WCCTAC
West Contra Costa Transportation Advisory Committee

West Contra Costa High-Capacity Transit Study

FINAL TECHNICAL MEMORANDUM #14

Funding Strategy

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Document Review

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Acronyms and Abbreviations

AC Transit	Alameda-Contra Costa Transit District
AOB	Area of Benefit
BART	San Francisco Bay Area Rapid Transit
BATA	Bay Area Toll Authority
BRT	bus rapid transit
Caltrans	California Department of Transportation
CCJPA	Capital Corridor Joint Powers Authority
CCTA	Contra Costa Transportation Authority
CCCTA	Central Contra Costa Transit Authority
CFD	Community Facilities District
CIG	Capital Investment Grant
CLEEN	California Lending for Energy and Environmental Needs
CMA	Congestion Management Agency
CMAQ	Congestion Mitigation and Air Quality
CO_2	carbon dioxide
CPI	Consumer Price Index
CTC	California Transportation Commission
DTX	Downtown Rail Extension
EIFD	Enhanced Infrastructure Financing District
FAST Act	Fixing America's Surface Transportation Act
FFGA	Full Funding Grant Agreement
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
FY	fiscal year
GARVEE	Grant Anticipation Revenue Vehicle
HCT	high-capacity transit
HRT	heavy rail transit
I-580	Interstate 580
I-80	Interstate 80

IBANK	Infrastructure and Economic Development Bank
IFD	Infrastructure Financing District
IFP	Infrastructure Financing Plan
SRF	Infrastructure State Revolving Fund
LRT	light rail transit
LTF	Local Transportation Fund
MAP-21	Moving Ahead for Progress in the 21st Century
MTC	Metropolitan Transportation Commission
MPO	Metropolitan Planning Organization
O&M	operating and maintenance
PFA	Public Financing Authority
PILOT	payment-in-lieu-of-taxes
RDA	Redevelopment Agencies
RM	Regional Measure
SB	Senate Bill
SCO	State Controller Office
SFMTA	San Francisco Municipal Transportation Agency
SMART	Sonoma-Marin Area Rail Transit District
SR-4	State Route 4
SSGA	Small Starts Grant Agreement
STA	State Transit Assistance
STBG	Surface Transportation Block Grant
STIP	State Transportation Improvement Program
STMP	Subregional Transportation Mitigation Program
TAZ	traffic analysis zone
TDA	Transportation Development Act
TIF	Tax Increment Financing
TIFIA	Transportation Infrastructure Finance and Innovation Act
TIGER	Transportation Investments Generating Economic Return
TIP	Transit Improvement Program
USDOT	United States Department of Transportation

UZA	Urbanized Area
VTA	Santa Clara Valley Transportation Authority
WCCTAC	West Contra Costa Transportation Advisory Committee
WestCAT	Western Contra Costa Transit Authority

EXECUTIVE SUMMARY

The West Contra Costa Transportation Advisory Committee (WCCTAC) is conducting the West Contra Costa High-Capacity Transit (HCT) Study to review multimodal high-capacity transit options for reducing congestion and to plan for future growth, with consideration of costs and funding opportunities. Having studied and evaluated eight alternatives in earlier phases of the study, WCCTAC is now considering six project alternatives.

This Technical Memorandum documents the preliminary funding and financing review conducted for WCCTAC. This review documents an analysis of potential federal, state, and local funding sources to address the project alternatives' capital and operating and maintenance (O&M) costs.

A portion of the project costs for Alternative 1: Express Bus could potentially be met using funding from the United States Department of Transportation (USDOT)'s Transportation Investments Generating Economic Return (TIGER) grant program, although the program is extremely competitive. TIGER grants are also the most relevant federal funding program for the Regional Intermodal Transit Center in Hercules component of Alternative 4, Commuter Rail. A portion of the project costs of the remaining four HCT alternativescould be addressed using funding from the Federal Transit Administration (FTA) Capital Investment Grant (CIG) program, with an anticipated federal share ranging between 30 percent and 50 percent. Remaining capital costs and annual O&M costs not covered by federal grants may be addressed using a combination of new and existing local funding sources for transit and/or project-specific funding sources.

While the funding sources and strategies laid out in this report provide a good framework for pursuit of project funding, with a new administration in Washington that is just beginning to set transportation policy, the availability of some of the federal funds is likely to change in the future. As WCCTAC determines which projects and project components should be advanced for further development, project sponsors should conduct a comprehensive review of each recommended funding option and develop a refined project funding strategy that reflects the latest funding information.

1 INTRODUCTION

1.1 Transportation Setting

West Contra Costa County is a sub-region within the Bay Area, set between the San Francisco Bay and the East Bay hills. West Contra Costa Transportation Advisory Committee (WCCTAC) is responsible for transportation planning for the sub-region and one of four regional transportation planning committees in Contra Costa County, representing the West Contra Costa sub-area. These four committees were created in 1988 to guide transportation projects and programs included in the Measure C half-cent, transportation sales tax approved by Contra Costa voters. Measure C was succeeded by Measure J in 2004.

Transportation on Interstate 80 (I-80), the primary vehicular route running north-south through this sub-region, has major regional significance to Bay Area travelers. It is frequently one of the most congested freeway corridors in the region and often the most congested.[1] San Pablo Avenue, the former Highway 40, is a major arterial that runs roughly parallel and functions as a possible alternative to I-80 in some sections. It links each jurisdiction in West Contra Costa and is a key commercial thoroughfare for the sub-region. Interstate 580 (I-580), running perpendicular to I-80, connects travelers to and from Marin County across the Richmond-San Rafael Bridge to I-80, and continues into Alameda County.

Traffic is routinely congested during peak commute hours in the peak direction, as well as during off-peak hours and weekends when it is congested in both directions. Preliminary estimates indicate that work trips on the I-80 corridor are expected to increase by approximately 23 percent by 2040. Most trips originate from Richmond, San Pablo, Pinole, and Hercules and the three most frequently traveled destination zones external to the Study Area are Berkeley/Emeryville, Northeast San Francisco, and Oakland/Piedmont.[2]

"Bay Area's Worst Commute is Westbound I-80" – *San Francisco Chronicle*, December 17, 2015

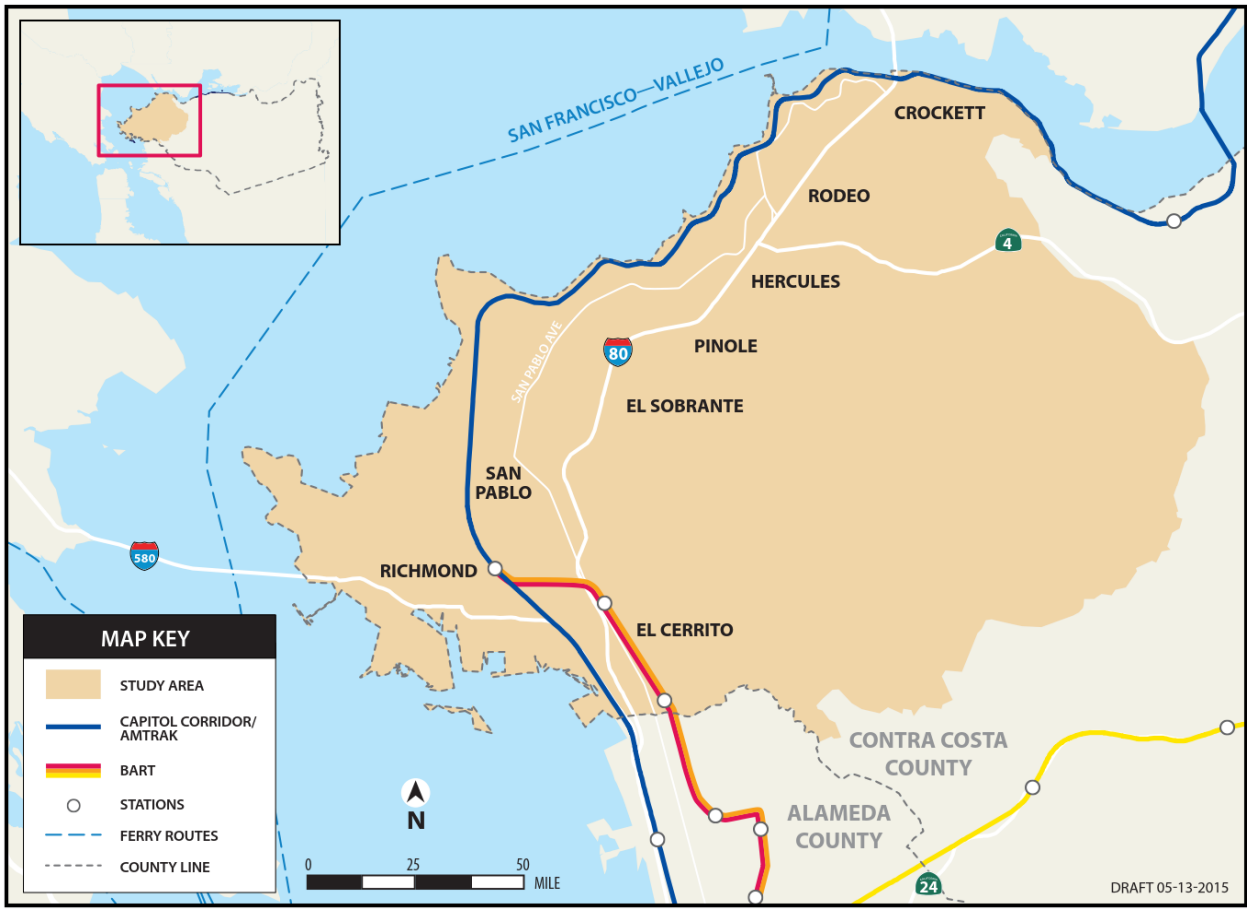
[1] MTC, Vital Signs, December 2015, http://mtc.ca.gov/whats-happening/news/fresh-data-bay-areas-vital-signs-include-new-top-10-list-freeway-congestion

[2] West Contra Costa High-Capacity Transit Study, Technical Memorandum #7, Travel Markets, January 2016, WSP | Parsons Brinckerhoff, Kimley Horn, and Kittelson & Associates.

The study area encompasses West Contra Costa County (West County) from the southern boundary at the Alameda County line north to the Carquinez Bridge and Solano County line. The study area essentially encompasses the Metropolitan Transportation Commission's (MTC) Superdistrict 20, which includes the cities of El Cerrito, Hercules, Pinole, Richmond, and San Pablo and the unincorporated communities of Crockett, El Sobrante, and Rodeo.

Figure 1-1 displays a map of the core Study Area, which includes I-80, I-580, and State Route (SR-4), as well as major surface streets, including San Pablo Avenue and Richmond Parkway.

Figure 1-1: Study Area



Source: WSP | Parsons Brinckerhoff and Kimley-Horn, 2015

1.2 Purpose of the Study

WCCTAC is conducting the West Contra Costa High-Capacity Transit Study to review multimodal high-capacity transit options for improving transit to address congestion and to plan for future growth, with consideration of costs and funding opportunities. High-capacity transit (HCT) provides substantially higher levels of passenger capacity with typically fewer stops, higher speeds, and more-frequent service than community-based or local public bus services.

The purpose of this study is to identify and evaluate the feasibility and effectiveness of HCT options in West County for WCCTAC's consideration. Central to the study purpose is providing WCCTAC with the analyses necessary to determine and advance the most promising HCT alternatives. The study also provides WCCTAC with a set of alternatives that could be incrementally implemented over time, addressing existing congestion in the short- and medium-term and future congestion in the long-term.

Why do we need this study?

Interstate 80 is one of the most congested corridors in the Bay Area, and the Richmond BART line often reaches full capacity during commute hours.

Since its inception in 1988, WCCTAC's policy goals have called for facilitating the use of transit, encouraging transit projects aimed at congestion relief, and participating in studies focused on transit capital investments. West County action plans since that time have included consideration and prioritization of transit improvements such as express bus expansion, ferry implementation, a San Francisco Bay Area Rapid Transit District (BART) extension, and other types of rail improvements. For example, the most recent 2014 Action Plan called for participation in a study of HCT options in the I-80 corridor.[3]

The funding approach outlined by this study summarizes potential funding sources and strategies to pursue transportation funds within the county and from outside funding sources. The transit capital investments will also benefit a wide range of people and trip types in West County.

1.3 Purpose of this Technical Memorandum

This Technical Memorandum documents a preliminary funding and financing strategy for the West Contra Costa HCT Study. It includes an analysis of potential federal, state, and local funding sources to address the estimated capital and O&M costs for HCT alternatives. The funding plan is based on the six HCT refined alternatives currently being examined in the study.

[3] Item #46 of the 2014 West County Action Plan.

For each alternative, WCCTAC or a project sponsor will need to develop a refined project funding strategy to advance projects and project components for further development.

Each potential state and local funding program is screened according to its ability to fund the estimated capital and operating expenses of the HCT alternatives, based on the following criteria:

- Revenue potential – The estimated amount of revenue the funding source may yield for the project
- Keep pace with inflation – The extent to which the funding source keeps pace or is correlated with general price inflation
- Equity – The proportionate impact of the funding source across income levels, with some consideration regarding discretionary participation by income level
- Nexus with beneficiaries – The extent to which the funding source relates to the beneficiaries of the project
- Stability or predictability – The predictability of the funding source on an annual basis
- Legal – The legal authority required to implement the tax or fee
- Administration – Collection and administrative costs
- Political support – The overall political palpability of each funding source

2 FEDERAL FUNDING

This section summarizes and evaluates potential federal sources to fund the HCT alternatives, including the CIG program, the Transportation Investment Generating Economic Recovery (TIGER) program, and federal formula funds. These programs are subject to annual appropriations by Congress. The FAST Act authorizes funding for all programs except TIGER through FY 2020, but under President Trump's new administration changes are possible through the annual appropriations process. The extent of any program changes is unknown at this time.

2.1 Capital Investment Grants (CIG)

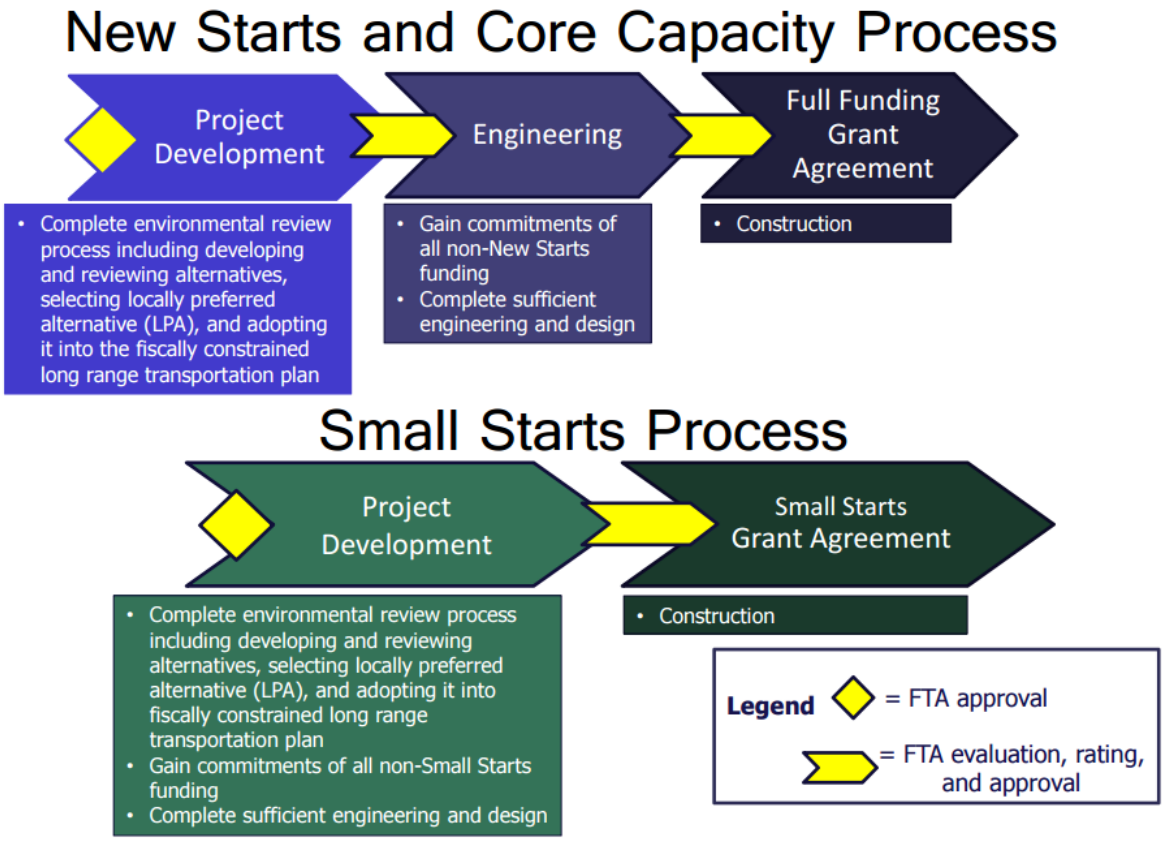
CIG is a discretionary grant program administered by the FTA under Section 5309 of Title 49 of U.S. Code. CIG provides federal grants to major transit capital investments. There are three categories of eligible projects: New Starts, Small Starts, and Core Capacity. All three of these programs are funded from the same allocation of authorized funding, but there was no significant increase in funding to the program when the Core Capacity category was established in 2012.

The CIG program is nearing its financial capacity, with limited funding available to cover a growing pipeline of New Starts, Core Capacity, and Small Starts projects. However, eligible projects continue to seek funding from the program. Projects selected for CIG funding are approved for a full funding grant agreement (FFGA), which is a contract between FTA and the grantee to build the project scope within a schedule and budget and establish a multi-year pay-out schedule that is subject to Congressional appropriations.

Figure 2-1 summarizes the New Starts/Core Capacity and Small Starts processes. Projects must move sequentially through the process in order to become eligible for federal grant funding. For New Starts and Core Capacity projects, during project development, sponsors must complete environmental review, select a locally preferred alternative, and adopt the project into the fiscally constrained long-range transportation plan. Projects pursuing New Starts and Core Capacity funding must enter Engineering within a two-year period. During Engineering, the sponsor must gain commitments of all non-New Starts/Core Capacity funding and complete sufficient design and engineering. Project sponsors will also be required to demonstrate that project meets statutory requirements for FTA funding by demonstrating the project's local financial commitment and achievement of various project justification criteria. When approved for funding by FTA the project receives an FFGA and may then begin construction.

Small Starts projects have a simplified process in which the same project planning, funding, and engineering, and design requirements are accomplished in a single Project Development phase. Projects then proceed to a Small Starts grant agreement (SSGA) and may begin construction.

Figure 2-1: New Starts/Core Capacity and Small Starts Processes



Source: Federal Transit Administration, http://www.fta.dot.gov/documents/Project_Development_Process_MAP-21_CIG_Program.pdf

2.1.1 New Starts

The New Starts program is intended to support projects with costs greater than $300 million or projects seeking more than $100 million in federal grants. Projects must either be new fixed-guideway investments or an extension of an existing fixed-guideway system. Eligible projects include fixed-guideway heavy rail transit (HRT), light rail transit (LRT), commuter rail, bus rapid transit (BRT), and streetcar projects. New Starts projects are limited to a maximum CIG program share of 60 percent and 80 percent from all federal funding sources.

There is significant competition for these funds, and projects must meet stringent eligibility criteria related to project justification and local financial commitment. Projects in the San Francisco Bay Area currently receiving funds from the program include the Third Street Light Rail Phase 2 – Central Subway project in San Francisco. This is a $1.6 billion project to extend light rail to Chinatown that received a $942 million New Starts grant in 2012. Another recipient

of New Starts funding in the region is the Silicon Valley Berryessa Extension Project, a $2.3 billion project to extend BART heavy rail to San Jose that received a $900 million grant in 2012.

Two other projects in the region are anticipated to pursue New Starts grants in the near future. The BART Silicon Valley Phase II – Extension to San Jose and Santa Clara entered New Starts project development in March 2016 and anticipates grant award in 2019. The estimated cost of the project is $4.8 billion; a New Starts grant amount has not yet been determined. The Downtown Rail Extension Project (DTX), extending Caltrain commuter rail from Fourth Street and King Street in San Francisco to the new Transbay Transit Center, anticipates pursuing New Starts funding. The project is not yet in New Starts project development.

2.1.2 Core Capacity

The Core Capacity program supports substantial corridor-based investments in an existing fixed-guideway system that increases capacity by 10 percent. Projects must be located in a corridor that is at or over capacity or will be in the next five years, and must increase capacity by at least 10 percent. The program follows the same project development process as the New Starts program. Core Capacity projects are limited to a maximum CIG program share of 80 percent and 80 percent from all federal sources.

The Peninsula Corridor Electrification Project, which will electrify the Caltrain commuter rail corridor between San Francisco and San Jose, received FTA approval to enter into Core Capacity Engineering in August 2016. The project is slated to receive $647 million in Core Capacity funding, which is 38 percent of the total project cost. The remainder of the project cost will be met with federal transit formula grants, state funds, and local funds.

2.1.3 Small Starts

The Small Starts program provides federal grants for eligible projects less than $300 million in cost that are seeking less than $100 million in federal grants. In addition to fixed-guideway transit modes with over 50 percent of the route in a separate right-of-way, Small Starts funding may also be used for “corridor-based bus rapid transit” projects that do not operate in a dedicated right-of-way (less than 50 percent). Small Starts projects are limited to a maximum CIG program share of 80 percent as well as 80 percent from all federal funding.

The Alameda-Contra Costa Transit District (AC Transit) received funding from the Small Starts program for the East Bay BRT service. The project has a total cost of $178 million, approximately 42 percent of which was covered by Small Starts funding. The remaining project costs were met with state and local funding including RM2 bridge tolls, Measure B sales tax funds, and congestion management agency (CMA) transit improvement program (TIP) funds.

Other projects in the region pursuing Small Starts funds include the El Camino Real Corridor BRT Project in San Jose and the Sonoma-Marin Area Rail Transit District (SMART) Regional Rail – San Rafael to Larkspur Extension. Both projects are in Small Starts project development. The San Jose project seeks $75 million for a $188 million project, while the SMART project seeks $23 million for a $43 million project.

2.2 Transportation Investment Generating Economic Recovery (TIGER)

The TIGER program is a highly competitive USDOT grant program supporting the capital costs of road, rail, transit, and port projects that have a significant impact on the nation, a region, or a metropolitan area. In 2016, the eighth annual round of TIGER grants, awarded $500 million to 40 projects across the country. The minimum grant award for projects in urban areas was $5.0 million, with a minimum required project cost of $6.25 million. Projects are eligible to receive a federal participation share of up to 80 percent, but in practice, federal participation is much lower.

The program is extremely competitive. In 2016, 583 projects requested TIGER funds, and only 6.8 percent of those received funding. The total amount requested sums to a total of $9.3 billion, nearly 19 times the amount of grant funds available. Four projects in California received TIGER funding in 2016: a passenger rail construction project in San Bernardino, a highway expansion and improvement project in Live Oak, a grade separation construction project in Los Angeles, and improvements to the 19th Street BART station and bicycle and pedestrian infrastructure along 20th Street between Broadway and Harrison Street in Oakland.

Broad support and local consensus – including support from the business community, various interest groups (e.g., environmental, labor, economic development) and elected officials at the federal, state, and local levels – are key requirements to being competitively positioned for TIGER funding. USDOT also prefers projects that have performed considerable project development (e.g., completed environmental clearance) and secured commitments of non-federal funding. If situations where a project cannot meet USDOT's high expectations but expects to do so in one to two years, many project sponsors will submit an application to make USDOT aware of the project and position the project for a future round of TIGER grants. Lessons may be applied from previous TIGER grant submittals to make a project more competitive over time. Nearly two-thirds of 2016 TIGER grantees were repeat applicants to the program.

The program is subject to annual appropriations by Congress. Appropriations are not yet complete for federal fiscal year 2017, but another round of TIGER grants is anticipated based on interest expressed by senators during the recent confirmation hearing of incoming USDOT Secretary Elaine Chao.

2.3 Federal Formula Funds

2.3.1 Section 5307 Urbanized Area Formula Grants

Federal formula funding is provided to Urbanized Areas (UZA) for public transportation capital, planning, job access, and reverse-commute (JARC) projects. Funding is allocated according to population size, and a combination of bus revenue vehicle miles, bus passenger miles, fixed-guideway revenue vehicle miles, fixed-guideway route miles, demographics, and population density. A minimum of 20 percent local match is required. There is significant competition for relatively low funding amounts among transit operators in the San Francisco-Oakland UZA, where West County is located. The San Francisco-Oakland UZA is the most oversubscribed in terms of funding availability in the region.

In the San Francisco Bay Area, funding allocations are subject to allocation according to MTC criteria, which tends to favor capital infrastructure renewal projects. Funds available on a yearly basis are allocated to Bay Area transit agencies, who use funding to support capital infrastructure renewal projects and rail and bus fleet replacement. MTC's Section 5307 FY 2016 funding allocation included AC Transit's procurement of 65 40' long urban buses ($23.9 million) and facilities upgrade ($8.6 million) and BART preventive maintenance ($5.2 million). Given the significant demand for these funds from capital infrastructure renewal projects, they are generaly not available to support transit expansion projects.

2.3.2 Section 5339 Bus & Bus Facilities Grants

Section 5339 funding is for capital investments in bus and bus facilities, primarily allocated by formula. Remaining funds are competitively allocated with no single grantee receiving more than 10 percent of the annual discretionary program. A sub-program provides grants for bus and bus facility projects that support low and zero-emission vehicles. A minimum 20 percent local match is required. Funds are allocated by formula to the 12 Bay Area urbanized areas based on population and service factors to support bus fleet replacement and bus facilities projects. There is also significant competition for relatively low funding amounts from transit operators in the San Francisco-Oakland UZA. MTC applies its own criteria to allocate federal transit formula funds to Bay Area transit agencies, but Section 5339 discretionary grants are directly awarded by FTA to transit agenices without suballocation by MTC. In FY 2016 a total of $1.9 million in discretionary grants were awarded to Bay Area transit agencies. Agencies receiving grant awards included CCCTA, Eastern Contra Costa Transit Authority (ECCTA), San Francisco Municipal Transportation Agency (SFMTA), and Santa Clara Valley Transportation Authority (VTA).

2.3.3 Surface Transportation Block Grants (STBG)

The STBG program is distributed by the Federal Highway Administration (FHWA) to states and metropolitan planning organizations (MPOs) using a highway-based funding formula. Eligible uses include maintenance expenses for existing services and capital funding for new projects. Authorization levels are estimated to increase gradually on an annual basis from $11.16 billion in FY 2016 to $12.14 billion in FY 2020. The FAST Act distributes funds by formula to each state. CCCTA received $0.3 million in FY 2016 for a software implementation project and access improvements implementation.

2.3.4 Congestion Mitigation and Air Quality Improvement (CMAQ)

Flexible federal funding for the CMAQ program is distributed to air quality maintenance or non-attainment areas (regions that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter) using a formula based on an area's population by county and the severity of its ozone and carbon monoxide problems with the non-attainment or maintenance area. Greater weight is given to areas that are both carbon monoxide and ozone non-attainment/maintenance areas. Funds are allocated to transportation projects and programs for the purpose of reducing congestion and improving air quality in the existing and former air quality non-attainment area. CMAQ funding can be used for the capital costs of transit projects and up to three years of the O&M costs of new transit service. Contra Costa County is part of a moderate particular matter non-attainment area and a marginal ozone non-attainment area.

Eligible uses include transportation projects or programs that contribute to the attainment or maintenance of national ambient air quality standards, and will be effective in reducing air pollution. This could include projects that address highway congestion or provide new transit alternatives to congested highways, and could be particularly relevant to West County given congestion on I-80. Among projects funded in Contra Costa County, the Ohlone Greenway Station Area in El Cerrito received $3.0 million in FY 2016 for bicycle and pedestrian improvements.

2.4 Recommended Federal Funding Options

Federal funding is recommended for each alternative based on the program(s) likely to provide the most funding for which the alternative is eligible. Four of the six alternatives (2, 3, 6A, and 6B) could benefit from CIG grants, which provide the largest likely percentage of federal funding, are a predictable funding source, and would not compete with existing federal formula funding in the region. By statute, the maximum federal grant for a New Starts project is 60 percent of the capital cost and 80 percent for a Small Starts project. In practice, however, grant amounts have been less than this, especially for very costly projects. Historically, applicants

have received grants equal to approximately 50 percent of the capital cost of projects, but lately, due to constrained amounts of federal funds, the federal participation rate in projects with a cost greater than $1 billion has ranged between 30 and 45 percent. To the extent that the amount of federal grant funds awarded is lower, the remaining share of capital costs and all O&M costs would require greater state and local funding, which is discussed in the following section.

Recommended federal funding options for the Express Bus, Alternative 1, are TIGER funding and Section 5339 Bus and Bus Facilities Grants. This alternative, as defined, is not eligible for New Starts or Small Starts funding. The project is most aligned with eligibility criteria for the TIGER and Section 5339 programs. The Regional Intermodal Transit Center component of Alternative 4 could also benefit from TIGER grants. TIGER is a highly competitive program, and WCCTAC or the project sponsor would need to obtain support for it from the business community, local groups and elected officials at all levels of government.

The recommended federal funding options for this study's HCT alternatives are presented in Table 2-1.

Table 2-1: Federal Funding Options

Alternative	Federal Funding Option
1: Express Bus	TIGER grants and Section 5339 Bus and Bus Facilities grants
2: San Pablo Avenue/Macdonald Avenue Bus Rapid Transit	CIG Small Starts grants
3: 23rd Street Bus Rapid Transit	CIG Small Starts grants
4.1: Commuter Rail: Fare Subsidy	---
4.2: Commuter Rail: Regional Intermodal Transit Center component	TIGER grants
6A: BART Extension from Richmond Station to Hercules - Rumrill Boulevard Alignment	CIG New Starts grants
6B: BART Extension from Richmond Station to Hercules - Richmond Parkway Alignment	CIG New Starts grants

Source: WSP | Parsons Brinckerhoff, 2017

3 STATE AND LOCAL FUNDING

The HCT alternatives would require state or local financial commitments to cover the balance of the capital costs not funded by federal grants, as well as annual O&M costs. This section summarizes state and local funding options for the program, including existing state and local funding sources, and other potential state and local funding programs. This section also evaluates these funding sources according to their ability to fund capital and/or O&M costs of the HCT alternatives.

3.1 Existing State and Local Funding

Existing state and local funding streams for transit projects may fund a share of the cost of the HCT alternatives. However, most of the existing revenue streams are committed to other projects and uses, limiting the amount of funding available for HCT at present. Since most of these revenue sources are dedicated, the analysis focuses on their capacity to support the proposed projects. In many cases, local transit agencies, such as BART, AC Transit, and WestCAT will serve as the conduit for these funds.

The major existing state and local funding options are outlined below.

3.1.1 Transportation Development Act (TDA)

The Mills-Alquist-Deddeh Act (Senate Bill [SB] 325) was enacted by the California Legislature to improve existing public transportation services and encourage regional transportation coordination. Known as the Transportation Development Act (TDA) of 1971, this law provides funding that is allocated among transit and non-transit related projects that adhere to regional transportation plans. TDA has two major funding sources, which are allocated to areas of each county based on population, taxable sales, and transit performance:

- **Local Transportation Fund (LTF)** is derived from a statewide one-quarter cent sales tax. The State Board of Equalization returns the sales tax revenues to each county's LTF based on sales tax collected in each county. Eligible projects include the development and support of public transportation needs, transit and paratransit operating assistance, capital projects, and regional transit coordination.
- **State Transit Assistance (STA) fund** is derived from the statewide fuel excise tax and allocated by formula to planning agencies and other selected entities. Created under Chapter 161 of the Statute of 1979 (SB 620) and revised subsequently, it requires that 50 percent of STA funds be allocated according to population and 50 percent according to transit operator revenues from the prior fiscal year. Estimated STA funds budgeted for FY 2017-2018 are $294 million. According to the California State Controller 2017-18 STA Allocation Revised Estimate, the allocation for Western Contra Costa Transit

Authority (WestCat) is estimated to be $252,664 while AC Transit, BART, and the City of San Francisco are scheduled to receive $57 million in total.

To be eligible for funding, an agency must demonstrate it meets certain operating cost efficiency standards, with annual growth in the hourly cost to operate each bus or rail vehicle in revenue service no greater than the rate of inflation.

3.1.2 Cap-and-Trade Funding

Cap-and-Trade is a market-based policy in which government sets a "cap" on carbon dioxide (CO_2) emissions and then creates a financial market in which companies can trade permits or "allowances" to emit those gases. The "cap" sets a limit on emissions (which can be lowered over time to reduce the amount of pollutants released into the atmosphere) and "trade" creates a market for carbon allowances (which acts as incentives for companies to innovate so they can meet or come under their allocated limit). Trading lets companies buy and sell allowances, which lead to more cost-effective pollution cuts and incentives to invest in cleaner technology. The market dynamic sets the price of CO_2 emissions and generates revenue that can be allocated to further meet policy goals, such as air quality, renewable energy, sustainability and transportation. The program will sunset in 2020.

California has started administering funds from its Cap-and-Trade program allocating a total of approximately $2.2 billion to hundreds of projects including regional rail, electric car rebates, and rooftop solar panels for low-income residents since 2012. High-Speed Rail program uses 25 percent of this; the state has used Cap-and-Trade funding to leverage $3.2 billion in federal funding for the high-speed rail line.

Proceeds from the sale of allowances in recent years have been volatile, in some years lower than forecasted, limiting the amount of funding available to support transportation projects. Auctions in May and August of 2016 generated only $18 million in total. However the November 2016 auction generated $364 million. Legislation is proposed to continue to administer Cap-and-Trade auctions beyond 2020. A two-thirds vote is required by the State Legislature in order for the Air Resources Board to retain authority to administer the Cap-and-Trade program beyond 2020. If extended, the governor proposes a $2.2 billion plan.

The State of California Budget for fiscal year (FY) 18 includes $1.8 billion in dedicated resources for the Governor's Transportation Package, which provides $485 million of Cap-and-Trade revenues for the Transit and Intercity Rail Capital Program. FY17-18 funds for this program include 14 projects recommended for funding, with budgets totaling around $3.9 billion, and an estimated reduction of 4,129,500 tons of CO_2.

Bay Area agencies that have received funding in 2016 include the Capitol Corridor Joint Powers Authority (CCJPA), VTA, and SFMTA. CCJPA received $9 million out of the total cost of $79.3

million for increased rail service to Roseville, service optimization, and standby power investments, SFMTA received $45 million for a LRT Modernization and Expansion Program which costs $50 million, and VTA received $20 million for the BART Silicon Valley Phase II Extension.

3.1.3 BART Sales Tax

In order to support construction of the BART system in the 1960s, the California State Legislature authorized a one-half cent sales tax in the District's three counties (Alameda, Contra Costa, and San Francisco). The tax continues today. A 75 percent share of the sales tax is dedicated to BART, and the remaining 25 percent is split equally between AC Transit and SFMTA.

BART's sales tax base is generally diverse. Data from the State Board of Equalization indicates that the largest economic segments driving BART sales tax include restaurants, retail, and new auto sales, all of which are susceptible to economic cycles. Today, these funds support BART O&M costs, as well capital projects to improve the system's state of good repair and address capacity constraints at key chokepoints in the system. Funding available for expansion projects is limited.

BART has significant needs to keep its system in a state of good repair. It operates one of the oldest heavy rail transit fleets in the country. Approximately 30 percent of BART's asset value is in poor or very poor condition. Station needs include replacement of station overhead structures and plumbing/sewers drains, which lead to leaks and flooding. BART also faces challenges with non-revenue vehicles including aging and inadequate shop space to support maintenance. To address these needs, voters passed Measure RR in November 2016, a 30-year general obligation bond in the counties of Alameda, Contra Costa, and San Francisco. This measure will raise $3.5 billion for system renewal, capacity enhancement, and repairs, but not for expansion.

3.1.4 Bridge Tolls / Regional Measure 2 / Regional Measure 3

In 2004, San Francisco Bay Area voters passed Regional Measure (RM) 2, which increased the toll rate by one dollar for the region's seven toll bridges operated by the Bay Area Toll Authority (BATA). The increase is used to fund highway, transit, bicycle and pedestrian projects in the bridge corridors and their approaches, and to provide operating funds for key transit services. Projects eligible to receive funding from RM2 Regional Traffic Relief Plan are the projects identified to receive funding under Section 30914(c) of the California Streets and Highways Code. For the capital program, allocations are considered as requested and final allocation decisions are subject to the availability of funds in the overall RM2 program (capital and operating elements). This program is controlled by the California Transportation Commission

(CTC), the California Department of Transportation (Caltrans), the State Controller's Office, and the BATA. At present, these funds are generally oversubscribed.

The MTC is considering sponsoring legislation to pursue RM3, a ballot measure for an additional toll increase to fund congestion relief projects for improved mobility in the bridge corridors. WCCTAC would need to support MTC's legislation and position the HCT alternatives among projects to receive RM3 funding. In particular, WCCTAC should seek to tailor project definitions to align with the criteria for allocation of these funds. Enabling legislation will be required by August 2017 in order to be placed in the primary or general election of 2018. The toll increase under consideration ranges from $1.00 to $3.00. Funds would be dedicated to bridge, highway, and transit projects in the bridge corridors. Projects that provide congestion relief on the I-80 corridor, which is one of the most congested corridros in the region, would likely compete well for the congestion relief funds if they were able to effectively portray positive congestion relief benefits.

3.1.5 Transportation Development Credits

Caltrans controls the funds from base tolls on state-owned bridges. Transportation Development Credits, or toll credits as commonly known, allow a greater share of federal funds to be applied to an individual project cost, with toll revenues counting as credit towards the project's local share. This credit is available to transit operators in the Bay Area, and is used primarily to match Section 5307 grants. Funds are primarily used for transit. This program is administered by Caltrans.

Contra Costa County received toll credits in FY 15 and FY 16 for the Contra Costa Canal Road Bridge Replacement Project, and in FY 14 and FY 16 for the Orwood Road Bridge Replacement Project. Alameda County also received toll credits for the Arroyo Road Bridge Replacement project. Long Beach Transit has received toll credits for ongoing fleet replacement, which included bus components, project administration, facility/maintenance improvements, information systems equipment, safety/security equipment, shop/office equipment, support vehicles, and tires. Additionally, the City of Santa Clarita received toll credits for transit facility and equipment improvements and for the replacement of cutaway buses.

3.1.6 Development Impact Fees – West County Area of Benefit Fund

When a landowner requests a permit for a land use change (such as a building permit or certificate of occupancy) that places a burden on existing infrastructure, local government or another public agency may require that the landowner pay a fee as a condition of issuance.

Contra Costa County has a total of 15 areas of benefit (AOB). An AOB is a development traffic mitigation fee program designed to improve the capacity and safety of the arterial road network within the defined boundary area as development occurs. Fees collected within the

West County AOB are used to fund road improvement projects that mitigate traffic impacts generated by new development projects. Contra Costa County charges road development fees. Fees are collected through the County's Conservation and Development Department, Building Inspection Division prior to the issuance of the building permit.

The West County Subregional Transportation Mitigation Program (STMP) imposes local fees on new development in West County, with the objective of mitigating traffic and relieving congestion on regional routes. This program funds projects that will reduce the impact of through traffic from Contra Costa County and other Counties on West County. This program funds transportation improvement projects such as roadways, transit, and bicycle and pedestrian facilities. In the winter of 2017, WCCTAC will begin a STMP nexus study update and strategic plan. This nexus study is required by the Mitigation Fee Act in order to develop a strategic expenditure plan for disbursing the fee revenue. Projects in the HCT study could be eligible for funding from this program.

The applicability of development impact fees to the HCT alternatives depends on real estate development activity in West County and the alternatives selected. Impact fees are less likely to be used for projects outside of a street right-of-way. Although development impact fees are usually used for public streets and roads, a portion can be directed to transit, particularly for office development. As an example, SFMTA levies Transit Impact Development Fees on non-residential developments and uses the revenue generated to fund municipal capital and operational costs.

Fees generally are applied for capital improvements and are not used for ongoing operations and maintenance costs. In addition, they are not typically applied to resolve existing infrastructure deficiencies. This type of funding will help provide up-front funding contributions, but is not well-suited for yielding a multi-year cash flow.

3.1.7 Contra Costa Measure J Sales Tax

Sales taxes – assessed as a percentage of retail sales – are commonly used to fund transit systems in many metropolitan areas. Sales taxes fluctuate with economic conditions, but can provide reliable revenue stream if the economy remains strong. The revenue base grows with the price of taxable goods and services and is directly related to inflation.

In 2004, voters in Contra Costa County approved Measure J, a one-half cent sales tax. Measure J is a 25-year extension of Measure C, a one-half cent sales tax approved by voters in 1988. Measure J is estimated to provide approximately $2.5 billion for countywide and local transportation improvement projects and programs through 2034. The Contra Costa Transportation Authority (CCTA) is the public agency formed to manage the county's transportation sales tax program and perform countywide transportation planning.

CCTA's 2016 Measure J Strategic Plan focuses programming funding from the 2018 State Transportation Improvement Program (STIP) to sales tax projects in west, southwest and central portions of the county as a result of dedicating 2015 bond proceeds to eBART (which is a project to extend BART rail service into east Contra Costa County). West County's share of capital capacity from the program through 2034, the end of Measure J, is expected to be 8.5 percent. Projects in West County that have been funded through this program include:

- Capitol Corridor improvements including the rail station at Hercules – Total allocation: $15 million, West County allocation: $7.5 million
- I-80 carpool lane extension and interchange improvements – Total allocation: $30 million, West County allocation: $30 million
- Richmond Parkway improvements – Total allocation: $16 million, West County allocation: $16 million
- BART parking, access and other improvements – Total allocation: $41 million, West County allocation: $15 million

Measure J funds may be used for projects other than those listed in the ballot measures only if they are deemed infeasible or have lost support from the sponsoring jurisdiction and the CCTA stakeholders choose to fund alternative projects.

3.2 Potential State and Local Funding

Most existing state and local funding sources are already committed to programs or projects, and oversubscribed. Revenue from these sources is expected to be lower than programmed.

3.2.1 New Sales Tax

In November 2016, voters in Contra Costa County failed to approve Measure X, an additional one-half cent sales tax for transportation improvements. The measure lost by a narrow margin. It secured 63.45 percent of the votes, which is short of the 66.67 percent voter approval required by state statute. A new sales tax ballot measure could be pursued by Contra Costa Transportation Authority once the reasons for Measure X's failure are understood and community concerns are addressed. Public input, stakeholders' approval will be required to successfully pursue a new sales tax, which could provide a substantial share of funding for the selected HCT alternatives. State legislation will be required to increase sales tax rates in excess of current limits in Contra Costa County, because the rate is the maximum required by law.

If passed, Measure X was expected to generate $2.9 billion of local funding over 30 years, and West County would have received $668.3 million or 23.3 percent of the total expected funding. The proposed funding distribution is outlined in Table 2-1 below. The planned investments which would have been funded by Measure X are listed in Table 2-2 below.

Table 2-1: Measure X Proposed Funding Distribution

Purpose	Distribution (%)
BART, bus, ferry, and train networks	26.8%
Local streets and roads	23.8%
Building sustainable communities & protecting the environment	22.0%
Reducing congestion and smoothing traffic	20.7%
Transportation for children, seniors, and people with disabilities	6.2%
Administrative costs	0.5%

Source: Contra Costa Transportation Authority, 2016

Table 2-2: Measure X Planned Improvements

Planned Measure X Improvements	Contribution ($ million)
Bus transit enhancements in West County	$110.6
HCT improvements along the I-80 corridor	$55
Intercity rail and ferry service improvements	$35
I-80 interchange improvements at San Pablo Dam Road and Central Avenue	$60
BART capacity, access and parking improvements	$300 Total; $69.8 in West County

Source: Contra Costa Transportation Authority, 2016

3.2.2 Motor Fuel Tax

Motor fuel taxes are a primary dedicated funding source for state and federal transportation programs. Revenue is generally stable as long as economic conditions remain strong. Taxes must be indexed to keep pace with inflation.

California collects general excise taxes on the sale of motor fuel, which is 27.8 cents per gallon for gasoline and 16 cents per gallon for diesel. The California gas tax is included in the pump price at all gas stations.

California levies a gasoline fuel tax of 5 cents per gallon and a diesel fuel tax of 17 cents per gallon. The tax is levied on fuel that is produced in or imported into California and when diesel fuel is first sold or used in the state.

Fuel taxes are used for roadways and public mass transit systems. Increasing these taxes above current rates will require state approval, and it is unlikely that any increase would be dedicated to the HCT alternatives.

3.2.3 Motor Vehicle Sales Tax

The purchase of a vehicle in most states includes payment of the motor vehicle sales tax. This tax is sometimes a combination of state, local and regional sales taxes. Rates are calculated according to the sales tax rate in the vehicle purchaser's jurisdiction of residence.

In California motor vehicles are taxed consistent with the general sales tax. Contra Costa County's minimum sales tax rate is 8.25 percent, with slightly higher rates of 8.5 in Richmond and El Cerrito. At present, the prospect of increasing the local sales tax above this rate is unlikely.

3.2.4 Motor Vehicle Registration Fees

States require motor vehicles to be registered with the Department of Motor Vehicles. Motor vehicle registration and title fees vary among states. The registration fee in California is $46 plus additional fees based on the type of vehicle, license plate type, and the owner's county of residence and driving record.

In 2010 voters in Alameda County approved Measure F, a $10 per year vehicle registration fee. The Alameda County Transportation Commission collects and distributes the revenue generated among the four planning areas of the county. Revenue generated is expected to be $11 million per year to be used in the Local Road Improvement and Repair Program (60%), Transit for Congestion Relief (25%), Local Transportation Technology (10%), and Pedestrian and Bicyclist Access and Safety Program (5%).

A new motor vehicle fee could be pursued in Contra Costa County. Public input and stakeholders' approval will be required to be successful.

3.2.5 Tourism Taxes

Tourism taxes can consist of a combination of taxes on rental cars, hotels, entertainment, and meals. A rental car tax is levied on the amount charged for auto rental, either on a per day basis or percentage of total rental charge. Similarly, hotel taxes are levied on the amount charged for hotel room charges on a per day basis or percentage of total rental charge. Entertainment and meal taxes are levied as a percentage of the total amount charged for entertainment and prepared meal purchases, respectively. Entertainment taxes may also be assessed as a flat dollar fee for entrance to major venues.

Most, but not all, of these taxes are intended to impact tourist and non-residents. The taxes leverage existing collection mechanisms. Revenue growth fluctuates with economic cycles.

Tourism taxes – car rentals, hotel lodging, and restaurant meal taxes - are imposed on travel services above and beyond general sales taxes. California is one of the states with the lowest travel tax rates in the country. Increasing these taxes above current rates will require state

approval. A tourism tax in West County is unlikely to yield high revenues, and it is unlikely that any increase would be dedicated to the HCT alternatives.

3.2.6 Property Tax

Property taxes are commonly used to support transit and roadway programs. Property taxes are typically assessed as a percentage of the market value of real property, commonly by the "mill" or dollars of tax per $1,000 of assessed value (or sometimes dollars of tax per $100 of assessed value).

Property tax rates in Contra Costa County are based on the fair market value of the property as determined by the county's Property Tax Assessor. Each property is individually taxed each year, and any improvements or additions may increase its appraised value. Property tax proceeds fund the General Purpose Revenue fund and are typically used for local projects and services such as school districts, public transportation, infrastructure, and other municipal government projects. For example, the property tax is AC Transit's most significant local revenue source.

Contra Costa County has one of the highest median property taxes in the nation. Increasing property taxes above the current level will require legal authority and political support.

3.2.7 Parking Fees

Parking fees on facilities surrounding the alignment of HCT alternatives(s) may be implemented to create a dependable revenue stream for capital and/or O&M costs. Parking fees may also increase transit ridership in the area by increasing the cost of driving and encouraging property owners to manage supply through pricing policies. Parking fees could be added to existing and future parking supplies both within and immediately adjacent to the HCT alternatives right-of-way.

The parking fee could include a tax or surcharge on paid parking, assessed as a percentage of receipts or a fixed cost per space. Property owners would be required to maintain daily records of usage by parking space. A market analysis and parking occupancy study would need to be conducted to develop an area-wide parking strategy and determine the optimal pricing policy to coordinate pricing of on- and off-street parking. This would also need a strategy for intensification of land use, as parking fees are most successful where parking is scarce and paid parking is common. This strategy would require buy-in from major employers and property owners in the area.

3.2.8 Fare Revenue

Farebox revenue, which is earned from passenger fares paid to ride transit, will likely account for a share of annual operating costs for the HCT alternatives. According to the National Transit

Database 2015 report, farebox revenues account for approximately 64.0 percent of BART's operating expenses, 19.4 percent of AC Transit's operating expenses, and 23.5 percent of WestCAT's operating expenses. The balance of operating expenses for the three operators is covered by federal, state, and local funds.

3.2.9 Advertising Revenue

According to 2015 National Transit Database data, advertising revenue accounted for 1.2 percent of BART's operating expenses, 0.5 percent of AC Transit's operating expenses, and 0.5 percent of WestCAT's operating expenses. Advertising revenue will likely account for a small share of the annual operating costs of the selected HCT alternatives.

3.2.10 Tax Increment Financing (TIF)

The TIF program could help to cover a portion of the capital costs of the HCT alternatives. TIF involves the creation of a special district to raise revenue for public improvements by capturing a portion of the additional assessed value generated by private-sector development. The tax base is frozen at the point in time in which the district is established, and all or a portion of property tax revenues derived from increases in assessed values (the tax increment) are applied to a special fund created to retire bonds originally issued for development of the district. The initial TIF revenue yield is relatively low. However, revenue generally increases over time as redevelopment and escalation leads to increased property values. TIFs are often applied for periods of 20 to 30 years.

Until 2011, California's Community Development Law authorized local redevelopment agencies (RDAs) to capture a broad range of tax revenue to fund infrastructure and revitalization projects designated as "blighted." The state legislature de-authorized the law and RDAs were defunded due to the cost impact to the State General Fund. Some local governments turned to other development tools such as Mello-Roos Community Facilities Districts (CFDs) and traditional Infrastructure Financing Districts (IFDs). However, these options were found insufficient, since they require super-majority voter approvals (i.e., a two-thirds threshold) and can only finance a limited range of investments with a limited range of funding sources.

California legislation enacted in 2014 allows local officials to create Enhanced IFDs and issue bonds to finance capital improvement projects and other specified projects of communitywide significance. Enhanced IFDs require a city or county to establish a governing board and adopt an infrastructure financing plan with project eligibility requirements. A city or county can create an Enhanced IFD without a vote; however, approval of 55 percent of the voters in the district is required to issue bonds. Enhanced IFDs not only support the development of public infrastructure, but can also provide a foundation for the private sector to help build infrastructure through public-private partnerships.

3.2.11 Community Facilities District (CFD)

CFDs, also known as Mello-Roos, are special districts in California, where special property taxes are imposed on taxable real estate in addition to the regular property tax. Currently, about one in three properties in California are part of a CFD. These designated districts could help to cover a portion of the capital and/or O&M costs of the HCT alternatives.

Mello-Roos special tax bonds are used to finance public improvements by securing special taxes on land in areas that will benefit from the improvements. Funds can be used for projects to improve public facilities. These bonds can only be issued with two-thirds approval of voters.

Some of the CFDs in Contra Costa include the Antioch Area Public Facilities Financing Agency CFD No 1989-1, the Richmond Redevelopment Agency CFD No 1998-1, and the California Statewide Communities Development Authority CFD No 2007-01.

3.2.12 Local Government Contributions

Cities and counties that will benefit from the HCT alternatives may provide contributions to cover capital and/or operating costs. Sources of funding for these contributions will be at the discretion of the local government. Contributions may be determined based on the percentage of ridership projections by jurisdiction, which will change based on the selection of projects for development.

3.2.13 Developer Contributions

Developers often provide in-kind or monetary contributions to facilitate construction of infrastructure that would result in a positive impact on property values. Often these contributions are negotiated to reflect the benefit the developer derives from the project. If funding is negotiated, project sponsors often request the money during the early portion of the debt service period. This enables the project sponsor to better leverage other funding sources. These contributions are also generated from fees imposed for the development in designated areas and the local authorities have a high level of discretion over the use of these funds.

Developer contributions may be applied to fill the gaps in funding for both capital and operating costs of the HCT alternatives. Alternatively, developer contributions could serve as a backstop for TIF revenues. Any developer contributions for the proposed alternatives would likely serve as a supplement to other funding sources identified in this analysis.

Contributions can also take the form of sponsorship or naming rights. This is a common practice for sports stadiums and arenas and is beginning to be used for highways and transit. Transit corridors and stations, such as the Pleasant Hill/Contra Costa Centre BART station, TECO Streetcar line in Tampa, and the Health Line BRT in Cleveland, are now using naming rights for transit lines and sponsorship of individual stations as revenue sources. Naming rights are a form

of advertising and can be treated as market transactions. Though it can be a significant revenue source during the initial stages of construction and operation, naming rights can be more difficult to secure later in the life of the line or station. For the Pleasant Hill/Contra Costa Centre BART station, the Contra Costa County Redevelopment Agency and AvalonBay Communities covered the $413,800 cost of changing the station signage, schedules, brochures, and website as part of BART's planned $3 million upgrade for that station.

3.2.14 Subregional Transportation Mitigation Program (STMP)

As a requirement of sales tax Measure C and its subsequent extension (Measure J), subregions within Contra Costa County are required to maintain transportation fee mitigation programs to ensure that new development is paying its fair share towards off-setting the regional transportation impacts generated by new development. WCCTAC's STMP is overseen by its Board of Directors. In the spring of 2017 WCCTAC will begin updating the STMP which will likely result in changes to the projects identified as eligible for STMP funding as well as changes to the fee rate. As part of the update process, WCCTAC should consider incorporating some elements of the HCT study alternatives into the STMP. Due to a general slowing of development associated with the Great Recession, the amount of funds generated by the STMP program was less than what was previously anticipated. Since 2015, the rate of development and the associated STMP fee revenue has notably increased. The update process may provide an opportunity to gain better insight into the potential of the STMP as a funding source for the HCT study's alternatives.

3.2.15 Joint Development

Joint development is a partnership between a public entity and a private developer created to develop real estate assets. According to FTA guidance, the development and the property must have a physical and a functional relationship. Joint development can occur when an agency owns land that can be leased to the developer for a long period of time. This will enable the developer to build on the land with a low risk of losing the capital investment. In exchange, ground rents are paid to the agency, creating a revenue stream that can be bonded against to support the development of a transit improvement. The revenue potential can vary depending on market conditions, but could help to cover a portion of the capital and/or O&M costs of the proposed alternatives.

There have been joint development projects in Los Angeles along the Metro Red and Purple Lines including the Wilshire and Vermont joint development to fund apartments, ground floor retail, an improved public plaza new subway portal and elevator access, and a new bus layover facility on an adjacent parcel. Another joint development project was at Hollywood Boulevard and Vine Street to fund apartments, ground floor retail and a new bus layover facility. There was also a joint development project at Hollywood Boulevard and Vine Street to fund a hotel,

condominiums, ground floor retail, an improved public plaza and new subway portal canopy, subway elevator and bike room.

3.3 Evaluation of Potential State and Local Funding Options

Each of the potential state and local revenue source described above was evaluated according to its ability to fund capital and/or O&M costs of the HCT alternatives according to the qualitative criteria summarized in Table 3-3. The composite evaluation for each revenue source is summarized in Table 3-4.

Table 3-3: Criteria for Evaluating Local Funding Options

Evaluation Factor	Description	Rating	Grade
Revenue potential	The estimated amount of revenue the funding source may yield for the project	High	●
		Medium	◑
		Low	○
Keep pace with inflation	The extent to which the funding source keeps pace or is correlated with general price inflation	Indexed and/or keeps pace with inflation	●
		Sometimes keeps pace with inflation	◑
		Not indexed and does not keep pace with inflation	○
Equity	The proportionate impact of the funding source across income levels, with some consideration regarding discretionary participation by income level	Progressive (the tax or fee burden increases with income level)	●
		Neutral	◑
		Regressive (the tax or fee places a larger burden on lower income populations)	○
Nexus with beneficiaries	The extent to which the funding source relates to the beneficiaries of the project	Directly related to the beneficiaries of the plan	●
		Some relation to the beneficiaries of the plan	◑
		Not directly related to the beneficiaries of the plan	○
Stability / predictability	The annual predictability of the funding source	Generally stable/predictable	●
		Can be volatile but is generally predictable	◑
		Relatively unpredictable/volatile	○
Legal	The legal authority required to implement the tax or fee	There is legal authority	●
		There is no legal authority but obstacles are possible to overcome	◑
		There is no legal authority and obstacles are unlikely to overcome	○
Administration	Administrative and collection costs	The tax or fee is already being collected at some level or would otherwise be low cost	●
		Administration and collection costs would be moderate	◑
		Administration and collection costs would require the creation of a costly new mechanism and/or involves many dispersed points of collection	○
Political support	The overall political palpability of each funding source	There is likely strong political support for using the funding source for the project	●
		There is likely neutral political support for using the funding source for the project	◑
		There is likely no political support for using the funding source for the project	○

Source: WSP | Parsons Brinckerhoff, 2017

Table 3-4: Evaluation of Potential State and Local Funding Options for West County HCT Alternatives

	Potential Funding Use		Evaluation Factor							
Funding Source	**Capital**	**Operations**	**Revenue potential**	**Keep pace with inflation**	**Equity**	**Nexus with beneficiaries**	**Stability / predictability**	**Legal**	**Administration**	**Political support**
New Sales Tax	Yes	Yes	●	●	◑	◑	◑	●	●	◑
Motor Fuel Tax	Yes	Yes	●	○	○	◑	◑	●	◑	○
Motor Vehicle Sales Tax	Yes	Yes	◑	●	◑	◑	◑	○	●	○
Toll Revenue	Yes	Yes	●	○	◑	◑	◑	◑	●	◑
Motor Vehicle Registration Fee	Yes	Yes	◑	◑	◑	◑	◑	●	●	○
Tourism Taxes	Yes	Yes	○	●	◑	◑	○	○	●	○
Property Tax	Yes	Yes	●	◑	●	◑	◑	●	●	○
Fare Revenue	No	Yes	◑	◑	◑	●	◑	●	●	●
Advertising Revenue	No	Yes	○	◑	◑	●	◑	●	○	●
Parking Fees	Yes	Yes	◑	●	◑	◑	●	◑	●	○
Tax Increment Financing	Yes	No	◑	◑	●	●	◑	●	◑	◑
Community Facilities District	Yes	Yes	◑	◑	●	●	◑	●	◑	◑
Local Government Contributions	Yes	Yes	◑	◑	●	●	○	●	◑	◑
Developer Contributions (including STMP)	Yes	Yes	◑	○	◑	●	○	●	◑	◑
Joint Development	Yes	Yes	◑	◑	●	●	◑	●	◑	●

Source: WSP | Parsons Brinckerhoff, 2017

3.4 Recommended Potential State and Local Funding Options

Based on the assessment illustrated in Table 3-4, nine funding options were determined to have the strongest potential to provide the local financial commitment for capital costs of the HCT alternatives:

- New Sales Tax
- Property Tax
- Toll Revenue
- Motor Vehicle Registration Fee
- Parking Fees
- Tax Increment Financing
- Communities Facilities District
- Local Government Contributions
- Developer Contributions (including STMP)
- Joint Development

Of these options, the three most promising options to fund capital and operating costs, based on the assessment summarized in Table 3-4, include:

- New Sales Tax
- Property Tax
- Toll Revenue
- Joint Development

These funding sources rate most highly across the criteria applied to evaluate funding sources, including revenue potential, tendency to keep pace with inflation, equity, nexus with beneficiaries, stability, legal authority to implement, administration costs, and potential political support. Other promising funding sources for capital and operating costs that could also be pursued within West County include:

- Motor Vehicle Registration Fees
- Parking Fees
- Tax Increment Financing (TIF)
- Community Facilities District (CFD)
- Local Government Contributions
- Developer Contributions (including STMP)

These six funding sources are rate high according to the evaluation criteria, but not as high as the top three options. Two revenue streams are a promising source to pay a portion of operating and maintenance costs:

- Fare Revenue
- Advertising Revenue

A summary of each potential funding source and justification by screening criterion is described below. Section 5.2 describes how to develop a strategy for pursuing local and regional funding as well as federal and state sources.

3.4.1 New Sales Tax

A new sales tax could potentially fund a significant portion of the project capital and/or O&M costs. Since there is already a sales tax in Contra Costa County, there is the legal authority and historically strong political support for a new tax. CCTA will need to evaluate the failure of Measure X, the one-half cent sales tax proposed by the CCTA in 2016. Measure X required a two-thirds vote to pass, and 66 percent voted in favor. The five cities within West County voted in favor of Measure X by 73 percent, with the City of San Pablo showing the most support at 78 percent. This indicates a willingness among residents of West County to tax themselves for transportation improvements. Local politicians, the community, and other stakeholders would need to be engaged in supporting a new sales tax ballot measure.

Evaluation Factor	Score	Logic
Revenue potential	●	Sales taxes have the potential to fund a great portion of the project capital and/or O&M costs.
Keeps pace with inflation	●	Sales taxes keep pace with inflation.
Equity	◑	Sales taxes are neutral, placing some burden on lower-income populations.
Nexus with beneficiaries	◑	Revenue generated from a sales tax has some relation to the beneficiaries of the project.
Stability / predictability	◑	Sales taxes are subject to economic cycles, but are generally predictable.
Legal	●	There is legal authority to implement sales taxes in Contra Costa County.
Administration	●	Since it is already being collected, administration costs for a sales tax would be low.
Political support	◑	Based on the 2016 election results, there is mixed political support for a sales tax increase. The 2016 measure fell just 3.2 percentage points shy of the two-thirds majority threshold required for passage. If local politicians and the community become involved in the development of the ballot measure, sponsors may be able to mobilize support for passage. Contra Costa County has shown strong historical support for sales tax measures. Most recently, the November 2016 ballot included 26 measures, and voters passed 19 of them. Measure X was among the failed measures, but West County showed strong support for it. In June 2016, Contra Costa

Evaluation Factor	Score	Logic
		County passed 10 out of 14 measures. Often, measures that do no pass at the first request will be supported by voters in subsequent attempts.

3.4.2 Property Tax

Property taxes have the potential to fund a significant portion of the project. These taxes have direct relation to the beneficiaries of the project, generally keep pace with inflation, and can be stable and predictable depending on real estate market trends. Proposition 13, passed in 1978, capped property tax rates at 1 percent and California allocates the revenue to more than 4,000 local governments. The distribution varies by locality. In Contra Costa, the countywide revenue from the 1 percent tax is allocated to schools, special districts, the county, redevelopment dissolutions, and cities. There are many levels of organizations who collect the revenues from the 1 percent property tax, from counties, to as specific as mosquito abatement districts.

Evaluation Factor	Score	Logic
Revenue potential	●	Property taxes have the potential to fund a great portion of the project capital cost and/or O&M costs.
Keeps pace with inflation	◑	Property taxes change based on economic conditions, generally keeping pace with inflation.
Equity	●	Property taxes are progressive, placing a larger burden owners of highly valued real estate, which is generally correlated with income.
Nexus with beneficiaries	◑	Revenue generated from property taxes near transit project right-of-way has a direct relation to the beneficiaries of the project; this is less true for properties located further from the transit way.
Stability / predictability	◑	Property taxes have been stable, but in recent years, revenue has fluctuated with real estate market trends. In some areas, property tax revenues have been volatile.
Legal	●	There is legal authority to increase property taxes in California.
Administration	●	As property taxes are already being collected in Contra Costa County, administration costs would be low.
Political support	○	There is likely limited political support for a property tax increase in Contra Costa County unless taxpayers directly benefit. While there has not been a specific property tax for transportation within Contra Costa County, there is precedent for such a tax with the recent passage of the BART general obligation bond measure. The countywide property tax rate is approximately 1 percent. Approximately 49 percent of the funding goes to schools, while 19 percent to special districts, and 13 percent to the county.

3.4.3 Toll Revenue

Toll revenue from a new RM 3 could potential fund HCT projects. If a question is placed on the ballot in 2018, funds from a new regional toll ranging between $1.00 and $3.00 may transportation projects (including new transit options) in congested corridors served by toll bridges, including West County's I-80 corridor. Depending on the rate increase, revenue from a measure has potential to be significant and provide a steady and reliable funding stream for selected projects. BATA would administer the toll increase on behalf of the region, using existing collection mechanisms. As previously adopted, Bay Area bridge toll increments are not adjusted for inflation. Other evaluation factors are generally neutral.

Evaluation Factor	**Score**	**Logic**
Revenue potential	●	Based on past measures, toll revenue may fund a significant portion of project costs, especially if a toll increase of $2.00 or $3.00 is adopted.
Keeps pace with inflation	○	Toll increases have been adopted in fixed dollar increments that are not adjusted for inflation
Equity	◑	Toll increases are are neutral.
Nexus with beneficiaries	◑	Toll revenue dedicated to projects in adjacent corridors has some relation to the beneficiaries of the project.
Stability / predictability	●	Toll revenues are generally stable and predictable, with modest declines in traffic and revenue during economic downturns
Legal	◑	Legislative action is required to authorize a Regional Measure 3 ballot question
Administration	●	Administration costs for toll collection are moderate, with an existing collection and enforcement mechanism in place.
Political support	◑	There is likely to be mixed support from voters for a regional ballot measure to increase tolls.

3.4.4 Fare Revenue

Fare revenue will likely account for a share of the project's annual O&M costs. Fares are paid as a user fee by the riders of the transit service, who are the direct beneficiaries of the project. Charging fares is generally expected on public transit services. There is likely strong political support to use fare revenue as one of the project funding sources. There is legal authority to charge fares since fares are currently being administered and collected for transit services in West County.

Evaluation Factor	**Score**	**Logic**
Revenue potential	◑	Fare revenue has the potential to fund a moderate portion of project O&M costs.

Evaluation Factor	Score	Logic
Keeps pace with inflation	◑	Fare revenue sometimes keep pace with inflation, depending on transit agency policies and practices regarding fare rate increases.
Equity	○	Fares are regressive, placing a larger burden on low-income, transit-dependent riders.
Nexus with beneficiaries	●	Fares are paid as a user fee by the riders of the transit service, who are the direct beneficiaries of the project.
Stability / predictability	◑	Fare revenue can fluctuate with economic conditions, but is generally predictable.
Legal	●	There is legal authority to apply fare revenue to the O&M costs of the project.
Administration	●	Fare revenue is already being collected for existing transportation services in the county.
Political support	●	Charging fares is generally expected for new transit service. There is likely strong political support to use fare revenue for the O&M costs of the project.

3.4.5 Advertising Revenue

Advertising revenue will likely account for a share of the project's annual O&M costs. Advertising is paid as a fee by businesses promoting their services or products within transit systems stations, vehicles, etc. There is legal authority for advertising and typically strong political support.

Evaluation Factor	Score	Logic
Revenue potential	○	Advertising revenue has the potential to fund a small portion of project O&M costs.
Keeps pace with inflation	◑	Advertising revenue generally, but not always, keeps pace with inflation.
Equity	◑	Advertising revenue is neutral.
Nexus with beneficiaries	●	Advertising revenue is paid by businesses interested in capturing the attention of transit riders, who are the direct beneficiaries of the project.
Stability / predictability	◑	Advertising revenue may be impacted by economic conditions, but is generally predictable.
Legal	●	There is legal authority to charge for advertising on transit services.
Administration	○	Administration costs for advertising revenue would be modest.
Political support	●	There is likely strong political support for advertising revenue since both transit agencies benefit from it and the relevant businesses are willing to pay for it.

3.4.6 Motor Vehicle Registration Fee

Motor vehicle registration fees could fund a moderate portion of the project O&M costs. There is legal authority, fees generally keep pace with inflation, are stable and predictable, and are easy to administer.

Evaluation Factor	Score	Logic
Revenue potential	◑	Motor vehicle registration fees have the potential to fund a moderate portion of the project O&M costs.
Keeps pace with inflation	◑	Motor vehicle registration fees generally, but not always keep pace with inflation.
Equity	◑	Motor vehicle registration fees are neutral.
Nexus with beneficiaries	◑	Revenue generated from motor vehicle registration fees has some relation to the beneficiaries of the project.
Stability / predictability	◑	Motor vehicle registration fees are generally stable and predictable.
Legal	●	There is no legal authority to charge motor vehicle registration fees, but regulations can be created.
Administration	●	Administration costs for motor vehicle registration would be moderate.
Political support	○	There is likely to be limited political support for motor vehicle registration fees.

3.4.7 Parking Fees

Parking fees near facilities surrounding the HCT alternative alignments could fund a moderate portion of the project O&M costs. These fees generally keep pace with inflation, are stable and predictable, and are easy to administer.

Evaluation Factor	Score	Logic
Revenue potential	◑	Parking fees have the potential to fund a moderate portion of the project O&M costs.
Keeps pace with inflation	●	Parking fees generally keep pace with inflation.
Equity	◑	Parking fees are neutral.
Nexus with beneficiaries	◑	Revenue generated from parking fees has some relation to the beneficiaries of the project.
Stability / predictability	●	Parking fees are generally stable and predictable.
Legal	◑	There is no legal authority to charge parking fees, but regulations can be created.

Administration	●	Administration costs for parking fees would be low.
Political support	○	There is likely to be limited political support for parking fees.

3.4.8 Tax Increment Financing

Property taxes (the most common tax used for TIF) are progressive. TIF revenue is directly generated from a defined district near the project right-of-way, having direct relation to the beneficiaries of the project, assuming that the new residents or workers would use the service provided by the project. There is also legal authority to create a TIF district for the project.

Following California's dissolution of redevelopment agencies in 2011, the state passed SB 628 in 2014, which aimed to revitalize tax-increment financing in California. SB 628 permits local agencies, such as city and/or county governments, to establish an Enhanced Infrastructure Financing District (EIFD) within the agency's jurisdiction to undertake public works projects. Each EIFD is governed by a Public Financing Authority (PFA), which develops an Infrastructure Financing Plan (IFP) describing the type of public facilities and development to be financed by the EIFD. An EIFD is generally financed with the property tax increments of local taxing agencies within the EIFD, including the cities, counties or other special districts that consent to the EIFD. Transportation projects are specifically listed as eligible activities under an EIFD.

TIF revenue has moderate revenue potential, sometimes keeps pace with inflation, and can be stable and predictable depending on real estate market trends. Compared to a countywide property tax increase, the benefits of TIF have the potential to foster support from benefiting property owners along the project right-of-way.

Evaluation Factor	**Score**	**Logic**
Revenue potential	◑	TIF has the potential to fund a moderate portion of the project capital costs.
Keeps pace with inflation	◑	Property taxes change based on economic conditions, generally keeping pace with inflation.
Equity	●	Property taxes are progressive, increasing with property values.
Nexus with beneficiaries	●	TIF revenue generated from a defined district near the project right-of-way has a direct relation to the beneficiaries of the project.
Stability / predictability	◑	Historically, property taxes have been stable, but in recent years revenue has fluctuated with real estate market trends.
Legal	●	There is legal authority to create TIF districts in California, including the commonly used payment-in-lieu-of-taxes (PILOT) increment financing, which provides more revenue and is easier to borrow against compared to standard TIF applications.

Evaluation Factor	Score	Logic
Administration	◑	Administration costs for a joint development would be moderate, in part because a tax district must be established.
Political support	◑	There is likely lack of political support for a property tax increase in Contra Costa County as well as political support for capturing property tax revenue related to the project's value from property owners benefiting from the project, as is the case with TIF.

3.4.9 Communities Facilities District

CFDs could potentially fund a moderate portion of the project capital and/or O&M costs. These districts are progressive and directly related to the beneficiaries of the project. Any county, city, special district, school district, or joint powers Authority has legal authority to establish a CFD for projects.

Evaluation Factor	Score	Logic
Revenue potential	◑	CFDs have the potential to fund a moderate portion of project capital and/or O&M costs.
Keeps pace with inflation	◑	CFDs generally keep pace with inflation.
Equity	●	CFDs are progressive, increasing fees with income level.
Nexus with beneficiaries	●	Revenue generated within a CFD near the project right-of-way has a direct relation to the beneficiaries of the project, assuming that the new residents or workers would use the service provided by the project.
Stability / predictability	◑	Revenue generated within a CFD has been stable, with some fluctuation in recent years.
Legal	●	There is legal authority to create CFDs in California.
Administration	◑	Administration costs to create a designated district would be moderate, in part because a tax district must be established.
Political support	◑	There is likely political support for the creation of a CFD depending on the perceived need and benefits of the project.

3.4.10 Local Government

Local governments could potentially fund a moderate portion of the project capital and/or O&M costs. The degree to which individual cities or the county may contribute will vary based on the financial stability of each unit of local government. Funding from the local government is

progressive and directly related to the beneficiaries of the project. Contra Costa County and local jurisdictions have legal authority to provide local funds for the project.

Evaluation Factor	Score	Logic
Revenue potential	◑	Local government has the potential to fund a moderate portion of project capital and/or O&M costs.
Keeps pace with inflation	◑	Local government funding generally keep pace with inflation.
Equity	●	Local government funding is progressive, increasing fees with income level.
Nexus with beneficiaries	●	Revenue generated from local funding sources has a direct relation to the beneficiaries of the project.
Stability / predictability	○	Local government funding is subject to economic cycles and political support.
Legal	●	There is legal authority to use local funding.
Administration	◑	Administration costs of local funding are moderate.
Political support	◑	Political support for local government funding is moderate.

3.4.11 Developer Contributions

There is moderate potential for contributions from developers to generate revenues. However this source is unlikely to keep with inflation unless deliberately adjusted. This source is regressive, but directly related to the beneficiaries of the project. There is also legal authority to impose fees on developers. WCCTAC is one level removed from local jurisdictions, which may result in diminished contributions. Developer contributions are not stable as they are subject to real estate market trends.

Evaluation Factor	Score	Logic
Revenue potential	◑	Developer contributions have the potential to fund a moderate portion of project capital and/or O&M costs.
Keeps pace with inflation	○	Developer contributions are unlikely to keep pace with inflation unless adjusted for inflation.
Equity	◑	Developer contributions are somewhat regressive, as they increase the cost of construction and ultimately result in more expensive real estate products.
Nexus with beneficiaries	●	Revenue generated from developer contributions for developments near the project right-of-way has a direct relation to the beneficiaries of the project, assuming that the transit service would make the development project more valuable.
Stability / predictability	○	Revenue generated from developer contributions are not generally stable or predictable.

Evaluation Factor	Score	Logic
Legal	●	There is legal authority to impose fees on developers.
Administration	◑	Administration costs of developer contributions are moderate.
Political support	◑	There is likely political support for developer contributions, with some opposition from the development community.

3.4.12 Joint Development

Joint development could potentially fund a moderate portion of the project capital and/or O&M costs, depending on the particular location(s) selected and market conditions in those locations. Joint development is progressive and directly related to the beneficiaries of the project. Contra Costa County has legal authority to use joint development for the project, and more than likely strong political support. This study has not assessed specific joint development opportunities. Future studies would need to identify potential joint development opportunities.

Evaluation Factor	Score	Logic
Revenue potential	◑	Joint development has the potential to fund a moderate portion of the project capital and/or O&M costs.
Keeps pace with inflation	◑	Joint developments may keep pace with inflation if rent payments generated from development are structured to escalate with cost indices over time.
Equity	●	Joint developments are progressive, generally impacting higher income developers who directly benefit from the project.
Nexus with beneficiaries	●	Joint developments are directly related to developers benefiting from the project.
Stability / predictability	◑	Joint developments can be volatile due to market risks but are generally stable and predictable.
Legal	●	There is legal authority to apply joint development revenues to the project.
Administration	◑	Administration costs for a joint development would be moderate.
Political support	●	There is likely strong political support for using joint development to fund the project.

4 FINANCING OPTIONS

As previously stated, the HCT alternatives would require state or local financial commitments to cover the balance of the capital costs not funded by federal grants, as well as annual O&M costs. Federal and state infrastructure financing options provide a tool for leveraging state, regional, and local funds for transit projects. Like all borrowed funds, all financing must be repaid in accordance with the terms of the credit agreement.

4.1 Federal Financing

4.1.1 Transportation Infrastructure Finance and Innovation Act (TIFIA)

The TIFIA program provides federal credit assistance in the form of direct loans, loan guarantees, and standby lines of credit to finance surface transportation projects of national and regional significance. TIFIA leverages federal funds by attracting private and non-federal investment to projects that critically improve the nation's surface transportation program. TIFIA credit assistance provides improved access to capital markets, flexible repayment terms, and potentially more favorable interest rates than can be found in private capital markets for similar instruments. TIFIA financing enables the applicant to receive more favorable interest rates for the project's share of non-federal borrowing due to lowered investment risk.

TIFIA can help advance qualified, large-scale projects that otherwise might be delayed or deferred because of size, complexity, or uncertainty over the timing of revenues. Many surface transportation projects (i.e., highway, transit, railroad, intermodal freight, and port access) are eligible for assistance. Each dollar of federal funding applied to TIFIA (as the subsidy amount) can provide approximately $10 in credit assistance – and leverages approximately $30 in transportation infrastructure investment.

Up to 50 percent of the capital cost of an eligible project may be financed through TIFIA, although in practice USDOT lends no more than 33 percent of costs to a single project. Los Angeles Metro received a loan of $546 million for the Crenshaw / Los Angeles International Airport Transit Corridor to construct a light rail line. The total cost of the project was $1.7 billion.

4.2 State Financing

4.2.1 California Infrastructure and Economic Development Bank

The California Infrastructure and Economic Development Bank (IBank) finances public infrastructure by issuing revenue bonds through the following programs:

- **Infrastructure State Revolving Fund (ISRF) Loan Program**: This program is the most useful for public agencies who engage in infrastructure development, economic

development, and housing projects. Eligible applicants may include any subdivision of a local government. The largest financing completed by this program has been a $25.5 million loan for the upgrade of the City of San Diego's convention center, issued in June 2016. Other projects include public streets, airport terminals, town halls, and water systems.

- **California Lending for Energy and Environmental Needs (CLEEN) Center:** This program provides financing to borrowers who help reduce greenhouse gases, conserve water, and preserve the environment such as municipalities, universities, schools and hospitals. Transit project are eligible for this program if they use technologies which have been commercially proven to result in carbon reduction benefits. Eligible transportation projects include refueling stations for alternative fuel vehicles, electric vehicles, hybrid electric vehicles, and alternative fuel vehicles. Humboldt County received $300,000 for a bus project with a cost of approximately $600,000.
- **Bond Financing Program:** This program offers tax-exempt and taxable revenue bonds with low interest rates and long-term financing. Projects recently financed by this program include schools, retail thrift stores focused on disadvantaged communities, museums, and others.

4.3 Capital Markets Debt

Public entities employ several strategies to leverage revenues streams through the capital debt markets. Common examples include:

- **Dedicated Revenue Bonds**: Under this structure a transit agency with a dedicated revenue stream, such as a sales tax, pledges the revenues it receives to the repayment of bonds. Given that investors typically want to be protected from a transit agency's operating obligations, these types of bonds are secured by all dedicated tax revenues, commonly referred as a gross pledge. After paying debt service and other obligations under the bond documents governing the security structure, surplus revenues are provided to the transit agency to support operating and pay-as-you-go capital needs. This is the most common debt structure used by transportation agencies including CCTA, BART, and VTA.
- **Lease Revenue Bonds/Certificates of Participation**: Transit agencies such as AC Transit use leasing/certificates of participation for the financing of new vehicles, facilities and land acquisition. Leases are not generally considered long-term debt since annual payments to leaseholders are subject to annual appropriation of funds by the transit agency. This structure is used by transit agencies if they do not have the authority to issue long term debt or as a strategy to manage their long-term debt obligations relative to statutory and policy limits. Under a leasing structure, the assets are acquired by a

municipal leasing entity using the proceeds derived from the transaction. The lessor leases the assets to the transit agency and the transit agency makes lease payments to the lessor in an amount equal to debt service on the obligations. At the end of the lease term, the transit agency assumes full ownership of the assets.

- **General Obligation Bonds**: General obligation bonds allow a public agency to pledge its full faith, credit, revenues, resources and property to the full and timely payment of the bonds. General obligation bonds are typical for states and local units of government that have tax-raising authority. However, general obligation measures, as mentioned earlier, have been passed in the region for BART.
- **Debt Secured by FTA Formula Funds**: Transit agencies have issued debt secured by and payable from FTA formula funds, typically known as grant anticipation revenue vehicles (GARVEEs). GARVEEs have been employed by a number of agencies including Los Angeles Metro and BART.

5 RECOMMENDED FUNDING SOURCES AND STRATEGIES

This section outlines recommended funding sources and strategies to support the capital and operating costs of the HCT alternatives.

5.1 Funding Approach

The implementation of the six refined HCT alternatives is currently phased in three stages: short-term (1-5 years), medium-term (5-15 years) and long-term improvements (15+ years). This section describes the recommended capital funding sources for each implementation phase by HCT alternatives mode, taking into consideration the most promising sources and identifying a contribution range for each of the funding sources. The potential operating funding sources are also described.

5.1.1 Capital Costs

Many federal grant programs have more funding requests than the appropriated amount of funding available. Federal funding is likely to support one of the improvements for one alternative, most likely in the medium- or long-term.

The Cap and Trade Program is the most promising state funding source. This funding is also likely to support medium- or long-term improvements for one alternative. The most promising regional and local funding sources, as listed in Section 3.4, include new local sales tax, property tax, joint development, TIF, CFD, parking fees, local government distributions, motor vehicle registration fees

Express Bus Alternative

Table 5-1 presents the potential funding sources to support the required $245 million in capital costs for the Express Bus. Three funding scenarios are presented, which assume high, moderate, and no federal participation. As the federal funding share decreases, the resulting amount of state, regional, and local funding required to fund the project increases.

Table 5-1: Funding Approach Alternative 1 – Express Bus ($ millions)

Base Year Dollars (millions)	Total Estimated Cost	Federal Funding				State Funding				Regional/ Local Funding			
		TIGER grants		5339 grants		Cap and Trade				Combination			
						Low end		High end		Low end		High end	
Scenario 1: High Federal (35% share)													
Alternative 1	**$245.0**												
Short-term	$11.0											100%	$11.0
Medium-term	$91.0					5%	$4.6	50%	$45.5	50%	$45.5	95%	$86.5
Long-term	$143.0	17%	$25.0	17%	$25.0					65%	$93.0	65%	$93.0
Scenario 2: Moderate Federal (20% share)													
Alternative 1	**$245.0**												
Short-term	$11.0											100%	$11.0
Medium-term	$91.0					5%	$4.6	50%	$45.5	50%	$45.5	95%	$86.5
Long-term	$143.0	10%	$15.0	10%	$15.0					80%	$113.0	80%	$113.0
Scenario 3: No Federal (0% share)													
Alternative 1	**$245.0**												
Short-term	$11.0											100%	$11.0
Medium-term	$91.0					5%	$4.6	50%	$45.5	50%	$45.5	95%	$86.5
Long-term	$143.0									100%	$143.0	100%	$143.0

Source: WSP | Parsons Brinckerhoff, 2017

Recommended federal funding sources for the Express Bus long-term improvements are TIGER funding and Section 5339 Bus and Bus Facilities grants since the project is most aligned with the eligibility criteria for these programs. Under a high federal partipation scenario, each of these discretionary grant programs could potentially provide up to approximately $25 million in funding, with the remaining share provided by regional/local sources. These federal funding levels are much less than the 80 percent statutory maximum share of federal funding, but are consistent with the scale of grants for these programs awarded by the federal government in recent years.

Short-term improvements such as bus priority improvements, and additional and more frequent service will need to be funded from funding sources readily available at the local or regional level such as developer contributions from West County STMP. Medium-term improvements could be funded from a combination of the state Cap and Trade program and regional/local sources. The Cap and Trade program may provide between 5 percent and 50 percent of the funding, $4.5 million and $45.5 million, respectively, depending on the project's competitiveness for funding and the extent to which the program is re-enabled and future pollution credits auctions raise sufficient revenue to meet statewide funding commitments. The remainder will need to be supported with regional/local funding sources.

BRT Alternatives

BRT alternatives could benefit from CIG Small Starts grants. Medium-term improvements – the ones with the highest cost – could receive up to 50 percent of the funding from Small Starts with the remainder from regional/local sources. These include all short-term improvements as well as expanded parking at Richmond Parkway and Hercules Transit Centers, and continued implementation of bus-only lanes.

BRT short-term improvements will also need to be funded with regional/local sources including developer contributions or West County STMP development impact fees. Long-term improvements could be funded from a combination of the Cap and Trade program and regional/local sources. The Cap and Trade program may provide between 5 percent and 50 percent of the funding, around $3 million and $30 million, respectively. The remainder will need to be supported with regional/local funding sources. Tables 5-2 and 5-3 present the potential funding sources for each BRT alternative with three funding scenarios, high, moderate, and no federal participation.

Table 5-2: Funding Approach Alternative 2 – BRT ($ millions)

Base Year Dollars (millions)	Total Estimated Cost	Federal Funding	State Funding		Regional/ Local Funding	
		Small Starts grants	Cap and Trade		Combination	
			Low end	High end	Low end	High end
Scenario 1: High Federal (50% share)						
Alternative 2	**$243.0**					
Short-term	$3.0				100% $3.0	100% $3.0
Medium-term	$180.0	50% $90.0			50% $90.0	50% $90.0
Long-term	$60.0		5% $3.0	50% $30.0	50% $30.0	95% $57.0
Scenario 2: Moderate Federal (30% share)						
Alternative 2	**$243.0**					
Short-term	$3.0				100% $3.0	100% $3.0
Medium-term	$180.0	30% $54.0			70% $126.0	70% $126.0
Long-term	$60.0		5% $3.0	50% $30.0	50% $30.0	95% $57.0
Scenario 3: No Federal (0% share)						
Alternative 2	**$243.0**					
Short-term	$3.0				100% $3.0	100% $3.0
Medium-term	$180.0				100% $180.0	100% $180.0
Long-term	$60.0		5% $3.0	50% $30.0	50% $30.0	95% $57.0

Source: WSP | Parsons Brinckerhoff, 2017

Table 5-3: Funding Approach Alternative 3 – BRT ($ millions)

Base Year Dollars (millions)	Total Estimated Cost	Federal Funding	State Funding				Regional/ Local Funding			
		Small Starts grants	Cap and Trade				Combination			
			Low end		High end		Low end		High end	
Scenario 1: High Federal (50% share)										
Alternative 3	**$179.0**									
Short-term	$17.0						100%	$17.0	100%	$17.0
Medium-term	$99.0	50%	$49.5				50%	$49.5	50%	$49.5
Long-term	$63.0		5%	$3.2	50%	$31.5	50%	$31.5	95%	$59.9
Scenario 2: Moderate Federal (30% share)										
Alternative 3	**$179.0**									
Short-term	$17.0						100%	$17.0	100%	$17.0
Medium-term	$99.0	30%	$29.7				70%	$69.3	70%	$69.3
Long-term	$63.0		5%	$3.2	50%	$31.5	50%	$31.5	95%	$59.9
Scenario 3: No Federal (0% share)										
Alternative 3	**$179.0**									
Short-term	$17.0						100%	$17.0	100%	$17.0
Medium-term	$99.0						100%	$99.0	100%	$99.0
Long-term	$63.0		5%	$3.2	50%	$31.5	50%	$31.5	95%	$59.9

Source: WSP | Parsons Brinckerhoff, 2017

Commuter Rail Alternative: RITC

Table 5-4 presents the potential funding sources, with high, moderate or no federal participation, to support the Regional Intermodal Transit Center component of this alternative. Much of this project has already secured funding. The remaining unfunded amount is $68.6 million.

Table 5-4: Funding Approach Alternative 4.2 – Regional Intermodal Transit Center ($ millions)

Base Year Dollars (millions)	Total Estimated Cost	Federal Funding		Committed State/Regional/ Local Funding*		Unidentified Regional/ Local Funding*	
		TIGER grants		Various Sources		Combination	
Scenario 1: High Federal (25% share)							
Alternative 4.2	**$68.6**						
Short/Medium-term	$68.6	25%	$17.2	60.3%	$41.4	14.7%	$10.1
Scenario 2: Moderate Federal (15% share)							
Alternative 4.2	**$68.6**						
Short/Medium-term	$68.6	15%	$10.3	60.3%	$41.4	24.7%	$16.9
Scenario 3: No Federal (0% share)							
Alternative 4.2	**$68.6**						
Short/Medium-term	$68.6			60.3%	$41.4	39.7%	$27.2

* Note: Approximately $41.4 million in funding has already been committed to the project by the State of California, regional partners and the City of Hercules, leaving a funding gap of $27.2 million.

Source: WSP | Parsons Brinckerhoff, 2017

The TIGER grant funding could provide approximately 15 to 25 percent of the funding with the remaining 75 to 85 percent funded by a mix of state/regional/local sources. The City of Hercules applied for a TIGER grant for the Regional Intermodal Transit Center in the 2016 round of grants, but was not selected. As noted in Section 2.2, the TIGER program is extremely competitive, with significantly greater demand for grants by applicants than funds available. There is a low probability that this project will receive a TIGER grant in the future due to the significant number of applications for a very limited pool of available funding, but the City may seek a debrief from USDOT to determine how to refine its application to be more competitive in future TIGER grant cycles. Suggestions for developing a strategy to pursue TIGER grants are described in Section 5.2.3.

BART Alternatives

Table 5-5 and 5-6 summarize the combination of funding sources required for the capital costs of Alternatives 6A and 6B including New Starts grants, Cap and Trade and regional/local sources.

Table 5-5: Funding Approach Alternative 6A – BART ($ millions)

Base Year Dollars (millions)	Total Estimated Cost	Federal Funding		State Funding				Regional/ Local Funding			
		New Starts grants		Cap and Trade				Combination			
				Low end		High end		Low end		High end	
Scenario 1: High Federal (50% share)											
Alternative 6A	**$3,582.0**										
Short-term	$56.0							100%	$56.0	100%	$56.0
Medium-term	$74.0			5%	$2.8	50%	$28.0	50%	$46.0	95%	$71.2
Long-term	$3,452.0	50%	$1,726.0					50%	$1,726.0	50%	$1,726.0
Scenario 2: Moderate Federal											
Alternative 6A	**$3,582.0**										
Short-term	$56.0							100%	$56.0	100%	$56.0
Medium-term	$74.0			5%	$2.8	50%	$28.0	50%	$46.0	95%	$71.2
Long-term	$3,452.0	30%	$1,035.6					70%	$2,416.4	70%	$2,416.4
Scenario 3: No Federal											
Alternative 6A	**$3,582.0**										
Short-term	$56.0							100%	$56.0	100%	$56.0
Medium-term	$74.0			5%	$2.8	50%	$28.0	50%	$46.0	95%	$71.2
Long-term	$3,452.0							100%	$3,452.0	100%	$3,452.0

Source: WSP | Parsons Brinckerhoff, 2017

Table 5-6: Funding Approach Alternative 6B – BART ($ millions)

Base Year Dollars (millions)	Total Estimated Cost	Federal Funding		State Funding				Regional/ Local Funding			
		New Starts grants		Cap and Trade				Combination			
				Low end		High end		Low end		High end	
Scenario 1: High Federal (50% share)											
Alternative 6B	**$4,156.0**										
Short-term	$69.0							100%	$69.0	100%	$69.0
Medium-term	$92.0			5%	$4.6	50%	$46.0	50%	$46.0	95%	$87.4
Long-term	$3,995.0	50%	$1,997.5					50%	$1,997.5	50%	$1,997.5
Scenario 2: Moderate Federal (30% share)											
Alternative 6B	**$4,156.0**										
Short-term	$69.0							100%	$69.0	100%	$69.0
Medium-term	$92.0			5%	$4.6	50%	$46.0	50%	$46.0	95%	$87.4
Long-term	$3,995.0	30%	$1,198.5					70%	$2,796.5	70%	$2,796.5
Scenario 3: No Federal (0% share)											
Alternative 6B	**$4,156.0**										
Short-term	$69.0							100%	$69.0	100%	$69.0
Medium-term	$92.0			5%	$4.6	50%	$46.0	50%	$46.0	95%	$87.4
Long-term	$3,995.0							100%	$3,995.0	100%	$3,995.0

Source: WSP | Parsons Brinckerhoff, 2017

Three funding scenarios are presented assuming high, moderate, and no federal participation. New Starts grants could support a portion of the long-term costs of the BART alternatives. In practice, however, grant amounts have been much less than the statutory maximums, especially for very costly projects. As described earlier in this report, historically, New Starts applicants have received grants equal to approximately 50 percent of the capital cost of projects, but lately, due to constrained amounts of federal funds, the federal participation rate in projects with a cost greater than $1 billion has ranged between 30 and 45 percent. To the extent that the amount of federal grant funds awarded is lower, the remaining share of capital costs and all O&M costs would require greater state and local funding. If a BART project were to succeed in securing a federal New Starts grant equal to 30 percent of the project cost, the remaining 70 percent or as much as $2 billion would need to be covered by state, regional, and local funding sources. This will require the project to be supported as a regional priority to get the large amount of state, regional and local funds needed.

Short-term improvements for these alternatives will need to be funded from funding sources readily available at the regional/local level including the STMP. These improvements include preliminary engineering design and environmental review to select alignment and potential station locations, and early right-of-way acquisition (with environmental clearance).

Medium-term improvements, beginning of design and construction, could be funded from a combination of the Cap and Trade program and regional/local sources. The Cap and Trade program may provide between 5 percent and 50 percent of the funding, $2.8 million and $46 million, respectively. The remainder will need to be supported with regional/local funding sources.

5.1.2 Operating Costs

Funding sources for the HCT alternatives operating costs will likely include a combination of sources. Transit agencies typically rely on fare revenue, advertising revenue and parking fees in facilities along the alignment. WCCTAC could pursue other funding sources such as previously mentioned new local sales tax, local government contributions, CFD and joint development. Some combination of these sources would likely be required to fund the proposed fare subsidies component of commuter rail Alternative 4, which are not eligible for federal funding.

5.2 Funding Sources Strategy

To move forward WCCTAC will need to position West County to pursue those funding sources recommended for the HCT alternatives. First, WCCTAC will need to obtain commitments from funding partners in the Bay Area in order to further develop the HCT alternatives prior to requesting funding from state or federal sources. Once the HCT alternatives have progressed from concept into defined project(s), WCCTAC or one of its member agencies may proceed to pursue additional funding sources. The recommended funding strategy to secure funding is presented below.

5.2.1 Seek state, regional, and local funding commitments

WCCTAC will require substantial funding commitments from non-federal sources to fully fund the HCT alternatives, especially short-term improvements over the next five years. The state of California has seen an increase in the amount of non-federal funding sources being pursued by regional and local stakeholders including sales tax, property tax, gas tax, and bonding. Once the HCT alternatives have progressed, WCCTAC will need to prioritize improvements based on anticipated funding at a local/regional level. Key steps to secure state, regional, and local funding commitments include:

- **Technical outreach to funding partners regarding funding availability:** To start, WCCTAC will need to determine the extent to which existing funds may be available to support the HCT alternatives. Most existing state, regional, and local transportation funding streams are fully committed to other projects. However, some funds, including federal formula funds received by the state and the region, are routinely allocated to new projects. Outreach to funding partners at Caltrans, MTC, and CCTA is essential to understand the competitive nature of each funding source, the potential amount and

timing of available funding, as well as the application process. In addition, this layer of outreach will help to educate key staff within these agencies about the magnitude of the study funding requirements, including cash flows and the timing of specific funding needs.

- **Executive outreach regarding potential funding commitments:** Executive-level outreach from WCCTAC membership is required to inform and request support from state, regional, and local leaders who can help to shape future funding for the projects selected for advancement. Initially, this will include high-level discussions with officials in the region responsible for allocating transportation funding. The primary purpose of these meetings is to ask officials what they can do to contribute to the program. To achieve ultimate success in funding, these executives will need to serve as political champions for additional funding. Funding options for consideration should include enhancement of traditional transportation funding sources, as well as alternative funding sources. As outlined in this report, alternative funding sources for capital improvements could include a local sales tax, property tax, vehicle registration fee, local government contributions, TIF, CFD, and joint development.
- **Legislative outreach regarding new funding mechanisms:** Funding to deliver selected alternatives may very likely require legislative action to re-confirm existing funding sources, such as cap-and-trade, and develop new funding streams. Any legislative action will require a new round of outreach to members of the state legislature to encourage their support for the legislation. WCCTAC may benefit from partnering with the CCTA which already regularly pursues these types of efforts.

5.2.2 Pursue CIG Program funding

The CIG program – Small Starts and New Starts – may potentially provide the largest share of federal funding for improvements proposed as four HCT alternatives. However, these funds are not certain, and care must be taken to plan a project that aligns with program criteria. In addition, significant non-federal funding commitments will be requrired to secure a federal CIG program grant. Key steps for WCCTAC to successfully pursue CIG funds are described below:

- **Determine HCT alternatives CIG "Study Sponsor":** As an initial step, WCCTAC must designate a "study sponsor" to initiate the pursuit of CIG funding on behalf of the HCT alternatives. The study sponsor need not be the entity to sponsor the ultimate project. The project sponsor should be determined prior to entry into Engineering (described below), and it must have the legal ability to accept grants from the CIG program.
- **Define and achieve stakeholder consensus on initial CIG project:** Based on the planning and design completed to date for the HCT alternatives, a general schedule of costs and activities has been developed. WCCTAC will need to complete the general scope, cost, schedule, and requested CIG funding amount for the HCT alternatives that WCCTAC

decides to progress before meeting with FTA and requesting entry into Project Development.

- **Discuss CIG funding with FTA representatives:** Discussions with FTA will help to validate the initial CIG project's eligibility for New Starts or Small Starts funding including a prospective funding amount, application requirements, and a specific funding commitment, which will clarify non-CIG funding needs.
- **Obtain funding commitments for project development:** Project Development marks the formal entry of a project into the CIG program. FTA requires CIG applicants to demonstrate that the necessary funding to perform Project Development activities has been committed. This will require a firm commitment of funds by the corresponding HCT alternatives sponsor. These funds must be immediately available for expenditure once the project enters Project Development.
- **Request entry into Project Development:** To enter into project development, an application must be submitted to the FTA with a letter that specifies the study sponsor, all entities involved in the studies, the project manager, and key staff who will complete the project development work. The letter should describe the corridor, the transportation problem or need, link the project to prior studies completed, summarize project alternatives, and detail anticipated costs. The application should also include identification and documentation of committed funds to complete the Project Development work with an anticipated timeline.
- **Address Project Development planning and approvals requirements:** During the project development phase, the study sponsor selects a locally preferred alternative (LPA), which must be adopted into the metropolitan transportation plan. The study sponsor must also complete the environmental clearance process, which covers all aspects of the project proposed for FTA funding. The study sponsor is required to develop all FTA-required information for rating the project, complete all Project Development activities within a two year time frame, and notify FTA of their intention to enter the engineering phase no later than six months prior to the end of the two year Project Development time frame.
- **Identify CIG eligible applicant:** While in Project Development, the study sponsor should determine the entity that will apply for CIG funding on behalf of the project. According to FTA guidance, eligible applicants for CIG funding include public bodies and agencies (such as transit authorities and other state and local public bodies and agencies thereof) including states, municipalities, other political subdivisions of states; public agencies and instrumentalities of one or more states; and certain public corporations, boards, and commissions established under state law.
- **Develop agreement among project sponsors to support CIG application:** A final step to be completed during Project Development is for the project sponsors to reach a formal

agreement that they will mutually support the CIG application, including sharing responsibility for meeting all the CIG requirements. This will provide assurance to all parties, and the federal government, that they are committed to obtaining the state, regional, and local funding required to deliver the initial project.

- **Request Entry into Engineering:** FTA evaluates and rates projects prior to entry into the Engineering phase. Key among these requirements is demonstration of committed funding for 30 percent of the non-federal share of project costs. Upon entry into Engineering, FTA requires projects to demonstrate commitments for at least 50 percent of non-CIG funds, as well as a demonstrated progress to ensure entry into Engineering within three years. If the Engineering phase is anticipated to take longer than three years, FTA requires that a project demonstrate sufficient progress. In the event that a project does not demonstrate sufficient progress in securing funds or establishing the project design within three years of entry into Engineering, FTA will withdraw the project from the CIG program. The project may re-apply for re-entry into Engineering after securing funding commitments or demonstrating that the design is advancing.

  Achieve Full Funding Grant Agreement: To receive a FFGA, a project must be recommended in the President's budget by FTA in the Annual Report on Funding Recommendations. This is based on applicant submittals to request a FFGA by September of each year, which are then evaluated and published the following February for potential funding in the federal fiscal year beginning October 1 of that year (i.e., approximately 13 months after the September applicant submittal). After a project is recommended, the sponsor must complete sufficient engineering and design, and develop a firm and reliable cost, scope, and schedule for the project, obtain commitments for 100 percent of non-CIG funding, complete third party agreements, and meet requirements regarding technical capacity, staffing, and oversight. After the project has been recommended and these requirements have been met, the project sponsor may request a FFGA from FTA. Upon requesting a FFGA, the project sponsor is required to submit New Starts templates, a 20-year financial plan, cost estimates, draft FFGA contracts, "before and after study" data, and other documentation. After FTA has reviewed and evaluated the project and negotiated and prepared the grant agreement, FTA and USDOT leadership must review all information. The FFGA will go through a 30-day congressional notification period before FTA and the project sponsor may sign the construction grant. Funding is then dependent on approval of annual appropriations bills by Congress.

5.2.3 Pursue other federal funding

In addition to funds from the CIG program, WCCTAC should actively pursue funds from USDOT TIGER grants for the Express Bus and Commuter Rail alternatives, as well as Section 5339 funds for the Express Bus alternative. Key steps for WCCTAC to successfully apply for TIGER grants and Section 5339 funds are described below:

- **TIGER grants:** A TIGER grant application should demonstrate the feasibility of achieving project milestones, financial capacity and commitment. It should include the Application for Federal Assistance (Standard Form 424), the Project Narrative, the Project Information, and any additional required attachments including project schedule and budget. The Project Narrative should include, among other things, the Project Description (including a description of what TIGER funds will support); Grant Funds and Sources/Uses of Project Funds (amount of funding requested, availability/commitment of fund sources and uses of all project funds, total project costs, percentage of project costs that would be paid with TIGER funds, and parties providing funds for the project and their percentage shares); and Project Readiness.
- **Section 5339 funding:** A Section 5339 grants application should include the Application for Federal Assistance (SF424) and supporting information for either the Bus Program or the Low or No Emission Program. The application should include the project need, benefits, planning and local/regional prioritization, local financial commitment, project implementation strategy, and technical, legal and financial capacity. The application should provide the age and condition of the asset(s) to be replaced or rehabilitated by the proposed project whether a bus, bus facility or bus equipment. This information will be used by FTA when evaluating the project need prior to assigning funds.

6 NEXT STEPS

With a realistic strategy, project sponsors will be able to position these projects to receive state and local funds as a leverage for future federal grants. Once HCT alternatives are further developed—including additional engineering and identification of project cost savings opportunties—a comprehensive review of each alternative cost and funding options, tailored for the selected project, will be necessary to develop a detailed funding strategy based on the most promising sources. Additionally, a quantitative analysis of the national and regional significance of improving the I-80 corridor would need to be conducted. This would provide the required information to compete for various funding sources.