Appendix L Utility Report

Appendices

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UTILITY REPORT

for

AGUA MANSA COMMERCE PARK
Jurupa Valley, California

Prepared For:

Crestmore Redevelopment LLC

Prepared By:

Langan Engineering and Environmental Services, Inc.
32 Executive Park, Suite 130
Irvine, California 92614

Date Prepared: 18 November, 2016
Revision #1: 18 August, 2017
Revision #2: 20 November, 2018
Revision #3: 21 January, 2019

700045404

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TABLE OF CONTENTS

1.0 INTRODUCTION

The purpose of this report is to assist the City of Jurupa Valley ("City") and Crestmore Redevelopment LLC, an indirect subsidiary of VCP Management, LLC ("Viridian Partners"), and inform the Utility section of the Draft Environmental Impact Report for the Agua Mansa Commerce Park Development Project (the "Project"). This report identifies the potential wet utility connections (sewer and water) and the impacts that may be associated with development of the Project. The report provides technical information and guidelines for the potential site demands and requirements.

2.0 PROJECT DESCRIPTION

2.1 Site Description

The site is the existing Riverside Cement Plant (the "Site") located in the northeastern quadrant of the City of Jurupa Valley along a historical industrial corridor and contained within the prior Riverside Cement Plant Site. Specifically Riverside County and adjacent to the City of Rialto and the unincorporated community of Bloomington in San Bernardino County (east of Rubidoux Boulevard, south of El Rivino Road, west of Hall Avenue, and north of Agua Mansa Road). The Project Site is 302.8 gross acres which is divided into three land use districts: Industrial Park, Business Park with Retail Overlay, and Open Space/Recreation Park (see Figure 1 Site Location Map) and is comprised the following Assessor's Parcel Numbers (APN): 175-170-005, portion of 006, 027, 028, 030, 036, 040, 042, 043, 045, and 046; 175-180-001; and 175-200-001- through 005 and 007-009. The boundary does not include the private canal (APN: 175-170-007 and 175-180-002) that borders the project site to the south along Agua Mansa Road. A portion of the canal (APN: 175-170-042) is included in the Specific Plan boundary near Rubidoux Boulevard (Agua Mansa Commerce Park Specific Plan by MIG).

The Riverside Cement Plant reportedly started operation in 1909 and terminated operations in 2014. The facility currently contains the former cement plant itself, a quarry for the mining of limestone for the manufacture of cement and cement products, and various support buildings. In July of 2014, Martin Marietta Materials purchased the Site, as part of a corporate acquisition of the previous owner, Texas Industries. Prior to redevelopment of the Site, the plant equipment will require decontamination and demolition, with remediation due to the former activities at the Site.

2.2 Planned Development

In order to redevelop the site, the environmental issues resulting from over 100 years of cement production must be remediated. Integral to the remediation, the proposed development of the site consisting of the buildings and paved areas will serve as the final "cap" over the site to reduce the generation of fugitive dust containing cement materials.

The intent of the Project is to provide a long-term strategy to revitalize the Riverside Cement Plant site and create environmentally compatible land uses and the remediated site. The Industrial Park district is 189.7 acres, which allows for development of approximately 4,216,000

square feet of industrial park uses, such as manufacturing, research and development, fulfillment centers, e-commerce centers, high-cube, general warehousing and distribution, and cross-dock facilities. The Business Park with Retail Overlay district is 33.8 acres that will support 200,000 square feet of business park uses (Alternative 1) along with an existing 23,000 square-foot research and development building (CalPortland area). The Specific Plan allows for an additional 41,000 square feet of business park use(s) in the CalPortland area – either through expansion of the existing building or new construction. In addition, the Business Park with Retail Overlay district includes an option to build up to 25,000 square feet of retail and/or food service uses along with 150,000 of business park square footage in lieu of the 200,000 square feet of business park uses (Alternative 2). The Open Space/Recreation Park district will be a 70.9-acre open space with recreation area. The development of the open space area with active and passive recreation opportunities, is contingent upon the feasible and successful remediation of the brownfield site. A Union Pacific Railroad right-of-way and North Riverside and Jurupa Canal ("canal") areas account for 8.4 acres within the Specific Plan boundary (Specific Plan by MIG, October 2018). Project land use boundaries are shown in Figure 1.1, Land Use Plan.

3.0 REGULATORY

The Site is located just outside of the existing Rubidoux Community Services District (RCSD) boundary. However, the Site is within the RCSD ultimate services boundary as shown on the Figure 2 RCSD Service Boundaries. In order for the Project to receive the RCSD water and sewer services the Site will need to be annexed into the RCSD Service Area through the Riverside County Local Agency Formation Commission (LAFCO).

Extensions of the existing RCSD sewer and water services to the Site for the Project would be required. The RCSD Atlas Maps are included as Appendix B and C. After the Site in annexed, construction documents would be submitted to RCSD and the City of Jurupa Valley for review and approval.

4.0 SITE ASSESSMENT

4.1 Sewer

As depicted on RCSD sewer Atlas Map, page D7, and shown in Appendix C, there is an existing 12 inch sewer in Rubidoux Boulevard to the south west of the Site and an existing 8 inch sewer in Brown Avenue to the east side of the Site. Existing on-site sewer is conveyed to septic fields on-site with no flow reaching these existing public lines. Proposed on-site sewer distribution infrastructure and two new sewer connections to the existing systems in Rubidoux Boulevard and Brown Ave would service the sewer needs for the Project. Buildings 1 and 2 will have a minimum of two points of connection. Buildings 3, 4, 5, and 6 will have one point of connection.

Per the Water Supply Assessment, page 123, prepared by RCSD, dated 12/15/16, all wastewater collected by the RCSD is conveyed through regional wastewater conveyance facilities to the City of Riverside Regional Water Quality Control Plant (WQCP). The WQCP is located on Acorn Street in the City of Riverside. The current capacity of the WQCP is 40 million gallons per day (gpd).

Quantities of wastewater collected and conveyed by RCSD projected to be treated by the City of Riverside have been reviewed for the next 25 years and has been noted to have capacity for the proposed Project. Further determination and assessment by RCSD during final sewer engineering design will be conducted to identify the exact sewer discharge flow. At this point, RCSD has indicated in an email in August 2017 by Steven W. Appel, P.E., Assistant General Manager/District Engineer with RCSD, that the proposed project will be served adequately by the City of Riverside's wastewater treatment plant. See references for said email in Appendix D.

The total preliminary estimates for the projected sewage generation for Alternative 1 and Alternative 2 usages of the Project are 8,752 GPD and 8,252 GPD respectively (see Table A) based on a sewage generation rate as stated in Table A for the planned Project uses. Figures 3 and 4 show the conceptual sewer design for the Project.

4.2 Water

As depicted on RCSD water Atlas Map, page C7, and shown in Appendix B, there is an existing 24 inch water main in Rubidoux Boulevard to the south west of the Site. On-site water main infrastructure and one new connection from the existing system in Rubidoux Boulevard will service the domestic water needs for the Project. Buildings 1 and 2 will each have a meter and a minimum of two points of connection. Buildings 3, 4, 5, and 6 will each have a meter and one point of connection.

The preliminary total estimates for the projected water demand for Alternative 1 and Alternative 2 usages of the Project are 21,880 GPD and 20,630 GPD respectively (see Table A) based on water usage rate as stated below for the planned Project uses. Figures 5 and 6 show the conceptual water design for the Project. The irrigation requirements for the Project will be addressed via domestic water. No proposed reclaimed water or rainwater harvesting for irrigation purpose would be feasible for this project due to the lack of existing infrastructure and sufficient rainfall amount.

A fire hydrant at the corner of Rubidoux Blvd. and Avalon St. (1800 Avalon St.) has been tested to supply adequate pressure and flow for the Project (see Appendix A for the data). The fire flow calculation will be analyzed during the final design of the on-site fire water infrastructure system once final building demand is confirmed. Tentatively, fire water distribution would require a looped system with one connection coming from the existing 24 inch water main in Rubidoux Boulevard. Each building would have one connection for the fire sprinkler system within that building with a demand of 4,000 gallons per minute (GPM) for Type IIIB construction (with a 50% reduction for a sprinkler system per the International Fire Code, 2,000 GPM). Fire hydrants would be distributed around the Site per the coverage and spacing requirements as noted in the California Fire Code.

TABLE A

Land Use	Area	Capita (1/5,000 industrial, 1/2,000 bus. prk/retail)	Capita Water Demand (20 GPD industrial, 50 GPD bus. prk/retail)	Sewer Discharge (40% of water)
Industrial	4,216,000 SF	844	16,880 GPD/11.7 GPM	6,752 GPD/4.7 GPM
Business Park/Retail (Alt - 1)	200,000 SF (no retail)	100	5,000 GPD/3.5 GPM	2,000 GPD/1.4 GPM
Business Park/Retail (Alt - 2)	150,000 SF +25,000 SF (retail)	88	4,400 GPD/3.1 GPM	1,760 GPD/1.2 GPM

1. *Land use area per Table 1.1 Land Use Summary and Figure 1.1*
2. *1 Capita/5,000 SF assumed for large industrial usage**
3. *1 Capita/2,000 SF assumed for business park/retail usage**
4. *Capita x 20 GPD assumed for large industrial usage**
5. *Capita x 50 GPD assumed for business park/retail usage**
6. *Sewer discharge at 40% of water per RCSD requirements*

**Industry standard numbers were used that have been reviewed by RCSD*

5.0 PROJECT ANALYSIS

5.1 Methodology

Information about the Site including location, surrounding existing utilities and agencies that would cover the area from available resources to understand the best proposed services have been assessed. The development characteristics of the Project, as defined in the Project Description and on Concept Plans, were extracted to understand the Project needs. Within the regulatory framework previously described, the utilities for the Project were evaluated by comparing the existing and proposed conditions. Existing conditions consist of septic fields and water wells. Proposed conditions have been stated above in the Site Assessment. Sewer assessment will be determined by calculating the estimated discharge of the project for the different land uses. The results of this analysis have been tabulated in Table A. RCSD has also indicated that the existing sewage treatment plant would be able to accept the proposed sewer design flow. Similarly, water demand and usage have been estimated and tabulated in Table A. RCSD has assessed the project water demand in their Water Supply Assessment (WSA) report that there is adequate supply for the project.

5.2 CEQA Thresholds of Significance

The relevant Appendix G CEQA thresholds of significance factors regarding utilities and service systems for the sewer and water utilities are presented below with a corresponding analysis of the Project's potential to have a significant impact on these factors.

- ***Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?***

  The Project would be designed to comply with the applicable requirements of the Santa Ana Regional Water Quality Control Board (RWQCB). The Project currently envisioned would provide the necessary remediation and prepares the majority of the Site which comprised the following usages:
  The Industrial Park district is 189.7 acres, which allows for development of approximately 4,216,000 square feet of industrial park uses, such as manufacturing, research and development, fulfillment centers, e-commerce centers, high-cube, general warehousing and distribution, and cross-dock facilities. The Business Park with Retail Overlay district is 33.8 acres that will support 200,000 square feet of business park uses along with an existing 23,000 square-foot research and development building (CalPortland area). The Specific Plan allows for an additional 41,000 square feet of business park use(s) in the CalPortland area – either through expansion of the existing building or new construction. The Business Park with Retail Overlay district includes an option to build up to 25,000 square feet of retail and/or food service uses along with 150,000 of business park square footage in lieu of the 200,000 square feet of business park uses. The Open Space/Recreation Park district will be a 70.9-acre open space with recreation area. The development of the open space area with active and passive recreation opportunities, is contingent upon the feasible and successful remediation of the brownfield site. A Union Pacific Railroad right-of-way and North Riverside and Jurupa Canal ("canal") areas account for 8.4 acres within the Specific Plan boundary (Specific Plan by MIG, October 2018)

  It is anticipated that all wastewater generated by the proposed project would be routed to and treated by the City of Riverside Regional Water Quality Control Plant (WQCP) which is considered to be publicly owned treatment works (POTW), so operational discharge flows treated at the WQCP would be required to comply with waste discharge requirements contained within the Waste Discharge Requirements (WDRs) for that facility. Compliance with condition or permit requirements established at the WQCP would ensure that discharges into the wastewater treatment facility system from the operation of the proposed project would not exceed applicable Santa Ana RWQCB wastewater treatment requirements.

  The Rubidoux Community Services District (RCSD) has confirmed that there is adequate treatment capacity at the WQCP for the Project. As stated in an email in August 2017 by Steven W. Appel, P.E., Assistant General Manager/District Engineer with RCSD, that the proposed project will be served adequately by the City of Riverside's wastewater treatment plant. Therefore, the Project would not exceed wastewater treatment requirements.

- ***Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?***

  The Project would require extensions of the existing water and wastewater infrastructure to the new facilities proposed by the Project. The existing water supply has been reviewed for adequate pressure and capacity, and the WQCP has confirmed that there is adequate

treatment capacity of the Project. The off-site construction of the expansion of the water and sewer infrastructure would be performed within existing public road right-of-ways in accordance with the RCSD, City of Jurupa and Riverside County standards and specifications. On-site construction of the proposed sewer and water infrastructure will be within project limits and proposed private roads. Therefore, the Project would not require or result in construction that would cause significant environmental effects on undeveloped green space.

- ***Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?***

  The Rubidoux Community Services District (RCSD) has prepared a Water Supply Assessment (WSA) for the Project dated December 2016 based on the water demand presented herein. The WSA has indicated that there is sufficient existing water supply available to serve the Project from the Riverside South Groundwater Basin. A required annexation of the sewer and water infrastructure into RCSD sphere of influence is currently under review with County of Riverside LAFCO.

- ***Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's project demand in addition to the provider's existing commitments?***

  The Project would result in a determination by the RCSD and the City of Riverside Regional Water Quality Control Plant that it has adequate wastewater treatment capacity. Further determination and assessment by RCSD during final sewer engineering design will be conducted to identify the exact sewer discharge flow. At this point, RCSD has indicated in an email in August 2017 by Steven W. Appel, P.E., Assistant General Manager/District Engineer with RCSD, that the proposed project will be served adequately by the City of Riverside's wastewater treatment plant. The Water and Sewer Availability letter and email is included as Appendix D.

6.0 SUMMARY OF RECOMMENDATIONS

The Project would be designed and operated in compliance with the relevant City of Jurupa Valley and Rubidoux Community Services District requirements. The recommendations provided herein to address the sewer generation and water demands for the Project are summarized below:

- The Site would be annexed into the RCSD Service Area via LAFCO.
- The existing infrastructure systems servicing the Site, any off-site infrastructure, future improvements and the connection by the Project to the existing infrastructure would be reviewed by the City of Jurupa Valley and RCSD. Sewer and water improvement plans and calculations shall be submitted to the said districts as part of final design of the project.

7.0 LIMITATIONS

This report has been prepared to assist the City of Jurupa Valley in their preparation of a Project Environmental Impact Report for the proposed Crestmore Redevelopment LLC Project. The conclusions and recommendations provided in this report are based on available information obtained from the various sources referenced herein.

REFERENCES

1. Rubidoux Community Services District 2010 Urban Water Management Plan, November 2011

2. Rubidoux Community Services District Water Atlas Map, September 2015

3. Rubidoux Community Services District, Sewer Atlas Book, September 2015
   KCT Consultants Inc, Plot Plan 20520 Amended No.2 Water, Sewer & Offsite Fire Plan, Sheet 2

4. California Fire Code

5. Water Supply Assessment by Rubidoux Community Services District, December 2016

6. Email from RCSD, August 2017 (Appendix D).

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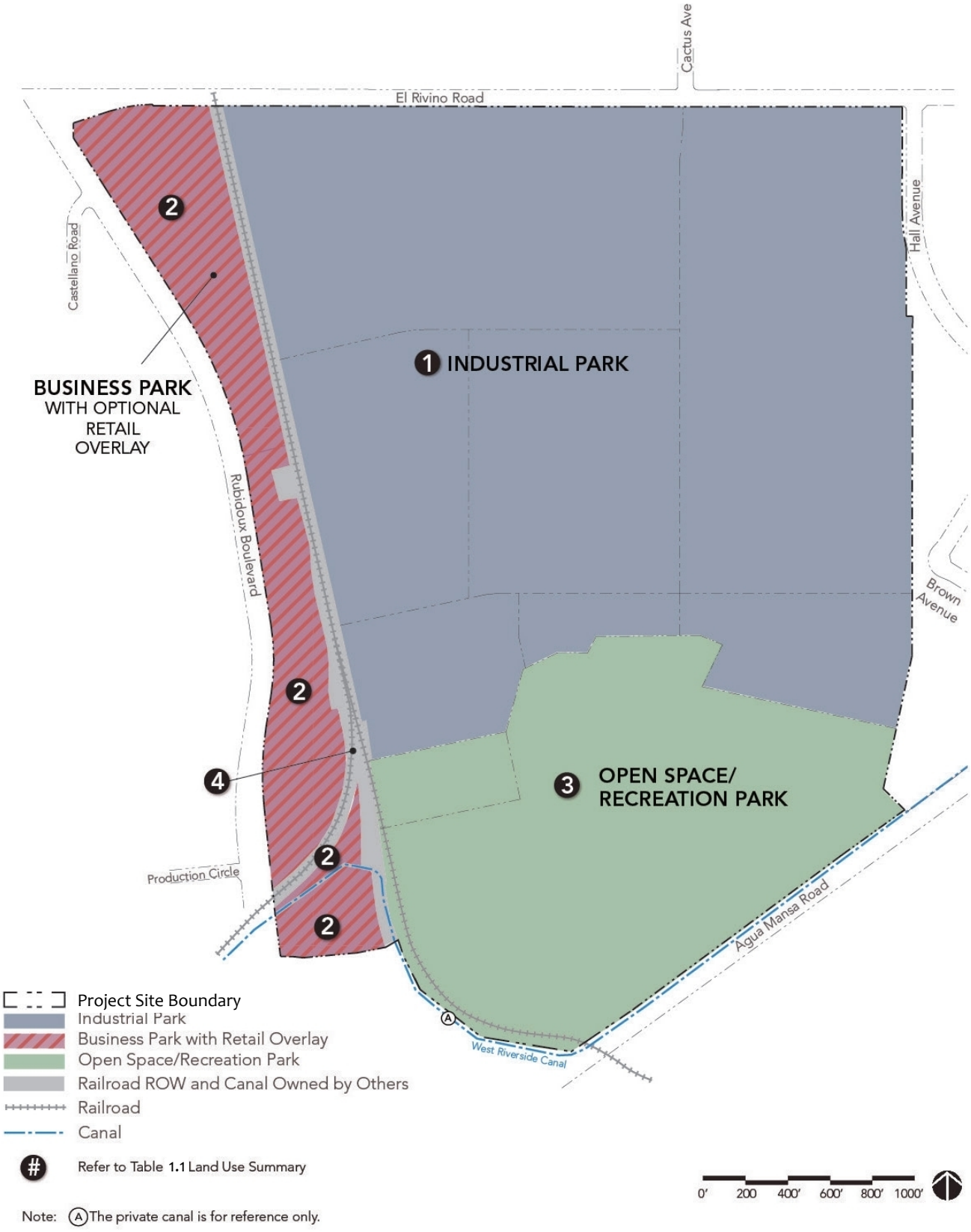
FIGURES

FIGURE 1
SITE LOCATION MAP

***** Prepared by MIG, November 2018, for the Agua Mansa Commerce Park Specific Plan

FIGURE 1.1
LAND USE PLAN



* Prepared by MIG, November 2018, for the Agua Mansa Commerce Park Specific Plan

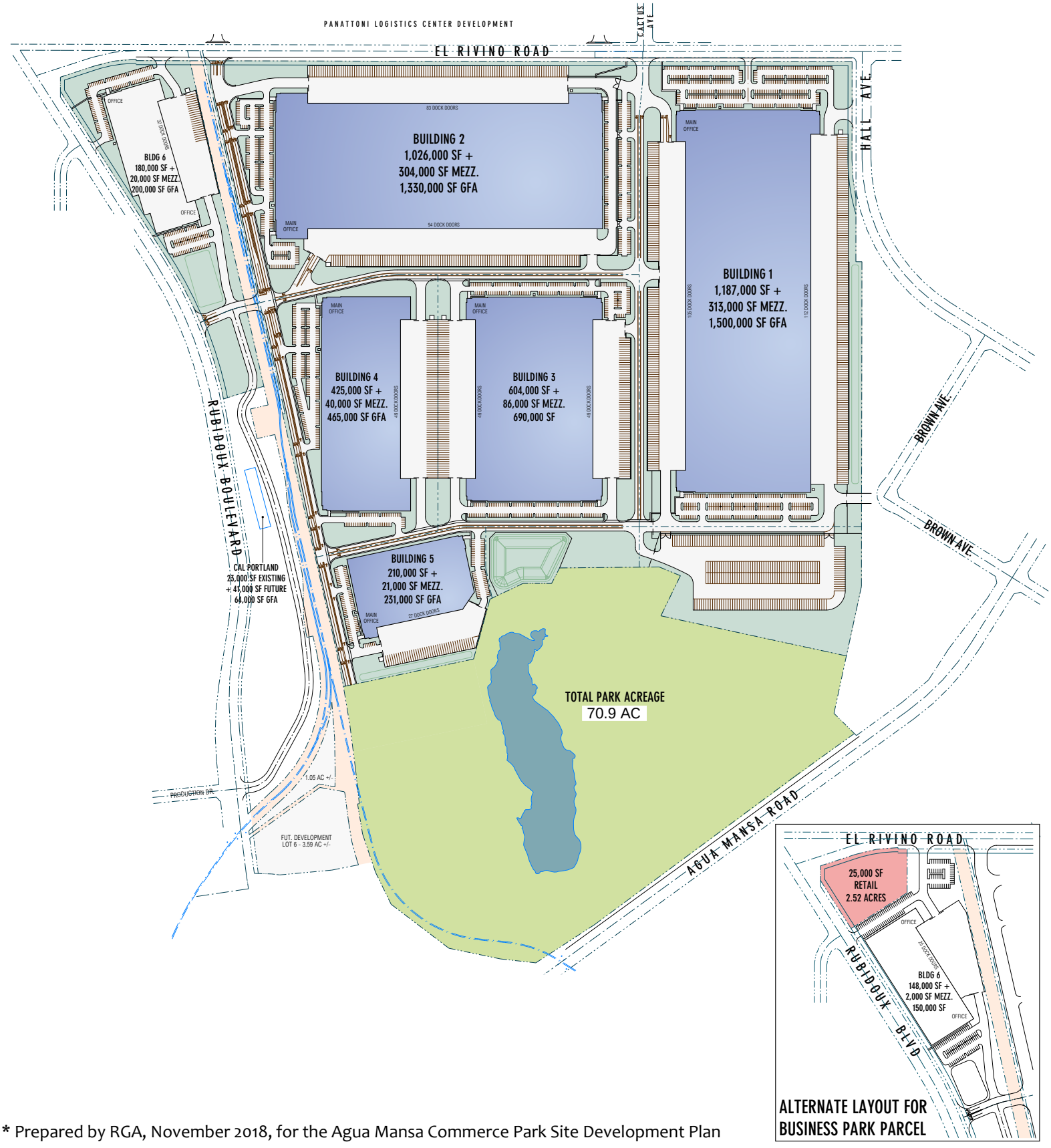
TABLE 1.1
LAND USE SUMMARY

Map Area	Specific Plan Land Use Designation	Total Building Area (Square Feet)	Gross Site Area (Acres)
1	Industrial Park	4,216,000 sf	189.7
2	Business Park with Retail Overlay	▪ Up to 25,000 sf of Retail with 150,000 sf of Business Park or ▪ 200,000 sf of industrial with no retail and ▪ Includes an existing research and development building approximately 23,000 sf in size; plus 41,000 sf potential expansion for a total of 64,000 sf 239,000 sf with Retail 264,000 sf with No Retail	33.8
3	Open Space/ Recreation Park	N/A	70.9
4	Railroad Right-of-Way and Canal	N/A	8.4
	Total	**4,455,000 sf with Retail** **4,480,000 sf with No Retail**	**302.8**

* Re

* Prepared by MIG, November 2018, for the Agua Mansa Commerce Park Specific Plan

FIGURE 1.2
CONCEPTUAL SITE PLAN



***** Prepared by RGA, November 2018, for the Agua Mansa Commerce Park Site Development Plan

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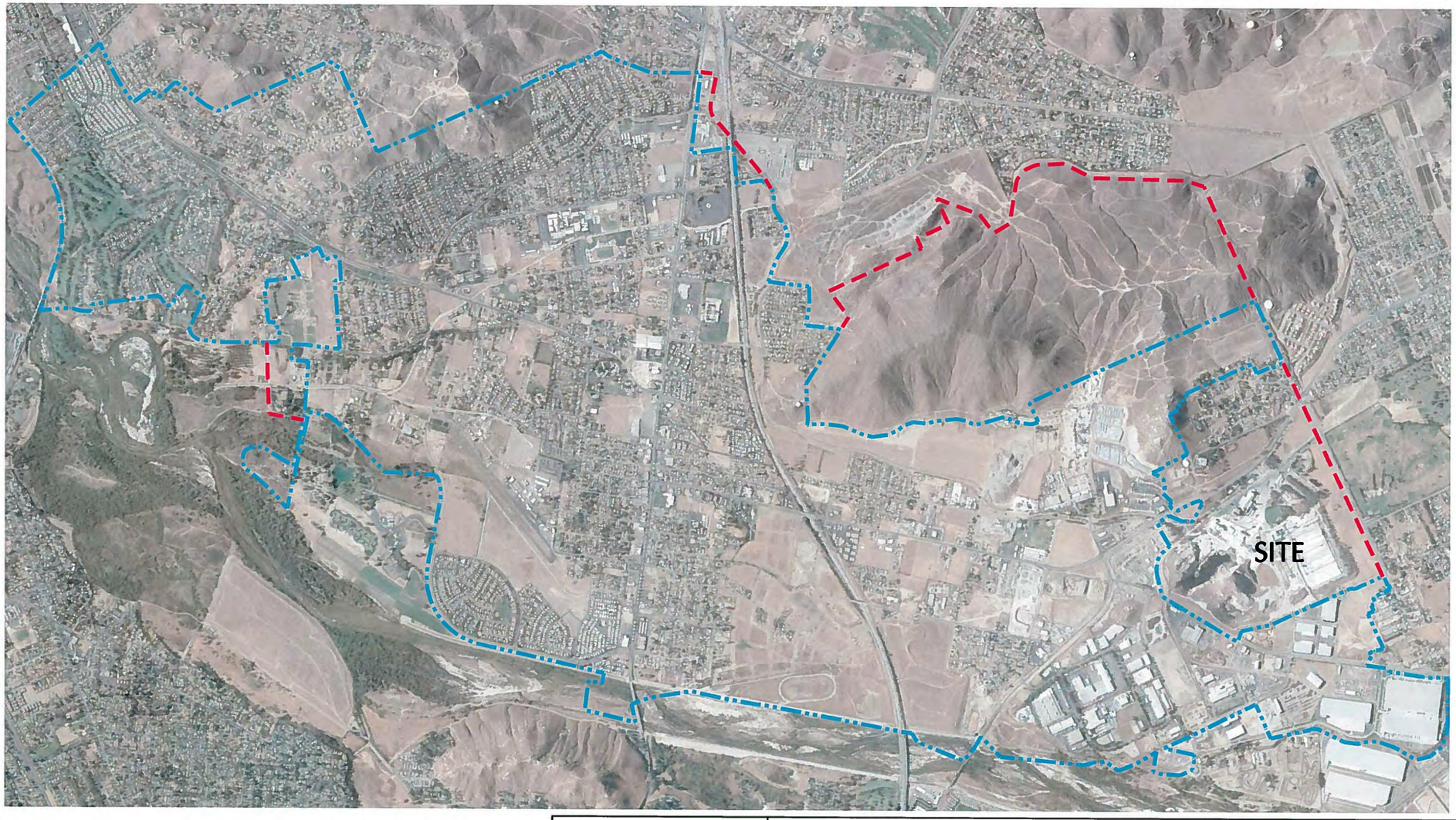

LEGEND

EXISTING RCSD BOUNDARY

ULTIMATE SERVICE AREA BOUNDARY

587-31.6_f1.dwg

KRIEGER & STEWART INCORPORATED
3602 University Ave. • Riverside, CA. 92501 • 951-684-6900

RUBIDOUX COMMUNITY SERVICES DISTRICT

URBAN WATER MANAGEMENT PLAN

SERVICE AREA

FIGURE 1

SCALE: 1"=2000' | DATE: 07/19/11 | DRAWN BY: XXX | CHECKED BY: KJL | W.O.: 587-31.6

INFORMATION TAKEN FROM THE RUBIDOUX COMMUNITY SERVICES DISTRICT (RCSD) 2010 URBAN WATER MANAGEMENT PLAN, NOVEMBER 2011.

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Langan Engineering & Environmental Services, Inc.

Project: AGUA MANSA COMMERCE PARK
JURUPA VALLEY
RIVERSIDE COUNTY CALIFORNIA

Figure Title: RCSD SERVICE BOUNDARIES

Project No. 700045404
Date 18 August 2017
Scale N.T.S.
Drawn By djh

Figure No. 2

FIGURE 3
CONCEPTUAL SEWER CONNECTION PLAN

LEGEND:

RUBIDOUX COMMUNITY SERVICES DISTRICT SEWER LINE

PROPOSED SEWER LINE

N

NOT TO SCALE

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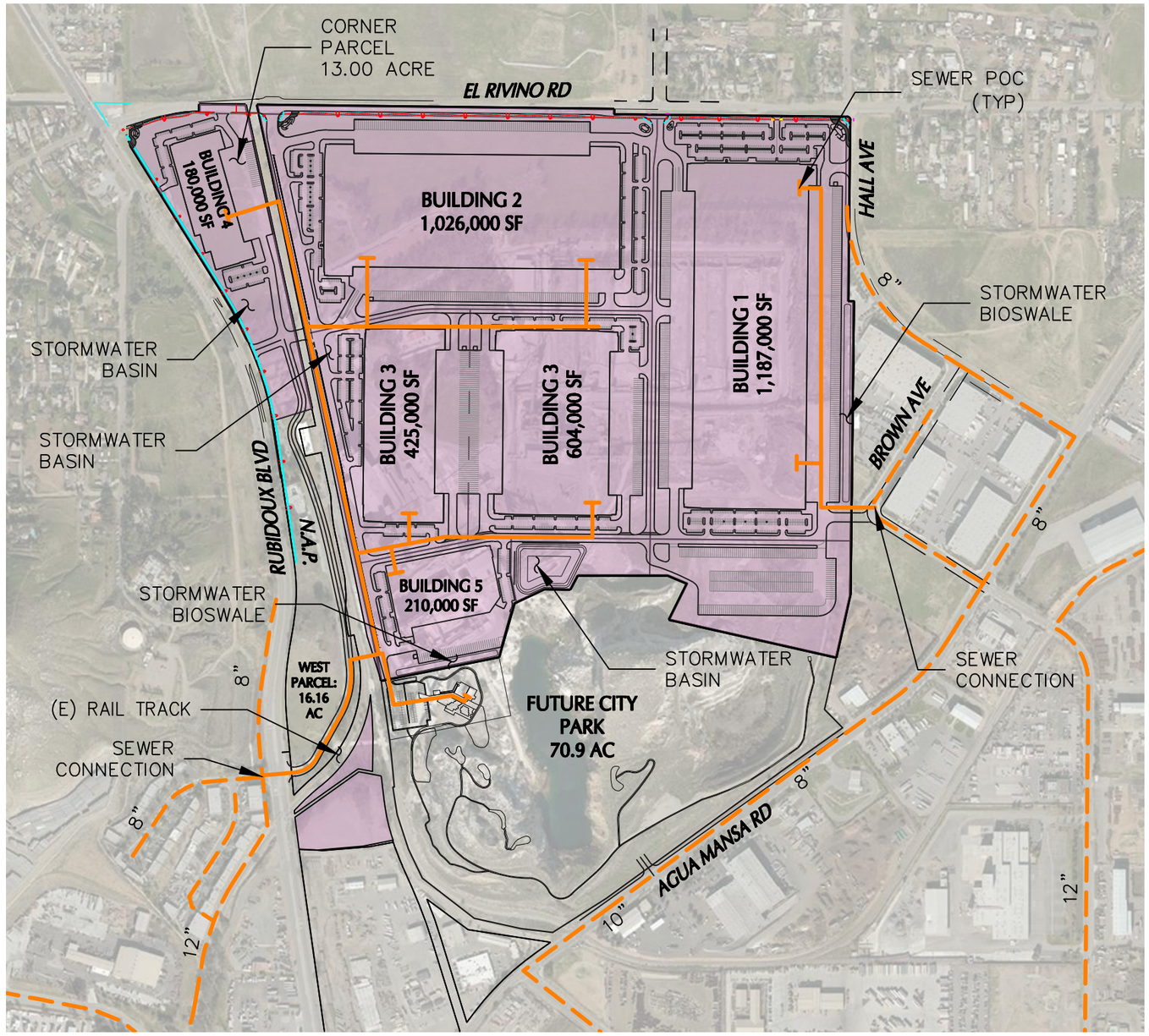

IMAGE COURTESY OF USGS © MICROSOFT CORPORATION

LEGEND:

EXISTING RUBIDOUX COMMUNITY SERVICES DISTRICT SEWER

PROPOSED SEWER

N

NOT TO SCALE

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Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project: AGUA MANSA COMMERCE PARK
JURUPA VALLEY CALIFORNIA

Drawing Title: CONCEPTUAL SEWER ON-SITE PLAN

Project No. 700045404	Figure No. SS-01
Date 01/15/2019	
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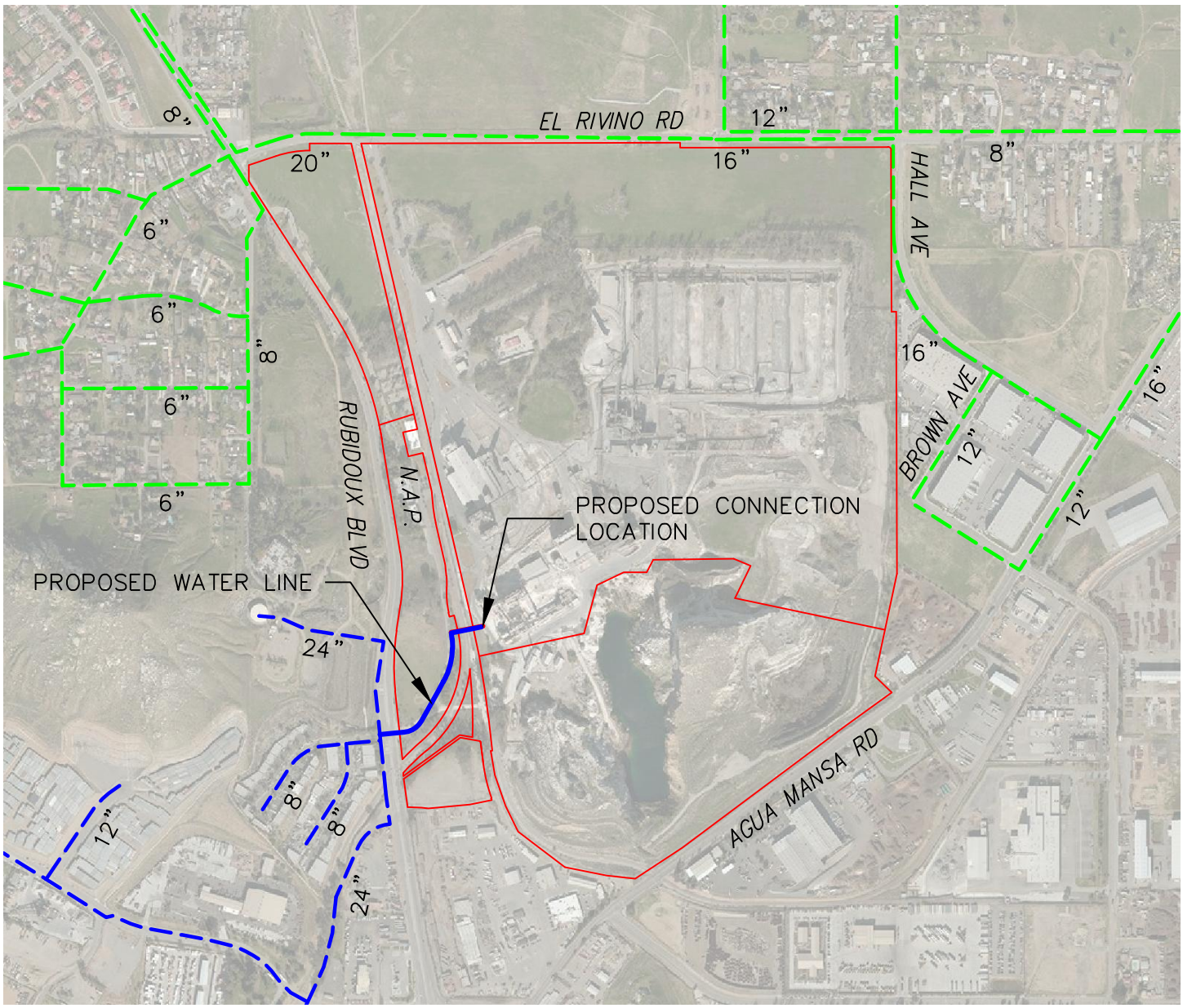
Submission Date	Sheet of

FIGURE 5
CONCEPTUAL WATER CONNECTION PLAN



LEGEND:

EXISTING RUBIDOUX COMMUNITY SERVICES DISTRICT WATER LINE

EXISTING WEST VALLEY WATER DISTRICT WATER LINE

PROPOSED WATER LINE

N

NOT TO SCALE

LANGAN

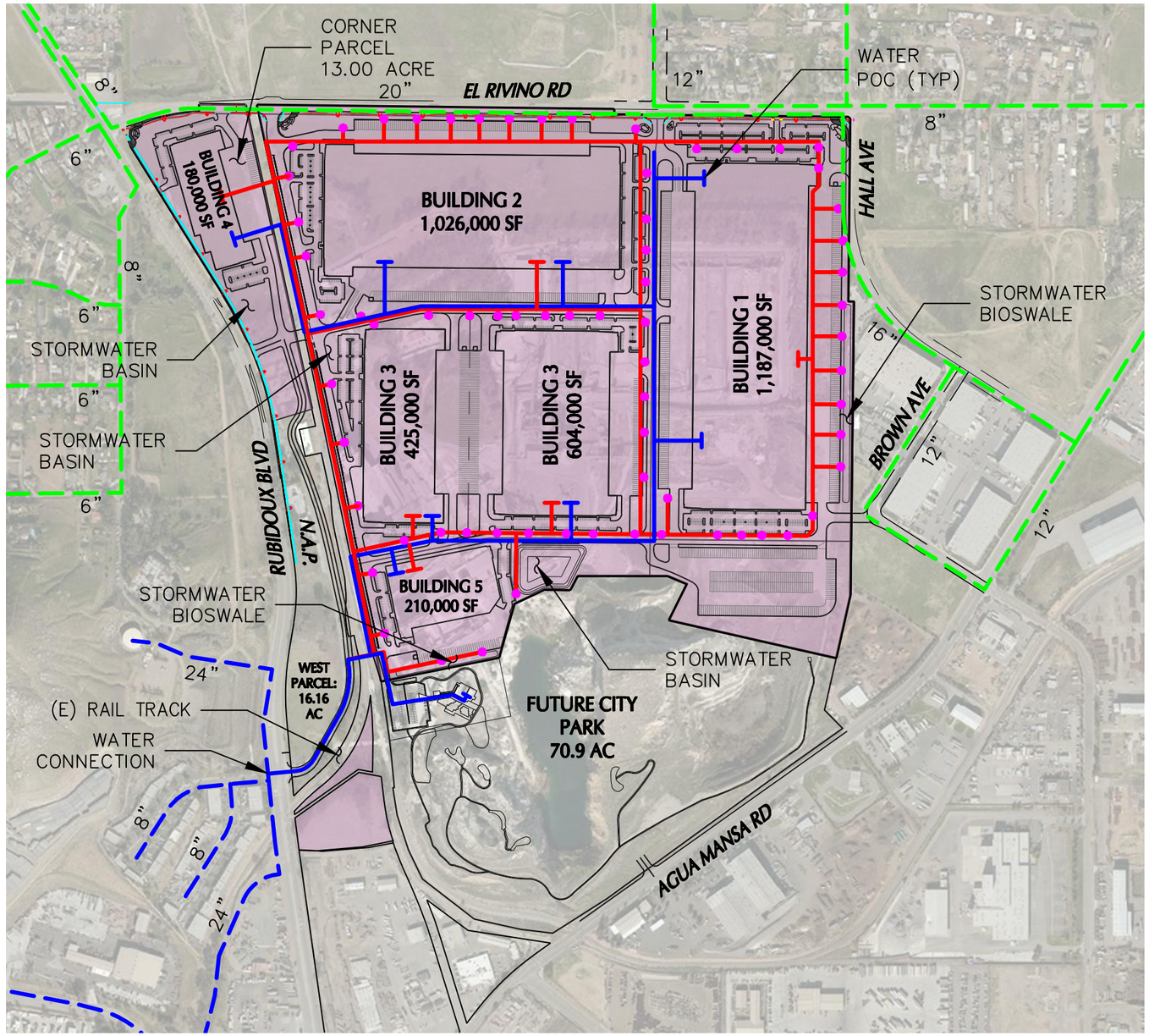


IMAGE COURTESY OF USGS © MICROSOFT CORPORATION

LEGEND:

- EXISTING RUBIDOUX COMMUNITY SERVICES DISTRICT WATER
- EXISTING WEST VALLEY WATER DISTRICT WATER
- PROPOSED WATER
- PROPOSED FIRE WATER
- PROPOSED FIRE HYDRANT

N

NOT TO SCALE

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Langan CT, Inc.
Langan International LLC
Collectively known as Langan

Project
AGUA MANSA COMMERCE PARK
JURUPA VALLEY CALIFORNIA

Drawing Title
CONCEPTUAL WATER ON-SITE PLAN

Project No. 700045404	Figure No. WT-02
Date 01/15/2019	
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APPENDIX A

Rubidoux Community Services District Fire Hydrant Information

RUBIDOUX COMMUNITY SERVICES DISTRICT
FIRE DEPARTMENT
FIRE HYDRANT INFORMATION

Hydrant#: **D7-118** Location: **1800 Avalon St (at Rubidoux)** Maker: **Clow**

DATE	TIME	FLOW	GPM @ 20 PSI
10/26/2016	**0800**	**1,100**	**6,521**

STATIC PRESSURE: **74 psi**

RESIDUAL PRESSURE: **72 psi**

OUTLET DIAMETER: **2.5 inch** (Super Fire Hydrant)

MAIN SIZE: **24 inch** (CML)

Steven W. Appel 10-26-16

STEVEN W. APPEL, PE Date
Assistant General Manager/
District Engineer

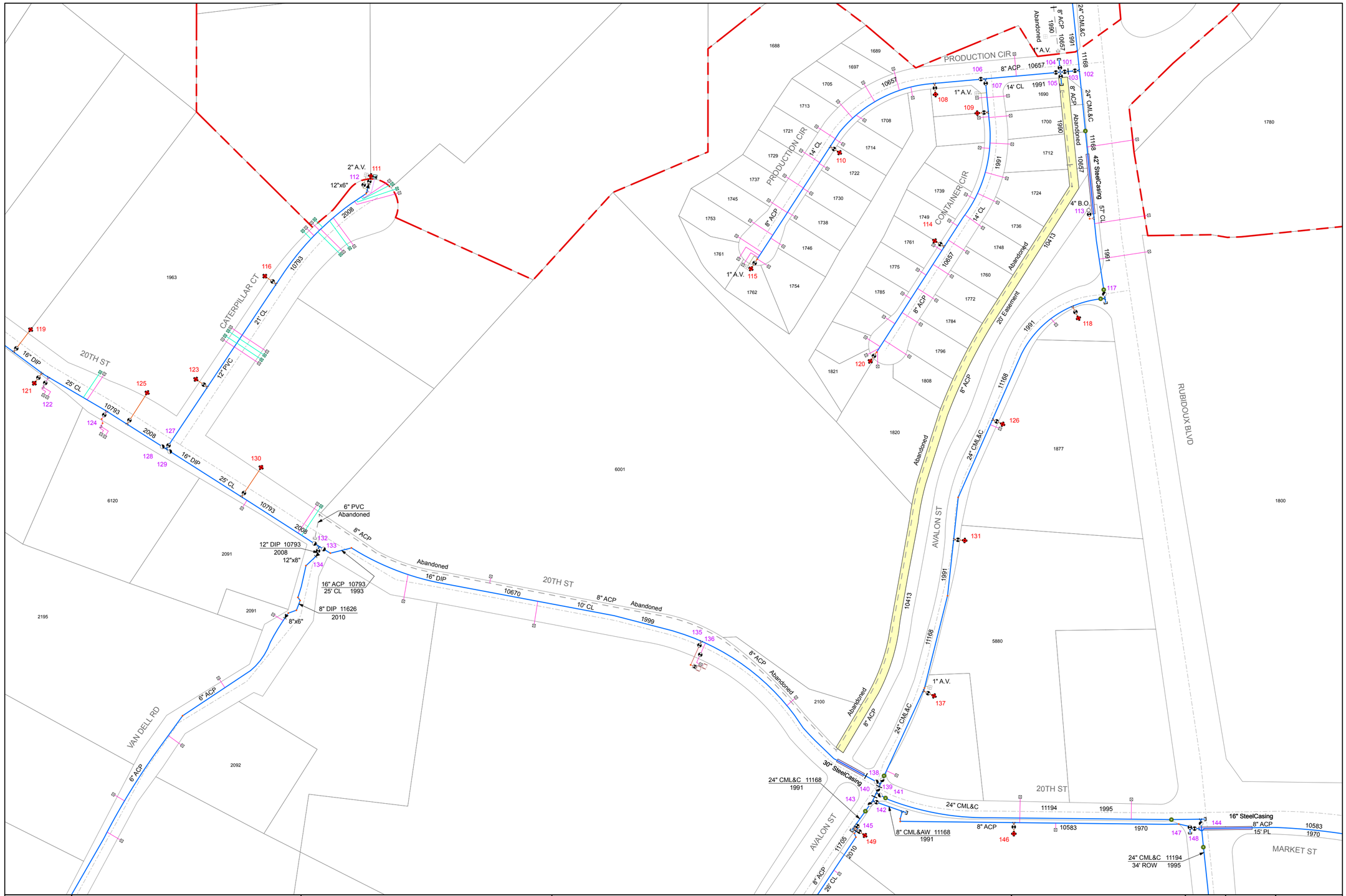
APPENDIX B

Rubidoux Community Services District Water Atlas Map, September 2015

SEE MAP C7

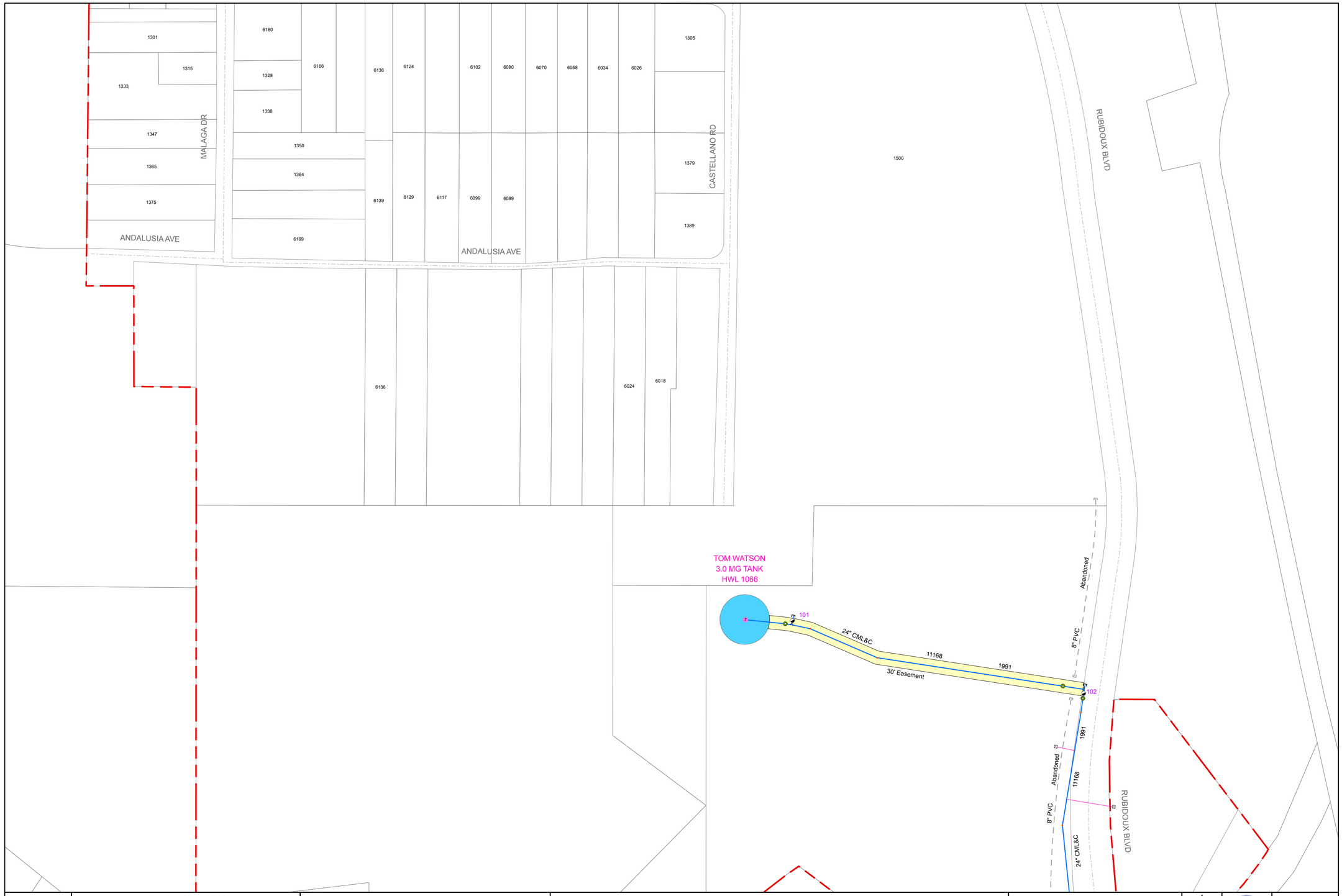
SEE MAP D6

SEE MAP D8



D7	Scale: 1" = 150' NOT FOR CONSTRUCTION	WATER ATLAS BOOK	RUBIDOUX COMMUNITY SERVICES DISTRICT	September 2015		D7

SEE MAP E7



C7	Scale: 1" = 150' NOT FOR CONSTRUCTION	WATER ATLAS BOOK	RUBIDOUX COMMUNITY SERVICES DISTRICT	September 2015		C7

SEE MAP D7

APPENDIX C

Rubidoux Community Services District, Sewer Atlas Book, September 2015: KCT Consultants Inc, Plot Plan 20520 Amended No.2 Water, Sewer Offsite Fire Plan, Sheet 2

SEE MAP C7

SEE MAP D6

SEE MAP D8

2350-020
185.54'
10341
8" PVC
0.0263
0.0582
2350-018
209.89'
6' CL
8" PVC
0.0141
298'
2350-016
12" PVC 346' 0.0473
6' CL 10341
2350-024
20TH ST
12" PVC
0.0497
164.31'
10341
2350-022
12" PVC 148' 0.0534
6' CL 10341
2350-014
12" PVC
6' CL
346'
10341
0.0473
2350-012
12" PVC
0.035
181'
10341
2350-010
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306'
6' CL
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2350-008
20TH ST
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306'
6' CL
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159.4'
0.0353
10341
2350-004
12" VCP
141'
0.0353
10341
2350-002
10" VCP
0.076
114.26'
10413
0000-278
30" SteelCasing
CATERPILLAR CT
20TH ST
VAN DELL RD
S.A.R.I. Line
AVALON ST
1963
6001
6120
2091
2195
2092
2100
5880
1877
1820
1800
1780
1688
1689
1697
1705
1713
1721
1729
1737
1745
1753
1761
1762
1754
1746
1738
1730
1722
1714
1708
1700
1690
1712
1724
1736
1748
1760
1772
1784
1796
1808
1821
1785
1775
1749
1739
2300-030
10" VCP 131.49' 0.1473
89' CL 10349
20' Easement
2300-024
PRODUCTION CIR
8" VCP
323.39'
0.0463
2300-022
6' CL
10349
273.72'
0.04
8" VCP
6' CL
2300-026
PRODUCTION CIR
8" VCP 21.92' 0.036
6' CL 10349
2300-016
2300-014
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0.0284
10" VCP
8" VCP
6' CL
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CONTAINER CIR
2300-020
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5' PL 10413
8" VCP
6' CL
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0.041
10349
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6' CL
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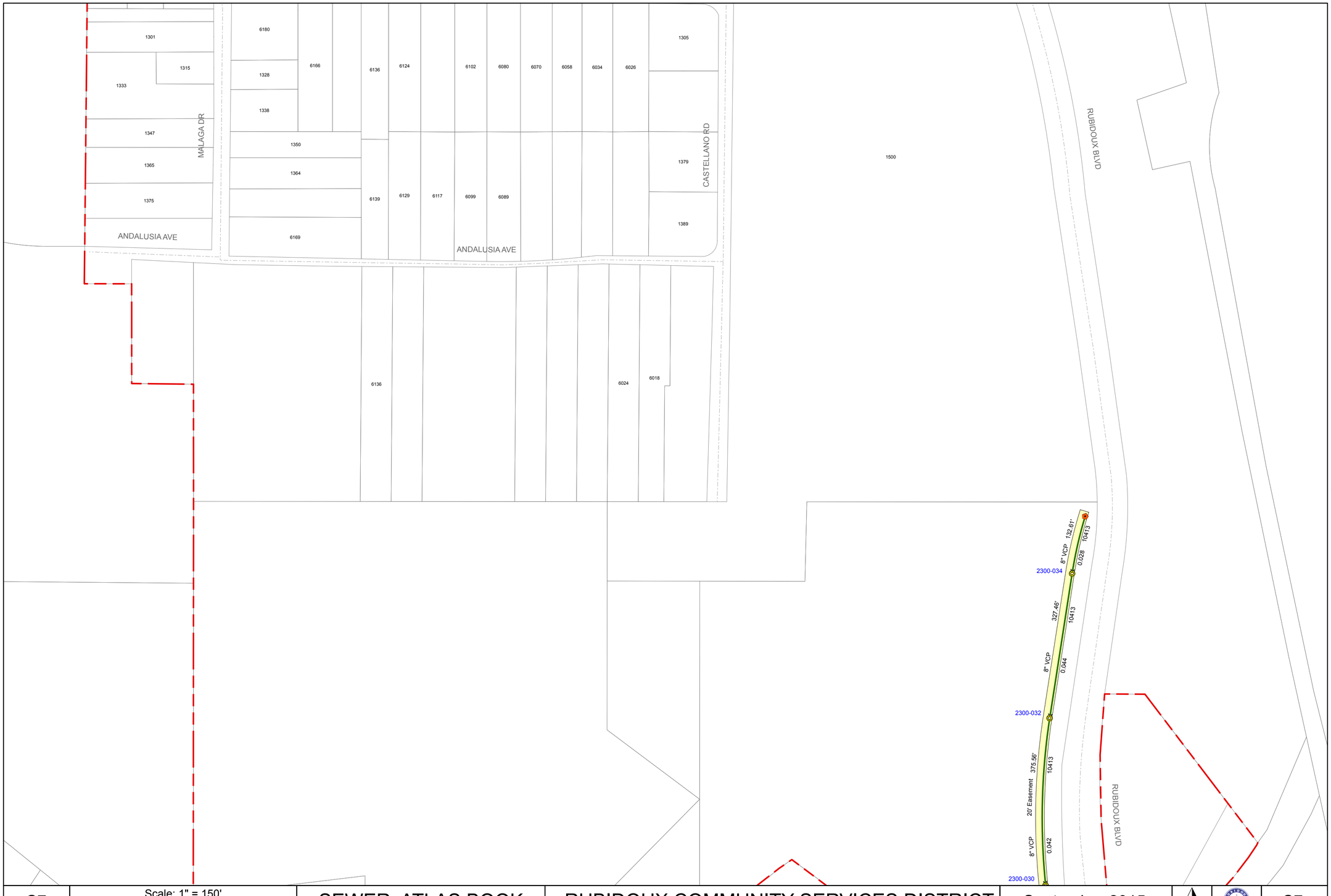
0.017
10349
2300-012
12" VCP
219.01'
0.004
10413
5' PL
2300-018
8" VCP
6' CL
182.97'
0.006
10349
2300-010
0.004
8" VCP
6' CL
2300-008
8" VCP 65.22'
0.0046 10349
2300-006
10' Easement
8" VCP 117.91' 0.0176
6' PL 10349
SteelCasing
2300-004
12" VCP 33' 0.004
5' PL 10413
20' Easement
399'
10413
5' PL
12" VCP
0.009
392.46'
10413
5' PL
10" VCP
2300-002
0.009
380.49'
10413
5' PL
10" VCP
10" VCP
39" VCP
39" VCP
39" VCP
39" VCP
1056.1'
0.00098
S.A.R.I. Line
AVALON ST
737.2'
39" VCP
S.A.R.I. Line
0.00098
1056.1'
39" VCP
240.2'
0.001
39" VCP
139.51'
0.001
39" VCP
634.06'
0.001
S.A.R.I. Line
Easement
RUBIDOUX BLVD
MARKET ST
10" VCP 109.64' 0.044
0' CL 10413
0000-276
20TH ST
10" VCP
0' CL
236'
0.026
12" VCP
0' CL
428.42'
10413
0.013
30" SteelCasing
12" VCP
0.0069
303.5'
10413
0000-270
12" VCP 324.21'
0.0069 10413
0000-274
0000-272

D7	Scale: 1" = 150' NOT FOR CONSTRUCTION	SEWER ATLAS BOOK	RUBIDOUX COMMUNITY SERVICES DISTRICT	September 2015		D7

SEE MAP E7


1301
1315
1333
1347
1365
1375
MALAGA DR
ANDALUSIA AVE
6180
1328
1338
6166
1350
1364
6169
6136
6124
6102
6080
6070
6058
6034
6026
1305
1379
1389
CASTELLANO RD
6139
6129
6117
6099
6089
ANDALUSIA AVE
1500
RUBIDOUX BLVD
6136
6024
6018
2300-034
2300-032
2300-030
8" VCP
0.028
132.61'
10413
327.46'
0.044
375.56'
20' Easement
0.042
RUBIDOUX BLVD
SEE MAP C8
C7
Scale: 1" = 150'
NOT FOR CONSTRUCTION
SEWER ATLAS BOOK
RUBIDOUX COMMUNITY SERVICES DISTRICT
September 2015
C7
SEE MAP D7

IN THE UNINCORPORATED TERRITORY
OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

PLOT PLAN 20520, AMENDED No. 2
WATER, SEWER & OFFSITE FIRE PLAN

SANITARY SEWER NOTES:

1. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN CONFORMANCE WITH RUBIDOUX COMMUNITY SERVICES DISTRICT (RCSD) STANDARD SEWER SPECIFICATIONS, LATEST EDITION.
2. ALL SANITARY SEWER LINES SHALL BE POLYVINYL CHLORIDE PIPE (PVC), ASTM D-3034 SRD35. SEWER LINE MATERIALS AND CONSTRUCTION SHALL CONFORM TO ASTM STANDARDS AND SPECIFICATIONS & CALTRANS SECTION 71-1.02. (ON-SITE ONLY)
3. ALL SANITARY SEWER LINES SHALL MAINTAIN 18-INCH MINIMUM VERTICAL CLEAR DISTANCE TO ALL EXISTING OR PROPOSED UTILITIES, EXCEPT WATER MAIN SHALL HAVE 24-INCH MINIMUM VERTICAL CLEAR DISTANCE. ALL SEWER LATERALS ARE TO BE CONSTRUCTED OF CAST IRON PIPE UNDER EXISTING 12" WATER MAIN WITH NO JOINTS WITHIN 2' OF 12" WATER MAIN.
4. DISTANCES FOR SANITARY SEWER ARE THE HORIZONTAL DISTANCES FROM CENTER OF MANHOLE OR CLEANOUT TO CENTER OF SAME. THEREFORE, DISTANCES SHOWN ON THE PLANS ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT.
5. WHERE CONNECTIONS ARE MADE TO EXISTING SEWER LINES, THE NEW LINES SHALL BE PLUGGED AND REMAIN SO UNTIL AUTHORIZATION IS GIVEN BY LOCAL AUTHORITIES FOR ITS REMOVAL.
6. RIM ELEVATIONS SHOWN ARE APPROXIMATE ONLY AND ARE NOT TO BE TAKEN AS FINAL ELEVATION. PIPELINE CONTRACTOR SHALL USE PRECAST CONCRETE ADJUSTMENT RINGS TO ADJUST THE MANHOLE FRAME TO THE REQUIRED FINAL GRADE IN CONFORMANCE WITH THE STANDARD SPECIFICATION.
7. ALL SANITARY SEWER MAINS TESTING SHALL BE IN ACCORDANCE WITH SPECIFICATIONS OF THE RUBIDOUX COMMUNITY SERVICES DISTRICT (RCSD) STANDARDS.
8. CONTRACTOR IS RESPONSIBLE FOR ALL SURFACE RESTORATION (I.E., LANDSCAPE, ASPHALT, CONCRETE, ETC.
9. ALL TRENCH EXCAVATION SHALL BE PROPERTY SLOPED OR SUPPORTED IN A MANNER REQUIRED BY OSHA OR AS REQUIRED BY STATE OR LOCAL LAWS.
10. ALL UNDERGROUND FACILITIES WITH LATERALS SHALL BE IN PLACE PRIOR TO PAVING.
11. ALL SEWER CONNECTIONS SHALL BE LAID IN STRAIGHT LINES FROM THE MAIN SEWER TO A POINT BEYOND THE CURB OR TO THE PROPERTY LINE.
12. ALL "Y" BRANCHES SHALL BE IN THE POSITION SHOWN ON APPROVED PLANS.
13. ALL SEWER TESTING SHALL CONFORM TO CALTRANS SECTION 71-1.08 WITH A MINIMUM OF 4 FOOT HEAD.

NFPA 24 NOTES:

1. VEHICULAR ACCESS MUST BE PROVIDED AND MAINTAINED SERVICEABLE THROUGHOUT CONSTRUCTION.
2. THE INSPECTION, HYDROSTATIC TEST AND FLUSH OF THE FIRE HYDRANTS OR SPRINKLER SYSTEM SHALL BE WITNESSED BY A RIVERSIDE COUNTY FIRE DEPARTMENT REPRESENTATIVE. NO UNDERGROUND PIPING SHALL BE COVERED WITH EARTH OR HIDDEN FROM VIEW UNTIL THE FIRE DEPARTMENT REPRESENTATIVE HAS BEEN NOTIFIED AND GIVEN NO LESS THEN 48 HOURS NOTICE IN WHICH TO INSPECT SUCH INSTALLATION.
3. PIPING SHALL BE LISTED FOR FIRE PROTECTION SERVICES AND COMPLY WITH AWWA STANDARDS, WHERE APPLICABLE. (NFPA 24 SECTION 7-1.1)
4. PIPE USED IN PRIVATE FIRE SERVICE SHALL BE DESIGNED TO WITHSTAND A WORKING PRESSURE OF NOT LESS THEN 150 PSI. (NFPA 24 SECTION 7-1.3)
5. PIPE, VALVES, HYDRANTS, AND FITTINGS SHALL BE INSPECTED FOR DAMAGE WHEN RECEIVED AND SHALL BE INSPECTED PRIOR TO INSTALLATION. BOLTED JOINTS SHALL BE CHECKED FOR PROPER TORQUING OF BOLTS. PIPE, VALVES, HYDRANTS, AND FITTINGS SHALL BE CLEAN INSIDE. WHEN WORK IS STOPPED, OPEN ENDS SHALL BE PLUGGED TO PREVENT STONES AND FOREIGN MATERIALS FROM ENTERING THE PIPE. (NFPA 24 SECTION 8-4.1)
6. BACKFILL SHALL BE WELL TAMPED IN LAYERS UNDER AND AROUND PIPE TO PREVENT SETTLEMENT AND LATERAL MOVEMENT, AND SHALL CONTAIN NO ASHES, CINDERS, REFUSE, ORGANIC MATTER, OR OTHER CORROSIVE MATERIAL. (NFPA 24 SECTION 8-7.1)
7. UNDERGROUND MAINS AND LEAD IN CONNECTIONS TO SYSTEM RISERS SHALL BE FLUSHED THOROUGHLY AND WITNESSED BY THE FIRE DEPARTMENT BEFORE CONNECTION IS MADE TO THE SPRINKLER TO REMOVE FOREIGN MATERIALS WHICH MAY HAVE ENTERED THE PIPE DURING THE COURSE OF INSTALLATION. (NFPA 24 SECTION 9-1.1)
8. THE MINIMUM RATE OF FLOW FOR NOTE #7(ABOVE) SHALL BE NOT LESS THEN THE WATER DEMAND RATE OF THE SYSTEM, WHICH IS DETERMINED BY THE SYSTEM DESIGN, OR NOT LESS THAN THAT NECESSARY TO PROVIDE A VELOCITY OF 10 FEET PER SECOND, WHICHEVER IS GREATER. FOR ALL SYSTEMS, THE FLUSHING OPERATIONS SHALL BE CONTINUED FOR A SUFFICIENT TIME TO INSURE THOROUGH CLEANING. WHEN THE FLOW RATE AS USED IN TABLE 9-1.1 CANNOT BE VERIFIED OR MET, SUPPLY PIPE SHALL BE FLUSHED AT THE MAXIMUM FLOW RATE AVAILABLE TO THE SYSTEM UNDER FIRE CONDITIONS. (NFPA 24 SECTION 9-1.1)
9. THE TRENCH SHALL BE BACK FILLED BETWEEN JOINTS BEFORE TESTING TO PREVENT MOVEMENT OF PIPE. (NFPA 24 SECTION 9-1.1)
10. ALL NEW PRIVATE FIRE SERVICE MAINS SHALL BE HYDROSTATIC ALLY TESTED AT NOT LESS THEN 200 PSI FOR TWO HOURS OR AT 50 PSI IN EXCESS OF THE MAXIMUM STATIC PRESSURE WHEN THE MAXIMUM STATIC PRESSURE IS IN EXCESS OF 150 PSI. (NFPA 24 SECTION 9-1.3.1)
11. TEST SHALL BE MADE BY THE CONTRACTOR IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION. THE CERTIFICATE IN FIGURE A-9-2.1 IS TO BE COMPLETED. (NFPA 24 SECTION 8-6.2)
12. THRUST BLOCKS OR ANOTHER SUITABLE MEANS OF THRUST RESTRAINTS SHALL BE PROVIDED AT EACH CHANGE IN DIRECTIONS OF A PIPE AND AT ALL TEES, PLUGS, CAPS, AND BENDS. (NFPA 24 SECTION 8-6.2)
13. THRUST BLOCK LOCATIONS SHALL BE INSPECTED PRIOR TO AND AFTER POURING OF THE THRUST BLOCKS. (NFPA 24 SECTION 8-2.2.1)
14. PIPING SHALL BE INSTALLED WITH A MINIMUM COVER OF 36 INCHES.

UNDERGROUND UTILITY NOTES

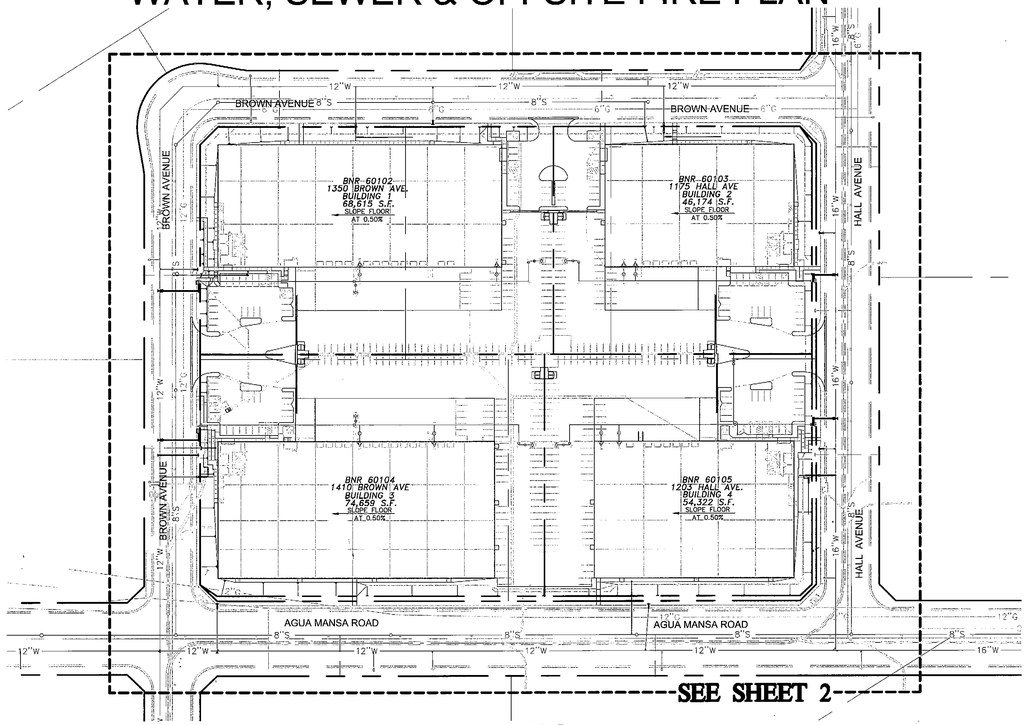
1. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL POTHOLE ALL UTILITY CROSSINGS AND CONNECTIONS AND VERIFY THE LOCATION AND ELEVATION OF ALL UTILITIES AFFECTED. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES BEFORE CONSTRUCTION BEGINS.
2. LOCATIONS OF SUBSTRUCTURES AS SHOWN ON PLANS ARE SHOWN FROM THE BEST AVAILABLE INFORMATION. HOWEVER, SUCH LOCATIONS AS SHOWN OR FAILURE TO SHOW EXISTING SUBSTRUCTURES SHALL NOT RELIEVE THE CONTRACTORS FROM THE RESPONSIBILITY OF VERIFYING THE LOCATION AND PROTECTING ALL SUBSTRUCTURES.
3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT AND MAKE NECESSARY ARRANGEMENTS WITH THE APPROPRIATE UTILITY COMPANIES PRIOR TO THE BEGINNING OF CONSTRUCTION.
4. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT AT LEAST TWO DAYS PRIOR TO CONSTRUCTION. PHONE: 1-800-226-2700.

ENCROACHMENT PERMIT NOTE:
ANY WORK WITHIN STREET RIGHT-OF-WAY SHALL NOT COMMENCE UNTIL AN ENCROACHMENT PERMIT HAS BEEN ISSUED.

WATER NOTES:

1. PIPE 12 INCHES AND SMALLER SHALL BE CLASS 51 DUCTILE IRON, OR PVC SCH. C900, CLASS 200, OR CLASS 150 10 GA MORTAR LINED AND COATED STEEL. PIPE GREATER THAN 12 INCHES SHALL BE MINIMUM OF CLASS 52 DUCTILE IRON, OR CLASS 150 10 GA MORTAR LINED AND COATED OR AS SPECIFIED. SIZE OF PIPE NOTED ON PLANS.
2. LATERALS SHALL BE A MINIMUM OF 1 INCH DIAMETER TYPE "K" COPPER, WITH 1 INCH X 1 INCH ANGLE VALVES WITH LOCK WING ON LOTS LESS THAN 10,000 SQ. FT., AND ONE INCH X 1 INCH ANGLE VALVES WITH LOCK WING ON LOTS LANGER THAN 10,000 SQ. FT.
3. ALL LATERALS TO BE INSTALLED AT SAME TIME AS MAIN LINE.
4. LATERALS TO BE TERMINATED 12 IHCHES BEHIND REAR OF CURB OR FUTURE CURB. IN CITY LIMITS TERMINATE 12 INCHES BEHIND FUTURE SIDEWALK.
5. FIRE HYDRANTS SHALL BE 6 INCHES X 4 INCHES X 2 1/2 INCHES X 2 1/2 INCHES - CLOW 860, OR EQUAL, PAINTED WITH ONE COAT PRIMER AND ONE COAT YELLOW. THE 4-INCH STEAMER OUTLET SHALL BE PERPENDICULAR TO THE CURB OR FUTURE CURB.
6. DEPTH OF COVER OVER WATER MAINS SHALL BE A MINIMUM OF 30 INCHES FOR 8-INCH AND SMALLER PIPE; 10-INCH AND 12-INCH PIPE SHALL HAVE 42-INCH COVER; 24-INCH AND LARGER PIPE AS SPECIFIED ON PLANS. ALL MEASUREMENTS FROM FINISH GRADE.
7. ALL WATER MAINS SHALL BE FLUSHED AND DESINFECTED PER A.W.W.A. STANDARDS PRIOR TO USE AFTER INSTALLATION OR REPAIR.
8. CONSTRUCTION TO BE IN ACCORDANCE WITH SPECIFICATIONS OF THE WEST SAN BERNARDINO COUNTY WATER DISTRICT.
9. WATER SERVICE IS SUBJECT TO THE CURRENT DISTRICT RULES AND REGULATIONS, AND ANY AMENDMENT THERETO.
10. BLUE REFLECTORS SHALL BE PLACED IN ROADWAYS. TWO (2) REFLECTORS PER FIRE HYDRANT TO IDENTIFY FIRE HYDRANT LOCATIONS, AS APPROVED BY THE COUNTY OF RIVERSIDE FIRE DEPARTMENT.

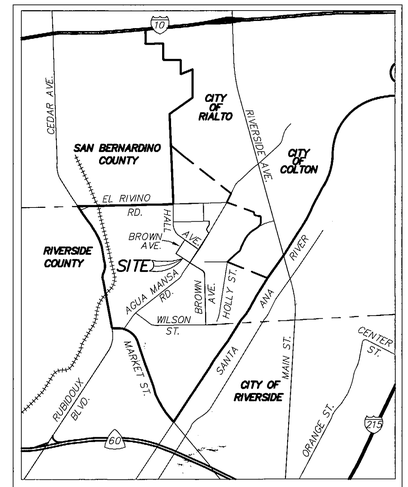
NOTE: ANY DEVIATIONS SHALL HAVE PRIOR APPROVAL.



INDEX MAP

0 50 100 200 300 400

SCALE: 1 INCH = 100 FEET



VICINITY MAP
N.T.S.

THOMAS BROTHERS GUIDE 2003 EDITION; P.645, G-4 & 5 AGUA MANSA INDUSTRIAL CENTER.

SECTION 2, TOWNSHIP 2 SOUTH, RANGE 5 WEST S.B.M.

WATER CONSTRUCTION NOTES

(50) FURNISH AND INSTALL 2" DIAMETER PVC SCHEDULE 40 WATER LINE WITH 24" MINIMUM COVER.
(51) FURNISH AND INSTALL 2" METER PER WVWD STD. W-5B TO EXISTING 2" SERVICE LATERAL (BY WVWD CONTRACTOR)
(52) FURNISH AND INSTALL 1½" BACK FLOW PREVENTOR PER WVWD STD. W-20. (BY WVWD CONTRACTOR)
(53) FURNISH AND INSTALL AND INSTALL 10" FIRE SERVICE DOUBLE DETECTOR CHECK PER WVWD DWG. W-15*. (BY WVWD CONTRACTOR)
(53A) FURNISH AND INSTALL AND INSTALL 16"x12" TAPPING SLEEVE, 12" GATE VALVE AND HOT-TAP CONNECT TO EXISTING 16" WATERMAIN.
(53B) FURNISH AND INSTALL 12"x12" TAPPING SLEEVE, 10" GATE VALVE AND HOT-TAP CONNECT TO EXISTING 12" WATERMAIN.
(54) FURNISH AND INSTALL 6" FIRE HYDRANT PER WVWD DWG. W-2*, 18" BEHIND BACK OF SIDEWALK AS DIRECTED BY RIVERSIDE COUNTY FIRE DEPARTMENT. (SUPER "CLOW 860" 4 X 2½ X 2½ WITH BREAKAWAY SPOOL). (BY WVWD CONTRACTOR)
(54A) REMOVE EXISTING FIRE HYDRANT, EXTEND EXISTING 6" FIRE SERVICE LATERAL AND INSTALL NEW FIRE HYDRANT BEHIND 18" SIDEWALK
(54B) FURNISH AND INSTALL 12"x6" TAPPING SLEEVE, 6" GATE VALVE AND HOT-TAP CONNECT TO EXISTING 12" WATER MAIN
(55) FURNISH AND INSTALL 2" SERVICE & 2" METER PER WVWD STD. W-5B (BY WVWD CONTRACTOR) HOT-TAP
(56) FURNISH AND INSTALL 8" FIRE SERVICE DOUBLE DETECTOR CHECK PER WVWD DWG. W-15*. (BY WVWD CONTRACTOR)
(56A) FURNISH AND INSTALL 16"x10" TAPPING SLEEVE, 10" GATE VALVE AND HOT-TAP CONNECT TO EXISTING 16" WATER MAIN
(57) FURNISH AND INSTALL 2" BACK FLOW PREVENTOR PER WVWD STD. W-20. (BY WVWD CONTRACTOR)
(58) FURNISH AND INSTALL NEW 6" FIRE HYDRANT PER WVWD DWG. W-2*, 18" BEHIND BACK OF SIDEWALK AS DIRECTED BY RIVERSIDE COUNTY FIRE DEPARTMENT. (SUPER "CLOW 860" 4 X 2½ X 2½ WITH BREAKAWAY SPOOL). (BY WVWD CONTRACTOR)
(59) FURNISH AND INSTALL CONCRETE THRUST BLOCK PER WVWD STD. W-3

***NOTE:**
MODIFICATIONS TO W.V.W.D. STANDARDS ARE FOR THIS JOB ONLY AND ARE REQUIRED BY THE RIVERSIDE COUNTY FIRE DEPARTMENT

FIRE FLOW REQUIREMENTS

3,000 GPM (20 PSI PER 1998 C.F.C. A-III-A-1)

NOTE:
FIRE TEST RESULTS PROVIDED BY WVWD, DATED 11/22/04, TAKEN NEAR THE INTERSECTION OF AGUA MANSA RD. & BROWN AVE. HAVE BEEN ADJUSTED TO ACCOUNT FOR SITE ELEVATION DIFFERENCE.

FIRE TEST RESULTS

STATIC WATER PRESSURE	118 PSI
PITOT READING	___ PSI
OBSERVED FLOW	1,564 GPM
RESIDUAL WATER PRESSURE	115 PSI

NOTE:
ALL FIRE HYDRANTS TO BE CLASS AA (TOP OF NOZZLE CAPS TO BE PAINTED LIGHT BLUE) WITH BLUE REFLECTIVE MARKER PER SECTION 1001 AS DIRECTED BY FIRE DEPARTMENT.

**** CONTRACTOR TO VERIFY ELEVATION PRIOR TO CONSTRUCTION.**

SEWER CONSTRUCTION NOTES

(60) INSTALL VCP CLEANOUT PER RCSD STD. DWG. S2070 TO EXIST. 4" SWR LAT.
(61) INSTALL 4" EXTRA STRENGTH VCP BELL & SPIGOT SEWER LINE.
(62) INSTALL VCP CLEANOUT PER RCSD STD. DWG. S2070.
(63) INSTALL 6" EXTRA STRENGTH VCP BELL & SPIGOT SEWER LINE.
(64) CONTRACTOR TO ABANDON EXISTING SEWER LATERAL PER RCSD REQUIREMENTS

THIS CERTIFIES THAT THESE PLANS AND SPECIFICATIONS HAVE BEEN REVIEWED BY AND ARE HEREBY APPROVED BY THE WEST VALLEY WATER DISTRICT AND THAT THIS DISTRICT IS WILLING AND ABLE TO SUPPLY WATER TO THIS LOCATION.

SIGNATURE
Gen. Mgr. — 2-13-07
TITLE — DATE

THIS CERTIFIES THAT THESE PLANS HAVE BEEN REVIEWED BY AND ARE HEREBY APPROVED BY THE RUBIDOUX COMMUNITY SERVICES DISTRICT AND THAT THE WASTE DISPOSAL SYSTEM IS ADEQUATE AT THIS TIME TO TREAT THE ANTICIPATED WASTE FROM THE PROPOSED PROJECT.

Steven W. Appel
SIGNATURE
DISTRICT ENGINEER — 2-5-07
TITLE — DATE
VOID 1 YEAR FROM THIS DATE

RIVERSIDE COUNTY FIRE DEPARTMENT
FIRE PROTECTION SYSTEM APPROVED BY:

SIGNATURE
AFM — 1-30-07
TITLE — DATE

THIS CERTIFIES THAT THESE PLANS AND SPECIFICATIONS HAVE BEEN DESIGNED UNDER THE DIRECT SUPERVISION OF A CIVIL ENGINEER LICENSED IN THE STATE OF CALIFORNIA AND ARE IN ACCORDANCE WITH TITLE 22 CODE OF REGULATIONS CHAPTER 16 CALIFORNIA WATERWORK STANDARD OF THE STATE OF CALIFORNIA.

TERESITO N. TABIOLO — 02-05-07
R.C.E. NO. 38826 — DATE
EXP. 03-31-07

PERMIT NO. BNR 060102-05 IP #060149

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER — ALAN D. FRENCH — RCE No. 45702 — Exp. 12-31-08 — CIVIL — STATE OF CALIFORNIA

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
FOR WORK ON ROAD R/W ONLY
APPROVED BY:
ALAN D. FRENCH — 3-1-07
DATE
RECOMMENDED: — 01MAR07
DATE

Underground Service Alert
Call: TOLL FREE
1-800
227-2600
TWO WORKING DAYS BEFORE YOU DIG

SEAL:
REGISTERED PROFESSIONAL ENGINEER — TERESITO N. TABIOLO — RCE No. 38826 — Exp. 3-31-07 — CIVIL — STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
TERESITO N. TABIOLO — 2-28-07
RCE NO. 38826 — DATE — EXP. 03-31-07

MARK	REVISIONS	APPR.	DATE

DESIGNED BY RC — DRAWN BY CA — CHECKED BY TT

KCT CONSULTANTS, INC.
Civil Engineers - Surveyors - Planners
P.O. Box 5705 Riverside, CA 92517-5705
4344 Latham St., Suite 200, Riverside, CA 92501
Phone: 951-341-8940 Fax: 951-341-8945
e-mail: kctinc@kctconsultants.com

SCALE: AS NOTED
DATE: JANUARY 2007
BENCH MARK: SEE NOTE ON TITLE SHEET

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
PLOT PLAN 20520,
FTA# 2005-03 AMENDED No. 2
WATER, SEWER & OFFSITE FIRE PLAN
TITLE SHEET

1 OF 3 SHEETS

FOR CLARK MANAGEMENT
W.O. F.B. FILE NO. 1333-01

947L

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
FOR WORK ON ROAD R/W ONLY
APPROVED BY: Alan French 3-1-07
ALAN D. FRENCH — DATE
RECOMMENDED: — DATE

SEAL—COUNTY
REGISTERED PROFESSIONAL ENGINEER
ALAN D. FRENCH
RCE No. 45702
Exp. 12-31-08
STATE OF CIVIL CALIFORNIA

SCALE 1"=40'

** CONTRACTOR TO VERIFY ELEVATION PRIOR TO CONSTRUCTION.

NOTE:
PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE HORIZONTAL AND VERTICAL POSITION OF ALL POINTS OF CONNECTION TO EXISTING STRUCTURES. THIS SHALL INCLUDE BOTH ABOVE GROUND AND BELOW GROUND POINTS OF CONNECTION. THE ENGINEER SHALL BE NOTIFIED OF ANY DISCREPANCIES PRIOR TO THE BEGINNING OF CONSTRUCTION.

WATER CONSTRUCTION NOTES

50 FURNISH AND INSTALL 2" DIAMETER PVC SCHEDULE 40 WATER LINE WITH 24" MINIMUM COVER.

51 FURNISH AND INSTALL 2" METER PER WVWD STD. W-5B TO EXISTING 2" SERVICE LATERAL (BY WVWD CONTRACTOR)

52 FURNISH AND INSTALL 1½" BACK FLOW PREVENTOR PER WVWD STD. W-20. (BY WVWD CONTRACTOR)

53 FURNISH AND INSTALL 10" FIRE SERVICE DOUBLE DETECTOR CHECK PER WVWD DWG. W-15*. (BY WVWD CONTRACTOR)

53A FURNISH AND INSTALL AND INSTALL 16"x12" TAPPING SLEEVE, 12" GATE VALVE AND HOT-TAP CONNECT TO EXISTING 16" WATERMAIN.

53B FURNISH AND INSTALL 12"x12" TAPPING SLEEVE, 10" GATE VALVE AND HOT-TAP CONNECT TO EXISTING 12" WATERMAIN.

54 FURNISH AND INSTALL 6" FIRE HYDRANT PER WVWD DWG. W-2*, 18" BEHIND BACK OF SIDEWALK AS DIRECTED BY RIVERSIDE COUNTY FIRE DEPARTMENT. (SUPER "CLOW 860" 4 X 2½ X 2½ WITH BREAKAWAY SPOOL). (BY WVWD CONTRACTOR)

54A REMOVE EXISTING FIRE HYDRANT, EXTEND EXISTING 6" FIRE SERVICE LATERAL AND INSTALL NEW FIRE HYDRANT BEHIND 18" SIDEWALK

54B FURNISH AND INSTALL 12"x6" TAPPING SLEEVE, 6" GATE VALVE AND HOT-TAP CONNECT TO EXISTING 12" WATER MAIN

55 FURNISH AND INSTALL 2" SERVICE & 2" METER PER WVWD STD. W-5B (BY WVWD CONTRACTOR) HOT-TAP

56 FURNISH AND INSTALL 8" FIRE SERVICE DOUBLE DETECTOR CHECK PER WVWD DWG. W-15*. (BY WVWD CONTRACTOR)

56A FURNISH AND INSTALL 16"x10" TAPPING SLEEVE, 10" GATE VALVE AND HOT-TAP CONNECT TO EXISTING 16" WATER MAIN

57 FURNISH AND INSTALL 2" BACK FLOW PREVENTOR PER WVWD STD. W-20. (BY WVWD CONTRACTOR)

58 FURNISH AND INSTALL NEW 6" FIRE HYDRANT PER WVWD DWG. W-2*, 18" BEHIND BACK OF SIDEWALK AS DIRECTED BY RIVERSIDE COUNTY FIRE DEPARTMENT. (SUPER "CLOW 860" 4 X 2½ X 2½ WITH BREAKAWAY SPOOL). (BY WVWD CONTRACTOR)

59 FURNISH AND INSTALL CONCRETE THRUST BLOCK PER WVWD STD. W-3

SEWER CONSTRUCTION NOTES

60 INSTALL VCP CLEANOUT PER RCSD STD. DWG. S2070 TO EXIST. 4" SWR LAT.

61 INSTALL 4" EXTRA STRENGTH VCP BELL & SPIGOT SEWER LINE.

62 INSTALL VCP CLEANOUT PER RCSD STD. DWG. S2070.

63 INSTALL 6" EXTRA STRENGTH VCP BELL & SPIGOT SEWER LINE.

64 CONTRACTOR TO ABANDON EXISTING SEWER LATERAL PER RCSD REQUIREMENTS

0 20 40 80 120 160
SCALE: 1 INCH = 40 FEET

PERMIT NO. BNR 060102-05 IP #060149

Underground Service Alert
Call: TOLL FREE 1-800 227-2600
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SEAL: REGISTERED PROFESSIONAL ENGINEER — TERESITO N. TABIOLO — RCE No. 38826 — Exp. 3-31-07 — CIVIL — STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
TERESITO N. TABIOLO — DATE 2.28.07
RCE NO. 38826 — EXP. 03-31-07

MARK	REVISIONS	APPR.	DATE

DESIGNED BY RC — DRAWN BY CA — CHECKED BY TT

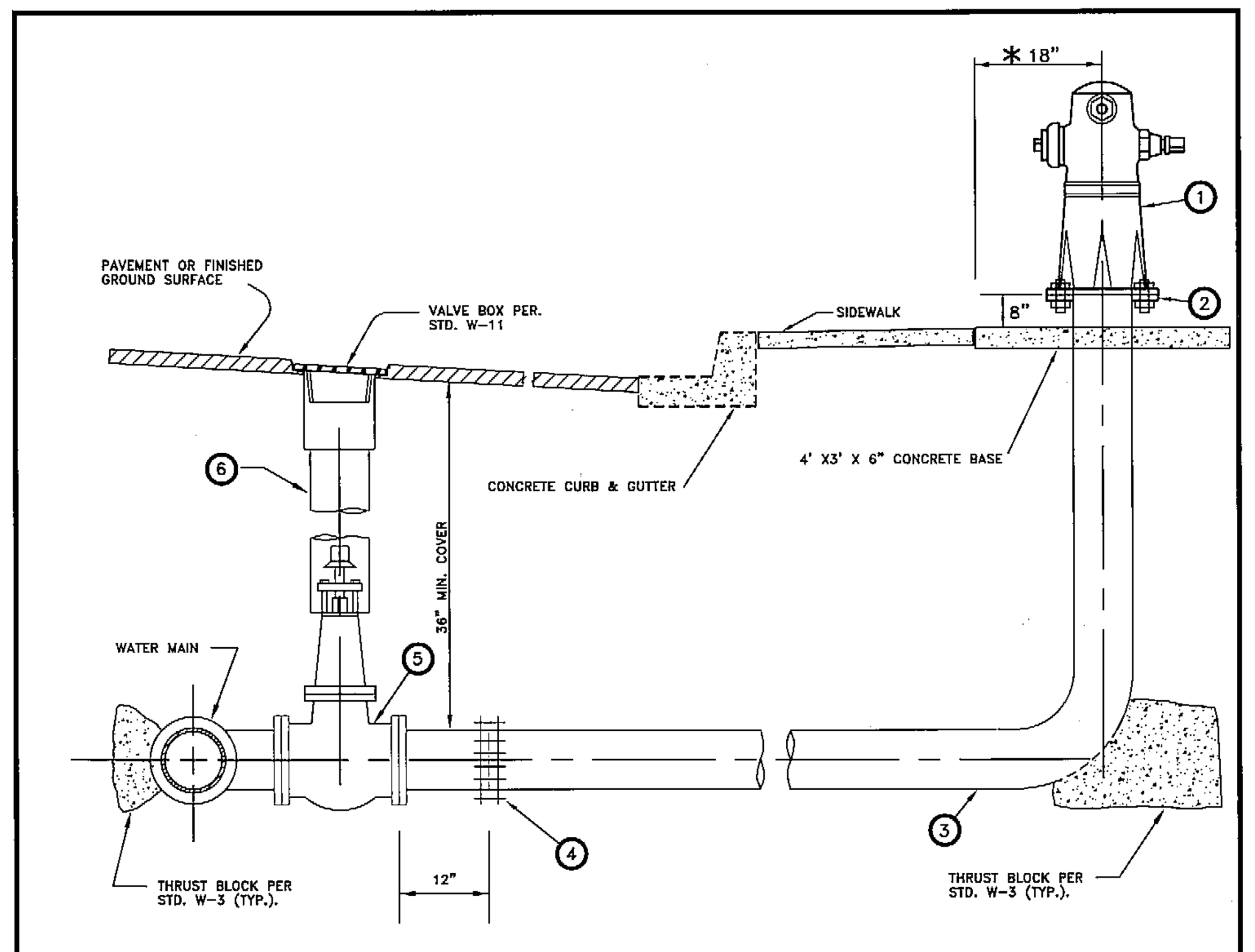
KCT CONSULTANTS, INC.
Civil Engineers - Surveyors - Planners
P.O. Box 5705 Riverside, CA 92517-5705
4344 Latham St., Suite 200, Riverside, CA 92501
Phone: 951-341-8940 Fax: 951-341-8945
e-mail: kctinc@kctconsultants.com

SCALE: AS NOTED — BENCH MARK: SEE NOTE ON TITLE SHEET
DATE: JANUARY 2007

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
PLOT PLAN 20520,
FTA# 2005-03 AMENDED No. 2
WATER, SEWER & OFFSITE FIRE PLAN
2 OF 3 SHEETS

FOR CLARK MANAGEMENT — W.O. F.B. FILE NO. 1333-01

947L

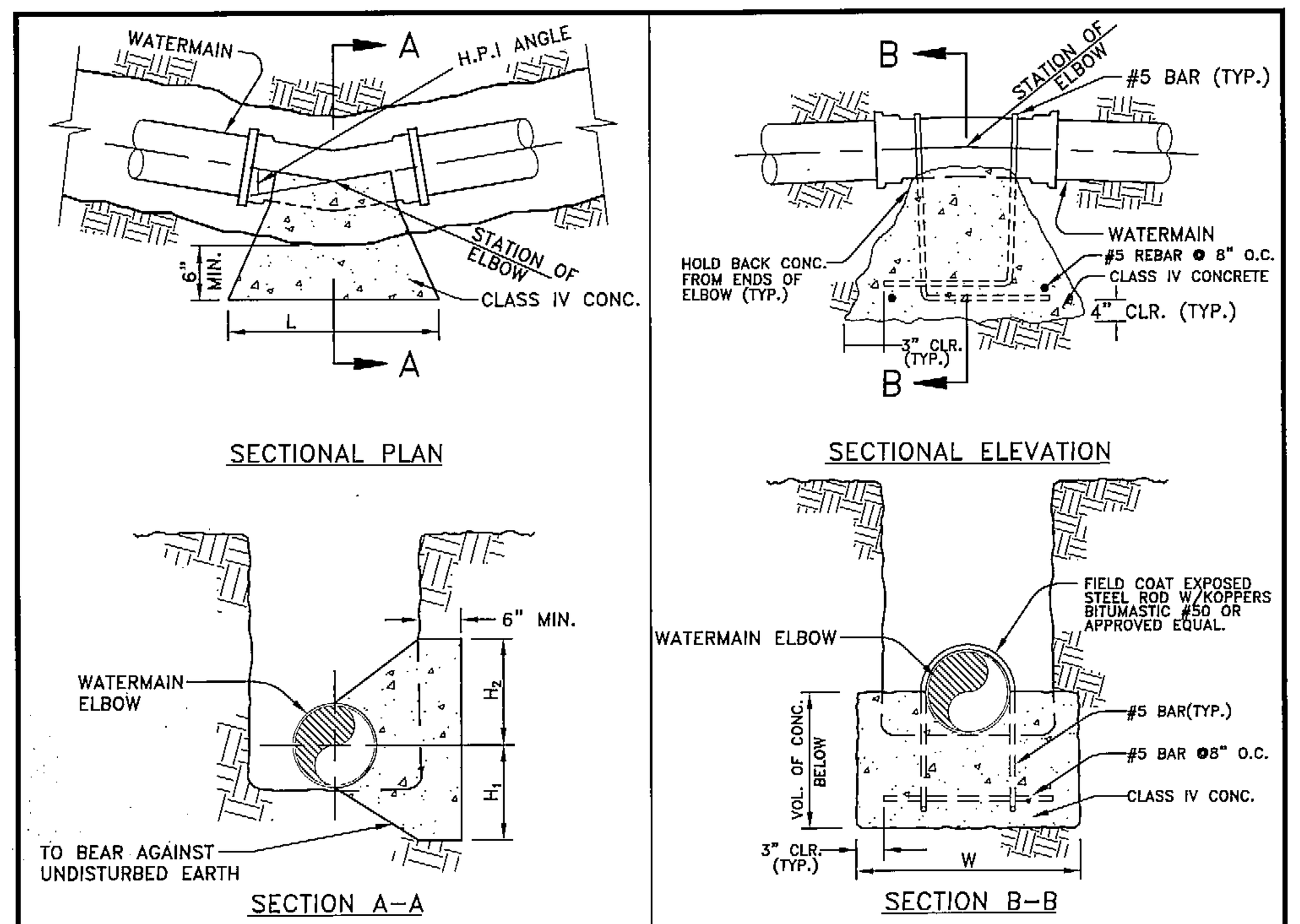


NOTES:

* 1. NORMAL LOCATION FOR HYDRANT IS 2'-0" BEHIND CURB FACE OR 18" BEHIND SIDEWALK. IF THERE IS NO CURB, LOCATE FIRE HYDRANT 2'-0" FROM PROPERTY LINE.
2. IF THERE IS NO CURB, EACH HYDRANT SHALL HAVE TWO GUARD POSTS PER STANDARD DRAWING W-12. PLACEMENT SHALL BE DETERMINED BY DISTRICT INSPECTOR IN FIELD.
3. PAINT FIRE HYDRANT ASSEMBLY PER SPECIFICATION
4. THE 4" STEAMER OUTLET SHALL PLACED PERPENDICULAR TO CURB AND GUTTER, FACING THE STREET

ITEM	DESCRIPTION
①	WET BARREL FIRE HYDRANT. 6" FLANGED INLET WITH ONE 4" HOSE OUTLET & TWO 2½" HOSE OUTLET. INSTALLED WITH 8 BREAK OFF BOLTS AND NUTS. SUPER CLOW F-860. *
②	FLANGE TO MATE HYDRANT BASE FLANGE. BREAK OFF BOLTS INSTALLED WITH NUT ON TOP.
③	SCHEDULE 40 STEEL PIPE, FIELD WRAPPED BELOW GROUND PART WITH TWO LAYERS OF 10 MILS PVC TAPE.
④	FLEXIBLE COUPLING AS SHOWN OR FLANGED COUPLING ADAPTOR ATTACH TO VALVE
⑤	6" FxF R.S. GATE VALVE WITH PRESSURE RATING TO MATCH MAIN LINE. SEE W-11.
⑥	6" VALVE BOX AND COVER PER STANDARD DRAWING W-11

WEST SAN BERNARDINO COUNTY WATER DISTRICT
ANTHONY ARAIZA
GENERAL MANAGER
FIRE HYDRANT ASSEMBLY W-2



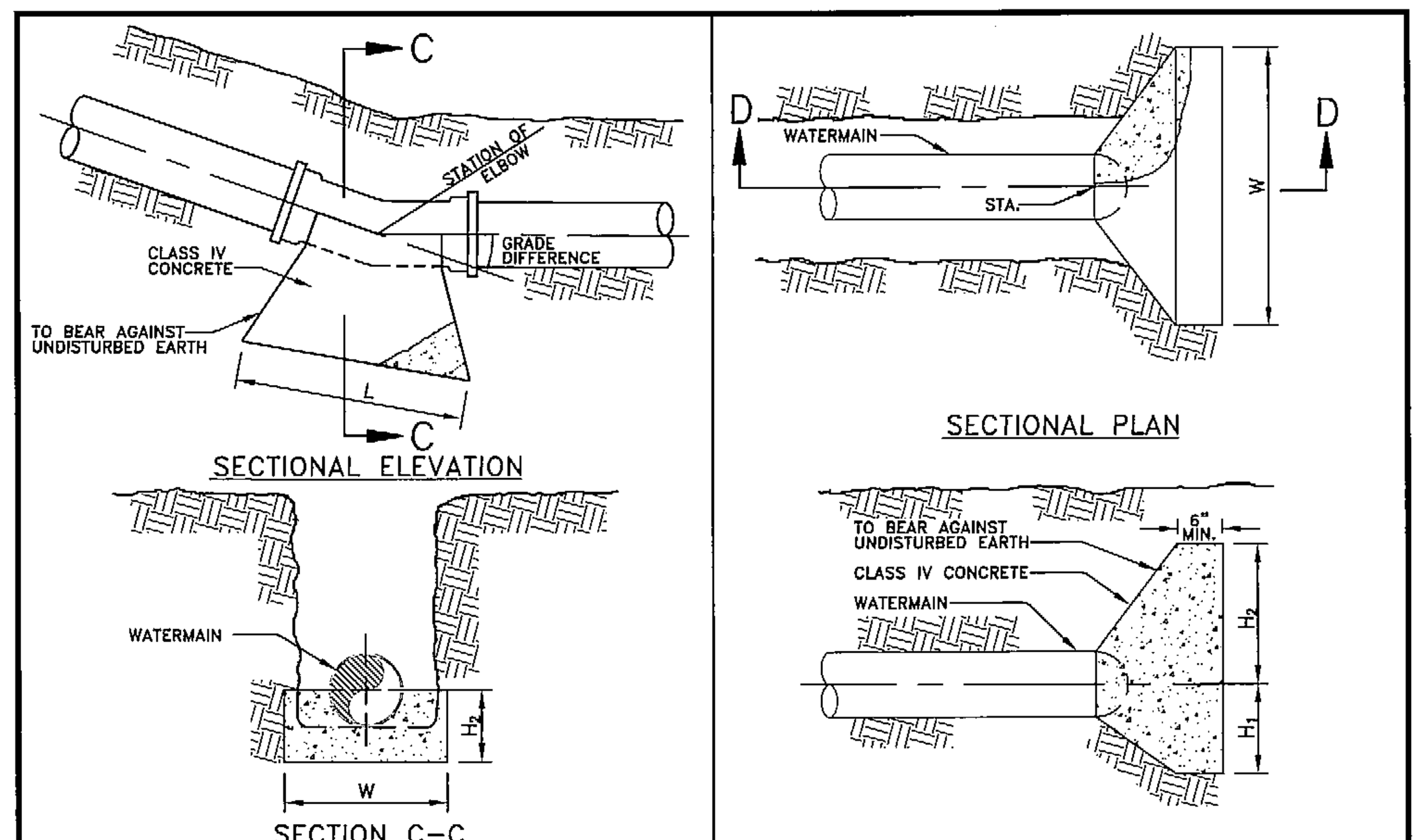
HORIZONTAL THRUST BLOCK

PIPE DIA.	H_1	H_2	L	H.P.I. ANGLE
4"	1/2 O.D.	1/2 O.D.	4'-0"	5° TO 41°
4"	4"	4"	4'-0"	42° TO 83°
4"	10"	5"	4'-0"	84° TO 104°
6"	1/2 O.D.	1/2 O.D.	4'-0"	5° TO 27°
6"	6"	6"	4'-0"	28° TO 51°
6"	1'-6"	9"	4'-0"	52° TO 90°
8"	1/2 O.D.	1/2 O.D.	4'-0"	5° TO 20°
8"	8"	8"	4'-0"	21° TO 36°
8"	1'-8"	10"	4'-0"	37° TO 54°
8"	2'-2"	1'-1"	4'-0"	55° TO 78°
8"	2'-8"	1'-4"	4'-0"	79° TO 111°
10"	1/2 O.D.	1/2 O.D.	4'-0"	5° TO 16°
10"	10"	10"	4'-0"	17° TO 28°
10"	1'-10"	11"	4'-0"	29° TO 39°
10"	2'-4"	1'-2"	4'-0"	40° TO 53°
10"	2'-10"	1'-5"	4'-0"	54° TO 70°
10"	2'-10"	1'-5"	6'-0"	71° TO 120°
12"	1/2 O.D.	1/2 O.D.	4'-0"	5° TO 13°
12"	12"	12"	4'-0"	14° TO 22°
12"	2'-0"	12"	4'-0"	23° TO 30°
12"	2'-6"	1'-3"	4'-0"	31° TO 40°
12"	3'-0"	1'-6"	4'-0"	41° TO 52°
12"	3'-0"	1'-6"	6'-0"	53° TO 83°

VERTICAL ANCHOR BLOCK

PIPE DIA.	W	VOLUME OF CONC (cu ft)	GRADE % DIFFERENCE
4"	1'-6"	4.3	5 TO 15
4"	1'-6"	6.5	16 TO 25
4"	1'-6"	8.6	26 TO 35
4"	1'-6"	10.8	36 TO 45
4"	1'-6"	13.0	46 TO 55
4"	1'-6"	15.1	56 TO 65
6"	2'-0"	7.6	5 TO 10
6"	2'-0"	11.4	11 TO 25
6"	2'-0"	15.2	26 TO 40
6"	2'-0"	22.8	41 TO 55
8"	2'-0"	10.3	5 TO 10
8"	2'-0"	15.5	11 TO 20
8"	2'-0"	20.6	21 TO 30
8"	2'-0"	31.0	31 TO 40
8"	2'-0"	41.3	41 TO 55
10"	2'-6"	20.9	5 TO 15
10"	2'-6"	27.8	16 TO 25
10"	2'-6"	41.7	26 TO 35
10"	2'-6"	55.6	36 TO 45
10"	2'-6"	69.5	46 TO 55
12"	2'-6"	27.6	5 TO 15
12"	2'-6"	36.8	16 TO 25
12"	2'-6"	55.3	26 TO 35
12"	2'-6"	73.7	36 TO 45
12"	2'-6"	92.1	46 TO 55

WEST SAN BERNARDINO COUNTY WATER DISTRICT
ANTHONY ARAIZA
GENERAL MANAGER
CONCRETE THRUST BLOCKS FOR PIPELINES, CLASS 200 P.S.I. MAX. W-3A

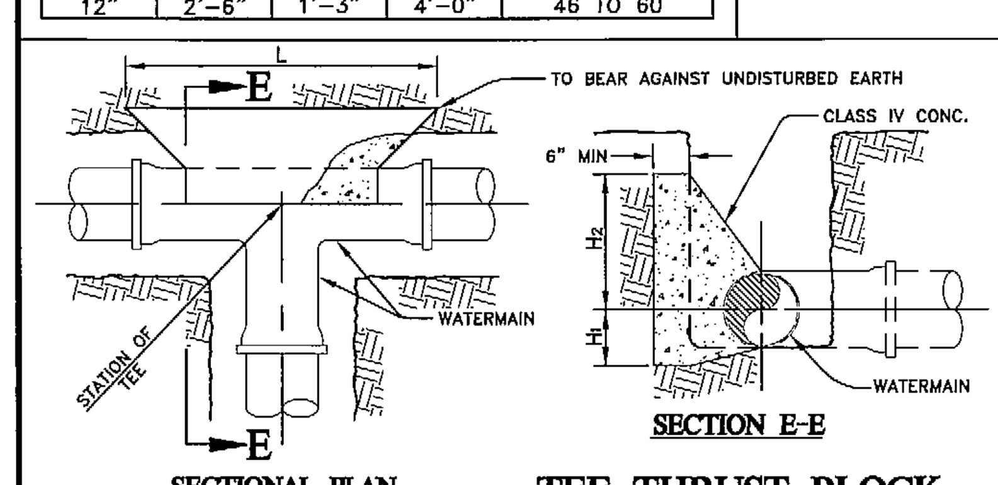


VERTICAL BEARER BLOCK

PIPE DIA.	W	H_2	L	GRADE % DIFF.
4"	1'-6"	8"	1'-0"	5 TO 60
6"	2'-0"	9"	1'-0"	5 TO 40
6"	2'-0"	9"	1'-6"	41 TO 55
8"	2'-0"	10"	1'-0"	5 TO 25
8"	2'-0"	10"	1'-6"	16 TO 40
8"	2'-0"	10"	2'-0"	41 TO 55
10"	2'-6"	1'-2"	1'-0"	5 TO 10
10"	2'-6"	1'-2"	2'-0"	11 TO 40
10"	2'-6"	1'-2"	3'-0"	41 TO 60
12"	2'-6"	1'-3"	2'-0"	5 TO 25
12"	2'-6"	1'-3"	3'-0"	26 TO 45
12"	2'-6"	1'-3"	4'-0"	46 TO 60

END THRUST BLOCK

*PIPE DIA.	H_1	H_2	L
4"	9"	6"	3'-6"
6"	1'-6"	9"	4'-0"
8"	2'-2"	1'-1"	4'-0"
10"	2'-10"	1'-5"	4'-0"
12"	3'-0"	1'-6"	5'-0"



TEE THRUST BLOCK

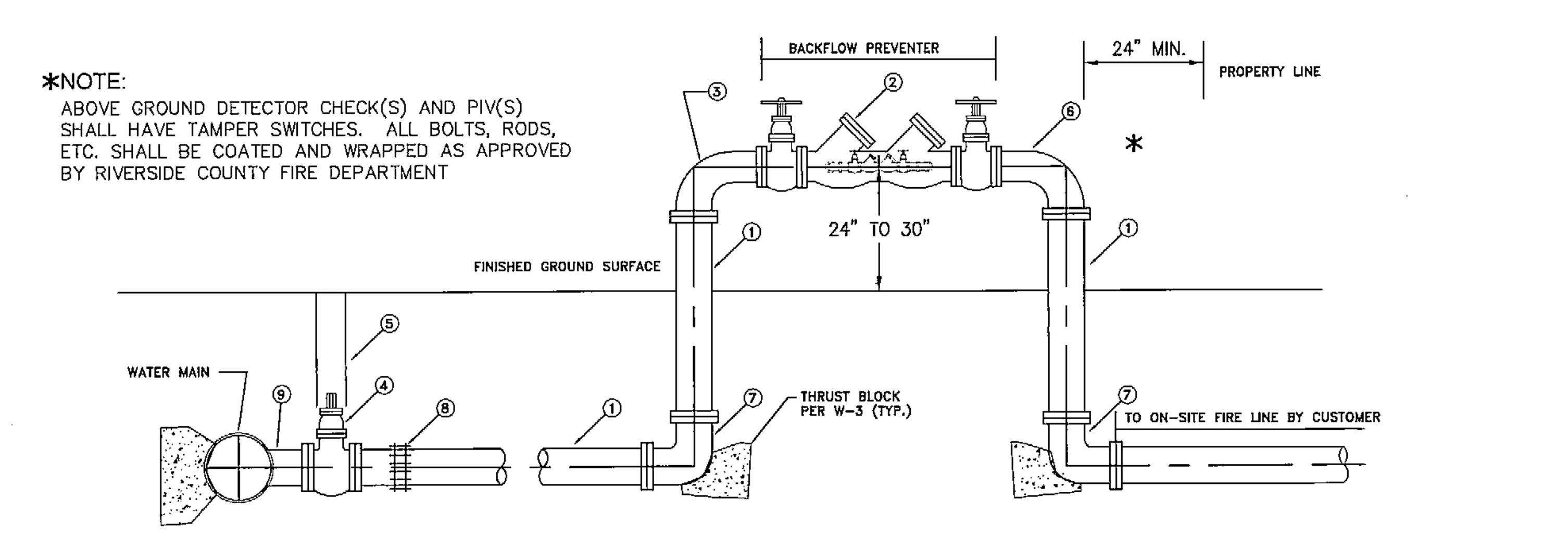
*PIPE DIA.	H_1	H_2	L
4"	9"	6"	3'-6"
6"	1'-6"	9"	4'-0"
8"	2'-2"	1'-1"	4'-0"
10"	2'-10"	1'-5"	4'-0"
12"	3'-0"	1'-6"	5'-0"

* USE OUTLET PIPE DIAMETER

WEST SAN BERNARDINO COUNTY WATER DISTRICT
ANTHONY ARAIZA
GENERAL MANAGER
CONCRETE THRUST BLOCKS FOR PIPELINES, 200 P.S.I. MAX. W-3B

***NOTE:**
MODIFICATIONS TO W.V.W.D. STANDARDS ARE FOR THIS JOB ONLY AND ARE REQUIRED BY THE RIVERSIDE COUNTY FIRE DEPARTMENT

*NOTE:
ABOVE GROUND DETECTOR CHECK(S) AND PIV(S) SHALL HAVE TAMPER SWITCHES. ALL BOLTS, RODS, ETC. SHALL BE COATED AND WRAPPED AS APPROVED BY RIVERSIDE COUNTY FIRE DEPARTMENT

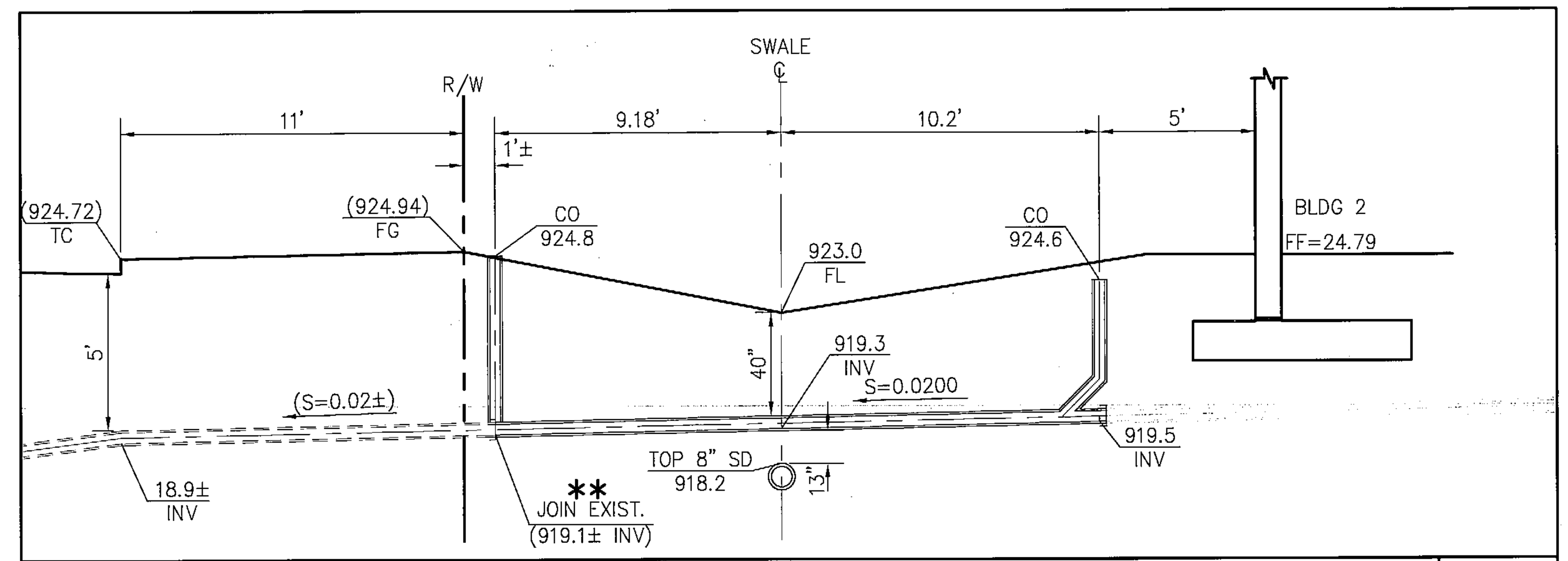


ITEM	DESCRIPTION
①	BRANCH PIPELINE (SIZE = SIZE OF BACKFLOW PREVENTER + 2") SCHEDULE 40 STEEL PIPE WRAPPED WITH TWO LAYERS OF 10 MILS PVC TAPE
②	DOUBLE CHECK/ DETECTOR CHECK BACKFLOW PREVENTER, FEBCO, WILKIN OR APPROVED EQUAL. SIZE AS CALL FOR ON THE DRAWING
③	FLANGED 90 % REDUCING ELBOW
④	GATE VALVE WITH 2" OPERATING NUT (SIZE = LINE SIZE)
⑤	8" VALVE BOX AND COVER PER STANDARD DRAWING W-11
⑥	FLANGED 90 % REDUCING ELBOW OR FLANGED TEE WHEN HOSE CONNECTOR IS REQUIRED
⑦	FLANGED 90 % ELBOW OR WELDED ELBOW
⑧	FLEXIBLE COUPLING OR FLANGED COUPLING ADAPTOR
⑨	FLANGED TEE

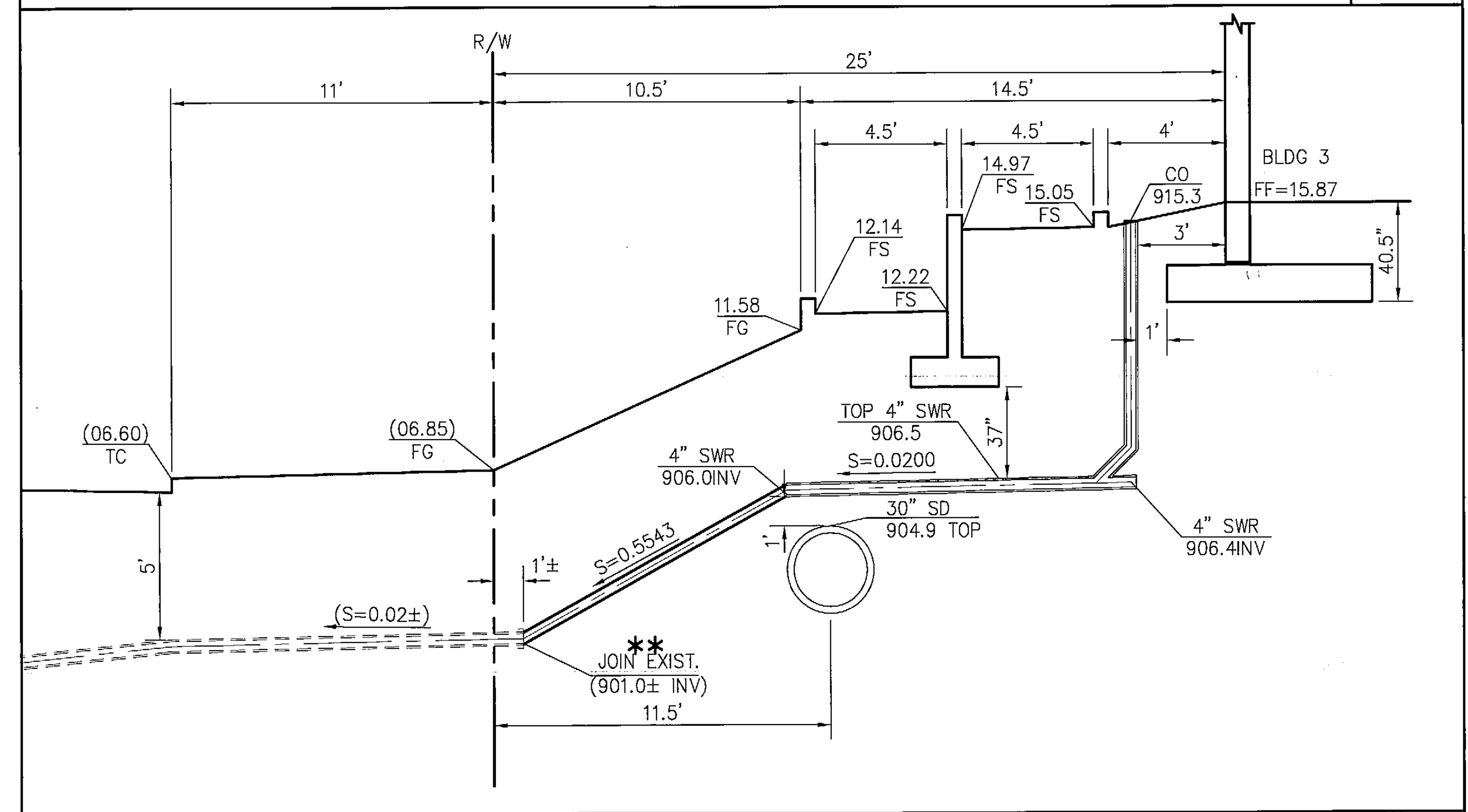
NOTES

1. 24" MINIMUM CLEARANCE REQUIRED AROUND THE DEVICE
2. DEPENDING ON THE RIGHT-OF-WAY, DEVICE MAY HAVE TO BE INSTALLED PARALLEL TO PROPERTY LINE
3. PAINT THE DEVICE IN GREEN COLOR PER SPECIFICATION

WEST SAN BERNARDINO COUNTY WATER DISTRICT
ANTHONY ARAIZA
GENERAL MANAGER
FIRE SERVICE INSTALLATION DETAIL W-15



SECTION "B" NTS



SECTION "A" NTS

** CONTRACTOR TO VERIFY ELEVATION PRIOR TO CONSTRUCTION.

PERMIT NO. BNR 060102-05 IP #060149

SEAL-COUNTY
REGISTERED PROFESSIONAL ENGINEER
ALAN D. FRENCH
RCE No. 45702
Exp. 12-31-08
CIVIL
STATE OF CALIFORNIA

COUNTY OF RIVERSIDE
TRANSPORTATION DEPARTMENT
FOR WORK ON ROAD R/W ONLY
APPROVED BY:
ALAN D. FRENCH 3-1-07
DATE
RECOMMENDED:
DATE

Underground Service Alert
Call: TOLL FREE 1-800 227-2600
TWO WORKING DAYS BEFORE YOU DIG

SEAL:
REGISTERED PROFESSIONAL ENGINEER
TERESITO N. TABIOLO
RCE No. 38826
Exp. 3-31-07
CIVIL
STATE OF CALIFORNIA

PREPARED UNDER THE SUPERVISION OF:
TERESITO N. TABIOLO 2-28-07
RCE NO. 38826
DATE
EXP. 03-31-07

MARK	REVISIONS	APPR.	DATE

DESIGNED BY RC DRAWN BY CA CHECKED BY TT

KCT CONSULTANTS, INC.
Civil Engineers - Surveyors - Planners
P.O. Box 5705 Riverside, CA 92517-5705
4344 Latham St., Suite 200, Riverside, CA 92501
Phone: 951-341-8940 Fax: 951-341-8945
e-mail: kctinc@kctconsultants.com

SCALE: AS NOTED
DATE: JANUARY 2007
BENCH MARK: SEE NOTE ON TITLE SHEET

IN THE UNINCORPORATED TERRITORY OF THE COUNTY OF RIVERSIDE, STATE OF CALIFORNIA
PLOT PLAN 20520,
FTA# 2005-03 **AMENDED No. 2**
WATER, SEWER & OFFSITE FIRE PLAN DETAILS

FOR CLARK MANAGEMENT
W.O. F.B. FILE NO. 1333-01
947L

APPENDIX D

RCSD Water and Sewer Availability Letter

Rubidoux Community Services District

Water Resource Management | Refuse Collection | Street Lights | Fire / Emergency Services | Weed Abatement

Ms. Diane Fiorelli
Langan Engineering
32 Executive Park, Suite 130
Irvine, CA 92614

May 17, 2016

SUBJECT: Water and Sewer Service for several industrial buildings located at 1500 Rubidoux Blvd Jurupa Valley, CA 92509 per information provided on Application # 0051

Dear Ms. Fiorelli:

We have reviewed the information provided in the application for a Will Serve Letter and based on that information we are only able to provide a Water and Sewer Availability at this time. We have also reviewed the location of the properties with respect to the existing water and sewer infrastructure and offer the following information.

The properties are currently located just outside of the District's boundary, and in order to receive District services will need to be annexed into the District's boundary through the Local Agency Formation Commission (LAFCO) located in Riverside, CA (951) 369-0631. Initiating and processing the annexation with LAFCO is the property owner's (or representative's) responsibility with the District providing data and input when requested and where required.

Service to said properties will be in accordance with the Districts' in-effect fees and charges as stated below.

Prior to service, fees must be paid to the District for water and sewer capacity, fire mitigation, and all other applicable fees such as street lights, plan check, and inspection fees. Said current fees are outlined in the attached Fee Schedule (please see paragraph below regarding possible increases to fees on July 21, 2016).

The District's Board will be considering fee increases at their July 21, 2016 Board Meeting. Fees paid prior to July 21, 2016 will be valid for 12 months from the date they are paid for structures that are ready to receive service during that same 12 month period. Structures ready to receive service after July 21, 2016 and without fees paid prior to July 21, 2016 will be required to pay the increased fees that are in place at that time.

Some properties, shown on the plots provided with the application, appear that they could be "landlocked" without public street right-of-way frontage. Therefore, owner (or representative) will need to obtain easements across properties, where applicable, in order to route water services and/or sewer laterals across adjoining properties to the District's mains in the public street right-of-way. Easements need to be recorded with the County Clerk/Recorder and a copy of each applicable recorded easement must be provided to the District.

WATER AND SEWER AVAILABILITY

The District's existing water and sewer mains are shown on the atlas sheets provided to Mr. Fred Irianto of Langan Engineering by email on May 2, 2016.

Please contact me with any questions regarding the above.

Sincerely,

RONALD W. YOUNG
Assistant Engineer/Project Manager

cc: 1500 Rubidoux Blvd File

Brenna Gonzales

From: Steve Appel <steve@rcsd.org>
Sent: Friday, August 04, 2017 1:11 PM
To: Brenna Gonzales
Cc: Fred Irianto
Subject: RE: Agua Mansa Commerce Center - RCSD Sewer Capacity

Brenna,

Based on the information I have regarding the proposed warehouse development, aka the Agua Mansa Commerce Center, the RCSD can safely say that sewage treatment capacity is currently available to adequately serve the project.

The RCSD has 3.055 MGD of purchased treatment capacity in the City of Riverside's wastewater treatment plant. Currently, the RCSD uses only 2 MGD of that capacity.

I hope this answers your question. If you need any additional information, please let me know.

Sincerely,

Steve

Steven W. Appel, P.E.
Assistant General Manager/District Engineer
Rubidoux Community Services District
Phone: (951) 684-7580
Fax: (951) 369-4061
Email: steve@rcsd.org

From: Brenna Gonzales [mailto:bgonzales@langan.com]
Sent: Friday, August 04, 2017 1:02 PM
To: Steve Appel <steve@rcsd.org>
Cc: Fred Irianto <firianto@langan.com>
Subject: Agua Mansa Commerce Center - RCSD Sewer Capacity

Hi Steve,
Please confirm there is sufficient sewer capacity for the proposed warehouse development. Thank you.

Brenna Gonzales, P.E., LEED AP BD+C
Project Manager
Direct: 949.255.8664
Mobile: 949.281.9180
File Sharing Link