City of Mountain View

MEMORANDUM

Public Works Department

DATE: November 28, 2023

TO: Council Transportation Committee

FROM: Joy Houghton, Senior Civil Engineer
Dawn S. Cameron, Public Works Director

SUBJECT: **Transit Center (Castro Street) Grade Separation and Access Project, Project 21-35—Project Scope and Funding Options**

RECOMMENDATION

Receive a report on the new cost estimate, available funding, and potential cost reduction options for the Transit Center (Castro Street) Grade Separation and Access Project, Project 21-35, and provide feedback to assist staff in developing a recommendation to the City Council.

BACKGROUND

The Transit Center (Castro Street) Grade Separation Project is a partnership project between Caltrain, as lead agency for designing and constructing the Project, the Santa Clara Valley Transportation Authority (VTA), as a funding partner providing Measure B Grade Separation Program funds, and the City, as the project sponsor responsible for coordination with Caltrain and providing a minimum 10% match in non-Measure B funds toward the full project costs. The City also determines the scope of the project and, therefore, is responsible for ensuring the project is fully funded, including securing any additional funding needed to close a funding gap.

The Castro Street Grade Separation Project (Figure 1) is the first element of the Transit Center Master Plan implementation. The project includes elimination of vehicular access at the railroad crossing at Castro Street by rerouting vehicles through the proposed Evelyn Avenue ramp connecting at Shoreline Boulevard, construction of bicycle and pedestrian undercrossing underneath the railroad tracks and Central Expressway, and realignment of Evelyn Avenue at Castro Street.

The final design phase for the project kicked off in July 2022 and on April 10, 2023, staff provided the Council Transportation Committee (CTC) an update on the project, including final design status, project delivery method, funding, and schedule.

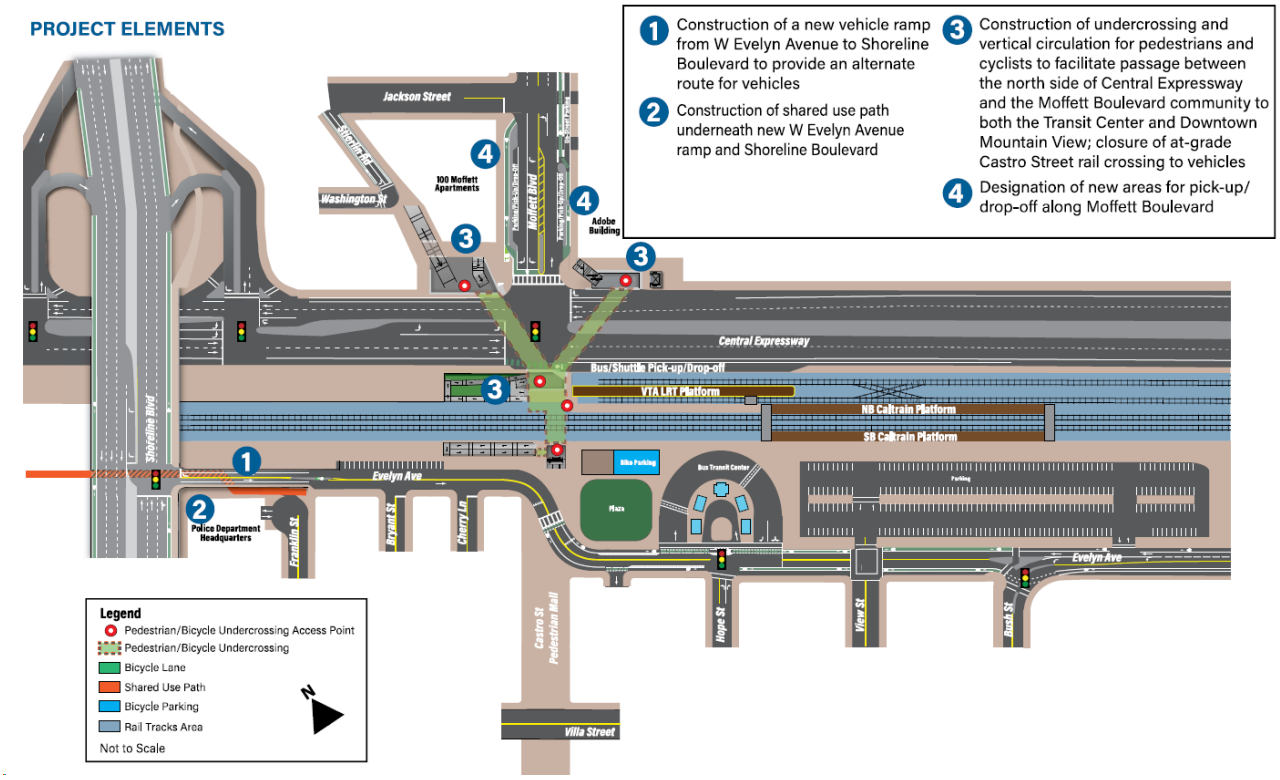

Figure 1: Project Layout and Elements

Since April 2023, major milestones have been completed, including execution of a contract with Stacy & Witbeck and Myers & Sons (SWM), a joint venture, serving as the Construction Management/General Contractor (CM/GC) for the preconstruction design phase. The CM/GC project delivery method allows the contractor to collaborate with the design team during the preconstruction design phase before the start of construction to incorporate its preferred means and methods, deliver early work, and include its construction phases approach into the final design solution. The 65% design plans were completed in June 2023. In July 2023, SWM started collaboration with the project team to provide design feedback and a construction cost estimate for the 65% design plans.

DISCUSSION

Project Cost and Funding

At the April 2023 CTC meeting, staff shared the project cost estimate of $136 million for design and construction. Caltrain's third party cost estimator developed this cost estimate in November 2022. At $136 million, the project was generally considered fully funded thanks to a recent State grant award of $25 million toward the project (see Table 1).

Table 1: Project Cost at 35% Design and Funding Sources

Funding Source	Amount (millions $)	Status
Preliminary Engineering Phase–$2.5 million cost		
City Funds (CIP Reserve, Transportation Reserve, Construction/Conveyance Tax, North Bayshore Public Benefit)	2.5	Fully Expended
Final Design and Preconstruction Phase–$18.2 million cost		
City Funds (Transportation Reserve)	1.2	Partially Expended
VTA Measure B	17.0	Partially Expended
Construction–$115.3 million cost		
City Funds (Transportation Reserve)	5.0	Committed
VTA Measure B	77.0	Planned
State SB-1 Local Partnership Program Competitive Grant	25.0	Awarded
CPUC Grade Separation Program Grant	5.0	Planned
Total Funding Secured/Planned	**132.7**	
Funding Shortfall (Rounded Up)	**4**	

In September 2023, SWM submitted a construction cost estimate for the 65% design plans updating the previously estimated $136 million project cost. The 65% project cost estimate is currently $271 million, including a construction cost of $216 million, as summarized in Table 2. Staff is aware some of the project cost increase can be attributed to labor, material, and equipment cost escalation due to inflation and supply-chain challenges. However, this does not fully account for a doubling of the cost estimate from $136 million to $271 million in just one year. It appears the construction costs for some elements of the project may have been significantly underestimated, in particular the undercrossing structures and vertical circulation elements.

Table 2: Project Cost at 65% Design

Project Phase	Cost (millions $)
Preliminary Engineering Phase	2.5
Final Design and Preconstruction Phase	18.2
Construction Cost - $216 million	
Construction Cost Estimate	203
CM/GC Fee	13
Construction Phase Soft Costs	17
Project Contingency	17
Total Project Cost (Rounded Up)	**271**

Upon receiving the updated project cost, the project team paused progressing the design from 65% to 95% to focus on verifying the assumptions and methodology used for generating the cost estimate to see if it was overestimated. This verification work is continuing but, at this time, it does not appear it will result in any meaningful reduction in the estimate. Therefore, the project team has turned its attention to identifying options for reducing the costs through value engineering. **Staff does not recommend proceeding into 95% design until decisions are made about potential scope changes to reduce the project cost.**

Cost Reduction Strategy

The project cost reduction strategy is based on the following three categories of savings:

1. Construction Methods and Sequence—These cost reduction options do not change the project design.

2. Design Modifications—These cost reductions will change some of the design details for the undercrossing.

3. Project Phasing—This strategy will defer some of the project elements to be constructed by the City separately at a later date.

The estimated cost saving for each option is very preliminary and will require more detailed work to determine the actual savings. For this reason, **the cost savings are shown as ranges and should be considered as an "order of magnitude" rather than definitive numbers.**

Construction Methods and Sequence

Table 3 lists construction methods and sequence options that will provide cost savings. These methods are discussed further below.

Table 3: Construction Methods and Sequence Potential Cost Saving Options

Cost Saving Option	Savings (millions $)	Notes
Construction Methodology—Various Modifications	14.3-15.7	Modifications to shoring, structures and formwork.
Tunnel Construction Method—Box-Jacking Open-Cut Tunnel	9.7-10.7	Assumes a one-time, 55-hour weekend Caltrain service shutdown (subject to Caltrain approval). Assumes two weekend closures of the Moffett/Central Intersection (County is supportive).
Construction Sequence–Evelyn Ramp and Castro Undercrossing at Same Time	7.5-8.3	Reduces construction duration.
Construction Sequence–Stierlin and Adobe Pit at Same Time	2.5-2.8	Requires traffic phasing approval from the Santa Clara County.
Total Potential Savings	**34.0-37.5**	

The design team has evaluated various modifications to construction methodology, including shoring, shoring removal, structures and formwork. These modifications result in reduction in construction cost by $14.3 million to $15.7 million.

Various tunnel construction methods have also been evaluated, including conventional bottom-up, top-down, and open-cut box-jacking construction. These methods result in reduction in both schedule and construction cost. The recommended approach is the open-cut box-jacking construction with the assumption of a 55-hour weekend Caltrain service shutdown and two scheduled full weekend Moffett/Central Expressway intersection closures. This approach reduces the project cost by $9.7 million to $10.7 million and is dependent on Caltrain's approval of the shutdown.

Another cost-saving measure is sequencing concurrent project elements, particularly the Castro Street and Evelyn Avenue work. The original plan was to construct the Evelyn Avenue ramp to Shoreline Boulevard for vehicle use prior to closing the Castro Street crossing of the railroad tracks to construct the undercrossing. To construct both the Evelyn Avenue ramp and the Castro

Street main undercrossing in parallel results in a shorter construction duration and reduced project costs of $7.5 million to $8.3 million. Constructing these elements in parallel is less impactful today than it would have been prior to the pandemic because Castro Street vehicle movements across the tracks have already been significantly reduced due to the initial implementation of the Castro Pedestrian Mall.

Concurrent excavation of the Stierlin tunnel access and Adobe tunnel access areas would provide additional cost savings. Construction of these two elements in parallel results in a shorter construction duration and reduced project costs of $2.5 million to $2.8 million.

The total potential savings from this category of improvements is $34 million to $37.5 million. Staff has some additional suggestions related to construction staging that we are asking Caltrain and SWM to consider which may result in additional savings.

Design Modifications

Various design alternatives for the bicycle and pedestrian undercrossing have been evaluated to determine potential cost savings. Staff recognizes that these cost-saving options require thoughtful consideration and deliberation as they will affect the user's experience. Table 4 lists the options, which are described more fully below.

Table 4: Design Modifications Potential Cost Saving Options

Cost Saving Option	Savings (millions $)	Notes
Eliminate Skylight for Adobe Tunnel	0.3-0.4	Sufficient tunnel lighting will be included for visibility and safety.
Eliminate Secondary Architectural Walls in Tunnels	0.6-0.7	Treatments such as tile, panels, and stucco will not be possible; however, decorative paint treatments could still be provided.
Eliminate form liners for retaining walls	1.3-1.4	Decorative paint treatments could be provided.
Reduce tunnel dimensions and raise tunnel elevation	3.1-3.4	Enough width would still be provided for separated bike/pedestrian areas under Central Expressway.
Total Potential Savings	**5.3-5.9**	

- Eliminate skylight in the Adobe tunnel—The 35% design plans included skylights in both the Stierlin and Adobe tunnels to provide natural lighting during the day in the longer tunnels. The skylight in the Stierlin tunnel is no longer feasible due to the lack of a median on Central Expressway above the tunnel. The project currently includes a skylight on the Adobe tunnel (Figure 2), and elimination of this skylight results in a cost savings in the range of $0.3 million to $0.4 million. If this enhancement is removed from the scope, the project team will ensure that the tunnel lighting is sufficient for visibility and safety for the user.

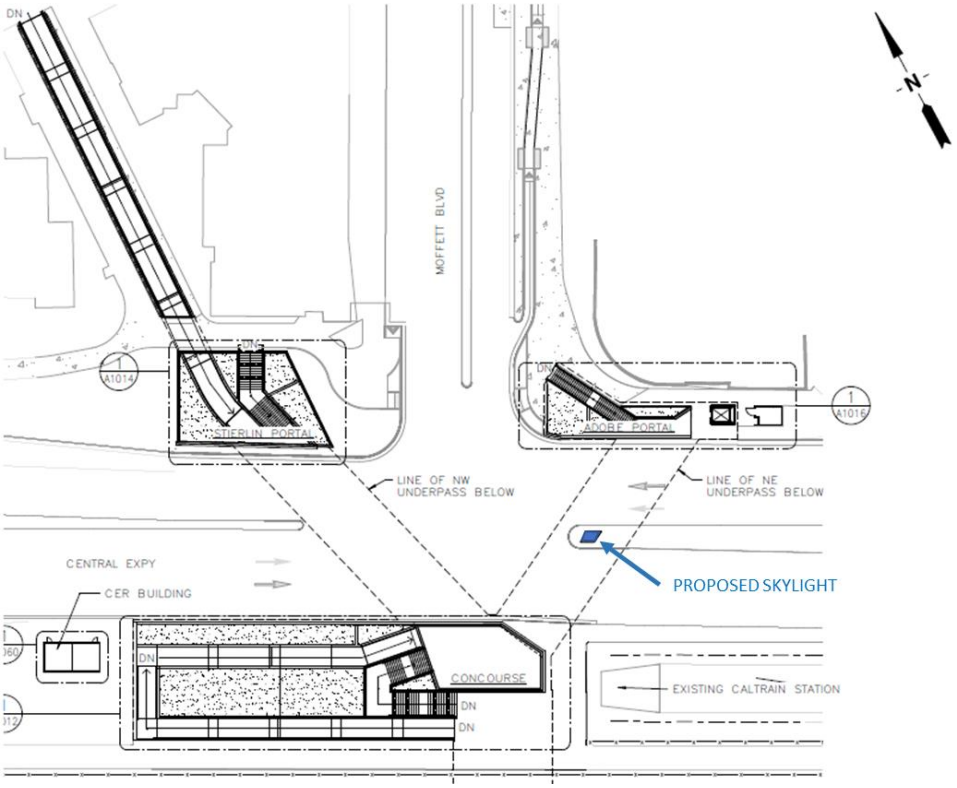

Figure 2: Adobe Tunnel Skylight

- Eliminate secondary architectural walls in all tunnels—The 35% design plans included secondary architectural walls (Figure 3) inside the tunnelways to allow for architectural finishes that cannot be placed on the primary concrete tunnel walls. These secondary walls are placed approximately 2' from the tunnel walls and serve to screen provisions for conduits and other utilities as well as provide access for periodic inspections and/or repair. These secondary walls are included in the 65% design plans, and elimination of the walls can result in a cost saving of $0.6 million to $0.7 million for installation. Additional savings would also be achieved by reducing the overall exterior width of the tunnels by 4'. These savings are included in the "reduce tunnel dimensions" option discussed below.

If the secondary walls are removed, the concrete tunnel surface can be enhanced through use of paint, as shown in Figure 4 below. The Caltrain San Jose Diridon Station, as shown in Figure 5, illustrates an existing tunnel with no secondary architectural walls. The tunnel walls are painted and uncovered, and conduits are visible but not unsightly due to them being organized and located on the ceiling.

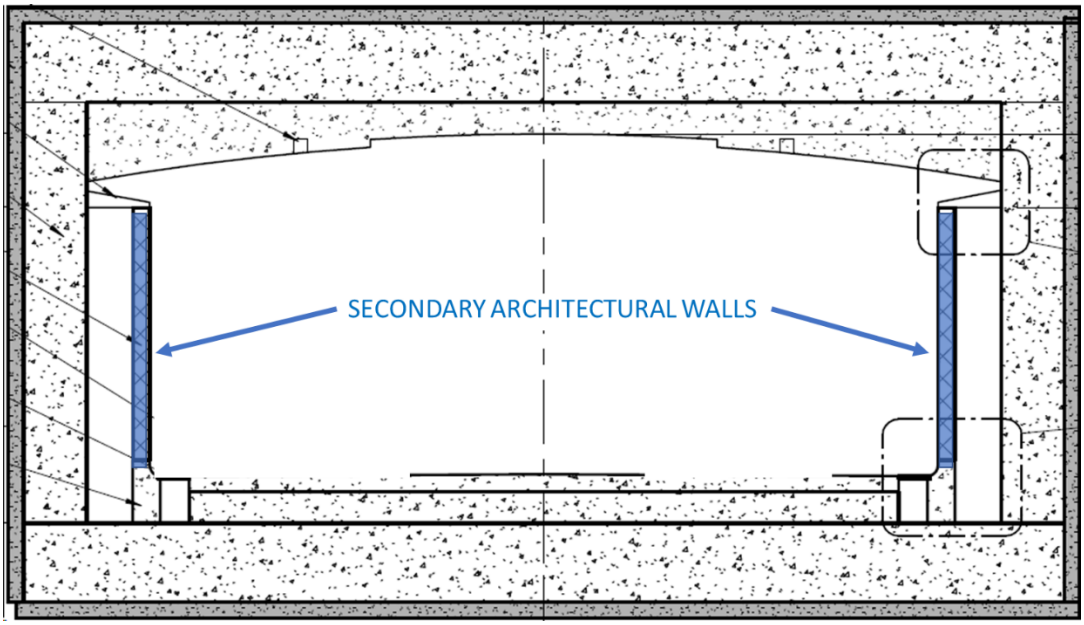

Figure 3: Secondary Architectural Walls

Figure 4: Painted Tunnel Wall

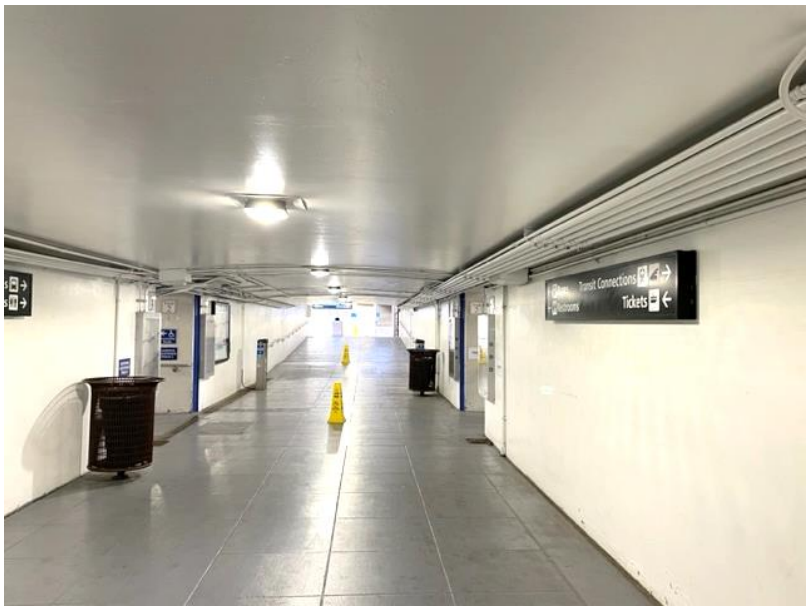

Figure 5: Diridon Station Undercrossing with No Secondary Architectural Walls

- Eliminate formliners for retaining walls—The 65% design plans include using formliners to enhance the concrete finishing and texturing for the walls, including the walls of the Evelyn Avenue ramp, as well as retaining walls. Elimination of formliners for walls can result in a cost saving of $1.3 million to $1.4 million. Without the formliners, the walls can be enhanced through use of paint as shown in Figure 6.

Figure 6: Painted Retaining Wall

- Reduce tunnel dimensions—The current 65% design plans include the following interior widths for the tunnels: 25' wide under Central Expressway (Stierlin and Adobe tunnels) and a 40' wide main undercrossing under the Caltrain tracks. The design also includes an interior vertical clearance of 12'10". Reducing the Stierlin and Adobe interior tunnel dimensions to 22' wide (from 25'), the main undercrossing to 35' (from 40'), and the vertical clearance to 11' (from 12'10") can result in a cost saving of $3.1 million to $3.4 million.[1] Reducing the tunnel dimensions results in less excavation, materials, reduced shoring, and allows the floor elevation of the tunnel to be raised which makes it easier to design for Americans with Disabilities Act (ADA)-compliant ramps at all three locations (Evelyn Avenue, concourse area, and Stierlin).

  Although the alternative tunnel dimensions are slightly smaller compared to the current design, the reduced dimensions will still allow for separated bicycle and pedestrian paths in the tunnels under Central Expressway and provide a wide mixing area under the train tracks/concourse area. The alternative tunnel dimensions (22' and 35' wide with 11' vertical clearance) are much wider than typically constructed. The recently constructed Santa Clara Caltrain Station undercrossing (shown in Figure 7) measures 16' in width with a 9'2" vertical clearance and the San Antonio Caltrain Station undercrossing measures 15' in width with a 8'6" vertical clearance.

Figure 7: Santa Clara Caltrain Station Undercrossing

The total potential savings from this category of improvements is $5.3 million to $ 5.9 million.

[1] This cost savings estimate assumes the secondary walls will also not be installed, adding another 4' reduction to the exterior tunnel dimensions.

Project Phasing

Further near-term cost reductions can be realized by reducing the project scope to just the core grade separation elements. These elements would include the grand staircase, the main undercrossing under the Caltrain tracks, the two tunnels under Central Expressway, pedestrian stairs and access ramps for access to the Caltrain platforms and at the Stierlin entrance, and pedestrian stairs and an elevator at the Adobe corner. The project's focus would thus be limited to providing the undercrossing of the train tracks and Central Expressway for bicycles and pedestrians as both a safety improvement and in preparation for extended gate down times as Caltrain adds more service in the future. The remainder of the access improvements could be constructed by the City in future phases. Table 5 provides the estimated cost savings from these options, which are more fully discussed below.

Table 5: Project Phasing Potential Cost Saving Options

Potential Project Elements to Defer	Savings (millions $)	Notes
Evelyn Avenue Ramp to Shoreline Boulevard, including bicycle/pedestrian pathway on Evelyn Avenue from Franklin Street to west of Shoreline Boulevard	16.3-17.9	Traffic projected to use the ramp to access downtown, and the Transit Center from Central Expressway and Shoreline Boulevard would use Villa Street.
Evelyn Avenue "S" Curve at Castro Street	1.3-1.4	The project would keep Evelyn Avenue's existing intersections at Castro Street in place, but reduce Evelyn Avenue between Blossom Lane and Wild Cherry Lane into a single-lane, westbound-only connection across Castro Street with bicycle accommodations.
Moffett Streetscape Improvements	1.8-2.0	Project would include just the minimum Moffett Boulevard/Central Expressway intersection improvements necessary to convert to a T-intersection.
Total Potential Savings	**19.4 – 21.3**	

Deferring the Evelyn Avenue Ramp to Shoreline Boulvard and the bidirectional Evelyn Avenue "S" curve will affect traffic patterns, including potentially increasing traffic volumes on Villa Street, Franklin Street, Bryant Street, Hope Street, and View Street.

There are certain advantages to the City in removing these project elements from the scope of work to be delivered by Caltrain. They include the following:

- Deferring the Evelyn Avenue "S" Curve at Castro Street will provide an opportunity to design and construct the "S" curve as part of the permanent Castro Pedestrian Mall project and, potentially, integrate it into a redesign of Centennial Plaza and the reconfiguration and redevelopment of the Transit Center. The proposed reduction of Evelyn Avenue between Blossom Lane and Wild Cherry Lane to a single lane westbound with bicycle accommodations would support egress from the Transit Center while also providing a narrow crossing of Evelyn Avenue for pedestrians. In addition, it would allow the businesses on the west side of Castro Street between the Evelyn Avenue intersections to continue to provide outdoor dining in the closed southbound lane of Castro Street until the permanent Pedestrian Mall is constructed.

- Deferring the Moffett Boulevard improvements will provide an opportunity to develop a streetscape design through the upcoming Moffett Precise Plan. The existing bike lanes and sidewalks on Moffett Boulevard between Central Expressway and Central Avenue would remain as is until a streetscape plan is approved as part of the Precise Plan.

- The Evelyn Avenue and Moffett Boulevard improvements are outside the Caltrain right-of-way and can be delivered by the City independent of Caltrain. The City can thoughtfully reengage with the community on their vision for these two areas without being rushed to deliver with the grade separation project. In addition, there are relatively high overhead and indirect costs involved in Caltrain delivering the project. Project management costs are doubled as the City must assign project management staff to coordinate with Caltrain, review plans, etc., while also reimbursing Caltrain for their project management, administrative expenses, and consultant services. However, the City may lose some economies of scale by delivering these elements as separate projects.

The total potential savings from this category of improvements is $19.4 million to $21.3 million.

Cost Reduction Strategy Total Potential Savings

The revised project cost estimate is $271 million. A total of $133 million in funding has been secured or is anticipated leaving a current project funding shortfall of $138 million. As shown in Table 6 below, only around $58.7 million to $64.7 million in potential cost savings have been identified through the cost reduction strategy if all options are implemented. This leaves a net shortfall of $73.3 million to $79.3 million.

Table 6: Cost Reduction Strategy Total Potential Cost Savings

Category	Savings (millions $)
Construction Method and Sequence	34.0-37.5
Design Modifications	5.3-5.9
Project Phasing	19.4-21.3
Total Potential Savings	**58.7-64.7**

Question No. 1:

a. Are there any Cost Reduction Strategy options listed in Tables 2, 3, or 4 that the Committee would not recommend for Council consideration?

b. Are there any other cost reduction options the Committee would like staff to explore?

Other Scope Reduction Options

There are two additional scope reduction options that could be considered to help close the $73.3 million to $79.3 million funding gap; however, they both have substantial drawbacks and create concerns for staff. These are shown in Table 7 below.

Table 7: Other Scope Reduction Options

Potential Project Elements to Remove	Savings (millions $)	Drawbacks/Concerns
Defer the Adobe tunnel under Central Expressway	26.0-28.6	Bicyclists and pedestrians approaching the intersection from east of Moffett Boulevard may choose to cross Central Expressway at grade rather than cross Moffett to access the Stierlin entrance to the undercrossing. Therefore, the project will likely have to continue to provide an at-grade crossing of Central Expressway on the east side reducing some of the safety benefits of the project.
Defer both legs of the Central Expressway undercrossing and construct just an undercrossing of the train tracks	70.0-77.0*	Bicyclists and pedestrians would have to continue to cross Central Expressway at grade from both corners. This will significantly reduce the safety benefits of the project. This option may also present a risk of losing the $25 million State SB-1 grant.

**This cost savings was estimated by City staff and will be updated when confirmed by Caltrain.*

The project phasing options presented for Evelyn Avenue and Moffett Boulevard improvements have certain advantages for the City, and staff is optimistic that there will be future opportunities to deliver them as separate City projects and/or as part of another City project (e.g., the permanent Pedestrian Mall or the Evelyn Avenue corridor bikeway project). Staff is not as optimistic that these tunnels under Central Expressway would be constructed as a separate project in the future due to the magnitude of the costs and complexity of the work effort involved.

Staff does not recommend either option but, if necessary, the first option to defer the Adobe tunnel would be preferred over no undercrossing of Central Expressway.

Question No. 2:

a. Does the Committee recommend deferring the Adobe tunnel leg under Central Expressway be included in the cost reduction options to be presented to Council?

b. Does the Committee recommend that staff further explore deferring the undercrossing of Central Expressway, including whether it will jeopardize the grant award?

Funding Alternatives

Regardless of whether the City decides to implement all, some, or none of the cost reduction strategy options presented, additional funding is going to be needed to close the funding gap and allow the project to proceed into construction. The funding needed would range from $138 million if the project scope remains as is or around $79 million if all cost reduction strategy options are implemented. Deferring the Adobe tunnel leg may further reduce the funding gap to around $53 million.

Additional funding options include the following:

- **Pursue additional grant funding**—Under this strategy, the City could work with Caltrain to complete the final design and then place the construction on hold until additional funding can be secured. Direction would still be needed on any scope reductions to make in the design plans to reduce the funding gap. If the construction is delayed too long, there is a risk of a redesign being needed due to changing standards and of losing the $25 million State SB-1 grant. In addition, construction costs will continue to rise, and it should be assumed that costs will increase by $5 million to $10 million for each year the project is delayed.

  Staff will continue to pursue grant funds as opportunities arise. For example, staff is evaluating possible grant applications to the California Transportation Commission Active Transportation Program (ATP) and the Solutions for Congested Corridors Program (SCCP). The goals of the ATP include increasing proportion of trips accomplished by walking and biking and increasing safety and mobility of non-motorized users, while the SCCP is a Statewide competitive program that provides funding to achieve a balanced set of transportation, environmental, and community access improvements to reduce congestion. However, even if successful, these grant opportunities would not likely fill a $79.3 million to $138 million funding gap.

- **Potential City Revenue Measure**—Council could consider allocating funds to this project from a new revenue measure should a new measure be pursued and be successful.

- **Reallocate City Capital Improvement Program (CIP) funding**—There are three primary sources of CIP funding that can be allocated to this project. They are the CIP Reserve, the Construction/Conveyance Tax, and the Transportation Reserve. The City could choose to defer other projects using these fund sources to reallocate the funding to this project. Staff has not conducted an assessment of the CIP projects to identify potential candidates, but it would require deferring a substantial number of paving projects, building maintenance and improvement projects, bicycle and pedestrian projects, etc. to make a dent in the grade separation project shortfall. If the funding gap were reduced to $10 million or $15 million, this option becomes more viable.

Measure B Funding

The primary funding source for the Castro Street Grade Separation Project is VTA's Measure B Grade Separation Program. Under this program, a set percentage of the Measure B 2016 sales tax is allocated toward eight grade separation projects, which consists of four in Palo Alto, two in Sunnyvale, and two in Mountain View (Castro and Rengstorff). Mountain View is to receive 25% of the Measure B Grade Separation funding since it has 25% of the grade separation locations. The current estimate from VTA on the City's share is $234 million. The City is allowed to allocate its share of the Measure B funding between the two locations at its discretion. Table 8 provides the current Measure B allocation plan.

Table 8: Measure B Grade Separation Funding Allocation

Grade Separation Project	Phase	Amount (millions $)	Status
Castro Street	Final Design/Preconstruction	17	Nearly Fully Expended
	Construction	77	Planned
	Castro Total	**94**	
Rengstorff Avenue	Final Design/Right-of-Way	42	Partially Expended
	Construction	98	Planned
	Rengstorff Total	**140**	

The Rengstorff Avenue Grade Separation project recently completed 35% design, and the City has entered into a cooperative agreement with Caltrain and VTA for the final design and right-of-way acquisition phase of the project. The contract procurement for the final design engineering

services is almost complete and is scheduled for Peninsula Corridor Joint Powers Board (JPB)[2] approval in December 2023, and design is anticipated to kick off early 2024. Similar to the Castro Grade Separation, the CM/GC project delivery method will be utilized for the Rengstorff Avenue Grade Separation, and Caltrain is scheduled to release the Request for Proposals for CM/GC services in January 2024, which will allow the CM/GC to start collaboration with the design team as design progresses from 35% to 65%. The Rengstorff project is currently estimated to cost $262 million for design and construction and has a $44 million funding shortfall. However, this cost estimate is from October 2022 and is based on the 35% design plans. Staff expects that the cost estimate for Rengstorff will also increase due to recent labor, material, and equipment escalation with high inflation; however, it is hoped that the increase will not be as substantial as experienced by Castro since Rengstorff does not involve tunneling work.

The City Council recently approved allocating a $20 million California State Transportation Agency Transit and Intercity Rail and Capital Program (TIRCP) grant to the Rengstorff project. This decision was made to increase the Rengstorff project's chances of securing a Federal grant.

Technically, some of Rengstorff's Measure B funding and/or TIRCP grant could be reallocated to the Castro project to help close its funding gap. However, if the City does so, it is likely the Rengstorff project would be delayed for an unknown number of years until more funding could be secured. With the likely increase in Rengstorff project costs plus the annual cost escalation affecting both projects, the City Council may have to select one of the projects to fully fund and place the other on hold until more funding is available.

Question No. 3:

a. Does the Committee have any feedback on the potential funding sources for closing the funding gap?

b. Does the Committee recommend that staff conduct an analysis comparing the needs and benefits of the two grade separation projects and request that Council prioritize the projects, including possible re-allocation of Measure B funding and the TIRCP grant?

NEXT STEPS

Staff will continue to work with the Castro Street Grade Separation project team on value engineering options to reduce costs. Staff plans to bring the potential cost reduction and funding options to Council on January 23, 2024 to receive Council direction before the project proceeds into 95% design.

[2] The JPB is the governing body for Caltrain.

CONCLUSION

The City is faced with difficult and time-sensitive decisions regarding the Castro Street Grade Separation project. Since receipt of the 65% construction cost estimate in September 2023, the project team has shifted focus to value engineering and paused the design progress toward 95%. Staff has identified options to reduce the costs through construction methods and sequence, design modifications, and phasing project elements. Staff has also identified options to fill the funding gap, such as grant opportunities, potential new City revenue measure, and deferring other City projects. Staff also noted that Measure B and grant funding allocated to the Rengstorff Avenue Grade Separation project could be made available; however, this would require the Council to determine which grade separation project should have the highest priority. To date, both projects have received equal priority and are being delivered concurrently.

Time is of the essence in making these critical decisions to minimize additional cost increases. The costs for the Castro Street Grade Separation project are anticipated to increase by $5 million to $10 million for each year the project is delayed.

Staff requests Committee feedback on the following questions:

Question No. 1:

a. Are there any Cost Reduction Strategy options listed in Tables 2, 3, or 4 that the Committee would not recommend for Council consideration?

b. Are there any other cost reduction options the Committee would like staff to explore?

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cc: PWD, APWD—Arango, APWD—Skinner, PCE—Gonzales, SCE—Houghton