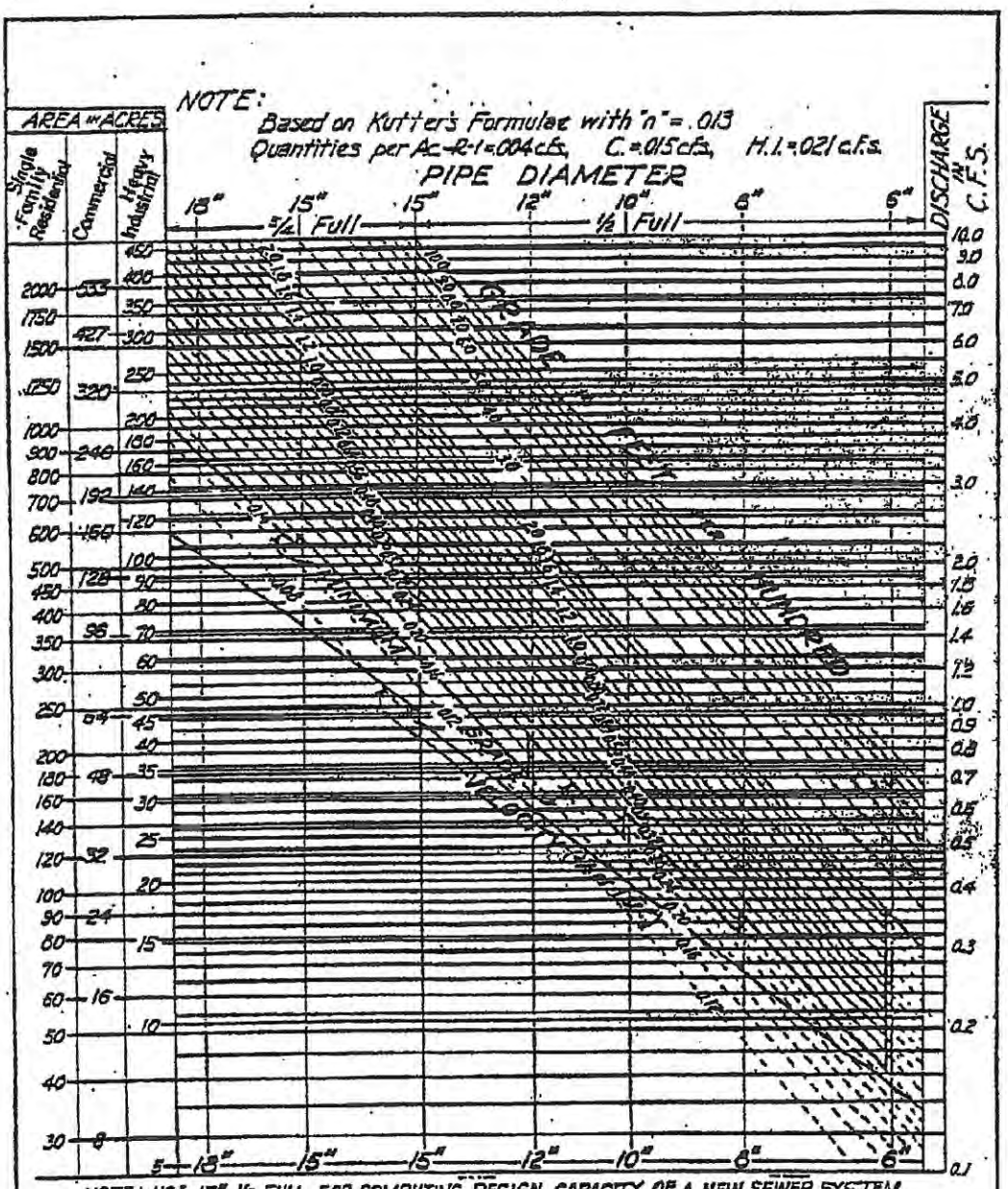
*Multiply the average daily flow by 2.5 to obtain the peak flow

Zoning Coefficients

Zone	Coefficient (cfs/Acre)
Agriculture	**0.001**
Residential+:	
R-1	**0.004**
R-2	**0.008**
R-3	**0.012**
R-4	**0.016***
Commercial:	
C-1 through C-4	**0.015***
Heavy Industrial:	
M1 through M-4	**0.021***

***Individual building, commercial or industrial plant capacities shall be the determining factor when they exceed the coefficients shown**

+ Use 0.001 (cfs/unit) for condominiums only



FLOW DIAGRAM FOR THE DESIGN
OF CIRCULAR SANITARY SEWERS

COUNTY OF LOS ANGELES
DEPARTMENT OF PUBLIC WORKS

ASSISTANT DEPUTY

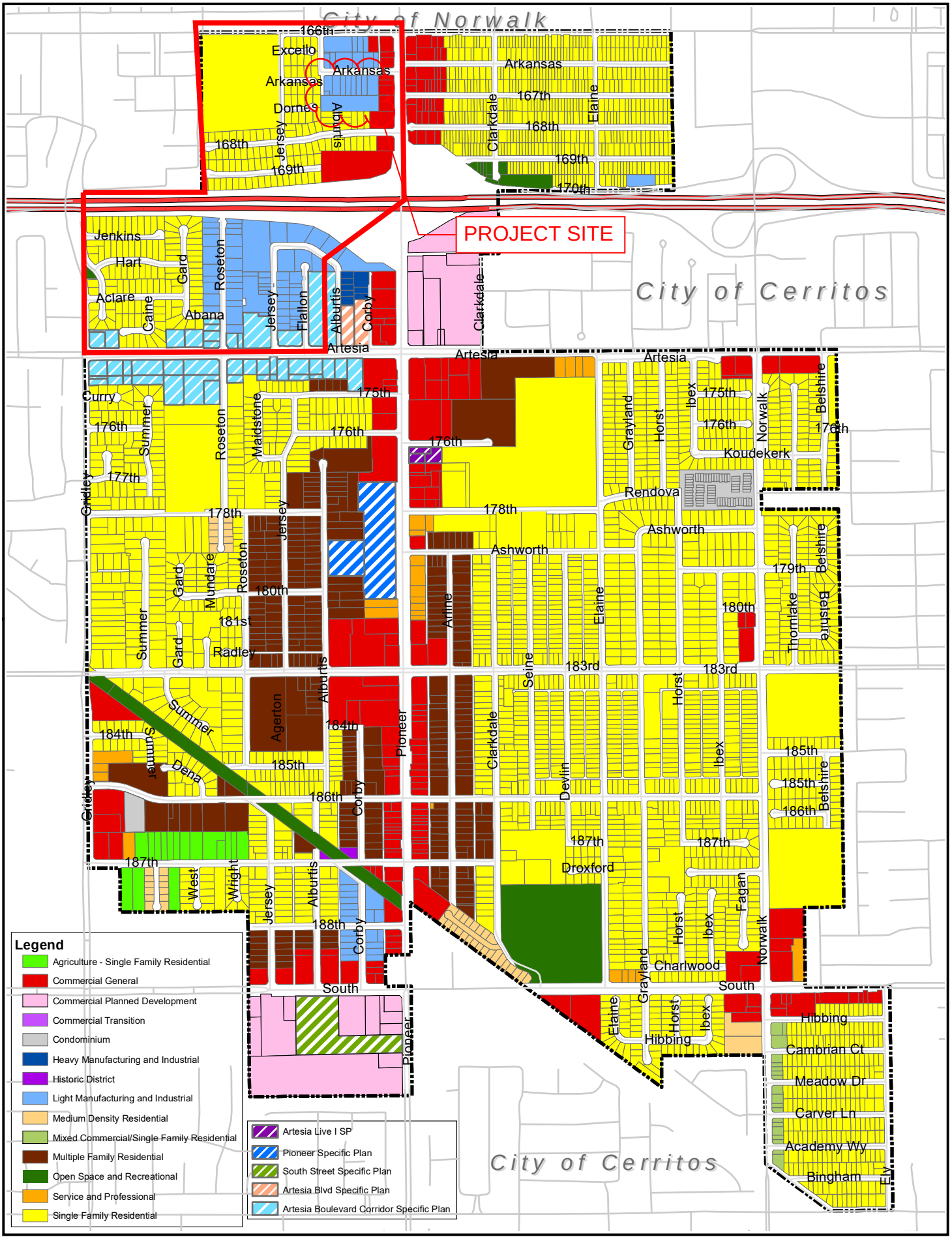
COUNTY ENGINEER

COUNTY ENGINEER
STANDARD S-C4
DATE: 3/80

DESIGN RCE 10443

Appendix F

CITY OF ARTESIA ZONING MAP, ARTESIA BOULEVARD CORRIDOR SPECIFIC PLAN REFERENCE



City of Artesia

Zoning Map

Revised 01/07/2019

Community Commercial. All of the parcels within study area are now designated Gateway Community Commercial with the exception of two parcels southeast of the Roseton Avenue and Artesia Boulevard intersection which remain Low Density Residential.

The Gateway Community Commercial designation provides for a complementary mix of job-creating industrial, manufacturing uses, and local/regional-serving commercial retail and office uses. The Gateway Community Commercial designation encourages enhancement and expansion of manufacturing and industrial job-creating enterprise to attract higher wage, high-skilled employment opportunities. Commercial retail development is encouraged adjacent to the Artesia Boulevard and Pioneer Boulevard corridors to enhance local and regionally-serving commercial activity. Well designed, functionally integrated retail development is also encouraged at primary intersections.

Exhibit 1-4: General Plan Designations

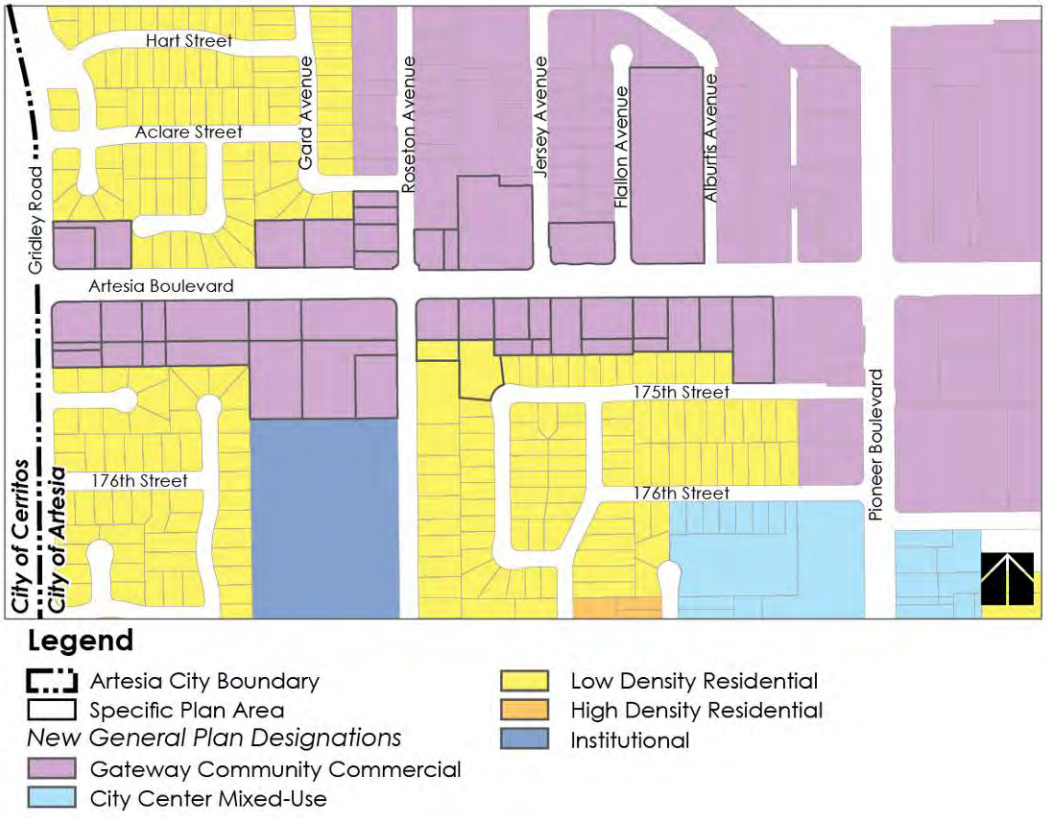
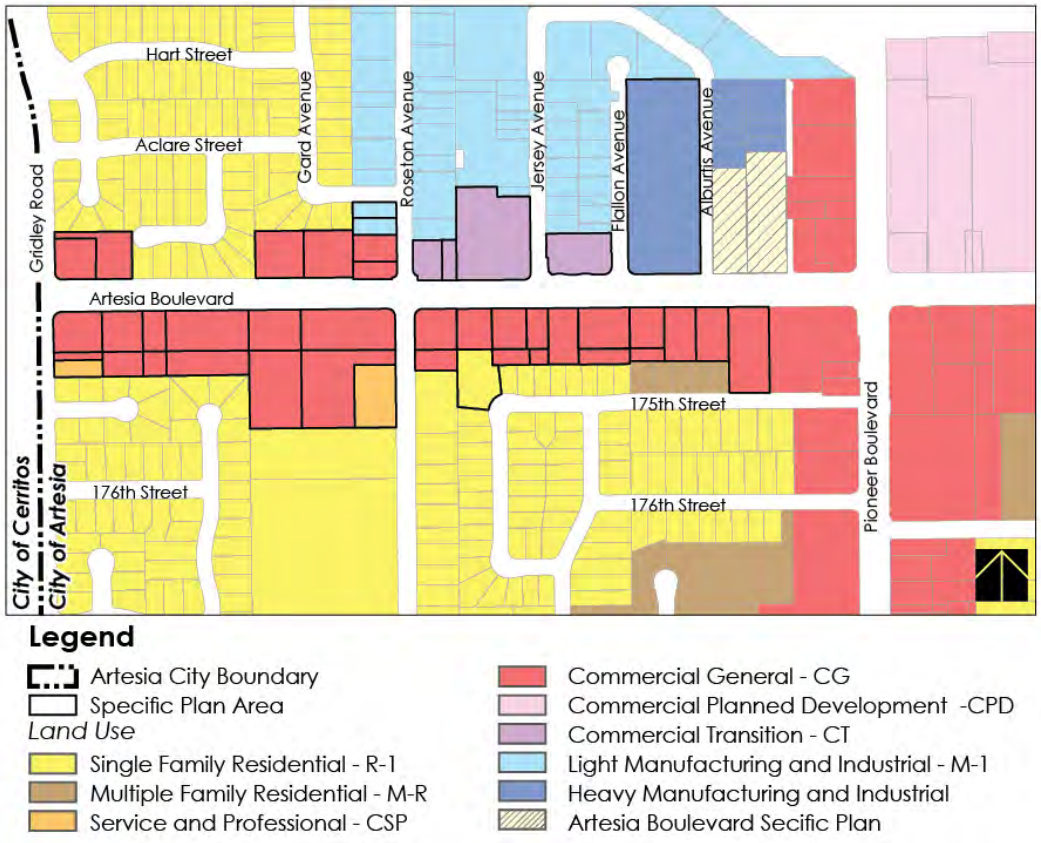


Exhibit 1-4: General Plan Designations

activities and specialized service establishments which require a central location within a large urban population.

Exhibit 1-5: Study Area Zoning Districts

Exhibit 1-5: Study Area Zoning Districts



The General Commercial zone is prevalent through out the study area with the exception of the parcels located northeast of the Roseton Avenue and Artesia Boulevard intersection, where parcels are primarily zoned Commercial Transition and Heavy Manufacturing and Industrial. Currently, the only property zoned Heavy Manufacturing is the California Dairies facility located at the eastern end of the study area. The parcels directly to the west of the Dairy are zoned Commercial Transition, similar to the rest of the study area. The Commercial Transition (C-T) zone was established to provide for a compatible transition between certain areas where industrial uses abut commercial and/or residential uses.

In contrast to the City as a whole, only one parcel in the study area is zoned residential. This property is located in the southeastern quadrant and zoned for single family homes (R-1). Ironically, this property is currently utilized by an auto repair business. There are, however, a number of existing single family homes in the study area on properties zoned for commercial uses.

Specific Plan area or approximately 16.25 acres is located within District No. 2. Approximately 4.75 acres lies within District No. 19 including the southern portion of Quadrant 3 and the southwest corner of Quadrant 4.

The Districts provide sewer services on a regional scale and consist of 24 independent special districts serving approximately 5.7 million people in Los Angeles County. In order to maximize efficiency while reducing costs, each of the 24 Districts work cooperatively under a Joint Administration Agreement.

The Districts own, operate, and maintain the large trunk sewer lines that provide the backbone of the regional wastewater conveyance system. Public sewer mains exist under all major roadways within the Specific Plan area. Table 5-2 provides information on the size of the existing sewer lines found in each major roadway.

Table 5-2: Sanitary Sewer Pipe Sizes by Roadway

Street	Existing Sewer Lines
Gridley Road	8” Pipes
Roseton Avenue	8” Pipes
Jersey Avenue	8” Pipes
Flallon Avenue	8” Pipes
Alburtis Avenue	8” Pipes
Corby Avenue	8” Pipes
Artesia Boulevard	8”, 10”, and 12” Pipes

Wastewater generated within the Specific Plan area is treated at the Joint Water Pollution Control Plant located in the City of Carson, the Los Coyotes Water Reclamation Plant located in the City of Cerritos, and the Long Beach Water Reclamation Plant located in the City of Long Beach. Each of these treatment plants are currently operating below their ultimate capacities and are further described in Table 5-3 below.

Table 5-3: Wastewater Treatment Plant Design Capacities

Treatment Plant	Location	Design Capacity	Average Flow
Joint Water Pollution Control Plant	City of Carson	400.0	279.7
Los Coyotes Water Reclamation Plant	City of Cerritos	37.5	21.7
Long Beach Water Reclamation Plant	City of Long Beach	25.0	19.1

It is important to recognize the Sanitation Districts of Los Angeles County is anticipated to begin construction on the Joint Outfall A, Unit 1A, Gridley Road Interceptor Sewer (JOAGRIS) in the summer of 2011. Upon completion, the

wastewater tributary to the Districts' Gridley Road Pumping Plant Influent Sewer will be diverted to the JOAGRIS. Wastewater collected from the JOAGRIS will then be treated at the Long Beach Water Reclamation Plan, which as discussed in Table 5-3, has a design capacity of 25 million gallons per day (mgd) and currently processes an average flow 19.1 mgd.

Any future industrial development may require a permit from the Districts for Industrial Wastewater Discharge. Existing sewer lines are shown below in Exhibit 5-2, Infrastructure Plan (Sanitary Sewers).

Exhibit 5-2: Infrastructure Plan (Sanitary Sewers)

