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PLACER, County Recorder
JIM MCCAULEY
DOC- 2014-0055752-00

THURSDAY, AUG 14, 2014 15:07:00
MIC \$0.00 | AUT \$0.00 | SBS \$0.00
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**SIXTH AMENDMENT OF DEVELOPMENT AGREEMENT BY AND BETWEEN
THE CITY OF ROSEVILLE AND ROSEVILLE FIDDYMENT LAND
VENTURE, LLC, RELATIVE TO THE WEST ROSEVILLE SPECIFIC PLAN**

This Sixth Amendment of Development Agreement (this "Sixth Amendment") is entered into this 6th day of Aug. 2014, by and between the CITY OF ROSEVILLE, a municipal corporation ("City") and WEST ROSEVILLE DEVELOPMENT COMPANY, INC., a Delaware corporation ("Developer"), pursuant to Sections 65864 through 65869.5 of the Government Code of California.

WITNESSETH:

A. Developer's predecessor in interest, Roseville/Fiddymment Land Venture, LLC ("RFLV") and City entered into a Development Agreement (the "Development Agreement") which was approved by the City Council of City on February 23, 2004, and recorded on June 21, 2004, in the Official Records of Placer County as Document No. 2004-0080708. The Development Agreement governs a portion of the West Roseville Specific Plan Area ("Specific Plan", "WRSP" or "Plan Area"). Except as otherwise defined herein, all capitalized terms used herein shall have the meanings ascribed thereto in the Development Agreement.

B. Certain terms of settlement agreements arising out of two lawsuits regarding the WRSP (Catalano v. Roseville and Defenders of Wildlife V. Norton) imposed additional conditions on the WRSP that require implementation through amendment of the Development Agreement.

C. On January 4, 2006, City and RFLV, by Ordinance No. 4324, entered into the First Amendment of the Development Agreement ("First Amendment"). The First

Amendment was recorded on March 2, 2006, in the Official Records of Placer County as Instrument No. 2006-0022488.

D. On June 18, 2008, City and RFLV, by Ordinance No. 4668, entered into the Second Amendment of the Development Agreement ("Second Amendment"). The Second Amendment was recorded on July 22, 2008, in the Official Records of Placer County as Instrument No. 2008-0059263.

E. On September 2, 2009, City and RFLV, by Ordinance No. 4767, entered into the Third Amendment of the Development Agreement ("Third Amendment"). The Third Amendment was recorded on September 10, 2009, in the Official Records of Placer County as Instrument No. 2009-0078876.

F. On July 17, 2013, City and ATC Realty One, LLC, by Ordinance No. 5211, entered into the Fourth Amendment of the Development Agreement ("Fourth Amendment"). The Fourth Amendment was recorded on August 20, 2013, in the Official Records of Placer County as Instrument No. 2013-0082174.

G. On April 16, 2014, City and ATC Realty One, LLC, by Ordinance No. 5211, entered into the Fifth Amendment of the Development Agreement ("Fifth Amendment"). The Fifth Amendment was recorded on June 18, 2014, in the Official Records of Placer County as Instrument No. 2014-0040699.

H. In connection with WRDC's acquisition of property within the Plan Area commonly known as Specific Plan Parcels F-21, F-22, F-23, and F-24, which are legally described in Exhibit "A" and depicted in Exhibit "B" attached to this Sixth Amendment (collectively, the "Sixth Amendment Property"), RFLV assigned and WRDC assumed the rights and obligations of Developer with respect to each such parcel, pursuant to assignment and assumption agreements, dated as of July 6, 2005 (as to Parcels F-21 & F-23), July 27, 2007 (as to Parcel F-24), and December 9, 2009 (as to Parcel F-22) (collectively, the "Assignment Agreements").

I. This Sixth Amendment affects the Sixth Amendment Property and shall run with the land described therein.

J. This Sixth Amendment is authorized by Section 1.4 of the Development Agreement.

NOW THEREFORE, THE PARTIES MUTUALLY AGREE AS FOLLOWS:

1. AMENDMENT OF DEVELOPMENT AGREEMENT. The following sections and exhibits of the Development Agreement are hereby amended as follows:

a. REVISED SECTION 2.2. The approved land use of certain parcels within the Property has changed; therefore, the cumulative summary of land uses and approximate acreages, net of road right-of-way, set forth in Section 2.2 of the Development Agreement is hereby amended to read as follows:

Low Density Residential	3,240 units on 769.8 Net Acres;
Medium Density Residential	836 units on 80.51 Net Acres;
High Density Residential	1,792 units on 72.48 Net Acres;
Community Commercial	45.78 Net Acres;
Business Professional	0 Net Acres;
Park	203.0 Net Acres;
Open Space	340.12 Net Acres;
Open Space (Paseo)	6.66 Net Acres;
Schools	71.95 Acres;
Fire Station	2.51 Net Acres;
Electric Substation	1.55 Net Acres;
Well Sites	0.52 Net Acres;
Other Public (Right of Way)	111.73 Net Acres.

b. DELETED SECTION 2.6.1. Section 2.6.1 of the Development Agreement regarding affordable purchase residential units is hereby deleted and replaced with the following: "2.6.1 [Reserved]."

c. REVISED SECTION 2.6.2.2. Section 2.6.2.2 of the Development Agreement is hereby amended in its entirety to read as follows:

"2.6.2.2 Transfer/Satisfaction of Obligation. At the request of Developer, the affordable rental housing obligation (or any portion thereof) may be transferred, with the consent of the Economic Development Director, from one Parcel within the Property to another Parcel within the Property. No such transfer shall require an amendment to this Agreement, but City and Developer shall

execute an instrument memorializing such transfer of obligation that shall be recorded against the affected parcels, with reference to this Agreement. Provided, however, in no event shall a transfer result in any one parcel containing more than 200 affordable units."

d. DELETED SECTION 3.5.2.1. Section 3.5.2.1 of the Development Agreement regarding construction of Blue Oaks Boulevard is hereby deleted and replaced with the following: "3.5.2.1 [Reserved]."

e. DELETED SECTION 3.5.3.1. Section 3.5.3.1 of the Development Agreement regarding construction of Phillip Road (now known as Westpark Boulevard) is hereby deleted and replaced with the following: "3.5.3.1 [Reserved]."

f. DELETED SECTION 3.5.21. Section 3.5.21 of the Development Agreement regarding widening Fiddymont Road from Pleasant Grove Boulevard to Baseline Road is hereby deleted and replaced with the following: "3.5.21 [Reserved]."

g. REVISED SECTION 3.7.6. Section 3.7.6 of the Development Agreement is hereby amended with respect to the Property by adding the following provisions:

"Developer shall implement the water conservation plan attached to this Sixth Amendment as Exhibit RR in its development of the Sixth Amendment Property (the "Water Conservation Plan"). The Water Conservation Plan shall include compliance with the City's Water Efficient Landscape Ordinance and outline all water conservation measures being implemented within the Sixth Amendment Property and measures to ensure a water conservation objective of a reduction in water use by 20.4% over current land use characteristics in the Sixth Amendment Property are achieved in perpetuity, and shall be approved at the discretion of the Environmental Utilities Director prior to issuance of the first building permit in the Sixth Amendment Property. Such water conservation measures shall include, but are not limited to, smart timers, re-circulating hot water systems, and turf limitations. The measures implemented shall be disclosed to each purchaser of real property within the Sixth Amendment Property. Modifications to the Water Conservation Plan that are approved by the Environmental

Utilities Director shall not require an amendment to the Development Agreement.”

h. NEW SECTION 3.7.8. The following section is hereby added to the Development Agreement as Section 3.7.8:

“3.7.8 Periodic Confirmation of Water Conservation Goal for the Property. The City has determined, and the Developer agrees, that the available water supply is sufficient to serve the Sixth Amendment Property. This determination was the conclusion of a review of the demand and source issues created by the projected build-out of the Sixth Amendment Property. The demand for water at build-out of the Sixth Amendment Property was determined by reference to the City's current information on water usage for the various land uses included and permitted within the City and the proposed land uses within the Sixth Amendment Property and by reference to the Developer's Water Conservation Plan which includes a reduction in water use by 20.4% over current use characteristics.

The sources for water evaluated for the Sixth Amendment Property are the same types of source currently used throughout the City; namely, surface water contracts with federal and local agencies and in drought or emergency situations the use of groundwater. City and Developer are satisfied that the demand and source assumptions relied upon to assure water for the Sixth Amendment Property are valid. However, the Parties have agreed to the following procedure to assure the continued validity of the underlying assumptions used within the Sixth Amendment Property and used within the Water Conservation Plan as described in Section 3.7.6.

Validation of water supplies for the Sixth Amendment Property is described within Section 5.3 below. At the time after the completion of 50% of the dwelling units in the Sixth Amendment Property, and then no more frequently than annually thereafter during the term of this Agreement until the last dwelling unit has been completed within the Sixth Amendment Property, at the same time as the annual review provided for in Section 5.2 of this Agreement, the Parties shall review the underlying assumptions

regarding water demands, the achievement of project water conservation goals and sources of water for the Sixth Amendment Property. Water conserved by Developer pursuant to measures implemented under Section 3.7.6 of this Agreement shall be factored into the review provided hereunder to the benefit of Developer. If the City determines that the actual demand differ materially from the assumptions in the Water Conservation Plan, and that the difference(s) will negatively affect the City's ability to provide water for the Sixth Amendment Property, then the Parties shall meet and in good faith attempt to implement whatever measures are needed to assure the water supply will meet the Sixth Amendment Property's demands, provided, however, that should City adopt City-Wide a requirement for a reduction in water use by more than the 20.4% over current potable water usage as set forth herein, and the then-built portion of the Sixth Amendment Property has met its 20.4% objective set forth in this Section 3.7.8, the residential units for which building permits have not yet been issued within the remainder of the Sixth Amendment Property shall be required to implement such measures necessary to achieve such City-Wide requirement, above the 20.4% objective set forth in this Section 3.7.8. If the then-built portion of the Sixth Amendment Property has not met its 20.4% objective, despite implementation of the conservation measures set forth in the Water Conservation Plan, Developer and City shall meet to discuss, in good faith, the achievement of a higher conservation objective within the un-built portion of the Sixth Amendment Property. Development and implementation of such measures on the un-built units in the Sixth Amendment Property shall be at Developer's cost. The foregoing notwithstanding, should City achieve its adopted City-wide water conservation goals, the Sixth Amendment Property shall not under any circumstances be deemed out of compliance with its Water Conservation Plan water conservation objective as set forth herein."

i. DELETED SECTION 3.12.10. Section 3.12.10 of the Development Agreement regarding the Community Garden shall not apply to the Sixth Amendment Property. Therefore, solely as respects the Sixth Amendment Property, Section 3.12.10 of the Development Agreement is hereby deleted and replaced with the following: "3.12.10 [Reserved]."

j. EXHIBIT "F" (Streets – Phase 1). Paragraph 3 on Page F-3 of Exhibit "F" regarding the construction of Blue Oaks Boulevard is hereby deleted and hereby replaced with the following: "3 [Reserved]."

k. EXHIBIT "D". As respects the Sixth Amendment Property, Exhibit "D" to the Development Agreement is hereby deleted and replaced with Exhibit "D" attached to this Sixth Amendment.

l. ADDITIONAL EXHIBIT. As respects the Sixth Amendment Property, the Water Conservation Plan attached to this Sixth Amendment as Exhibit "RR" is hereby added to the Development Agreement.

2. CONSISTENCY WITH GENERAL PLAN. The City Council has found and determined that this Sixth Amendment of the Development Agreement is consistent with the General Plan and the West Roseville Specific Plan.

3. AMENDMENT. This Sixth Amendment amends, but does not replace or supersede, the Development Agreement, except as specified herein. As amended hereby, the Development Agreement remains in full force and effect.


4. FORM OF AMENDMENT. This Sixth Amendment is executed in two, duplicate originals, each of which is deemed to be an original.

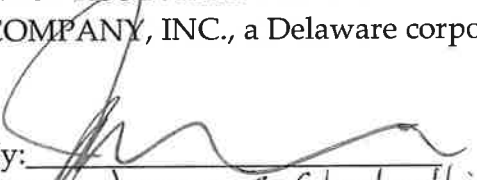
[Signature Page Follows]

IN WITNESS WHEREOF, the City of Roseville, a municipal corporation, has authorized the execution of this Sixth Amendment in duplicate by its City Manager and attested to by its City Clerk under the authority of Ordinance No. 5385, adopted by the Council of the City of Roseville on the 6th day of August, 2014.

CITY OF ROSEVILLE,
a municipal corporation


WEST ROSEVILLE DEVELOPMENT
COMPANY, INC., a Delaware corporation

By: 
Ray Kerridge
City Manager

By: 
Name: James C. Ghelone
Title: President

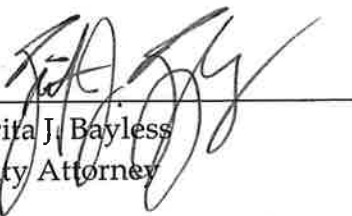
ATTEST:

and


By: 
Sonia Orozco
City Clerk

By: _____
Name: _____
Title: _____

APPROVED AS TO FORM:

By: 
Brita J. Bayless
City Attorney

APPROVED AS TO SUBSTANCE:

By: 
Rob Jensen
Assistant City Manager

IN WITNESS WHEREOF, the City of Roseville, a municipal corporation, has authorized the execution of this Sixth Amendment in duplicate by its City Manager and attested to by its City Clerk under the authority of Ordinance No. ____, adopted by the Council of the City of Roseville on the ____ day of _____, 2014.

CITY OF ROSEVILLE,
a municipal corporation

WEST ROSEVILLE DEVELOPMENT
COMPANY, INC., a Delaware corporation

By: _____
Ray Kerridge
City Manager

By: _____
Name: Michael J. Ghelardetti
Title: Secretary / Treasurer

ATTEST:

and

By: _____
Sonia Orozco
City Clerk

By: _____
Name: _____
Title: _____

APPROVED AS TO FORM:

By: _____
Brita J. Bayless
City Attorney

APPROVED AS TO SUBSTANCE:

By: _____
Rob Jensen
Assistant City Manager

STATE OF CALIFORNIA)
 : ss.
COUNTY OF PLACER)

On August 7, 2014, before me, Judy Moore, Notary Public, personally appeared Ray Kerridge, who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person, or the entity upon behalf of the which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Judy Moore
Notary Public in and for said State

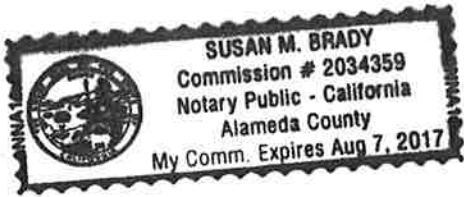


Document: 6th Amendment of Development Agreement
By and Between The City of Roseville and
Roseville Fiddymment Land Venture, LLC
Relative to the West Roseville Specific Plan

State of California
County of Alameda

}ss.

On June 24, 2014 before me, Susan M. Brady, Notary Public.
Date
personally appeared James C. Ghielmetti
Name(s) of Signer(s)



Who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Susan M. Brady
Susan M. Brady-Commission No. 2034359

Optional

Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document.

Description of Attached Document

Title or Type of Document: _____

Document Date: _____ Number of Pages: _____

Signer(s) Other Than Named Above: _____

Capacity(ies) Other than Named Above:

Signers Name: _____

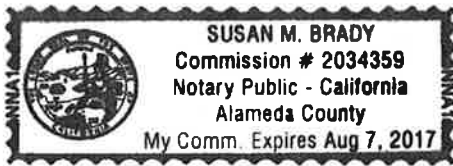
- Individual
- Corporate Officer-Title(s): _____
- Partner- Limited General
- Attorney-in-Fact
- Trustee
- Guardian or Conservator
- Other: _____

Signer is Representing: _____

State of California
County of Alameda

}ss.

On June 24, 2014 before me, Susan M. Brady, Notary Public.
Date
personally appeared Michael J. Ghielmetti
Name(s) of Signer(s)



Who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity and that by his signature on the instrument the person, or the entity upon behalf of which the person acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

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Susan M. Brady-Commission No. 2034359

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Signer(s) Other Than Named Above: _____

Capacity(ies) Other than Named Above:

Signers Name: _____

- Individual
- Corporate Officer-Title(s): _____
- Partner- Limited General
- Attorney-in-Fact
- Trustee
- Guardian or Conservator
- Other: _____

Signer is Representing: _____

Exhibit A

Description of Sixth Amendment Property

[See Attached]

EXHIBIT "A"

DESCRIPTION OF FIDDYMENT RANCH PHASE 1 UNIT REALLOCATION PROPERTIES

All that real property situated in the City of Roseville, County of Placer, State of California located within Section 19, Township 11 North, Range 6 East, Mount Diablo Meridian and being further described as follows:

Lots 15, 19, 20 and 21 as shown and so designated on that certain Final Map entitled "Fiddymment Ranch Phase 1 Large Lot Subdivision" filed for record on November 10, 2004 in Book AA of Maps, at Page 10, Placer County Records.



Craig E. Spiess, PLS 7944
License Expiration Date: 12-31-15

Date: 6/6/14



Description prepared by:
MACKAY & SOMPS CIVIL ENGINEERS, INC.
1552 Eureka Road, Suite 100, Roseville, CA 95661
P:\18467\SRVMapping\Desc\FR-F23-REALLOCATION.doc

Exhibit B

Depiction of Sixth Amendment Property

[See Attached]

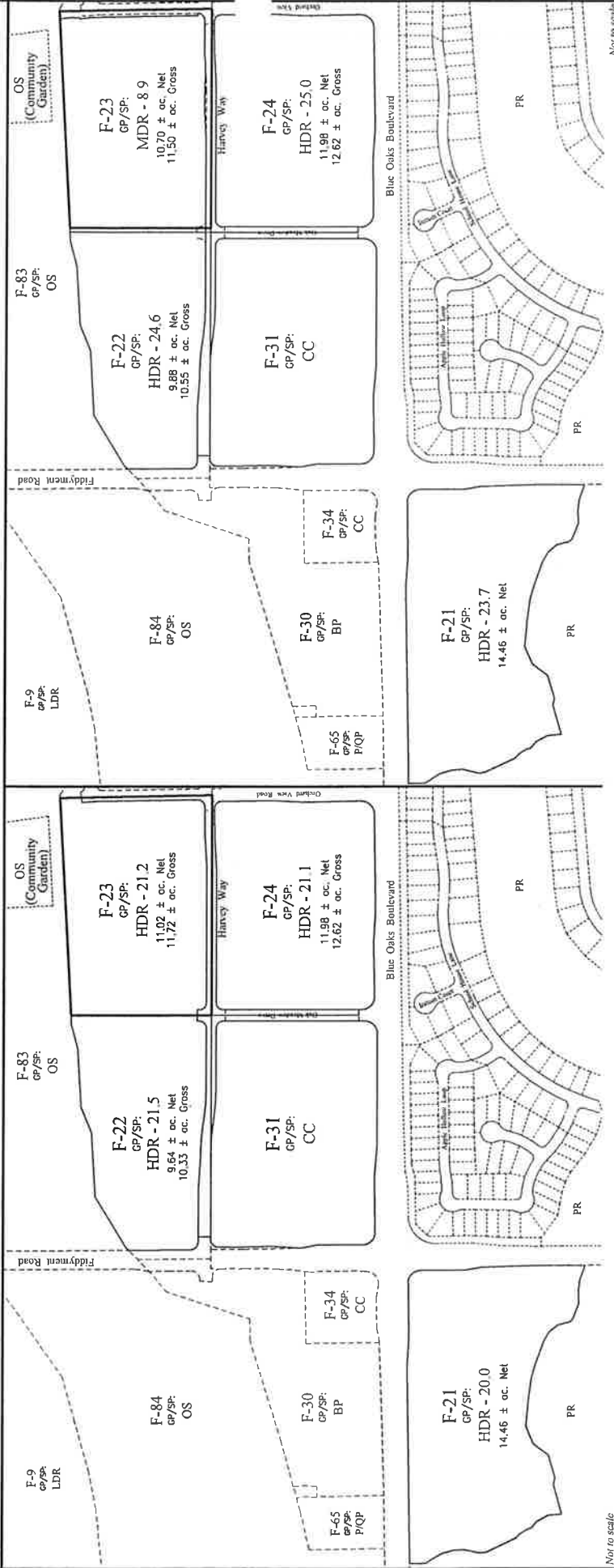
ORIGINAL EXHIBITS ARE AVAILABLE AT THE ROSEVILLE CITY CLERK'S DEPARTMENT



Exhibit B

Exhibit D
Specific Plan Land Use Plan
[See Attached]

ORIGINAL EXHIBITS ARE AVAILABLE AT THE ROSEVILLE CITY CLERK'S DEPARTMENT



APPROVED SPECIFIC PLAN

(net acres reflect street dedication)

Former Parcel No.	Land Use Designation	Net Acres	Density	Units
F-21	HDR	14.46	20.0	289
F-22	HDR	9.64	21.1	205
F-23	HDR	11.02	21.2	234
F-24	HDR	11.98	21.1	253
TOTAL				983 DU

Former Parcel No.	Land Use Designation	Net Acres	Unit Transfer	% Increase	Density	Units
F-21	HDR	14.46	+54	18%	23.7	343
F-22	HDR	10.35	-43	16%	24.6	286
F-23	HDR	10.35	-139	18%	25.0	300
F-24	HDR	11.98	+47	18%	25.0	300
TOTAL						983 DU

PROPOSED PLAN AMENDMENTS

(net acres reflect street dedications and boundary line adjustment)



GENERAL PLAN AMENDMENT & SPECIFIC PLAN AMENDMENT EXHIBIT for PARCEL F - 23 of FIDDLYMENT RANCH

OAKBRIAR

a Portion of the West Roseville Specific Plan Area

West Roseville Development Company, Inc. MacKay & Soms Civil Engineers, Inc. Roseville, California Mar 22, 2014

MACKEY & SOMPS ENGINEERS PLANNERS SURVEYORS

Exhibit D

Exhibit RR
Water Conservation Plan
[See Attached]

Technical Memorandum

Date: January 31, 2014
 To: City of Roseville Environmental Utilities
 From: Mark Sauer, Allison Jones/ Mackay & Soms
 Subject: Parcel F-23 Water Conservation Plan

The purpose of this memorandum is to explain the methods proposed for water conservation for parcels F-21, F-22, F-23, and F-24 of the West Roseville Specific Plan. These four parcels have been zoned for HDR. Parcel F-23 is currently zoned for 234 high density residential (HDR) units. With the proposed tentative map, parcel F-23 will be rezoned to 96 medium density residential (MDR) units and the remaining 138 units will be transferred to Parcels F-21 (57du), F-22 (37du), and F-24 (44du). The City of Roseville has requested that these parcels incorporate water conservation methods so as to not increase net water demand with the proposed rezone.

There are a wide number of methods for increasing water use efficiency that could be feasible for this project. This technical memorandum presents feasible efforts and planning approaches to reduce water usage to meet the City's request. This is done in the following steps.

- Develop a baseline water use for the project
- Identify typical residential water usage
- Identify and describe methods for reducing water consumption; and
- Estimate the new water demand with rezoning using the recommended measures.

Baseline Water Use:

The baseline water use for the project was established using the City's standard water use factors and demands. These standard demand factors can be found in Table 1 shown below.

Table 1: Unit Demand Factors by Land Use Category

	Land Use Category	Average Day Unit Water Demand Factors
Residential	LDR (<3.5 DU's/Ac)	728 gpd/DU
	LDR (3.5 to 5.0 DU's/Ac)	600 gpd/DU
	LMDR (>5.0 to 6.0 DU's/Ac)	521 gpd/DU
	LMDR (>6.0 to 8.0 DU's/Ac)	430 gpd/DU
	MDR (>8.0 to 12.0 DU's/Ac)	323 gpd/DU
	HDR (>12.0 to 16.0 DU's/Ac)	288 gpd/DU
	HDR (>16.0 DU's/Ac)	177 gpd/DU

The demand factors were used to calculate the baseline water use for the approved land use, as well as the proposed land use, for this project. The approved water demand for the four parcels is 194.9 acre-feet per year (AFY) shown in Table 2 below. The proposed water demand for the four parcels is 210.6 AFY shown in Table 3 below.

Table 2: Approved Baseline Water Demand

Parcel	Zoning	Units	Demand Factor (gpd/DU)	Projected Demand (MGD)	Total AFY
F-21	HDR	289	177	0.051	57.3
F-22	HDR	207	177	0.037	41.0
F-23	HDR	234	177	0.041	46.4
F-24	HDR	253	177	0.045	50.2
TOTAL:					194.9

Table 3: Proposed Baseline Water Demand*

Parcel	Zoning	Units	Demand Factor (gpd/DU)	Projected Demand (MGD)	Total AFY
F-21	HDR	345	177	0.061	68.6
F-22	HDR	244	177	0.043	48.4
F-23	MDR	96	323	0.031	34.7
F-24	HDR	298	177	0.052	58.9
TOTAL:					210.6

*Does not include any conservation methods

Typical Residential Water Usage:

Typical residential water usage is based on information provided in the City of Roseville frequently asked questions (FAQs). These Typical usages can be found in Table 4 below.

Table 4: Typical Residential Water Usage

Use	Percent of Total Use
Landscape Irrigation	51%
Toilets	13%
Faucets, Cooking, Cleaning	10%
Shower	9%
Clothes Washer	8%
Bath	6%
Toilet Leaks	2%
Dishwasher	1%

Source: <http://www.roseville.ca.us/faqs/categoryqna.asp?id=7#794>

It was assumed that the landscaping demand for single family residences was split 60%/40% between the back and front of the residence, respectively. This assumption established the base front yard demand of 20.4% of the total usage and the base backyard demand of 30.6% for the total usage. The water use was divided based on front and rear yards in Table 5 below:

Table 5: Residential Water Use for Landscaping for Proposed Project

Land Use Designation	Annual Water Demand (AFY)	Annual Demand for Landscaping (AFY)	Annual Front Yard Demand (AFY)	Annual Back Yard Demand (AFY)
MDR	34.7	17.7	7.1	10.6
HDR	175.9	89.7	35.9	-
Sub-Total	210.6 ⁽¹⁾	107.4	43.0	10.6

⁽¹⁾ From table 3

Methods for Reducing Water Consumption:

Methods that could be used in combination to reduce water consumption by an estimated 20% are presented below.

1. Reduced Landscape Turf - Residential Front Yards
2. Smart Irrigation Controllers - All Types of Land Uses
3. Re-circulating Hot Water - Residential

1. Reduced Landscape Turf - Residential Front Yards

It was assumed that replacing turf with low water use plants could be accomplished on all types of residential property, including low, medium, and high-density residential parcels. In order to assess the potential impacts of this change, the following assumptions were made:

- When accounting for driveways and hardscape areas, the landscaped area in the front yard represents 70% of the front yard area. This area would be restricted to a maximum of 42% turf in the front yard.
- The remaining 28% of the front yard landscaped area will be planted with low water usage materials.
- Low water usage materials on average use 30% of water used on turf (a 70% savings). This is based on estimates by the Fair Oaks Horticultural Center.
- Low water usage areas would utilize low volume irrigation systems like a drip or micro spray system.
-

The residential water savings for replacing landscape turf is shown in Table 6 below

Table 6: Reduced Landscape Turf Water Savings

Land Use Designation	Annual Front Yard Demand ⁽¹⁾ (AFY)	Base Turf Area	New Turf Area	Low Water Use Area	Reduced Annual Front Yard Demand (AFY)	Water Savings for Reduced Turf (AFY)
MDR	7.1	70%	42%	28%	5.1	2.0
HDR	35.9	70%	42%	28%	25.8	10.1
Sub-Total:	43.0				31.0	12.0

⁽¹⁾ From Table 5

As an example of how these values were calculated, the calculation for the reduced annual front yard demand is presented below

$$7.1\text{AFY} * \left(\frac{42\%}{70\%} + \frac{28\% * 30\%}{70\%} \right) = 5.1\text{AFY}$$

2. Smart Irrigation Controllers - All Types of Land Uses:

A smart irrigation controller restricts irrigation to only the times and water application rates that are really needed. Standard irrigation schedules do not account for actual weather conditions. This can result in significant water waste. A smart irrigation controller can account for weather variations by using information from both weather and soil moisture.

The US Bureau of Reclamation summarized fourteen studies estimating the percentage of water conservation associated with smart irrigation controllers. These studies estimated a range associated with their use to be between 7-41%. For purposes of this document it was assumed that the water conservation due to smart irrigation controllers was 20%. The water conservation is shown in table 7 below.

Table 7: Smart Irrigation Controller Water Savings

Land Use Designation	Original Demand ⁽¹⁾ (AFY)	Reduced Demand (AFY)	Water Savings (AFY)
MDR			
Front Yard	7.1	5.7	1.4
Back Yard	10.6	8.5	2.1
HDR			
Front Yard	35.9	28.7	7.2
Back Yard	-	-	-
Sub-Total:	53.6	62.9	10.7

⁽¹⁾ From Table 5

3. Re-circulating Hot Water - Residential:

Re-circulating hot water systems use a pump to keep the water in the hot water lines circulating back to the water heater to keep the water hot. This provides hot water at the tap immediately and prevents having to let cold water flow until the water heats up. These systems can be operated in a number of different ways, but all conserve water in the same manner. The draw for hot water can range greatly. For purposes of this document, it was assumed that each draw for hot water would waste approximately 1.1 gallons per day without a re-circulating system. It was also assumed that drawing hot water in this manner would occur six times per day per dwelling unit. The expected savings are presented in Table 8 below.

Table 8: Re-circulating Hot Water Savings

Land Use Designation	Dwelling Units	Water Savings for Re-circulating Hot Water (AFY)
MDR	96	0.71
HDR	887	6.56
Sub-Total:	983	7.27

As an example, for the medium density residential, the total number of dwelling units is 96. The reduced water demand would be estimated to be:

$$96\text{DU} * 6.6 \frac{\text{gal}}{\text{day}} * \frac{\text{AF}}{325,851 \text{ gal}} * 365\text{day/yr} = .71\text{AFY}$$

Summary

The total volume of water conservation estimated when implementing all of these water conservation measures is summarized in Table 9. The volume of water conservation includes both conservation of potable and recycled water.

Table 9: Water Conservation Estimate

Method	Water Savings (AFY)	Percentage Reduction
Reduced Landscape Turf - Residential Front Yards	12 ⁽¹⁾	5.7%
Smart Irrigation Controllers - All Types of Land Uses	10.7 ⁽²⁾	5.1%
Re-circulating Hot Water - Residential	7.3 ⁽³⁾	3.5%
Total:	30.0	14.3%

⁽¹⁾ From Table 6

⁽²⁾ From Table 7

⁽³⁾ From Table 8

If the described water conservation methods were used for this project the overall water demand would be reduced by 30.0 AFY to 180.5 AFY. This would represent a 14.3% reduction from the proposed original demand of 210.6 AFY. This would also represent a 7.4% reduction from the approved demand of 194.9 AFY.

This technical memorandum is based on a number of assumptions and case studies done by others. Ultimate water conservation will depend on a variety of known and unknown factors. Long term education and outreach will be required as well as the installation of front yard landscaping, smart irrigation controllers, and hot water re-circulation pumps.

References:

- FAQs, How much water do I use? City of Roseville, <http://www.roseville.ca.us/faqs/categoryqna.asp?id=7#794>
- University of California Cooperative Extension, Sacramento County Agriculture and Natural Resources, Garden Notes, June 2008.
- US Bureau of Reclamation, Summary of Smart Controller Water Savings Studies, April 2008
- TM #1 - Sierra Vista Specific Plan Water Conservation Plan, HydroScience Engineers Inc., 6 July 2009.

ORDINANCE NO. 5385

ADOPTING A SIXTH AMENDMENT TO DEVELOPMENT AGREEMENT BY AND BETWEEN THE CITY OF ROSEVILLE AND WEST ROSEVILLE DEVELOPMENT COMPANY, INC., RELATIVE TO THE DEVELOPMENT KNOWN AS WEST ROSEVILLE SPECIFIC PLAN AND AUTHORIZING THE CITY MANAGER TO EXECUTE IT ON BEHALF OF THE CITY OF ROSEVILLE

THE CITY OF ROSEVILLE ORDAINS:

SECTION 1. In accordance with Chapter 19.84 of Title 19 of the Roseville Municipal Code (the Zoning Ordinance) of the City of Roseville, the City Council has received the recommendation of the Planning Commission that the City of Roseville enter into a Sixth Amendment to Development Agreement by and between the City of Roseville and West Roseville Development Company, Inc., to alter and clarify provisions in the existing Development Agreement relating to Oakbriar F-23 Subdivision.

SECTION 2. The Council of the City of Roseville has reviewed the findings of the Planning Commission recommending approval of the Sixth Amendment to Development Agreement for the West Roseville Specific Plan, and makes the following findings:

1. The Sixth Amendment to Development Agreement is consistent with the objectives, policies, general land uses and programs specified in the City of Roseville General Plan and the West Roseville Specific Plan;
2. The Sixth Amendment to Development Agreement is consistent with the City of Roseville Zoning Ordinance and Zoning Map;
3. The Sixth Amendment to Development Agreement is in conformance with public health, safety and general welfare;
4. The Sixth Amendment to Development Agreement will not adversely affect the orderly development of property or the preservation of property values; and
5. The Sixth Amendment to Development Agreement will provide sufficient benefit to the City of Roseville to justify entering into the Sixth Amendment to Development Agreement.

SECTION 3. The Sixth Amendment to Development Agreement by and between West Roseville Development Company, Inc., and the City of Roseville, is hereby approved and the City Manager is authorized to execute it on behalf of the City of Roseville.

SECTION 4. The City Clerk is directed to record the executed the Sixth Amendment to Development Agreement within ten (10) days of the execution of the agreement by the City Manager with the County Recorder's office of the County of Placer.

SECTION 5. This ordinance shall be effective at the expiration of thirty (30) days from the date of its adoption.

SECTION 6. The City Clerk is hereby directed to cause this ordinance to be published in full at least once within fourteen (14) days after it is adopted in a newspaper of general circulation in the City, or shall within fourteen (14) days after its adoption cause this ordinance to be posted in full in at least three public places in the City and enter in the Ordinance Book a certificate stating the time and place of said publication by posting.

PASSED AND ADOPTED by the Council of the City of Roseville this 6th day of August, 2014 by the following vote on roll call:

AYES COUNCILMEMBERS: Roccucci, Garcia, Rohan

NOES COUNCILMEMBERS: None

ABSENT COUNCILMEMBERS: Herman, Gore



MAYOR

ATTEST:



City Clerk