

PRELIMINARY WATER DEMAND REPORT

For

SARANAP VILLAGE

May 2, 2014

Saranap Village

Hall Equities Group

1855 Olympic Blvd, Walnut Creek, CA 94596



Prepared by:

Kier & Wright Civil Engineers & Surveyors

2850 Collier Canyon Road

Livermore, CA 94551

925-245-8788

OVERVIEW

This report reviews the approximate existing and the estimated proposed water demand for the project. The project consists of Sites A, B, B1 and C and new Streetscape for Boulevard Way and Saranap Avenue. The project includes approximately 235 multi-family units, and approximately 43,541 square feet (gross leasable area) of non-residential uses including neighborhood retail, grocery, restaurant, coffee shop, bank, bar, and fitness club uses, , all of which would replace unused and outdated buildings including commercial, office, multi family, single family, religious, grocery, and vacant land.

DEMAND HISTORY

Water usage for the 2013 calendar year has been obtained from East Bay Municipal Utility District (EBMUD) for a portion of the active meters serving the existing buildings on Sites A, B, and C; those usages are as follows:

Site A - 1176 Saranap Avenue:	115 gallons per day (gpd)
Site B - 1300 Boulevard Way:	2297 gpd
Site C - 1326 Boulevard Way:	21 gpd
Total	2,433 gpd

WATER SERVICE

EBMUD was contacted regarding the project. The project was presented to two different New Business representatives providing a detailed explanation of the existing and proposed project. A proposed tentative map was submitted with the formal request for a “Will Serve” Letter. EBMUD responded and has provided a “Will Serve” Letter for the project. The letter is attached as “EXHIBIT A”

WATER DEMAND

Existing and proposed water demand for domestic, irrigation, and fire service is determined by EBMUD. Upon receipt of project application and plans, EBMUD will determine impacts to the existing system and project requirements for modifications to their system. However, the following is an analysis using industry standard rates for daily water usage.

The Average Daily Water Uses are measured in gallons per day (gpd):

Land Use Category	Units	Flow Factor (gpd/Unit)
Residential, Single Family	Residential Unit	700
Residential, Multiple Family	Residential Unit	300

Commercial/Institutional	Gross Leasable Area (square feet - sf)	0.05
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Using the Average Daily Water Use rates, the demand of the existing uses on the Sites is:

1 single family unit @ 700 gpd/unit	700 gpd
24 multi-family units @ 300 gpd/unit	7,200 gpd
Approximately 37,501 GLA sf of commercial (retail, church, etc.) @ 0.05 gpd/ sf	<u>1,875 gpd</u>
Total	9,775 gpd

Proposed flows are:

235 multi-family units @ 300 gpd/unit	70,500 gpd
43,541 sf commercial @ 0.05 gpd/sf	<u>2,117 gpd</u>
Total	72,617 gpd

FIRE

It is anticipated that the existing fire service flows EBMUD’s infrastructure will not be adequate to support the multilevel buildings being proposed by this project. Therefore an onsite fire system, including pumps and storage tanks, will most likely be required it is not factored into the normal water demand.

IRRIGATION

Irrigation demands are to be determined by the project landscape architect and are presented in a different report. Irrigation demands are not included in this report.

CONCLUSION

As estimated above, the project will demand 72,617 gpd, which represents a net increase of 62,842 gpd over the existing 9,775 gpd demand of current uses. As EBMUD has indicated in its “Will Serve” Letter, Water Service will be contingent upon compliance with District Regulations and Schedule of Rates and Charges and no other restrictions have been placed on this project.

“EXHIBIT A”



RECEIVED

JAN 24 2014

KIER & WRIGHT
LIVERMORE

January 22, 2014

Tony Cattedra
Kier & Wright Civil Engineers & Surveyors, Inc.
2850 Collier Canyon Rd
Livermore, CA 94551

Re: APN Address
184-010-035 - 1298 Boulevard Way, Walnut Creek
184-010-046 - 1300 Boulevard Way, Walnut Creek
184-450-025 - 1326 Boulevard Way, Walnut Creek
185-370-010 - 1285 Boulevard Way, Walnut Creek
185-370-033 - 1299 Boulevard Way, Walnut Creek
185-370-012 - 1176 Saranap Avenue, Walnut Creek

Dear Tony Cattedra:

Water service to the subject properties will be available contingent upon compliance with the District's Regulations governing water service and Schedule of Rates and Charges.

If you have any questions, please call me at (510) 287-1103.

Sincerely,

A handwritten signature in black ink that reads 'Wendy Mach'.

WENDY MACH
Senior Administrative Clerk
New Business Office

/whm

RUSSELL D MITCHELL ASSOCIATES, INC.

2760 Camino Diablo
Walnut Creek, California 94597

Phone (925) 939-3985
Fax (925) 932-5671

RMA
Email:
RMA@RMAIRRIGATION.COM

Dear Marie Cooper,

Attached is the estimated water use comparison for irrigation between the existing sites and new sites for the Saranap Village:

<u>Site Name</u>	<u>Estimated Existing water use</u>	<u>Estimated new water use</u>	<u>Water use difference</u>
Site A	158,873	90,084	-68,789
Site B	384,475	50,050	-334,425
Site C	39,335	16,033	-23,302
Site D	88,151	5,002	-83,149
Boulevard Terrace	8,432	0	-8,432
Site B Street	0	53,553	53,553
Site C & D Street	0	36,344	36,344
Enhanced Offsite Imp	0	62,532	62,532
	679,266	313,598	-365,668

Overall, I show a net reduction of water use by 365,668 gallons per year for the entire project.

Sincerely,



Chris Mitchell



PRELIMINARY SEWER REPORT
For
SARANAP VILLAGE

April 25, 2014

Saranap Village
Hall Equities Group
1855 Olympic Blvd, Walnut Creek, CA 94596



Prepared by:
Kier & Wright Civil Engineers & Surveyors
2850 Collier Canyon Road
Livermore, CA 94551
925-245-8788

OVERVIEW

This report reviews the approximate existing and the estimated proposed sewerage generation for the project. The project consists of Sites A, B, B1 and C and new Streetscape for Boulevard Way and Saranap Avenue. The project includes approximately 235 multi-family units, and approximately 43,541 square feet (gross leasable area) of non-residential uses including neighborhood retail, grocery, restaurant, coffee shop, bank, bar, and fitness club uses, all of which would replace unused and outdated buildings including commercial, office, multi family, single family, religious, grocery, and vacant land.

SANITARY SEWER HISTORY

The Central Contra Costa Sanitary District Collection System Master Plan update, dated May 2010, states that “future development in the Saranap Area is likely to be infill. In the long-term (beyond 2020), the County is planning to change single-family residences fronting Olympic Boulevard to multi-family housing or commercial uses”. The System Master Plans shows that there are no deficiencies in the existing collection system between the project site and the treatment plant. It is therefore assumed that the increases to the flow as a result of this project will not negatively impact the existing collection system.

The Saranap Village is consistent with the System Master Plan. The following summarizes the existing and proposed sewer flows attributed to the subject properties. The existing uses of the property include one single family residence, a 24-unit multi-family development, a vacant church, and two retail/commercial buildings, one of which is vacant.

The Average Base Wastewater Unit Flow Factors are measured in gallons per day (gpd):

Land Use Category	Units	Flow Factor (gpd/Unit)
Residential, Single Family	Residential Unit	195
Residential, Multiple Family	Residential Unit	105
Commercial/Institutional	Gross Leasable Area (1,000 square feet - sf)	100

Using the Average Base Wastewater Unit Flow Factors, the demand of the existing uses on the Sites is:

1 single family unit @ 195 gpd/unit	195 gpd
24 multi-family units @ 105 gpd/unit	2520 gpd

37,501 sf GLA commercial and institutional (retail, church, etc.) @ 100 gpd/1,000 sf	3,750 gpd
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Total	6,465 gpd
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Ground Water Infiltration (GWI) is measured at 170 gpd/acre. The privately owned project acreage is measured at 3.34 acres. The GWI is = 568 gpd.

The total flow expected from the uses on the Sites, is calculated at 4670 gpd + 568 gpd = 5,238 gpd (0.0052 mgd).

Proposed flows are:

235 multi-family units @ 105 gpd/unit	24,675 gpd
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43,541 sf commercial @ 100 gpd/1,000 sf	4,354 gpd
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Total	29,029 gpd
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The GWI remains unchanged at 568 gpd.

The total proposed gross flow is calculated at 29,029 gpd + 568 gpd = 29,597 gpd (0.0296 mgd).

The net increase is 29,597 less the existing flow of 5,328, which equals 23,701 gpd (0.0237 mgd).

CONCLUSION

Although the project will result in an increase in sewer flows, the Central Contra Costa Sanitary District Collection System Master Plan indicates that the existing infrastructure is sufficient to support the proposed project and other infill development through the year 2040.

PRELIMINARY WATER DEMAND REPORT FOR
DRAFT ENVIRONMENTAL IMPACT REPORT
ALTERNATIVES 1-4

For
SARANAP VILLAGE

April 30, 2014

Saranap Village

Hall Equities Group

1855 Olympic Blvd, Walnut Creek, CA 94596



Prepared by:

Kier & Wright Civil Engineers & Surveyors

2850 Collier Canyon Road

Livermore, CA 94551

925-245-8788

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This report will compare the Project with four Alternatives as outlined below.

DEMAND HISTORY

Water usage for the 2013 calendar year has been obtained from East Bay Municipal Utility District (EBMUD) for a portion of the active meters serving the existing buildings on Sites A, B, and C; those usages are as follows:

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Total	2,433 gpd

WATER SERVICE

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The Average Daily Water Uses are measured in gallons per day (gpd):

Land Use Category	Units	Flow Factor (gpd/Unit)
Residential, Single Family	Residential Unit	700
Residential, Multiple	Residential Unit	300

Family		
Commercial/Institutional	Gross Leasable Area (square feet - sf)	0.05

Using the Average Daily Water Use rates, the demand of the existing uses on the Sites is:

1 single family unit @ 700 gpd/unit	700 gpd
24 multi-family units @ 300 gpd/unit	7,200 gpd
<u>37,501 sf GLA commercial and institutional (retail, church, etc.) @ 0.05 gpd/sf</u>	<u>1,875 gpd</u>
Total	9,775 gpd

There are four Project Alternatives in the Draft Environmental Impact report. Project flows will be presented below for each of those four alternatives.

Alternative 1: No Project / No Build.

In this scenario the proposed water demand would not change from the existing demand.

Alternative 2: No Project / Rehabilitation.

In this scenario the existing buildings and related facilities would be rehabilitated with no net change in quantity or square footage of uses. Only interior modifications would occur on the units to attract higher rents. Moreover, to the extent any remodeling resulted in a slightly more intensive use of the space, that use would likely be offset by the water efficiency of modern appliances and construction methods. Therefore the demand is expected to be similar to existing demand.

Alternative 3: Reduced Project.

This alternative proposes 86 one, two and three bedroom apartments and 6 two-bedroom townhomes on sites B, B1 and C. It includes 22,842 square feet of Gross Leasable Area of neighborhood retail uses similar to those proposed by the Project, on Sites A, B and B-1. No improvements would be made in the streets, which would remain in their current configuration. Only street frontages and sidewalk enhancements would be provided.

Proposed Alternative 3 flows are:

92 multi-family units @ 300 gpd/unit - Sites B, B-1, and C	27,600 gpd
<u>22,842 sf GLA commercial @ 0.05 gpd/sf</u>	<u>1,142 gpd</u>
Total	28,742 gpd

Alternative 4: General Plan Buildout.

This alternative proposes 24 multi-family units. It includes 83,000 square feet of Gross Leasable Area for retail uses. No improvements would be made in the streets, which would remain in their current configuration. Only curbs, gutters and sidewalks would be improved.

Proposed Alternative 4 flows are:

24 multi-family units @ 300 gpd/unit	7,200 gpd
<u>83,000 sf GLA commercial @ 0.05 gpd/sf</u>	<u>4,150 gpd</u>
Total	11,350 gpd

FIRE

Alternatives 1 and 1 would continue to rely on existing fire suppression infrastructure and flows. For Alternatives 3 and 4, it is anticipated that the existing fire service flows EBMUD’s infrastructure will not be adequate to support the multilevel buildings being proposed by this project. Therefore an onsite fire system, including pumps and storage tanks, will most likely be required. Because fire suppression is expected to occur rarely, and cannot be predicted, water needs for fire suppression are typically not factored into a normal water demand.

IRRIGATION

Irrigation demands for Alternative 1 would not change from existing. In Alternative 2, while landscaping would be improved, the new landscaping would comply with landscaping ordinances and is expected to be more water-efficient than existing. Irrigation demands for Alternative 3 and 4 are expected to be similar to those of the Project, except that there would be no irrigation demands for improvements in the streets.

“EXHIBIT A”



RECEIVED

JAN 24 2014

KIER & WRIGHT
LIVERMORE

January 22, 2014

Tony Cattedra
Kier & Wright Civil Engineers & Surveyors, Inc.
2850 Collier Canyon Rd
Livermore, CA 94551

Re: APN Address
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Dear Tony Cattedra:

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If you have any questions, please call me at (510) 287-1103.

Sincerely,

A handwritten signature in cursive script that reads 'Wendy Mach'.

WENDY MACH
Senior Administrative Clerk
New Business Office

/whm

PRELIMINARY SEWER REPORT FOR DRAFT
ENVIRONMENTAL IMPACT REPORT ALTERNATIVES
1-4

For
SARANAP VILLAGE

April 30, 2014
Revised June 4, 21014

Saranap Village

Hall Equities Group



1855 Olympic Blvd, Walnut Creek, CA 94596

Prepared by:

Kier & Wright Civil Engineers & Surveyors

2850 Collier Canyon Road

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This report will compare the Project with four Alternatives as outlined below.

SANITARY SEWER HISTORY

The Central Contra Costa Sanitary District Collection System Master Plan update, dated May 2010, states that “future development in the Saranap Area is likely to be infill. In the long-term (beyond 2020), the County is planning to change single-family residences fronting Olympic Boulevard to multi-family housing or commercial uses”. The System Master Plans shows that there are no deficiencies in the existing collection system between the project site and the treatment plant located in Martinez, California. It is therefore assumed that the increases to the flow as a result of this project, or any of the four Alternatives, will not negatively impact the existing collection system.

The Saranap Village is consistent with the System Master Plan. The following summarizes the existing and proposed sewer flows attributed to the subject properties. The existing uses of the property include one single family residence, a 24 unit multi-family development, a vacant church, and two retail/commercial buildings, one of which is vacant.

The Average Base Wastewater Unit Flow Factors are measured in gallons per day (gpd):

Land Use Category	Units	Flow Factor (gpd/Unit)
Residential, Single Family	Residential Unit	195
Residential, Multiple Family	Residential Unit	105
Commercial/Institutional	Gross Leasable Area (1,000 square feet - sf)	100

Using the Average Base Wastewater Unit Flow Factors, the demand of the existing uses on the Sites is:

1 single family unit @ 195 gpd/unit

195 gpd

24 multi-family units @ 105 gpd/unit	2520 gpd
37,501 sf GLA commercial and institutional (retail, church, etc.)	
@ 100 gpd/1,000 sf	3,750 gpd
Total	6,465 gpd

Ground Water Infiltration (GWI) is measured at 170 gpd/acre. The privately owned project acreage is measured at 3.34 acres. The GWI is = 568 gpd.

The total flow expected from the uses on the Sites, is calculated at 6,465 gpd + 568 gpd = 7,033 gpd (0.0070 mgd).

There are four Project Alternatives in the Draft Environmental Impact Report. Project flows will be presented below for each of those four alternatives.

Alternative 1: No Project / No Build.

In this scenario the proposed sewer demand would not change from the existing demand.

Alternative 2: No Project / Rehabilitation.

In this scenario the existing buildings and related facilities would be rehabilitated with no net change in quantity or square footage of uses. Only interior modifications would occur on the units to attract higher rents. Moreover, to the extent any remodeling resulted in a slightly more intensive use of the space, that use would likely be offset by the water efficiency of modern appliances and construction methods, thus reducing sewage generation. Therefore the demand is expected to be similar to existing demand.

Alternative 3: Reduced Project.

This alternative proposes 86 one, two and three bedroom apartments and 6 two-bedroom townhomes on sites B, B1 and C. It includes 22,842 square feet of Gross Leasable Area of neighborhood retail uses similar to those proposed by the Project, on Sites A, B and B-1. No improvements would be made in the streets, which would remain in their current configuration. Only street frontages and sidewalk enhancements would be provided.

Proposed Alternative 3 flows are:

92 multi-family units @ 105 gpd/unit - Sites B, B-1, and C	9,660 gpd
<u>22,842 sf GLA commercial @ 100 gpd/ 1000 sf</u>	<u>2,284 gpd</u>
Total	11,944 gpd

The GWI remains unchanged at 568 gpd.

The total proposed gross flow is calculated at 11,944 gpd + 568 gpd = 12,512 gpd (0.0125 mgd). The net increase is 12,512 less the existing flow of 7,033, which equals 5,479 gpd (0.0055 mgd).

Alternative 4: General Plan Buildout.

This alternative proposes 24 multi-family units. It includes 83,000 square feet of Gross Leasable Area for retail uses. No improvements would be made in the streets, which would remain in their current configuration. Only curbs, gutters and sidewalks would be improved.

Proposed Alternative 4 flows are:

24 multi-family units @ 105 gpd/unit	2,520 gpd
<u>83,000 sf GLA commercial @ 100 gpd/ 1000 sf</u>	<u>8,300 gpd</u>
Total	10,820 gpd

The GWI remains unchanged at 568 gpd.

The total proposed gross flow is calculated at 10,820 gpd + 568 gpd = 11,388 gpd (0.0114 mgd). The net increase is 11,388 less the existing flow of 7,033, which equals 4,355 gpd (0.0044 mgd).

CONCLUSION

Although the project will result in an increase in sewer flows, the Central Contra Costa Sanitary District Collection System Master Plan indicates that the existing infrastructure is sufficient to support the proposed project and other infill development through the year 2040.