

Appendix B

Infrastructure Study



Alpine Community Plan Update

Alpine Infrastructure Study

County of San Diego

Order of Magnitude Opinion of Probable Construction Cost

November 2, 2018

Revised: December 10, 2018

Revised: January 17, 2019

Revised: March 21, 2019

Revised: March 25, 2019

Rick Engineering Company Job Number 17536-L

Prepared for:

County of San Diego

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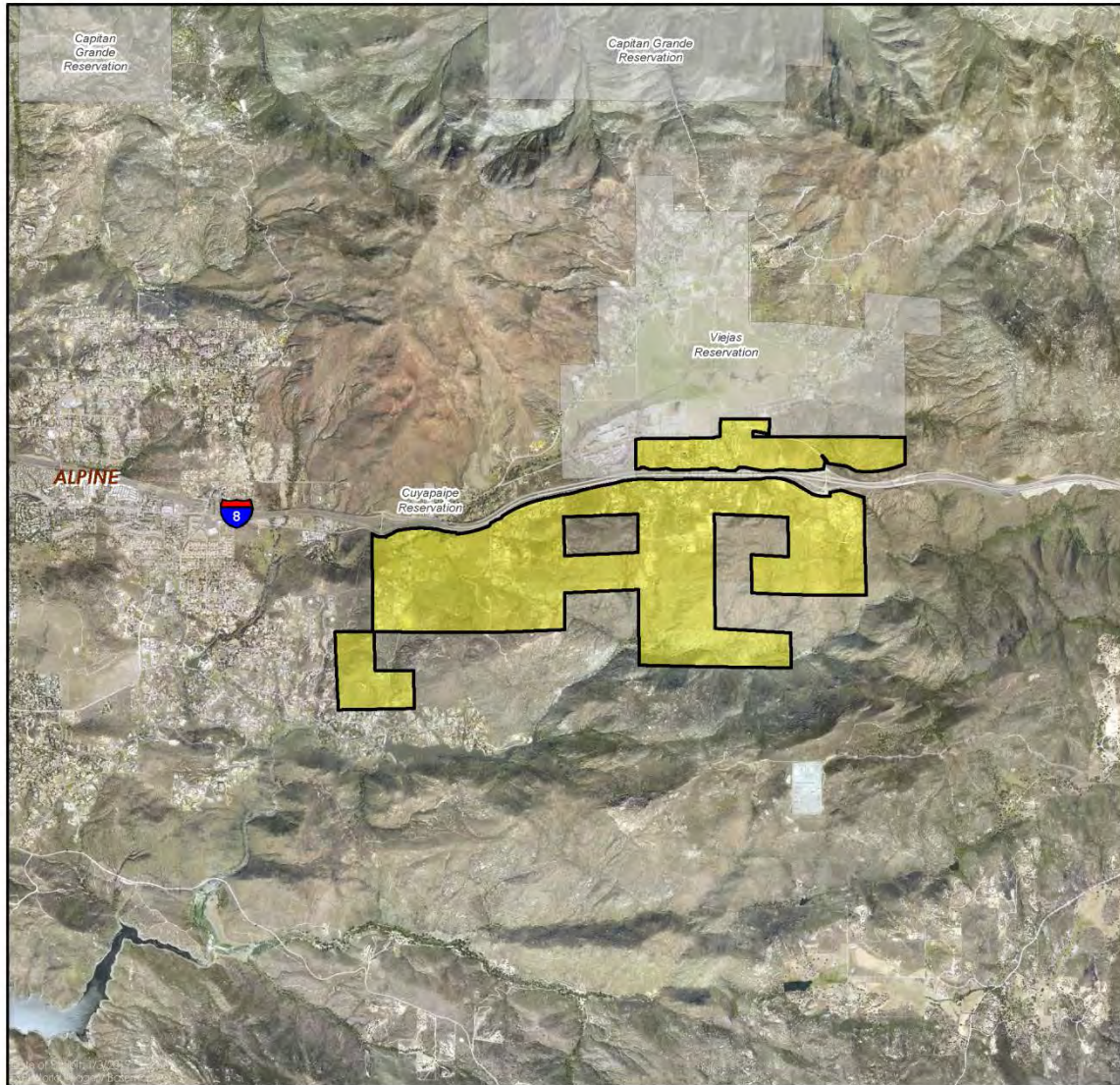
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SECTION 1:
DESCRIPTION OF STUDY AREA

Description of Study Area

Based on three density alternatives provided by the County of San Diego, this order of magnitude opinion of probable cost evaluates the infrastructure cost to develop the area generally between East and West Willows interchanges east of Alpine. The majority of the area considered for the evaluation is on the south side of Interstate Highway 8 (I-8). However there are two parcels on the north side of I-8, one on each side of Willows Road at the East Willows interchange. Study area lands include both public and private lands. This study area is generally depicted in the Vicinity Map below.



Vicinity Map
Alpine General Plan Update

SECTION 2:
ASSUMPTIONS & LIMITATIONS

*Assumptions & Limitations for
Alpine Community Planning Area
Order of Magnitude Infrastructure Opinion of Probable Construction Cost
October 29, 2018
Revised: December 10, 2018
Revised: January 17, 2019
Revised: March 21, 2019
Revised: March 25, 2019*

General

1. The Basis for this Order of Magnitude Opinion of Probable Infrastructure Construction Costs is the County of San Diego’s Alpine Sub-Area 5 Community Plan Update density analysis for Low, Moderate and High density alternatives. The land use density alternatives are shown in Section 3 of this Opinion. The constraints the County applied to the Geographic Information System (GIS) yield analysis models for the Low, Moderate and High Densities included built land, rural land, floodplain, wetlands, future roads, habitat preserve, Alquist-Priola fault zone, airport noise (CNEL 65), steep slope, habitat tier 1 and 2, MSCP Pre-approved mitigation area, and groundwater. The results of the analyses are shown in Section 4 for each density alternative and each land use with those densities. It should be noted that these density yields are theoretical and have not been tested.
2. This order of magnitude opinion is provided as the first step in determining development costs. As noted above this exercise is highly theoretical and at a planning “bubble level” detail. Actual costs and quantities will vary from those contained herein due to a variety of circumstances, but not limited to, further detailed planning and engineering layouts, changes in field conditions, availability and/or cost of materials, and methods and/or timing of construction and inflation. No cost guarantee is expressed or implied. All reference to the terms “order of magnitude of opinion of cost”, “cost estimate” or “preliminary cost estimate” is understood to mean high level order of magnitude opinion of probable costs.
3. This estimate represents the Engineer’s professional opinion of probable costs only, and no guarantee regarding its accuracy is expressed or implied. Actual bid prices will vary depending on market conditions at the time of bidding, and are not within the Engineer’s control.
4. Unit prices for this estimate were based on the County of San Diego, Department of Public Works, Land Development Division, Unit Price List, Dated July 2017.
5. Estimates are broken out per development density areas then combined in the summary table at the beginning of each density alternative e.g. Low, Moderate and High.
6. Quantities and costs for bioretention and storm water treatment have been excluded.
7. Right-of-way and easement acquisition costs are excluded.

8. Environmental mitigation costs are excluded.
9. Storm drain pipe sizes were estimated and described in the section on streets. No rational method analyses or any pipe analyses were performed.
10. It is assumed for this Opinion that no SDG&E substation will be required. Instead, existing and extended electric facilities will be needed. In addition, gas facilities will be extended into the area. Therefore, this Opinion includes joint trench dry utility installation. However it does not include any appurtenances including switch gear, transformers etc. Dry utility facilities need to be further defined when more accurate planning and engineering is performed in order to evaluate these facility costs.
11. Landscape and irrigation quantities are excluded.
12. Based on criteria provided by the County of San Diego, it is assumed that imported water services are required for new development of parcels with lot sizes less than five acres which is consistent with the County Ground Water Ordinance, e.g. SR-4 and more dense. (As noted above, this opinion assumes SR-4 is 1 dwelling per 4 acres, not 1 unit per 4, 8, and 16 acres.) (Also see Water and Sewer discussions on Pages 6-8).
13. Based on criteria provided by the County of San Diego, it is assumed that public sanitary sewer services would be necessary at densities greater than one (1) one dwelling unit per (2) two acres. (Also see Water and Sewer discussions on Pages 6-8).
14. The County of San Diego requires 355.55 square feet per dwelling unit of parkland for residential developments with 50 or more lots. The study area densities are all significantly larger than this. Therefore, ultimate park dedication and construction may very well be a component with densification of the study area. However, it is beyond the scope of this infrastructure Opinion of Construction Costs to site parkland. Further, it is impossible to know if and how many subdivisions over 50 lots would be developed. Therefore, this Opinion assumes that park fees will be calculated for each density alternative based on the County's per unit cost of \$4,244.00 for all densities.
15. It is assumed that a new fire station will be included in the overall community costs. The fire station includes 15,000 square feet of fire station, pumper and wildland trucks, and an ambulance, as well as site finishing. It does not include staffing and operations.
16. Roads are assumed to be per County of San Diego Public Road and Private Road Standards.
17. To classify the public streets, it was assumed that each dwelling unit equates to 10 Average Daily Traffic (ADT) (trips). Those ADT were manually distributed over the road system shown on each Density Alternative.

18. It is assumed that Alpine Boulevard south of Interstate 8 is a community facility in all scenarios herein. Alpine Boulevard north of Interstate 8 is included in the Village Commercial Mixed-Use and Rural Commercial Opinion.
19. Due to the level of the evaluation, there will be additional costs associated with the construction of the planning areas. Therefore, a 25% contingency has been added to help offset the impact of the limited detail and unknown costs.
20. Agency fees, permits and bonds are not included.
21. Design and inspection fees are not included.

Public Streets

1. Widths of public streets are per classification.
2. Curb and gutter on both sides.
3. Sidewalk on one side.
4. DG on one side.
5. Driveways per number of dwelling units (16' x 10')
6. Two street lights at public intersections only; one light at public/private intersection.
7. Stop signs at all intersections (four-way stops).
8. Gas and electric equal length of street.
9. AC pavement assumes 4" ac on 8" Class II base plus preparation.
10. Pedestrian ramps at all intersections.
11. Assumes 18" RCP in half the length of the public streets; B inlets every 400' where storm drain (RCP) is counted; one cleanout per every two B inlets.

Private Streets

1. All private streets have a graded width of 32 ft. and paved width of 24 ft.
2. AC berm on both sides (6").
3. DG path on both sides.

4. Driveway per number of dwelling units.
5. AC pavement assumes 3" AC over 6" Class I base plus prep.
6. No gas on density less than two-acre parcels.
7. Electric equals length of streets.
8. No street lights except at intersections with public streets
9. Pedestrian ramps at all intersections.
10. Stop signs at all intersections.
11. Storm drain assumes 18" RCP in half the length of private streets; B inlets every 600" where storm drain (RCP) is counted; one cleanout per every two B inlets.

Grading

1. Excludes landscape and irrigation.
2. Embankment/excavation assumes 1,500 cubic yards per dwelling unit for lots less than one acre; 3,000 cubic yards per dwelling unit for one acre and larger lots.

Alpine Boulevard

1. 6" Curb and gutter on both sides (no existing).
2. 4" AC / 8" Class II base and preparation for improved width (minus 30'); 30' of existing AC per Google Earth.
3. Sidewalk on one side of the street.
4. Traffic signal at all collector intersections.
5. Stop sign and two street lights at all residential and private intersections.
6. Two pedestrian ramps at each intersection.
7. Width noted per density scenario.

Density Scenarios

1. All densities are directly from the County's GIS model analyses. However, Rick Engineering Company takes exception to the High Density Alternative Area 4, VR-10.9 yield. This area is located at the very west of the study area and has 70% of its area located in steep slopes. In addition, there is a significant ephemeral stream traversing the site. It is Rick Engineering Company's opinion that this area can support a maximum of three units and is therefore excluded from the infrastructure analysis. The resulting High Density yield is therefore 2,493 DU and not 3,511 DU.
2. It is assumed that the 3.6-acre rural commercial and the 7.3-acre general commercial areas at each end of the study area have no effect on infrastructure costs since they both front Alpine Boulevard, a public road and would be developed privately.
3. The County of San Diego has included two density categories on the north side of Interstate 8 at the East Willows interchange. The first is west and south of Willows Road and designated as Village Commercial Mixed Use (VCMU). The second is located east of Willows Road and is designated Rural Commercial (RC). The VCMU area is covered by a significant amount of steep slopes leaving a small area for development. The RC area has developable property adjacent to Willows Road but also has a significant area of steep slopes. The areas assumed developable for both the VCMU and RC uses are shown on Page 1 of Section 5. These two parcels are included in each density scenario and assumed to be developed the same in each density alternative. The Opinion for the VCMU and RC parcels is set up as a single Opinion. This is because these parcels would be private site developments so the only component that would be included in this Opinion is the public infrastructure including Alpine Boulevard, public sewer and water, and dry utilities to serve the sites.

Water and Sewer

1. Based on criteria provided by the County in the "Alpine Community Plan Update, Attachment A: Infrastructure Study SOW," Items III, ii and iii, imported water from Padre Dam would be provided only to lot sizes less than five acres and sanitary sewer would be provided only to densities greater than one unit/two acres. That translates to providing water to density categories 4 (VR-10.9), 5 (VR-7.3), 6 (VR-4.3), 7 (VR-2.9), 8 (VR-2), 9 (SR-1), 11 (SR-2), 13 (SR-4) and 41 (SR-0.5), and sewer to categories 4 (VR-10.9), 5 (VR-7.3), 6 (VR-4.3), 7 (VR-2.9), 8 (VR-2) and 9 (SR-1) only. The following items 2, 3, and 4 follow this criteria in calculating the number of units in each Density Alternative that are serviced with potable water and sanitary sewer.
2. For the Low Density Alternative, this Opinion assumes that public potable water from Padre Dam will be provided to density categories 8 (VR-2), 9 (SR-1), and 13 (SR-4) or to 408 DU, and that public sewer will be provided to categories 8 (VR-2) and 9 (SR-1) or to 389 DU.
3. For the Moderate Density Alternative, public water from Padre Dam will be provided to density categories 6 (VR-4.3), 8 (VR-2), 9 (SR-1), 11 (SR-2), and 41 (SR-0.5) or to 882 DU

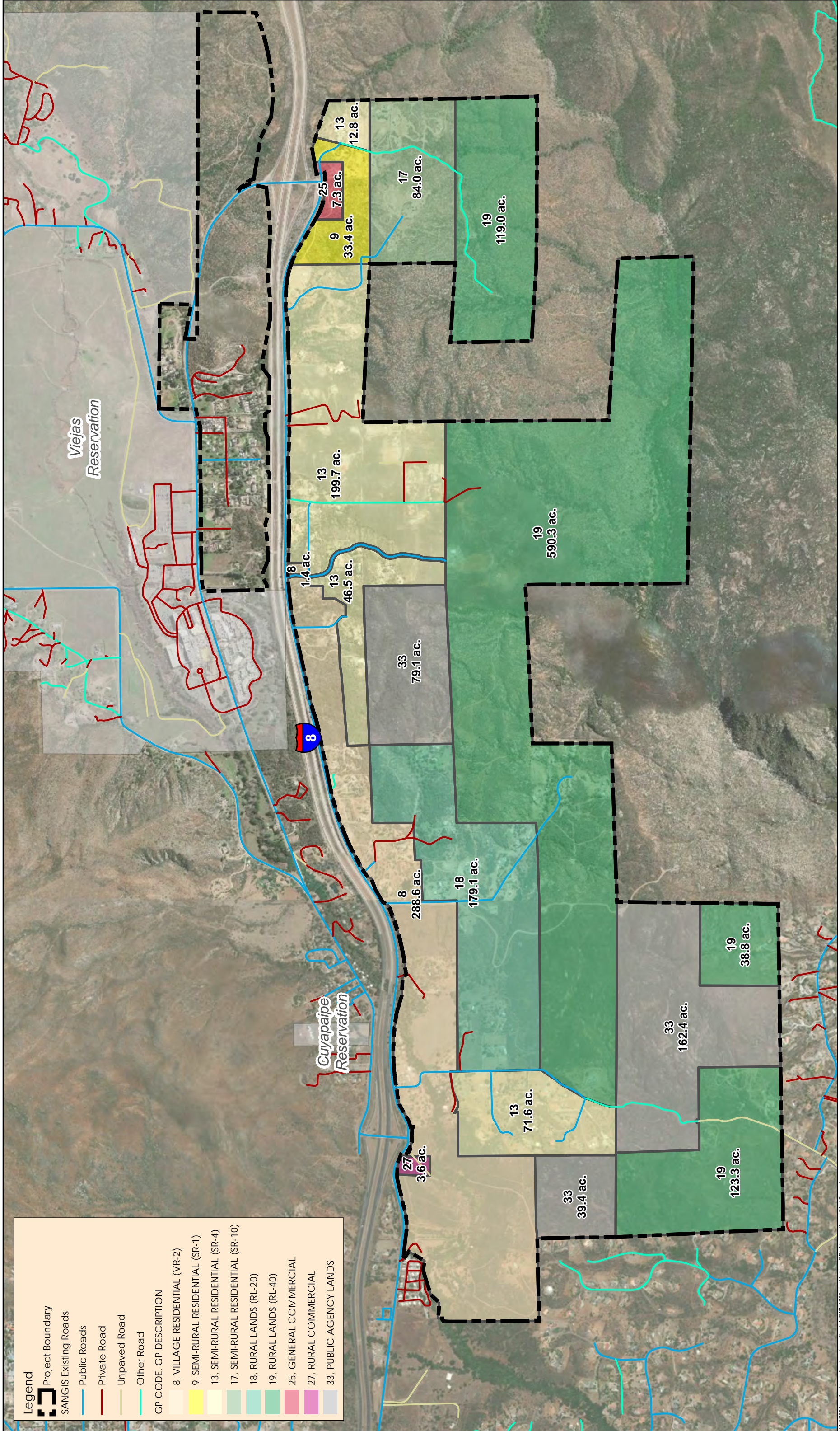
and public sewer facilities will be provided to categories 6 (VR-4.3), 8 (VR-2), 9 (SR-1), and 41 (SR-0.5) or to 722 DU.

4. For the High Density Alternative, public water from Padre Dam and public sewer will be provided to density categories 5 (VR-7.3), 6 (VR-4.3), 7 (VR-2.9), and 9 (SR-1) or to 2481 DU.
5. Except for the water and sewer mains themselves tabulated in the individual density categories, public water and sewer facilities are assumed to be community based. Therefore, the expansion of those facilities is listed under “community facilities” in the opinion.
6. The basis of the cost for expansion for the water facilities to each Density Alternative is the “Draft Analysis of Available Water System Capacity to Deliver Imported Treated Water To the Viejas Indian Reservation Through Padre Dam Municipal Water District Santee, California” study dated July 26, 2013 and was prepared by Stetson Engineers Inc. This study evaluated expanding Padre Dam’s water system to provide 2 million gallons per day (MGD) to Viejas Indian Reservation. This Opinion uses those costs herein. No additional upsizing of existing water mains or further upgrade of pump stations is included beyond that noted in the draft study for combined Viejas and Community Plan density increases. That analysis is beyond the scope of this Opinion. The upgrade cost to provide 2 MGD (in 2013 dollars) is approximately \$15,120,000. This includes pump station upgrades of \$8,431,000, increased size of existing pipe systems of \$5,763,000 and connection to Padre Dam’s system of \$926,000. The water expansion costs for each Density Alternative in this Opinion are the engineer’s best subjective approximation of a proportion of \$15,120,000 based on demand and density yield for each Alternative. In addition to these costs it is assumed that there will be storage requirements for each alternative. Storage is also considered a community facility.
7. Based on Operation, Standby and fire storage needs, as well as the variation in lot sizes in the density alternatives, this Opinion assumes a storage capacity of 750 gal/day per DU for sizing of reservoirs. It is also assumed that the cost to construction reservoirs is \$1.50/gallon.
8. Assuming potable water use of 750 gal/per day per DU for all density categories and a need for 1 day of storage, the Low Density Alternative would require approximately 360,000 gal storage reservoir assuming 473 DU are provided public Water service. The Moderate Density Alternative (1236 DU provided public water service) would require a 950,000 gallon reservoir and the High Density Alternative (3164 DU provided public water service) would require 2.4 million gallon reservoir.
9. Based on a review of the report titled, “Willow Road Study Area Water and Sewer Feasibility Study” dated September 6, 2011 and prepared by Atkins North America, Inc., it is the opinion of this infrastructure Opinion that providing a new wastewater treatment plant as an alternative to processing wastewater is infeasible. It is assumed that regulatory hurdles, environmental issues and actual costs would be prohibitive. Therefore, this Opinion assumes that the public sewer system will flow to the Alpine Sanitation District sewer system, then to Point Loma for treatment and disposal.

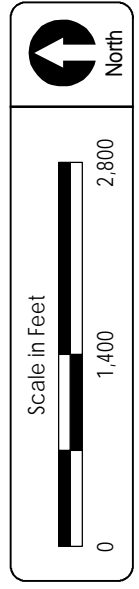
10. Due to the nature of the terrain in the study area, the public sewer system will most likely require small pump stations in some of the Density Alternatives however it is beyond the scope of this infrastructure study to evaluate vertical design for the various density categories. Therefore this Opinion only assumes one community pump station to pump effluent to a connection to the existing Alpine Service Area just east of East Victoria Drive in the vicinity of the Albertson's shopping center for all density alternatives.
11. It is understood that phasing of public sewer would occur. However, it is beyond the technical scope of this Opinion to evaluate that without further planning and preliminary design.
12. Based on research of Padre Dam, San Diego County Water Authority, the Municipal Water District of Southern California, and County Sanitation District, capacity and annexation fees have been shown. These should only be considered order of magnitude place holders.
13. The Village Commercial Mixed Use (VCMU) and Rural Commercial (RC) sites north of I-8 at the East Willows interchange will be served by extending water and sewer facilities from the east end of the study area across from the East Willows Road bridge. It is assumed that the two sites will share a pump station, and the cost thereof, to transport wastewater to the sewer system in Alpine Boulevard on the south side of the freeway.

SECTION 3:

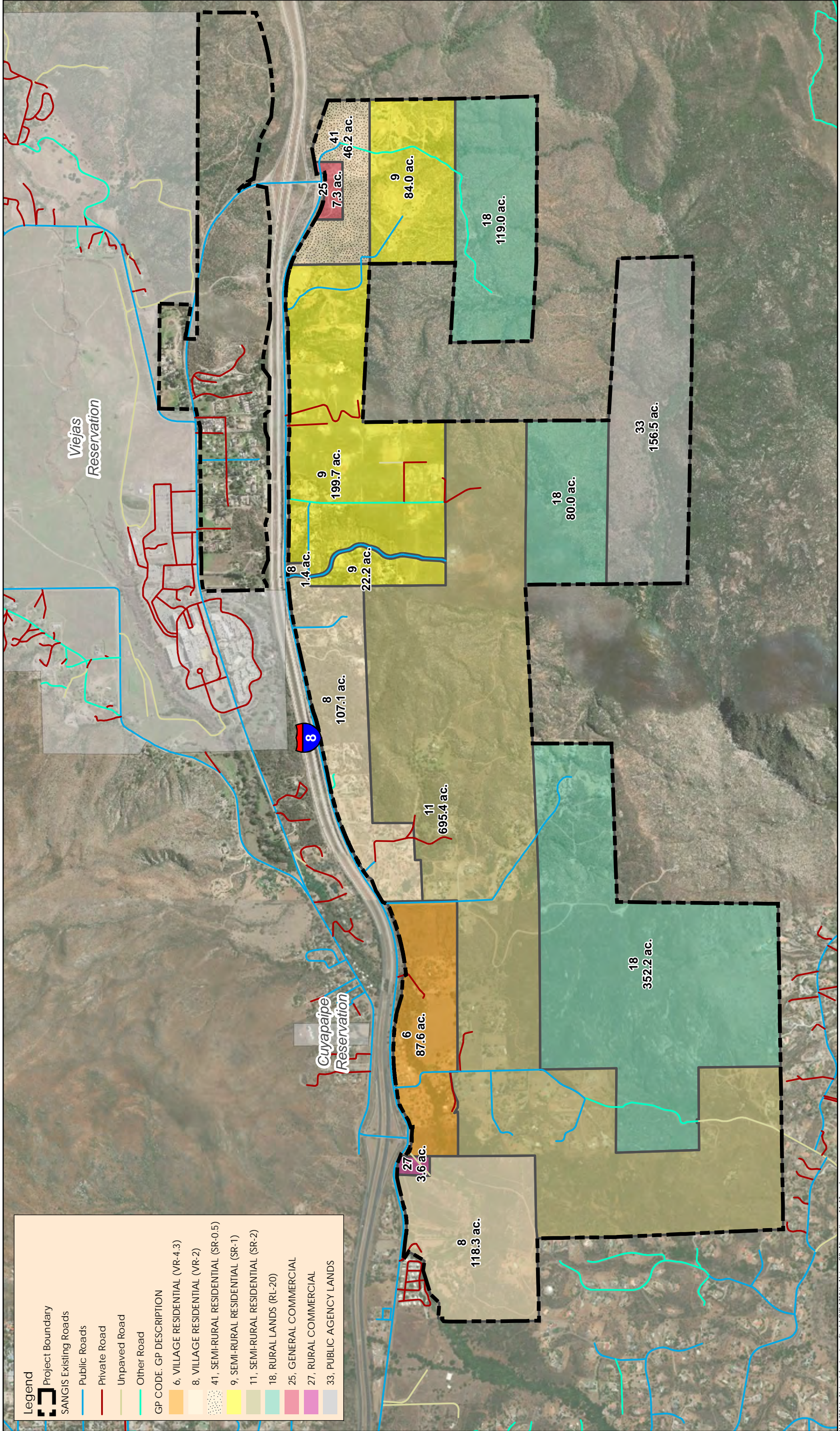
COUNTY LAND USE DENSITY ALTERNATIVES



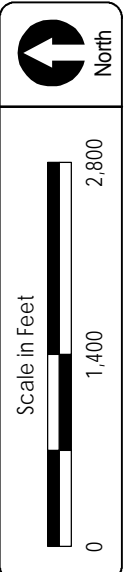
Legend	
	Project Boundary
SANGIS Existing Roads	
	Public Roads
	Private Road
	Unpaved Road
	Other Road
GP CODE, GP DESCRIPTION	
	8, VILLAGE RESIDENTIAL (VR-2)
	9, SEMI-RURAL RESIDENTIAL (SR-1)
	13, SEMI-RURAL RESIDENTIAL (SR-4)
	17, SEMI-RURAL RESIDENTIAL (SR-10)
	18, RURAL LANDS (RL-20)
	19, RURAL LANDS (RL-40)
	25, GENERAL COMMERCIAL
	27, RURAL COMMERCIAL
	33, PUBLIC AGENCY LANDS



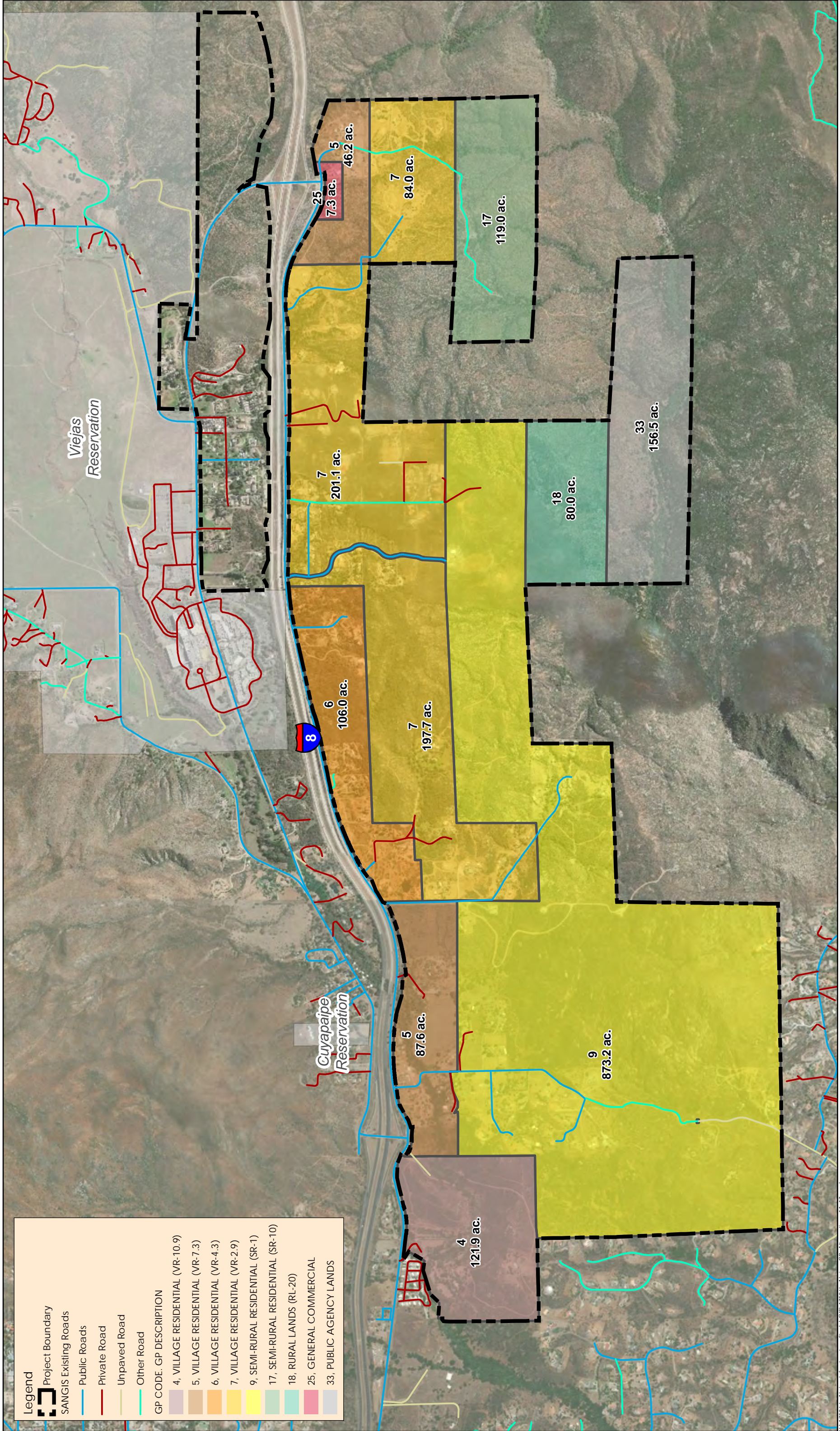
Date of Exhibit: 3/18/2019
 County of San Diego GP Alternatives: 2018
 ESRI World Imagery Basemap



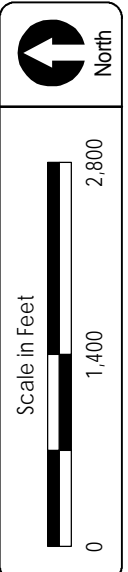
Legend	
	Project Boundary
SANGIS Existing Roads	
	Public Roads
	Private Road
	Unpaved Road
	Other Road
GP CODE: GP DESCRIPTION	
	6, VILLAGE RESIDENTIAL (VR-4.3)
	8, VILLAGE RESIDENTIAL (VR-2)
	41, SEMI-RURAL RESIDENTIAL (SR-0.5)
	9, SEMI-RURAL RESIDENTIAL (SR-1)
	11, SEMI-RURAL RESIDENTIAL (SR-2)
	18, RURAL LANDS (RL-20)
	25, GENERAL COMMERCIAL
	27, RURAL COMMERCIAL
	33, PUBLIC AGENCY LANDS



Date of Exhibit: 3/18/2019
 County of San Diego GP Alternatives: 2018
 ESRI World Imagery Basemap



Legend	
	Project Boundary
	SANGIS Existing Roads
	Public Roads
	Private Road
	Unpaved Road
	Other Road
GP CODE, GP DESCRIPTION	
	4, VILLAGE RESIDENTIAL (VR-10.9)
	5, VILLAGE RESIDENTIAL (VR-7.3)
	6, VILLAGE RESIDENTIAL (VR-4.3)
	7, VILLAGE RESIDENTIAL (VR-2.9)
	9, SEMI-RURAL RESIDENTIAL (SR-1)
	17, SEMI-RURAL RESIDENTIAL (SR-10)
	18, RURAL LANDS (RL-20)
	25, GENERAL COMMERCIAL
	33, PUBLIC AGENCY LANDS



Date of Exhibit: 3/18/2019
 County of San Diego GP Alternatives: 2018
 ESRI World Imagery Basemap

SECTION 4:

**COUNTY OF SAN DIEGO SUB-AREA DENSITY ALTERNATIVE YIELD
DATA**

County GIS Results

Low Density Alternative

Alpine GP Sub-Area	GP Code	Description	DU	Acres
5	8	VILLAGE RESIDENTIAL (VR-2)	365	290.07
5	9	SEMI-RURAL RESIDENTIAL (SR-1)	24	33.38
5	13	SEMI-RURAL RESIDENTIAL (SR-4)	19	330.66
5	17	SEMI-RURAL RESIDENTIAL (SR-10)	1	84.04
5	18	RURAL LANDS (RL-20)	4	179.06
5	19	RURAL LANDS (RL-40)	16	871.40
5	25	GENERAL COMMERCIAL	0	7.34
5	27	RURAL COMMERCIAL	0	3.62
5	33	PUBLIC AGENCY LANDS	0	280.96
Total:			429³	2,080.53¹

Moderate Density Alternative

5	6	VILLAGE RESIDENTIAL (VR-4.3)	283	87.62
5	8	VILLAGE RESIDENTIAL (VR-2)	303	226.77
5	9	SEMI-RURAL RESIDENTIAL (SR-1)	68	305.94
5	11	SEMI-RURAL RESIDENTIAL (SR-2)	160	695.40
5	18	RURAL LANDS (RL-20)	15	551.15
5	25	GENERAL COMMERCIAL	0	7.34
5	27	RURAL COMMERCIAL	0	3.62
5	33	PUBLIC AGENCY LANDS	0	156.46
5	41	SEMI-RURAL RESIDENTIAL (SR-0.5)	68	46.22
Total:			896³	2,080.53¹

High Density Alternative

5	4	VILLAGE RESIDENTIAL (VR-10.9)	1,018 ²	121.90
5	5	VILLAGE RESIDENTIAL (VR-7.3)	782	133.84
5	6	VILLAGE RESIDENTIAL (VR-4.3)	452	105.96
5	7	VILLAGE RESIDENTIAL (VR-2.9)	864	482.85
5	9	SEMI-RURAL RESIDENTIAL (SR-1)	383	873.21
5	17	SEMI-RURAL RESIDENTIAL (SR-10)	8	118.97
5	18	RURAL LANDS (RL-20)	4	79.99
5	25	GENERAL COMMERCIAL	0	7.34
5	33	PUBLIC AGENCY LANDS	0	156.46
Total:			3,511^{2,3}	2,080.53¹

¹ Acreage totals includes public agency lands.

² Area 4, VR-10.9, located at the very west of the study area has 70% of its area located in steep slopes. In addition, there is a significant ephemeral stream traversing the site. It is Rick Engineering Company's opinion that this area can support a maximum of three units and is therefore excluded from the infrastructure analysis. The resulting High Density yield is therefore 2493 DU and not 3511 DU.

³ Numbers may not be additive due to rounding.

SECTION 5:

**DENSITY ALTERNATIVE ROAD SYSTEM AND ORDER OF
MAGNITUDE OPINION**

ALPINE INFRASTRUCTURE STUDY:LOW DENSITY - SUMMARY

RICK ENGINEERING COMPANY
5620 FRIARS ROAD
SAN DIEGO, CA 92110
(619) 291-0707
(619) 291-4165

INTERNAL ORDER NO: NA
DRAWING NO: NA
PROJECT NO: 17536 LC
0

LAND USE CATEGORY	# DU	TOTAL
LAND USE 8 : VR-2	365	\$ 20,227,033.03
LAND USE 9 : SR-1	24	\$ 2,837,452.98
LAND USE 13 : SR-4	19	\$ 10,595,268.77
LAND USE 17 : SR-10	1	\$ 840,586.00
LAND USE 18 : RL-20	4	\$ 2,938,568.70
LAND USE 19 : RL-40	16	\$ 4,644,375.86
VCMU & RC SITES		\$ 3,889,386.08
ALPINE BLVD		\$ 8,094,506.19
COMMUNITY FACILITIES		\$ 19,800,000.00
TOTAL:		\$ 73,867,177.62

ALPINE INFRASTRUCTURE STUDY:LOW DENSITY - LAND USE 8, VR-2 (365 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		547,500	\$ 3.00	\$ 1,642,500
SUBTOTAL:					\$ 1,642,500

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 1,642,500

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)		LF	25,960	\$ 25.06	\$ 650,558
SUBTOTAL:					\$ 650,558

PAVEMENT

CLASS II BASE (8")		SF	47,036	\$ 1.25	\$ 58,795
AC PAVING (4" SURFACE)		SF	47,036	\$ 2.39	\$ 112,416
BASE PREP		SF	47,036	\$ 0.44	\$ 20,696
SUBTOTAL:					\$ 191,907

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)		EA	29	\$ 1,307.18	\$ 37,908
DG TRAIL		SF	40,150	\$ 6.00	\$ 240,900
4" PCC SIDEWALK, PER G-7		SF	40,150	\$ 5.99	\$ 240,499
SUBTOTAL:					\$ 519,307

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN		EA	15	\$ 435.72	\$ 6,536
STREET LIGHT, 100 WATT, HPS		EA	18	\$ 6,535.90	\$ 117,646
SUBTOTAL:					\$ 124,182

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114		SF	58,400	\$ 7.62	\$ 445,008
SUBTOTAL:					\$ 445,008
TOTAL:					\$ 1,930,961

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN		LF	6,490	\$ 103.49	\$ 671,650
SUBTOTAL:					\$ 671,650

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)		EA	32	\$ 5,989.05	\$ 189,853
CLEANOUT, PER D-9 (TYPE A)		EA	16	\$ 4,901.92	\$ 78,431
SUBTOTAL:					\$ 268,284
TOTAL:					\$ 939,934

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*		LF	12,980	\$ 74.50	\$ 967,010
10" PVC WATER MAIN*		LF		\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way		EA	43	\$ 4,193.86	\$ 181,454
2" WATER SERVICE W/ METER		EA	365	\$ 3,121.98	\$ 1,139,523
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					
SUBTOTAL:					\$ 2,287,987

WASTEWATER

8" PVC		LF	12,980	\$ 78.64	\$ 1,020,747
MANHOLE (SM-01)		EA	26	\$ 3,703.67	\$ 96,147
SUBTOTAL:					\$ 1,116,894
TOTAL:					\$ 3,404,882

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC		LF	12,980	\$ 70.00	\$ 908,600
ELECTRIC ONLY		LF		\$ 50.00	\$ -
SUBTOTAL:					\$ 908,600
TOTAL:					\$ 908,600

SECTION 2 TOTAL: \$ 7,184,376

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		\$ 10.36	\$ -
				SUBTOTAL: \$ -

PAVEMENT

CLASS II BASE (6")	SF		\$ 1.09	\$ -
AC PAVING (3" SURFACE)	SF		\$ 1.80	\$ -
BASE PREP	SF		\$ 0.44	\$ -
				SUBTOTAL: \$ -

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		\$ 1,525.04	\$ -
DG TRAIL	SF		\$ 4.59	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		\$ 435.72	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		\$ 7.62	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		\$ 103.49	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		\$ 5,989.05	\$ -
CLEANOUT, PER D-9 (TYPE A)	EA		\$ 4,901.92	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		\$ 74.50	\$ -
10" PVC WATER MAIN*	LF		\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA		\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA		\$ 3,121.98	\$ -
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES				SUBTOTAL: \$ -

WASTEWATER

8" PVC	LF		\$ 78.64	\$ -
MANHOLE (SM-01)	EA		\$ 3,703.67	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		\$ 70.00	\$ -
ELECTRIC ONLY	LF		\$ 50.00	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

SECTION 3 TOTAL: \$ -

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA	365	\$ 4,244.00	\$ 1,549,060
ANNEXATION - PADRE DAM	ACRE	290	\$ 3,600.00	\$ 1,044,000
ANNEXATION - CWA	EA	365	\$ 5,240.00	\$ 1,912,600
ANNEXATION - MWD	ACRE	290	\$ 5,671.00	\$ 1,644,590
ANNEXATION - SEWER	EA	365	\$ 3,300.00	\$ 1,204,500

SECTION 4 TOTAL: \$ 7,354,750

SUBTOTAL: \$ 16,181,626.42
 25% CONTINGENCY \$ 4,045,406.61

TOTAL: \$ 20,227,033

ALPINE INFRASTRUCTURE STUDY:LOW DENSITY - LAND USE 9, SR-1 (24 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		72,000	\$ 3.00	\$ 216,000
SUBTOTAL:					\$ 216,000

BMP'S

EROSION CONTROL	LS			\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 216,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)	LF		4,740	\$ 25.06	\$ 118,784
SUBTOTAL:					\$ 118,784

PAVEMENT

CLASS II BASE (8")	SF		86,120	\$ 1.25	\$ 107,650
AC PAVING (4" SURFACE)	SF		86,120	\$ 2.39	\$ 205,827
BASE PREP	SF		86,120	\$ 0.44	\$ 37,893
SUBTOTAL:					\$ 351,370

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		3	\$ 1,525.04	\$ 4,575
DG TRAIL	SF		8,200	\$ 4.59	\$ 37,638
4" PCC SIDEWALK, PER G-7	SF		8,200	\$ 4.79	\$ 39,278
SUBTOTAL:					\$ 81,491

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		1	\$ 435.72	\$ 436
STREET LIGHT, 100 WATT, HPS	EA		2	\$ 6,535.90	\$ 13,072
SUBTOTAL:					\$ 13,508

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		6,400	\$ 7.62	\$ 48,768
SUBTOTAL:					\$ 48,768
TOTAL:					\$ 613,921

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		1,185	\$ 103.49	\$ 122,636
SUBTOTAL:					\$ 122,636

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		6	\$ 5,989.05	\$ 35,485
CLEANOUT, PER D-9 (TYPE A)	EA		3	\$ 4,901.92	\$ 14,706
SUBTOTAL:					\$ 50,191
TOTAL:					\$ 172,827

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		2,370	\$ 74.50	\$ 176,565
10" PVC WATER MAIN*	LF			\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA		8	\$ 4,193.86	\$ 33,131
2" WATER SERVICE W/ METER	EA		24	\$ 3,121.98	\$ 74,928
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					
SUBTOTAL:					\$ 284,624

WASTEWATER

8" PVC	LF		2,370	\$ 78.64	\$ 186,377
MANHOLE (SM-01)	EA		5	\$ 3,703.67	\$ 17,555
SUBTOTAL:					\$ 203,932
TOTAL:					\$ 488,556

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		2,370	\$ 70.00	\$ 165,900
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ 165,900
TOTAL:					\$ 165,900

SECTION 2 TOTAL: \$ 1,441,203

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		\$ 10.36	\$ -
				SUBTOTAL: \$ -

PAVEMENT

CLASS II BASE (6")	SF		\$ 1.09	\$ -
AC PAVING (3" SURFACE)	SF		\$ 1.80	\$ -
BASE PREP	SF		\$ 0.44	\$ -
				SUBTOTAL: \$ -

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		\$ 1,525.04	\$ -
DG TRAIL	SF		\$ 4.59	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		\$ 435.72	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		\$ 7.62	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		\$ 103.49	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		\$ 5,989.05	\$ -
CLEANOUT, PER D-9 (TYPE A)	EA		\$ 4,901.92	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		\$ 74.50	\$ -
10" PVC WATER MAIN*	LF		\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA		\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA		\$ 3,121.98	\$ -
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES				SUBTOTAL: \$ -

WASTEWATER

8" PVC	LF		\$ 78.64	\$ -
MANHOLE (SM-01)	EA		\$ 3,703.67	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		\$ 70.00	\$ -
ELECTRIC ONLY	LF		\$ 50.00	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

SECTION 3 TOTAL: \$ -

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA	24	\$ 4,244.00	\$ 101,856
ANNEXATION - PADRE DAM	ACRE	33	\$ 3,600.00	\$ 118,800
ANNEXATION - CWA	EA	24	\$ 5,240.00	\$ 125,760
ANNEXATION - MWD	ACRE	33	\$ 5,671.00	\$ 187,143
ANNEXATION - SEWER	EA	24	\$ 3,300.00	\$ 79,200

SECTION 4 TOTAL: \$ 612,759

SUBTOTAL: \$ 2,269,962.38
25% CONTINGENCY \$ 567,490.60

TOTAL: \$ 2,837,453

ALPINE INFRASTRUCTURE STUDY:LOW DENSITY - LAND USE 13,SR-4 (19 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		57,000	\$ 3.00	\$ 171,000
SUBTOTAL:					\$ 171,000

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 171,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)		LF	14,796	\$ 25.06	\$ 370,788
SUBTOTAL:					\$ 370,788

PAVEMENT

CLASS II BASE (8")		SF	294,420	\$ 1.25	\$ 368,025
AC PAVING (4" SURFACE)		SF	294,420	\$ 2.39	\$ 703,664
BASE PREP		SF	294,420	\$ 0.44	\$ 129,545
SUBTOTAL:					\$ 1,201,234

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)		EA	3	\$ 1,525.04	\$ 4,575
DG TRAIL		SF	28,536	\$ 4.59	\$ 130,980
4" PCC SIDEWALK, PER G-7		SF	28,536	\$ 4.79	\$ 136,687
SUBTOTAL:					\$ 272,243

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN		EA	5	\$ 435.72	\$ 2,179
STREET LIGHT, 100 WATT, HPS		EA	8	\$ 6,535.90	\$ 52,287
SUBTOTAL:					\$ 54,466

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114		SF	2,080	\$ 7.62	\$ 15,850
SUBTOTAL:					\$ 15,850
TOTAL:					\$ 1,914,580

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN		LF	3,699	\$ 103.49	\$ 382,810
SUBTOTAL:					\$ 382,810

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)		EA	18	\$ 5,989.05	\$ 110,767
CLEANOUT, PER D-9 (TYPE A)		EA	9	\$ 4,901.92	\$ 44,117
SUBTOTAL:					\$ 154,885
TOTAL:					\$ 537,694

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*		LF	7,398	\$ 74.50	\$ 551,151
10" PVC WATER MAIN*		LF		\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way		EA	25	\$ 4,193.86	\$ 103,421
2" WATER SERVICE W/ METER		EA	13	\$ 3,121.98	\$ 40,586
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					
SUBTOTAL:					\$ 695,157

WASTEWATER

8" PVC		LF		\$ 78.64	\$ -
MANHOLE (SM-01)		EA		\$ 3,703.67	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ 695,157

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC		LF	7,398	\$ 70.00	\$ 517,860
ELECTRIC ONLY		LF		\$ 50.00	\$ -
SUBTOTAL:					\$ 517,860
TOTAL:					\$ 517,860

SECTION 2 TOTAL: \$ 3,665,291

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		7,992	\$ 10.36	\$	82,797
SUBTOTAL:						\$ 82,797

PAVEMENT

CLASS II BASE (6")	SF		95,904	\$ 1.09	\$	104,535
AC PAVING (3" SURFACE)	SF		95,904	\$ 1.80	\$	172,627
BASE PREP	SF		95,904	\$ 0.44	\$	42,198
SUBTOTAL:						\$ 319,360

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		3	\$ 1,525.04	\$	4,575
DG TRAIL	SF		30,820	\$ 4.59	\$	141,464
SUBTOTAL:						\$ 146,039

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		1	\$ 435.72	\$	436
SUBTOTAL:						\$ 436

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		960	\$ 7.62	\$	7,315
SUBTOTAL:						\$ 7,315
TOTAL:						\$ 555,947

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		1,998	\$ 103.49	\$	206,773
SUBTOTAL:						\$ 206,773

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		7	\$ 5,989.05	\$	39,887
CLEANOUT, PER D-9 (TYPE A)	EA		3	\$ 4,901.92	\$	16,323
SUBTOTAL:						\$ 56,210
TOTAL:						\$ 262,983

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		3,996	\$ 74.50	\$	297,702
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA		13	\$ 4,193.86	\$	55,862
2" WATER SERVICE W/ METER	EA		6	\$ 3,121.98	\$	18,732
SUBTOTAL:						\$ 372,296

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF			\$ 78.64	\$	-
MANHOLE (SM-01)	EA			\$ 3,703.67	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ 372,296

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF		3,996	\$ 50.00	\$	199,800
SUBTOTAL:						\$ 199,800
TOTAL:						\$ 199,800

SECTION 3 TOTAL: \$ 1,391,027

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		19	\$ 4,244.00	\$	80,636
ANNEXATION - PADRE DAM	ACRE		331	\$ 3,600.00	\$	1,191,600
ANNEXATION - CWA	EA		19	\$ 5,240.00	\$	99,560
ANNEXATION - MWD	ACRE		331	\$ 5,671.00	\$	1,877,101
ANNEXATION - SEWER	EA			\$ 3,300.00	\$	-

SECTION 4 TOTAL: \$ 3,248,897

SUBTOTAL: \$ 8,476,215.02
25% CONTINGENCY \$ 2,119,053.75

TOTAL: \$ 10,595,269

ALPINE INFRASTRUCTURE STUDY:LOW DENSITY - LAND USE 17, SR-10 (1 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		3,000	\$ 3.00	\$ 9,000
SUBTOTAL:					\$ 9,000

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 9,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)	LF		1,620	\$ 25.06	\$ 40,597
SUBTOTAL:					\$ 40,597

PAVEMENT

CLASS II BASE (8")	SF		29,160	\$ 1.25	\$ 36,450
AC PAVING (4" SURFACE)	SF		29,160	\$ 2.39	\$ 69,692
BASE PREP	SF		29,160	\$ 0.44	\$ 12,830
SUBTOTAL:					\$ 118,973

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA			\$ 1,525.04	\$ -
DG TRAIL	SF		3,112	\$ 4.59	\$ 14,284
4" PCC SIDEWALK, PER G-7	SF		3,112	\$ 5.99	\$ 18,641
SUBTOTAL:					\$ 32,925

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA			\$ 435.72	\$ -
STREET LIGHT, 100 WATT, HPS	EA			\$ 6,535.90	\$ -
SUBTOTAL:					\$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		160	\$ 7.62	\$ 1,219
SUBTOTAL:					\$ 1,219
TOTAL:					\$ 193,714

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		405	\$ 103.49	\$ 41,913
SUBTOTAL:					\$ 41,913

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		2	\$ 5,989.05	\$ 12,128
CLEANOUT, PER D-9 (TYPE A)	EA		1	\$ 4,901.92	\$ 4,902
SUBTOTAL:					\$ 17,030
TOTAL:					\$ 58,943

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$ -
10" PVC WATER MAIN*	LF			\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$ -
SUBTOTAL:					\$ -

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF			\$ 78.64	\$ -
MANHOLE (SM-01)	EA			\$ 3,703.67	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		810	\$ 70.00	\$ 56,700
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ 56,700
TOTAL:					\$ 56,700

SECTION 2 TOTAL: \$ 309,357

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		3,000	\$ 10.36	\$	31,080
SUBTOTAL:						\$ 31,080

PAVEMENT

CLASS II BASE (6")	SF		36,000	\$ 1.09	\$	39,240
AC PAVING (3" SURFACE)	SF		36,000	\$ 1.80	\$	64,800
BASE PREP	SF		36,000	\$ 0.44	\$	15,840
SUBTOTAL:						\$ 119,880

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA			\$ 1,525.04	\$	-
DG TRAIL	SF		5,488	\$ 4.59	\$	25,190
SUBTOTAL:						\$ 25,190

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA			\$ 435.72	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		0	\$ 7.62	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ 176,150

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		750	\$ 103.49	\$	77,618
SUBTOTAL:						\$ 77,618

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		3	\$ 5,989.05	\$	14,973
CLEANOUT, PER D-9 (TYPE A)	EA		1	\$ 4,901.92	\$	6,127
SUBTOTAL:						\$ 21,100
TOTAL:						\$ 98,718

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$	-
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$	-
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$	-
SUBTOTAL:						\$ -

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF			\$ 78.64	\$	-
MANHOLE (SM-01)	EA			\$ 3,703.67	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF		1,500	\$ 50.00	\$	75,000
SUBTOTAL:						\$ 75,000
TOTAL:						\$ 75,000

SECTION 3 TOTAL: \$ 349,867

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		1	\$ 4,244.00	\$	4,244
ANNEXATION - PADRE DAM	ACRE			\$ 3,600.00	\$	-
ANNEXATION - CWA	EA			\$ 5,240.00	\$	-
ANNEXATION - MWD	ACRE			\$ 5,671.00	\$	-
ANNEXATION - SEWER	EA			\$ 3,300.00	\$	-

SECTION 4 TOTAL: \$ 4,244

SUBTOTAL: \$ 672,468.80
25% CONTINGENCY \$ 168,117.20

TOTAL: \$ 840,586

ALPINE INFRASTRUCTURE STUDY:LOW DENSITY - LAND USE 18, RL-20 (4 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		12,000	\$ 3.00	\$ 36,000
SUBTOTAL:					\$ 36,000

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 36,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)	LF		3,720	\$ 25.06	\$ 93,223
SUBTOTAL:					\$ 93,223

PAVEMENT

CLASS II BASE (8")	SF		74,400	\$ 1.25	\$ 93,000
AC PAVING (4" SURFACE)	SF		74,400	\$ 2.39	\$ 177,816
BASE PREP	SF		74,400	\$ 0.44	\$ 32,736
SUBTOTAL:					\$ 303,552

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		2	\$ 1,525.04	\$ 3,050
DG TRAIL	SF		7,376	\$ 4.59	\$ 33,856
4" PCC SIDEWALK, PER G-7	SF		7,376	\$ 4.79	\$ 35,331
SUBTOTAL:					\$ 72,237

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA			\$ 435.72	\$ -
STREET LIGHT, 100 WATT, HPS	EA		4	\$ 6,535.90	\$ 26,144
SUBTOTAL:					\$ 26,144

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		320	\$ 7.62	\$ 2,438
SUBTOTAL:					\$ 2,438
TOTAL:					\$ 497,594

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		930	\$ 103.49	\$ 96,246
SUBTOTAL:					\$ 96,246

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		5	\$ 5,989.05	\$ 29,945
CLEANOUT, PER D-9 (TYPE A)	EA		2	\$ 4,901.92	\$ 9,804
SUBTOTAL:					\$ 39,749
TOTAL:					\$ 135,492

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$ -
10" PVC WATER MAIN*	LF			\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$ -
SUBTOTAL:					\$ -

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF			\$ 78.64	\$ -
MANHOLE (SM-01)	EA			\$ 3,703.67	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		1,860	\$ 70.00	\$ 130,200
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ 130,200
TOTAL:					\$ 130,200

SECTION 2 TOTAL: \$ 763,286

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		12,338	\$ 10.36	\$	127,822
SUBTOTAL:						\$ 127,822

PAVEMENT

CLASS II BASE (6")	SF		148,056	\$ 1.09	\$	161,381
AC PAVING (3" SURFACE)	SF		148,056	\$ 1.80	\$	266,501
BASE PREP	SF		148,056	\$ 0.44	\$	65,145
SUBTOTAL:						\$ 493,026

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		7	\$ 1,307.18	\$	9,150
DG TRAIL	SF		48,900	\$ 4.59	\$	224,451
SUBTOTAL:						\$ 233,601

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		5	\$ 435.72	\$	2,179
SUBTOTAL:						\$ 2,179

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		320	\$ 7.62	\$	2,438
SUBTOTAL:						\$ 2,438
TOTAL:						\$ 859,066

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		3,085	\$ 103.49	\$	319,215
SUBTOTAL:						\$ 319,215

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		10	\$ 5,989.05	\$	61,577
CLEANOUT, PER D-9 (TYPE A)	EA		5	\$ 4,901.92	\$	24,510
SUBTOTAL:						\$ 86,087
TOTAL:						\$ 405,302

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$	-
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$	-
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$	-
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES						
SUBTOTAL:						\$ -

WASTEWATER

8" PVC	LF			\$ 78.64	\$	-
MANHOLE (SM-01)	EA			\$ 3,703.67	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF		6,169	\$ 50.00	\$	308,450
SUBTOTAL:						\$ 308,450
TOTAL:						\$ 308,450

SECTION 3 TOTAL: \$ 1,572,818

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		4	\$ 4,244.00	\$	16,976
ANNEXATION - PADRE DAM	ACRE			\$ 3,600.00	\$	-
ANNEXATION - CWA	EA			\$ 5,240.00	\$	-
ANNEXATION - MWD	ACRE			\$ 5,671.00	\$	-
ANNEXATION - SEWER	EA			\$ 3,300.00	\$	-

SECTION 4 TOTAL: \$ 16,976

SUBTOTAL: \$ 2,389,080.25
25% CONTINGENCY \$ 549,488.46

TOTAL: \$ 2,938,569

ALPINE INFRASTRUCTURE STUDY:LOW DENSITY - LAND USE 19, RL-40 (16 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

<u>EARTHWORK</u>					
EMBANKMENT/EXCAVATION	CY		48,000	\$ 3.00	\$ 144,000
SUBTOTAL:					\$ 144,000

<u>BMP'S</u>					
EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 144,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

<u>CURB AND GUTTER</u>					
6" CURB & GUTTER PER G-2 (TYPE G)	LF		1,930	\$ 25.06	\$ 48,366
SUBTOTAL:					\$ 48,366

<u>PAVEMENT</u>					
CLASS II BASE (8")	SF		38,600	\$ 1.25	\$ 48,250
AC PAVING (4" SURFACE)	SF		38,600	\$ 2.39	\$ 92,254
BASE PREP	SF		38,600	\$ 0.44	\$ 16,984
SUBTOTAL:					\$ 157,488

<u>CURB RAMPS & SIDEWALK</u>					
CURB RAMPS , PER G-27 (TYPE A & B)	EA		1	\$ 1,525.04	\$ 1,525
DG TRAIL	SF		3,828	\$ 4.59	\$ 17,571
4" PCC SIDEWALK, PER G-7	SF		3,828	\$ 5.99	\$ 22,930
SUBTOTAL:					\$ 42,025

<u>MISCELLANEOUS TRAFFIC IMPROVEMENTS</u>					
STOP SIGN	EA			\$ 435.72	\$ -
STREET LIGHT, 100 WATT, HPS	EA		1	\$ 6,535.90	\$ 6,536
SUBTOTAL:					\$ 6,536

<u>MISCELLANEOUS SURFACE IMPROVEMENTS</u>					
DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		160	\$ 7.62	\$ 1,219
SUBTOTAL:					\$ 1,219
TOTAL:					\$ 255,634

DRAINAGE

<u>RCP PIPE MATERIAL</u>					
18" RCP STORM DRAIN	LF		483	\$ 103.49	\$ 49,934
SUBTOTAL:					\$ 49,934

<u>MISCELLANEOUS DRAINAGE</u>					
STORM DRAIN (TYPE B INLET)	EA		2	\$ 5,989.05	\$ 14,449
CLEANOUT, PER D-9 (TYPE A)	EA		1	\$ 4,901.92	\$ 4,902
SUBTOTAL:					\$ 19,351
TOTAL:					\$ 69,284

WATER AND WASTEWATER

<u>WATER</u>					
8" PVC WATER MAIN*	LF			\$ 74.50	\$ -
10" PVC WATER MAIN*	LF			\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$ -
SUBTOTAL:					\$ -

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

<u>WASTEWATER</u>					
8" PVC	LF			\$ 78.64	\$ -
MANHOLE (SM-01)	EA			\$ 3,703.67	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

GAS & ELECTRIC

<u>GAS & ELECTRIC</u>					
GAS & ELECTRIC	LF		965	\$ 70.00	\$ 67,550
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ 67,550
TOTAL:					\$ 67,550

SECTION 2 TOTAL: \$ 392,469

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		26,418	\$ 10.36	\$	273,690
SUBTOTAL:						\$ 273,690

PAVEMENT

CLASS II BASE (6")	SF		317,016	\$ 1.09	\$	345,547
AC PAVING (3" SURFACE)	SF		317,016	\$ 1.80	\$	570,629
BASE PREP	SF		317,016	\$ 0.44	\$	139,487
SUBTOTAL:						\$ 1,055,663

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		11	\$ 1,307.18	\$	14,379
DG TRAIL	SF		51,100	\$ 4.59	\$	234,549
SUBTOTAL:						\$ 248,928

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		7	\$ 435.72	\$	3,050
SUBTOTAL:						\$ 3,050

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		2,400	\$ 7.62	\$	18,288
SUBTOTAL:						\$ 18,288
TOTAL:						\$ 1,599,620

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		6,523	\$ 103.49	\$	675,065
SUBTOTAL:						\$ 675,065

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		22	\$ 5,989.05	\$	130,222
CLEANOUT, PER D-9 (TYPE A)	EA		11	\$ 4,901.92	\$	53,921
SUBTOTAL:						\$ 184,143
TOTAL:						\$ 859,208

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$	-
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$	-
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$	-
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES						
SUBTOTAL:						\$ -

WASTEWATER

8" PVC	LF			\$ 78.64	\$	-
MANHOLE (SM-01)	EA			\$ 3,703.67	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF		13,046	\$ 50.00	\$	652,300
SUBTOTAL:						\$ 652,300
TOTAL:						\$ 652,300

SECTION 3 TOTAL: \$ 3,111,128

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		16	\$ 4,244.00	\$	67,904
ANNEXATION - PADRE DAM	ACRE			\$ 3,600.00	\$	-
ANNEXATION - CWA	EA			\$ 5,240.00	\$	-
ANNEXATION - MWD	ACRE			\$ 5,671.00	\$	-
ANNEXATION - SEWER	EA			\$ 3,300.00	\$	-

SECTION 4 TOTAL: \$ 67,904

SUBTOTAL: \$ 3,715,500.69
25% CONTINGENCY \$ 928,875.17

TOTAL: \$ 4,644,376

ALPINE INFRASTRUCTURE STUDY:LOW DENSITY - VCMU & RC SITES

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		11,713	\$ 3.00	\$ 35,139
SUBTOTAL:					\$ 35,139

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 35,139

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)	LF		5,060	\$ 25.06	\$ 126,804
SUBTOTAL:					\$ 126,804

PAVEMENT

CLASS II BASE (8")	SF		35,420	\$ 1.25	\$ 44,275
AC PAVING (4" SURFACE)	SF		35,420	\$ 2.39	\$ 84,654
BASE PREP	SF		35,420	\$ 0.44	\$ 15,585
SUBTOTAL:					\$ 144,514

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		11	\$ 1,307.18	\$ 14,379
DG TRAIL	SF			\$ 4.59	\$ -
4" PCC SIDEWALK, PER G-7	SF		19,952	\$ 4.79	\$ 95,570
SUBTOTAL:					\$ 109,949

MISCELLANEOUS TRAFFIC IMPROVEMENTS

TRAFFIC SIGNAL	EA		2	\$ 147,057.64	\$ 294,115
STOP SIGN	EA			\$ 435.72	\$ -
STREET LIGHT, 100 WATT, HPS	EA			\$ 6,535.90	\$ -
SUBTOTAL:					\$ 294,115

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		720	\$ 7.62	\$ 5,486
SUBTOTAL:					\$ 5,486
TOTAL:					\$ 680,868

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		2,530	\$ 103.49	\$ 261,830
SUBTOTAL:					\$ 261,830

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		6	\$ 5,989.05	\$ 37,881
CLEANOUT, PER D-9 (TYPE A)	EA		3	\$ 4,901.92	\$ 15,502
SUBTOTAL:					\$ 53,383
TOTAL:					\$ 315,213

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$ -
10" PVC WATER MAIN*	LF		2,900	\$ 80.49	\$ 233,421
10" PVC WATER MAIN (UNDER BRIDGE)*	LF		240	\$ 160.98	\$ 38,635
FIRE HYDRANT (WF-01) 2-way	EA		10	\$ 4,193.86	\$ 43,896
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$ -
SUBTOTAL:					\$ 315,952

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF		1,525	\$ 78.64	\$ 119,926
4" PVC FORCE MAIN	LF		2,900	\$ 57.41	\$ 166,489
4" PVC FORCE MAIN (UNDER BRIDGE)	LF		240	\$ 114.82	\$ 27,557
MANHOLE (SM-01)	EA		9	\$ 3,703.67	\$ 34,555
SUBTOTAL:					\$ 348,527
TOTAL:					\$ 664,479

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		3,140	\$ 70.00	\$ 219,800
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ 219,800
TOTAL:					\$ 219,800

SECTION 2 TOTAL: \$ 1,880,360

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF			\$ 10.36	\$	-
SUBTOTAL:						\$ -

PAVEMENT

CLASS II BASE (6")	SF			\$ 1.09	\$	-
AC PAVING (3" SURFACE)	SF			\$ 1.80	\$	-
BASE PREP	SF			\$ 0.44	\$	-
SUBTOTAL:						\$ -

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA			\$ 1,525.04	\$	-
DG TRAIL	SF			\$ 4.59	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA			\$ 435.72	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF			\$ 7.62	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF			\$ 103.49	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA			\$ 5,989.05	\$	-
CLEANOUT, PER D-9 (TYPE A)	EA			\$ 4,901.92	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$	-
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$	-
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$	-
SUBTOTAL:						\$ -

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF			\$ 78.64	\$	-
MANHOLE (SM-01)	EA			\$ 3,703.67	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF			\$ 50.00	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

SECTION 3 TOTAL: \$ -

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

SEWER PUMP STATION		LS	1	\$ 1,000,000.00	\$	1,000,000
PARK FEES	EA		0	\$ 4,244.00	\$	-
ANNEXATION - PADRE DAM	ACRE*		19	\$ 3,600.00	\$	69,480
ANNEXATION - CWA	EA		2	\$ 5,240.00	\$	10,480
ANNEXATION - MWD	ACRE*		19	\$ 5,671.00	\$	109,450
ANNEXATION - SEWER	EA		2	\$ 3,300.00	\$	6,600

*VCMU=8.8 ACRE, RC=10.5 ACRE

SECTION 4 TOTAL: \$ 1,196,010

SUBTOTAL: \$ 3,111,508.87
25% CONTINGENCY \$ 777,877.22

TOTAL: \$ 3,889,386

ALPINE INFRASTRUCTURE STUDY:LOW DENSITY - ALPINE BLVD

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY			\$ 3.00	\$ -
SUBTOTAL:					\$ -

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ -

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)	LF		31,840	\$ 25.06	\$ 797,910
SUBTOTAL:					\$ 797,910

PAVEMENT

CLASS II BASE (8")	SF		159,200	\$ 1.25	\$ 199,000
AC PAVING (4" SURFACE)	SF		159,200	\$ 2.39	\$ 380,488
BASE PREP	SF		159,200	\$ 0.44	\$ 70,048
SUBTOTAL:					\$ 649,536

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		20	\$ 1,307.18	\$ 26,144
DG TRAIL	SF			\$ 4.59	\$ -
4" PCC SIDEWALK, PER G-7	SF		63,680	\$ 4.79	\$ 305,027
SUBTOTAL:					\$ 331,171

MISCELLANEOUS TRAFFIC IMPROVEMENTS

TRAFFIC SIGNAL	EA		6	\$ 147,057.64	\$ 882,346
STOP SIGN	EA		5	\$ 435.72	\$ 2,179
STREET LIGHT, 100 WATT, HPS	EA		5	\$ 6,535.90	\$ 32,680
SUBTOTAL:					\$ 34,858

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF			\$ 7.62	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ 1,813,475

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF			\$ 103.49	\$ -
SUBTOTAL:					\$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA			\$ 5,989.05	\$ -
CLEANOUT, PER D-9 (TYPE A)	EA			\$ 4,901.92	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$ -
12" PVC WATER MAIN*	LF		15,920	\$ 88.87	\$ 1,414,810
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$ -
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					
SUBTOTAL:					\$ 1,414,810

WASTEWATER

12" PVC	LF		15,920	\$ 96.57	\$ 1,537,394
MANHOLE (SM-01)	EA		32	\$ 3,703.67	\$ 117,925
SUBTOTAL:					\$ 1,655,319
TOTAL:					\$ 3,070,130

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		15,920	\$ 100.00	\$ 1,592,000
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ 1,592,000
TOTAL:					\$ 1,592,000

SECTION 2 TOTAL: \$ 6,475,605

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		\$ 10.36	\$ -
				SUBTOTAL: \$ -

PAVEMENT

CLASS II BASE (6")	SF		\$ 1.09	\$ -
AC PAVING (3" SURFACE)	SF		\$ 1.80	\$ -
BASE PREP	SF		\$ 0.44	\$ -
				SUBTOTAL: \$ -

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		\$ 1,525.04	\$ -
DG TRAIL	SF		\$ 4.59	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		\$ 435.72	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		\$ 7.62	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		\$ 103.49	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		\$ 5,989.05	\$ -
CLEANOUT, PER D-9 (TYPE A)	EA		\$ 4,901.92	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		\$ 74.50	\$ -
10" PVC WATER MAIN*	LF		\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA		\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA		\$ 3,121.98	\$ -
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES				SUBTOTAL: \$ -

WASTEWATER

12" PVC	LF		\$ 96.57	\$ -
MANHOLE (SM-01)	EA		\$ 3,703.67	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		\$ 70.00	\$ -
ELECTRIC ONLY	LF		\$ 50.00	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

SECTION 3 TOTAL: \$ -

SUBTOTAL: \$ 6,475,604.95
 25% CONTINGENCY \$ 1,618,901.24

TOTAL: \$ 8,094,506

ALPINE INFRASTRUCTURE STUDY:LOW DENSITY - COMMUNITY FACILITIES

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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COMMUNITY FACILITIES

PUBLIC WATER SYSTEM EXPANSION		LS	1	\$ 3,800,000.00	\$ 3,800,000
POTABLE WATER STORAGE	GAL		360,000	\$ 1.50	\$ 540,000
SEWER PUMP STATION		LS	1	\$ 1,000,000.00	\$ 1,000,000
FIRE STATION		LS	1	\$ 10,500,000.00	\$ 10,500,000

SUBTOTAL:	\$	<u>15,840,000.00</u>
25% CONTINGENCY	\$	<u>3,960,000.00</u>
TOTAL:	\$	<u>19,800,000</u>

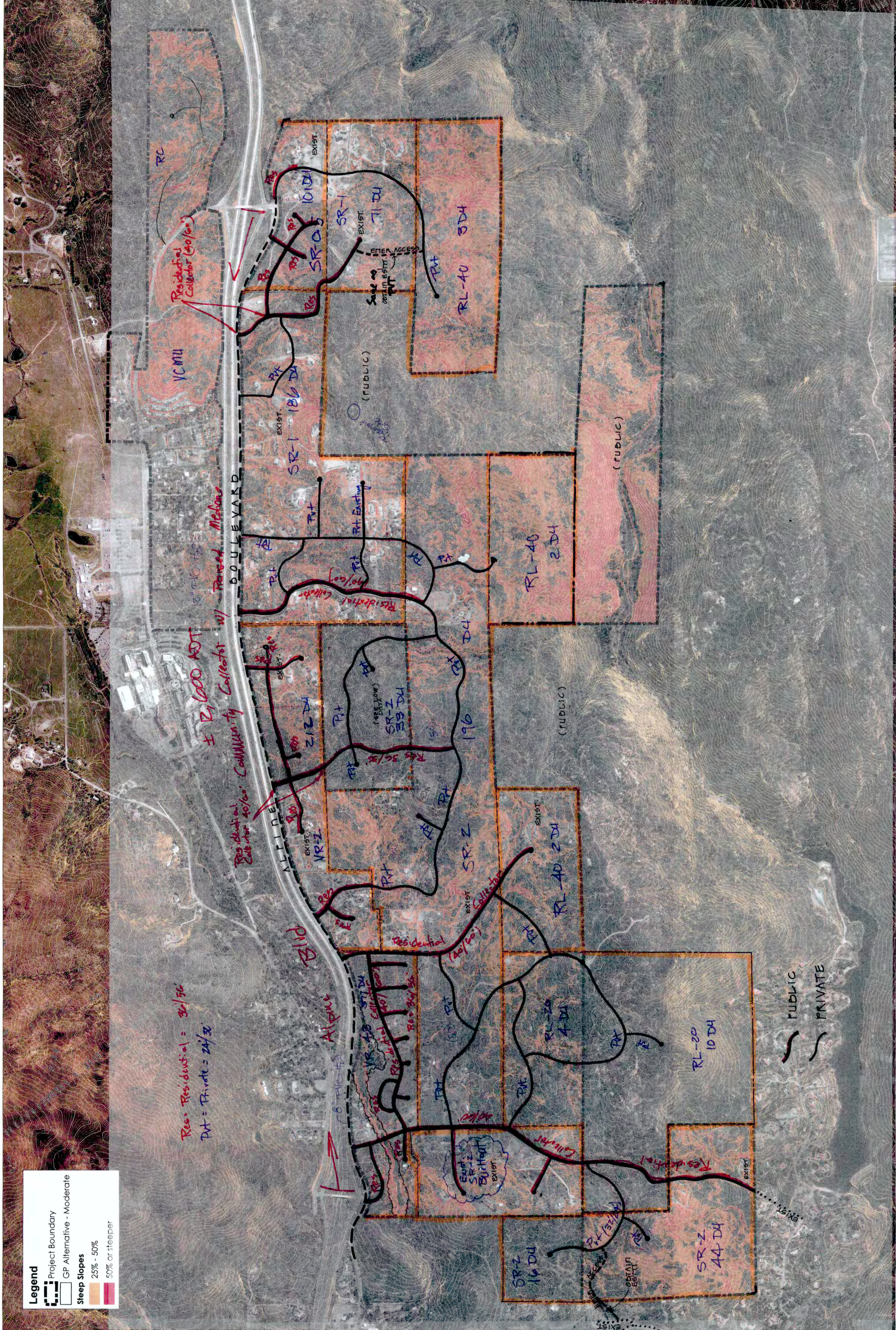
Legend

- Project Boundary
- GP Alternative - Moderate

Slope Slopes

- 25% - 50%
- 50% or steeper

Res. Residential = 30/50
 PVT = Private = 24/30



ALPINE INFRASTRUCTURE STUDY:MODERATE DENSITY - SUMMARY

RICK ENGINEERING COMPANY
5620 FRIARS ROAD
SAN DIEGO, CA 92110
(619) 291-0707
(619) 291-4165

INTERNAL ORDER NO: NA
DRAWING NO: NA
PROJECT NO: 17536 LC
0

LAND USE CATEGORY	# DU	TOTAL
LAND USE 6 : VR-4.3	283	\$ 15,297,442.34
LAND USE 8 : VR-2	303	\$ 15,228,664.65
LAND USE 9 : SR-1	68	\$ 14,970,487.06
LAND USE 11 : SR-2	160	\$ 25,838,221.51
LAND USE 18 : RL-20	15	\$ 3,742,818.57
LAND USE 41 : SR-0.5	68	\$ 4,583,362.48
VCMU & RC SITES		\$ 3,899,996.08
ALPINE BLVD		\$ 11,486,997.52
COMMUNITY FACILITIES		\$ 35,993,750.00
TOTAL:	897	\$ 131,041,740.21

ALPINE INFRASTRUCTURE STUDY:MODERATE DENSITY - LAND USE 6, VR-4.3 (283 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		424,500	\$ 3.00	\$ 1,273,500
SUBTOTAL:					\$ 1,273,500

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 1,273,500

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)		LF	18,408	\$ 25.06	\$ 461,304
SUBTOTAL:					\$ 461,304

PAVEMENT

CLASS II BASE (8")		SF	351,080	\$ 1.25	\$ 438,850
AC PAVING (4" SURFACE)		SF	351,080	\$ 2.39	\$ 839,081
BASE PREP		SF	351,080	\$ 0.44	\$ 154,475
SUBTOTAL:					\$ 1,432,406

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)		EA	34	\$ 1,307.18	\$ 44,444
DG TRAIL		SF	24,750	\$ 6.00	\$ 148,500
4" PCC SIDEWALK, PER G-7		SF	24,750	\$ 5.99	\$ 148,253
SUBTOTAL:					\$ 341,197

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN		EA	14	\$ 435.72	\$ 6,100
STREET LIGHT, 100 WATT, HPS		EA	22	\$ 6,535.90	\$ 143,790
SUBTOTAL:					\$ 149,890

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114		SF	45,280	\$ 7.62	\$ 345,034
SUBTOTAL:					\$ 345,034
TOTAL:					\$ 2,729,831

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN		LF	4,602	\$ 103.49	\$ 476,261
SUBTOTAL:					\$ 476,261

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)		EA	23	\$ 5,989.05	\$ 137,808
CLEANOUT, PER D-9 (TYPE A)		EA	12	\$ 4,901.92	\$ 56,397
SUBTOTAL:					\$ 194,205
TOTAL:					\$ 670,466

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*		LF	9,204	\$ 74.50	\$ 685,698
10" PVC WATER MAIN*		LF		\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way		EA	31	\$ 4,193.86	\$ 128,668
2" WATER SERVICE W/ METER		EA	283	\$ 3,121.98	\$ 883,520
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					
SUBTOTAL:					\$ 1,697,886

WASTEWATER

8" PVC		LF	9,204	\$ 78.64	\$ 723,803
MANHOLE (SM-01)		EA	18	\$ 3,703.67	\$ 68,177
SUBTOTAL:					\$ 791,980
TOTAL:					\$ 2,489,866

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC		LF	9,204	\$ 70.00	\$ 644,280
ELECTRIC ONLY		LF		\$ 50.00	\$ -
SUBTOTAL:					\$ 644,280
TOTAL:					\$ 644,280

SECTION 2 TOTAL: \$ 6,534,442

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF			\$ 10.36	\$ -
SUBTOTAL:					\$ -

PAVEMENT

CLASS II BASE (6")	SF			\$ 1.09	\$ -
AC PAVING (3" SURFACE)	SF			\$ 1.80	\$ -
BASE PREP	SF			\$ 0.44	\$ -
SUBTOTAL:					\$ -

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA			\$ 1,525.04	\$ -
DG TRAIL	SF			\$ 4.59	\$ -
SUBTOTAL:					\$ -

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA			\$ 435.72	\$ -
SUBTOTAL:					\$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF			\$ 7.62	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF			\$ 103.49	\$ -
SUBTOTAL:					\$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA			\$ 5,989.05	\$ -
CLEANOUT, PER D-9 (TYPE A)	EA			\$ 4,901.92	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$ -
10" PVC WATER MAIN*	LF			\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$ -
SUBTOTAL:					\$ -

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF			\$ 78.64	\$ -
MANHOLE (SM-01)	EA			\$ 3,703.67	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$ -
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

SECTION 3 TOTAL: \$ -

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA	283	\$ 4,244.00	\$ 1,201,052
ANNEXATION - PADRE DAM	ACRE	88	\$ 3,600.00	\$ 315,360
ANNEXATION - CWA	EA	283	\$ 5,240.00	\$ 1,482,920
ANNEXATION - MWD	ACRE	88	\$ 5,671.00	\$ 496,780
ANNEXATION - SEWER	EA	283	\$ 3,300.00	\$ 933,900

SECTION 4 TOTAL: \$ 4,430,012

SUBTOTAL: \$ 12,237,953.87
25% CONTINGENCY \$ 3,059,488.47

TOTAL: \$ 15,297,442

ALPINE INFRASTRUCTURE STUDY:MODERATE DENSITY - LAND USE 8, VR-2 (303 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		454,500	\$ 3.00	\$ 1,363,500
SUBTOTAL:					\$ 1,363,500

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 1,363,500

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)		LF	12,758	\$ 25.06	\$ 319,715
SUBTOTAL:					\$ 319,715

PAVEMENT

CLASS II BASE (8")		SF	233,060	\$ 1.25	\$ 291,325
AC PAVING (4" SURFACE)		SF	233,060	\$ 2.39	\$ 557,013
BASE PREP		SF	233,060	\$ 0.44	\$ 102,546
SUBTOTAL:					\$ 950,885

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)		EA		\$ 1,525.04	\$ -
DG TRAIL		SF	18,732	\$ 4.59	\$ 85,980
4" PCC SIDEWALK, PER G-7		SF	18,732	\$ 4.79	\$ 89,726
SUBTOTAL:					\$ 175,706

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN		EA	10	\$ 435.72	\$ 4,357
STREET LIGHT, 100 WATT, HPS		EA	8	\$ 6,535.90	\$ 52,287
SUBTOTAL:					\$ 56,644

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114		SF	48,480	\$ 7.62	\$ 369,418
SUBTOTAL:					\$ 369,418
TOTAL:					\$ 1,872,368

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN		LF	3,190	\$ 103.49	\$ 330,081
SUBTOTAL:					\$ 330,081

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)		EA	16	\$ 5,989.05	\$ 95,510
CLEANOUT, PER D-9 (TYPE A)		EA	8	\$ 4,901.92	\$ 39,215
SUBTOTAL:					\$ 134,726
TOTAL:					\$ 464,807

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*		LF	6,380	\$ 74.50	\$ 475,310
10" PVC WATER MAIN*		LF		\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way		EA	21	\$ 4,193.86	\$ 89,189
2" WATER SERVICE W/ METER		EA	303	\$ 3,121.98	\$ 945,960
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					
SUBTOTAL:					\$ 1,510,459

WASTEWATER

8" PVC		LF	6,380	\$ 78.64	\$ 501,723
MANHOLE (SM-01)		EA	13	\$ 3,703.67	\$ 47,259
SUBTOTAL:					\$ 548,982
TOTAL:					\$ 2,059,441

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC		LF	6,380	\$ 70.00	\$ 446,600
ELECTRIC ONLY		LF		\$ 50.00	\$ -
SUBTOTAL:					\$ 446,600
TOTAL:					\$ 446,600

SECTION 2 TOTAL: \$ 4,843,217

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		\$ 10.36	\$ -
				SUBTOTAL: \$ -

PAVEMENT

CLASS II BASE (6")	SF		\$ 1.09	\$ -
AC PAVING (3" SURFACE)	SF		\$ 1.80	\$ -
BASE PREP	SF		\$ 0.44	\$ -
				SUBTOTAL: \$ -

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		\$ 1,525.04	\$ -
DG TRAIL	SF		\$ 4.59	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		\$ 435.72	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		\$ 7.62	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		\$ 103.49	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		\$ 5,989.05	\$ -
CLEANOUT, PER D-9 (TYPE A)	EA		\$ 4,901.92	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		\$ 74.50	\$ -
10" PVC WATER MAIN*	LF		\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA		\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA		\$ 3,121.98	\$ -
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES				SUBTOTAL: \$ -

WASTEWATER

8" PVC	LF		\$ 78.64	\$ -
MANHOLE (SM-01)	EA		\$ 3,703.67	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		\$ 70.00	\$ -
ELECTRIC ONLY	LF		\$ 50.00	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

SECTION 3 TOTAL: \$ -

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA	303	\$ 4,244.00	\$ 1,285,932
ANNEXATION - PADRE DAM	ACRE	227	\$ 3,600.00	\$ 816,480
ANNEXATION - CWA	EA	303	\$ 5,240.00	\$ 1,587,720
ANNEXATION - MWD	ACRE	227	\$ 5,671.00	\$ 1,286,183
ANNEXATION - SEWER	EA	303	\$ 3,300.00	\$ 999,900

SECTION 4 TOTAL: \$ 5,976,215

SUBTOTAL: \$ 12,182,931.72
25% CONTINGENCY \$ 3,045,732.93

TOTAL: \$ 15,228,665

ALPINE INFRASTRUCTURE STUDY:MODERATE DENSITY - LAND USE 9, SR-1 (68 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		204,000	\$ 3.00	\$ 612,000
SUBTOTAL:					\$ 612,000

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 612,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)	LF		11,382	\$ 25.06	\$ 285,233
SUBTOTAL:					\$ 285,233

PAVEMENT

CLASS II BASE (8")	SF		218,230	\$ 1.25	\$ 272,788
AC PAVING (4" SURFACE)	SF		218,230	\$ 2.39	\$ 521,570
BASE PREP	SF		218,230	\$ 0.44	\$ 96,021
SUBTOTAL:					\$ 890,378

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		9	\$ 1,307.18	\$ 11,765
DG TRAIL	SF		19,690	\$ 4.59	\$ 90,377
4" PCC SIDEWALK, PER G-7	SF		19,690	\$ 4.79	\$ 94,315
SUBTOTAL:					\$ 196,457

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		1	\$ 435.72	\$ 436
STREET LIGHT, 100 WATT, HPS	EA		5	\$ 6,535.90	\$ 32,680
SUBTOTAL:					\$ 33,115

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		4,000	\$ 7.62	\$ 30,480
SUBTOTAL:					\$ 30,480
TOTAL:					\$ 1,435,663

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		2,846	\$ 103.49	\$ 294,481
SUBTOTAL:					\$ 294,481

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		14	\$ 5,989.05	\$ 85,209
CLEANOUT, PER D-9 (TYPE A)	EA		7	\$ 4,901.92	\$ 34,313
SUBTOTAL:					\$ 119,523
TOTAL:					\$ 414,003

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		5,691	\$ 74.50	\$ 423,980
10" PVC WATER MAIN*	LF			\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA		19	\$ 4,193.86	\$ 79,558
2" WATER SERVICE W/ METER	EA		25	\$ 3,121.98	\$ 78,050
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					
SUBTOTAL:					\$ 581,587

WASTEWATER

8" PVC	LF		5,691	\$ 78.64	\$ 447,540
MANHOLE (SM-01)	EA		11	\$ 3,703.67	\$ 42,155
SUBTOTAL:					\$ 489,695
TOTAL:					\$ 1,071,282

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		5,691	\$ 70.00	\$ 398,370
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ 398,370
TOTAL:					\$ 398,370

SECTION 2 TOTAL: \$ 3,319,319

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		20,970	\$ 10.36	\$	217,249
SUBTOTAL:						\$ 217,249

PAVEMENT

CLASS II BASE (6")	SF		251,640	\$ 1.09	\$	274,288
AC PAVING (3" SURFACE)	SF		251,640	\$ 1.80	\$	452,952
BASE PREP	SF		251,640	\$ 0.44	\$	110,722
SUBTOTAL:						\$ 837,961

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		13	\$ 1,307.18	\$	16,993
DG TRAIL	SF		66,112	\$ 4.59	\$	303,454
SUBTOTAL:						\$ 320,447

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		9	\$ 435.72	\$	3,921
SUBTOTAL:						\$ 3,921

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		6,880	\$ 7.62	\$	52,426
SUBTOTAL:						\$ 52,426
TOTAL:						\$ 1,432,005

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		4,776	\$ 103.49	\$	494,268
SUBTOTAL:						\$ 494,268

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		16	\$ 5,989.05	\$	95,346
CLEANOUT, PER D-9 (TYPE A)	EA		8	\$ 4,901.92	\$	39,215
SUBTOTAL:						\$ 134,561
TOTAL:						\$ 628,829

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		9,552	\$ 74.50	\$	711,624
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA		32	\$ 4,193.86	\$	133,533
2" WATER SERVICE W/ METER	EA		43	\$ 3,121.98	\$	134,245
SUBTOTAL:						\$ 979,402

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF		9,552	\$ 78.64	\$	751,169
MANHOLE (SM-01)	EA		19	\$ 3,703.67	\$	70,755
SUBTOTAL:						\$ 821,924
TOTAL:						\$ 1,801,326

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF		9,552	\$ 50.00	\$	477,600
SUBTOTAL:						\$ 477,600
TOTAL:						\$ 477,600

SECTION 3 TOTAL: \$ 4,339,760

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		68	\$ 4,244.00	\$	288,592
ANNEXATION - PADRE DAM	ACRE		306	\$ 3,600.00	\$	1,101,240
ANNEXATION - CWA	EA		68	\$ 5,240.00	\$	356,320
ANNEXATION - MWD	ACRE		306	\$ 5,671.00	\$	1,734,759
ANNEXATION - SEWER	EA		68	\$ 3,300.00	\$	224,400

SECTION 4 TOTAL: \$ 3,705,311

SUBTOTAL: \$ 11,976,389.65
25% CONTINGENCY \$ 2,994,097.41

TOTAL: \$ 14,970,487

ALPINE INFRASTRUCTURE STUDY:MODERATE DENSITY - LAND USE 11, SR-2 (160 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		480,000	\$ 3.00	\$ 1,440,000
SUBTOTAL:					\$ 1,440,000

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -

SECTION 1 TOTAL: \$ 1,440,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)	LF		17,970	\$ 25.06	\$ 450,328
SUBTOTAL:					\$ 450,328

PAVEMENT

CLASS II BASE (8")	SF		348,510	\$ 1.25	\$ 435,638
AC PAVING (4" SURFACE)	SF		348,510	\$ 2.39	\$ 832,939
BASE PREP	SF		348,510	\$ 0.44	\$ 153,344
SUBTOTAL:					\$ 1,421,921

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		16	\$ 1,307.18	\$ 20,915
DG TRAIL	SF		32,868	\$ 4.59	\$ 150,864
4" PCC SIDEWALK, PER G-7	SF		32,868	\$ 4.79	\$ 157,438
SUBTOTAL:					\$ 329,217

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		6	\$ 435.72	\$ 2,614
STREET LIGHT, 100 WATT, HPS	EA		10	\$ 6,535.90	\$ 65,359
SUBTOTAL:					\$ 67,973

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		8,480	\$ 7.62	\$ 64,618
SUBTOTAL:					\$ 64,618

TOTAL: \$ 2,334,057

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		4,493	\$ 103.49	\$ 464,929
SUBTOTAL:					\$ 464,929

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		22	\$ 5,989.05	\$ 134,529
CLEANOUT, PER D-9 (TYPE A)	EA		11	\$ 4,901.92	\$ 53,921
SUBTOTAL:					\$ 188,450

TOTAL: \$ 653,379

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		8,985	\$ 74.50	\$ 669,383
10" PVC WATER MAIN*	LF			\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA		30	\$ 4,193.86	\$ 125,606
2" WATER SERVICE W/ METER	EA		53	\$ 3,121.98	\$ 165,465

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

SUBTOTAL: \$ 960,454

WASTEWATER

8" PVC	LF			\$ 78.64	\$ -
MANHOLE (SM-01)	EA			\$ 3,703.67	\$ -
SUBTOTAL:					\$ -

TOTAL: \$ 960,454

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		8,985	\$ 70.00	\$ 628,950
ELECTRIC ONLY	LF			\$ 50.00	\$ -

SUBTOTAL: \$ 628,950

TOTAL: \$ 628,950

SECTION 2 TOTAL: \$ 4,576,839

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		37,874	\$ 10.36	\$	392,375
SUBTOTAL:						\$ 392,375

PAVEMENT

CLASS II BASE (6")	SF		454,488	\$ 1.09	\$	495,392
AC PAVING (3" SURFACE)	SF		454,488	\$ 1.80	\$	818,078
BASE PREP	SF		454,488	\$ 0.44	\$	199,975
SUBTOTAL:						\$ 1,513,445

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		28	\$ 1,307.18	\$	36,601
DG TRAIL	SF		131,440	\$ 4.59	\$	603,310
SUBTOTAL:						\$ 639,911

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		16	\$ 435.72	\$	6,972
SUBTOTAL:						\$ 6,972

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		17,120	\$ 7.62	\$	130,454
SUBTOTAL:						\$ 130,454
TOTAL:						\$ 2,683,156

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		8,987	\$ 103.49	\$	930,065
SUBTOTAL:						\$ 930,065

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		30	\$ 5,989.05	\$	179,412
CLEANOUT, PER D-9 (TYPE A)	EA		15	\$ 4,901.92	\$	73,529
SUBTOTAL:						\$ 252,941
TOTAL:						\$ 1,183,005

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		17,974	\$ 74.50	\$	1,339,063
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA		60	\$ 4,193.86	\$	251,268
2" WATER SERVICE W/ METER	EA		107	\$ 3,121.98	\$	334,052
SUBTOTAL:						\$ 1,924,383

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF			\$ 78.64	\$	-
MANHOLE (SM-01)	EA			\$ 3,703.67	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ 1,924,383

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF		17,974	\$ 50.00	\$	898,700
SUBTOTAL:						\$ 898,700
TOTAL:						\$ 898,700

SECTION 3 TOTAL: \$ 6,689,245

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		160	\$ 4,244.00	\$	679,040
ANNEXATION - PADRE DAM	ACRE		695	\$ 3,600.00	\$	2,503,440
ANNEXATION - CWA	EA		160	\$ 5,240.00	\$	838,400
ANNEXATION - MWD	ACRE		695	\$ 5,671.00	\$	3,943,613
ANNEXATION - SEWER	EA			\$ 3,300.00	\$	-

SECTION 4 TOTAL: \$ 7,964,493

SUBTOTAL: \$ 20,670,577.20
25% CONTINGENCY \$ 5,167,644.30

TOTAL: \$ 25,838,222

ALPINE INFRASTRUCTURE STUDY:MODERATE DENSITY - LAND USE 18, RL-20 (15 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		45,000	\$ 3.00	\$ 135,000
SUBTOTAL:					\$ 135,000

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 135,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)		LF	2,824	\$ 25.06	\$ 70,769
SUBTOTAL:					\$ 70,769

PAVEMENT

CLASS II BASE (8")		SF	56,480	\$ 1.25	\$ 70,600
AC PAVING (4" SURFACE)		SF	56,480	\$ 2.39	\$ 134,987
BASE PREP		SF	56,480	\$ 0.44	\$ 24,851
SUBTOTAL:					\$ 230,438

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)		EA	2	\$ 1,525.04	\$ 3,050
DG TRAIL		SF	5,584	\$ 4.59	\$ 25,631
4" PCC SIDEWALK, PER G-7		SF	5,584	\$ 4.79	\$ 26,747
SUBTOTAL:					\$ 55,428

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN		EA		\$ 435.72	\$ -
STREET LIGHT, 100 WATT, HPS		EA	1	\$ 6,535.90	\$ 6,536
SUBTOTAL:					\$ 6,536

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114		SF	320	\$ 7.62	\$ 2,438
SUBTOTAL:					\$ 2,438
TOTAL:					\$ 365,610

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN		LF	706	\$ 103.49	\$ 73,064
SUBTOTAL:					\$ 73,064

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)		EA	4	\$ 5,989.05	\$ 21,141
CLEANOUT, PER D-9 (TYPE A)		EA	2	\$ 4,901.92	\$ 9,804
SUBTOTAL:					\$ 30,945
TOTAL:					\$ 104,009

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*		LF		\$ 74.50	\$ -
10" PVC WATER MAIN*		LF		\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way		EA		\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER		EA		\$ 3,121.98	\$ -
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					
SUBTOTAL:					\$ -

WASTEWATER

8" PVC		LF		\$ 78.64	\$ -
MANHOLE (SM-01)		EA		\$ 3,703.67	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC		LF	1,412	\$ 70.00	\$ 98,840
ELECTRIC ONLY		LF		\$ 50.00	\$ -
SUBTOTAL:					\$ 98,840
TOTAL:					\$ 98,840

SECTION 2 TOTAL: \$ 568,459

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		17,354	\$ 10.36	\$	179,787
SUBTOTAL:						\$ 179,787

PAVEMENT

CLASS II BASE (6")	SF		208,248	\$ 1.09	\$	226,990
AC PAVING (3" SURFACE)	SF		208,248	\$ 1.80	\$	374,846
BASE PREP	SF		208,248	\$ 0.44	\$	91,629
SUBTOTAL:						\$ 693,466

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		13	\$ 1,307.18	\$	16,993
DG TRAIL	SF		68,648	\$ 4.59	\$	315,094
SUBTOTAL:						\$ 332,088

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		5	\$ 435.72	\$	2,179
SUBTOTAL:						\$ 2,179

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		2,080	\$ 7.62	\$	15,850
SUBTOTAL:						\$ 15,850
TOTAL:						\$ 1,223,369

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		4,339	\$ 103.49	\$	448,991
SUBTOTAL:						\$ 448,991

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		14	\$ 5,989.05	\$	86,612
CLEANOUT, PER D-9 (TYPE A)	EA		7	\$ 4,901.92	\$	34,313
SUBTOTAL:						\$ 120,925
TOTAL:						\$ 569,916

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$	-
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$	-
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$	-
SUBTOTAL:						\$ -

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF			\$ 78.64	\$	-
MANHOLE (SM-01)	EA			\$ 3,703.67	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF		8,677	\$ 50.00	\$	433,850
SUBTOTAL:						\$ 433,850
TOTAL:						\$ 433,850

SECTION 3 TOTAL: \$ 2,227,136

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		15	\$ 4,244.00	\$	63,660
ANNEXATION - PADRE DAM	ACRE			\$ 3,600.00	\$	-
ANNEXATION - CWA	EA			\$ 5,240.00	\$	-
ANNEXATION - MWD	ACRE			\$ 5,671.00	\$	-
ANNEXATION - SEWER	EA			\$ 3,300.00	\$	-

SECTION 4 TOTAL: \$ 63,660

SUBTOTAL: \$ 2,994,254.86
 25% CONTINGENCY \$ 748,563.71

TOTAL: \$ 3,742,819

ALPINE INFRASTRUCTURE STUDY:MODERATE DENSITY - LAND USE 41, SR-0.5 (68 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		102,000	\$ 3.00	\$ 306,000
SUBTOTAL:					\$ 306,000

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 306,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)	LF		5,592	\$ 25.06	\$ 140,136
SUBTOTAL:					\$ 140,136

PAVEMENT

CLASS II BASE (8")	SF		100,656	\$ 1.25	\$ 125,820
AC PAVING (4" SURFACE)	SF		100,656	\$ 2.39	\$ 240,568
BASE PREP	SF		100,656	\$ 0.44	\$ 44,289
SUBTOTAL:					\$ 410,676

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		7	\$ 1,307.18	\$ 9,150
DG TRAIL	SF		8,432	\$ 4.59	\$ 38,703
4" PCC SIDEWALK, PER G-7	SF		8,432	\$ 4.79	\$ 40,389
SUBTOTAL:					\$ 88,242

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		5	\$ 435.72	\$ 2,179
STREET LIGHT, 100 WATT, HPS	EA		4	\$ 6,535.90	\$ 26,144
SUBTOTAL:					\$ 28,322

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		9,280	\$ 7.62	\$ 70,714
SUBTOTAL:					\$ 70,714
TOTAL:					\$ 738,090

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		1,398	\$ 103.49	\$ 144,679
SUBTOTAL:					\$ 144,679

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		7	\$ 5,989.05	\$ 41,863
CLEANOUT, PER D-9 (TYPE A)	EA		3	\$ 4,901.92	\$ 17,132
SUBTOTAL:					\$ 58,996
TOTAL:					\$ 203,675

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		2,796	\$ 74.50	\$ 208,302
10" PVC WATER MAIN*	LF			\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA		9	\$ 4,193.86	\$ 39,087
2" WATER SERVICE W/ METER	EA		58	\$ 3,121.98	\$ 181,075
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					
SUBTOTAL:					\$ 428,464

WASTEWATER

8" PVC	LF		2,796	\$ 78.64	\$ 219,877
MANHOLE (SM-01)	EA		6	\$ 3,703.67	\$ 20,711
SUBTOTAL:					\$ 240,588
TOTAL:					\$ 669,052

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		2,796	\$ 70.00	\$ 195,720
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ 195,720
TOTAL:					\$ 195,720

SECTION 2 TOTAL: \$ 1,806,537

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		948	\$ 10.36	\$	9,821
SUBTOTAL:						\$ 9,821

PAVEMENT

CLASS II BASE (6")	SF		11,376	\$ 1.09	\$	12,400
AC PAVING (3" SURFACE)	SF		11,376	\$ 1.80	\$	20,477
BASE PREP	SF		11,376	\$ 0.44	\$	5,005
SUBTOTAL:						\$ 37,882

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA			\$ 1,525.04	\$	-
DG TRAIL	SF		2,832	\$ 4.59	\$	12,999
SUBTOTAL:						\$ 12,999

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA			\$ 435.72	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		1,600	\$ 7.62	\$	12,192
SUBTOTAL:						\$ 12,192
TOTAL:						\$ 72,894

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		237	\$ 103.49	\$	24,527
SUBTOTAL:						\$ 24,527

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		1	\$ 5,989.05	\$	4,731
CLEANOUT, PER D-9 (TYPE A)	EA		1	\$ 4,901.92	\$	4,902
SUBTOTAL:						\$ 9,633
TOTAL:						\$ 34,160

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		474	\$ 74.50	\$	35,313
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA		2	\$ 4,193.86	\$	6,626
2" WATER SERVICE W/ METER	EA		10	\$ 3,121.98	\$	31,220
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES						
SUBTOTAL:						\$ 73,159

WASTEWATER

8" PVC	LF		474	\$ 78.64	\$	37,275
MANHOLE (SM-01)	EA		2	\$ 3,703.67	\$	5,852
SUBTOTAL:						\$ 43,127
TOTAL:						\$ 116,286

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		474	\$ 70.00	\$	33,180
ELECTRIC ONLY	LF			\$ 50.00	\$	-
SUBTOTAL:						\$ 33,180
TOTAL:						\$ 33,180

SECTION 3 TOTAL: \$ 256,521

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		68	\$ 4,244.00	\$	288,592
ANNEXATION - PADRE DAM	ACRE		46	\$ 3,600.00	\$	166,320
ANNEXATION - CWA	EA		68	\$ 5,240.00	\$	356,320
ANNEXATION - MWD	ACRE		46	\$ 5,671.00	\$	262,000
ANNEXATION - SEWER	EA		68	\$ 3,300.00	\$	224,400

SECTION 4 TOTAL: \$ 1,297,632

SUBTOTAL: \$ 3,666,689.98
25% CONTINGENCY \$ 916,672.50

TOTAL: \$ 4,583,362

ALPINE INFRASTRUCTURE STUDY:MODERATE DENSITY - VCMU & RC SITES

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		11,713	\$ 3.00	\$ 35,139
SUBTOTAL:					\$ 35,139

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 35,139

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)	LF		5,060	\$ 25.06	\$ 126,804
SUBTOTAL:					\$ 126,804

PAVEMENT

CLASS II BASE (8")	SF		35,420	\$ 1.25	\$ 44,275
AC PAVING (4" SURFACE)	SF		35,420	\$ 2.39	\$ 84,654
BASE PREP	SF		35,420	\$ 0.44	\$ 15,585
SUBTOTAL:					\$ 144,514

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		11	\$ 1,307.18	\$ 14,379
DG TRAIL	SF			\$ 4.59	\$ -
4" PCC SIDEWALK, PER G-7	SF		19,952	\$ 4.79	\$ 95,570
SUBTOTAL:					\$ 109,949

MISCELLANEOUS TRAFFIC IMPROVEMENTS

TRAFFIC SIGNAL	EA		2	\$ 147,057.64	\$ 294,115
STOP SIGN	EA			\$ 435.72	\$ -
STREET LIGHT, 100 WATT, HPS	EA			\$ 6,535.90	\$ -
SUBTOTAL:					\$ 294,115

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		720	\$ 7.62	\$ 5,486
SUBTOTAL:					\$ 5,486
TOTAL:					\$ 680,868

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		2,530	\$ 103.49	\$ 261,830
SUBTOTAL:					\$ 261,830

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		6	\$ 5,989.05	\$ 37,881
CLEANOUT, PER D-9 (TYPE A)	EA		3	\$ 4,901.92	\$ 15,502
SUBTOTAL:					\$ 53,383
TOTAL:					\$ 315,213

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$ -
10" PVC WATER MAIN*	LF		2,900	\$ 80.49	\$ 233,421
10" PVC WATER MAIN (UNDER BRIDGE)*	LF		240	\$ 160.98	\$ 38,635
FIRE HYDRANT (WF-01) 2-way	EA		10	\$ 4,193.86	\$ 43,896
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$ -
SUBTOTAL:					\$ 315,952

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF		1,525	\$ 78.64	\$ 119,926
4" PVC FORCE MAIN	LF		2,900	\$ 57.41	\$ 166,489
4" PVC FORCE MAIN (UNDER BRIDGE)	LF		240	\$ 114.82	\$ 27,557
MANHOLE (SM-01)	EA		9	\$ 3,703.67	\$ 34,555
SUBTOTAL:					\$ 348,527
TOTAL:					\$ 664,479

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		3,140	\$ 70.00	\$ 219,800
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ 219,800
TOTAL:					\$ 219,800

SECTION 2 TOTAL: \$ 1,880,360

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF			\$ 10.36	\$ -
					SUBTOTAL: \$ -

PAVEMENT

CLASS II BASE (6")	SF			\$ 1.09	\$ -
AC PAVING (3" SURFACE)	SF			\$ 1.80	\$ -
BASE PREP	SF			\$ 0.44	\$ -
					SUBTOTAL: \$ -

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA			\$ 1,525.04	\$ -
DG TRAIL	SF			\$ 4.59	\$ -
					SUBTOTAL: \$ -

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA			\$ 435.72	\$ -
					SUBTOTAL: \$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF			\$ 7.62	\$ -
					SUBTOTAL: \$ -
					TOTAL: \$ -

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF			\$ 103.49	\$ -
					SUBTOTAL: \$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA			\$ 5,989.05	\$ -
CLEANOUT, PER D-9 (TYPE A)	EA			\$ 4,901.92	\$ -
					SUBTOTAL: \$ -
					TOTAL: \$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$ -
10" PVC WATER MAIN*	LF			\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$ -
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					SUBTOTAL: \$ -

WASTEWATER

8" PVC	LF			\$ 78.64	\$ -
MANHOLE (SM-01)	EA			\$ 3,703.67	\$ -
					SUBTOTAL: \$ -
					TOTAL: \$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$ -
ELECTRIC ONLY	LF			\$ 50.00	\$ -
					SUBTOTAL: \$ -
					TOTAL: \$ -

SECTION 3 TOTAL: \$ -

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

SEWER PUMP STATION		LS	1	\$ 1,000,000.00	\$ 1,000,000
PARK FEES	EA		2	\$ 4,244.00	\$ 8,488
ANNEXATION - PADRE DAM	ACRE*		19	\$ 3,600.00	\$ 69,480
ANNEXATION - CWA	EA		2	\$ 5,240.00	\$ 10,480
ANNEXATION - MWD	ACRE*		19	\$ 5,671.00	\$ 109,450
ANNEXATION - SEWER	EA		2	\$ 3,300.00	\$ 6,600

*VCMU=8.8 ACRE, RC=10.5 ACRE

SECTION 4 TOTAL: \$ 1,204,498

SUBTOTAL: \$ 3,119,996.87
25% CONTINGENCY \$ 779,999.22
TOTAL: \$ 3,899,996

ALPINE INFRASTRUCTURE STUDY:MODERATE DENSITY - ALPINE BLVD

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY			\$ 3.00	\$ -
SUBTOTAL:					\$ -

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ -

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)	LF		31,840	\$ 25.06	\$ 797,910
6" MEDIAN CURB	LF		31,840	\$ 17.42	\$ 554,653
SUBTOTAL:					\$ 1,352,563

PAVEMENT

CLASS II BASE (8")	SF		382,080	\$ 1.25	\$ 477,600
AC PAVING (4" SURFACE)	SF		382,080	\$ 2.39	\$ 913,171
BASE PREP	SF		382,080	\$ 0.44	\$ 168,115
RAISED MEDIAN (STAMPED CONCRETE)	SF		222,880	\$ 5.45	\$ 1,214,696
SUBTOTAL:					\$ 2,773,582

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		22	\$ 1,307.18	\$ 28,758
DG TRAIL	SF			\$ 4.59	\$ -
4" PCC SIDEWALK, PER G-7	SF		63,680	\$ 4.79	\$ 305,027
SUBTOTAL:					\$ 333,785

MISCELLANEOUS TRAFFIC IMPROVEMENTS

TRAFFIC SIGNAL	EA		7	\$ 147,057.64	\$ 1,029,403
STOP SIGN	EA		5	\$ 435.72	\$ 2,179
STREET LIGHT, 100 WATT, HPS	EA		10	\$ 6,535.90	\$ 65,359
SUBTOTAL:					\$ 67,538

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF			\$ 7.62	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ 4,527,468

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF			\$ 103.49	\$ -
SUBTOTAL:					\$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA			\$ 5,989.05	\$ -
CLEANOUT, PER D-9 (TYPE A)	EA			\$ 4,901.92	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$ -
12" PVC WATER MAIN*	LF		15,920	\$ 88.87	\$ 1,414,810
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$ -
SUBTOTAL:					\$ 1,414,810

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

12" PVC	LF		15,920	\$ 96.57	\$ 1,537,394
MANHOLE (SM-01)	EA		32	\$ 3,703.67	\$ 117,925
SUBTOTAL:					\$ 1,655,319
TOTAL:					\$ 3,070,130

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		15,920	\$ 100.00	\$ 1,592,000
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ 1,592,000
TOTAL:					\$ 1,592,000

SECTION 2 TOTAL: \$ 9,189,598

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		\$ 10.36	\$ -
				SUBTOTAL: \$ -

PAVEMENT

CLASS II BASE (6")	SF		\$ 1.09	\$ -
AC PAVING (3" SURFACE)	SF		\$ 1.80	\$ -
BASE PREP	SF		\$ 0.44	\$ -
				SUBTOTAL: \$ -

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		\$ 1,525.04	\$ -
DG TRAIL	SF		\$ 4.59	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		\$ 435.72	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		\$ 7.62	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		\$ 103.49	\$ -
				SUBTOTAL: \$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		\$ 5,989.05	\$ -
CLEANOUT, PER D-9 (TYPE A)	EA		\$ 4,901.92	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		\$ 74.50	\$ -
10" PVC WATER MAIN*	LF		\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA		\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA		\$ 3,121.98	\$ -
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES				SUBTOTAL: \$ -

WASTEWATER

12" PVC	LF		\$ 96.57	\$ -
MANHOLE (SM-01)	EA		\$ 3,703.67	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		\$ 70.00	\$ -
ELECTRIC ONLY	LF		\$ 50.00	\$ -
				SUBTOTAL: \$ -
				TOTAL: \$ -

SECTION 3 TOTAL: \$ -

SUBTOTAL:	\$	9,189,598.01
25% CONTINGENCY	\$	2,297,399.50
TOTAL:	\$	11,486,998

ALPINE INFRASTRUCTURE STUDY:MODERATE DENSITY - COMMUNITY FACILITIES

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0




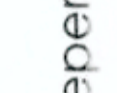
DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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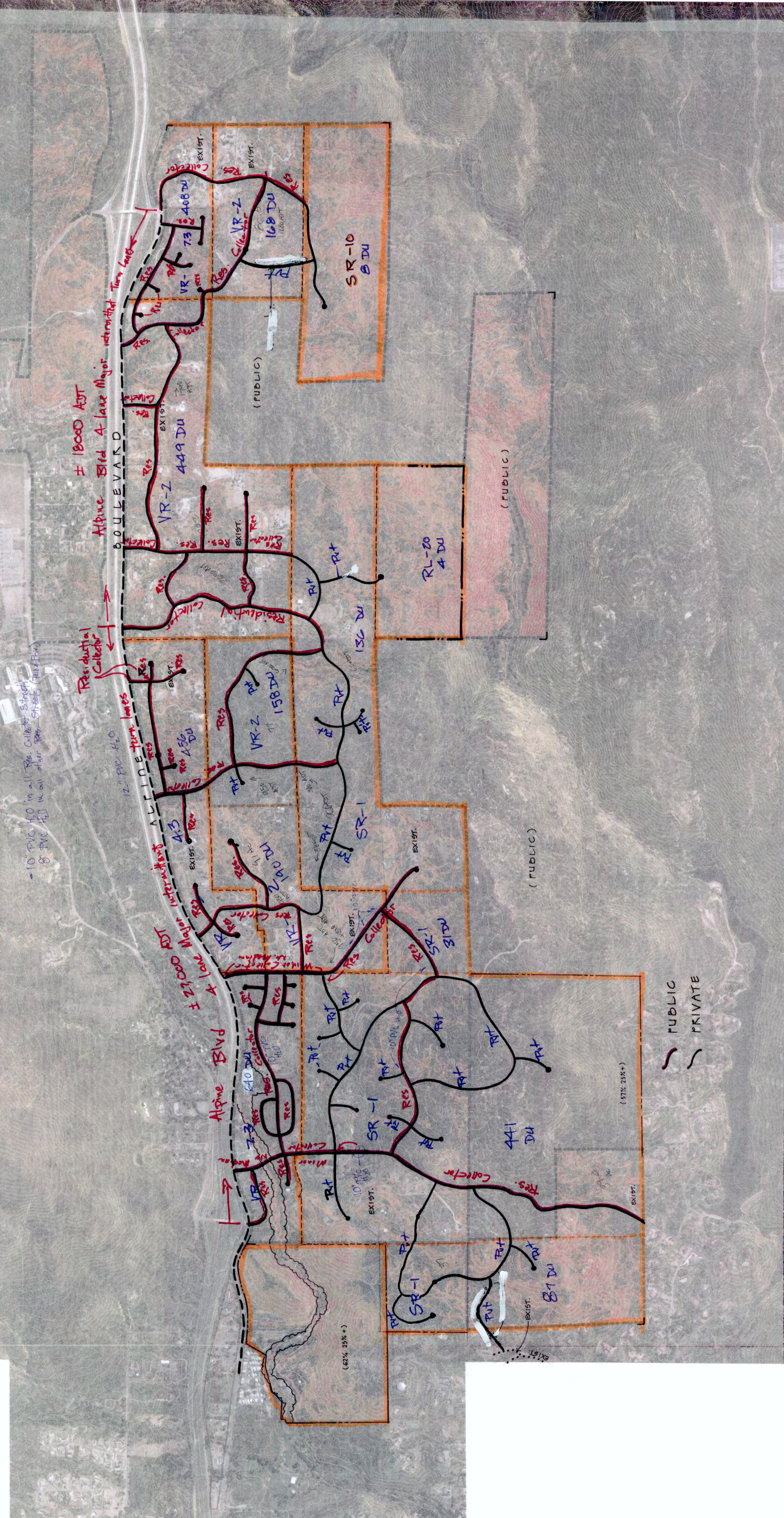
COMMUNITY FACILITIES

PUBLIC WATER SYSTEM EXPANSION		LS	1	\$ 15,120,000.00	\$ 15,120,000
POTABLE WATER STORAGE	GAL		950,000	\$ 1.50	\$ 1,425,000
SEWER PUMP STATION		LS	1	\$ 1,750,000.00	\$ 1,750,000
FIRE STATION		LS	1	\$ 10,500,000.00	\$ 10,500,000



SUBTOTAL:	\$	28,795,000.00
25% CONTINGENCY	\$	7,198,750.00
TOTAL:	\$	35,993,750

Legend

-  Project Boundary
-  GP Alternative - High
- Slope Scales**
-  25% - 50%
-  50% or steeper



-10" PVC H₂O in all Res. Collector Streets
 8" PVC H₂O in all other Res. Streets (RIS & Fire)

 PUBLIC
 PRIVATE

ALPINE INFRASTRUCTURE STUDY:HIGH DENSITY - SUMMARY

RICK ENGINEERING COMPANY
5620 FRIARS ROAD
SAN DIEGO, CA 92110
(619) 291-0707
(619) 291-4165

INTERNAL ORDER NO: NA
DRAWING NO: NA
PROJECT NO: 17536 LC
0

LAND USE CATEGORY	# DU	TOTAL
LAND USE 5 : VR-7.3	782	\$ 33,458,549.71
LAND USE 6 : VR-4.3	452	\$ 18,141,084.16
LAND USE 7 : VR-2.9	864	\$ 49,211,723.75
LAND USE 9 : SR-1	383	\$ 45,114,180.21
LAND USE 17 : SR-10	8	\$ 727,760.47
LAND USE 18 : RL-20	4	\$ 184,365.00
VCMU & RC SITES		\$ 3,889,386.08
ALPINE BLVD		\$ 10,571,153.52
COMMUNITY FACILITIES		\$ 43,250,000.00
TOTAL:		2,493 * \$ 161,298,202.90

**Area 4, VR-10.9, located at the very west of the study area has 70% of its area located in steep slopes. In addition, there is a significant ephemeral stream traversing the site. It is Rick Engineering Company's opinion that this area can support a maximum of 3 units and is therefore excluded from the infrastructure analysis. The resulting High Density yield is therefore 2493 DU not 3511 DU*

ALPINE INFRASTRUCTURE STUDY:HIGH DENSITY - LAND USE 5, VR-7.3 (782 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		1,173,000	\$ 3.00	\$ 3,519,000
SUBTOTAL:					\$ 3,519,000

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 3,519,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)		LF	30,400	\$ 25.06	\$ 761,824
SUBTOTAL:					\$ 761,824

PAVEMENT

CLASS II BASE (8")		SF	572,450	\$ 1.25	\$ 715,563
AC PAVING (4" SURFACE)		SF	572,450	\$ 2.39	\$ 1,368,156
BASE PREP		SF	572,450	\$ 0.44	\$ 251,878
SUBTOTAL:					\$ 2,335,596

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)		EA	41	\$ 1,307.18	\$ 53,594
DG TRAIL		SF	27,265	\$ 6.00	\$ 163,590
4" PCC SIDEWALK, PER G-7		SF	27,265	\$ 5.99	\$ 163,317
SUBTOTAL:					\$ 380,502

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN		EA	25	\$ 435.72	\$ 10,893
STREET LIGHT, 100 WATT, HPS		EA	38	\$ 6,535.90	\$ 248,364
SUBTOTAL:					\$ 259,257

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114		SF	125,120	\$ 7.62	\$ 953,414
SUBTOTAL:					\$ 953,414
TOTAL:					\$ 4,690,593

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN		LF	7,600	\$ 103.49	\$ 786,524
SUBTOTAL:					\$ 786,524

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)		EA	38	\$ 5,989.05	\$ 227,584
CLEANOUT, PER D-9 (TYPE A)		EA	19	\$ 4,901.92	\$ 93,136
SUBTOTAL:					\$ 320,720
TOTAL:					\$ 1,107,244

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*		LF	6,142	\$ 74.50	\$ 457,579
10" PVC WATER MAIN*		LF	9,058	\$ 80.49	\$ 729,078
FIRE HYDRANT (WF-01) 2-way		EA	51	\$ 4,193.86	\$ 212,489
2" WATER SERVICE W/ METER		EA	782	\$ 3,121.98	\$ 2,441,388
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					
SUBTOTAL:					\$ 3,840,535

WASTEWATER

8" PVC		LF	15,200	\$ 78.64	\$ 1,195,328
MANHOLE (SM-01)		EA	30	\$ 3,703.67	\$ 112,592
SUBTOTAL:					\$ 1,307,920
TOTAL:					\$ 5,148,454

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC		LF	15,200	\$ 70.00	\$ 1,064,000
ELECTRIC ONLY		LF		\$ 50.00	\$ -
SUBTOTAL:					\$ 1,064,000
TOTAL:					\$ 1,064,000

SECTION 2 TOTAL: \$ 12,010,292

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF			\$ 10.36	\$	-
SUBTOTAL:						\$ -

PAVEMENT

CLASS II BASE (6")	SF			\$ 1.09	\$	-
AC PAVING (3" SURFACE)	SF			\$ 1.80	\$	-
BASE PREP	SF			\$ 0.44	\$	-
SUBTOTAL:						\$ -

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA			\$ 1,525.04	\$	-
DG TRAIL	SF			\$ 4.59	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA			\$ 435.72	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF			\$ 7.62	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF			\$ 103.49	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA			\$ 5,989.05	\$	-
CLEANOUT, PER D-9 (TYPE A)	EA			\$ 4,901.92	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$	-
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$	-
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$	-
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES						
SUBTOTAL:						\$ -

WASTEWATER

8" PVC	LF			\$ 78.64	\$	-
MANHOLE (SM-01)	EA			\$ 3,703.67	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF			\$ 50.00	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

SECTION 3 TOTAL: \$ -

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		782	\$ 4,244.00	\$	3,318,808
ANNEXATION - PADRE DAM	ACRE		134	\$ 3,600.00	\$	481,680
ANNEXATION - CWA	EA		782	\$ 5,240.00	\$	4,097,680
ANNEXATION - MWD	ACRE		134	\$ 5,671.00	\$	758,780
ANNEXATION - SEWER	EA		782	\$ 3,300.00	\$	2,580,600

SECTION 4 TOTAL: \$ 11,237,548

SUBTOTAL: \$ 26,766,839.76
25% CONTINGENCY: \$ 6,691,709.94

TOTAL: \$ 33,458,550

ALPINE INFRASTRUCTURE STUDY:HIGH DENSITY - LAND USE 6, VR-4.3 (452 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

<u>EARTHWORK</u>					
EMBANKMENT/EXCAVATION	CY		678,000	\$ 3.00	\$ 2,034,000
SUBTOTAL:					\$ 2,034,000

<u>BMP'S</u>					
EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 2,034,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

<u>CURB AND GUTTER</u>					
6" CURB & GUTTER PER G-2 (TYPE G)	LF		13,800	\$ 25.06	\$ 345,828
SUBTOTAL:					\$ 345,828

<u>PAVEMENT</u>					
CLASS II BASE (8")	SF		257,400	\$ 1.25	\$ 321,750
AC PAVING (4" SURFACE)	SF		257,400	\$ 2.39	\$ 615,186
BASE PREP	SF		257,400	\$ 0.44	\$ 113,256
SUBTOTAL:					\$ 1,050,192

<u>CURB RAMPS & SIDEWALK</u>					
CURB RAMPS , PER G-27 (TYPE A & B)	EA		14	\$ 1,307.18	\$ 18,301
DG TRAIL	SF		7,120	\$ 4.59	\$ 32,681
4" PCC SIDEWALK, PER G-7	SF		7,120	\$ 4.79	\$ 34,105
SUBTOTAL:					\$ 85,086

<u>MISCELLANEOUS TRAFFIC IMPROVEMENTS</u>					
STOP SIGN	EA		10	\$ 435.72	\$ 4,357
STREET LIGHT, 100 WATT, HPS	EA		8	\$ 6,535.90	\$ 52,287
SUBTOTAL:					\$ 56,644

<u>MISCELLANEOUS SURFACE IMPROVEMENTS</u>					
DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		72,320	\$ 7.62	\$ 551,078
SUBTOTAL:					\$ 551,078
TOTAL:					\$ 2,088,829

DRAINAGE

<u>RCP PIPE MATERIAL</u>					
18" RCP STORM DRAIN	LF		3,450	\$ 103.49	\$ 357,041
SUBTOTAL:					\$ 357,041

<u>MISCELLANEOUS DRAINAGE</u>					
STORM DRAIN (TYPE B INLET)	EA		17	\$ 5,989.05	\$ 103,311
CLEANOUT, PER D-9 (TYPE A)	EA		9	\$ 4,901.92	\$ 42,279
SUBTOTAL:					\$ 145,590
TOTAL:					\$ 502,631

WATER AND WASTEWATER

<u>WATER</u>					
8" PVC WATER MAIN*	LF		2,235	\$ 74.50	\$ 166,508
10" PVC WATER MAIN*	LF		4,665	\$ 80.49	\$ 375,486
FIRE HYDRANT (WF-01) 2-way	EA		23	\$ 4,193.86	\$ 96,459
2" WATER SERVICE W/ METER	EA		452	\$ 3,121.98	\$ 1,411,135
SUBTOTAL:					\$ 2,049,587

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

<u>WASTEWATER</u>					
8" PVC	LF		6,900	\$ 78.64	\$ 542,616
MANHOLE (SM-01)	EA		14	\$ 3,703.67	\$ 51,111
SUBTOTAL:					\$ 593,727
TOTAL:					\$ 2,643,314

GAS & ELECTRIC

<u>GAS & ELECTRIC</u>					
GAS & ELECTRIC	LF		6,900	\$ 70.00	\$ 483,000
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ 483,000
TOTAL:					\$ 483,000

SECTION 2 TOTAL: \$ 5,717,773

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF			\$ 10.36	\$	-
SUBTOTAL:						\$ -

PAVEMENT

CLASS II BASE (6")	SF			\$ 1.09	\$	-
AC PAVING (3" SURFACE)	SF			\$ 1.80	\$	-
BASE PREP	SF			\$ 0.44	\$	-
SUBTOTAL:						\$ -

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA			\$ 1,525.04	\$	-
DG TRAIL	SF			\$ 4.59	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA			\$ 435.72	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF			\$ 7.62	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF			\$ 103.49	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA			\$ 5,989.05	\$	-
CLEANOUT, PER D-9 (TYPE A)	EA			\$ 4,901.92	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$	-
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$	-
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$	-
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES						
SUBTOTAL:						\$ -

WASTEWATER

8" PVC	LF			\$ 78.64	\$	-
MANHOLE (SM-01)	EA			\$ 3,703.67	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF			\$ 50.00	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

SECTION 3 TOTAL: \$ -

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		452	\$ 4,244.00	\$	1,918,288
ANNEXATION - PADRE DAM	ACRE		106	\$ 3,600.00	\$	381,600
ANNEXATION - CWA	EA		452	\$ 5,240.00	\$	2,368,480
ANNEXATION - MWD	ACRE		106	\$ 5,671.00	\$	601,126
ANNEXATION - SEWER	EA		452	\$ 3,300.00	\$	1,491,600

SECTION 4 TOTAL: \$ 6,761,094

SUBTOTAL: \$ 14,512,867.33
25% CONTINGENCY: \$ 3,628,216.83

TOTAL: \$ 18,141,084

ALPINE INFRASTRUCTURE STUDY:HIGH DENSITY - LAND USE 7, VR-2.9 (864 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		1,296,000	\$ 3.00	\$ 3,888,000
SUBTOTAL:					\$ 3,888,000

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -

SECTION 1 TOTAL: \$ 3,888,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)		LF	54,000	\$ 25.06	\$ 1,353,240
SUBTOTAL:					\$ 1,353,240

PAVEMENT

CLASS II BASE (8")		SF	1,027,190	\$ 1.25	\$ 1,283,988
AC PAVING (4" SURFACE)		SF	1,027,190	\$ 2.39	\$ 2,454,984
BASE PREP		SF	1,027,190	\$ 0.44	\$ 451,964
SUBTOTAL:					\$ 4,190,935

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)		EA	42	\$ 1,307.18	\$ 54,902
DG TRAIL		SF	79,520	\$ 4.59	\$ 364,997
4" PCC SIDEWALK, PER G-7		SF	79,520	\$ 4.79	\$ 380,901
SUBTOTAL:					\$ 800,799

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN		EA	25	\$ 435.72	\$ 10,893
STREET LIGHT, 100 WATT, HPS		EA	32	\$ 6,535.90	\$ 209,149
SUBTOTAL:					\$ 220,042

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114		SF	127,040	\$ 7.62	\$ 968,045
SUBTOTAL:					\$ 968,045

TOTAL: \$ 7,533,061

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN		LF	13,500	\$ 103.49	\$ 1,397,115
SUBTOTAL:					\$ 1,397,115

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)		EA	68	\$ 5,989.05	\$ 404,261
CLEANOUT, PER D-9 (TYPE A)		EA	34	\$ 4,901.92	\$ 165,440
SUBTOTAL:					\$ 569,701

TOTAL: \$ 1,966,816

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*		LF	13,690	\$ 74.50	\$ 1,019,905
10" PVC WATER MAIN*		LF	13,310	\$ 80.49	\$ 1,071,322
FIRE HYDRANT (WF-01) 2-way		EA	90	\$ 4,193.86	\$ 377,447
2" WATER SERVICE W/ METER		EA	794	\$ 3,121.98	\$ 2,478,852
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					
SUBTOTAL:					\$ 4,947,526

WASTEWATER

8" PVC		LF	27,000	\$ 78.64	\$ 2,123,280
MANHOLE (SM-01)		EA	54	\$ 3,703.67	\$ 199,998
SUBTOTAL:					\$ 2,323,278

TOTAL: \$ 7,270,805

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC		LF	27,000	\$ 70.00	\$ 1,890,000
ELECTRIC ONLY		LF		\$ 50.00	\$ -
SUBTOTAL:					\$ 1,890,000

TOTAL: \$ 1,890,000

SECTION 2 TOTAL: \$ 18,660,681

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		4,520	\$ 10.36	\$	46,827
SUBTOTAL:						\$ 46,827

PAVEMENT

CLASS II BASE (6")	SF		54,240	\$ 1.09	\$	59,122
AC PAVING (3" SURFACE)	SF		54,240	\$ 1.80	\$	97,632
BASE PREP	SF		54,240	\$ 0.44	\$	23,866
SUBTOTAL:						\$ 180,619

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		4	\$ 1,525.04	\$	6,100
DG TRAIL	SF		13,280	\$ 4.59	\$	60,955
SUBTOTAL:						\$ 67,055

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		4	\$ 435.72	\$	1,743
SUBTOTAL:						\$ 1,743

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		11,200	\$ 7.62	\$	85,344
SUBTOTAL:						\$ 85,344
TOTAL:						\$ 381,589

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		1,130	\$ 103.49	\$	116,944
SUBTOTAL:						\$ 116,944

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		4	\$ 5,989.05	\$	22,559
CLEANOUT, PER D-9 (TYPE A)	EA		2	\$ 4,901.92	\$	9,804
SUBTOTAL:						\$ 32,363
TOTAL:						\$ 149,306

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		2,260	\$ 74.50	\$	168,370
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA		8	\$ 4,193.86	\$	31,594
2" WATER SERVICE W/ METER	EA		70	\$ 3,121.98	\$	218,539
SUBTOTAL:						\$ 418,502

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF		2,260	\$ 78.64	\$	177,726
MANHOLE (SM-01)	EA		5	\$ 3,703.67	\$	16,741
SUBTOTAL:						\$ 194,467
TOTAL:						\$ 612,969

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		2,260	\$ 70.00	\$	158,200
ELECTRIC ONLY	LF			\$ 50.00	\$	-
SUBTOTAL:						\$ 158,200
TOTAL:						\$ 158,200

SECTION 3 TOTAL: \$ 1,302,064

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		864	\$ 4,244.00	\$	3,666,816
ANNEXATION - PADRE DAM	ACRE		483	\$ 3,600.00	\$	1,737,000
ANNEXATION - CWA	EA		864	\$ 5,240.00	\$	4,527,360
ANNEXATION - MWD	ACRE		483	\$ 5,671.00	\$	2,736,258
ANNEXATION - SEWER	EA		864	\$ 3,300.00	\$	2,851,200

SECTION 4 TOTAL: \$ 15,518,634

SUBTOTAL: \$ 39,369,379.00
25% CONTINGENCY \$ 9,842,344.75

TOTAL: \$ 49,211,724

ALPINE INFRASTRUCTURE STUDY:HIGH DENSITY - LAND USE 9,SR-1 (383 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		1,149,000	\$ 3.00	\$ 3,447,000
SUBTOTAL:					\$ 3,447,000

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 3,447,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)		LF	26,300	\$ 25.06	\$ 659,078
SUBTOTAL:					\$ 659,078

PAVEMENT

CLASS II BASE (8")		SF	506,520	\$ 1.25	\$ 633,150
AC PAVING (4" SURFACE)		SF	506,520	\$ 2.39	\$ 1,210,583
BASE PREP		SF	506,520	\$ 0.44	\$ 222,869
SUBTOTAL:					\$ 2,066,602

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)		EA		\$ 1,525.04	\$ -
DG TRAIL		SF	45,430	\$ 4.59	\$ 208,524
4" PCC SIDEWALK, PER G-7		SF	45,430	\$ 4.79	\$ 217,610
SUBTOTAL:					\$ 426,133

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN		EA	12	\$ 435.72	\$ 5,229
STREET LIGHT, 100 WATT, HPS		EA	17	\$ 6,535.90	\$ 111,110
SUBTOTAL:					\$ 116,339

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114		SF	873	\$ 7.62	\$ 6,654
SUBTOTAL:					\$ 6,654
TOTAL:					\$ 3,274,806

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN		LF	6,575	\$ 103.49	\$ 680,447
SUBTOTAL:					\$ 680,447

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)		EA	33	\$ 5,989.05	\$ 196,890
CLEANOUT, PER D-9 (TYPE A)		EA	16	\$ 4,901.92	\$ 80,575
SUBTOTAL:					\$ 277,465
TOTAL:					\$ 957,912

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*		LF	8,254	\$ 74.50	\$ 614,923
10" PVC WATER MAIN*		LF	4,896	\$ 80.49	\$ 394,079
FIRE HYDRANT (WF-01) 2-way		EA	44	\$ 4,193.86	\$ 183,831
2" WATER SERVICE W/ METER		EA	123	\$ 3,121.98	\$ 384,004
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					
SUBTOTAL:					\$ 1,576,836

WASTEWATER

8" PVC		LF		\$ 78.64	\$ -
MANHOLE (SM-01)		EA		\$ 3,703.67	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ 1,576,836

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC		LF	13,150	\$ 70.00	\$ 920,500
ELECTRIC ONLY		LF		\$ 50.00	\$ -
SUBTOTAL:					\$ 920,500
TOTAL:					\$ 920,500

SECTION 2 TOTAL: \$ 6,730,054

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		55,400	\$ 10.36	\$	573,944
SUBTOTAL:						\$ 573,944

PAVEMENT

CLASS II BASE (6")	SF		664,800	\$ 1.09	\$	724,632
AC PAVING (3" SURFACE)	SF		664,800	\$ 1.80	\$	1,196,640
BASE PREP	SF		664,800	\$ 0.44	\$	292,512
SUBTOTAL:						\$ 2,213,784

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		55	\$ 1,307.18	\$	71,895
DG TRAIL	SF		191,460	\$ 4.59	\$	878,801
SUBTOTAL:						\$ 950,696

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		30	\$ 435.72	\$	13,072
SUBTOTAL:						\$ 13,072

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		41,600	\$ 7.62	\$	316,992
SUBTOTAL:						\$ 316,992
TOTAL:						\$ 4,068,488

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		13,850	\$ 103.49	\$	1,433,337
SUBTOTAL:						\$ 1,433,337

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		46	\$ 5,989.05	\$	276,494
CLEANOUT, PER D-9 (TYPE A)	EA		23	\$ 4,901.92	\$	113,153
SUBTOTAL:						\$ 389,647
TOTAL:						\$ 1,822,984

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		27,700	\$ 74.50	\$	2,063,650
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA		92	\$ 4,193.86	\$	387,233
2" WATER SERVICE W/ METER	EA		260	\$ 3,121.98	\$	811,715
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES						
SUBTOTAL:						\$ 3,262,598

WASTEWATER

8" PVC	LF		27,700	\$ 78.64	\$	2,178,328
MANHOLE (SM-01)	EA		55	\$ 3,703.67	\$	205,183
SUBTOTAL:						\$ 2,383,511
TOTAL:						\$ 5,646,109

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF		27,700	\$ 50.00	\$	1,385,000
SUBTOTAL:						\$ 1,385,000
TOTAL:						\$ 1,385,000

SECTION 3 TOTAL: \$ 12,922,581

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		383	\$ 4,244.00	\$	1,625,452
ANNEXATION - PADRE DAM	ACRE		873	\$ 3,600.00	\$	3,143,520
ANNEXATION - CWA	EA		383	\$ 5,240.00	\$	2,006,920
ANNEXATION - MWD	ACRE		873	\$ 5,671.00	\$	4,951,917
ANNEXATION - SEWER	EA		383	\$ 3,300.00	\$	1,263,900

SECTION 4 TOTAL: \$ 12,991,709

SUBTOTAL: \$ 36,091,344.17
25% CONTINGENCY \$ 9,022,836.04

TOTAL: \$ 45,114,180

ALPINE INFRASTRUCTURE STUDY:HIGH DENSITY - LAND USE 17, SR-10 (8 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

<u>EARTHWORK</u>					
EMBANKMENT/EXCAVATION	CY		24,000	\$ 3.00	\$ 72,000
SUBTOTAL:					\$ 72,000
<u>BMP'S</u>					
EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 72,000

SECTION 2-PUBLIC IMPROVEMENTS

<u>SURFACE IMPROVEMENTS</u>					
<u>CURB AND GUTTER</u>					
6" CURB & GUTTER PER G-2 (TYPE G)	LF			\$ 25.06	\$ -
SUBTOTAL:					\$ -
<u>PAVEMENT</u>					
CLASS II BASE (8")	SF			\$ 1.25	\$ -
AC PAVING (4" SURFACE)	SF			\$ 2.39	\$ -
BASE PREP	SF			\$ 0.44	\$ -
SUBTOTAL:					\$ -
<u>CURB RAMPS & SIDEWALK</u>					
CURB RAMPS , PER G-27 (TYPE A & B)	EA			\$ 1,525.04	\$ -
DG TRAIL	SF			\$ 4.59	\$ -
4" PCC SIDEWALK, PER G-7	SF			\$ 5.99	\$ -
SUBTOTAL:					\$ -
<u>MISCELLANEOUS TRAFFIC IMPROVEMENTS</u>					
STOP SIGN	EA			\$ 435.72	\$ -
STREET LIGHT, 100 WATT, HPS	EA			\$ 6,535.90	\$ -
SUBTOTAL:					\$ -
<u>MISCELLANEOUS SURFACE IMPROVEMENTS</u>					
DRIVEWAY, PER G-14A,B,C, & SDG-114	SF			\$ 7.62	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -
<u>DRAINAGE</u>					
<u>RCP PIPE MATERIAL</u>					
18" RCP STORM DRAIN	LF			\$ 103.49	\$ -
SUBTOTAL:					\$ -
<u>MISCELLANEOUS DRAINAGE</u>					
STORM DRAIN (TYPE B INLET)	EA			\$ 5,989.05	\$ -
CLEANOUT, PER D-9 (TYPE A)	EA			\$ 4,901.92	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -
<u>WATER AND WASTEWATER</u>					
<u>WATER</u>					
8" PVC WATER MAIN*	LF			\$ 74.50	\$ -
10" PVC WATER MAIN*	LF			\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$ -
SUBTOTAL:					\$ -
<i>*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES</i>					
<u>WASTEWATER</u>					
8" PVC	LF			\$ 78.64	\$ -
MANHOLE (SM-01)	EA			\$ 3,703.67	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -
<u>GAS & ELECTRIC</u>					
<u>GAS & ELECTRIC</u>					
GAS & ELECTRIC	LF			\$ 70.00	\$ -
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -
SECTION 2 TOTAL:					\$ -

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		3,732	\$ 10.36	\$	38,664
SUBTOTAL:						\$ 38,664

PAVEMENT

CLASS II BASE (6")	SF		44,784	\$ 1.09	\$	48,815
AC PAVING (3" SURFACE)	SF		44,784	\$ 1.80	\$	80,611
BASE PREP	SF		44,784	\$ 0.44	\$	19,705
SUBTOTAL:						\$ 149,131

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		3	\$ 1,525.04	\$	4,575
DG TRAIL	SF		14,610	\$ 4.59	\$	67,060
SUBTOTAL:						\$ 71,635

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		1	\$ 435.72	\$	436
SUBTOTAL:						\$ 436

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		1,280	\$ 7.62	\$	9,754
SUBTOTAL:						\$ 9,754
TOTAL:						\$ 269,619

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		933	\$ 103.49	\$	96,556
SUBTOTAL:						\$ 96,556

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		3	\$ 5,989.05	\$	18,626
CLEANOUT, PER D-9 (TYPE A)	EA		2	\$ 4,901.92	\$	7,622
SUBTOTAL:						\$ 26,248
TOTAL:						\$ 122,805

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$	-
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$	-
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$	-
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES						
SUBTOTAL:						\$ -

WASTEWATER

8" PVC	LF			\$ 78.64	\$	-
MANHOLE (SM-01)	EA			\$ 3,703.67	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF		1,866	\$ 50.00	\$	93,300
SUBTOTAL:						\$ 93,300
TOTAL:						\$ 93,300

SECTION 3 TOTAL: \$ 485,723

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		8	\$ 4,244.00	\$	33,952
ANNEXATION - PADRE DAM	ACRE			\$ 3,600.00	\$	-
ANNEXATION - CWA	EA			\$ 5,240.00	\$	-
ANNEXATION - MWD	ACRE			\$ 5,671.00	\$	-
ANNEXATION - SEWER	EA			\$ 3,300.00	\$	-

SECTION 4 TOTAL: \$ 33,952

SUBTOTAL: \$ 591,675.18
25% CONTINGENCY \$ 136,085.29

TOTAL: \$ 727,760

ALPINE INFRASTRUCTURE STUDY:HIGH DENSITY - LAND USE 18, RL-20 (4 DU)

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		12,000	\$ 3.00	\$ 36,000
SUBTOTAL:					\$ 36,000

BMP'S

EROSION CONTROL	LS			\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 36,000

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)	LF			\$ 25.06	\$ -
SUBTOTAL:					\$ -

PAVEMENT

CLASS II BASE (8")	SF			\$ 1.25	\$ -
AC PAVING (4" SURFACE)	SF			\$ 2.39	\$ -
BASE PREP	SF			\$ 0.44	\$ -
SUBTOTAL:					\$ -

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA			\$ 1,525.04	\$ -
DG TRAIL	SF			\$ 4.59	\$ -
4" PCC SIDEWALK, PER G-7	SF			\$ 5.99	\$ -
SUBTOTAL:					\$ -

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA			\$ 435.72	\$ -
STREET LIGHT, 100 WATT, HPS	EA			\$ 6,535.90	\$ -
SUBTOTAL:					\$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF			\$ 7.62	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF			\$ 103.49	\$ -
SUBTOTAL:					\$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA			\$ 5,989.05	\$ -
CLEANOUT, PER D-9 (TYPE A)	EA			\$ 4,901.92	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$ -
10" PVC WATER MAIN*	LF			\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$ -
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES					
SUBTOTAL:					\$ -

WASTEWATER

8" PVC	LF			\$ 78.64	\$ -
MANHOLE (SM-01)	EA			\$ 3,703.67	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$ -
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -

SECTION 2 TOTAL: \$ -

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		296	\$ 10.36	\$	3,067
SUBTOTAL:						\$ 3,067

PAVEMENT

CLASS II BASE (6")	SF		3,552	\$ 1.09	\$	3,872
AC PAVING (3" SURFACE)	SF		3,552	\$ 1.80	\$	6,394
BASE PREP	SF		3,552	\$ 0.44	\$	1,563
SUBTOTAL:						\$ 11,828

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA			\$ 1,525.04	\$	-
DG TRAIL	SF		14,672	\$ 4.59	\$	67,344
SUBTOTAL:						\$ 67,344

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA			\$ 435.72	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		640	\$ 7.62	\$	4,877
SUBTOTAL:						\$ 4,877
TOTAL:						\$ 87,116

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF			\$ 103.49	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA			\$ 5,989.05	\$	-
CLEANOUT, PER D-9 (TYPE A)	EA			\$ 4,901.92	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$	-
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$	-
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$	-
*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES						
SUBTOTAL:						\$ -

WASTEWATER

8" PVC	LF			\$ 78.64	\$	-
MANHOLE (SM-01)	EA			\$ 3,703.67	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF		148	\$ 50.00	\$	7,400
SUBTOTAL:						\$ 7,400
TOTAL:						\$ 7,400

SECTION 3 TOTAL: \$ 94,516

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

PARK FEES	EA		4	\$ 4,244.00	\$	16,976
ANNEXATION - PADRE DAM	ACRE			\$ 3,600.00	\$	-
ANNEXATION - CWA	EA			\$ 5,240.00	\$	-
ANNEXATION - MWD	ACRE			\$ 5,671.00	\$	-
ANNEXATION - SEWER	EA			\$ 3,300.00	\$	-

SECTION 4 TOTAL: \$ 16,976

SUBTOTAL: \$ 147,492.00
25% CONTINGENCY \$ 36,873.00

TOTAL: \$ 184,365

ALPINE INFRASTRUCTURE STUDY:HIGH DENSITY - VCMU & RC SITES

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
-------------	------	----------	----------------	------------	------------

SECTION 1-EARTHWORK

EARTHWORK

EMBANKMENT/EXCAVATION	CY		11,713	\$ 3.00	\$ 35,139
SUBTOTAL:					\$ 35,139

BMP'S

EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ 35,139

SECTION 2-PUBLIC IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" CURB & GUTTER PER G-2 (TYPE G)	LF		5,060	\$ 25.06	\$ 126,804
SUBTOTAL:					\$ 126,804

PAVEMENT

CLASS II BASE (8")	SF		35,420	\$ 1.25	\$ 44,275
AC PAVING (4" SURFACE)	SF		35,420	\$ 2.39	\$ 84,654
BASE PREP	SF		35,420	\$ 0.44	\$ 15,585
SUBTOTAL:					\$ 144,514

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		11	\$ 1,307.18	\$ 14,379
DG TRAIL	SF			\$ 4.59	\$ -
4" PCC SIDEWALK, PER G-7	SF		19,952	\$ 4.79	\$ 95,570
SUBTOTAL:					\$ 109,949

MISCELLANEOUS TRAFFIC IMPROVEMENTS

TRAFFIC SIGNAL	EA		2	\$ 147,057.64	\$ 294,115
STOP SIGN	EA			\$ 435.72	\$ -
STREET LIGHT, 100 WATT, HPS	EA			\$ 6,535.90	\$ -
SUBTOTAL:					\$ 294,115

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		720	\$ 7.62	\$ 5,486
SUBTOTAL:					\$ 5,486
TOTAL:					\$ 680,868

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		2,530	\$ 103.49	\$ 261,830
SUBTOTAL:					\$ 261,830

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		6	\$ 5,989.05	\$ 37,881
CLEANOUT, PER D-9 (TYPE A)	EA		3	\$ 4,901.92	\$ 15,502
SUBTOTAL:					\$ 53,383
TOTAL:					\$ 315,213

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$ -
10" PVC WATER MAIN*	LF		2,900	\$ 80.49	\$ 233,421
10" PVC WATER MAIN (UNDER BRIDGE)*	LF		240	\$ 160.98	\$ 38,635
FIRE HYDRANT (WF-01) 2-way	EA		10	\$ 4,193.86	\$ 43,896
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$ -
SUBTOTAL:					\$ 315,952

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF		1,525	\$ 78.64	\$ 119,926
4" PVC FORCE MAIN	LF		2,900	\$ 57.41	\$ 166,489
4" PVC FORCE MAIN (UNDER BRIDGE)	LF		240	\$ 114.82	\$ 27,557
MANHOLE (SM-01)	EA		9	\$ 3,703.67	\$ 34,555
SUBTOTAL:					\$ 348,527
TOTAL:					\$ 664,479

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		3,140	\$ 70.00	\$ 219,800
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ 219,800
TOTAL:					\$ 219,800

SECTION 2 TOTAL: \$ 1,880,360

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF			\$ 10.36	\$	-
SUBTOTAL:						\$ -

PAVEMENT

CLASS II BASE (6")	SF			\$ 1.09	\$	-
AC PAVING (3" SURFACE)	SF			\$ 1.80	\$	-
BASE PREP	SF			\$ 0.44	\$	-
SUBTOTAL:						\$ -

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA			\$ 1,525.04	\$	-
DG TRAIL	SF			\$ 4.59	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA			\$ 435.72	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF			\$ 7.62	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF			\$ 103.49	\$	-
SUBTOTAL:						\$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA			\$ 5,989.05	\$	-
CLEANOUT, PER D-9 (TYPE A)	EA			\$ 4,901.92	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF			\$ 74.50	\$	-
10" PVC WATER MAIN*	LF			\$ 80.49	\$	-
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$	-
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$	-
SUBTOTAL:						\$ -

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

8" PVC	LF			\$ 78.64	\$	-
MANHOLE (SM-01)	EA			\$ 3,703.67	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF			\$ 70.00	\$	-
ELECTRIC ONLY	LF			\$ 50.00	\$	-
SUBTOTAL:						\$ -
TOTAL:						\$ -

SECTION 3 TOTAL: \$ -

SECTION 4 - MISCELLANEOUS

MISCELLANEOUS

SEWER PUMP STATION		LS	1	\$ 1,000,000.00	\$	1,000,000
PARK FEES	EA		0	\$ 4,244.00	\$	-
ANNEXATION - PADRE DAM	ACRE*		19	\$ 3,600.00	\$	69,480
ANNEXATION - CWA	EA		2	\$ 5,240.00	\$	10,480
ANNEXATION - MWD	ACRE*		19	\$ 5,671.00	\$	109,450
ANNEXATION - SEWER	EA		2	\$ 3,300.00	\$	6,600

*VCMU=8.8 ACRE, RC=10.5 ACRE

SECTION 4 TOTAL: \$ 1,196,010

SUBTOTAL: \$ 3,111,508.87
25% CONTINGENCY \$ 777,877.22

TOTAL: \$ 3,889,386

ALPINE INFRASTRUCTURE STUDY:HIGH DENSITY - ALPINE BLVD

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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SECTION 1-EARTHWORK

<u>EARTHWORK</u>					
EMBANKMENT/EXCAVATION	CY			\$ 3.00	\$ -
SUBTOTAL:					\$ -
<u>BMP'S</u>					
EROSION CONTROL		LS		\$ 5.22	\$ -
SUBTOTAL:					\$ -
SECTION 1 TOTAL:					\$ -

SECTION 2-PUBLIC IMPROVEMENTS

<u>SURFACE IMPROVEMENTS</u>					
<u>CURB AND GUTTER</u>					
6" CURB & GUTTER PER G-2 (TYPE G)	LF		31,840	\$ 25.06	\$ 797,910
SUBTOTAL:					\$ 797,910
<u>PAVEMENT</u>					
CLASS II BASE (8")	SF		652,720	\$ 1.25	\$ 815,900
AC PAVING (4" SURFACE)	SF		652,720	\$ 2.39	\$ 1,560,001
BASE PREP	SF		652,720	\$ 0.44	\$ 287,197
SUBTOTAL:					\$ 2,663,098
<u>CURB RAMPS & SIDEWALK</u>					
CURB RAMPS , PER G-27 (TYPE A & B)	EA		22	\$ 1,307.18	\$ 28,758
DG TRAIL	SF			\$ 4.59	\$ -
4" PCC SIDEWALK, PER G-7	SF		63,680	\$ 4.79	\$ 305,027
SUBTOTAL:					\$ 333,785
<u>MISCELLANEOUS TRAFFIC IMPROVEMENTS</u>					
TRAFFIC SIGNAL	EA		11	\$ 147,057.64	\$ 1,617,634
STOP SIGN	EA			\$ 435.72	\$ -
STREET LIGHT, 100 WATT, HPS	EA			\$ 6,535.90	\$ -
SUBTOTAL:					\$ -
<u>MISCELLANEOUS SURFACE IMPROVEMENTS</u>					
DRIVEWAY, PER G-14A,B,C, & SDG-114	SF			\$ 7.62	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ 3,794,793
<u>DRAINAGE</u>					
<u>RCP PIPE MATERIAL</u>					
18" RCP STORM DRAIN	LF			\$ 103.49	\$ -
SUBTOTAL:					\$ -
<u>MISCELLANEOUS DRAINAGE</u>					
STORM DRAIN (TYPE B INLET)	EA			\$ 5,989.05	\$ -
CLEANOUT, PER D-9 (TYPE A)	EA			\$ 4,901.92	\$ -
SUBTOTAL:					\$ -
TOTAL:					\$ -
<u>WATER AND WASTEWATER</u>					
<u>WATER</u>					
8" PVC WATER MAIN*	LF			\$ 74.50	\$ -
12" PVC WATER MAIN*	LF		15,920	\$ 88.87	\$ 1,414,810
FIRE HYDRANT (WF-01) 2-way	EA			\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA			\$ 3,121.98	\$ -
SUBTOTAL:					\$ 1,414,810
<small>*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES</small>					
<u>WASTEWATER</u>					
12" PVC	LF		15,920	\$ 96.57	\$ 1,537,394
MANHOLE (SM-01)	EA		32	\$ 3,703.67	\$ 117,925
SUBTOTAL:					\$ 1,655,319
TOTAL:					\$ 3,070,130
<u>GAS & ELECTRIC</u>					
<u>GAS & ELECTRIC</u>					
GAS & ELECTRIC	LF		15,920	\$ 100.00	\$ 1,592,000
ELECTRIC ONLY	LF			\$ 50.00	\$ -
SUBTOTAL:					\$ 1,592,000
TOTAL:					\$ 1,592,000
SECTION 2 TOTAL:					\$ 8,456,923

SECTION 3-PRIVATE IMPROVEMENTS

SURFACE IMPROVEMENTS

CURB AND GUTTER

6" AC BERM PER G-5 (TYPE G)	LF		\$ 10.36	\$ -
SUBTOTAL:				\$ -

PAVEMENT

CLASS II BASE (6")	SF		\$ 1.09	\$ -
AC PAVING (3" SURFACE)	SF		\$ 1.80	\$ -
BASE PREP	SF		\$ 0.44	\$ -
SUBTOTAL:				\$ -

CURB RAMPS & SIDEWALK

CURB RAMPS , PER G-27 (TYPE A & B)	EA		\$ 1,525.04	\$ -
DG TRAIL	SF		\$ 4.59	\$ -
SUBTOTAL:				\$ -

MISCELLANEOUS TRAFFIC IMPROVEMENTS

STOP SIGN	EA		\$ 435.72	\$ -
SUBTOTAL:				\$ -

MISCELLANEOUS SURFACE IMPROVEMENTS

DRIVEWAY, PER G-14A,B,C, & SDG-114	SF		\$ 7.62	\$ -
SUBTOTAL:				\$ -
TOTAL:				\$ -

DRAINAGE

RCP PIPE MATERIAL

18" RCP STORM DRAIN	LF		\$ 103.49	\$ -
SUBTOTAL:				\$ -

MISCELLANEOUS DRAINAGE

STORM DRAIN (TYPE B INLET)	EA		\$ 5,989.05	\$ -
CLEANOUT, PER D-9 (TYPE A)	EA		\$ 4,901.92	\$ -
SUBTOTAL:				\$ -
TOTAL:				\$ -

WATER AND WASTEWATER

WATER

8" PVC WATER MAIN*	LF		\$ 74.50	\$ -
10" PVC WATER MAIN*	LF		\$ 80.49	\$ -
FIRE HYDRANT (WF-01) 2-way	EA		\$ 4,193.86	\$ -
2" WATER SERVICE W/ METER	EA		\$ 3,121.98	\$ -
SUBTOTAL:				\$ -

*ASSUME AN ADDITIONAL \$5/LF FOR APPURTENANCES

WASTEWATER

12" PVC	LF		\$ 96.57	\$ -
MANHOLE (SM-01)	EA		\$ 3,703.67	\$ -
SUBTOTAL:				\$ -
TOTAL:				\$ -

GAS & ELECTRIC

GAS & ELECTRIC

GAS & ELECTRIC	LF		\$ 70.00	\$ -
ELECTRIC ONLY	LF		\$ 50.00	\$ -
SUBTOTAL:				\$ -
TOTAL:				\$ -

SECTION 3 TOTAL: \$ -

SUBTOTAL: \$ 8,456,922.81
25% CONTINGENCY \$ 2,114,230.70

TOTAL: \$ 10,571,154

ALPINE INFRASTRUCTURE STUDY:HIGH DENSITY - COMMUNITY FACILITIES

RICK ENGINEERING COMPANY
 5620 FRIARS ROAD
 SAN DIEGO, CA 92110
 (619) 291-0707
 (619) 291-4165

INTERNAL ORDER NO: NA
 DRAWING NO: NA
 PROJECT NO: 17536 LC
 0

DESCRIPTION	UNIT	LUMP SUM	TOTAL QUANTITY	UNIT PRICE	TOTAL COST
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COMMUNITY FACILITIES

PUBLIC WATER SYSTEM EXPANSION		LS	1	\$ 18,000,000.00	\$ 18,000,000
POTABLE WATER STORAGE	GAL		2,400,000	\$ 1.50	\$ 3,600,000
SEWER PUMP STATION		LS	1	\$ 2,500,000.00	\$ 2,500,000
FIRE STATION		LS	1	\$ 10,500,000.00	\$ 10,500,000

SUBTOTAL:	\$	34,600,000.00
25% CONTINGENCY	\$	8,650,000.00
TOTAL:	\$	43,250,000