

MEMORANDUM

To: Brian Millar, PMC/City of Fremont
From: James Musbach, Teifion Rice-Evans, and Michael Nimon
Subject: South Fremont/Warm Springs Area Study Financial Assessment; EPS#20050
Date: January 27, 2012

The Economics of Land Use



This memorandum provides an assessment of infrastructure financing issues associated with the buildout of three South Fremont/Warm Springs Study Area land use alternatives and the associated “backbone” infrastructure needs. The assessment provides preliminary financing findings based on evaluation of planning level data and information. Consistent with the transportation and infrastructure analysis conducted to date, these conclusions are primarily provided at the Study Area-wide level and are subject to refinement as more detailed studies of transportation and infrastructure needs are conducted, including a more detailed look at infrastructure phasing, triggers, costs, and Study Area needs.

This assessment is based on the three land use alternatives developed by the Perkins + Will team and the transportation and infrastructure analyses and preliminary costing estimates prepared by BKF based on the Fehr & Peers strategies. As documented in the BKF December 21, 2011, memorandum, the assessments of infrastructure needs and costs associated with the land use alternatives are broad-brush and preliminary. As a result, the technical financing analysis is conducted at a similar level of specificity.

This memorandum includes five sections: (1) findings, (2) land use alternatives and market considerations, (3) infrastructure requirements and cost estimates, (4) potential funding options and funding allocation, and (5) financial feasibility and funding gap analysis.

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Findings

Technical Findings

The key technical findings of the financial assessment include:

1. *Substantial investment in new infrastructure will be required to serve new development under buildout of all three land use alternatives.*

Between \$138 million (Alternative 1) and \$160 million (Alternatives 2 and 3) in new infrastructure investments have been identified by BKF, Fehr & Peers, and City staff to serve new development under each of the land use alternatives for the Study Area. The majority of these costs is associated with interchange improvements and automobile, pedestrian, and bicycle connections. This level of costs is assumed to reflect an acceptable level of improvements necessary to support new development and land value growth in the Study Area.

2. *Even with significant infrastructure funding from Federal/State and regional sources, new development in the Study Area will need to fund substantial infrastructure cost.*

Assuming \$62.4 million from State/federal sources and \$70.0 million from regional funding sources (sales tax measure), there is still a remaining \$27.3 million funding need, primarily associated with new local street connections and new streets¹. The street costs include utilities required to serve new development that cannot be funded through traffic impact fees.

3. *The City's existing development impact fee schedule suggests that new development in the Study Area would also need to provide substantial funding for other citywide infrastructure and capital facilities improvements.*

Citywide development impact fee cost obligations under the City's current base fee level (excluding temporary reduction) vary from \$67 million under Alternative 1 to \$128 million and \$148 million under Alternatives 2 and 3, respectively. Citywide traffic fee obligations range from \$43 million under Alternative 2 to \$57 million under Alternative 1, though a portion of the fees is likely to cover traffic improvement costs within the Study Area. Parks fees (including dedication in-lieu fees and facilities fees) apply to residential development only and result in cost obligations of \$68 million under Alternative 2 and \$83 million under Alternative 3.

4. *The timing of the attraction of new uses/businesses to the Study Area and the associated development value is uncertain, but will be an important determinant of the Study Area's infrastructure financing capacity.*

As documented in the Economic Strategic Plan, the Study Area provides the potential to capture a broad range of workspace use types along with denser, transit-oriented residential uses. A number of the product types envisioned and reflected in the land use alternatives represent new product types for either the City as a whole (e.g., higher density residential development) or for this subarea (Class A office space). Combined with ongoing weakness in the economy, the timing of market recovery, development values, and development phasing

¹ Given the lower level of the infrastructure cost estimate under Alternative 1, it results in the Project share of approximately \$26.3 million after the allocation to regional, state, and federal funding sources.

are uncertain. Reflecting this uncertainty, the financial assessment considers a range of improved land values including a moderate scenario and a high scenario to establish a range of Study Area financing capacity.

5. *An initial test of the Study Area's financing capacity relative to infrastructure and capital improvements obligations suggests potential funding gaps.*

Comparison of the Study Area's potential financing capacity with the combined infrastructure/capital improvement cost obligations associated with the infrastructure cost estimates (net of potential regional, State, and federal funding) results in significant funding gaps under the moderate land value scenario. While the financing capacity is sufficient to cover the new infrastructure required to support development in the Study Area, contributions to citywide capital improvements through the City's current development impact fees are substantive. The funding gaps range from \$19 million to \$49 million under the moderate land value scenario. Under the high land value scenario, development Alternatives 1 and 3 appear feasible, while Alternative 2 results in a modest funding gap of \$4.7 million.

6. *Reduction or elimination of this overall funding gap could be possible with more detailed consideration of the appropriate credits, reimbursements, and discounts associated with Study Area development under the citywide development impact fee program.*

With further consideration of the application of the citywide development fee program to the land use alternatives (and potentially its update to incorporate eventual new land use designations in the Study Area), there may be opportunities to provide additional fee credits, to re-invest a greater proportion of fee revenues in the Study Area, or to reduce certain fees. These opportunities should be considered in the new development impact fee program. The funding gap analysis does currently include a preliminary assumption that \$15 million in traffic impact fees are credited to Study Area developers for on-site infrastructure improvements, suggesting that additional opportunities for reducing the funding gap may be more likely through other fee categories.

7. *Reduction in scale of the infrastructure program, such as Tier 2 improvements, could modestly reduce the funding gap.*

City staff, BKF, and Fehr & Peers have identified Tier 2 infrastructure improvements that are not essential to support future development in the Study Area. The costs of Tier 2 improvements at \$1.4 million are relatively modest and so their exclusion would not have a substantive effect on development feasibility (and may have a modest negative impact on land values). After further study, however, other opportunities for infrastructure item removal, downsizing, and cost reduction might still be found, reducing the overall funding gap.

8. *Like other brownfield redevelopment projects, additional public financing may be necessary to support the infrastructure and capital improvements envisioned by the City for the Study Area.*

Even with potential fee credits and a reduced infrastructure program, a funding gap may remain, depending on market outcomes. In light of the elimination of redevelopment as a financing tool at the time of this report preparation, the City could consider the establishment of an Infrastructure Financing District (IFD) in the Study Area. Under an IFD, which is separate and distinct from payment of development impact fees, some level of property

taxes would be diverted from the City's General Fund to support infrastructure development in the Study Area. Nevertheless, it may still be possible to show a positive impact of the City's General Fund while also helping to close the funding gap in the Study Area.

9. Without the regional funding through the passage of Measure B sales tax increase and extension, infrastructure financing will be substantially more difficult.

Without the potential \$70 million in funding from the sales tax measure, financing the overall infrastructure program will be more challenging unless the scale of the infrastructure program is reduced. Priority improvements (Tier 1A) such as the BART west side pedestrian access bridge would require funding from other sources, interchange improvements would likely need to wait longer to backfill the loss of regional funding revenues with additional State/federal funding sources, and the overall funding gap would increase.

10. There is no one land use alternative that is clearly superior based on this preliminary financial assessment.

The residential land uses are expected to generate substantially higher improved land values than the workspace uses collectively. They are, however, subject to significantly higher development impact fees (on a per acre basis) which, as currently applied, erodes the relative value benefit. Nevertheless, the alternatives with residential development, Alternatives 2 and 3, may still provide a relative financing advantage through a more diversified mix of uses across the Study Area and, potentially, by being absorbed more quickly and predictably than the workspace uses.

Financing Guidance

Consistent with the land use, transportation, and infrastructure analyses, the financial assessment represents a Study Area-wide, initial assessment designed to highlight potential financing challenges and solutions. In addition to the conduct of more detailed planning, transportation, and engineering analysis (all of which would further inform the financial picture), the City should consider the following key issues as further studies are conducted:

- **Careful consideration should be given to the scale/geography of future infrastructure financing decisions.** The infrastructure improvements list highlights the Study Area-serving nature of many of the major improvements, including the connections across the railroads. Whether future planning efforts occur at a Study Area-wide level or within subareas, successful financing of these improvements may depend on financial contributions from development throughout the Study Area. As a result, Study Area level financing mechanisms, such as a new area development impact fee across the whole Study Area, may be appropriate even if planning and development evolves on a subarea basis.
- **Some level of flexibility may be required to accommodate the broad range of sites, redevelopment challenges, and landowner preferences.** The Study Area includes a broad set of land with variations in parcel size, current uses (vacant vs. occupied), and locational character (adjacency to the Tesla Factory vs. adjacency to future BART station). Some financing tools may only be appropriate and/or applicable to certain subareas/parcels. For example, Community Facilities Districts will require landowner votes and, as such, may be best suited to large vacant or heavily under-utilized parcels.
- **The application of the citywide development impact fees should be given careful consideration.** Citywide development impact fees provide an important source of funding for capital improvements throughout the City. The City may want to update its development

impact fee once a new land use designation has been adopted for the Study Area. Decisions concerning the inclusion of Study Area infrastructure or other improvements (and the associated possibility for fee credits/fee investment in the Study Area) could have a substantial impact on the financing challenge/funding gap.

- **The alternatives with residential development may provide an overall infrastructure financing benefit.** While the preliminary financing analysis does not point to a clear advantage for any one alternative, the inclusion of residential development in the land use program may support infrastructure financing. Specifically, the additional product diversity created, the higher potential improved land values, and the potential for faster absorption may provide a stronger development feasibility basis. Consistent with the point above, this will only be true if a financing strategy is devised Study Area-wide.
- **The City should consider the establishment of an Infrastructure Financing District.** Without availability of redevelopment financing, IFDs may provide the best approach to closing funding gaps that remain after other measures have been taken. While IFDs are complex to establish and do directly impact property tax flows to the General Fund, there may be an opportunity for IFD financing to support Study Area development that also provides a net positive impact on the City's General Fund.

Land Use Alternatives and Market Conditions

The ability of future development to fund a share of required infrastructure and capital facilities improvements in the Study Area, both on-site and citywide (through development impact fees), will depend on the type, value, and pace of absorption of the allowed uses. The potential development under the three land use alternatives as well as broader real estate market considerations and uncertainties are summarized below.

Land Use Alternatives/Potential Development

Three land use alternatives were developed for the South Fremont/Warm Springs Study Area by Perkins + Will as summarized in the September 7, 2011, South Fremont/Warm Springs Area Studies report. Perkins + Will focused on a subset of the Study Area identified as opportunity sites consisting of vacant and underutilized land, as shown in **Figure 1**. Opportunity sites are estimated to comprise about 381 acres, or 353 acres of gross development acres net of the 28-acre future Warm Springs BART station site. About 60 percent of this acreage is estimated vacant and 40 percent underutilized.

Table 1 summarizes proposed land use designations for the 353 acres under each of the three alternatives:

- *Alternative 1* includes no residential land use designation and a blend of different workspace designations, including 200 acres of general industrial/manufacturing and 88 acres of higher density office.
- *Alternative 2* introduces residential development on 53 acres east of the railroad tracks and increases the workspace focus on moderate density office/R&D technology space with 123 acres of designation along with 117 acres of general industrial/manufacturing space.

- *Alternative 3* provides 72 acres for residential development on both sides of the railroad tracks and eight acres for retail development to serve the area's residents and workspace leaving 260 acres for workspace development. This alternative has less of a focus on general industrial/manufacturing development at 31 acres and a stronger focus of 135 acres of office/R&D technology space and 62 acres of pure R&D space.

Table 2 provides estimates of building development capacity, including housing units and square feet of workspace development, under expected development densities for each alternative. As shown, the land use alternatives, if fully implemented, include between 8 million and 10 million square feet of new development, including between 6.4 million and 8.4 million square feet of new workspace and retail development and up to 3,900 units of residential development.

Real Estate Market Conditions and Development Timing

The development of the land use alternatives was based on the Economic Strategic Plan prepared for the City of Fremont/Warm Springs Study Area in 2011, as well as planning considerations, site conditions, and extensive input from the community, City Council, and City staff. The Economic Strategic Plan, including its Transformational Opportunities White Paper and the Baseline Real Estate Market Conditions Report, highlighted a number of issues pertinent to area development and the creation of development value:

- The significant workspace potential for the area focused around the pursuit and expansion of innovation industries—e.g., biotech, cleantech—in the City of Fremont and specifically in Warm Springs.
- The significant uncertainties associated with the current economic downturn and its consequences, including excess capacity of older R&D/industrial spaces, and, for residential development, the significant supply of foreclosed homes on the market.
- The ongoing challenges of competing for manufacturing and R&D jobs regionally, nationally, and internationally.

As a result, the timing of future development in the Study Area is highly uncertain. Upon the completion of the Warm Springs BART station expected in 2015, the parcels adjacent to the BART station will be well-positioned for development, especially if the economic downturn has subsided. Residential development could occur sooner than nonresidential development on these parcels if allowed under the land use alternative. Workspace land uses provide, in some cases, substantial parcels suitable for significant new campus-style developments. Such developments will likely occur in step-functions based on the individual decisions of firms and, in cases such as Parcel 3, may be dependent on significant infrastructure investment. Smaller commercially zoned parcels will also depend on the demand of specific businesses/users for new space distinct from the significant availability of space in relatively inexpensive older industrial/R&D buildings. Fractional ownership may require parcel assembly in some cases. Parcels with existing underutilized buildings/structures may also involve costs associated with demolition.

Under all circumstances where parcels are not currently owned by the eventual land developer, market conditions will need to improve to the point where improved land values can cover land acquisition/option costs and new investments in infrastructure improvements while also providing an adequate return on investment. The actual type of development (within the specific land use designations), development value, and associated improved land value will depend on

the businesses attracted to the area and their workspace needs. At the same time, substantial development of lower cost/value workspace types is unlikely to meet the City's Vision for the Study Area or be able to support new infrastructure improvements. As a result, there will need to be both an improvement in overall market conditions as well as the attraction of a range of development types (including higher value office, R&D, and manufacturing development) for the Vision to be accomplished.

Table 3 provides average planning-level estimates of the potential per-acre improved land values (land values with backbone infrastructure in place) under a moderate land values scenario and a high land values scenario. The moderate land values scenario is intended to reflect substantive improvements in market conditions, though with only modest success in attracting higher value development/facilities to the Study Area. The high land values scenario is intended to reflect both substantive improvements over current market conditions as well as a greater attraction of higher value development/facilities. These scenarios are used in the preliminary assessment of financial feasibility described in a subsequent section. Land values for underutilized land are assumed to be 10 percent below those for vacant land due to additional demolition and site improvement costs to bring them to the same condition of readiness for development. **Appendix A** provides a more detailed discussion of potential improved land values and estimating methodology.

Moderate land value estimates result in Study Area total improved land values of between \$179 million and \$333 million, as shown in **Table 4**. Residential uses contribute to the largest land value impact with Alternative 3 resulting in the highest improved land value estimates. High land value assumptions result in the total improved land value range of between \$261 million and \$483 million, as shown in **Table 5**.

Infrastructure/Capital Facilities Cost Estimates

New development in the Study Area will require new infrastructure and capital facilities investments on-site (within the Study Area) as well as off-site. This will include fair share investments in citywide infrastructure capacity and capital improvement projects identified in the City's development impact fee program as well as investments in other infrastructure and capital improvements required to support new Study Area development. For the purposes of this analysis, the total infrastructure/capital improvement investment associated with Study Area development includes the BKF infrastructure cost estimates as well as the citywide development impact fees for traffic, fire, parks, and other capital facilities. As discussed further below, the treatment of the development and the ability of developers to credit development impact fee obligations against direct infrastructure and capital improvement provisions is a critical component of financial feasibility.

Table 6 provides preliminary planning-level cost estimates by alternative of the backbone infrastructure/capital improvements associated with Study Area growth and development. These cost estimates do not include subdivision/in-tract costs. Key highlights include:

- The total costs are \$190 million for Alternative 1, \$273 million for Alternative 2, and \$293 million for Alternative 3. As evaluated further below, some of these costs serve multiple areas of the City and the funding responsibility will not fall on new Study Area development alone.

- BKF estimates of Study Area required infrastructure costs include \$138 million for Alternative 1 and \$160 million for Alternatives 2 and 3. Alternative 1 excludes some bike and pedestrian improvements.²
- Citywide development impact fee obligations represent a substantial proportion of the total infrastructure development costs with \$67 million for Alternative 1, \$128 million for Alternative 2, and \$148 million for Alternative 3. Traffic fee obligations range from \$43 million to \$57 million depending on the alternative. Combined parks fee costs, including the park-in lieu and park facilities fees, are particularly significant for residential development at \$27 million under Alternative 2 and \$33 million under Alternative 3. This analysis nets out \$15 million from total development impact fees assumed to reflect a fee credit for developer from construction of transportation improvements already accounted for under the infrastructure cost estimates³.

New Infrastructure Requirements and Costs

BKF developed conceptual costs estimates for the infrastructure required to support development in the Study Area. The BKF December 21, 2011, memorandum describes the infrastructure needs and costs in more detail. In general, the utility infrastructure (water, wastewater, power) serving the Study Area is sufficient, with the predominant costs represented by off-site transportation improvements (interchange improvements), new on-site streets and street connections (including in-street, joint trench utilities), and transit, bicycle, and pedestrian improvements. Additional costs associated with the proposed open space/public space areas and schools for Alternatives 2 and 3 have not been estimated.

Table 7 summarizes the infrastructure cost estimates by item for the Study Area. The total infrastructure cost is \$160 million under Alternatives 2 and 3 and \$138 million under Alternative 1. The difference reflects the exclusion of three transit, bicycle, and pedestrian improvements under Alternative 1, including the \$19.5 million bike/ped I-880 bridge crossing. As shown in **Table 7**, infrastructure cost categories are as follows:

- **Interchange Improvements.** The three interchange improvements collectively total about \$85 million and represent over 50 percent of the total infrastructure cost.
- **Local Street Connections and New Streets.** Local street connections/new streets combine for \$36 million, 23 percent of the total cost. Approximately \$12 million of the local street connections/new streets category is associated with the improvement/construction of 3-lane Tesla Frontage Road and public road that will make Parcel 3 accessible while also providing greater circulation for the Warm Springs Study Area as a whole. The right-of-way acquisition may result in additional infrastructure cost and is not included in the current cost estimates (land area for the road is assumed to be dedicated as part of Parcel 3 development

² BKF cost estimate does not reflect a potential undercrossing cost. The City should look for funding opportunities to improve east-west circulation between Grimmer and Mission Streets. While these improvements are desirable, they are not considered essential to support new development in the Study Area.

³ This analysis also reflects fire facilities and capital facilities development impact fees as shown in Table 6.

immediately south of the Tesla factory). The City should seek additional opportunities for east-west linkages between Grimmer and Mission Streets to improve circulation and connectivity within the Project.

- **Transit, Bicycle, and Pedestrian Improvements.** These improvements are estimated to cost about \$37 million, about one-fifth of the total costs. This cost included \$14.3 million for the BART west side pedestrian access bridge and the \$19.5 million Bike/Ped I-880 bridge crossing (excluded from Alternative 1).
- **Other Improvements.** Other improvements include new traffic signals and local street and intersection improvements that sum to about \$2.0 million.

A detailed phasing analysis was not conducted, though BKF and the City developed a general tiering of improvements:

- **Tier 1A** improvements either support new development on a specific parcel or set of parcels during the early years of the Study Area development.
- **Tier 1** improvements will be required over the course of Study Area development. Some of the improvements will be required earlier than others, though in general would be expected to occur contemporaneously with new development over the buildout period.
- **Tier 2** improvements are items that would enhance transit, bicycle, and pedestrian improvements as well as connectivity. These improvements comprise a relatively small share of the overall infrastructure cost and are not considered essential by City staff.

Table 8 summarizes the cost by tier for each alternative. As shown, Tier 1A includes three improvements with an estimated cost of \$31 million, about 15 percent of the total cost; Tier 1 includes the majority of improvements at a cost of \$126 million (\$107 million under Alternative 1), over 60 percent of the total; and Tier 2 is estimated to cost \$2.8 million, about two percent of the total cost (\$0.8 million under Alternative 1).

Citywide Capital Facilities Requirements and Costs

New development in the Study Area will be required to pay citywide development impact fees to fund its fair share of the citywide capital facilities costs. New development in the Study Area under new land use designations along with the associated demand for capital facilities/infrastructure may warrant an update to the Citywide fee calculations which could change the Study Area citywide cost obligations. For the purposes of this analysis, the fee levels established in 2008 are applied (see **Table 9**). The City currently provides a temporary reduction in development impact fees, though this is expected to expire at the end of 2012.

This fee schedule is applied to the development capacity under each of the alternatives to estimate citywide fee program-related infrastructure/capital facilities cost burdens on new development in the Study Area, as shown in **Table 6**. Citywide development impact fee costs include \$67 million cumulatively through buildout under Alternative 1, \$128 million under Alternative 2, and \$148 million under Alternative 3. The differences between the alternatives are primarily explained by the park facilities fee and park in-lieu fee applied solely to the new residential development under Alternatives 2 and 3. At a combined \$21,300 per higher density unit, the parks cost obligation is \$68 million under Alternative 2 and \$83 million under Alternative 3.

This analysis assumes that between \$10 million and \$20 million in traffic-related improvements within the Study Area could be funded by traffic fees under a revised/ updated traffic impact fee nexus study and would therefore be credited to the developer. For purposes of the analysis, net development impact fee obligations reflect a \$15 million fee credit across all alternatives. The City should conduct further analysis to determine a more precise level of the citywide development fee program application and associated impact from a potential nexus update that would incorporate new improvements in the Study Area.

Potential Funding Sources and Allocation

Development of infrastructure and capital facilities will draw upon a number of funding sources and financing mechanisms over time. Meeting the City's vision for the Study Area will require substantial investment, including private and public investment. Funding for some improvements will be required early on, while funding for others can be paced over time.

For the purposes of this analysis, three major funding source categories have been identified: (1) State/Federal Funding, (2) Regional Funding, and (3) Project/Study Area Funding. Within the Project/Study Area funding category, there are a number of potential funding sources.

These potential funding sources are described below. **Table 10a** and **Table 10b** show an illustrative allocation of funding for the \$160 million in estimated infrastructure costs from major funding sources based on input from City staff. As described above, citywide development impact fees are assumed to capture the additional investments associated with "off-site" citywide obligations of new Study Area development as well as act as a proxy for the costs of Study Area parks and open space costs not formally estimated at this point in time. The funding sources and allocation results are described below.

- **State and Federal Transportation Funding.** State and federal funding sources, whether through Caltrans or MTC, can provide funding for major transportation improvement projects, including interchange improvements. As shown in **Table 10a** and **Table 10b**, the illustrative funding allocation results in \$62 million in State/Federal funding or 39 percent of total infrastructure costs, including \$53 million for interchange improvements and \$9.8 million in Bike/Ped I-880 Bridge Crossing improvements.
- **Regional Funding.** Significant regional funding may be available if the passage of the proposed measure B sales tax increase and extension is successful. Under these circumstances, regional funding could provide about \$70 million in funding, about 44 percent of total infrastructure costs. Funding might include \$32 million to complement the State/federal funding of interchange improvements; \$26 million in funding for transit, bicycle, and pedestrian improvements, most notably including 50 percent of the funding for the I-880 bike/ped overcrossing; and complete funding for the BART west side pedestrian access bridge, a \$14 million Tier 1A improvement. This source of regional funding might also support about \$12 million of the \$36 million in Local Street Connections and New Streets costs.
- **Project/Study Area Funding.** Project/Study Area-related funding capacity/mechanisms, will be required to fund the net infrastructure and capital facilities costs, including the remaining \$27 million in Study Area infrastructure and capital facilities costs and the set of net citywide development impact fees (from \$52 million to \$133 million depending

on alternative). The Project may also be required to provide upfront funding for some infrastructure costs that may ultimately be covered by citywide or regional funding at a later point. Key potential sources of public and private financing include the following:

- 1. Developer Equity/Commercial Lending.** Study area developers and builders will be responsible for funding or constructing much of the backbone infrastructure and public facilities needed to serve the Study Area. Private capital will be a major source of funding for backbone infrastructure improvements because the potential public financing mechanisms will have limited funding capacity in the early years of development. Reimbursement mechanisms could allow for repayment to the Study Area developer for such advanced funding, subject to City fee credit and reimbursement policies. Private financing will also fund subdivision/in-tract infrastructure improvements. This cost is reflected in the land value estimates and is not included in the backbone infrastructure and public facilities costs.
- 2. Land-Secured Bond Financing.** If requested by developers, the City could issue land-secured bonds, most likely Mello-Roos CFD bonds, to be repaid by special taxes paid by property owners. The establishment of a Community Facilities District will require the support of two-thirds of affected landowners. Debt capacity at any given time is a function of the amount and value of development. Thus in the early years debt capacity will be limited, but over time, as the Study Area develops, proportionally more capacity will be created. Bond issuance will allow developers to spread costs over time, access lower interest rates, and potentially pass on some of the costs to new property owners. However, with the exception of for-sale residential uses, property owners typically discount Mello-Roos payments on a 1-to-1 basis, resulting in lower land and building values.
- 3. Area Development Impact Fees.** Separate from the Citywide development impact fee, an Area Development Impact Fee could provide a means of proportional cost sharing of backbone improvement costs and assuring proportional cost sharing with all benefiting parties in the Study Area. The costs of Project/Study Area infrastructure/capital facilities costs not funded through citywide development impact fees would be shared among new development throughout the area, based on rational nexus principles and calculations. Initial developers who finance infrastructure through their equity would thereby be assured of a partial reimbursement of any "oversized" infrastructure investments that serve other parcels once development occurs.
- 4. Benefit Assessment Districts.** The City could initiate the establishment of a Benefit Assessment District. Under an assessment district, property assessments are raised within a specific geographic area, with the proceeds going to provide public improvements that benefit the property owners within that area. The City could support the establishment of an Assessment District around the planned Warm Springs BART station. New development in the district around the BART station could be charged a special assessment based on the benefit they derive from the development of the new transit station and associated improvements. The special assessment revenues could be used to finance the partial funding of transit area improvements. A special assessment district also requires the voter approval of two-thirds of the owners of property within the district.

- 5. Infrastructure Financing Districts.** The City could establish an IFD to issue bonds for infrastructure and capital improvement projects. The IFD bonds would be backed by diverted property tax increment revenues from the City's share of property tax and can help close funding gaps. The City Council would need to establish the IFD with landowner approval. An IFD, unlike a redevelopment area, does not require the property to be blighted, though it cannot overlap with a redevelopment area. Like with redevelopment areas, the diversion of property tax has implications for the fiscal impact of new district development on the City's General Fund.
- 6. Redevelopment Area Tax Increment Revenues.** While redevelopment has been historically used as a major financing tool, actions by the California Supreme Court have eliminated this tool as an option. In the event that redevelopment powers were returned to cities, similar to those before the recent State actions, the establishment of a new redevelopment area in a portion of the Study Area may be able to provide a source for infrastructure financing.

Financial Feasibility Assessment

The financial feasibility assessment considers the estimated infrastructure and capital facilities in light of the potential outside funding sources (regional, State, federal, etc.) and Project/Study Areas financing opportunities in the context of improved land values associated with the three land use alternatives. Consistent with the preliminary planning-level nature of the cost estimates, the funding allocation, and the improved land value estimates, the financial feasibility assessment uses general financing/underwriting standards to provide an indication of potential funding gaps and identifies actions that could be taken to close the funding gaps and bring the overall Study Area cost to value ratio within more typical, feasible ranges. In reality, every development project within the Study Area will be subject to its own detailed analysis based on specific cashflow considerations and will determine the viability of specific development concepts/projects.

Project/Study Area Financing Capacity

A generalized standard for considering the overall infrastructure financing capacity of development in an area employs a value-to-lien ratio. Specifically, financing/underwriting standards, in very general terms, often require a three-to-one value-to-lien ratio, whereby lenders will consider financing infrastructure improvement costs up to the point where they represent one-third of improved land value. A similar ratio is also often employed when considering issuance of land-secured infrastructure financing under a Community Facilities District. While this ratio provides a well-established "rule of thumb", a complete analysis is more complex and considers the level of the existing land value (upfront security) as well as the level of risk involved in the project. Nevertheless, the three-to-one ratio provides a standard indicator of the potential level of feasible Project-based infrastructure financing.

Table 11 applies this standard to the estimated total improved land values (under the moderate land value and high land value scenarios) to determine the infrastructure cost that might be able to support financing through private or public (CFD) mechanisms that rely on land as security. The financing capacity estimates include:

- **Alternative 1.** Between \$60 million and \$87 million in infrastructure and capital improvement costs could be supported depending on market conditions/business types attracted.

- **Alternative 2.** Between \$93 million and \$135 million in infrastructure and capital improvement costs could be supported depending on market conditions/business types attracted.
- **Alternative 3.** Between \$111 million and \$161 million in infrastructure and capital improvement costs could be supported depending on market conditions/business types attracted.

Preliminary Funding Gap Identification

A comparison between the financing capacity estimates and the Project-based costs reveals a potential funding gaps. **Table 12** shows this comparison with the following conclusions:

- **Scale of Funding Gap.** Under the moderate land value scenario, the estimated funding gap is substantial and the overall infrastructure and facilities program is not feasible in all alternatives without consideration of alternative cost allocation opportunities and/or additional public financing sources. Under the high land value scenario, development Alternatives 1 and 3 appear feasible, while Alternative 2 results in a modest funding gap of \$4.7 million.
- **Alternative 1.** Applying the financing capacity estimates to the full infrastructure and capital cost allocation, there is a potential funding gap of up to \$19 million depending on market conditions/business types attracted. However, development in this alternative could be feasible if land values improve above the conservative level as demonstrated under the high land value alternative.
- **Alternative 2.** Applying the financing capacity estimates to the full infrastructure and capital cost allocation, there is a remaining funding gap of between \$4.7 million and \$47 million depending on market conditions/business types attracted.
- **Alternative 3.** Applying the financing capacity estimates to the full infrastructure and capital cost allocation, there is a remaining funding gap of up to \$49 million depending on market conditions/business types attracted. However, development in this alternative could be feasible if land values improve above the conservative level as demonstrated under the high land value alternative.

Funding Gap Reduction Sensitivity

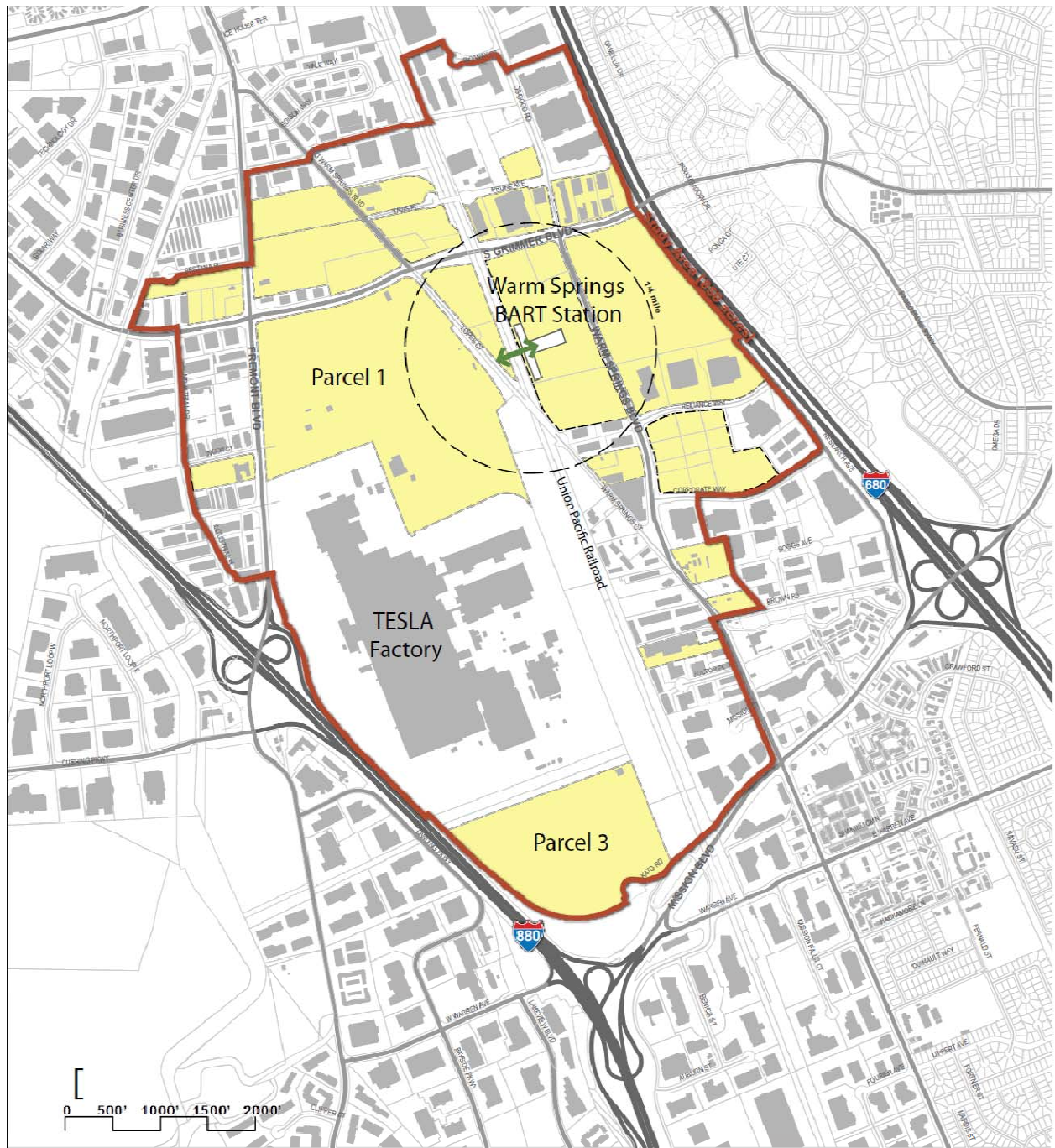
The citywide cost obligations of new development in the Study Area are substantial based on the 2008 citywide impact fee schedule. While many citywide improvements appropriately fall outside of specific subareas of the City, the relative imbalance in the case of the Study Area (and the expected funding gaps) may warrant some adjustments in the fee program. Potential refinements include: (1) including a larger number of Study Area improvements in the fee program so the Study Area improvements can be credited against fee obligations and/or fee revenues can pay for a larger share of overall Project costs and (2) reducing the fee obligations to a level that provides adequate funding for both "off-site" citywide improvements and "on-site" improvements in a manner more consistent with the level of Study Area improvements required. Under both approaches, an update to the citywide fee would be appropriate and would also allow for an overall re-calibration of the fee program consistent with the eventual preferred land use plan for the Study Area.

As currently evaluated, Study Area development would fund between \$68 million and \$83 million in park capital and land acquisition costs. While some of this might fund parks/open space improvements in the Study Area (not costed for this analysis), there would likely be a major outflow to other parts of the City. As a sensitivity, EPS tested an approach to reducing the funding gap and improving the feasibility of the three land use alternatives through reduction of the Citywide Development Impact Fee obligations for parks. **Table 13** provides an illustration of the effects of reductions in overall park fee obligations. Based on an illustrative net fee obligation reduction of 50 percent in park facilities and park dedication in-lieu fees (and no further adjustment of traffic⁴, fire and other capital facilities fee costs), overall Project cost obligation is reduced and associated revised funding gap is as follows:

- **Cost Reduction.** The cost reductions associated with the 50 percent adjustment in net parks-related fee obligations are potentially substantial and result in no additional reduction under Alternative 1, a \$34 reduction under Alternative 2, and a \$42 million reduction under Alternative 3 (because the fee reduction is only applied to fees generated by residential uses).
- **Scale of Funding Gap.** Reduced parks fee obligations decrease the overall Project cost obligations and improve the Project financing picture for Alternatives 2 and 3. Under the high land value scenario, development appears feasible for all three development alternatives, particularly for Alternatives 2 and 3. At the same time, under the moderate land value scenario, development under all alternatives still requires gap funding from other financing sources.
- **Alternative 1.** Applying the financing capacity estimates to the revised infrastructure and capital cost allocation, Alternative 1 remains the same with a potential funding gap of \$19 million under the moderate land values scenario with no gap under the high land value scenario.
- **Alternative 2.** Applying the financing capacity estimates to the revised infrastructure and capital cost allocation, there is a potential funding gap of \$13 million under the moderate land values scenario with no gap under the high land value scenario.
- **Alternative 3.** Applying the financing capacity estimates to the revised infrastructure and capital cost allocation, there is a potential funding gap of \$7.9 million under the moderate land values scenario with no gap under the high land value scenario.

⁴ The analysis already incorporates a traffic impact fee credit of \$15 million.

Figure 1: Study Area Boundaries (in Red) and Opportunity Sites (Highlighted in Yellow)



Source: Perkins + Will, 2011.

Note: "Opportunity Sites" are vacant or under-utilized parcels and parcels more likely to change land uses.

Table 1
Development Program Summary by Land Use Alternative (acres)
South Fremont/Warm Springs Area Study

Land Use	Alternative 1		Alternative 2		Alternative 3	
	Acreage	Distribution	Acreage	Distribution	Acreage	Distribution
Residential/Retail Uses						
Residential	0	0%	53	14%	72	19%
Neighborhood Retail (1)	<u>0.0</u>	<u>0%</u>	<u>0.0</u>	<u>0%</u>	<u>8.0</u>	<u>2%</u>
Subtotal	0.0	0%	53.0	14%	80.0	21%
Workspace Uses						
General/Manufacturing	200.0	52%	117.0	31%	31.0	8%
Technology/R&D	12.0	3%	14.0	4%	62.0	16%
High Tech Office/R&D Blend	45.0	12%	123.0	32%	135.0	35%
High Tech Office/Commercial	<u>88.0</u>	<u>23%</u>	<u>32.0</u>	<u>8%</u>	<u>32.0</u>	<u>8%</u>
Subtotal	345.0	91%	286.0	75%	260.0	68%
Other Uses						
Open Space	8	2%	14	4%	14	4%
BART	<u>28</u>	<u>7%</u>	<u>28</u>	<u>7%</u>	<u>28</u>	<u>7%</u>
Subtotal	36	9%	42	11%	42	11%
TOTAL ACREAGE	381	100%	381	100%	382	100%

(1) May include additional capacity of ground floor street frontage retail space.

Sources: Perkins + Will and Economic & Planning Systems, Inc.

Table 2
Development Program Summary by Alternative (units / sq.ft.)
South Fremont/Warm Springs Area Study

Land Use	Alternative 1	Alternative 2	Alternative 3
Residential/Retail Uses			
Residential (units)	0	3,200	3,900
Neighborhood Retail (sq.ft.) (1)	0	0	105,197
Workspace Uses			
General/Manufacturing	3,054,702	1,783,306	470,518
Technology/R&D	180,059	220,339	940,607
High Tech Office/R&D Blend	1,126,047	3,077,085	3,370,266
High Tech Office/Commercial	<u>4,024,449</u>	<u>1,469,831</u>	<u>1,469,831</u>
Subtotal	8,385,256	6,550,561	6,251,222
TOTAL SQUARE FOOTAGE	8,385,256	6,550,561	6,356,419

(1) Will include additional capacity of ground floor street frontage retail space. Specific square footage has not been determined.

Sources: Perkins + Will and Economic & Planning Systems, Inc.

Table 3
Summary of Land Values by Building Type (per acre, rounded)*
South Fremont/Warm Springs Area Study

Land Use	Units per Acre/FAR	Improved Land Values (Vacant)		Improved Land Values (Underutilized) (3)	
		Moderate (1)	High (2)	Moderate (1)	High (2)
Residential/Retail Uses					
Residential (4)	20 - 70	\$2,130,000	\$2,700,000	\$1,920,000	\$2,430,000
Neighborhood Retail	up to 0.3	\$390,000	\$800,000	\$350,000	\$720,000
Workspace Uses					
General Industrial/Manufacturing	up to 0.35	\$300,000	\$400,000	\$270,000	\$360,000
Technology/R&D	0.35 - 0.45	\$600,000	\$890,000	\$540,000	\$800,000
High-Tech Office/R&D/Biotech Blend	up to 0.75	\$850,000	\$1,460,000	\$770,000	\$1,310,000
Class A High-Tech Office	up to 1.5	\$900,000	\$1,290,000	\$810,000	\$1,160,000

*Note: rounded; values are based on EPS residual land value pro formas and market comparables.

(1) Based on the comparable land sale data in Fremont; reflect post-recovery land values for existing uses.

(2) Reflects innovative workspace that would result in higher-end higher value product types across a range of land uses. Based on the residual land value analysis, as described in the Appendix.

(3) Reflect sites with some underutilized existing uses. Such land is assumed to result in 10 percent less of land value associated with demolition and other site preparation-related costs.

(4) Reflects a range of densities, including those in the 20 to 30, 30 to 50, and 50 to 70 units per acre range.

Sources: Strategic Economics and Economic & Planning Systems, Inc.

Table 4
Total Improved Land Value (Moderate Land Values)
South Fremont/Warm Springs Area Study

Land Use	Alternative 1		Alternative 2		Alternative 3	
	Total	Distribution	Total	Distribution	Total	Distribution
Residential/Retail Uses						
Residential	\$0	0%	\$107,823,000	39%	\$150,012,000	45%
Neighborhood Retail	<u>\$0</u>	<u>0%</u>	<u>\$0</u>	<u>0%</u>	<u>\$3,159,000</u>	<u>1%</u>
Subtotal	\$0	0%	\$107,823,000	39%	\$153,171,000	46%
Workspace Uses						
General/Manufacturing	\$57,222,000	32%	\$33,123,000	12%	\$8,343,000	3%
Technology/R&D	\$6,372,000	4%	\$7,776,000	3%	\$36,384,000	11%
High Tech Office/R&D Blend	\$36,453,000	20%	\$100,794,000	36%	\$105,661,000	32%
High Tech Office/Commercial	<u>\$79,029,000</u>	<u>44%</u>	<u>\$28,980,000</u>	<u>10%</u>	<u>\$28,980,000</u>	<u>9%</u>
Subtotal	\$179,076,000	100%	\$170,673,000	61%	\$179,368,000	54%
Improved Land Value	\$179,076,000	100%	\$278,496,000	100%	\$332,539,000	100%
<i>Average Per Acre</i>	<i>\$470,016</i>		<i>\$730,961</i>		<i>\$870,521</i>	

Sources: Perkins + Will, and Economic & Planning Systems, Inc.

Table 5
Total Improved Land Value (High Land Values)
South Fremont/Warm Springs Area Study

Land Use	Alternative 1		Alternative 2		Alternative 3	
	Total	Distribution	Total	Distribution	Total	Distribution
Residential/Retail Uses						
Residential	\$0	0%	\$136,593,000	34%	\$190,107,000	39%
Neighborhood Retail	<u>\$0</u>	<u>0%</u>	<u>\$0</u>	<u>0%</u>	<u>\$6,480,000</u>	<u>1%</u>
Subtotal	\$0	0%	\$136,593,000	34%	\$196,587,000	41%
Workspace Uses						
General/Manufacturing	\$76,296,000	29%	\$44,164,000	11%	\$11,124,000	2%
Technology/R&D	\$9,440,000	4%	\$11,520,000	3%	\$53,960,000	11%
High Tech Office/R&D Blend	\$62,344,000	24%	\$172,484,000	42%	\$180,125,000	37%
High Tech Office/Commercial	<u>\$113,272,000</u>	<u>43%</u>	<u>\$41,538,000</u>	<u>10%</u>	<u>\$41,538,000</u>	<u>9%</u>
Subtotal	\$261,352,000	100%	\$269,706,000	66%	\$286,747,000	59%
Improved Land Value	\$261,352,000	100%	\$406,299,000	100%	\$483,334,000	100%
<i>Average Per Acre</i>	<i>\$685,963</i>		<i>\$1,066,402</i>		<i>\$1,265,272</i>	

Sources: Perkins + Will, and Economic & Planning Systems, Inc.

Table 6
Total Development Cost
South Fremont/Warm Springs Area Study

Land Use	Alternative 1	Alternatives 2	Alternatives 3
Infrastructure Cost			
Direct Cost			
Interchange Improvements	\$65,000,000	\$65,000,000	\$65,000,000
Local Street and Intersection Improvements	\$600,000	\$600,000	\$600,000
New Traffic Signals	\$1,000,000	\$1,000,000	\$1,000,000
Local Street Connections and New Streets	\$27,700,000	\$27,700,000	\$27,700,000
Transit, Bicycle, and Pedestrian Improvements (1)	<u>\$11,975,000</u>	<u>\$28,523,000</u>	<u>\$28,523,000</u>
Subtotal	\$106,275,000	\$122,823,000	\$122,823,000
Indirect Cost			
Design, Soft Costs, Mapping (15% of direct cost)	\$15,941,250	\$18,423,450	\$18,423,450
Inspection, Staking, C/A (10% of direct cost)	\$10,627,500	\$12,282,300	\$12,282,300
Project Management (5% of direct cost)	<u>\$5,313,750</u>	<u>\$6,141,150</u>	<u>\$6,141,150</u>
Subtotal	\$31,882,500	\$36,846,900	\$36,846,900
Total Infrastructure Cost (2)	\$138,157,500	\$159,669,900	\$159,669,900
Development Impact Fees (3)			
Park Dedication In Lieu	\$0	\$41,091,200	\$50,079,900
Park Facilities Fee	\$0	\$27,161,600	\$33,103,200
Traffic Impact Fee (4)	\$56,680,989	\$43,131,239	\$46,289,480
Fire Facilities Fee	\$1,450,198	\$1,963,957	\$2,181,995
Capital Facilities Fee	<u>\$9,146,850</u>	<u>\$14,505,812</u>	<u>\$16,348,016</u>
Total Development Impact Fees	\$67,278,038	\$127,853,809	\$148,002,591
Net Development Impact Fees (5)	\$52,278,038	\$112,853,809	\$133,002,591
TOTAL DEVELOPMENT COST	\$190,435,538	\$272,523,709	\$292,672,491

(1) Excludes certain improvements in Alternative 1 that are included in Alternatives 2 and 3.

(2) Subsequent tables show a blend of direct and indirect costs for each infrastructure improvement.

(3) Reflects Study Area cost obligations under 2008 City Development Impact Fee schedule.

(4) This analysis assumes that between \$10 million and \$20 million in fees will cover traffic-related infrastructure costs within the Study Area and would therefore be credited to the Project.

(5) Net of the Traffic Impact Fee credit assumed at \$15 million for the purpose of this analysis.

Sources: Perkins + Will; BKF Engineers, and Economic & Planning Systems, Inc.

Table 7
Infrastructure Development Cost Detail*
South Fremont/Warm Springs Area Study

Land Use	Infrastructure Cost		Improvement Timing (1)
	Total	Distribution	
Interchange Improvements			
I-680 / Mission Blvd Interchange	\$26,000,000	16%	Tier 1
I-680 / Automall Pkwy Interchange	\$39,000,000	24%	Tier 1
I-680 / Fremont Blvd Interchange	<u>\$19,500,000</u>	12%	Tier 1
Subtotal	\$84,500,000	53%	
Local Street and Intersection Improvements			
South Grimmer Blvd / Warm Springs Blvd	\$390,000	0%	Tier 1
Fremont Blvd / South Grimmer Blvd	<u>\$390,000</u>	0%	Tier 1
Subtotal	\$780,000	0%	
New Traffic Signals			
Fremont Blvd / Ingot St	\$325,000	0%	Tier 1
South Grimmer Blvd / New N/S Road (Parcel 1)	\$325,000	0%	Tier 1
Warm Springs Blvd / Reliance Way	\$325,000	0%	Tier 1
Warm Springs Blvd / Corporate Way	<u>\$325,000</u>	0%	Tier 1
Subtotal	\$1,300,000	1%	
Local Street Connections and New Streets			
2-Lane Research Ave extension to BART and Grimmer	\$7,280,000	5%	Tier 1
3-Lane Tesla Frontage Rd conversion	\$12,350,000	8%	Tier 1A
4-Lane Ingot St Boulevard Extension (Fremont Blvd to BART)	\$9,100,000	6%	Tier 1
2-Lane Lopes Ct Widening (UPRR to Travis Pl)	\$3,900,000	2%	Tier 1A
2-Lane Parcel 1 N-S Extension (Ingot ext. to S Grimmer Blvd)	<u>\$3,380,000</u>	2%	Tier 1
Subtotal	\$36,010,000	23%	
Transit, Bicycle, and Pedestrian Improvements			
Bus Stop Enhancements (shelters, benches, lighting)	\$130,000	0%	Tier 1
BART west side pedestrian access bridge	\$14,300,000	9%	Tier 1A
Pedestrian improvement at key intersections	\$325,000	0%	Tier 1
Tesla Factory canal bike/ped pathway	\$1,185,600	1%	Tier 2 (2)
Bike/ped I-880 bridge crossing	\$19,500,000	12%	Tier 1 (2)
Railroad Alignment Pathway	\$826,800	1%	Tier 2 (2)
CL II bike path extension on Fremont Blvd (Ingot to I-880)	<u>\$812,500</u>	1%	Tier 2
Subtotal	\$37,079,900	23%	
TOTAL INFRASTRUCTURE COST (2)	\$159,669,900	100%	

*Note: reflects 30% in indirect costs associated with design, mapping, inspection, staking, and project management.

(1) Reflect the timing and importance of improvements within the Study Area.

(2) Applies to Alternatives 2 and 3 only.

Sources: Perkins + Will; BKF Engineers, and Economic & Planning Systems, Inc.

Table 8
Infrastructure Cost by Development Tier*
South Fremont/Warm Springs Area Study

Land Use	Alternative 1		Alternative 2		Alternative 3	
	Total Cost	Distribution	Total Cost	Distribution	Total Cost	Distribution
Direct Costs (1)						
Tier 1A	\$30,550,000	22%	\$30,550,000	19%	\$30,550,000	19%
Tier 1	\$106,795,000	77%	\$126,295,000	79%	\$126,295,000	79%
Tier 2	<u>\$812,500</u>	<u>1%</u>	<u>\$2,824,900</u>	<u>2%</u>	<u>\$2,824,900</u>	<u>2%</u>
Total	\$138,157,500	100%	\$159,669,900	100%	\$159,669,900	100%

*Note: reflects 30% in indirect costs associated with design, mapping, inspection, staking, and project management.

(1) Reflect the timing and importance of improvements within the Study Area.

Sources: Perkins + Will; BKF Engineers, and Economic & Planning Systems, Inc.

Table 9
Fremont Development Impact Fee Schedule*
South Fremont/Warm Springs Area Study

Item	Residential (1) per unit	Manufacturing per sq.ft.	Light Industrial per sq.ft.	R&D per sq.ft.	Office per sq.ft.	Retail per sq.ft.
Park Dedication In Lieu	\$12,841	na	na	na	na	na
Park Facilities Fee	\$8,488	na	na	na	na	na
Traffic Impact Fee	\$3,009	\$2.72	\$3.55	\$3.92	\$10.77	\$8.70
Fire Facilities Fee	\$283	\$0.10	\$0.12	\$0.17	\$0.23	\$0.15
Capital Facilities Fee	<u>\$2,446</u>	<u>\$0.62</u>	<u>\$0.74</u>	<u>\$1.06</u>	<u>\$1.48</u>	<u>\$0.92</u>
Total	\$27,067	\$3.43	\$4.41	\$5.14	\$12.48	\$9.77

*Note: based on the 2008 fee level; does not reflect a temporary reduction set to expire in the end of 2011.

(1) Reflects multifamily fee schedule given that all residential units within the plan will exceed 20 units per acre.

Sources: City of Fremont; Economic & Planning Systems, Inc.

Table 10a
Infrastructure Development Cost Allocation
South Fremont/Warm Springs Area Study

Land Use	Tier	Total Cost	Cost Allocation Assumptions		
			Project	Regional (1)	State/Federal
Interchange Improvements (2)					
I-680 / Mission Blvd Interchange	Tier 1	\$26,000,000	0%	100%	0%
I-680 / Automall Pkwy Interchange	Tier 1	\$39,000,000	0%	10%	90%
I-680 / Fremont Blvd Interchange	Tier 1	<u>\$19,500,000</u>	0%	10%	90%
Subtotal		\$84,500,000			
Local Street and Intersection Improvements					
South Grimmer Blvd / Warm Springs Blvd	Tier 1	\$390,000	100%	0%	0%
Fremont Blvd / South Grimmer Blvd	Tier 1	<u>\$390,000</u>	100%	0%	0%
Subtotal		\$780,000			
New Traffic Signals (3)					
Fremont Blvd / Ingot St	Tier 1	\$325,000	50%	50%	0%
South Grimmer Blvd / New N/S Road (Parcel 1)	Tier 1	\$325,000	50%	50%	0%
Warm Springs Blvd / Reliance Way	Tier 1	\$325,000	50%	50%	0%
Warm Springs Blvd / Corporate Way	Tier 1	<u>\$325,000</u>	50%	50%	0%
Subtotal		\$1,300,000			
Local Street Connections and New Streets					
2-Lane Research Ave extension to BART and Grimmer	Tier 1	\$7,280,000	50%	50%	0%
3-Lane Tesla Frontage Rd conversion	Tier 1A	\$12,350,000	50%	50%	0%
4-Lane Ingot St Boulevard Extension (Fremont Blvd to BART)	Tier 1	\$9,100,000	100%	0%	0%
2-Lane Lopes Ct Widening (UPRR to Travis Pl)	Tier 1A	\$3,900,000	50%	50%	0%
2-Lane Parcel 1 N-S Extension (Ingot ext. to S Grimmer Blvd)	Tier 1	<u>\$3,380,000</u>	100%	0%	0%
Subtotal		\$36,010,000			
Transit, Bicycle, and Pedestrian Improvements					
Bus Stop Enhancements (shelters, benches, lighting)	Tier 1	\$130,000	50%	50%	0%
BART west side pedestrian access bridge	Tier 1A	\$14,300,000	0%	100%	0%
Pedestrian improvement at key intersections	Tier 1	\$325,000	50%	50%	0%
Tesla Factory canal bike/ped pathway	Tier 2	\$1,185,600	50%	50%	0%
Bike/ped I-880 bridge crossing	Tier 1	\$19,500,000	0%	50%	50%
Railroad Alignment Pathway	Tier 2	\$826,800	50%	50%	0%
CL II bike path extension on Fremont Blvd (Ingot to I-880)	Tier 2	<u>\$812,500</u>	50%	50%	0%
Subtotal		\$37,079,900			
TOTAL INFRASTRUCTURE COST		\$159,669,900	\$27,314,950	\$69,954,950	\$62,400,000
Allocation		100%	17%	44%	39%

(1) Reflects regional funding sources such as Measure B or ACTC. covering a share of public transit-related costs.

(2) Assumed to be covered by state and federal grants based on the historic funding allocation pattern.

(3) Does not include three traffic signals for which BART and citywide funding has already been identified.

Sources: Perkins + Will; BKF Engineers, and Economic & Planning Systems, Inc.

Table 10b
Total Infrastructure Development Cost Allocation
South Fremont/Warm Springs Area Study

Land Use	Tier	Total Cost	Cost Allocation Assumptions		
			Project	Regional (1)	State/Federal
Interchange Improvements (2)					
I-680 / Mission Blvd Interchange	Tier 1	\$26,000,000	\$0	\$26,000,000	\$0
I-680 / Automall Pkwy Interchange	Tier 1	\$39,000,000	\$0	\$3,900,000	\$35,100,000
I-680 / Fremont Blvd Interchange	Tier 1	<u>\$19,500,000</u>	<u>\$0</u>	<u>\$1,950,000</u>	<u>\$17,550,000</u>
Subtotal		\$84,500,000	\$0	\$31,850,000	\$52,650,000
Local Street and Intersection Improvements					
South Grimmer Blvd / Warm Springs Blvd	Tier 1	\$390,000	\$390,000	\$0	\$0
Fremont Blvd / South Grimmer Blvd	Tier 1	<u>\$390,000</u>	<u>\$390,000</u>	<u>\$0</u>	<u>\$0</u>
Subtotal		\$780,000	\$780,000	\$0	\$0
New Traffic Signals (3)					
Fremont Blvd / Ingot St	Tier 1	\$325,000	\$162,500	\$162,500	\$0
South Grimmer Blvd / New N/S Road (Parcel 1)	Tier 1	\$325,000	\$162,500	\$162,500	\$0
Warm Springs Blvd / Reliance Way	Tier 1	\$325,000	\$162,500	\$162,500	\$0
Warm Springs Blvd / Corporate Way	Tier 1	<u>\$325,000</u>	<u>\$162,500</u>	<u>\$162,500</u>	<u>\$0</u>
Subtotal		\$1,300,000	\$650,000	\$650,000	\$0
Local Street Connections and New Streets					
2-Lane Research Ave extension to BART and Grimmer	Tier 1	\$7,280,000	\$3,640,000	\$3,640,000	\$0
3-Lane Tesla Frontage Rd conversion	Tier 1A	\$12,350,000	\$6,175,000	\$6,175,000	\$0
4-Lane Ingot St Boulevard Extension (Fremont Blvd to BART)	Tier 1	\$9,100,000	\$9,100,000	\$0	\$0
2-Lane Lopes Ct Widening (UPRR to Travis Pl)	Tier 1A	\$3,900,000	\$1,950,000	\$1,950,000	\$0
2-Lane Parcel 1 N-S Extension (Ingot ext. to S Grimmer Blvd)	Tier 1	<u>\$3,380,000</u>	<u>\$3,380,000</u>	<u>\$0</u>	<u>\$0</u>
Subtotal		\$36,010,000	\$24,245,000	\$11,765,000	\$0
Transit, Bicycle, and Pedestrian Improvements					
Bus Stop Enhancements (shelters, benches, lighting)	Tier 1	\$130,000	\$65,000	\$65,000	\$0
BART west side pedestrian access bridge	Tier 1A	\$14,300,000	\$0	\$14,300,000	\$0
Pedestrian improvement at key intersections	Tier 1	\$325,000	\$162,500	\$162,500	\$0
Tesla Factory canal bike/ped pathway	Tier 2	\$1,185,600	\$592,800	\$592,800	\$0
Bike/ped I-880 bridge crossing	Tier 1	\$19,500,000	\$0	\$9,750,000	\$9,750,000
Railroad Alignment Pathway	Tier 2	\$826,800	\$413,400	\$413,400	\$0
CL II bike path extension on Fremont Blvd (Ingot to I-880)	Tier 2	<u>\$812,500</u>	<u>\$406,250</u>	<u>\$406,250</u>	<u>\$0</u>
Subtotal		\$37,079,900	\$1,639,950	\$25,689,950	\$9,750,000
TOTAL INFRASTRUCTURE COST		\$159,669,900	\$27,314,950	\$69,954,950	\$62,400,000
Allocation		100%	17%	44%	39%

(1) Reflects regional funding sources such as Measure B or ACTC. covering a share of public transit-related costs.

(2) Assumed to be covered by state and federal grants based on the historic funding allocation pattern.

(3) Does not include three traffic signals for which BART and citywide funding has already been identified.

Sources: Perkins + Will; BKF Engineers, and Economic & Planning Systems, Inc.

Table 11
Warm Springs Study Area Supportable Development Cost
South Fremont/Warm Springs Area Study

Item	Alternative 1	Alternative 2	Alternative 3
Moderate Land Values			
Warm Springs Study Area Improved Land Value (1)	\$179,076,000	\$278,496,000	\$332,539,000
Cost to Land Value Ratio (2)	0.3333	0.3333	0.3333
Supportable Development Cost	\$59,686,031	\$92,822,717	\$110,835,249
High Land Values			
Warm Springs Study Area Improved Land Value (1)	\$261,352,000	\$406,299,000	\$483,334,000
Cost to Land Value Ratio (2)	0.3333	0.3333	0.3333
Supportable Development Cost	\$87,108,622	\$135,419,457	\$161,095,222

(1) The value for existing sites is assumed minimal for the purpose of this analysis.

(2) Reflects a standard feasibility measure that indicates how much infrastructure cost could be supported based on improved land value.

Source: Economic & Planning Systems, Inc.

Table 12
Warm Springs Study Area Preliminary Funding Gap
South Fremont/Warm Springs Area Study

Item	Alternative 1	Alternative 2	Alternative 3
Supportable Infrastructure/Capital Improvement Costs			
Moderate Land Values	\$59,686,031	\$92,822,717	\$110,835,249
High Land Values	\$87,108,622	\$135,419,457	\$161,095,222
Total Cost			
Infrastructure Construction Cost	\$26,308,750	\$27,314,950	\$27,314,950
Development Impact Fees (1)	<u>\$52,278,038</u>	<u>\$112,853,809</u>	<u>\$133,002,591</u>
Total Development Cost	\$78,586,788	\$140,168,759	\$160,317,541
Funding Gap			
Moderate Land Value Scenario	(\$18,900,757)	(\$47,346,042)	(\$49,482,293)
High Land Value Scenario	\$8,521,834	(\$4,749,302)	\$777,681

(1) Based on Table 6, reflects a \$15 million traffic impact fee credit assumption.

Source: Economic & Planning Systems, Inc.

Table 13
Warm Springs Study Area Funding Gap
(Sensitivity Option - Partial Fee Credit for Parks Fees Scenario)*
South Fremont/Warm Springs Area Study

Item	Alternative 1	Alternative 2	Alternative 3
Supportable Infrastructure/Capital Improvement Costs			
Moderate Land Values	\$59,686,031	\$92,822,717	\$110,835,249
High Land Values	\$87,108,622	\$135,419,457	\$161,095,222
Total Cost			
Infrastructure Construction Cost	\$26,308,750	\$27,314,950	\$27,314,950
Development Impact Fees (1)	<u>\$52,278,038</u>	<u>\$78,727,409</u>	<u>\$91,411,041</u>
Total Development Cost	\$78,586,788	\$106,042,359	\$118,725,991
Funding Gap			
Moderate Land Value Scenario	(\$18,900,757)	(\$13,219,642)	(\$7,890,743)
High Land Value Scenario	\$8,521,834	\$29,377,098	\$42,369,231

*Note: partial fee credit reflects a 50% reduction in park dedication in lieu and park facilities.

(1) Based on Table 6, reflects a \$15 million traffic impact fee credit assumption.

Source: Economic & Planning Systems, Inc.



APPENDIX A

APPENDIX A: LAND VALUE ESTIMATING METHODOLOGY

Land values are highly sensitive to economic and market factors and development costs and consequently can vary considerably by location, size and specific end user preferences. Land values in the City of Fremont followed trends similar to the broader region, with prices peaking around 2006 and decreasing since. Acquisition of land by high-tech end users in prime locations has recently generated some strong land prices in central Silicon Valley locations. For the purpose of this analysis, EPS utilized a combination of two approaches to establish a land value range by land use within the Warm Springs Study Area. These approaches include review of recent local and regional land sale comparables and residual land value analysis.

Given the large variance in improved land values, EPS has established a range of potential values with moderate to high estimates. The moderate values are intended to reflect post-recovery improved land values, while the high values reflect both recovery as well as an increasing shift towards science and technology firms and higher value developments.

Moderate values are predominantly based on historic and existing sales comparables adjusted to reflect market recovery with a mix of uses similar to those currently established in Warm Springs (with the exception of high-density residential and office development). The higher end of the estimated range is based on the residual land value analysis reflective of an assumed shift to higher value/innovation uses within the Warm Springs Study Area¹ (see **Table A-1**). This is consistent with the focus of the White Paper on transformational opportunities in the Economic Strategic Plan report.

Residual land value estimates for workspace uses are based on a static residual land value pro forma structured to solve for the difference between the finished value of leased property and development costs for the vertical builder. As shown in **Table A-2**, these land value estimates reflect improved market conditions, but still remain below the improved land values commanded in more central Silicon Valley locations.

Table A-1: Residual Land Value Pro Forma Summary for Workspace Uses (High Land Value Scenario)

Land Use	FAR	Land Value per Acre
General Industrial/Manufacturing	up to 0.35	\$400,000
Technology/R&D	0.35 - 0.45	\$890,000
High-Tech Office/R&D/Biotech Blend	up to 0.75	\$1,460,000
Class A High-Tech Office	up to 1.5	\$1,290,000

*Note: values are based on EPS residual land value pro formas.

¹ While EPS conducted residual land value analysis for workspace uses, land values for non-workspace uses are based on a combination of building value assumption adjustments from the Strategic Economics Fiscal Impact Analysis and regional market sale comparables.

Table A-2
Silicon Valley Science and Technology Land Value Comparisons*
South Fremont/Warm Springs Area Study

Property	City	Planned Land Use	Acres	F.A.R.	Development Status	Sale Date	Price Per Sq.Ft.		Price Per Acre
							Per Land Sq.Ft.	Per Bldg. Sq.Ft.	
Google Site	Mtn. View	Office Campus	42	0.67	Semi-Improved	2007	\$30	\$46	\$1,322,115
Orchard Parkway	San Jose	Office/R&D	17	1.20	Improved and Entitled	2007	\$56	\$46	\$2,424,114
SWC N 1st St	San Jose	Office/Retail	40	1.67	Improved and Entitled	2006	\$62	\$37	\$2,712,917
FMC Site	San Jose	Airport Expansion	23	0.68	Improved	2006	\$26	\$39	\$1,153,469
Old Ironsides/Yahoo	Santa Clara	Office	46	1.25	Improved	2006	\$52	\$42	\$2,257,715
11th and H St	Sunnyvale	Office/Mixed-Use	52	0.75	Improved	2006	\$36	\$48	\$1,583,842
Apple	Cupertino	Office/R&D/Instit'l Campus	96	unknown	Improved/Old Existing	2010	\$72	unknown	\$3,125,000
Apple	Cupertino	Office/R&D/Instit'l Campus	<u>50</u>	<u>unknown</u>	Improved/Old Existing	2006	<u>\$73</u>	<u>unknown</u>	<u>\$3,200,000</u>
Average			46	1.0			\$51	\$43	\$2,222,396
Weighted Average				0.6			\$55	\$26	\$2,399,320

*Note: reflects a list of recent sales and appraisals for the large-scale land sites in the Silicon Valley.

Source: Economic & Planning Systems, Inc.