The Economics of Land Use

Technical Report

Hillcrest Station Area Specific Plan Infrastructure Financing Plan

Prepared for:

City of Antioch

Prepared by:

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EPS #18111

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1. INTRODUCTION AND SUMMARY

Background

Over the past several years, the City of Antioch has been planning for the extension of the Bay Area Rapid Transit (BART) to Antioch via eBART. The Hillcrest Station Area Specific Plan conducted by Dyett & Bhatia for the City of Antioch calls for a mix of housing, office, retail, and hotel uses in a transit-oriented pedestrian-friendly environment in the area around the eBART station at Hillcrest Avenue. The Hillcrest Station Area includes 375 acres of mostly undeveloped land located at the junction of State Route 4 (SR4) and State Route 160 in Antioch.

This Financing Plan study is intended as a companion document for the Specific Plan adopted by the City of Antioch in April 2009. The Financing Plan provides an analysis of financial feasibility of major infrastructure improvements in the study area and a set of financing principles and policies, as well as financing mechanisms and strategies for the City. This information includes a description of the Specific Plan's development program and its expected phasing, estimated market values, infrastructure cost estimates, and financing mechanisms and their revenue capacity.

Summary of Findings

1. The Hillcrest Station Area Specific Plan allows for the development of a maximum of 2,500 housing units and over 2.2 million square feet of office, retail, and hotel space. This ambitious development program is expected to be built over several decades, through the year 2040 or later.

2. The Specific Plan contains policies requiring that funding for infrastructure improvements be identified before commencement of each phase of development. Other policies indicate that numerous entities are expected to participate in the improvement funding, including property owners/developers, potential participation of the City's Redevelopment Agency, regional fee programs, and State and Federal sources.

3. The total estimated infrastructure costs for the Specific Plan area are over $116 million, not including impact fees. For the Specific Plan development program to be completed as currently envisioned, funding from a variety of sources must provide adequate capital for this full infrastructure program.

4. Current real estate market conditions are poor, with major declines in property values and significant foreclosure activity in both the residential and commercial markets. Development of the Specific Plan land uses will not commence in large amounts until significant positive changes occur in the real estate market. To assess the ability of the development to finance its share of infrastructure improvements, EPS has assumed some measure of market recovery, though not to the heights reached a few years ago. EPS has further assumed that only a very small amount of development occurs before the introduction of eBART service to the area in 2015-2016. In a stabilized market, the total value of new development in the Specific Plan area at buildout is estimated at over $1.3 billion in 2010 dollars.

5. One measure of financial feasibility for the property owners/developers would require that the total backbone infrastructure costs must be less than 15 percent of the total value of the development, and ideally should not exceed 15 percent on a phase-by-phase basis. Another feasibility measure is that a special tax[1] (such as applied through a Community Facilities District) to cover the property owners/developers obligations should not yield a *total* tax burden for an individual property in excess of 2.0 percent of the assessed value. While precise thresholds for feasibility will vary based on a range of market factors over time, these measures provide valuable indicators about whether private investment could be supported and financed under normalized market conditions.

6. Like many large-scale development projects, the infrastructure phasing plan for the Hillcrest Station Area requires a significant amount of over-sizing in the first phase. While portions of the major Phase 1 cost items are expected to be shared with Sub-regional, State and Federal funding sources, the total Phase 1 costs to the property owners/developers are expected to exceed the 15 percent cost/value threshold and the 2.0 percent maximum tax threshold for that phase. As such, the property owners/developers will have to make extra contributions to these early costs unless additional external funding sources can be secured. A third feasibility measure is more subjective than the first two, but requires that such extraordinary infrastructure funding provided by the property owners/developers must be reasonably affordable and must be expected to be repaid within an acceptable time period.

7. EPS has evaluated these feasibility measures under three different scenarios regarding the allocation of infrastructure costs. In the “Base Case” scenario, the property owners/ developers will have to fund $80.7 million in backbone infrastructure costs (over two-thirds of the total backbone infrastructure costs). In the “Redevelopment” scenario, the Redevelopment Agency is assumed to contribute tax increment generated by the Hillcrest Station Area development, which is estimated to reduce the property owners/developers’ infrastructure obligations by nearly $25 million. In the “Private Financing” scenario, the full $116.5 million of backbone costs is allocated to the property owners/developers.

8. The “Base Case” scenario is on the cusp of being feasible as it meets and maintains the overall feasibility thresholds established by EPS for this development by the time it reaches its third phase of development. However, it would require that the property owners/developers make roughly a $10 million to $12 million “over-sizing” investment that is not projected to be repaid until roughly 10 to 15 years after the development commences. While neither this amount nor this time frame for the over-sizing investment is unusual for large-scale projects, they do represent a higher degree of risk to the developers and thus a feasibility challenge.

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[1] A “special tax” is an additional annual charge levied on development to fund various services and/or improvements above the base 1.0 percent property tax rate. This analysis assumes a Community Facilities District would be created for the Specific Plan area, through which a special tax would be levied.

9. The “Redevelopment” scenario provides tax increment financing to offset some of the property owners/developers’ infrastructure burden. However, the tax increment grows slowly for the first few years, as development is just getting underway. Like the “Base Case,” this scenario may also require the property owners/developers to make a $10 million to $12 million over-sizing investment for Phase 1, but can repay that investment more quickly and also reduces the overall cost/value ratio and the required special tax burden. In addition, Fraser & Associates’ separate analysis has indicated that an additional $10 million in tax increment bond funding could be available as early as 2011 if Redevelopment Project Areas in the City are merged, sunset dates are extended, and tax increment caps are increased. If implemented, this additional tax increment funding could reduce the over-sizing investment by the property owners/developers. In sum, the “Redevelopment” scenario improves upon the “Base Case” in every measure, suggesting that the use of tax increment financing represents a major advantage for the development’s feasibility.

10. The “Private Financing” scenario would require that the property owners/developers pay the full $116.5 million infrastructure cost. This approach does not appear to be feasible, as the cost/value ratio and tax burden thresholds cannot be met until the development is in its final phase, and it would require as much as $40 million or more in “over-sizing” investment that may not be repaid for 20 or more years. This sensitivity test indicates that some cost sharing among various funding entities will be required for the development to succeed.

11. While this evaluation concludes that the overall financial feasibility indicators may be achievable in a recovered real estate market, the development still faces market and financing challenges as well as significant risk to its developers. The feasibility and risk profile can be minimized through various means, including the participation of the Redevelopment Agency through tax increment financing, the deferral of certain improvement costs, and the use of additional external funding sources.

12. Going forward the City will need to take an active role in implementation of the Hillcrest Station Area Specific Plan—specifically, establishing the recommended financing mechanisms and collaborating with the major project applicants to assure compliance with Specific Plan policies. Key implementing actions include:

    - Consideration of a land secured financing district (i.e., CFD) and/or site-specific development impact fee
    - Collaboration with major developers to determine financing obligations
    - Decisions regarding the use of redevelopment tax increment funding and potential merging of Redevelopment Project Areas
    - Secure State and Federal funding for key infrastructure items.

Report Organization

Following this Introduction and Summary, this Financing Plan report discusses the Development Program and Phasing (**Chapter 2**), Cost Estimates and Allocation (**Chapter 3**), Financing Feasibility Assessment (**Chapter 4**), and Policy Summary and Next Steps (**Chapter 5**).

2. DEVELOPMENT PROGRAM AND PHASING

East Contra Costa County has been one of the fastest growing areas in the San Francisco Bay Area. As the area added new households and jobs, traffic delays and congestion on SR4 and on the few alternative streets and highway routes increased significantly. While the SR4 capacity is being increased through highway widening, BART is planning to extend service from the Pittsburg/Bay Point Station into East Contra Costa County. The eBART extension into the Hillcrest Station Area is expected to provide a viable transit alternative to driving along the corridor. In addition, an eBART station at the Hillcrest Station Area will provide a unique opportunity for new development on largely undeveloped land, which could accommodate a mix of uses in a relatively compact format.

Development Program

The Hillcrest Station Area is currently primarily vacant land, with a portion of the site containing wetlands and stormwater detention basins. The Hillcrest Station Area Specific Plan is developed to take advantage of the site's development opportunities and includes 2,500 multifamily residential units, 1.0 million square feet of retail, 1.2 million square feet of office, and a 325-room hotel. The development program is planned to be allocated between three development subareas within the Hillcrest Station Area: the Transit Village, the Town Center Area, and the Freeway Area (see **Figure 1**). **Table 1** shows the overall development program within the Hillcrest Station Area allocated by subarea.

Table 1. Development Program at Buildout by Subarea

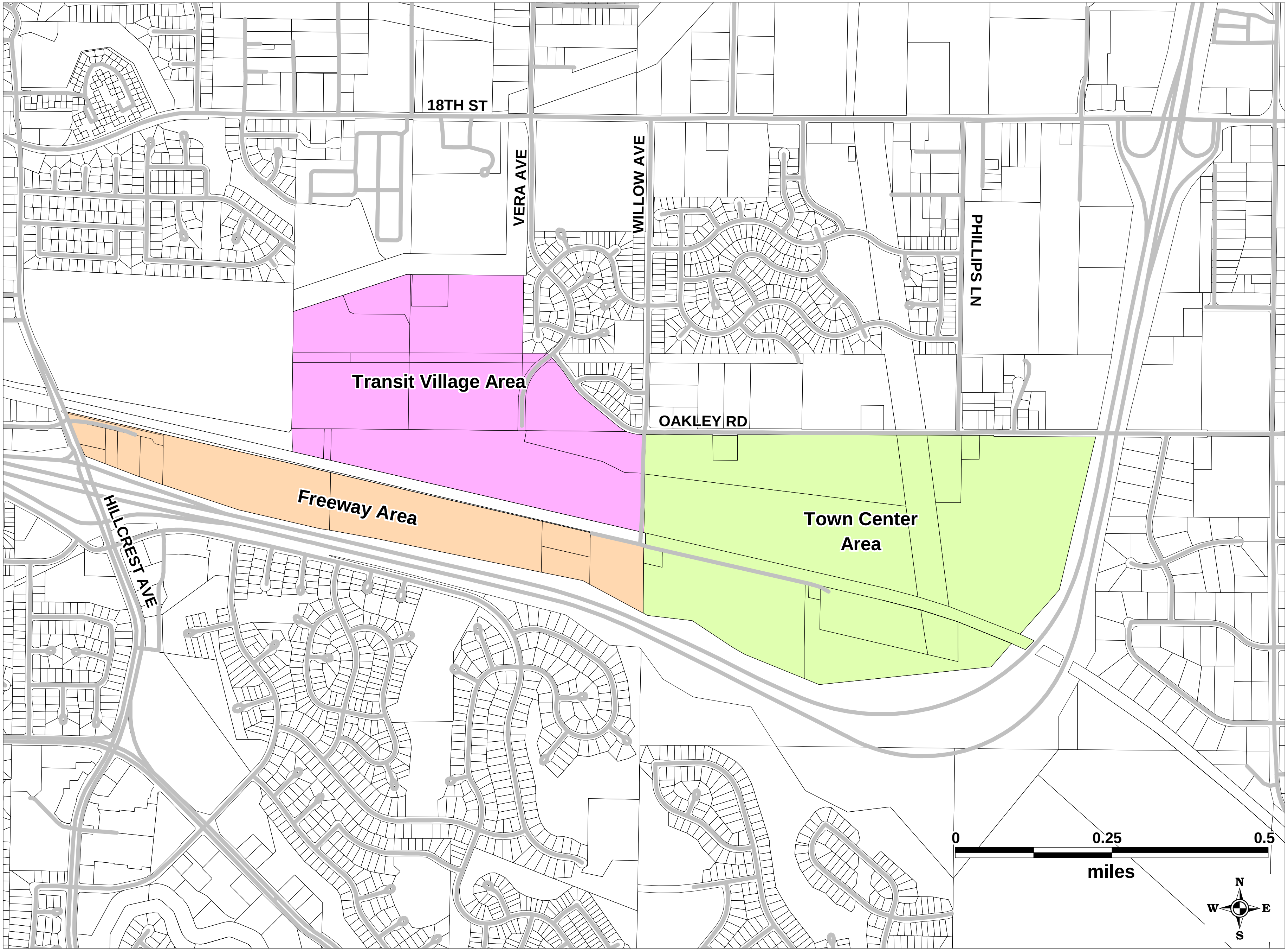
Item	Residential (Units)	Office (Sq.Ft.)	Retail (Sq.Ft.)	Hotel (rooms)
Transit Village	1,000	730,000	120,000	0
Freeway Area	0	170,000	150,000	0
Town Center	1,500	300,000	730,000	325
Total	**2,500**	**1,200,000**	**1,000,000**	**325**

Source: Dyett & Bhatia; and Economic & Planning Systems, Inc.

Phasing Assumptions

The development is assumed to be built over a period of at least two to three decades, and will consist of multiple phases. Working with Dyett & Bhatia, BKF Engineering, and City representatives, EPS has assembled the development program and phasing schedule assumptions shown in **Table 2,** with the geographic phases outlined in **Figure 2**. Each phase is assumed to be completed over a five-year period. These phasing assumptions are intended for

Figure 1:
Hillcrest Station Specific Plan Development Areas



Economic & Planning Systems, Inc.

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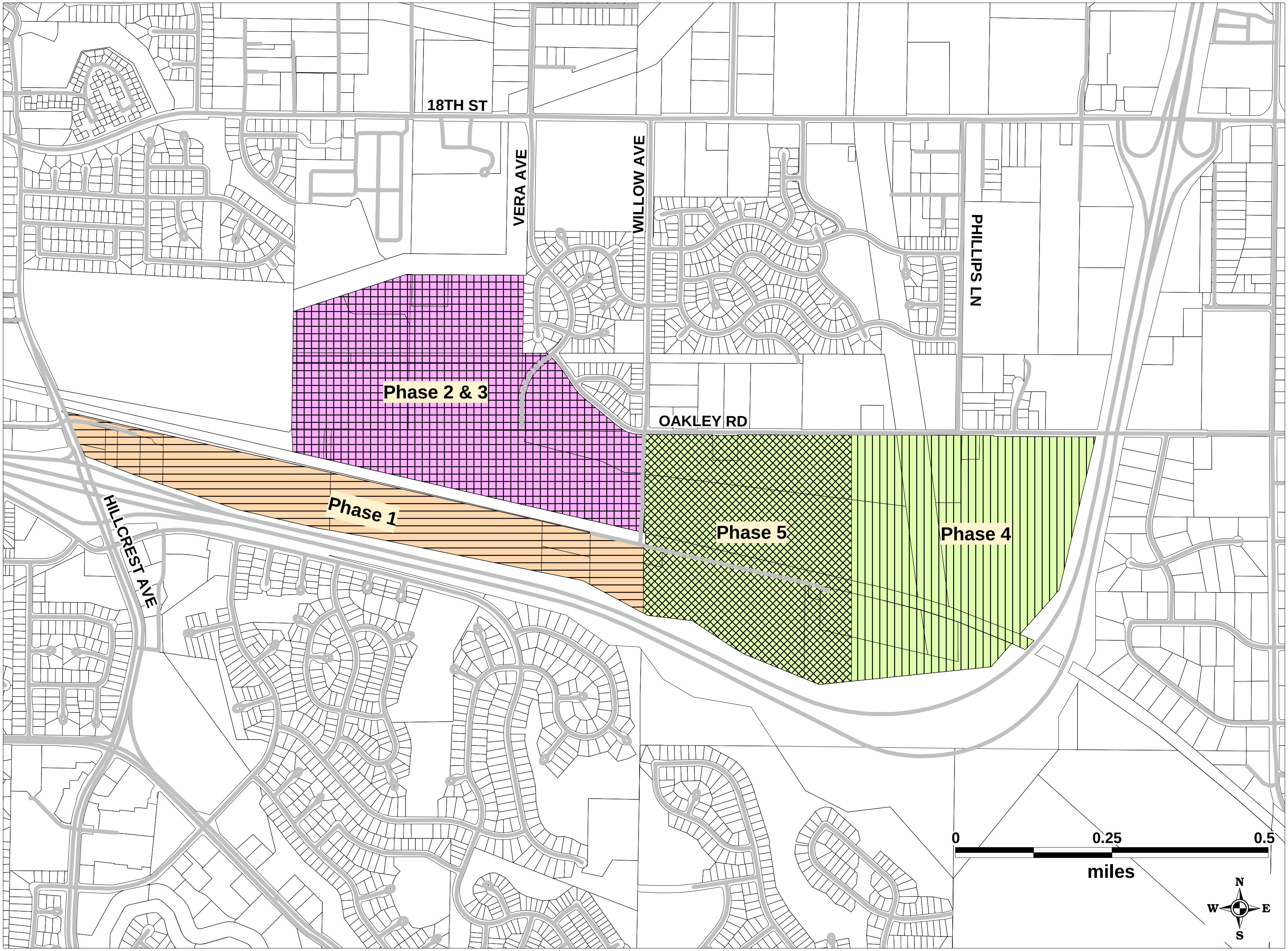
Table 2
Hillcrest Development Program
Hillcrest Station Area Financing Plan; EPS #18111

Land Use	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5 and 6	Total
Residential (1)						
Market-rate units	0	553	553	510	510	**2,125**
Affordable units	0	98	98	90	90	**375**
Subtotal	0	650	650	600	600	**2,500**
Retail (sq.ft.)	150,000	125,000	225,000	215,000	285,000	**1,000,000**
Office (sq.ft.)	0	270,000	270,000	270,000	390,000	**1,200,000**
Hotel (rooms)	0	0	0	325	0	**325**
Developable Land Acres						
Improved (cumulative)	13.0	50.4	87.8	140.6	193.3	193.3
Unimproved (cumulative)	180.3	142.9	105.5	52.8	0.0	0.0

(1) It is assumed that 15 percent of the new residential units are affordable in each phase.

Source: Dyett & Bhatia; and Economic & Planning Systems, Inc.

Figure 2:
Hillcrest Station Specific Plan Development Phasing



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the purpose of conducting this financial analysis. Actual development phasing will be determined by policies in the Specific Plan, the Master Development Plan entitlement process, and market forces.

As shown on **Table 2**, the initial phase is expected to have very little development of new buildings—only a 150,000-square foot retail development in the Freeway Area.[2] The primary activity during this initial phase will be the construction of facilities associated with the eBART system's ridership access, including the Phillips Lane interchange with Highway 4 and improvements to Slatten Ranch Road. The major increments of residential, retail, and office development begin in Phase 2, along with site-specific infrastructure investments required to serve new development.

Table 2 also indicates the status of the developable land in the Specific Plan area. According to the Specific Plan, the entire planning area has 375.1 acres of land, but nearly half of that is used for backbone infrastructure, transit facilities, wetlands, etc. A total of 193.3 acres is considered "developable," and its status shifts from "unimproved" to "improved" as infrastructure is installed that enables its development.

Transit Station Scenarios

The Hillcrest Specific Plan includes two different location scenarios for the Hillcrest eBART Station, shown in **Figure 3**. While the City preferred the "East Median Station" scenario, this scenario will not likely be implemented by BART because of scheduling issues and potential additional cost. Also, while an additional "Phillips Station" extension could also be developed under the "Median" and the "East Median Station" scenarios, this option is not assumed in this analysis as an "expected" cost to either BART or the developers, as the developers will need to determine for themselves whether the benefits of extending the eBART system will generate sufficient additional revenues (primarily through enhanced property values) to cover the added costs.

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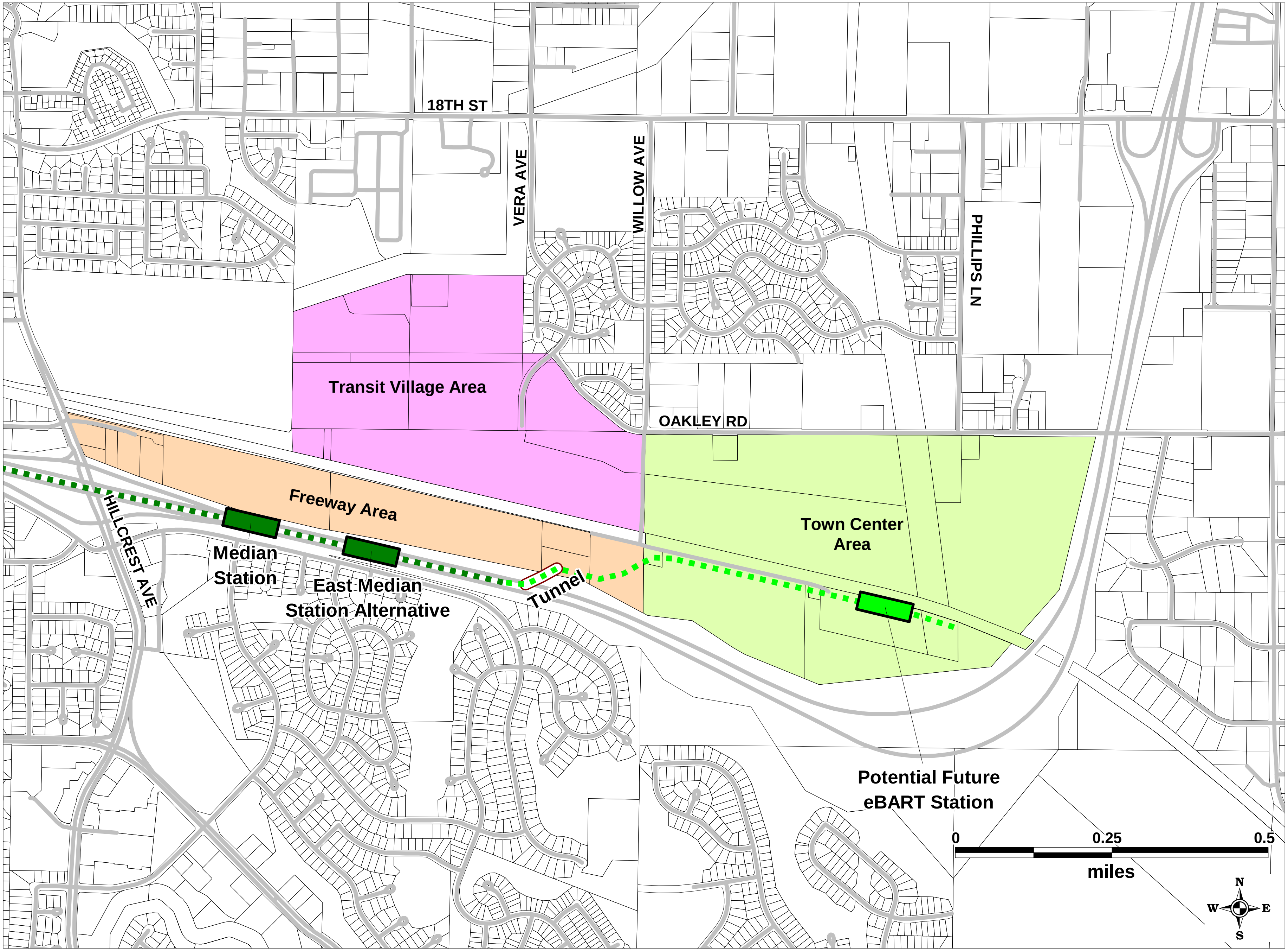
[2] The Specific Plan shows the full capacity for retail development on the Freeway Area parcel is 150,000 square feet, but assumed only 50,000 square feet of that development actually occurs in Phase I. Per subsequent discussion with City staff and Dyett & Bhatia, this analysis assumes the full 150,000 square feet of capacity is completed in Phase I.

Figure 3:
Hillcrest Station Specific Plan Station Alternatives



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3. COST ESTIMATES AND ALLOCATION

The Hillcrest Station Area infrastructure costs are divided into five phases as discussed in **Chapter 2**. **Table 3** summarizes the infrastructure costs by type and by phase, with additional detail provided on **Tables 4** and **5**. Total infrastructure costs are estimated at $116.5 million. The vast majority of the costs are in the circulation improvements[3] category ($108.1 million), while other cost categories include $5.8 million for utilities (water, sewer, and storm water improvements), and much smaller amounts for parks and trails, landscaped buffers, pipelines, community facilities, biological resources mitigation, and cultural resources. The phasing of major improvements is based on Table 7-3 in the Specific Plan, with some updates to those original phasing assumptions as more information has been developed over the past year.[4]

The infrastructure phasing on **Tables 3, 4,** and **5** shows costs associated with each of the first four phases of vertical development (residential and commercial buildings), but none specifically associated with the vertical development in Phases 5 and 6. Examples of improvements assumed to occur in each of the first four phases of development include the following:

Phase	**Cumulative Development**	**Major Infrastructure**
Phase 1 (2010-2015)	150,000 SF Commercial	- eBART Station and access improvements - Phillips Lane interchange with Highway 4
Phase 2 (2015-2020)	650 Housing Units 545,000 SF Commercial	- Grade separation at UP Railroad and Hillcrest Ave. - Viera Avenue (new)
Phase 3 (2020-2025)	1,300 Housing Units 1,040,000 SF Commercial	- Slatten Ranch Road: Phillips to Laurel - PG&E Electrical Lines Relocation
Phase 4 (2025-2030)	1,900 Housing Units 1,525,000 SF Commercial 325-Room Hotel	- Oakley Road: Willow to east of Hwy 160 - Phillips Lane extension from Oakley Road to Highway 4
Phases 5 & 6 (2030+)	2,500 Housing Units 2,200,000 SF Commercial 325-Room Hotel	None

[3] "Circulation improvements" include the costs of standard utility improvements located within the right-of-way of major streets.

[4] Infrastructure assumptions have been vetted with City staff and BKF Engineering as recently as May 2010, and are likely to continue to evolve as more planning occurs for the eBART improvements, highway interchange improvements, etc. For this Financing Plan, the City and its consultants have agreed that the infrastructure assumptions represent a fair estimate of the likely costs and phasing.

Table 3
Hillcrest Infrastructure Costs by Phase (2010$)
Hillcrest Station Area Financing Plan; EPS #18111

Item	Phase				Total
	1	*2*	*3*	*4*	
Circulation Improvements	$34,340,000	$32,070,500	$8,500,000	$33,245,000	**$108,155,500**
Parks and Trails	$0	$50,000	$425,000	$425,000	**$900,000**
Landscape Buffers	$0	$170,000	$0	$0	**$170,000**
Utilities	$780,000	$2,030,000	$2,975,000	$0	**$5,785,000**
Community Facilities	$0	$0	$1,275,000	$0	**$1,275,000**
Biological Resources Mitigation	$0	$15,000	$115,600	$0	**$130,600**
Pipelines	$25,000	$0	$0	$0	**$25,000**
Cultural Resources	$50,000	$0	$0	$0	**$50,000**
Total Infrastructure Cost	**$35,195,000**	**$34,335,500**	**$13,290,600**	**$33,670,000**	**$116,491,100**

Source: Dyett & Bhatia; BKF Engineers, and Economic & Planning Systems, Inc.

Table 4
Hillcrest Infrastructure Cost Allocation Assumptions -- Base Case (2010$)
Hillcrest Station Area Financing Plan; EPS #18111

Item	*Phase*	Estimated Cost	Property Owner/ Developer (1)	Antioch Redevelopment	Sub-regional (2)	State and Federal	*All Sources Combined*
Circulation Improvements (3)							
Regional Transportation							
Grade separation at UP Railroad and Hillcrest Avenue	*2*	$12,750,000	0%	0%	0%	100%	100%
Phillips Lane Interchange with Highway 4	*1*	$24,650,000	20%	0%	40%	40%	100%
Local Roads and Bridges							
Slatten Ranch Road: Hillcrest to Viera (4)	*1*	$1,190,000	100%	0%	0%	0%	100%
Slatten Ranch Road: Viera to Philips	*1*	$8,500,000	100%	0%	0%	0%	100%
Viera Avenue (New), including creek and RR bridge	*2*	$16,065,000	100%	0%	0%	0%	100%
Oakley Road: Viera to Willow	*2*	$2,805,000	100%	0%	0%	0%	100%
Oakley Road: Willow to Phillips Ln	*4*	$6,715,000	100%	0%	0%	0%	100%
Oakley Road: Phillips Ln to 160 widening	*4*	$1,020,000	20%	0%	80%	0%	100%
Phillips Lane: Oakley to SR 4, including creek and RR bridge	*4*	$25,500,000	100%	0%	0%	0%	100%
Willow Road Modification	*2*	$170,000	100%	0%	0%	0%	100%
Local Roads Outside Planning Area (5)							
Slatten Ranch Road: Phillips Lane to Laurel	*3*	$8,500,000	75%	0%	25%	0%	100%
Hillcrest Avenue and 18th Street intersection improvements	*2*	$280,500	0%	100%	0%	0%	100%
Wayfinding signage program	*4*	$10,000	100%	0%	0%	0%	100%
Parks and Trails							
Town Center Area Plaza (0.5 acre)	*4*	$425,000	100%	0%	0%	0%	100%
Transit Village Area Plaza (0.5 acre)	*3*	$425,000	100%	0%	0%	0%	100%
Creek Resource Management Plan	*2*	$50,000	100%	0%	0%	0%	100%
Landscape Buffers							
PG&E Substation southern landscape buffer	*2*	$170,000	100%	0%	0%	0%	100%
Community Facilities							
Community Center (approx. 3,750 sf)	*3*	$1,275,000	100%	0%	0%	0%	100%

Table 4
Hillcrest Infrastructure Cost Allocation Assumptions -- Base Case (2010$)
Hillcrest Station Area Financing Plan; EPS #18111

Item	*Phase*	Estimated Cost	Property Owner/ Developer (1)	Antioch Redevelopment	Sub-regional (2)	State and Federal	*All Sources Combined*
Utilities							
Stormwater (6)	*2*	$500,000	100%	0%	0%	0%	100%
Water Distribution Expansion	*2*	$340,000	100%	0%	0%	0%	100%
Sewer							
Sewer main improvements	*2*	$1,190,000	100%	0%	0%	0%	100%
Wastewater collection system expansion - cross-country lines/not under proposed roads	*1*	$680,000	100%	0%	0%	0%	100%
Update Wastewater Collection System Master Plan	*1*	$100,000	0%	100%	0%	0%	100%
PG& Electrical Lines Relocation	*3*	$2,975,000	100%	0%	0%	0%	100%
Biological Resources Mitigation (7)							
Wetlands loss mitigations (~3.4 acres at 2:1 replacement ratio)	*3*	$115,600	100%	0%	0%	0%	100%
Wildlife undercrossings near East Antioch Creek	*2*	$10,000	100%	0%	0%	0%	100%
Tree of Heaven Control Plan	*2*	$5,000	100%	0%	0%	0%	100%
Pipelines							
Disposition Plan for petroleum pipelines	*1*	$25,000	100%	0%	0%	0%	100%
Cultural Resources							
The “Foundry”	*1*	$50,000	100%	0%	0%	0%	100%

(1) Includes Freeway Area, Town Center and Station Area.
(2) Includes mitigation funds from Oakley, Brentwood, and the County or having projects added to and funded by the ECCRFFA.
(3) Cost estimates include utilities.
(4) May be considered for regional funding in the future.
(5) The amount and extent of traffic mitigation in Oakley that is the responsibility of development in the Hillcrest Station Specific Plan Area will be determined based the understanding reached by the two cities, as contained in the amendments to the Hillcrest Station Specific Plan, as adopted by the Antioch City Council on September 8, 2009. The costs for traffic mitigation in Oakley are unknown and are assumed to not materially affect the conclusions regarding the financing plan and its feasibility.
(6) This cost estimate is in addition to the $5 million estimated cost for the Oakley and Trembath Basin improvements already identified as a regional CIP project to be funded through flood control fees collected from development in the entire Drainage Area 56. The sizing of these basin improvements were based on the General Plan buildout, and the $500,000 cost shown here would be to increase the Oakley Basin capacity if the flood control impacts can not be mitigated within the Hillcrest Specific Plan area. The actual need and cost for such improvements should be discussed further with CCFCD as the project approaches implementation.
(7) Do not include potential costs of loss of habitat for endangered species, which would be determined through project level environmental documents.

Source: Dyett & Bhatia; BKF Engineering; City of Antioch; and Economic & Planning Systems, Inc.

Table 5
Hillcrest Infrastructure Allocation of Costs -- Base Case (2010$)
Hillcrest Station Area Financing Plan; EPS #18111

Item	***Phase***	**Property Owner/ Developer (1)**	**Antioch Redevelopment**	**Sub-regional (2)**	**State and Federal**	***All Sources Combined***
Circulation Improvements (3)						
Regional Transportation						
Grade separation at UP Railroad and Hillcrest Ave.	*2*	$0	$0	$0	$12,750,000	**$12,750,000**
Phillips Lane Interchange with Highway 4	*1*	$4,930,000	$0	$9,860,000	$9,860,000	**$24,650,000**
Local Roads and Bridges						
Slatten Ranch Road: Hillcrest to Viera (4)	*1*	$1,190,000	$0	$0	$0	**$1,190,000**
Slatten Ranch Road: Viera to Philips	*1*	$8,500,000	$0	$0	$0	**$8,500,000**
Viera Avenue (New), including creek and RR bridge	*2*	$16,065,000	$0	$0	$0	**$16,065,000**
Oakley Road: Viera to Willow	*2*	$2,805,000	$0	$0	$0	**$2,805,000**
Oakley Road: Willow to Phillips Ln	*4*	$6,715,000	$0	$0	$0	**$6,715,000**
Oakley Road: Phillips Ln to 160 widening	*4*	$204,000	$0	$816,000	$0	**$1,020,000**
Phillips Lane: Oakley to SR 4, including creek and RR bridge	*4*	$25,500,000	$0	$0	$0	**$25,500,000**
Willow Road Modification	*2*	$170,000	$0	$0	$0	**$170,000**
Local Roads Outside Planning Area (5)						
Slatten Ranch Road: Phillips Lane to Laurel	*3*	$6,375,000	$0	$2,125,000	$0	**$8,500,000**
Hillcrest Avenue and 18th Street intersection improvements	*2*	$0	$280,500	$0	$0	**$280,500**
Wayfinding signage program	*4*	$10,000	$0	$0	$0	**$10,000**
TOTAL CIRCULATION IMPROVEMENTS		$72,464,000	$280,500	$12,801,000	$22,610,000	**$108,155,500**
Parks and Trails						
Town Center Area Plaza (0.5 acre)	*4*	$425,000	$0	$0	$0	**$425,000**
Transit Village Area Plaza (0.5 acre)	*3*	$425,000	$0	$0	$0	**$425,000**
Creek Resource Management Plan	*2*	$50,000	$0	$0	$0	**$50,000**
TOTAL PARKS AND TRAILS		$900,000	$0	$0	$0	**$900,000**
Landscape Buffers						
PG&E Substation southern landscape buffer	*2*	$170,000	$0	$0	$0	**$170,000**
Community Facilities						
Community Center (approx. 3,750 sf)	*3*	$1,275,000	$0	$0	$0	**$1,275,000**

Table 5
Hillcrest Infrastructure Allocation of Costs -- Base Case (2010$)
Hillcrest Station Area Financing Plan; EPS #18111

Item	***Phase***	**Property Owner/ Developer (1)**	**Antioch Redevelopment**	**Sub-regional (2)**	**State and Federal**	***All Sources Combined***
Utilities						
Stormwater (6)	*2*	$500,000	$0	$0	$0	**$500,000**
Water Distribution Expansion	*2*	$340,000	$0	$0	$0	**$340,000**
Sewer						
Sewer main improvements	*2*	$1,190,000	$0	$0	$0	**$1,190,000**
Wastewater collection system expansion - cross-country lines/not under proposed roads	*1*	$680,000	$0	$0	$0	**$680,000**
Update Wastewater Collection System Master Plan	*1*	$0	$100,000	$0	$0	**$100,000**
PG&E Electrical Lines Relocation	*3*	$2,975,000	$0	$0	$0	**$2,975,000**
TOTAL UTILITIES		$5,685,000	$100,000	$0	$0	**$5,785,000**
Biological Resources Mitigation (7)						
Wetlands loss mitigations (~3.4 acres at 2:1 replacement ratio)	*3*	$115,600	$0	$0	$0	**$115,600**
Wildlife undercrossings near East Antioch Creek	*2*	$10,000	$0	$0	$0	**$10,000**
Tree of Heaven Control Plan	*2*	$5,000	$0	$0	$0	**$5,000**
TOTAL BIOLOGICAL RESOURCES MITIGATION		$130,600	$0	$0	$0	**$130,600**
Pipelines						
Disposition Plan for petroleum pipelines	*1*	$25,000	$0	$0	$0	**$25,000**
Cultural Resources						
The “Foundry”	*1*	$50,000	$0	$0	$0	**$50,000**
TOTAL DEVELOPMENT COST (8)		$80,699,600	$380,500	$12,801,000	$22,610,000	**$116,491,100**
DISTRIBUTION		*69%*	*0%*	*11%*	*19%*	***100%***

(1) Includes Freeway Area, Town Center and Station Area.

(2) Includes mitigation funds from Oakley, Brentwood, and the County or having projects added to and funded by the ECCRFFA; items assumed to be covered by ECCRFFA are not currently on the ECCRFFA capital improvement program list but may be added to the costs in the future.

(3) Cost estimates include utilities.

(4) May be considered for regional funding in the future.

(5) The amount and extent of traffic mitigation in Oakley that is the responsibility of development in the Hillcrest Station Specific Plan Area will be determined based the understanding reached by the two cities, as contained in the amendments to the Hillcrest Station Specific Plan, as adopted by the Antioch City Council on September 8, 2009. The costs for traffic mitigation in Oakley are unknown and are assumed to not materially affect the conclusions regarding the financing plan and its feasibility.

(6) This cost estimate is in addition to the $5 million estimated cost for the Oakley and Trembath Basin improvements already identified as a regional CIP project to be funded through flood control fees collected from development in the entire Drainage Area 56. The sizing of these basin improvements were based on the General Plan buildout, and the $500,000 cost shown here would be to increase the Oakley Basin capacity if the flood control impacts can not be mitigated within the Hillcrest Specific Plan area. The actual need and cost for such improvements should be discussed further with CCFCD as the project approaches implementation.

(7) Do not include potential costs of loss of habitat for endangered species, which would be determined through project level environmental documents.

(8) Does not include impact fee costs.

Source: Dyett & Bhatia; BKF Engineering; City of Antioch; and Economic & Planning Systems, Inc.

It is expected that all of the major "backbone" infrastructure would be completed within the first four phases, leaving only smaller "in-tract" infrastructure improvements to be completed in the final two phases. Such "in-tract" costs (small streets, connections to main line utilities, etc.) are assumed to be borne by the vertical developers on a project-by-project basis, rather than being part of the overall financing plan for the entire Specific Plan area.

The development is also expected to participate in applicable impact fee programs, including existing fees for schools, parks, fire facilities, etc. In some cases, in-kind provision of land or improvements may be desirable to the City and/or developer, rather than payment of the fees. Because these fees or contributions are required of all development and are factored into the costs of developing buildings and acquiring land, EPS did not include such items as costs for this financing plan, which is focused on the unique costs of infrastructure improvements for the Specific Plan.

The infrastructure cost estimates have been completed by a combination of City staff, consulting civil engineers, and EPS. These costs represent "preliminary engineering cost estimates." Subsequent and more refined planning and engineering efforts should produce more precise cost and timing estimates which may vary from the cost estimates used in this analysis.

Infrastructure Cost Allocation

Cost Allocation Scenarios

This Financing Plan aims to test the financial feasibility of the infrastructure cost burden for the development in the Specific Plan area. Because the development of both infrastructure and new buildings are expected to occur over several decades, numerous factors must be assumed, including what entities will provide funding for individual improvements. In a few cases, funding sources and amounts are already known for selected improvements. In most cases, however, the funding must be secured through future agreements. Because funding from sources other than the Specific Plan area development itself is somewhat speculative, EPS has created three scenarios representing different allocations of those costs.

In the "Base Case" scenario, the total infrastructure costs will be shared among various funding sources based on a number of factors. Certain infrastructure and public facility improvements may serve the immediate Hillcrest Station Area, while others may serve a broader area that includes the City of Antioch or surrounding jurisdictions. The improvements that primarily serve the Project area will be financed with mechanisms specifically established for the Hillcrest Station Area, while other required improvements will be funded by other regional, State, and Federal funding sources. **Tables 4** and **5** and the discussion of specific funding sources below reflect the "Base Case" scenario, which EPS, City staff, and other Hillcrest Specific Plan consultants believe to be a realistic assessment of how funding responsibilities are likely to be allocated among various sources.

In a second scenario—the "Redevelopment" scenario—tax increment generated by the development is assumed to be available to offset some of the infrastructure costs. Finally, in the third "Private Financing" scenario, the full costs of all infrastructure improvements (other than transit) are assumed to be borne by the Specific Plan area development. These alternative scenarios are addressed in more detail in **Chapter 4** of this Financing Plan, and are intended to frame the range of potential outcomes.

It is worth noting that all three scenarios exclude the amount and extent of traffic mitigation in Oakley that is the responsibility of development in the Hillcrest Station Specific Plan Area. The traffic mitigation cost will be determined based on the understanding reached between the cities, as contained in the amendments to the Hillcrest Station Specific Plan adopted by the Antioch City Council on September 8, 2009. Such costs are unknown at this time but are not expected to materially alter the conclusions of this analysis.

Infrastructure Cost Allocation by Scenario

EPS has prepared a methodology for allocating area infrastructure among various funding sources that depends on the service area. The potential funding entities include the property owners/developers of the Hillcrest Station Area Specific Plan, the Antioch Redevelopment Agency, adjacent cities and East Contra Costa Regional Fee and Financing Authority (sub-regional funds), and State and Federal sources. The "Base Case" infrastructure cost allocation by category among these funding sources and phasing assumptions are shown in **Table 4,** and is based on assumptions provided by the City of Antioch staff and its consultants. The results of the allocation among funding entities in the "Base Case" scenario are shown in **Table 5**, and are discussed below.

EPS has not produced cost allocation tables for the "Redevelopment" and "Private Financing" scenarios, as the "Redevelopment" scenario simply introduces another revenue source that is assumed to directly offset property owners/developers expenses overall (not for specific improvement items), while the "Private Financing" scenario allocates 100 percent of the costs to the property owners/developers. As such, additional cost allocation tables were not considered necessary for the purpose of this analysis.

State and Federal Funding

The "Base Case" analysis assumes a share of the infrastructure costs would be covered by State and Federal sources. These sources are assumed to cover the cost of roughly $13 million for the grade separation of the Union Pacific railroad tracks at Hillcrest Avenue as well as 40 percent of the total costs of the Phillips Lane interchange improvements. The "Base Case" assumes that State and Federal sources provide $22.6 million for these two circulation improvements, which will generate benefits beyond the immediate station area. The "Redevelopment" scenario assumes the same level of State and Federal funding as in the "Base Case," while the "Private Financing" scenario assumes no such State and Federal funding.

The Phillips Interchange improvements are assumed to be required in the first phase of development, to provide regional access for the opening of the eBART system. While this is an optimistic assumption made by the City, its inclusion in the Technical Report emphasizes the importance of creating a second major point of ingress/egress to the eBART station given the impacts the eBART station is expected to have on the Hillcrest Interchange. The railroad grade separation work is currently expected to be required during Phase 2, roughly between 2015 and 2020. **Table 6** summarizes the phases during which the State and Federal sources (and all other sources) are expected to make their funding contributions for the overall development.

Table 6
Infrastructure Allocation of Costs by Phase and Funding Source -- Base Case (2010$)
Hillcrest Station Area Financing Plan; EPS #18111

		Anticipated Funding Source				
Phase	**Expected Years**	**Property Owner/ Developer**	**Antioch Redevelopment**	**Sub-regional (1)**	**State and Federal**	***All Sources Combined***
1	2010 - 2015	$15,375,000	$100,000	$9,860,000	$9,860,000	***$35,195,000***
2	2015 - 2020	$21,305,000	$280,500	$0	$12,750,000	***$34,335,500***
3	2020 - 2025	$11,165,600	$0	$2,125,000	$0	***$13,290,600***
4	2025 - 2030	$32,854,000	$0	$816,000	$0	***$33,670,000***
Total		$80,699,600	$380,500	$12,801,000	$22,610,000	***$116,491,100***

(1) Includes Oakley, Brentwood, and unincorporated County as well as ECCRFFA funds.

Source: Dyett & Bhatia; BKF Engineers, and Economic & Planning Systems, Inc.

Sub-Regional Funding

Several of the circulation improvements will benefit the neighboring communities of Brentwood, Oakley, and unincorporated Contra Costa County, in addition to Antioch and the Hillcrest Station Area development. According to BART ridership projections, about 57 percent of eBART

Ridership at the Hillcrest Station is projected by BART's analysis to be generated by residents from Oakley, Brentwood and the unincorporated County area. In the "Base Case" scenario, it is anticipated that neighboring communities may jointly contribute 40 percent of the cost of the Phillips Interchange, 80 percent of the costs of improving Oakley Road from Phillips Lane to Highway 160, and 25 percent of the costs of the improvements to Slatten Ranch Road between Phillips Lane and Laurel.[5] For purposes of this study, in sum these neighboring communities are assumed to contribute $12.8 million to the total infrastructure costs under the "Base Case" and "Redevelopment" scenarios, but no funding under the "Private Financing" scenario. Further studies, such as vehicle counts by origins and destination, will be required to provide more precise allocations of benefits and costs among these multiple jurisdictions.

Instead of or in addition to direct financial contributions from the neighboring jurisdictions, some or all three of the items covered in the sub-regional category may be funded through the East Contra Costa Regional Fee and Financing Authority (ECCRFFA)—a joint powers agency involving Antioch, Brentwood, and Oakley. It is worth noting that the three infrastructure improvements attributed to "sub-regional" funding have not yet been added to the ECCRFFA capital improvement program list.

As shown on **Table 6**, the current approach suggests that nearly 80 percent (almost $10 million) of the sub-regional funding would be required in the first phase of the development (by year 2015), because of the near-term need to improve the Phillips Lane interchange with Highway 4 to enhance access for future eBART riders.

Antioch Redevelopment Agency

In the "Base Case" scenario, the Antioch Redevelopment Agency is expected to contribute a modest amount toward the infrastructure costs, in recognition of the benefit that certain improvements will have to the City overall, not just the Specific Plan area. In this scenario, the Agency's participation is expected to consist of $280,500 for intersection improvements at Hillcrest Avenue and 18th Street, and $100,000 to update the Wastewater Collection System Master Plan. In sum, the Agency's contribution is estimated at $380,500, required for improvements expected within the next 10 years, as shown on **Table 6**.

A tax increment projection provided for this specific development by Fraser & Associates is included as **Appendix A** to this report. The tax increment projection indicates that the Specific Plan area is likely to generate $323,000 in net tax increment (2010 dollars) by 2015 - even

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[5] City staff have indicated that the property owners/developers would wholly fund the Slatten Ranch Road improvements from Phillips Lane to SR 160, while the costs from SR 160 to Laurel would be evenly split between the property owners/developers and sub-regional funding. Costs for these sections independently have not been provided, so EPS has estimated that this breakdown would result in sub-regional funding for 25 percent of the Slatten Ranch Road costs from Phillips to Laurel.

before the commencement of significant development in the area - and a cumulative $4.7 million (2010 dollars) in tax increment through 2020. As such, the tax increment generated by the Specific Plan area properties are expected to be more than adequate for the modest funding allocated to the Redevelopment Agency in the "Base Case" scenario.

Under the "Redevelopment" scenario, the Redevelopment Agency is expected to contribute to more than just the two small projects assumed in the "Base Case" scenario. Rather, the tax increment generated by the Specific Plan area is assumed to be used to issue a cumulative $24.9 million in bonds to offset project infrastructure costs through the first four phases of development, with a dollar-for-dollar reduction in the property owners/developers' funding allocation.

In addition, a separate analysis conducted by Fraser & Associates for the Antioch Redevelopment Agency estimates that additional tax increment funding capacity of up to $10 million could be available for the Hillcrest Station Area as early as 2011 if the City's Redevelopment Project Areas could be merged, expiration dates extended, and tax increment caps increased. To be conservative, this analysis does not assume that the $10 million in additional funding is provided to the project, though its availability would reduce the developers/property owners' contribution which would improve the feasibility of the Specific Plan.

Hillcrest Station Area Specific Plan Development ("Property Owners/Developers")

Under the "Base Case" scenario, the various funding sources described above are estimated to provide nearly $36 million in funding for infrastructure improvements associated with the Hillcrest Station Area Specific Plan. Subtracting all of these external funding sources from the total costs of improvements associated with the Specific Plan development ("Property Owners/Developers"), roughly $80.7 million in infrastructure costs is left to be borne by the Property Owners/Developers in the "Base Case" scenario. As shown on **Table 6**, nearly 20 percent of this total (over $15 million) is expected to be required in Phase 1 of the development (through year 2015), while the remainder will be required at later times.

In the "Redevelopment" scenario, the property owners/developers' obligations are partially offset by bonds issued from tax increment, resulting in property owner/developers obligations of roughly $56 million. In the "Private Financing" scenario, the property owners/developers are assumed to be responsible for the full $116.5 million costs of all backbone infrastructure.

4. FINANCING FEASIBILITY ASSESSMENT

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 eventual property owners. Based on extensive experience with financing plans for major development projects, EPS recommends the following standards:

1. The total backbone infrastructure cost burden (including impact fees) should not exceed 15 percent of the total Hillcrest Station Area development's value (the "cost/value ratio").
2. If a special tax on the new development (such as a Mello-Roos Community Facilities District) is used to finance certain infrastructure, the combined tax burden (base tax rate plus all special taxes) should not exceed 2.0 percent of the properties' assessed value (the "tax burden threshold").

In addition to these broad parameters for the overall project, it is necessary to consider the phasing of infrastructure costs versus the creation of value. Large-scale development projects often require "over-sizing" of backbone infrastructure in early phases, to allow future development phases to be built without having to re-build the early infrastructure. For example, an early main water line may need to be sized to accommodate the full development program for the project, even if the demand for the full water capacity will not be realized for a decade or longer. In such cases, the cost/value ratio and the tax burden threshold may be exceeded in early phases, requiring the developers to make investments beyond what the immediate development can support and expose a developer to additional risk. In these cases, EPS applies a more subjective feasibility standard that the developers' extra investment not be too large or take too long to be repaid through future development value.

In this chapter, EPS applies these standards to the Hillcrest Station Area Specific Plan infrastructure costs and values under each of the three scenarios described in **Chapter 3**.[6]

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[6] Often, Community Facilities Districts or similar land-secured financing mechanisms seek to achieve a 3:1 "value-to-lien" ratio, meaning that the value of the improved land (raw land value plus the value of the infrastructure serving it) must be at least three times the value of any bond issued for which that land serves as collateral. In practice, bonds can be issued on a combination of land values and vertical building values, as long as those vertical buildings are subject to the special taxes required to pay the bonds. For this reason, instead of the 3:1 land value-to-lien ratio, EPS has used the 15 percent cost/value ratio, which effectively means that the total value of the property (land and buildings) being subject to the special tax will be roughly 6.7 times the value of the lien. As such, EPS's recommended 15 percent cost/value threshold represents a more conservative standard than the 3:1 value-to-lien ratio, and reflects the financing requirements for a project of this scale, complexity, and duration.

Feasibility Assessment by Scenario

Caveat Regarding Current Market Conditions

At the time this Financing Plan is being assembled, the global real estate market is in very poor condition. Like many parts of the country and world, Eastern Contra Costa County has seen significant increases in foreclosures and decreases in median home values. At the present time, no real estate developer is likely to commence development of a project as ambitious and massive as that described in the Hillcrest Station Area Specific Plan. Rather, prudent developers will await clear signs of a market recovery, including rising home values and commercial lease rates as well as population growth and decreases of currently high unemployment rates.

This Financing Plan presupposes that such conditions will be extant when the development commences, and does not rely on specific dates associated with each phase of development. For example, while the Specific Plan may nominally associate Phase 2 of the development with the years 2015 through 2020, such dates are less critical than the idea that infrastructure development will occur more-or-less in conjunction with vertical development, and both will be responsive to market conditions. For this reason, this Financing Plan has used current 2010 dollars for cost and value estimates for this feasibility assessment, rather than inflating those figures to specific future dates.

Development Value

The estimated market values of various development types (residential, office, retail, and hotel) are shown in **Table 7**. In general, EPS has assumed that the building values would equal the costs of vertical construction plus the value of improved land, but excluding developer profits. This is a conservative assumption that reflects the notion that development will *not* occur if values fall short of construction costs, but also attempts to not overestimate future building values in the face of current real estate market uncertainty.

EPS has used a variety of sources to estimate these construction costs, including published information from Design Cost Data and recent developer pro formas used for comparable projects. EPS has used construction costs for multifamily development to estimate residential values, as the Specific Plan assumes that average housing densities would range between 6 and 50 dwelling units per acre with most units in the 20 to 40 dwelling units per acre range.

Consistent with State Law for Redevelopment, the Hillcrest Station Area Specific Plan requires 15 percent of residential housing units to be affordable. EPS assumes that the affordable units will be rentals with 6 percent as very low income and 9 percent as moderate income households with an average unit size of two bedrooms. Value estimates for the affordable housing residential component are based on the lesser of affordability levels in Contra Costa County and construction costs for multifamily development. These assumptions result in an average affordable unit value of about $233,000 as shown on **Table 8.**

EPS has also estimated the value of the developable land in Antioch. As shown on **Table 7**, land is valued at “unimproved” values—an estimated $200,000 to $300,000 per acre based on broker interviews—until such time as the infrastructure is installed to make the land developable.

Table 7
Estimated Cumulative Value of New Development (2010$)
Hillcrest Station Area Financing Plan; EPS #18111

Land Use	Value per unit, sq.ft., or acre	Phase 1	2	3	4	5 and 6	Total
Residential (1)							
Market-rate units	$315,000	$0	$174,037,500	$348,075,000	$508,725,000	$669,375,000	**$669,375,000**
Affordable units (2)	$233,000	$0	$22,717,500	$45,435,000	$66,405,000	$87,375,000	**$87,375,000**
Subtotal, Residential		$0	$196,755,000	$393,510,000	$575,130,000	$756,750,000	**$756,750,000**
Commercial							
Retail (sq.ft.)	$200	$30,000,000	$55,000,000	$100,000,000	$143,000,000	$200,000,000	**$200,000,000**
Office (sq.ft.)	$200	$0	$54,000,000	$108,000,000	$162,000,000	$240,000,000	**$240,000,000**
Hotel (rooms)	$80,000	$0	$0	$0	$26,000,000	$26,000,000	**$26,000,000**
Subtotal, Commercial		$30,000,000	$109,000,000	$208,000,000	$331,000,000	$466,000,000	**$466,000,000**
Developable Land							
Improved (acres)	$600,000	$7,800,000	$30,240,000	$52,680,000	$84,330,000	$115,980,000	**$115,980,000**
Unimproved (acres)	$300,000	$54,090,000	$42,870,000	$31,650,000	$15,825,000	$0	**$0**
Subtotal, Land		$61,890,000	$73,110,000	$84,330,000	$100,155,000	$115,980,000	**$115,980,000**
Total Value		**$91,890,000**	**$378,865,000**	**$685,840,000**	**$1,006,285,000**	**$1,338,730,000**	**$1,338,730,000**

(1) It is assumed that 15 percent of the new residential units are affordable in each phase.
(2) Value reflects moderate-income and very low-income households as required under State Law for Redevelopment.

Source: Dyett & Bhatia; Design Cost Data; confidential developer pro formas; real estate brokers; LoopNet; and Economic & Planning Systems, Inc.

Table 8
Affordable Housing Value Estimate
Hillcrest Station Area Financing Plan; EPS #18111

Item	Income Requirement Very Low (6%)	Income Requirement Moderate (9%)	Weighted Average
Development Program Assumptions			
Average Gross Unit Size	1,100	1,100	1,100
Average Number of Bedrooms	2.0	2.0	2.0
Average Number of Persons per Household	3.0	3.0	3.0
Maximum Supported Home Price			
Household Income (1)	$40,200	$96,450	$73,950
Income Available for Housing Costs/Year	$12,060	$28,935	$22,185
Operating Expenses per Unit/Year	$5,500	$5,500	$5,500
Capitalization Rate	6.0%	6.0%	6.0%
Supportable Unit Value	$109,333	$390,583	$278,000
Assumed Unit Value (2)	$109,333	$315,000	**$233,000**
Value per Square Foot	$99	$355	$253

(1) Based on the State income limits for Contra Costa County.

(2) The "Assumed Unit Value" is the lesser of the "Supportable Unit Value" and the market-rate unit value shown on Table 7.

Source: HUD; Economic & Planning Systems, Inc.

At that time, it is counted as "improved" land, with values estimated at $600,000 per acre, again reflecting input from brokers as well as comparable local land transactions in the past several years.

As shown on **Table 7**, the residential program makes up the majority of the total new development value. At buildout, the value of the new development is estimated at about $1.3 billion in 2010 dollars. For Phase 1, retail development will be the only use and is estimated to result in about $38 million in development value (for the buildings and the improved land), less than 3 percent of the value total at buildout. Following this initial phase, the development value is assumed to be more evenly distributed among the subsequent phases of the Hillcrest Station Area Specific Plan.

EPS also assumes that development of private uses and most infrastructure is based on the timing parameters outlined in the Specific Plan, which is generally consistent with the Hillcrest Station Area absorption estimate in the EPS July 2008 market study. However, densities of uses defined in the Hillcrest Station Area Specific Plan are higher than historical development trends in the City, which make proposed development types unique and assumptions about future values and absorption less certain. To the extent development occurs at a slower rate than assumed in this analysis, the buildout would take longer and the infrastructure improvements would also be delayed. Whether these delays adversely or positively affect the feasibility of the Specific Plan will depend on the market conditions at the time of development and the availability and capacity of various funding sources when specific investments are required.

"Base Case" Scenario

As described in **Chapter 3**, the "Base Case" scenario estimates that a variety of funding sources contribute to the various infrastructure improvements requirements. Still, **Table 6** shows that the property owners/developers are assumed to bear $80.7 million in costs under this scenario, with other sources contributing a combined $35.8 million. As such, property owners/developers are responsible for over 69 percent of the total infrastructure costs in this scenario.

Total Backbone Infrastructure Cost/Value Ratio

Backbone infrastructure costs are assumed to be the combination of items allocated to each funding source on **Tables 4** and **5**, plus impact fee requirements. The City of Antioch's impact fee program is currently being updated. City staff has indicated that while current fees for typical single-family units average about $25,000 per unit, it is likely that lower impact fees will be applied to the Hillcrest Station Area Specific Plan because of higher densities, smaller unit size, and the transit-oriented nature of the site. As a result, the $25,000 per unit in impact fees used in this analysis reflect a conservative estimate.

Under the "Base Case" scenario, a sum of infrastructure costs and impact fees adds up to the cost burden of $143.2 million for property owners/developers, as shown on **Table 9**. In addition, **Table 9** indicates that the first two phases of development are expected to exceed the desired feasibility thresholds, resulting in a need for the developer to contribute roughly $10 million (based on the cost/value ratio) to $12 million (based on the tax burden threshold) to the "over-sizing" of early infrastructure. Those contributions, and a modest carrying cost to reflect inflation-based interest on those costs, are then rolled into the cumulative infrastructure costs

Table 9
Financing Measures by Project Phase -- Base Case Scenario (2010$)
Hillcrest Station Area Financing Plan; EPS #18111

Item	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5 and 6
Cost/Value Ratio					
Cumulative Infrastructure Costs					
Property Owner/Developer-Funded Backbone Infrastructure	$15,375,000	$36,680,000	$47,845,600	$80,699,600	$80,699,600
Impact Fees (1)	$0	$16,250,000	$32,500,000	$47,500,000	$62,500,000
Interest on Developer Equity (2)	$0	$1,967,035	$1,863,507	$0	$159,274
Total Infrastructure Cost Burden	$15,375,000	$54,897,035	$82,209,107	$128,199,600	$143,358,874
Cumulative Development Value (3)	$37,800,000	$335,995,000	$654,190,000	$990,460,000	$1,338,730,000
Cumulative Cost/Value Ratio	**40.7%**	**16.3%**	**12.6%**	**12.9%**	**10.7%**
Developer Equity Required for Cost/Value < 15% (4)	**$9,705,000**	**$4,497,785**	**$0**	**$0**	**$0**
Community Facilities District Bond Capacity					
Cumulative CFD Bond					
Net Bond Proceeds (5)	$15,375,000	$38,647,035	$49,709,107	$80,699,600	$80,858,874
Supportable Bond Issuance (6)	$16,184,211	$40,681,089	$52,325,375	$84,946,947	$85,114,604
Proceeds Required for Annual Debt Service (7)	$1,468,821	$3,692,069	$4,748,862	$7,709,479	$7,724,695
Debt Coverage Factor	120%	120%	120%	120%	120%
Special Tax Proceeds Required Annually	$1,762,585	$4,430,483	$5,698,635	$9,251,374	$9,269,634
Potential Special Tax (% of value) (8)	**4.66%**	**1.32%**	**0.87%**	**0.93%**	**0.69%**
Developer Equity Required for Special Tax > 0.92% (9)	**$12,350,000**	**$11,700,000**	**$0**	**$1,000,000**	**$0**

(1) Based on the impact fees assumed at $25,000 per residential unit; commercial fees are estimated to be negligible by City staff and are not expected to significantly impact the feasibility of the development.
(2) Reflects the interest carry (3% annually) on the larger amount of developer equity required to maintain cost/value or CFD tax rate within desired feasibility thresholds.
(3) Value includes improved land and vertical construction only and excludes unimproved land.
(4) This figure is the difference between the total infrastructure cost burden and the amount supported under a 15% cost/value threshold, and represents the developer's equity contribution to "over-sizing" the initial infrastructure.
(5) Based on the project-funded backbone infrastructure cost net of redevelopment TIF bond contribution.
(6) Assumes 5% issuance costs.
(7) Assumes bond issued at 6.5% interest for 20-year term.
(8) This estimate is conservative as unimproved land value is excluded from the calculation.
(9) This figure is the difference between the total infrastructure cost burden and the amount supported under a 0.92% maximum special tax threshold, and represents the developer's equity contribution to "over-sizing" the initial infrastructure. The 0.92% threshold is estimated in Table 10 by subtracting future taxes and special assessments as % of future land value within the Specific Plan from the 2.0% percent maximum tax burden.

Source: Economic & Planning Systems, Inc.

for future phases until such time as the cumulative development value can absorb those earlier costs. **Table 9** suggests that such developer contributions would be fully absorbed by the development's proceeds in the third phase.

Maximum Tax Burden

In California, Community Facilities Districts (CFDs) are frequently utilized to finance infrastructure improvements in master-planned developments. CFDs generate revenues by adding a special tax assessment on top of the regular property tax burden for a given property. As property owners pay their taxes over time, the special tax revenue is used to pay debt service on bonds issued for the infrastructure development. Typically, CFDs are established at the behest of the developers, based on their consideration of the costs and benefits of this financing mechanism compared to direct developer equity or impact fees.

While CFDs may or may not be used to finance project-funded infrastructure for the Hillcrest Station Area Specific Plan, the CFD concept does provide another useful measure for the feasibility of the overall infrastructure cost burden. The "rule of thumb" is that the maximum tax (combining the base property tax with the special tax for the CFD) should not exceed 2.0 percent of the total assessed value of the property. Evaluating the Project's conformance with this rule of thumb requires an estimation of the development value and the bonding capacity available at various special tax rates.

EPS evaluated current tax rates for sample parcels within the Specific Plan area with the totals shown in **Table 10.** The current property tax rate for almost all of the land in the Hillcrest Station Area Specific Plan area is 1.06 percent of assessed value—a combination of the basic 1.0 percent property tax and 0.06 percent for additional ad valorem taxes. The table also indicates that the existing parcels have some additional special taxes and assessments, although these additional levies are known to vary from parcel to parcel. On average, the total current tax burden on the sample parcels is 1.28 percent. EPS has estimated the future value of the sample parcels, assuming improved land values of $600,000 per acre. This yields a very conservative result, as it does not account for the value of the buildings that will be developed on the land, which could add $1 billion or more to the assessed value rolls. As a result, the current tax burden for the base tax rate and ad valorem taxes (1.06 percent) plus a continuation of the current dollar amounts of existing special taxes would equate to an average total tax rate of 1.08 percent based on the future land value (versus 1.28 today with current unimproved property values). This tax rate estimate indicates that future development in the Specific Plan area has capacity to add special tax payments of up to approximately 0.92 percent of value while still remaining under the 2.0 percent total tax rate EPS considers to be a threshold for the feasibility of a CFD.

Table 9 indicates the special tax rate that would be required for the full Project-funded backbone infrastructure (excluding impact fees) to be funded through special taxes applied through a CFD in each phase of development. As shown, by the end of the project, a special tax rate of only 0.69 percent would be required to fully finance the property owners/developers infrastructure cost obligations—well within the 0.92 percent capacity. However, because the infrastructure costs are over-sized in Phase 1, a special tax of over 4.6 percent would be required on the Phase 1 development to fully fund this cost. This tax rate is unacceptably high, and would require that the developers contribute roughly $12 million directly to the infrastructure costs, so that the CFD bond could be paid by a more reasonable special tax of 0.92 percent on the land that will

Table 10
Estimate of Current and Future Tax Burdens based on Existing Tax Rates, Special Taxes, and Assessments
Hillcrest Station Area Financing Plan; EPS #18111

		2009 Tax Burdens								Future Tax Burdens			
					Total Basic and Add'l Ad Valorem Taxes			Total Burden					
Item	**Acres**	**Assessed Value**	**Basic 1.0% Property Tax**	**Additional Ad Valorem Taxes**	Total $	% of Value	**Additional Special Taxes and Assessments**	Total $	% of Value	**With Assessed Land Value at $600,000/acre**	**Basic and Ad Valorem Taxes at 1.06%**	**Total Taxes including Current Special Taxes**	**Total Taxes as % of Future Value**
Total/Average of Select Parcels	242.3	$10,933,518	$109,335	$6,092	$115,428	1.06%	$24,226	$139,654	1.28%	$145,389,733	$1,540,705	$1,564,931	1.08%

Sources: Contra Costa County Tax Assessor; Economic & Planning Systems, Inc.

be improved at that time. The Phase 2 special tax burden would also exceed the 0.92 percent threshold, and would require that the developer keep nearly the full $12 million of their Phase 1 contribution to financing rather than being recouped through the CFD payments by the eventual property owners. By Phase 3, however, the developers' contribution could be fully absorbed into the CFD payments, meaning that the developers' $12 million initial investment would have been repaid with modest interest at that time. A very modest ($1 million) developer contribution may again be required during Phase 4 to get the special tax rate back under 0.92 percent, but this amount would again be fully recouped by Phases 5 and 6.

Feasibility Conclusion

The "Base Case" scenario is on a cusp of being feasible. For the overall development, the cost/value ratio and the special tax burden both fall within the desired parameters. Phasing issues pose a challenge, as early over-sizing would require that the developers contribute to the infrastructure costs beyond what might typically be supported by the ongoing increase in the development value. Still, the developers' over-sizing contribution (estimated at roughly $12 million) seems reasonable given that it is less than 10 percent of the total $143 million infrastructure and impact fee costs for the development, and is projected to be recouped with interest by the third phase of the development (roughly 10 to 15 years).

The "Base Case" scenario faces a phasing challenge primarily because of over-sizing of early infrastructure. Specifically, the property owners/developers contribution to the Phillips Lane interchange with Highway 4 and improvements to Slatten Ranch Road represent almost 95 percent of their Phase 1 costs. Development feasibility would be greatly enhanced if those costs can be deferred until later phases, or if a financing arrangement can be struck whereby the property owners/developers contribute to those costs over time as vertical development occurs rather than up-front.

"Redevelopment" Scenario

In this scenario, the City of Antioch's Redevelopment Agency contributes to the infrastructure financing through reinvestment of the tax increment generated by the Hillcrest Station Area development. All other costs are assumed to be allocated to external funding sources just as they were in the "Base Case" scenario. That is to say, this scenario assumes that the property owners/developers' funding allocation is reduced to the extent that the development generates tax increment, while the other funding sources' allocations are not reduced. As such, this "Redevelopment" scenario may represent a best-case scenario from the property owners/developers' perspective.

It is worth noting that the tax increment estimate of $24.9 million (2010 dollars) assumed to be available for the development is conservative as only the "bond debt service" portion of the increment is considered, while "remaining tax increment" portion not committed to debt service and the housing set-aside dollars retained would be available for improvements outside the Hillcrest Station Area Plan (see **Appendix A Table 3**). If the housing set-aside money can also be used for this development—for example, to provide construction or infrastructure subsidies for the 375 affordable units required in the Project—the property owners/developers' financing burden could be further diminished and the feasibility further enhanced.

A tax increment bond issued in fiscal year 2015-2016 could net roughly $4.3 million that could be used to pay certain infrastructure costs beyond the negligible amount ($380,500) assumed to be funded by the Redevelopment Agency in the "Base Case" scenario. Later bond issuances could yield still more proceeds, although their repayment schedule is assumed to be shorter because of the Redevelopment Project Area's expected sunset in 2037. Note that the foregoing analysis assumes that only Redevelopment Project Area 3 (in which the Station Area is located) would contribute to the funding for the Station Area, that the current sunset date for Redevelopment Project Area 3 (2027) will be extended for an additional 10 years, and that the current cap on cumulative tax increment retained will be increased.

In addition to the potential Redevelopment funds described above, a separate study conducted by Fraser & Associates for the Antioch Redevelopment Agency has indicated that up to $10 million of additional tax increment funding capacity could be available as early as 2011 if the City's several redevelopment project areas could be merged, their expiration dates extended, and the overall tax increment cap increased.

Total Backbone Infrastructure Cost/Value Ratio

Table 11 shows the total backbone infrastructure cost burden to the development, net of bond proceeds that might be available from the Redevelopment Agency. As shown, the cumulative infrastructure burden on property owners/developers is reduced by roughly $25 million. For the total development at buildout, this reduction lowers the total cost/value ratio to 8.8 percent in the "Redevelopment" scenario, compared to 10.7 percent under the "Base Case" scenario. As in the "Base Case" scenario, however, the "Redevelopment" scenario still faces phasing challenges, as the over-sized early infrastructure precedes the vast majority of the development value that generates the new tax increment. Once again, **Table 11** indicates that the developers/land owners would need to contribute roughly $12 million in the first phase, although the "Redevelopment" scenario allows more of that contribution to be repaid during Phase 2, and is wholly and finally paid off during Phase 3. Overall, the "Redevelopment" scenario greatly enhances the feasibility of the development, as assessed through the total cost/value measure. To the extent that Redevelopment Project Area mergers could yield an additional tax increment funding capacity of $10 million as early as 2011, the developers/land owners' contribution would decrease significantly, greatly improving the feasibility of the Specific Plan.

Maximum Tax Burden

Table 11 also shows the phase-by-phase special tax burden as might be assessed through a CFD. Again, with a substantial reduction in developer-funded costs resulting from the TIF Bond contribution, the special tax rates are significantly improved when compared to the "Base Case" scenario. EPS estimated that the maximum potential special tax rate would be 0.48 percent by buildout, well below the 0.69 percent required under the "Base Case" and only about half of the 0.92 maximum rate established as a feasibility threshold. In interim phases, the special tax rate under the "Redevelopment" scenario is only about 70 percent of what it would be under the "Base Case" scenario. Again, these tax burdens would be improved significantly if a Redevelopment Project Area merger yields more funding in early years, and reduces the property owners'/developers' funding obligations.

Table 11
Financing Measures by Project Phase -- Redevelopment Scenario (2010$)
Hillcrest Station Area Financing Plan; EPS #18111

Item	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5 and 6
Cost/Value Ratio					
Cumulative Infrastructure Costs					
Property Owner/Developer-Funded Backbone Infrastructure	$15,375,000	$36,680,000	$47,845,600	$80,699,600	$80,699,600
Impact Fees (1)	$0	$16,250,000	$32,500,000	$47,500,000	$62,500,000
Interest on Developer Equity (2)	$0	$1,967,035	$1,162,701	$0	$0
Redevelopment TIF Bond Net Proceeds (3)	$0	($4,293,221)	($12,642,587)	($24,871,527)	($24,871,527)
Total Infrastructure Cost Burden	$15,375,000	$50,603,814	$68,865,713	$103,328,073	$118,328,073
Cumulative Development Value (4)	$37,800,000	$335,995,000	$654,190,000	$990,460,000	$1,338,730,000
Cumulative Cost/Value Ratio	**40.7%**	**15.1%**	**10.5%**	**10.4%**	**8.8%**
Developer Equity Required for Cost/Value < 15% (5)	**$9,705,000**	**$204,564**	**$0**	**$0**	**$0**
Community Facilities District Bond Capacity					
Cumulative CFD Bond					
Net Bond Proceeds (6)	$15,375,000	$34,353,814	$36,365,713	$55,828,073	$55,828,073
Supportable Bond Issuance (7)	$16,184,211	$36,161,909	$38,279,698	$58,766,392	$58,766,392
Proceeds Required for Annual Debt Service (8)	$1,468,821	$3,281,925	$3,474,127	$5,333,426	$5,333,426
Debt Coverage Factor	120%	120%	120%	120%	120%
Special Tax Proceeds Required Annually	$1,762,585	$3,938,309	$4,168,953	$6,400,111	$6,400,111
Potential Special Tax (% of value) (9)	**4.66%**	**1.17%**	**0.64%**	**0.65%**	**0.48%**
Developer Equity Required for Special Tax > 0.92% (10)	**$12,350,000**	**$7,300,000**	**$0**	**$0**	**$0**

(1) Based on the impact fees assumed at $25,000 per residential unit; commercial fees are estimated to be negligible by City staff and are not expected to significantly impact the feasibility of the development.
(2) Reflects the interest carry (3% annually) on the larger amount of developer equity required to maintain cost/value or CFD tax rate within desired feasibility thresholds.
(3) Based on the bond debt service capacity estimated by Don Fraser Associates converted to constant $2010 assuming 3% annual inflation.
(4) Value includes improved land and vertical construction only and excludes unimproved land.
(5) This figure is the difference between the total infrastructure cost burden and the amount supported under a 15% cost/value threshold, and represents the developer's equity contribution to "over-sizing" the initial infrastructure.
(6) Based on the project-funded backbone infrastructure cost net of redevelopment TIF bond contribution.
(7) Assumes 5% issuance costs.
(8) Assumes bond issued at 6.5% interest for 20-year term.
(9) This estimate is conservative as unimproved land value is excluded from the calculation.
(10) This figure is the difference between the total infrastructure cost burden and the amount supported under a 0.92 maximum special tax threshold, and represents the developer's equity contribution to "over-sizing" the initial infrastructure.

Source: Economic & Planning Systems, Inc.

Feasibility Conclusion

The “Redevelopment” scenario dramatically improves upon the “Base Case” scenario by reducing the developers’ funding obligation by $25 million, and possibly more if the Redevelopment Project Areas can be merged and more tax increment used for this development. However, the developers would still be required to contribute to early over-sizing, which may not be necessary if certain costs can be deferred or financed.

“Private Financing” Scenario

The “Private Financing” Scenario represents a “worst case” scenario from the property owners/developers’ perspective. Rather than sharing the infrastructure costs with a number of other funding sources, this scenario assumes that no such funding materializes, and the property owners/developers must bear the full cost of the infrastructure improvements (aside from transit facilities).

Total Backbone Infrastructure Cost/Value Ratio

The total cost of the numerous infrastructure improvements is assumed to be $116.5 million, as shown on **Table 4** and **5**. **Table 12** reflects the scenario where property owners/developers must bear all of those costs, rather than sharing them with external funding sources. In this scenario, the total infrastructure cost borne by property owners/developers (including impact fees) are expected to equal nearly 14 percent of the total development value, but exceed the 15 percent feasibility threshold throughout the first four phases. In Phase 1, the infrastructure costs equal 93 percent of the total value of development achievable in that phase—clearly an unacceptably high proportion. As such, this scenario represents a major feasibility challenge for the developers. For instance, in Phase 2, the developer would need to have contributed over $40 million more than could be supported by the value of development, with no expectation of recouping those contributions until the final phases of development, roughly 15 to 20 years later.

As a counterpoint, on **Table 13** EPS also illustrates the feasibility of the development if the tax increment generated by the development is available to offset a portion of the infrastructure costs that are otherwise wholly funded by the property owners/developers (i.e., no State, Federal, or sub-regional funding). In this scenario, the cost burden in the first three phases again exceeds 15 percent of cumulative value, but drops to 11.7 percent by buildout, slightly above the results of the “Base Case” scenario. Clearly, the potential contribution of TIF bond funding substantially improves the feasibility of the development, though the developers may still need to contribute $40 million or more in early phases before these contributions could be compensated for in subsequent phases.

Maximum Tax Burden

Table 12 also shows the maximum special tax that could be required if property owners/developers must bear all the infrastructure costs rather than sharing those costs with other funding sources. Not surprisingly, the special tax rates exceed 1.0 percent in all phases, and for the overall development. EPS considers this rate to be unsupportable in the market, and thus would represent an infeasible resolution of the development’s infrastructure financing.

Table 12
Financing Measures by Project Phase -- Private Financing Scenario, *without* Redevelopment (2010$)
Hillcrest Station Area Financing Plan; EPS #18111

Item	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5 and 6
Cost/Value Ratio					
Cumulative Infrastructure Costs					
Property Owner/Developer-Funded Backbone Infrastructure	$35,195,000	$69,530,500	$82,821,100	$116,491,100	$116,491,100
Impact Fees (1)	$0	$16,250,000	$32,500,000	$47,500,000	$62,500,000
Interest on Developer Equity (2)	$0	$5,120,661	$7,597,373	$6,052,415	$6,848,785
Total Infrastructure Cost Burden	$35,195,000	$90,901,161	$122,918,473	$170,043,515	$185,839,885
Cumulative Development Value (3)	$37,800,000	$335,995,000	$654,190,000	$990,460,000	$1,338,730,000
Cumulative Cost/Value Ratio	**93.1%**	**27.1%**	**18.8%**	**17.2%**	**13.9%**
Developer Equity Required for Cost/Value < 15% (4)	**$29,525,000**	**$40,501,911**	**$24,789,973**	**$21,474,515**	**$0**
Community Facilities District Bond Capacity					
Cumulative CFD Bond					
Net Bond Proceeds (5)	$35,195,000	$74,651,161	$90,418,473	$122,543,515	$123,339,885
Supportable Bond Issuance (6)	$37,047,368	$78,580,170	$95,177,340	$128,993,173	$129,831,458
Proceeds Required for Annual Debt Service (7)	$3,362,286	$7,131,653	$8,637,952	$11,706,955	$11,783,035
Debt Coverage Factor	120%	120%	120%	120%	120%
Special Tax Proceeds Required Annually	$4,034,743	$8,557,984	$10,365,543	$14,048,347	$14,139,642
Potential Special Tax (% of value) (8)	**10.67%**	**2.55%**	**1.58%**	**1.42%**	**1.06%**
Developer Equity Required for Special Tax > 0.92% (9)	**$32,150,000**	**$47,700,000**	**$38,000,000**	**$43,000,000**	**$16,000,000**

(1) Based on the impact fees assumed at $25,000 per residential unit; commercial fees are estimated to be negligible by City staff and are not expected to significantly impact the feasibility of the development.
(2) Reflects the interest carry (3% annually) on the larger amount of developer equity required to maintain cost/value or CFD tax rate within desired feasibility thresholds.
(3) Value includes improved land and vertical construction only and excludes unimproved land.
(4) This figure is the difference between the total infrastructure cost burden and the amount supported under a 15% cost/value threshold, and represents the developer's equity contribution to "over-sizing" the initial infrastructure.
(5) Based on the project-funded backbone infrastructure cost net of redevelopment TIF bond contribution.
(6) Assumes 5% issuance costs.
(7) Assumes bond issued at 6.5% interest for 20-year term.
(8) This estimate is conservative as unimproved land value is excluded from the calculation.
(9) This figure is the difference between the total infrastructure cost burden and the amount supported under a 0.92 maximum special tax threshold, and represents the developer's equity contribution to "over-sizing" the initial infrastructure.

Source: Economic & Planning Systems, Inc.

Table 13
Financing Measures by Project Phase -- Private Financing Scenario, *with* Redevelopment (2010$)
Hillcrest Station Area Financing Plan; EPS #18111

Item	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5 and 6
Cost/Value Ratio					
Cumulative Infrastructure Costs					
Property Owner/Developer-Funded Backbone Infrastructure	$35,195,000	$69,530,500	$82,821,100	$116,491,100	$116,491,100
Impact Fees (1)	$0	$16,250,000	$32,500,000	$47,500,000	$62,500,000
Interest on Developer Equity (2)	$0	$5,120,661	$6,896,567	$3,902,215	$2,548,385
Redevelopment TIF Bond Net Proceeds (3)	$0	($4,293,221)	($12,642,587)	($24,871,527)	($24,871,527)
Total Infrastructure Cost Burden	$35,195,000	$86,607,940	$109,575,080	$143,021,787	$156,667,958
Cumulative Development Value (4)	$37,800,000	$335,995,000	$654,190,000	$990,460,000	$1,338,730,000
Cumulative Cost/Value Ratio	**93.1%**	**25.8%**	**16.7%**	**14.4%**	**11.7%**
Developer Equity Required for Cost/Value < 15% (5)	**$29,525,000**	**$36,208,690**	**$11,446,580**	**$0**	**$0**
Community Facilities District Bond Capacity					
Cumulative CFD Bond					
Net Bond Proceeds (6)	$35,195,000	$70,357,940	$77,075,080	$95,521,787	$94,167,958
Supportable Bond Issuance (7)	$37,047,368	$74,060,990	$81,131,663	$100,549,250	$99,124,166
Proceeds Required for Annual Debt Service (8)	$3,362,286	$6,721,508	$7,363,217	$9,125,487	$8,996,152
Debt Coverage Factor	120%	120%	120%	120%	120%
Special Tax Proceeds Required Annually	$4,034,743	$8,065,810	$8,835,861	$10,950,585	$10,795,382
Potential Special Tax (% of value) (9)	**10.67%**	**2.40%**	**1.35%**	**1.11%**	**0.81%**
Developer Equity Required for Special Tax > 0.92% (10)	**$32,150,000**	**$43,300,000**	**$24,500,000**	**$16,000,000**	**$0**

(1) Based on the impact fees assumed at $25,000 per residential unit; commercial fees are estimated to be negligible by City staff and are not expected to significantly impact the feasibility of the development.
(2) Reflects the interest carry (3% annually) on the larger amount of developer equity required to maintain cost/value or CFD tax rate within desired feasibility thresholds.
(3) Based on the bond debt service capacity estimated by Don Fraser Associates converted to constant $2010 assuming 3% annual inflation.
(4) Value includes improved land and vertical construction only and excludes unimproved land.
(5) This figure is the difference between the total infrastructure cost burden and the amount supported under a 15% cost/value threshold, and represents the developer's equity contribution to "over-sizing" the initial infrastructure.
(6) Based on the project-funded backbone infrastructure cost net of redevelopment TIF bond contribution.
(7) Assumes 5% issuance costs.
(8) Assumes bond issued at 6.5% interest for 20-year term.
(9) This estimate is conservative as unimproved land value is excluded from the calculation.
(10) This figure is the difference between the total infrastructure cost burden and the amount supported under a 0.92 maximum special tax threshold, and represents the developer's equity contribution to "over-sizing" the initial infrastructure.

Source: Economic & Planning Systems, Inc.

With Redevelopment funding to offset some of property owners/developers' costs, **Table 13** shows that the special tax rate could be reduced to 0.81 percent overall. Still, Phases 1 through 4 face significant feasibility challenges, which might be addressed by deferring certain costs, finding other funding sources, or achieving greater development values than is assumed in this analysis.

Feasibility Conclusion

The "Private Financing" scenario does not appear to be a feasible option. While certain feasibility thresholds may be met by the end of the development (after 25 to 30 years), the added costs to the property owners/developers would require them to invest upwards of $40 million with little prospect of recouping those costs for at least 20 years. These at-risk contributions are thus over three times larger and take twice as long to be repaid as under the "Redevelopment" scenario.

Financing Cost Burden Conclusions

Assuming a recovered real estate market and a reasonable sharing of infrastructure costs, including the Redevelopment Agency's reinvestment of the tax increment generated by the development, the development program for the Hillcrest Station Area Specific Plan appears to generate sufficient value to support the infrastructure costs assigned to the property owners/developers. Under the "Base Case" scenario, the cost/value ratios and the maximum special tax rate make the development on the cusp of being feasible, although this scenario would require the developers to contribute roughly $12 million that would not be repaid for about a decade. Under the "Redevelopment" scenario, the development appears significantly more feasible, as the significant tax increment that can be generated by the Hillcrest Station Area Plan serves to effectively reduce its cost burden, although some up-front developer contribution would still be required. Under a "Private Financing" scenario, development does not appear to be feasible.

This analysis clearly demonstrates the significant value that Redevelopment funding can bring, both as a way of directly reducing costs and mitigating property owners/developers' risk. The use of some or all of the tax increment could be expected to facilitate the development overall and allow it to commence earlier than might otherwise be expected.

There are several factors that may improve the prospects for this development, including the following:

1. **Deferral of Infrastructure Costs**—This Financing Plan has attempted to assign infrastructure costs to various phases of development, but at this level of analysis has used broad assumptions rather than fine-tuned assumptions. To the extent that specific development cost line items can be partially or wholly deferred until later phases while still enabling the same level of vertical development, the development's phase-by-phase financing burdens can be reduced and the prospects for reasonable financial returns can be improved. For example, this Financing Plan has assumed that all backbone infrastructure would be installed by the end of Phase 4, even though there are two additional phases (another 10 years) during which vertical development is expected to occur. If certain costs can be deferred until Phases 5 and 6, that would reduce the financing obligations for the earlier development phases.

2. **Use of Additional Funding Sources**—This Financing Plan has aimed toward a conservative analysis of the costs that the development itself must bear. In the "Base Case" scenario, the development is assumed to carry $80.7 million of the costs of various improvements, with other sources—City of Antioch Redevelopment Agency, State and Federal sources, adjacent cities, etc. —jointly bearing $35.8 million of the infrastructure costs. To the extent that additional funding sources can be identified or more of the costs can be shifted to other agencies or beneficiaries, the cost burden for the property owners/developers can be diminished and the feasibility prospects improved. For example, State grants have been providing tens of millions of dollars for various transit-oriented developments throughout the State, and no such funding is specifically assumed herein. Funds for affordable housing and other regional/State priorities could also enhance development feasibility, but are not assumed in the Financing Plan. The availability and applicability of such additional funding sources is sure to vary over the several decades of development for this Specific Plan, and the developers and the City should be diligent in pursuing such funding sources.

3. **Use of Tax Increment Financing—**This analysis clearly demonstrates that the use of tax increment financing can make a substantial improvement to the feasibility of the Specific Plan development, both as a way of reducing direct costs and mitigating the developers' risk. If the development of the Hillcrest Station Area Plan is a high priority for the City of Antioch, the Redevelopment Agency may consider participating by offering some or all of its tax increment revenues to support the development. Such support could take multiple forms, including direct Agency financing of certain improvements, contributions of tax increment toward the debt service for CFD bonds (thus reducing the maximum tax for future property owners), and/or participation in a public-private development partnership with provisions for Agency reimbursement if certain financial performance thresholds are achieved. To optimize the value of the tax increment financing, certain adjustments may need to be made to the existing Project Area, including an extension of its sunset period for an additional decade and an increase to its cumulative tax increment cap. Merging the several Redevelopment Project Areas in the City could also significantly contribute to the development's feasibility, by offering roughly $10 million of funding in the next few years that can reduce the property owners/developers' over-sizing obligations.

5. *POLICY SUMMARY AND NEXT STEPS*

Summary of Existing Specific Plan Policies

The Hillcrest Station Area Specific Plan contains many policies regarding the design and implementation of the development, many of which are relevant to the financing of needed infrastructure improvements. A number of themes can be gleaned from the Specific Plan policies, and EPS's incorporation of those themes into this Financing Plan is described below.

1. **The cost of the improvements is expected to be shared among numerous entities.** The Specific Plan recognizes that certain infrastructure improvements have benefits far beyond the Hillcrest Station Area boundaries, and that other entities may be responsible for funding certain improvements. Specific entities that are expected to participate in funding the improvements include BART (Policy C-36), Caltrans (Policy C-18), the City of Antioch (Policy C-20), neighboring cities and regional agencies (Policies C-19 and C-21), and federal and state sources (Policy C-56). EPS has addressed this issue by working with City staff to allocate certain infrastructure costs (entire items or portions of items) to various participating entities, in addition to the portion that will be the responsibility of the development itself.

2. **Before a phase of development commences, the infrastructure funding critical for that phase must be secure**. Among other policies addressing this issue, Policy I-14 indicates that "any applications for new subdivisions or development must demonstrate that infrastructure and public facilities will be funded and constructed to serve the proposed development prior to occupancy." EPS has addressed this issue by assessing the ability of each phase, individually and cumulatively, to support adequate financing for the Project's share of infrastructure financing.

3. **Hillcrest Station Area development is expected to participate in existing infrastructure funding programs in addition to funding exceptional infrastructure.** The development must participate in current fee programs for schools (Policy UT-28), flood control (Policy UT-2), and sewers (Policy UT-10), and must dedicate land or pay fees for parks (Policies OS-3 and OS-10). EPS has estimated the fees that would be paid by the property owners/developers except where onsite improvements are assumed to be made in-lieu of paying fees. EPS analysis also assumes that the vertical development (residential, office, retail, and hotel buildings) would be subject to such fees at the time of construction, and that the costs of construction and values of land will reflect these fee requirements.

4. **The City of Antioch Redevelopment Agency may provide financial assistance for development components.** Policy EH-32 indicates that certain Project elements may be receiving assistance from one or both of these entities, "including but not limited to assistance with public infrastructure." Policy C-31 similarly establishes expectations for "negotiations for any City financial participation in the development." To be conservative, EPS has assumed in the "Base Case" scenario that the City Redevelopment Agency will fund a small amount of infrastructure, rather than offering substantial financial assistance for infrastructure or vertical development. However, EPS does note that the feasibility of the development can be

materially enhanced through Antioch's more extensive financial participation, particularly if tax increment generated by the development can be re-invested in its infrastructure, as demonstrated most clearly in the "Redevelopment" scenario.

Additional Financing Plan Policies

In addition to those policies already set forth in the Specific Plan, the Specific Plan may be revised or amended to reflect additional financing plan policies to guide the financing of infrastructure and services in the Hillcrest Station Area. The policies listed below are intended as examples as specific policies would need to be formally adopted by amending the Hillcrest Station Area Specific Plan:

Policy F-1: Future development within the Hillcrest Station Area shall pay the cost of infrastructure and public facilities needed to serve the area, except where other funding sources are appropriate and available.

Policy F-2: Infrastructure and public facility costs shall be allocated among developing properties in the Hillcrest Station Area based upon "rational nexus" principles.

Policy F-3: Land that is required for the public improvements should be dedicated or acquired at the earliest practical time using financing mechanisms established in this Plan.

Policy F-4: If a developer dedicates land or builds Specific Plan infrastructure with a higher value than the proportionally allocated infrastructure costs to that developer, the excess value shall be reimbursed from other benefiting properties.

Policy F-5: The Financing Plan shall be periodically updated upon consideration of any changes to the land use framework illustrated in Table 7-1 of the Specific Plan to ensure the continued integrity of the financing program.

Action Program

The financing for the Hillcrest Station Area infrastructure improvements can be initiated through a variety of implementation actions taken by the City of Antioch in cooperation with developers and landowners in the area as listed below.

Infrastructure and Public Facility Improvements

1. Continue to analyze all infrastructure improvements that have been identified for the Hillcrest Station Area to assure completeness and accuracy and to assist assignment of funding responsibility based upon "rational nexus" principles and adoption of financing mechanisms. This periodic review of infrastructure improvements will occur in the context of the City's review of Master Plan development applications submitted for projects in the Specific Plan Area.

2. Secure or revise right-of-way and public facility (e.g., parks) sites through land dedications on an opportunistic basis as they become available. Assure that such dedication occurs no later than approval of the final subdivision map of any directly adjoining or surrounding development.

3. Work proactively with surrounding jurisdictions to explore mechanisms to secure sub-regional funding for surrounding jurisdictions to contribute their fair share of the cost of access improvements to the Hillcrest eBART station, given that BART's projections indicate a significant share of ridership at the Hillcrest eBART Station will come from surrounding jurisdictions.

Financing Mechanisms

4. Insofar as the investments in public improvements exceed funding immediately available (through impact fees and other sources), establish a mechanism for interim funding the "oversized" facilities and paying for these costs as the subsequent development occurs.

5. Prepare an implementation framework for establishing a Mello-Roos CFD to fund eligible infrastructure improvements if there is sufficient interest among property owners in the Hillcrest Station Area.

6. Consider merging the City's redevelopment areas and amend the Redevelopment Plan to specify priorities and uses of available tax increment financing in the Hillcrest Station Area, including prospective timing of subsequent tax increment bond issues. Conduct additional analysis to monitor available tax increment funding and the priorities for appropriation of these funds and consider targeted appropriation from redevelopment funds for improvements or development projects with extraordinary public benefits or catalytic effects related to new development in the area.

APPENDIX A

Table 1
Antioch Development Agency
Project Area No. 3

PROJECTION OF INCREMENTAL TAX REVENUE
(000's Omitted)

Fiscal Year	Real (1) Property	New (2) Development	Total Real (1) Property	Other (3) Property	Total Value	Value Over Base Of $4,721	Tax (4) Increment	Unitary (5) Revenue	Total Tax Increment	Property Tax Admin. Fees (6)	(7) Housing Set-Aside	AB 1290 Statutory (8) Payment	Net Tax Increment Revenue	Net Tax (9) Increment Present Value
2009 - 2010	$9,063	N/A	$9,063	$0	$9,063	$4,342	$44	$0	$44	$1	$9	$0	$35	35
2010 - 2011	9,063	0	9,063	0	9,063	4,342	44	0	44	1	9	1	34	32
2011 - 2012	9,267	0	9,267	0	9,267	4,546	46	0	46	1	9	1	35	31
2012 - 2013	9,475	0	9,475	0	9,475	4,755	48	0	48	1	9	2	36	30
2013 - 2014	9,674	10,017	19,691	0	19,691	14,971	150	0	150	2	30	22	96	76
2014 - 2015	20,105	10,318	30,422	0	30,422	25,702	257	0	257	3	51	44	159	119
2015 - 2016	31,061	77,036	108,097	0	108,097	103,376	1,034	0	1,034	13	204	199	617	435
2016 - 2017	110,367	79,347	189,714	0	189,714	184,994	1,850	0	1,850	24	365	362	1,099	731
2017 - 2018	193,698	79,347	273,045	0	273,045	268,325	2,683	0	2,683	34	530	669	1,450	910
2018 - 2019	278,779	84,179	362,958	0	362,958	358,238	3,582	0	3,582	46	707	1,000	1,830	1,083
2019 - 2020	370,580	86,705	457,285	0	457,285	452,565	4,526	0	4,526	58	894	1,347	2,227	1,244
2020 - 2021	466,888	89,306	556,194	0	556,194	551,473	5,515	0	5,515	70	1,089	1,711	2,645	1,393
2021 - 2022	567,874	91,985	659,859	0	659,859	655,139	6,551	0	6,551	84	1,294	2,092	3,082	1,532
2022 - 2023	673,716	94,745	768,461	0	768,461	763,740	7,637	0	7,637	98	1,508	2,492	3,540	1,660
2023 - 2024	784,599	97,587	882,186	0	882,186	877,465	8,775	0	8,775	112	1,733	2,911	4,020	1,778
2024 - 2025	900,712	100,515	1,001,226	0	1,001,226	996,506	9,965	0	9,965	127	1,968	3,349	4,522	1,887
2025 - 2026	1,022,252	109,223	1,131,475	0	1,131,475	1,126,754	11,268	0	11,268	144	2,225	3,828	5,071	1,996
2026 - 2027	1,155,236	112,499	1,267,735	0	1,267,735	1,263,015	12,630	0	12,630	161	2,494	4,329	5,646	2,097
2027 - 2028	1,294,358	115,874	1,410,232	0	1,410,232	1,405,512	14,055	0	14,055	180	2,775	4,854	6,247	2,189
2028 - 2029	1,439,847	119,351	1,559,198	0	1,559,198	1,554,477	15,545	0	15,545	199	3,069	5,402	6,875	2,272
2029 - 2030	1,591,941	122,931	1,714,872	0	1,714,872	1,710,151	17,102	0	17,102	218	3,377	5,975	7,532	2,348
2030 - 2031	1,750,884	131,084	1,881,968	0	1,881,968	1,877,248	18,772	0	18,772	240	3,707	6,590	8,236	2,423
2031 - 2032	1,921,489	135,016	2,056,506	0	2,056,506	2,051,785	20,518	0	20,518	262	4,051	7,232	8,973	2,490
2032 - 2033	2,099,692	139,067	2,238,759	0	2,238,759	2,234,039	22,340	0	22,340	285	4,411	7,903	9,741	2,550
2033 - 2034	2,285,773	143,239	2,429,012	0	2,429,012	2,424,291	24,243	0	24,243	310	4,787	8,603	10,544	2,604
2034 - 2035	2,480,021	147,536	2,627,557	0	2,627,557	2,622,837	26,228	0	26,228	335	5,179	9,333	11,381	2,652
2035 - 2036	2,682,736	0	2,682,736	0	2,682,736	2,678,015	26,780	0	26,780	342	5,288	9,537	11,614	2,553
2036 - 2037	2,739,073	0	2,739,073	0	2,739,073	2,734,353	27,344	0	27,344	349	5,399	9,744	11,852	2,458
Cumulative Total							**289,531**	**0**	**289,531**	**3,698**	**57,166**	**99,530**	**129,136**	**41,605**

(1) Prior Year Real Property held constant in 2010-11; increased by 2 percent per year for 2011-12 and 2012-13; and then by 2.1 percent for balance of projection.
(2) New developmet per EPS projections. See Table 2 for details.
(3) Includes the value of secured and unsecured personal property, and state-assessed railroad and non-unitary property.
(4) Based on the application of Project Area tax rates to incremental taxable value.
(5) As reported by the County Auditor-Controller.
(6) Per SB 2557, reflects Project Area share of Contra Costa County's property tax administrative costs at 1.3% of tax increment.
(7) Based on 20 percent of total tax increment.
(8) Payments per AB 1290, assuming the Agency removes the debt limit from the Redevelopment Plan.
(9) Present value at 6% discount.

Table 2
Antioch Development Agency
Project Area No. 3

Estimated Bonding Capacity

Sources:		2015-16	2020-21	2025-26	Total
Bond Proceeds:					
	Par Amount	5,705,000.00	12,775,000.00	21,535,000.00	40,015,000.00
Uses:					
Fund Deposits:					
	Debt Service Reserve Fund	493,750.00	1,277,500.00	2,153,500.00	3,924,750.00
Expenses:					
	Cost of Issuance	200,000.00	200,000.00	200,000.00	600,000.00
	Underwriter's Discount	34,230.00	76,650.00	129,210.00	240,090.00
		234,230.00	276,650.00	329,210.00	840,090.00
	Net Proceeds	**4,977,020.00**	**11,220,850.00**	**19,052,290.00**	**35,250,160.00**

Table 3
Antioch Development Agency
Project Area No. 3

CASH FLOW ANALYSIS - PROJECT AREA 3 *All Amendments Included*
(000's Omitted)

Fiscal Year				(1) Total Tax Increment	Property Tax Admin. Fees	Housing Set-Aside	AB 1290 Statutory (2) Payment	Net Tax Increment Revenue	2015-16 TA Bond Debt Service	2020-21 TA Bond Debt Service	2025-26 TA Bond Debt Service	Remaining Tax Increment
2009	-	2010		44	1	9	0	35	0	0	0	35
2010	-	2011		44	1	9	1	34	0	0	0	34
2011	-	2012		46	1	9	1	35	0	0	0	35
2012	-	2013		48	1	9	2	36	0	0	0	36
2013	-	2014		150	2	30	22	96	0	0	0	96
2014	-	2015		257	3	51	44	159	0	0	0	159
2015	-	2016		1,034	13	204	199	617	461	0	0	157
2016	-	2017		1,850	24	365	362	1,099	460	0	0	639
2017	-	2018		2,683	34	530	669	1,450	463	0	0	988
2018	-	2019		3,582	46	707	1,000	1,830	460	0	0	1,370
2019	-	2020		4,526	58	894	1,347	2,227	461	0	0	1,766
2020	-	2021		5,515	70	1,089	1,711	2,645	462	1,206	0	977
2021	-	2022		6,551	84	1,294	2,092	3,082	462	1,204	0	1,416
2022	-	2023		7,637	98	1,508	2,492	3,540	460	1,204	0	1,876
2023	-	2024		8,775	112	1,733	2,911	4,020	462	1,206	0	2,351
2024	-	2025		9,965	127	1,968	3,349	4,522	458	1,204	0	2,859
2025	-	2026	(5)	11,268	144	2,225	3,828	5,071	459	1,206	2,631	775
2026	-	2027		12,630	161	2,494	4,329	5,646	463	1,204	2,633	1,346
2027	-	2028		14,055	180	2,775	4,854	6,247	461	1,206	2,628	1,952
2028	-	2029		15,545	199	3,069	5,402	6,875	463	1,204	2,633	2,574
2029	-	2030		17,102	218	3,377	5,975	7,532	459	1,205	2,632	3,236
2030	-	2031		18,772	240	3,707	6,590	8,236	459	1,202	2,629	3,946
2031	-	2032		20,518	262	4,051	7,232	8,973	463	1,207	2,629	4,674
2032	-	2033		22,340	285	4,411	7,903	9,741	460	1,207	2,631	5,443
2033	-	2034		24,243	310	4,787	8,603	10,544	461	1,204	2,630	6,248
2034	-	2035		26,228	335	5,179	9,333	11,381	461	1,207	2,631	7,082
2035	-	2036		26,780	342	5,288	9,537	11,614	461	1,207	2,631	7,315
2036	-	2037		27,344	349	5,399	9,744	11,852	0	0	0	11,852
Cumualtive Total				**289,531**	**3,698**	**57,166**	**99,530**	**129,136**	**9,679**	**19,283**	**28,938**	**71,236**

(1) Based on actual 2009-10 taxable values. Real property value increased by 2 percent per year.
(2) Assumes Agency will not remove debt limit from Plan, so no Statutory Payments would be owed.
(3) Represents 2% of total debt service, with the balance paid from Projects 1, 2 and 4 .
(4) No Administrative costs are being charged to this Project Area .
(5) Assumes Agency extends Plan by 10 years based on formal amendment and increases cap.

Last date to receive tax increment	Dec 2027
Last date for TI - Amendment	Dec 2037
Cumulative Tax Increment	30,000,000
Estimated Under CAP	290,203,196

Table 4
Antioch Development Agency
Project Area No. 3

PROJECTION OF AB 1290 TAX SHARING REVENUE
(000's Omitted)

	Total Value	Value Above 06-07 Base 8,604	Tax Increment Subject to Tax Sharing	Tier 1 @ 20%	Value Above 16-17 Base Value	Tax Increment Subject to Tax Sharing	Tier 2 @ 16.8%	Total Tax Sharing Revenue
2009 - 2010	9,063	458	5	1				
2010 - 2011	9,063	458	5	1				1
2011 - 2012	9,267	662	7	1				1
2012 - 2013	9,475	871	9	2				2
2013 - 2014	19,691	11,087	111	22				22
2014 - 2015	30,422	21,818	218	44				44
2015 - 2016	108,097	99,493	995	199				199
2016 - 2017	189,714	181,110	1,811	362				362
2017 - 2018	273,045	264,441	2,644	529	83,331	833	140	669
2018 - 2019	362,958	354,354	3,544	709	173,244	1,732	291	1,000
2019 - 2020	457,285	448,681	4,487	897	267,571	2,676	450	1,347
2020 - 2021	556,194	547,589	5,476	1,095	366,480	3,665	616	1,711
2021 - 2022	659,859	651,255	6,513	1,303	470,145	4,701	790	2,092
2022 - 2023	768,461	759,857	7,599	1,520	578,747	5,787	972	2,492
2023 - 2024	882,186	873,581	8,736	1,747	692,472	6,925	1,163	2,911
2024 - 2025	1,001,226	992,622	9,926	1,985	811,512	8,115	1,363	3,349
2025 - 2026	1,131,475	1,122,871	11,229	2,246	941,761	9,418	1,582	3,828
2026 - 2027	1,267,735	1,259,131	12,591	2,518	1,078,021	10,780	1,811	4,329
2027 - 2028	1,410,232	1,401,628	14,016	2,803	1,220,518	12,205	2,050	4,854
2028 - 2029	1,559,198	1,550,593	15,506	3,101	1,369,484	13,695	2,301	5,402
2029 - 2030	1,714,872	1,706,268	17,063	3,413	1,525,158	15,252	2,562	5,975
2030 - 2031	1,881,968	1,873,364	18,734	3,747	1,692,254	16,923	2,843	6,590
2031 - 2032	2,056,506	2,047,901	20,479	4,096	1,866,792	18,668	3,136	7,232
2032 - 2033	2,238,759	2,230,155	22,302	4,460	2,049,045	20,490	3,442	7,903
2033 - 2034	2,429,012	2,420,408	24,204	4,841	2,239,298	22,393	3,762	8,603
2034 - 2035	2,627,557	2,618,953	26,190	5,238	2,437,843	24,378	4,096	9,333
2035 - 2036	2,682,736	2,674,131	26,741	5,348	2,493,022	24,930	4,188	9,537
2036 - 2037	2,739,073	2,730,469	27,305	5,461	2,549,359	25,494	4,283	9,744
Cumulative Total				**57,688**		**249,061**	**41,842**	**99,530**