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MEMORANDUM

646-386

TO: Jeff O'Connor, HomeFed Otay Land II, LLC

FROM: Fernando Fregoso, P.E.,  Dexter Wilson Engineering, Inc.

DATE: September 14, 2023

SUBJECT: Otay Ranch Village 8 East SPA Amendment Water Conservation Plan Evaluation

Background

HomeFed Otay Land II, LLC proposes revisions to the Village 8 East land use plan. The land use changes are detailed in the project description, site utilization plan, and site utilization table provided in Attachment 1. Amendments to the Chula Vista General Plan, Otay Ranch General Development Plan, and the Otay Ranch Village 8 East SPA Plan are necessary to implement the proposed changes. Rezone and Tentative Map approval for Village 8 East are also necessary to implement the proposed changes. A Development Agreement amendment is also proposed as part of the project.

The Village 8 East project was approved in 2014 as part of the University Villages Project Comprehensive SPA Plan Amendment Final Environmental Impact Report (2014 FEIR). The project was amended in 2020 to transfer 284 units from Village 8 East to Village 8 West, decreasing the total authorized units within Village 8 East from 3,560 units to 3,276 units.

The proposed land use changes would reconfigure the Village Core mixed-use area to accommodate multi-family residential uses, retail/commercial uses, an elementary school, and a neighborhood park. The revised plan would remain consistent with the previously authorized residential unit count total of 3,276 units for Village 8 East.

The October 2014 Water Conservation Plan for Otay Ranch Village 8 East (October 2014 Water Conservation Plan) was prepared as a supporting document to the EIR. The October 2014 Water Conservation Plan was not revised for the 2020 Village 8 East project amendment. The purpose of this memorandum is to evaluate the impact of the proposed land use changes for Village 8 East on the findings from the October 2014 Water Conservation Plan.

Village 8 East SPA Amendment Summary

A summary of proposed changes to the Village 8 East land use plan is provided as follows:

- Provide 20,000 square feet of commercial/retail uses.
- Distribute 1,348 multi-family homes across eight (8) Village Core parcels.
- Distribute 1,664 multi-family residential units across ten (10) parcels designated Medium-High Residential.

Proposed Land Use Plan

As described in greater detail in the proposed project description, site utilization plan, and land use summary table included in Attachment 1, the proposed project includes changes to the backbone streets, land uses, and residential unit types and distribution throughout the village.

Water Demand Projection – October 2014 Water Conservation Plan

Table 1 summarizes the projected average water demands for Village 8 East based on the approved land use plan as presented in the October 2014 Water Conservation Plan. The October 2014 Water Study analysis used the water demand factors from the April 2013 revision of the 2008 Otay Water District Water Resources Master Plan.

TABLE 1 VILLAGE 8 EAST APPROVED LAND USE PLAN PROJECTED WATER DEMANDS (OCTOBER 2014 WATER STUDY)			
Land Use¹	Quantity	Demand Factor	Average Demand, gpd
Single Family Residential (3-8 Du/Ac)	303 units	500 gpd/unit	151,500
Single Family Residential (>8 Du/Ac)	640 units	300 gpd/unit	192,000
Multi-Family Residential	2,617 units	255 gpd/unit	667,335
Commercial	8.6 ac	1,607 gpd/ac	13,820
School	10.8 ac	1,428 gpd/ac	15,422
CPF	2.9 ac	714 gpd/ac	2,071
Park ²	58.8 ac	0 gpd/ac	6,891
TOTAL			1,049,039

1. Open space preserve, freeway lots and AR-11 are not calculated because either no water demand is projected from these areas or they are not currently proposed for development.
2. To be irrigated with recycled water. Nominal potable water use has been estimated for standard fixtures (lavatories, drinking fountains, etc.).

Water Demand Projection – Proposed Plan (2023 SPA Amendment)

Table 2 summarizes the projected average water demands for Village 8 East based on the currently proposed 2023 SPA Amendment. This projection uses current water demand factors from the 2015 Otay Water District Water Master Plan. The decrease in water demand factors compared to the October 2014 Water Study is due to water conservation efforts in recent years and the proposed changes in residential densities.

TABLE 2 VILLAGE 8 EAST PROPOSED LAND USE PLAN PROJECTED WATER DEMANDS (2023 SPA AMENDMENT)			
Land Use¹	Quantity	Demand Factor	Average Demand, gpd
Multi-Family Residential	3,012 units	170 gpd/unit	512,040
Commercial	51.5 ac	1,607 gpd/ac	82,761
Multi-Family Residential Alternative for Elementary School Site ²	264 units	170 gpd/unit	44,880
CPF	1.2 ac	714 gpd/ac	857
Park/Active Recreation ³	73.2 ac	0 gpd/ac	9,051
TOTAL			649,589

1. Internal and external circulation, open space, open space preserve, and future development areas are not calculated because either no water demand is projected, or these areas are not proposed for development at this time.
2. The elementary school site has an underlying “High” residential land use designation that could accommodate 264 multi-family units if the site is not utilized as a school site. Average demand of 44,880 gpd is conservatively calculated based on multi-family land use. Average demand would decrease to 14,280 gpd (10.0 net-acre school site x 1,428 gpd/acre = 14,280 gpd) if the site is utilized as a school site.
3. Parks and the AR-11 site will be irrigated with recycled water, but nominal potable water use has been estimated for standard fixtures (lavatories, drinking fountains, etc.).

Water Conservation Savings

A water conservation plan was prepared for Village 8 East in 2014 as part of the project approval. In addition to standard water conservation measures, multi-family units within Village 8 East have committed to installing the following two additional measures:

- Dual flush toilets
- Water effluent landscaping

The October 2014 Water Conservation Plan estimates water conservation savings from the use of recycled water and from the implementation of water conservation measures at single family and multi-family residences. Table 3 summarizes the total projected water conservation savings from the October 2014 Water Conservation Plan.

TABLE 3 OTAY RANCH VILLAGE 8 EAST NOVEMBER 2014 WATER CONSERVATION PLAN			
Description¹	Units	Water Savings, gpd/unit	Total Water Savings, gpd
Recycled Water	---	---	274,325
Single Family Residential	943	49.25	46,443
Multi-Family Residential	2,617	24.25	63,462
TOTAL			384,230

Based on the current proposed SPA Amendment, Table 4 provides the estimated recycled water savings and Table 5 summarizes the total estimated water conservation savings.

TABLE 4 OTAY RANCH VILLAGE 8 EAST PROJECTED RECYCLED WATER DEMANDS					
Land Use¹	Quantity	% Irrigated	Irrigated Acreage	Recycled Water Demand Factor	Average Recycled Water Demand, gpd
Irrigated Open Space ²	23.5 ac	100	23.5	1,900 gpd/ac	44,650
Park/Active Recreation	73.2 ac	100	73.2	1,900 gpd/ac	139,080
Village Core/Mixed-Use	51.5 ac	10	5.2	1,900 gpd/ac	9,880
CPF	1.2 ac	20	0.2	1,900 gpd/ac	380
Multi-Family	3,012 units	15	--	45 gpd/unit	135,540
Elementary School ³	11.3 ac	20	2.3	1,900 gpd/ac	4,370
TOTAL					333,900

1. Open space preserve and future development areas are not calculated because either no water demand is projected from these areas, or they are not currently proposed for development.
2. Includes 15.3 acres of perimeter open space located within Residential and Village Core areas and 16.4 acres of Manufactured/Basin Open Space (see Site Utilization Table in Attachment 1). There are two detention basins (8.2 acres total) located within the Manufactured/Basin Open Space areas that are excluded from the Irrigated Open Space acreage total (15.3 acres + 16.4 acres – 8.2 acres = 23.5 acres).
3. The elementary school site has an underlying “High” residential land use designation that could accommodate 264 multi-family units if the site is not utilized as a school site. Average recycled water demand of 4,370 gpd is conservatively calculated based on school use. Average recycled water demand would increase by 7,510 gpd to 11,880 gpd (264 units x 45 gpd/unit = 11,880 gpd) if the site is utilized as a multi-family site.

TABLE 5 OTAY RANCH VILLAGE 8 EAST ESTIMATED WATER CONSERVATION SAVINGS (2023 SPA AMENDMENT)			
Description¹	Units	Water Savings, gpd/unit	Total Water Savings, gpd
Recycled Water ²	---	---	333,900
Multi-Family Residential ³	3,012	24.25	73,041
TOTAL⁴			406,941

1. Open space preserve and future development areas are not calculated because either no water demand is projected from these areas, or they are not currently proposed for development.
2. From Table 4.
3. The elementary school site has an underlying “High” residential land use designation that could accommodate 264 multi-family units if the site is not utilized as a school site. Water savings conservatively exclude the 264 multi-family unit alternative for the school site per Table 4. Multi-family residential water savings would increase by 6,402 gpd (264 units x 24.25 gpd/unit = 6,402 gpd) to 79,443 gpd if the school site is utilized as a multi-family site.
4. Total water savings would increase by 13,912 gpd (Table 4, Footnote 3 increase of 7,510 gpd plus Table 5, Footnote 3 increase of 6,402 gpd) to 420,853 gpd if the elementary school site is utilized as a multi-family site.

Conclusion

The proposed SPA Amendment for Village 8 East will increase total water conservation savings by 5.9 percent. Despite using Otay Water District’s lower irrigation demand factor, the estimated recycled water use is increased from the October 2014 Water Conservation Plan mainly due to the amount of park and recreation area that will be irrigated with recycled water. Residential water conservation savings are decreased from the October 2014 Water Conservation Plan due to the shift away from single family units for multi-family units within Village 8 East. The net effect is that projected total water conservation savings are increased from 384,230 gpd to 406,941 gpd, or by 5.9 percent. Attachment 2 presents the preliminary potable water plan for Village 8 East. Attachment 3 presents the preliminary recycled water plan for Village 8 East. Backbone public water line sizing and alignments within Village 8 East shall be confirmed during final engineering.

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Attachments

ATTACHMENT 1

**VILLAGE 8 EAST
PROJECT DESCRIPTION
SITE UTILIZATION PLAN
AND
LAND USE SUMMARY**

**OTAY RANCH VILLAGE 8 EAST REPLANNING
PROJECT DESCRIPTION
APPLICANT: HOMEFED OTAY LAND II, LLC**

Otay Ranch Village 8 East is south of the extension of Main Street, north of the Otay River Valley, east of Village 8 West and west of SR-125. This urban village was originally approved by the Chula Vista City Council in 2014 and subsequently amended in 2020. Current entitlements accommodate a total of 3,276 residential units, including 943 detached homes, 1,893 attached homes and 440 multi-family units in a mixed-use setting, 20,000 square feet of retail/commercial uses, an elementary school site, a neighborhood park and the 51.5-acre (gross) Otay Ranch Community Park South. Access to the village is provided via the extension of Main Street and La Media Parkway with emergency and pedestrian access to the community park provided along a utility corridor in the southeast portion of Village 8 East. Primary access to the community park is via existing Avenida Caprise within Village 8 West.

HomeFed Otay Land II, LLC, (Applicant), proposes to amend the Village 8 East land use plan to reflect current market conditions and housing needs and to ensure the community relates more closely to the adjacent Village 8 West community and future Village 9 planned east of SR-125. The replanning effort also addresses the redesign of the SR-125 interchanges at Main Street and La Media Parkway.

Village 8 East Proposed Land Use: The Proposed Village 8 East Land Use Plan would include a Village Core area that would accommodate a mix of uses including multi-family residential and retail/commercial uses along with an elementary school site and a centrally located neighborhood park. A future multi-modal bridge, planned to accommodate Neighborhood Electric Vehicles (NEV), bicycles and pedestrians is also planned in the Village Core linking Village 8 East and future Village 9.

The proposed project would include 20,000 square feet of commercial/retail uses and 1,348 multi-family homes distributed across eight Village Core parcels. Other residential land uses include 1,664 multi-family residential units in 10 parcels designated Medium-High Residential. The elementary school site has an underlying “High” residential land use designation that could accommodate 264 multi-family units if the site is not utilized as a school site. The project also includes an alternative elementary school site/neighborhood park site configuration which would increase the size of the elementary school site and correspondingly reduce the neighborhood park site. This alternative configuration would be implemented based on the needs of the Chula Vista Elementary School District.

The project also includes 253.6 acres of Preserve Open Space, 16.4 acres of manufactured slopes/basins and the 22.6-acre active recreation site (AR-11) located east of SR-125. Approximately 15.3 acres comprising perimeter slope areas are included in the gross acres of development parcels. The Village 8 East Final Map(s) will include open space easements over perimeter slope areas based on final engineering designs. The 43.3-acre (gross) Otay Ranch Community Park South is located south of Village 8 East. An existing water quality basin that serves Village 8 West is located in the western portion of the community park and the proposed project includes an additional water quality basin in the eastern portion of the community park to serve Village 8 East.

Village 8 East SPA Site Utilization Table (Revised)

Parcel	Permitted Density Range	Estimated Units¹	Gross Acres²	Estimated Density³
Medium High Multi-Family Residential				
R-1	11-18 du/ac.	154	9.9	15.6
R-2	11-18 du/ac.	163	10.7	15.2
R-3	11-18 du/ac.	162	11.4	14.2
R-4	11-18 du/ac.	147	10.9	13.5
R-5	11-18 du/ac.	155	11.0	14.1
R-6	11-18 du/ac.	143	10.3	13.9
R-7	11-18 du/ac.	226	15.8	14.3
R-8	11-18 du/ac.	176	14.0	12.6
R-9	11-18 du/ac.	196	15.4	12.7
R-10	11-18 du/ac.	142	11.5	12.3
Total MH		1,664	120.9	13.8
Village Core ³				
VC-1	18-45 du/ac.	275	7.6	36.2
VC-2	18-45 du/ac.	430	11.3	38.1
VC-3A	18-45 du/ac.	161	5.5	29.3
VC-3B ⁵	18-45 du/ac.	0	5.6	0.0
VC-4	18-45 du/ac.	192	4.5	42.7
VC-5 ⁵	18-45 du/ac.	0	5.7	0.0
VC-6	18-45 du/ac.	142	5.3	26.8
VC-7	18-45 du/ac.	148	6.0	24.7
Total VC		1,348	51.5	26.2
Subtotal Residential				
		3,012	172.4	
Other				
Community Purpose Facility⁶				
CPF-1			1.2	
Subtotal CPF			1.2	
Parks				
P-1 ⁷			7.3	
P-2A			15.2	
P-2B			28.1	
AR-11			22.6	
Total Parks			73.2	
School				
S-1 ^{7 8}		264	11.3	

Parcel	Permitted Density Range	Estimated Units¹	Gross Acres²	Estimated Density³
Open Space				
MSCP Preserve OS (Lots 1-4)			253.6	
Manufactured/Basin OS (Lots 5-7)			16.4	
Total Open Space			270.0	
Circulation				
Internal			22.5	
External			9.2	
Total Circulation			31.7	
Caltrans Lots (to be dedicated)				
CT-1			1.7	
CT-2			0.1	
CT-3			1.9	
Total Caltrans Lots			3.7	
Future Development				
Lot A			1.0	
Lot B			8.4	
Total Future Development			9.4	
Subtotal Other			400.5	
OVERALL SPA TOTAL⁹		3,276	572.9	

NOTES:

¹ Estimated Units are provided for planning purposes only, do not represent the final unit allocation for each parcel and shall not be used to limit or restrict the final units allocated to any parcel.; The final unit allocation must remain consistent with the permitted density range applicable to the parcel. The final unit allocation shall be determined during Design Review and shall be documented in the Unit Tracking Table (Village 8 East SPA Plan, Attachment 1). Revisions to the Site Utilization Table shall not be required based on changes to the Estimated Units presented herein.

² Final acreage information to be determined during final engineering. Acreage may vary due to rounding. Residential and Village Core gross acreage includes approximately 15.3 of perimeter open space areas. The future Village 8 East Final Map(s) to include open space easements over perimeter open space slopes as determined during final design.

³ Estimated Density calculated based on gross parcel acreage. Final density to be determined during Design Review.

⁴ 20,000 SF of commercial uses are authorized within Village 8 East. Commercial SF may be developed within a single parcel designated VC or distributed among any parcel designated VC (VC-1 through VC-7). The final distribution of commercial SF to be determined during Design Review. The “Permitted Density Range” is not applicable to VC parcels with no residential units.

⁵ VC-3B and VC-5 are anticipated to be developed with non-residential uses only, consistent with the Village Core zoning district. The “Permitted Density Range” is not applicable to VC parcels with no residential units.

⁶ Per the Land Offer Agreement (7/8/2014), the Village 8 East SPA Plan shall designate 4.0 acres of CPF land. The Applicant is proposing to meet a portion of the Village 8 East CPF obligation by designating the 1.2-acre CPF-1 site as a private recreation facility. Pursuant to the Development Agreement Amendment, the remaining 2.8 acre CPF obligation shall be satisfied within Otay Ranch Planning Area 20 South.

⁷ Both the Village 8 East SPA Plan and Tentative Map include the "Proposed" and "Alternative" configuration and acreage for the S-1 School Site and P-1 Neighborhood Park. Either the Proposed or Alternative may be implemented without the need for an amendment to the SPA Plan or TM. The final neighborhood park acreage shall be addressed in the future Village 8 East Parks Construction Agreement.

⁸ The S-1 school site has an underlying residential land use designation of High Residential. If the site is not developed as a school site, then it shall be developed as residential; however, if the site is developed as an elementary school, then the 264 units may be reallocated to another Village 8 East parcel or transferred to another village, as permitted in the Village 8 East PC District Regulations, Chapter 10, Implementation.

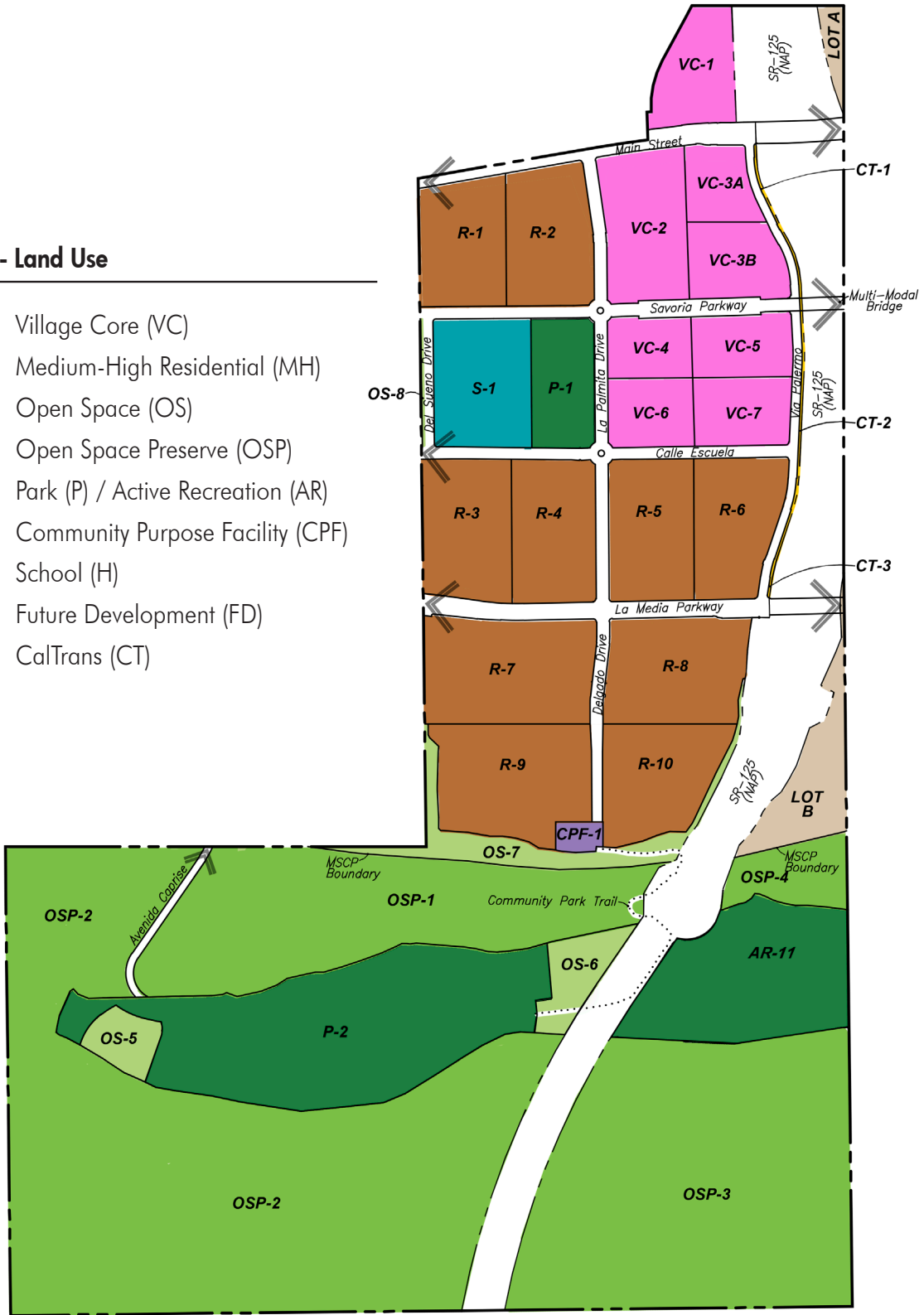
⁹ Village 8 East acreage adjusted from approved 2014 development area to reflect changes in SR-125 ROW and to facilitate the future SR-125 ROW Decertification process.

Circulation: Main Street, between the Village 8 West couplet and the future SR-125 Interchange, would be implemented as a 6-lane prime arterial roadway and includes a grade-separated expanded Regional Trail designed to accommodate a 5-foot bike lane and 10-foot Chula Vista Regional Trail on the south side. Local bus stops are provided on both sides of Main Street. Transit access would be provided in shared flow travel lanes.

La Media Parkway, from its eastern terminus in Village 8 West, would continue through Village 8 East as a four-lane major road with a 17-foot Chula Vista Regional Trail comprised of a 5-foot sidewalk and 12-foot-wide, two-way NEV/Bike Route on the south side. On the north side of La Media Parkway, an 11-foot Chula Vista Regional Trail is provided west of La Palmita Drive and 5-foot sidewalk is provided east of La Palmita Drive. Transit access is planned in shared flow travel lanes.

Legend - Land Use

- Village Core (VC)
- Medium-High Residential (MH)
- Open Space (OS)
- Open Space Preserve (OSP)
- Park (P) / Active Recreation (AR)
- Community Purpose Facility (CPF)
- School (H)
- Future Development (FD)
- CalTrans (CT)



SR-125: Concurrent with the replanning effort in Village 8 East, CALTRANS has initiated a Project Study Report-Project Development Support (PSR-PDS) to evaluate alternatives that provide new local street connections, increase capacity, improve mobility, and relieve congestion on State Route 125 (SR-125) between the Otay River and Birch Road. The PSR-PDS includes four preliminary designs for the SR-125 interchanges at Main Street and Otay Valley Road. The Village 8 East land use plan reflects Alternative B. The TM will be revised to reflect the ultimate SR-125 ROW and design.

Alternative B: Couplet/Parallel Street System Interchange Alternative B consists of a couplet/parallel street system interchange with ramps at Main Street and Otay Valley Road acting as a single freeway access point via connected one-way frontage roads (Type L-5 per Caltrans Highway Design Manual (HDM) Section 502.2(C)). For this alternative, vehicles traveling northbound on SR-125 would exit at Otay Valley Road and enter SR-125 at Main Street. Similarly, southbound vehicles would exit SR-125 at Main Street and enter SR-125 at La Media Parkway. The on/off ramps at La Media Parkway and Main Street will be connected by two-lane, one-way frontage roads. This alternative will include three La Media Parkway Valley Road (approximately 94'-4" wide), and a new multi-modal bridge (22' wide).

Discretionary Actions: Discretionary actions which require City Council and Planning Commission consideration and/or approval. The Proposed Project includes an Addendum to Otay Ranch University Villages Project Comprehensive SPA Plan Amendment Final Environmental Impact Report (FEIR) (EIR 13-01; SCH No. 2013071077); approved December 2014, amendments to the City of Chula Vista General Plan, the Otay Ranch General Development Plan, the Otay Ranch Village 8 East Sectional Planning Area Plan, and Appendices, a Rezone and approval of Village 8 East Tentative Map CVT No. 22-0005. A Development Agreement amendment is also proposed as part of the Proposed Project.

Technical Reports and Memos: The following technical reports and memos would be prepared for the proposed project:

- Biological Resources Technical Memorandum (Dudek)
- Air Quality and Global Climate Change Technical Memorandum (Dudek)
- Health Risk Assessment Screening Letter (Ldn Consulting, Inc.)
- Noise Assessment Technical Memorandum (Dudek)
- Comprehensive Project Information Form/Trip Generation Analysis Update (Chen Ryan)
- Archaeological Evaluation of Cultural Resources Letter (Dudek)
- Master Drainage Study (Hunsaker)
- PDP SWQMP (Hunsaker)
- Overview of Sewer Service Update (Wilson Engineering)
- Overview of Water Service Update (Wilson Engineering)
- Geotechnical Investigation Letter (GEOCON)
- Fiscal Impact Analysis Update (Development Planning & Financing Group)

ATTACHMENT 2

**VILLAGE 8 EAST
PRELIMINARY POTABLE WATER PLAN**

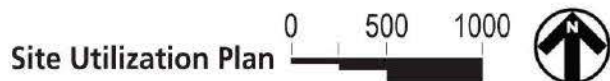
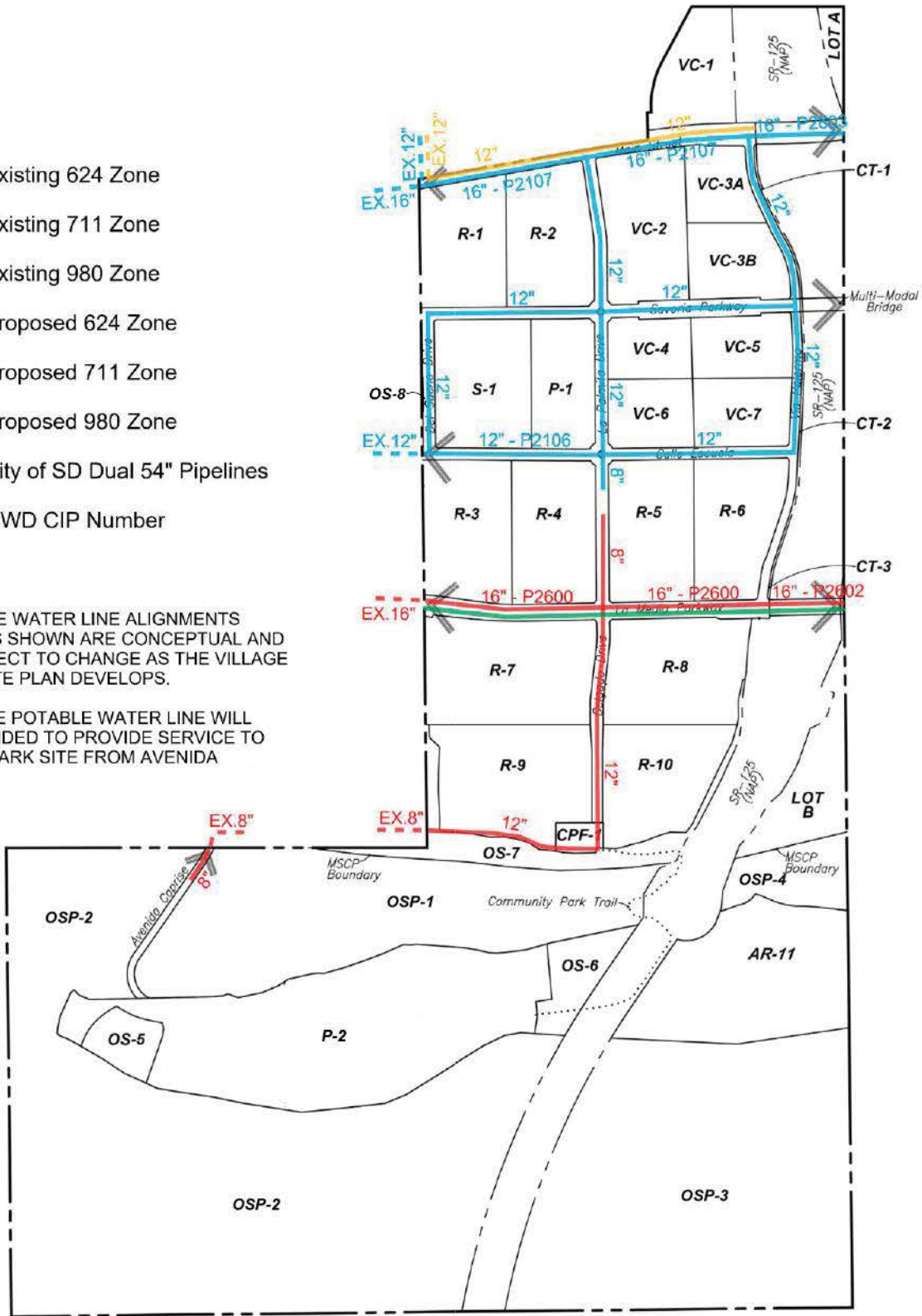
LEGEND

- - - Existing 624 Zone
- - - Existing 711 Zone
- - - Existing 980 Zone
- Proposed 624 Zone
- Proposed 711 Zone
- Proposed 980 Zone
- City of SD Dual 54" Pipelines

P2107 OWD CIP Number

NOTES:

1. BACKBONE WATER LINE ALIGNMENTS AND SIZES SHOWN ARE CONCEPTUAL AND ARE SUBJECT TO CHANGE AS THE VILLAGE 8 EAST SITE PLAN DEVELOPS.
2. A PRIVATE POTABLE WATER LINE WILL BE EXTENDED TO PROVIDE SERVICE TO THE P-2 PARK SITE FROM AVENIDA CAPRISE.



ATTACHMENT 3

**VILLAGE 8 EAST
PRELIMINARY RECYCLED WATER PLAN**

LEGEND

- - - Existing 680 Zone
 - - - Existing 815 Zone
 - Proposed 680 Zone
 - Proposed 815 Zone
- R2043 OWD CIP Number

NOTES:

1. RECYCLED WATER WILL BE USED FOR OPEN SPACE SLOPES, PARKS, STREET PARKWAY LANDSCAPING, AND THE COMMON AREAS OF RECREATION, COMMERCIAL, AND MULTI-FAMILY SITES.
2. BACKBONE RECYCLED WATER LINE ALIGNMENTS AND SIZES SHOWN ARE CONCEPTUAL AND ARE SUBJECT TO CHANGE AS THE VILLAGE 8 EAST SITE PLAN DEVELOPS.
3. A PRIVATE RECYCLED WATER LINE WILL BE EXTENDED TO PROVIDE SERVICE TO THE P-2 PARK SITE FROM CPF-1.

