DRAFT MEMORANDUM

To: City of Pleasanton

From: Jason Moody, Michael Nimon and Ben Sigman

Subject: EPSP Alternatives Infrastructure Cost Burden Review; EPS #121090

Date: February 28, 2013

The Economics of Land Use

The City of Pleasanton requested that Economic & Planning Systems (EPS) assess the potential for each East Pleasanton Specific Plan (EPSP) Program Alternative to support the infrastructure cost required for development. To provide an initial screen on the financial feasibility of the necessary infrastructure investments, EPS considered the estimated cost burden of infrastructure relative to the estimated finished value of each Program Alternative. The analysis is based on the EPSP Program Alternatives prepared by Gates + Associates and infrastructure cost estimates prepared by Kier Wright Civil Engineers Surveyors.

To conduct this initial financial feasibility screen, EPS studied the suite of land uses contained in each Program Alternative and estimated an aggregate "finished market value" for each. In EPS's experience, an infrastructure program cost burden of about 15 percent of the finished value of the real estate program is supportable. EPS also employs another infrastructure feasibility test that considers the potential annual cost burden, assuming that a Community Facility District is used to finance EPSP infrastructure, to determine whether total tax burden (property tax and CFD together) might exceed a 2.0 percent threshold.

Economic & Planning Systems, Inc.
2501 Ninth Street, Suite 200
Berkeley, CA 94710-2257
510 841 9190 tel
510 841 9208 fax

Berkeley
Denver
Los Angeles
Sacramento

www.epsys.com

Key Findings

The key findings from this preliminary financial feasibility review are summarized in **Figure 1** and further described below.

- EPS finds that EPSP Alternative 1, with the fewest residential units and greatest backbone infrastructure cost (excluding fees), is the least likely to be feasible as a privately-financed real estate development. At the other end of the spectrum, EPSP Alternative 3, with the greatest number of residential units and least infrastructure burden, represents the most financially viable land program and is likely to be attractive from the perspective of private developers.[1] EPSP Alternative 2 falls in the middle and appears to be a financially viable concept assuming market trends and other unknown risk factors fall within a reasonable range (e.g., infrastructure costs, entitlement changes or delays, etc.).

- The results of the Infrastructure Cost Burden Review are preliminary and provide a high-level screen for "fatal flaws" in the alternative program use mixes. The intent is to provide an early-stage assessment that helps to guide refinement of EPSP planning parameters. Future analysis should consider program phasing (e.g., market absorption relative to required infrastructure investment), more detailed assessments of specific real estate product types, and refined infrastructure cost analysis, including potential off-site costs, if any.

Figure 1 Summary of Findings

Program Alternative	"Finished" Market Value	Backbone Infrastructure Cost Estimate	Feasibility Potential
EPSP Alt. 1	$0.840 B	$103.3 M	Likely Infeasible
EPSP Alt. 2	$1.083 B	$102.9 M	Marginally Feasible
EPSP Alt. 3	$1.133 B	$75.9 M	More Feasible

[1] Note that Alternative 3 cost estimates exclude the potential future extension of El Charro Road to Stanley Boulevard. While not considered in detail by this analysis, it is likely that Alternative 3 would remain the most feasible alternative even if these additional backbone infrastructure costs were included.

Methodology and Assumptions

Financing Feasibility Standards

For a large-scale development project, the infrastructure cost burden must bear a reasonable relationship to the value of the development being created and must not onerously impact the developer and/or the eventual property owners. Based on extensive experience with financing plans for major development projects, EPS recommends the following feasibility screening standards:

1. **"Cost/Value Ratio"** The total backbone infrastructure cost burden (including impact fees) should not exceed 15 percent of the total EPSP development value.

2. **"Tax Burden Threshold"** If a special tax on the new development (such as a Mello-Roos Community Facilities District) is used to finance backbone infrastructure, the combined tax burden (base tax rate plus special taxes) should not exceed 2.0 percent of the properties' assessed value, meaning that the CFD alone should not exceed approximately one percent of value.

The above feasibility tests are designed to provide a high-level, first screen on the viability of each Alternative from an economic and financial perspective. Both tests are relatively simplistic and may either overstate or understate the true financial performance of each Alternative for a variety of reasons. For example, in reality the development community is likely to pursue a variety of financing mechanisms to cover the infrastructure costs, including conventional debt, private equity, CFD proceeds, impact fees, and others. A more strategic approach to financing, for example, one that combines both CFD proceeds with developer equity and conventional debt, could increase the financial feasibility of the Program Alternatives.

On the other hand, large-scale development projects of this nature often require "over-sizing" of backbone infrastructure in early phases. In such cases, the cost/value ratio and the tax burden thresholds may be exceeded in early phases, requiring the developers to make investments beyond what the immediate development can support. However, for this initial feasibility screen, EPS evaluates the EPSP Alternatives as a snap-shot in time, assuming full build out. Consequently, future analysis will also need to consider the role of market absorption and the phasing of infrastructure costs relative to the creation of real estate value over time.

Figure 2 presents detailed findings from the two tests of the three EPSP Alternatives. As shown, Alternative 1 fails both the Cost/Value Ratio test and the Tax Burden Threshold test. Alternative 2 passes the Cost/Value Ratio test but fails the Tax Burden Threshold test. Alternative 3 passes both feasibility tests. The **Appendix** to this memorandum presents detailed data and calculations, including the program alternatives use mix, development values (also discussed below), and impact fee calculations.

Figure 2 Finding from Feasibility Testing

Item	Alternative I	Alternative II	Alternative III
Cost/Value Ratio Test			
Infrastructure Costs			
Backbone Infrastructure	$103,300,000	$102,900,000	$75,900,000
Development Impact Fees	$26,953,084	$32,024,867	$30,138,276
Total Infrastructure Cost Burden	**$130,253,084**	**$134,924,867**	**$106,038,276**
Development Value	**$840,000,000**	**$1,083,305,000**	**$1,133,000,000**
Infrastructure Cost/Value Ratio	**15.5%**	**12.5%**	**9.4%**
Tax Burden Threshold Test			
CFD Bond Proceeds and Issuance Cost[1]	$108,465,000	$108,045,000	$79,695,000
Proceeds Required for Annual Debt Service[2]	$9,843,892	$9,805,775	$7,232,831
Debt Coverage Factor	120%	120%	120%
Special Tax Revenue Required (Annual)	$11,812,671	$11,766,930	$8,679,397
Potential Special Tax (% of Development Value	**1.41%**	**1.09%**	**0.77%**

Source: Kier Wright Civil Engineers Surveyors and EPS

[1] EPS assumes cost of bond issuance at 5 percent of bond value.

[2] Assumes an Interest rate 6.5% for a 20-year term.

Development Value

The Cost Burden Review analysis considers the potential market value of various development types envisioned by the EPSP, including residential, retail, office, and industrial/flex uses (see **Appendix Figure 2** for detailed market value assumptions). EPS assumes real estate values that are typical of the Pleasanton real estate market. At this point, the Alternatives do not specify specific product types, formats, or market positioning. This analysis relies on value assumptions that are representative of new development projects. These values are generally conservative, with the analysis seeking to avoid overestimation of building values and supportable infrastructure cost. Additional valuation considerations were applied in the analysis of 30-unit-per-acre housing, affordable housing, industrial/flex uses, destination uses, and city service uses, as discussed below.

EPS relies on variety of sources to estimate real estate values, including current market data concerning residential and commercial transactions occurring in the City and surrounding areas. In particular, EPS reviewed residential sales data from The Gregory Group and commercial sales data from CoStar Group. EPS also considered real estate values developed as part of continuing work on the Fiscal Impact Analysis of the City of Pleasanton General Plan, to ensure basic consistency.

The Specific Plan Alternatives call for a significant component of the housing program to be developed at approximately 30 dwelling units per acre. Based on guidance from the EPSP team, EPS assumes that this portion of the housing program will be a rental product. In addition, the analysis assumes that affordable housing is provided within this residential category. The analysis assumes that the affordable units will represent 15 percent of the total residential program. To be conservative, EPS assumes that the affordable housing included in the EPSP Alternatives will not contribute to funding of the infrastructure costs. That is, affordable housing is valued at zero for the purposes of this initial infrastructure cost burden screen.

The Specific Plan Alternatives 1 and 2 call for 1.6 million square feet of industrial/flex space. The relative magnitude of this particular use within the overall program makes it critical to the infrastructure feasibility evaluation. To address this sensitivity, the EPS analysis conservatively assumes that infrastructure/flex value is at the lower end of the value spectrum, $100 per square foot (the observed range of value is roughly $100 to $500 per square foot). The assumption of low-value industrial/flex reflects uncertainty associated with the specific nature of the industrial/flex space development as well as the probability that such a large amount of industrial/flex space could be developed over a near- to mid-term time horizon.

EPS also conservatively assumes that the destination use, Operations Service Center, and Transfer Station do not contribute to program value or infrastructure feasibility. That is, these uses are not valued as part of the infrastructure feasibility tests.

Development Cost

EPS relies on preliminary planning-level development cost estimates provided by Kier Wright Civil Engineers Surveyors. These data are provided as part of the **Appendix** to this memorandum. Kier Wright has estimated costs for the on-site planning area only, including major roadway improvements, sewer improvements, water line improvements, and soil mitigation (for compacted soils, as needed).

A critical point regarding the infrastructure cost estimates is that Alternative 3 excludes costs associated with the future connection of El Charro Road to Stanley Boulevard. In this Alternative, the costs associated with the future connection, if ultimately required, would be borne by funding sources other than the developers of the EPSP.

The analysis also considers the cost burden associated with development impact fees. EPS reviewed the charge on development from the Public Facilities Fee, Traffic Development Fee, and Tri-Valley Transportation Fee. Affordable housing and parkland requirements are assumed to be satisfied within the program.

APPENDIX

Appendix Figure 1 Program Alternatives

Use	EPSP Alternative Program I	II	III
Residential (Dwelling Units)			
Attached[1]			
30 du/ac (MR Rental)	347	508	578
30 du/ac (BMR)	180	264	300
23 du/ac	332	487	554
18 du/ac	0	0	284
Detached			
11 du/ac	171	250	284
5.8 du/ac	0	250	0
3.3 du/ac	171	0	0
Residential Total	1,200	1,758	2,000
Retail (Square Feet)			
0.35 FAR	30,000	30,000	30,000
Office Campus (Square Feet)			
0.35 FAR	305,000	305,000	839,000
Industrial/Flex (Square Feet)			
0.31 FAR	1,607,000	1,607,000	365,000
Destination Use[2]	Yes	Yes	Yes
OSC & TS[2]	Yes	Yes	Yes

Source: Gates + Associates and EPS

[1] Attached housing program includes a mix of Market Rate (MR) and Below Market Rate (BMR) units.

[2] EPS conservatively assumes that the destination use, Operations Service Center, and Transfer Station do not contribute to infrasture feasibility.

Appendix Figure 2 Program Alternatives Market Value

Use	Value Unit/SF	EPSP Alternative Value I	II	III
Residential				
Attached[1]				
30 du/ac (MR Rental)	$350,000	$121,450,000	$177,905,000	$202,300,000
30 du/ac (BMR)	$0	$0	$0	$0
23 du/ac (MR)	$500,000	$166,000,000	$243,500,000	$277,000,000
18 du/ac	$500,000	$0	$0	$142,000,000
Detached				
11 du/ac	$750,000	$127,875,000	$187,125,000	$213,000,000
5.8 du/ac	$850,000	$0	$212,075,000	$0
3.3 du/ac	$950,000	$161,975,000	$0	$0
Residential Total		$577,300,000	$820,605,000	$834,300,000
Retail (Square Feet)				
0.35 FAR	$350	$10,500,000	$10,500,000	$10,500,000
Office Campus (Square Feet)				
0.35 FAR	$300	$91,500,000	$91,500,000	$251,700,000
Industrial/Flex (Square Feet)				
0.31 FAR	$100	$160,700,000	$160,700,000	$36,500,000
Destination Use[2]	-	-	-	-
OSC & TS[2]	-	-	-	-
Aggregate Program Alternative Value		**$840,000,000**	**$1,083,305,000**	**$1,133,000,000**

Source: Gates + Associates and EPS

[1] Attached housing program includes a mix of Market Rate (MR) and Below Market Rate (BMR) units.

[2] EPS conservatively assumes that the destination use, Operations Service Center, and Transfer Station do not contribute to infrasture feasibility.

Appendix Figure 3 Program Alternatives Development Impact Fees

Use	Fees per DU/SF		EPSP Alternative Value I	II	III
Residential					
Attached[1]					
30 du/ac (MR Rental)	$7,227	*Multifamily*	$2,507,769.00	$3,673,484	$4,177,206
30 du/ac (BMR)	$7,227	*Multifamily*	$1,300,860.00	$1,905,760	$2,168,100
23 du/ac (MR)	$9,982	*SF Attached*	$3,314,024	$4,861,234	$5,530,028
18 du/ac	$9,982	*SF Attached*	$0	$0	$2,834,888
Detached					
11 du/ac	$11,101	*SF Detached*	$1,892,721	$2,769,700	$3,152,684
5.8 du/ac	$11,101	*SF Detached*	$0	$2,769,700	$0
3.3 du/ac	$11,101	*SF Detached*	$1,892,721	$0	$0
Residential Total			$10,908,094	$15,979,877	$17,862,906
Retail (Square Feet)					
0.35 FAR	$14		$431,400	$431,400	$431,400
Office Campus (Square Feet)					
0.35 FAR	$11		$3,287,900	$3,287,900	$9,044,420
Industrial/Flex (Square Feet)					
0.31 FAR	$8		$12,325,690	$12,325,690	$2,799,550
Destination Use[2]					
OSC & TS[2]					
			$26,953,084	**$32,024,867**	**$30,138,276**

Source: City of Pleasanton and EPS

[1] Attached housing program includes a mix of multifamily and single family attached units. Fees are calculated accordingly.

Appendix Figure 4 Infrastructure Cost Estimates

ENGINEER'S ESTIMATE
SUMMARY FOR EAST PLEASANTON SPECIFIC PLAN
Alternative 1

Description		Estimate
Overall Major Infrastructure		
El Charro/Stanley Blvd. Undercrossing	$	18,023,500.00
Boulder Road Improvements	$	1,257,984.00
Busch Road Improvements	$	3,577,600.00
Traffic Signals(Assumes 7 new and 4 modified)	$	2,250,000.00
Arroyo Mocho Bridges	$	3,726,000.00
El Charro Road Improvements	$	7,076,000.00
Gateways	$	300,000.00
Sewer Improvements	$	2,230,000.00
Recycled Water Lines	$	1,190,200.00
Soil Mitigation	$	8,000,000.00
Water Improvements	$	1,484,200.00
Joint Trench Improvements	$	1,249,500.00
Total	$	50,364,984.00
15% Contingency	$	7,554,747.60
20% Softcosts	$	10,072,996.80
	$	**67,992,728.40**
Parks		
Parks(Assumes $8.00 SF Cost)	$	26,136,000.00
Total	$	26,136,000.00
15% Contingency	$	3,920,400.00
20% Softcosts	$	5,227,200.00
	$	**35,283,600.00**
Grand Total	**$**	**103,276,328.40**

Notes:
1) Cost excludes interiortwo lane streets and offsite improvements outside of specific plan area.
2) Cost Excludes Citywide Infrastructure Fees
3) Cost for soil mitigation is based on wicking plan for Southeast Industrial Parcel

Appendix Figure 4 Infrastructure Cost Estimates

ENGINEER'S ESTIMATE
SUMMARYFOR EAST PLEASANTON SPECIFIC PLAN
Alternative 2

Description		Estimate
Overall Major Infrastructure		
El Charro/Stanley Blvd. Undercrossing	$	18,023,500.00
Boulder Road Improvements	$	1,257,984.00
Busch Road Improvements	$	3,577,600.00
Traffic Signals(assumes 6 new and and 4 modified)	$	2,000,000.00
Arroyo Mocho Bridges	$	3,726,000.00
El Charro Road Improvements	$	7,076,000.00
Gateways	$	300,000.00
Sewer Improvements	$	2,230,000.00
Recycled Water Lines	$	1,190,200.00
Soil Mitigation	$	8,000,000.00
Water Improvements	$	1,484,200.00
Joint Trench Improvements	$	1,249,500.00
Total	$	50,114,984.00
15% Contingency	$	7,517,247.60
20% Softcosts	$	10,022,996.80
	$	**67,655,228.40**
Parks		
Parks(Assumes $8.00 SF Cost)	$	26,136,000.00
Total	$	26,136,000.00
15% Contingency	$	3,920,400.00
20% Softcosts	$	5,227,200.00
	$	**35,283,600.00**
Grand Total	**$**	**102,938,828.40**

Notes:
1) Cost excludes interiortwo lane streets and offsite improvements outside of specific plan area.
2) Cost Excludes Citywide Infrastructure Fees
3) Cost for soil mitigation is based on wicking plan for Southeast Industrial Parcel

Appendix Figure 4 Infrastructure Cost Estimates

ENGINEER'S ESTIMATE
SUMMARYFOR EAST PLEASANTON SPECIFIC PLAN
Alternative 3

Description		Estimate
Overall Major Infrastructure		
El Charro/Stanley Blvd. Undercrossing	$	-
Boulder Road Improvements	$	1,257,984.00
Busch Road Improvements	$	3,577,600.00
Traffic Signals(assumes 6 new and 3 modified)	$	1,875,000.00
Arroyo Mocho Bridges	$	3,726,000.00
El Charro Road Improvements	$	5,189,600.00
Gateways	$	300,000.00
Sewer Improvements	$	2,230,000.00
Recycled Water Lines	$	1,190,200.00
Soil Mitigation	$	8,000,000.00
Water Improvements	$	1,484,200.00
Joint Trench Improvements	$	1,249,500.00
Total	$	30,080,084.00
15% Contingency	$	4,512,012.60
20% Softcosts	$	6,016,016.80
	$	**40,608,113.40**
Parks		
Parks(Assumes $8.00 SF Cost)	$	26,136,000.00
Total	$	26,136,000.00
15% Contingency	$	3,920,400.00
20% Softcosts	$	5,227,200.00
	$	**35,283,600.00**
Grand Total	**$**	**75,891,713.40**

Notes:
1) Cost excludes interiortwo lane streets and offsite improvements outside of specific plan area.
2) Cost Excludes Citywide Infrastructure Fees
3) Cost for soil mitigation is based on wicking plan for Southeast Industrial Parcel