Department: Public Works

Cost Center: 5010
For Agenda of: 2/18/2025
Placement: Business
Estimated Time: 90 minutes

FROM: Matt Horn, Public Works Director

Prepared By: Wyatt Banker-Hix, Supervising Civil Engineer

SUBJECT: US 101/PRADO ROAD INTERCHANGE PROJECT UPDATE AND

AWARD OF THE PLANS, SPECIFICATIONS, AND ESTIMATES (PS&E)

DESIGN CONTRACT

RECOMMENDATION

1. Receive an update on the US 101/Prado Road Interchange Capital Improvement Project; and,

- 2. Award the Plans, Specifications, and Estimates (PS&E) Design Contract to Consor for the scope and fee within available budget; and,
- 3. Authorize the City Manager to amend the design contract with additional budget appropriated by Council as part of future Financial Plan updates; and,
- 4. Appropriate \$9,897,681 from the San Luis Ranch Bond Proceeds to the project account for use in design and construction; and,
- 5. Authorize Staff to issue a Request for Proposals for Lobbying Services, in a form approved by the City Attorney, to assist with obtaining additional funding to support the Prado Interchange Project.

REPORT IN BRIEF

The US 101/Prado Road Interchange is a Capital Improvement Plan (CIP) project that will construct a bridge over US 101 connecting Prado Road to Dalidio Drive, establishing a continuous transportation link between S. Higuera Street and Madonna Road. The scope and scale of this project is large and considered a legacy project that supports several Major City Goals, General Plan policies, and is needed to mitigate cumulative transportation impacts identified within the Environmental Impact Reports for several approved development projects. This project is following the required California Department of Transportation (Caltrans) project delivery process and has reached the end of the Project Approval and Environmental Document (PA/ED) phase of this delivery process. Staff have selected a design consultant for the Plans, Specification and Estimate (PS&E) phase based on a competitive qualifications-based proposal process¹ and are

¹ Qualifications-Based Selection (QBS) is required by California Law (<u>Government Code Section 4526</u>). QBS is a competitive procurement process that requires a project owner to hire design professionals (engineers, land surveyors, architects, etc.) based on their qualifications and demonstrated competence.

ready to proceed with award of the PS&E contract to advance the project to final design. At the Council's request, staff are presenting several options for Council review, including stopping work on the project or proceeding with an alternative design.

POLICY CONTEXT

The US 101/Prado Road Interchange Project supports the Major City Goals of: Housing and Homelessness, Climate Action, Open Space and Sustainable Transportation. The Land Use and Circulation Element (LUCE) of the General Plan identifies a lack of multimodal east-west connections across town, which this project proposes to construct. The 2021 Active Transportation Plan identifies the need for physically protected bike lanes and sidewalks along Prado Road to create a multi-modal link across town and these elements are included in the scope of the interchange project.

The General Plan also identifies the Prado Interchange as essential in facilitating growth in the southern portion of the City. Many of the trips generated from existing uses, as well as proposed and previously approved development projects will use the Prado Interchange as a primary east-west link. Approved environmental documents for numerous private housing development projects in this area of the City including San Luis Ranch, Avila Ranch, Froom Ranch Specific Plan, and the Margarita Area Specific Plan identify construction of the Prado Interchange as essential infrastructure necessary to address current and future traffic congestion and circulation deficiencies.

With the final signature of the <u>Project Report</u>, the PA/ED phase is complete and staff are ready to proceed into the PS&E phase. This project is subject to the Caltrans standard project delivery process, as the project includes modifications to a state highway and Caltrans will retain ownership and maintenance responsibilities for portions of the completed interchange.

DISCUSSION

Background

The Prado Interchange Project proposes to complete three major roadway improvements which include the installation of a partial interchange installing a bridge over US 101, Elks Lane realignment, and widening of Prado Road. A vicinity map of the project can be found below:

QBS prohibits the use of cost as a factor in the initial evaluation and selection of design professionals. Instead, firms are ranked based on their qualifications and experience.

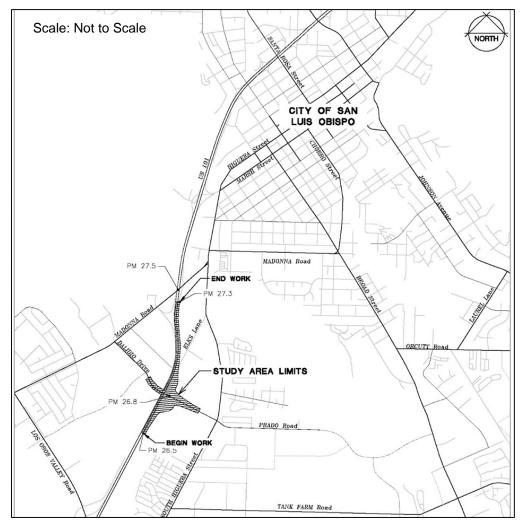


Figure 1 – Prado Interchange Vicinity Map

Interchange

The first component of the project will connect Prado Road to Dalidio Drive by installing a bridge over US 101. Currently, Prado Road terminates just east of US 101 at an existing unsignalized intersection with Elks Lane and the US 101 northbound on/off-ramps. The project will elevate the northbound ramps to connect with the new bridge at a signalized intersection. The bridge includes two traffic lanes in each direction, a center median/turn lane, and raised sidewalks and bike lanes on each side of the street.

Elks Lane Re-Alignment

The second component of the project is the realignment of Elks Lane behind the new Regional Transit Authority (RTA) facility and 40 Prado Road Homeless Services Center to reconnect with Prado Road approximately 500 feet to the east of the existing intersection. The realigned Prado Road/Elks Lane intersection will be controlled by a new traffic signal and will serve as the primary entrance for the City's Corporation Yard and Water Resource Recovery Facility.

Prado Widening

Finally, Prado Road will be widened and reconstructed between Elks Lane and South Higuera Street to provide a continuous multi-modal corridor from Madonna Road to South Higuera Street along Dalidio Road and onto Prado Road. This widening would provide for two traffic lanes in each direction, a center median/left turn lane, and elevated sidewalks and bike lanes. The proposed widening accommodates projected auto/bicycle/pedestrian traffic needs and will be completed with both the Prado Road Interchange project as well as the Prado Creek Bridge Replacement Project, which is currently in the design phase and is scheduled to start construction prior to the Prado Interchange Project.

Prado Road must be elevated in order to connect to the proposed bridge over the US 101 and typically this would be done using compacted soil ramps as this is the most efficient and cost-effective way to elevate roadways. However, the floodplain analysis prepared for the project confirmed that this is not a feasible design approach along Prado Road due to floodplain impacts, as construction of raised embankments would impede floodwaters during the 50, 100, and 500 year rain events. Impeding floodwater would increase the water surface elevation during flood events and cause flooding on other properties in the vicinity of the interchange including Highway 101. Flooding others' property is not consistent with City, State and Federal flood protection standards.

For this reason, portions of the reconstructed Prado Road need to be elevated using structural columns and not compacted soil ramps as this will minimize impacts on the floodplain. This has a significant impact on the complexity of the required engineering work and the construction cost of the project, as discussed later in the Fiscal Impact section of this report. Concept level plans can be viewed as Attachment A.

Project Need and Benefits

When Highway 101 was constructed through the city in the 1950's, it split the community in two, and Caltrans initially constructed several overcrossings and interchanges to improve connectivity. As the City developed and traffic increased, these predominantly east-west connections continued to pose a bottleneck to travelers. As early as the 1970's, both the City and State recognized the need for additional east-west connections and proposed the Prado Interchange.

With the approved and already-developed housing and commerce, the lack of connectivity in the southern part of the City has forced travelers to make circuitous routes and use the Los Osos Valley Road (LOVR) Interchange and the Madonna Interchange. Traffic modeling of an interchange at Prado Road shows potential to reduce the length and travel time of these trips, resulting in a City-wide reduction of Vehicle Miles Traveled (VMT) by 0.5% Citywide, which equates to 2,700 fewer miles traveled each year. The design of the interchange also includes separated pedestrian and cyclist features to create a multi-modal link across town, consistent with the City's Active Transportation Plan.

Construction of the Prado overcrossing will also relieve congestion on local streets like Madonna Road and LOVR, as well as their associated intersections. Congestion relief is also anticipated at the existing Madonna Road and LOVR interchanges with US 101, and along US 101 mainline itself.

A more efficient cross-town link will also benefit nearby regional facilities like the 40 Prado Homeless Shelter and Regional Transit Authority (RTA) campus. City facilities like the Corporation Yard and WRRF will also benefit from this new east-west connection. Staff considered the traffic implications should the Prado Interchange not be constructed. That discussion can be found in the "Alternatives" section at the end of the report, and summarized in Attachment D.





Figure 2 – Interchange Renderings (Northbound and Southbound Approaches)

Relationship to Prado Road Bridge Replacement Project

While the subject of this report is the Prado Road Interchange, the City is also pursuing the removal and replacement of the existing bridge at Prado Road over San Luis Obispo Creek, located just west of S. Higuera Street. Caltrans inspections of the bridge have noted structural deficiencies and narrow deck width, recommending replacement. Due to the existing traffic operations deficiencies at the adjacent Prado Road/South Higuera intersection, as well as the projected growth in the southern portion of the city, the intersection will be widened and constructed as a protected style intersection with improved bicycle and pedestrian crossings. This project will also involve creek work and undergrounding utilities. Staff presented on this topic to Council in October 2022. That report can be found here.

The Prado Bridge Replacement Project delivery is ahead of the Prado Interchange Project and is required regardless of whether the Interchange construction proceeds. This is due to the bridge condition and projected traffic growth. If the City does not move forward with the construction of the Prado Road Interchange, the Prado Road Bridge replacement could be narrowed by approximately 15 feet than what is currently proposed which will reduce but not eliminate Right of Way acquisition needs. It was the Council's consideration of those Right of Way needs that has prompted this current evaluation of alternatives to come forward.

Staff do not anticipate any concerns regarding timing between the Prado Bridge and Prado Interchange projects. This project was further summarized in the September 2023 presentation to Council, which can be found here.

Future Plans to Extend Prado Road to Broad Street

The General Plan Circulation Element and multiple specific plans include the future extension of Prado Road east to Broad Street. This improvement would provide a continuous arterial route with separated bikeways and sidewalks between Broad Street (Highway 227) and Madonna Road via the Prado Interchange. While the City is collecting development impact fees to help fund this future infrastructure project, the ultimate timing of the Prado Road Extension is difficult to project. Construction of this project requires private right-of-way and significant direct contributions from future private development. Further information was provided to Council in the September 2023 report, which can be found <a href="https://example.com/here-new-matter-

Caltrans Oversight and Project Development Process

The Prado Interchange Project is a partnership between the City and Caltrans. Caltrans is assisting the City with project delivery and will eventually assume maintenance of portions of this facility. Throughout the process (from planning to construction), Caltrans staff review and approve major deliverables to ensure compliance with Caltrans standards. Once the interchange is constructed, Caltrans will assume maintenance for the bridge structure, ramps, and operation of the Prado Road/US 101 Northbound Ramps traffic signal.

The Caltrans interchange delivery process² is divided into four phases which are as follows: 1) Project Study Report (PSR), 2) Project Approval and Environmental Document (PA/ED), 3) Plans, Specifications and Estimate (PS&E), then 4) Construction of the project. A flowchart of the process can be found below:

² A more thorough description of the Caltrans delivery process can be found here: https://dot.ca.gov/media/dot-media/programs/esta/documents/2011-how-caltrans-builds-projects-a11y.pdf

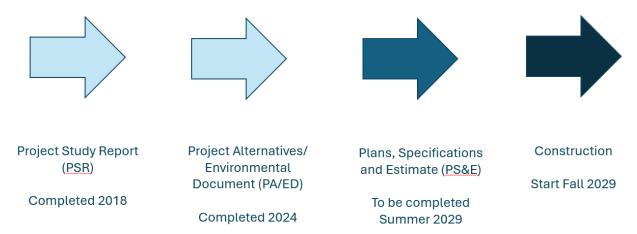


Figure 3 – Caltrans Delivery Flowchart

Each phase and their key deliverables are summarized below:

Phase	Key Deliverables	Status
1) Project Study Report	Project Study Report – Interchange Feasibility	Complete
2) Project Alternatives and Environmental Document (PA/ED)	Project Report + CEQA Document	Complete
3) Project Plans, Specifications, and Estimates (PS&E)	 Council authorized advertisement of a request for proposals for Prado PS&E phase services³ - Complete Award design contract – In Progress (Council Consideration 2/18/2025) Phase I - Implement Value Analysis Recommendations – Not Started Phase II - 65% Project Plans and Estimates – Not Started Phase II - 3rd Party Review – Not Started Phase II - 90% Project Plans, Specifications, and Estimates – Not Started Phase II - 100% Project Plans, Specifications, and Estimates – Not Started Phase II - Final Bid Package for Advertisement – Not Started 	In Progress
4) Construction	 Advertisement of Project Award of Project to Contractor Pre-construction Conference Completion of Underground Work Completion of Roadway Work Completion of Structures Work Project Closeout and Ribbon Cutting 	Not Started (2029)

To date, the Project Study Report Phase has been completed and the PA/ED phase is complete. Staff is ready to start work on the PS&E Phase.

³ Approved by Council at <u>8/16/2022 Meeting</u>

Project Approval/Environmental Document (PA/ED) Phase

Environmental Document

Both California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA) Documents have been completed and filed.

Value Analysis (VA)

The Value Analysis (VA), completed during the PA/ED phase, involved bringing in a third-party consultant to perform a five-day workshop with City and Caltrans staff, as well as an independent civil engineering firm to evaluate project designs to identify potential opportunities to reduce costs, highlight unanticipated challenges with project delivery, construction, and maintenance, and otherwise identify areas to improve the quality and/or value of the final project design. The project scope, schedule, and budget were discussed with a primary focus on identifying cost and time savings.

The VA workshop was completed in March 2023 and recommended that the City consider the following recommendations to guide final project design work:

- 1. Use cast-in-drilled-hole concrete columns instead of driven piles.
- 2. Use longer span pre-cast girders in lieu of cast-in-place girders.
- 3. Reduce the vehicle design speed on the bridge over Hwy 101 to 35 mph to tighten vertical and horizontal curves, reducing the structure's overall length and height.
- 4. Reduce the design width of travel lanes and roadway shoulders.
- 5. Use recycled materials where possible in order to reduce generation of greenhouse gases and reduce material cost.

The focus of the above recommendations was to find potential construction methods that could result in overall cost and construction schedule savings to the project. City and Caltrans staff agree that these considerations require further investigation, which will be completed during the first phase of the PS&E design contract.

Project Report

The Project Report summarized the environmental and design decisions made throughout the PA/ED process and evaluated each of the project alternatives. That report is complete, with the City and Caltrans agreeing on the preferred alternative. Project Report was signed 10/8/2024 by Caltrans marking completion of the PA/ED phase. See <u>linked</u> for the complete report, and Attachment A for the Concept Plans.

The preferred alternative selected by both the City and Caltrans is included in the Project Report as Alternative A3 which is a Tight Diamond interchange with signalized intersection control. This alternative was **recommended by staff and approved by Council** due to its superior operations and as well as being the lowest cost alternative. An image of the concept below is shown.



Figure 4 - Alternative A3 Plan

Plans, Specifications and Estimate (PS&E) Phase

Each of the primary tasks/components of the PS&E phase are described briefly below.

Design Contract Scope and Award

The size and complexity of this project, as well as the Caltrans delivery process, necessitated that staff issue a Request for Proposal (RFP) for design services to select the most qualified engineering firm to lead the project design. The RFP advertised on 5/2/2024, and proposals were due on 7/25/2024. A total of six (6) firms submitted proposals.

In order to follow City and Caltrans best practices, the Qualifications Based Selection (QBS) process was followed by staff. This process evaluates consultants based on their qualifications, relevant experience, approach to deliver the project, and their overall schedule for each deliverable. These categories were independently ranked by the City's Project Manager, Transportation Manager, and City Engineer, as well as Caltrans District 5 Project Manager. The review team then gathered to confirm and finalize the rankings. The top four (4) firms were then invited to present their proposal to the project team and respond to a series of pre-prepared interview questions. The presentation and question response were then graded and added to each consultants ranking. Overall rankings are summarized below:

Consultant Ranking Summary							
Firm	Ranking						
Consor	1						
Jacobs	2						
BKF	3						
Mark Thomas	4						

Consor was selected as the preferred firm, with their proposal included as Attachment B. The City was fortunate to receive proposals from several qualified firms, with Consor ranking highest largely due to their extensive project knowledge and prior experience with similar projects. Once the review team selected a consultant, a separate, sealed proposal from Consor (Attachment C) containing the design fees was unsealed, revealing the overall design costs. All other unsuccessful applicants had their sealed cost proposals mailed back to them. Using the QBS process, staff was able to select the most qualified firm for this project, and then unseal the design fee.

After Consor was selected, they met with City staff to further refine project scope and fee. With these modifications complete, Staff recommends award of the PS&E design contract to Consor.

The design contract is broken into three (3) phases to allow Council input at several critical deliverables:

PS&E Phase I - VA Implementation

The first phase of design focuses on the Value Analysis recommendations as well as additional recommendations design consultants made during the proposal process. In an effort to reduce project costs, design and construction schedule, and simplify the overall design process, Staff and Consor will review these recommendations, present them to Caltrans to better understand their implications, and chose a conceptual design to proceed with.

Major deliverables of this phase include:

- Soils, Hydraulic and Floodplain reports
- Detailed topographic survey
- Feasibility Memorandum of each VA recommendation
- Sustainability Memorandum detailing environmental impacts of proposed recommendations
- Public Meeting to present updated project scope, schedule and budget

PS&E Phase II – Plan Development

After the VA recommendations have been considered, Staff will proceed to important design deliverables defined by the Caltrans process:

65% Plans, Specifications and Estimate – This package will be produced by the design consultant Consor, and then reviewed by City and Caltrans staff. Any needed trips to advisory bodies like the Planning Commission, Active Transportation Committee or Architectural Review Committee will be scheduled during this time. Assistance with seeking grants and additional funding will begin in earnest.

3rd Party Consultant Review – During Phase II, Staff plans to release an RFP for a design consultant to help review the plans produced by Consor. The successful consultant will have similar experience with roadway and interchange design. This step is optional, as Caltrans staff will also review the plans, but should help reduce errors and minimize construction risk.

90% Plans, Specifications and Estimate – After review and comments, Consor will proceed to the 90% level design. The plans will be at a sufficient point to fully develop Right of Way (ROW) acquisition, Utility Relocation and Aesthetic Development.

100% Plans, Specifications and Estimate – After further review and comment, Consor will proceed to the 100% level design. Staff will return to Council for Authorization to Advertise at the time of this deliverable.

Final Package to Advertise – Also called "Ready To List" as this deliverable will be stamped and ready to advertise for construction. ROW will be acquired and Utilities ready to relocate.

PS&E Phase III - Bid Advertisement, Award and Construction Administration

Once the Final Package is ready to advertise for construction, Consor will assist the City through the advertisement, award and construction process. This phase will be contingent upon the final design chosen by the City and Caltrans, and will not be fully considered until the 100% PS&E deliverable. Staff anticipates Construction Management and Environmental services to be required as well.

Schedule and Next Steps

The project delivery schedule is shown in the figure below.

Table 1 – Prado Interchange Timeline

Table 1: Prado Interchange - Project Timeline to Construction

		FY 2	4/25			FY 2	25/26			FY 2	6/27			FY 2	7/28			FY 2	8/29			FY 2	9/30	
Project Phase	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
PA/ED																								
PS&E																								
Advertise and Award																								
Construction																								

Note: Q1 equates to July 1st of the Fiscal Year

This schedule provided by Consor assumes one (1) year for Phase I of the PS&E effort and three (3) years for Phase II. Time for City and Caltrans review, Utility Coordination and ROW Acquisition have been accounted for. The change in schedule from the last update to Council is a result of the delay in completing the PA/ED phase of work, as well as a realistic, detailed schedule presented by the design consultant.

Once City and Caltrans staff agree that design work is complete, the PS&E phase will close out and the project will be advertised for construction bids. Staff anticipate construction to begin as early as Fall of 2029.

Previous Council or Advisory Body Action

On July 17, 2018, City Council approved the Supplemental Environmental Impact Report (SEIR) for the San Luis Ranch Development (Staff Report, Minutes). The SEIR detailed the impacts of the development and need for the Prado Interchange Project, but did not cover the project itself, necessitating separate CEQA and NEPA documents.

On August 16, 2022, Council Authorized Staff to seek VA services and PS&E services (Minutes).

On September 5, 2023 Council recommended approval of the Initial Study – Mitigated Negative Declaration (IS-MND) to Caltrans, declared Alt 3 as the City's preferred interchange type, and recommended that Caltrans Administration approve the Project Report. (Minutes)

Public Engagement

There were extensive opportunities for public engagement on the project through previous planning efforts, including the 2014 General Plan Land Use and Circulation Element (LUCE) update, during review of the San Luis Ranch development proposal and Environmental Impact Report, approved in 2018, and through public input on the City's capital project prioritization during the past several budget cycles.

Staff and project consultants also organized and held a public meeting on February 15, 2023, which consisted of a focused workshop to solicit input on the latest Prado Interchange project details and draft environmental document. This meeting included a presentation on project background, overview of design alternatives considered, discussion of traffic impacts, summary of environmental analysis and mitigation recommendations, latest project cost estimates and schedule. The meeting was advertised via legal ads, via City email and social media notifications, and via direct mailers sent to businesses and residents located within one half mile of the project limits. Caltrans representatives were in attendance to help field questions from the public.

The IS/MND was circulated for public review February 2 through March 6, 2023. The Notice of Availability/Notice of Intent to Adopt the IS/MND was advertised in the local newspaper and included information about and invitation to the February 15, 2023 public meeting. Following the public review period, Caltrans and City staff recorded and jointly responded to 10 comment letters from members of the public and 1 from a local agency. These responses have been reviewed by staff and approved by Caltrans and are included at the end of the IS-MND.

CONCURRENCE

Public Works, Community Development, City Attorney and Utilities Departments concur with the recommendations of this report. Caltrans concurs with the recommendation to proceed to the PS&E Phase and award a design contract.

ENVIRONMENTAL REVIEW

The IS-MND CEQA document and the NEPA Categorical Exemption document were completed during the Project Approval/Environmental Document Phase.

FISCAL IMPACT

Budgeted: Yes Budget Year: 2021-2022, 2022-2023, Funding Identified: Yes 2023-2024, 2024-2025

Fiscal Analysis:

As the Prado Interchange is a multi-phased legacy project, funding for the PS&E Phase and Construction Phase will be discussed separately.

PS&E Phase Budget and Cost:

The PS&E contract is proposed to be separated into multiple phases to allow funding to be programmed in future financial plans. A summary of PS&E design costs, broken by phase can be seen below:

Prado Interchange - PS&E (Costs	
Task		Costs
PS&E Phase I	\$	3,049,853
PS&E Phase II	\$	5,901,488
PS&E Phase III	\$	94,439
Subtotal:	\$	9,045,780
Design Contingency ¹ :	\$	1,000,000
3rd Party Review ² :	\$	1,500,000
ROW Acquisition ³ :	\$	2,000,000
Utilities Relocation ⁴ :	\$	2,000,000
Total⁵:	\$	15,600,000

- 1. Assumed 10% contingency of total design fee
- 2. Assumption based on 15% work effort compared to PS&E estimate
- 3. ROW Acquisition in PS&E. \$1.5mil estimate, increased to \$2mil to for negotiating contingency
- 4. Costs with PG&E for undergrounding. Recent undergrounding cost \$1.5mil. Escalate to \$2mil
- 5. Rounded to the nearest \$100,000

Item 7b

Note that additional pre-construction costs beyond the design have been considered, including Right of Way Acquisition, Undergrounding Fees for Utilities and a 3rd party consultant to assist City staff in plan review.

PS&E Phase Delivery Timeline

As part of the RFP, each firm was required to submit their schedule for the entirety of the PS&E phase. Consor's schedule was the most realistic, allocating 12 months for Phase I work and 36 months for Phase II. Many of the major drivers of the schedule are beyond the City's control:

- Right of Way negotiations with private property owners
- Caltrans District 5 (local) review of deliverables
- Caltrans Headquarters (Sacramento) review of deliverables
- Utility underground coordination

Some items are under City control:

- Staff review of deliverables
- Consor timeframe of work effort

Staff reached out to Consor and discussed options and potential funding needs in order to expedite their work effort. Consor would be able to expedite the schedule by assigning additional resources to their bridge design, which would result in additional costs but could reduce the design schedule by up to 6 months.

Staff could also skip the Value Analysis phase of this effort, and move to expedite delivery of the project. The Value Analysis suggests these efforts could result in savings of approximately \$18 million if implemented, and for that reason staff does not recommend this option. After consulting with Consor, the schedule savings would be approximately 6 months.

Funding for the PS&E Phase will be provided from the bond proceeds that San Luis Ranch was required to provide the City for this project. Additional funding from the PA/ED phase are also proposed to be utilized. Due to the length of time required to complete this phase of work, a multi-year funding plan for the PS&E phase is shown below:

	Prado Road Interchange Funding Plan												
				Existing		Year 1		Year 2		Year 3		Year 4	Year 5
				FY24/25		FY25/26		FY25/26		FY26/27		FY27/28	FY28/29
Prado Interchange	e Account Balance (2	2091613):	\$	6,862,192		13,710,020	\$	7,808,532	\$	6,808,532	\$	3,308,532	\$ 1,214,093
				Fin		ial Plan Fund							
	Plan Funding (Gene			-	\$	-	\$	-	\$	-	\$	-	
Sa	n Luis Ranch Bond F		_	9,897,681	\$	-	\$	-	\$	-	\$	-	\$ -
	San Luis Ranch Co		\$	-	\$	-	\$	-	\$	-	\$	-	\$ 14,121,073
		SLOCOG											\$ 10,000,000
		ding Gap		40.750.070	Φ.	40.740.000	Φ.	7,000,500	Φ.	0.000.500	Φ.	0.000.500	\$ 106,664,834
	Acco	unt Total:	\$	16,759,873	\$	13,710,020	\$ T	7,808,532	\$	6,808,532	\$	3,308,532	\$ 132,000,000
		Cinnal	1	Project	EX	enditures ov	er i i	ime					
Task	Cost	Fiscal Year											
Task	Cost	Needed											
		Needed		De	eini	n Phase (PS&	F)						
PS&E Phase I	\$ 3,049,853.00	2024	\$	3,049,853.00	Jigi	ii nase (i oa	_/						
PS&E Phase II	\$ 5,901,488.00	2025	Ψ	0,010,000.00	\$	5,901,488							
PS&E Phase III	\$ 94,439.00	2028				5,001,100					\$	94,439	
Design Contingency ¹ :	\$ 1,000,000.00	2026					\$	1,000,000				,	
3rd Party Review ² :	\$ 1,500,000.00	2027							\$	1,500,000			
ROW Acquisition ³ :	\$ 2,000,000.00	2027							\$	2,000,000			
Utilities Relocation ⁴ :	\$ 2,000,000.00	2028									\$	2,000,000	
Total Design Phase	\$ 15,545,780.00	•											
	Construction Phase (Cons)												
Construction	\$ 119,000,000.00	2029											\$ 119,000,000
Cons Design Support ⁵ :	\$ 2,000,000.00	2029											\$ 2,000,000
Cons Management ⁶ :	\$ 11,000,000.00	2029											\$ 11,000,000
Total Construction Phase	\$ 132,000,000.00												
	End of Year Account	Balance:	\$	13,710,020	\$	7,808,532	\$	6,808,532	\$	3,308,532	\$	1,214,093	\$ -

- 1. Assume contigency needed at midpoint of design
- 2. Funding required prior to 90% submittal
- 3. Offer packages sent 6/2027
- 4. Required 1 year prior to construction for Utilities to schedule relocations
- 5. Assume 2% of construction costs. Supports review of submittals, change orders, etc. from the design team during construction.
- 6. Assume 10% of construction costs. Supports 3 years of full-time construction management on the project.

The San Luis Ranch bond proceeds are sufficient to cover the entire PS&E Phase. The current available funding is shown, along with the Phase I funding request:

Funding Sources	Total Budget Available	Current Funding Request (PS&E Phase)	Remaining Balance	Annual Ongoing Cost
Local Revenue	\$5,160,000	\$4,257,677	\$902,323	N/A
Measure				
Fees: Transportation	\$359,103	\$359,103	\$0	N/A
Impact				
State	\$0	\$0	\$0	N/A
Federal	\$0	\$0	\$0	N/A
Other: Airport Area	\$50,279	\$50,279	\$0	N/A
Impact Fee				
Other: County	\$1,435,260	\$1,435,260	\$0	N/A
Other: San Luis	\$9,897,681	\$9,897,681		
Ranch Bond				
Proceeds				
Total	\$16,759,873	\$15,545,780	\$1,356,543	N/A

It is important to note that currently staff are only seeking authorization on the PS&E Phase. As the PS&E phase is nearing completion, the best available information will be used to estimate construction costs. The total project cost will be further refined during design.

Staff are working to determine the best path forward to fund the construction phases of the project, including aggressive pursuit of state and federal grant funding, leveraging developer fees, use of the City's Infrastructure Investment Fund, and potential debt financing to support construction of the project. Should Council approve award of the design contract, staff will provide additional updates once the project design is sufficiently advanced, which will allow for a more accurate and realistic construction cost updates.

Construction Phase Fiscal Information

Cost Breakdown

The cost breakdowns presented in the September 5th 2023 report are unchanged, with updates expected after a review of the Value Analysis recommendations. Below is a table which itemizes construction costs based upon what is known today. Please note that inflation has not been addressed; however, a 20% contingency is included and totals are rounded to the nearest \$100,000:

Construction Costs (2023 Dollars)						
Roadway:	\$ 10,647,300					
Structure:	\$ 63,829,895					
ROW/Utility:	\$ 4,531,747					
Elks Lane:	\$ 3,180,000					
Corp Yard Impr:	\$ 1,060,000					
Prado Widening:	\$ 1,590,000					
Total:	\$ 84,900,000					

Currently, construction funding is anticipated to be received from both the City and the City's regional partners including: San Luis Obispo County, San Luis Obispo Council of Governments (SLOCOG), as well as the San Luis Ranch development. Costs were split based on percentage split of local traffic, regional traffic, and new development traffic once the facility is built. Staff have met with SLOCOG to advocate for additional regional funding towards this project, and will continue to do so throughout the duration of PS&E.

Since construction is not proposed to start until 2029, and there remains significant uncertainty regarding economic factors such as inflation, staff has calculated a future range of costs based on several rates of inflation:

Alt A3 Construction Costs						
Base Year (2023):	\$ 84,900,000					
3% Inflation (2031):	\$ 106,000,000					
5% Inflation (2031):	\$ 119,000,000					
8% Inflation (2031):	\$ 140,000,000					

Notes: 1. Figures rounded to nearest \$1,000,000

Staff anticipates total construction costs to vary between these numbers above based upon inflationary costs. Additionally, as the VA work is implemented in the final design and the construction techniques, quantities, and means and methods are further developed during the PS&E phase of the project, costs will fluctuate as well.

Total costs, including the PS&E Phase and Construction (Cons) Phase are summarized below. Please note that Construction Administration and Construction Management services are anticipated to be consultant led, accounting for those costs:

^{2.} Costs escalated to 2031, mid point of construction

	Project Total Cos	t	
Phase	Task		Cost
	Consor Design Contract	\$	9,045,780.00
	Design Contingency	\$	1,000,000.00
	3rd Party Quality Assurance		
PS&E	Review	\$	1,500,000.00
	Right of Way Acquisition	\$	2,000,000.00
	Utilities Relocation	\$	2,000,000.00
	Subtotal:	\$	16,000,000.00
	Cons Design Support ¹	\$	2,000,000.00
	Cons Management and		
CONS	Inspection ²	\$	11,000,000.00
	Construction ³	\$	119,000,000.00
	Subtotal:	\$	132,000,000.00
	Grand Total⁴:	\$	148,000,000.00

- 1. Construction Administration assumed 2% construction costs Assist City with review of construction deliverables
- 2. Construction Management assumed 10% construction costs
- 3. 20% Contingency, 2031 dollars
- 4. Rounded to the nearest \$1,000,000

Construction Debt Financing

The City does not have sufficient cash on hand to fully fund the construction of the Prado Interchange Project. As a result, debt financing will need to be explored as a means of providing the necessary capital to construct this project. This approach has long-term financial implications, particularly in terms of how it will affect the City's Capital Improvement Program (CIP) and overall fiscal strategy.

The table below outlines preliminary estimates of annual debt service payments based on various financing amounts and potential interest rates. These estimates assume a 30-year repayment term, which is typical for large-scale infrastructure projects. Staff has also accounted for additional amounts beyond the forecasted construction project needs of approximately \$106 million to address several cost scenarios. Any project which uses debt financing, would reduce the City's capital allocation in that funding resource, yearly, for the repayment term. For reference, the City currently has approximately \$25 million in General Fund allocated to the Capital Improvement Program (CIP) each year.

			_	
ln	ta:	-00+	\mathbf{D}	ŧ۸
ш	ιei	rest	ra	ιe

nced		4.5%	5.0%	5.5%	6.0%	6.5%	7.0%
-ina	\$100.0M	\$6.1M	\$6.5M	\$6.9M	\$7.3M	\$7.7M	\$8.1M
unt	\$125.0M	\$7.7M	\$8.1M	\$8.6M	\$9.1M	\$9.6M	\$10.1M
\mo	\$100.0M \$125.0M \$150.0M	\$9.2M	\$9.8M	\$10.3M	\$10.9M	\$11.5M	\$12.1M

These estimates provide a range of potential annual commitments depending on the total amount financed and prevailing interest rates at the time of issuance.

Considerations for Debt Financing

- Debt Capacity and Fiscal Sustainability: The City must ensure that any debt issued for this project aligns with its debt capacity and does not jeopardize overall fiscal stability. Maintaining a strong credit rating will also be crucial to securing the most favorable interest rates.
- Market Conditions and Interest Rates: The cost of borrowing will depend on market conditions at the time of issuance. Even small fluctuations in interest rates can significantly affect the City's annual debt obligations, as illustrated in the table.
- Collateral: Staff would need to identify sufficient collateral in the form of City facilities in order secure debt financing. As the principal amount of debt increases, this may become more difficult.

As the project progresses, staff will return to Council with more detailed financing options, including updated cost estimates and funding scenarios. For now, this overview provides a framework to begin discussions on how best to finance the Prado Interchange Project while maintaining fiscal sustainability.

Construction Phase Grant Opportunities

Since the start of the PA/ED phase, staff have been tracking applicable grant opportunities to help minimize the burden of City costs. With a completed CEQA document and chosen alternative, staff should now be eligible to apply for these grants. Eligibility will continue to increase as the project progresses through the PS&E phase, and Consor has a team member who specializes in grant assistance. Below is a table of grant opportunities that staff and the PS&E team will continue to monitor as possible future sources of funding for construction related costs.

Program	Туре	Typical Grant Amounts
RAISE	Federal	Can exceed \$25 million
INFRA	Federal	Can exceed \$25 million
SB1 Local Partnership	State	\$5 million to \$10 million
Active Transportation Program	State	\$5 million to \$10 million

Both the RAISE and INFRA programs are nationwide Federal grants that help state and local entities accomplish large transportation infrastructure projects. These grant applications require significant staff and consultant effort for a competitive application. Collaboration with other entities or bundling other City projects may be needed for a compelling region-wide package.

The SB1 Local Partnership Program Competitive Grant Program is a State program and funding can be used for transportation projects. The Active Transportation Program (ATP) State grant program is geared towards improving pedestrian and bicycle transportation infrastructure.

Item 7b

Staff continues to search for application grant opportunities and plans to continue engagement with regional entities and grant consultants. This report also recommends Council authorize Staff to seek Lobbying services for State and Federal funding. The Lobbyist would help represent the City at the State and Federal level, advocating for grants and programmatic funding to be considered for the Prado Interchange Project.

ALTERNATIVES

Due to the complexity and anticipated cost of the current project proposal, staff has prepared several alternatives for Council's consideration:

1. Deny award of PS&E Contract. Direct Staff to investigate reduced scale overpass Concept.

Instead of proceeding with PS&E for the current interchange design, Council could instead direct staff not to award the PS&E contract at this time, and to instead explore lower-cost design alternatives that differ significantly from the current scope. Examples of this could include:

- Bicycle and Pedestrian Only Overcrossing propose an overcrossing over Highway 101 without any vehicle lanes
- Bicycle, Pedestrian, Transit, and Emergency Vehicle Only Overcrossing propose an overcrossing with a single vehicle lane for buses and emergency vehicles only, with dedicated lanes for pedestrians and bicycles

Process Implications

Under the above design alternative scenarios, all existing PS&E proposals for the project as currently scoped would be rejected, and a new request for qualifications for consultant planning and design support for an alternative project would be sought with Council support.

Caltrans would likely maintain this structure, so the City would be obligated to follow the Caltrans Project Development Process and re-start the process. Staff would have to reinitiate the Project Study Report (PSR) phase and confirm that this modified project would be supported by Caltrans. A new Request for Proposals (RFP) would be drafted and sent to design consultants (with Council authorization). If the PSR is approved, staff would then proceed to the PA/ED phase of alternative analysis and draft a new environmental document, in addition to updating the environmental and technical studies.

This alternative would remove a key link within the City's transportation network, requiring amendments to the City's General Plan. The Interchange has been a foundational element to the Land Use and Circulation Element for decades and has been assumed and integrated into the environmental analyses, project approvals, and infrastructure fee obligation calculations and collections, for numerous projects throughout the City like the San Luis Ranch and Avila Ranch residential developments. Consequently, any substantial project modification, or the elimination of the link entirely, would require a comprehensive amendment to the City's the General Plan, potentially including every

General Plan Element. Staff anticipates such an update would require significant internal resources from numerous city departments, with the most significant impact to Utilities, Police, Fire, Community Development, Administration and City Attorney. Significant consultant resources would be required to assist each department to fully evaluate the operational and legal impacts of this decision, and, depending on prioritization of this effort, it could be the primary resource demand of several departments for the next 5 or more years, requiring further discussion of impacts and trade-offs with other City operational and capital goals and priorities.

This alternative would require a new CEQA document to re-assess Vehicle Miles Travelled (VMT), air quality, Green House Gas emissions and emergency response times across the city. The environmental documents for several entitled, in progress, or completed developments identified and assumed the interchange as a mitigation measure; equivalent mitigation measures would have to be identified, engineered at a high level, estimated in terms of cost and schedule, and then presented as part of this revised CEQA document. These new mitigation projects would be the responsibility of the City and future development projects, as the City generally cannot retroactively impose new mitigation measures onto the developments that are already entitled or under construction.

Similar updates would be required for in-progress Specific Plans that assume completion of the Prado Interchange as part of their circulation plans, including the Airport Area and Margarita Area Specific Plans. The environmental documents would have to be reassessed, and the ability to add additional housing units in further phases of development of those areas could be compromised due to anticipated safety or circulation impacts, or new measures to mitigate impacts previously covered by the Prado Interchange would need to be developed, analyzed and adopted to achieve the same or similar levels of mitigation.

As part of the General Plan update, the Traffic Impact Fee (TIF) program would require a significant update as well to re-assess mitigation projects and development contribution towards them. Significant and specialized legal support would be needed to assess the disposition, or re-allocation to alternative mitigation projects, of development impact fees already collected should the Prado Interchange be significantly deferred or cancelled, most clearly and immediately including fees collected from San Luis Ranch specific to the Prado Interchange totaling \$24 million.

In addition to amending local plans and policy documents, there would also be a need to update project assumptions in relevant regional and state planning documents (i.e. SLOCOG Regional Transportation Plan, State Transportation Improvement Plan, Caltrans US 101 Corridor Plans, etc.) to support the development of an alternative project description and the newly proposed mitigation projects.

Traffic Circulation Implications

Traffic circulation studies prepared for several recent land use projects, including the San Luis Ranch Development, Avila Ranch Development, and Froom Ranch Specific Plan Development, concluded that multiple traffic operations deficiencies would arise in the near-term (5-10 year horizon) if the Prado Interchange is not yet in place. Findings of overriding consideration were adopted by Council for transportation impacts of each development in order to begin construction prior to completion of the Prado Interchange. Construction of the Interchange is a specific mitigation measure for each development.

To help inform Council's review of this project, staff recently commissioned Central Coast Transportation Consulting (CCTC) to conduct a sensitivity analysis to identify what traffic operations impacts may arise if the interchange is delayed significantly or never constructed at all.

CCTC modeled future (Year 2045) traffic conditions with and without the interchange, assuming build-out of the General Plan land use plans and completion of other planned circulation improvements, such as the Prado Creek Bridge and Prado Extension from Higuera to Broad Street. This analysis, which is summarized in Attachment D, shows that without the vehicle bridge over US 101, traffic volumes increase substantially on other east-west routes (South Street, Tank Farm) and streets connecting to the existing US 101 interchanges north and south of Prado (Higuera, Madonna, LOVR). Per CCTC's sensitivity analysis, intersection levels of service (LOS) and queueing would exceed the City's adopted performance thresholds at numerous locations if the interchange were not constructed in the current 20-year horizon. The most notable impacts would occur at the following locations, and likely other locations not analyzed in detail at this time:

- Higuera & Madonna Deficient LOS & queuing
 - Eastbound queues likely to spill back to Madonna/US 101 ramps
- Higuera & LOVR Deficient LOS & queueing
 - Southbound queues likely to spill back north of Tank Farm
- Higuera & Tank Farm Deficient LOS & gueues
 - Westbound gueues likely to spill back past Long Street
 - Northbound gueues likely to spill back past Suburban
- LOVR & Calle Joaquin Deficient LOS & queues
 - Northbound queues likely to spill back onto US 101 overcrossing, potentially blocking traffic exiting US 101 southbound off-ramp.
- Madonna & US 101 NB Ramps Deficient queuing
 - Westbound queues likely to spill back to Higuera

It is also important to note that without the Prado Interchange, major modifications may be required at adjacent US 101 interchanges at Madonna Road and LOVR to prevent queues from spilling back onto the US 101 mainline.

While some traffic congestion may be lessened through investment in alternative transportation modes, it is unlikely that this could be accomplished at a sufficient level to fully mitigate these projected impacts. Roughly 50% of vehicle trips that occur in the city have at least one trip end outside of the city limits—it will be challenging to shift a meaningful portion of these trips to regional transit and many are outside of a reasonable walking or bicycling distance. Based on current 20-year projections, the Prado Interchange will carry approximately 20,000 vehicles per day that would otherwise use other parallel route such as Higuera Street, Madonna Road, or LOVR.

As noted above, the current interchange proposal is projected to reduce citywide vehicle miles traveled (VMT) by providing a more direct east-west connection. Removal of the vehicle overcrossing of US 101 from the project would eliminate this VMT reduction and increase traffic volumes on other parallel routes, which could negatively impact not only passenger vehicle congestion, but slow delivery trucks, transit services, and (if a pedestrian-only alternative is constructed) delay emergency response times, and potentially increase conflicts between vehicles and people walking and bicycling along these routes compared to conditions with the overcrossing.

Schedule Implications

Given the similar complexity of this alternative as the Interchange itself, staff investigated the time needed to complete each phase of the project to estimate the schedule below:

Bike/Ped/Transit/Emergency Vehicle Overpass Only: Anticipated Schedule						
Phase	Duration	Description				
RFP	12 months	Authorize, Advertise, and Award new design Contract				
PSR	24 months	Draft the Project Study Report - Confirm need for overcrossing				
PA/ED	72 months	Draft the Project Report and CEQA/NEPA Documents				
PS&E	36 months	Final Plans - Ready to Advertise				
Total:	150 months	12 years				

Staff anticipates this would lead to a delay of 9 years before reaching the PS&E Phase (current milestone of project), and 12.5 years before the project is ready for construction, 2037.

Cost Implications

Staff met with Caltrans to seek their assistance on cost estimating the PSR, PA/ED and PS&E phases for a reduced scale overpass project. The estimates are shown below with same soft costs (ROW, Utilities, Design Contingency) as detailed in the body of the report:

Overpass Only Design Costs						
Phase		Cost	Description			
PSR	SR \$ 1,000,000		Generate Project Study Report			
PA/ED	\$	3,500,000	Project Alternatives + Environmental Report			
PS&E	\$	12,500,000	Final Plans - Ready to Advertise			
Total:	\$	17,000,000				

With this alternative being entirely conceptual, construction costs are difficult to estimate. Therefore, staff made assumptions on general changes such as reduction in overcrossing structure width that would have accommodated vehicle lanes and removed structural costs of the northbound on and off ramps. This resulted in construction costs approximately two thirds the cost of the current design. Base year costs of 2023 are approximated below:

Construction Cost Comparison (2023 Costs)						
		Overpass	Interchange			
Roadway:	\$	5,600,000	\$	10,647,300		
Structure:	\$	33,600,000	\$	63,829,895		
ROW/Utility:	\$	6,048,000	\$	4,531,747		
Elks Lane:	\$	3,360,000	\$	3,180,000		
Corp Yard Impr:	\$	1,120,000	\$	1,060,000		
Prado Widening:	\$	1,680,000	\$	1,590,000		
Total:	\$	51,500,000	\$	84,900,000		

However, the approximate construction costs should be accelerated an additional 9 years, resulting in significantly less cost savings as summarized below than initially expected:

Construction + Inflation Comparison						
		Overpass	Interchange			
Scenario	Year	Cost	Year	Cost		
Base Year:	2023	\$ 51,500,000	2023	\$ 84,800,000		
3% Inflation:	2039	\$ 77,000,000	2031	\$ 106,000,000		
5% Inflation:	2039	\$ 93,000,000	2031	\$ 119,000,000		
8% Inflation:	2039	\$ 118,000,000	2031	\$ 140,000,000		

Please note that the costs were accelerated to 2039 – the approximate halfway mark of construction.

Other costs not specific to the project, like the General Plan update, new CEQA document and TIF analysis are further described above. A summary of design and construction costs, for a project grand total can be seen below:

Grand Total Comparison						
	Overpass			Interchange		
Scenario	Year		Cost	Year		Cost
PSR	2026	\$	1,000,000	2018	\$	-
PA/ED	2028	\$	3,500,000	2024	\$	-
PS&E	2034	\$	12,500,000	2025	\$	16,000,000
Cons	2039	\$	103,000,000	2031	\$	132,000,000
				\$		
Grand Total	\$		120,000,000	148,000,000		

Summary

Due to the large deviations from the current schedule and budget, staff does not believe there will be significant cost savings proceeding with this alternative. There will also be significant traffic impacts City-wide by removing the vehicular lanes from the project scope. This effort would be a multi-year collaboration between the City and Caltrans, drawing significant resources from both teams.

In addition to project specific costs, Staff will be required to update the General Plan, City wide EIR and TIF, resulting in the delay of other major City goals for 5-10 years and additional costs related to these planning efforts. For these reasons, staff does not recommend this option.

2. Deny award of PS&E Contract. Direct Staff to investigate "No Build" Option.

Instead of proceeding with PS&E for the current interchange design, the Council could instead direct staff not to award the PS&E contract at this time, and to instead explore a "No Build" alternative where the Prado Interchange is removed from the General Plan, EIR and TIF.

Process Implications

Under this scenario, all existing PS&E proposals for the project as currently scoped would be rejected, and a new request for qualifications for consultant planning and design support for the General Plan update would be sought with Council support.

Other process implications are described in Alternative 1 "Reduced Scale Overpass".

Traffic Circulation Implications

Traffic impacts for the "No Build" scenario are similar to the "Reduced Scale Overpass" alternative in terms of vehicular impacts. Compared to the "Overpass Only" alternative, the "No Build" scenario would include additional disadvantages by not improving eastwest connectivity for people walking, bicycling, transit services, or emergency response vehicles.

Schedule Implications

Given the similar complexity of a "No Build" option, staff would seek consultant services to help better understand the impacts to the General Plan, Specific Plans, TIF program, and previous development approvals. Staff anticipates this effort to be a significant internal work effort in addition to the consultant assistance, likely requiring 5-10 years to update these relevant plans and programs.

Cost Implications

In addition to Staff time, consultant and expert services would be required to assist several departments within the City. The cost of these services are unknown over the 5-10 year period.

Summary

The "No Build" option will require an update to the General Plan, TIF program, and evaluation of previous development approvals and impact fees, resulting in significant City-wide staff and consultant effort. This effort would delay other major City goals for the 5-10 year work period. For these reasons, staff does not recommend this option.

ATTACHMENTS

- A A3 Concept Plans
- B Consor Proposal
- C Consor Cost Proposal
- D Traffic Impact Map