

STAFF REPORT

City Council Business Item

DATE: Sept 15th, 2025

TO: Honorable Mayor and Council Members

FROM: Brian Issa, Public Works Director

THROUGH: Amy Nilsen, City Manager

SUBJECT: **Selection of Preferred Design Alternative for Kenmar and Ross Hill Road Intersection**

STAFF RECOMMENDATION:

Receive staff presentation and recommendation to approve the selection of a roundabout development as the preferred alternative moving forward.

EXECUTIVE SUMMARY:

As the Council is aware, since the 2010 General Plan, the City has been working towards identifying improvements for key transportation infrastructure in the City of Fortuna. Most notably, the City's focus has been to improve the interchanges with Highway 101 at 12th Street and Kenmar, with a preliminary alternative analysis being completed in 2016, and initial project phase funding being secured for the projects in 2018, 2022 and 2024. After the City secured funding for the 12th Street Preliminary Design phase in 2022, staff shifted some focus to the City's Kenmar and Ross Hill Road intersection, which also has issues with traffic level of service, vehicle queueing, non-motorized connectivity, safety and the ability to handle traffic volumes as the City continues to develop.

In 2022, staff worked with the City's on call traffic engineer, GHD, to develop a scope and budget for a Project Study Report (PSR) for the Kenmar and Ross Hill Road Interchange. The intent of the Project Study Report is to analyze preliminary improvement alternatives, ultimately with the hopes of being able to identify a preferred project alternative to move forward into budgeting and engineering design. The PSR looks holistically at the project and covers areas including existing conditions traffic analysis, alternatives development, proposed conditions traffic analysis, environmental constraints, costs and impacts to rights-of-way. Another benefit of developing this report is that it makes this project eligible for funding through the State Transportation Improvement Program (STIP), which is the City's primary available funding source for projects of this scope and scale. The Council approved a supplemental budget request for this report in 2022, at which time staff began working with GHD to complete the project.

The Draft PSR was presented to Council for approval at the April 7th 2025, meeting. Council approved the PSR but did not select a preferred alternative at that time. The draft project alternative figures have been extracted from the report and are included as Attachment A. Below staff have developed a summary of the proposed project alternatives.

Existing Intersections Problems

This section lists the primary issues that have been identified at the existing signalized intersection. In the alternative section below, each alternative is noted for how well it addresses these existing issues.

1. **Intersection Level of Service** – level of service (LOS) is a measure of how long a vehicle waits to move through an intersection. Level of service is measured in ‘grades’ between A-F, with A being a low amount of time, and F being a long time. The existing intersection operates at an average LOS of D in the AM peak hours, and a LOS of C in the PM peak hours. The Fortuna General Plan currently calls out minimum LOS standards for this intersection of D. Based on future traffic modelling as the City grows, each intersection leg is projected to operate at LOS E in the future, which is below the General Plan target (without improvement).
2. **Intersection Queuing** – the existing intersection currently has issues with excessive vehicle queue, most notably for the northbound left movement (residents leaving Campton Heights to go to the freeway), and the eastbound Kenmar movements (residents entering town from the freeway). Queues routinely backup to Eel River Drive on Kenmar, or beyond the turn pocket on Ross Hill Road.
3. **Safety Considerations** – the existing intersection has two primary areas which the City routinely receives complaints for unsafe conditions. The first and most noticeable is the ‘slip lane’ that bypasses the signalized intersection, allowing southbound traffic on the boulevard to immediately access Kenmar Road. At the merger, movement there are often conditions where vehicles do not follow the yield requirements. The second is the southbound merge lane moving up Ross Hill Road. Currently because there are two southbound lanes at the intersection, merging to one on the other side of the intersection, southbound drivers tend to compete with one another to successfully make the merger on the other side of the intersection.
4. **Bicycle and Pedestrian Connectivity** – while the existing intersection has bike lanes connecting the north/south lanes, there are no dedicated facilities on the east/west lanes. Additionally, the crosswalks that lead pedestrians towards the freeway end at the City’s main median island, where there are no additional facilities to get non-motorized users to the north side of Kenmar Road.
5. **Design Life** – as noted above, the intersection is near or at its useful design life, with LOS soon to be unacceptable by current City standards. Intersection requires improvement.

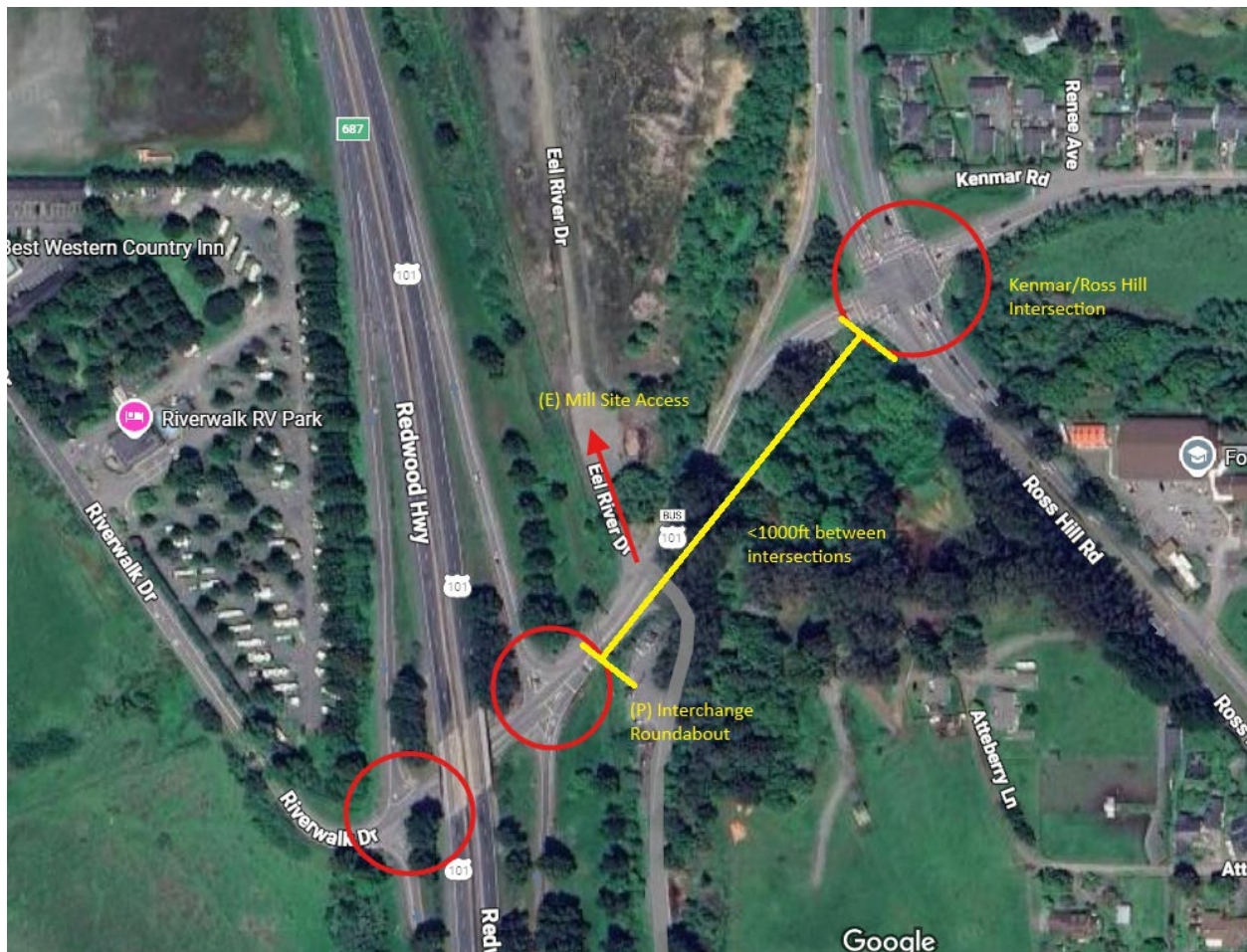
New Considerations

- Shortly after the PSR was approved, the City received a development proposal from a buyer looking to acquire and develop the southern portion of the Mill District which currently takes access from Kenmar road immediately east of the proposed Kenmar/Hwy101 interchange (between the proposed interchange roundabout and the Ross Hill intersection). The purchase fell through at least partially due to uncertainties surrounding access. The City is currently working with the developer on traffic study that will help determine whether an access off of Kenmar utilizing a left turn pocket is feasible and what scale of development could be served by such access without the queuing distances backing up into the interchange. It’s likely that development of the site with high trip generating uses (such as those in the recent development proposal) will necessitate the parcel taking access from the Ross Hill intersection. The only configuration of the Kenmar Ross Hill intersection that could likely accommodate future access to the site is a roundabout. Staff have verified that, at least conceptually, the proposed roundabout could accommodate an additional leg for access to the mill site with minor changes to the designs provided in the PSR.

- When the PSR was presented in April, the minimum build option seemed like it might be a good option to provide some level of functional improvement at a feasible cost in the short term using STIP funding. With the publication of the most recent round of STIP funding and the decreased funding available for that program, it's now clear that even the minimum build option is not feasible in the short term. That being the case, staff recommends the selection of the design that provides the most benefit over the longest term.
- With the limited funding available, staff is proposing to apply for STIP funding for the PAED phase of Kenmar/Ross Hill, recognizing that the impacts of improvement to the Kenmar/101 interchange will be impacted by constraints at the existing Ross Hill intersection. In order to ensure that money spent on improving the interchange yield the expected benefits, improvement of the Ross Hill Intersection needs to move somewhat in parallel.

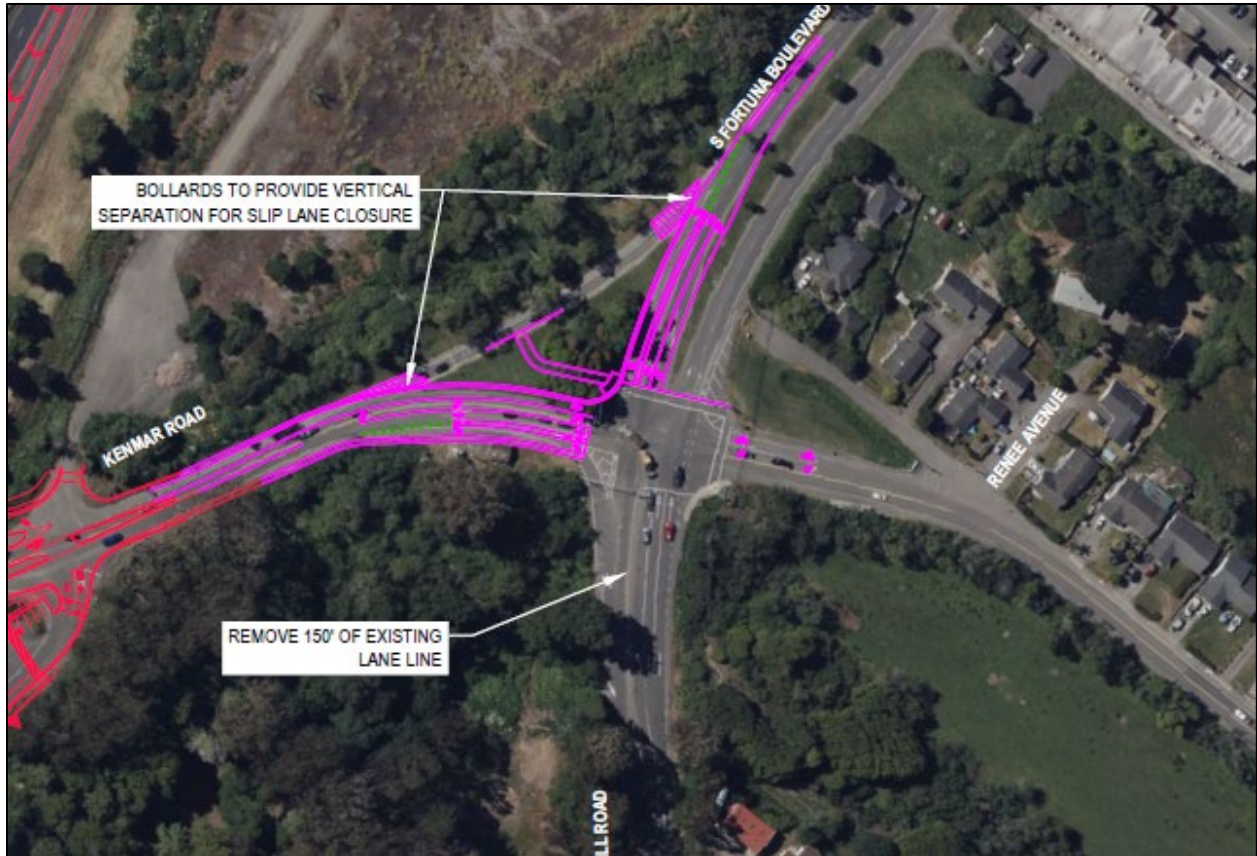
Improvement Alternatives Identified

The following sections describe each of the three alternatives that were explored in the PSR. The final section notes how each of the alternatives compare to each other based on the existing intersection problems noted above. The complete PSR can be found online [here](#). The figure below shows the location of the Ross Hill intersection in relation to the Kenmar Interchange and existing Mill Site Access.



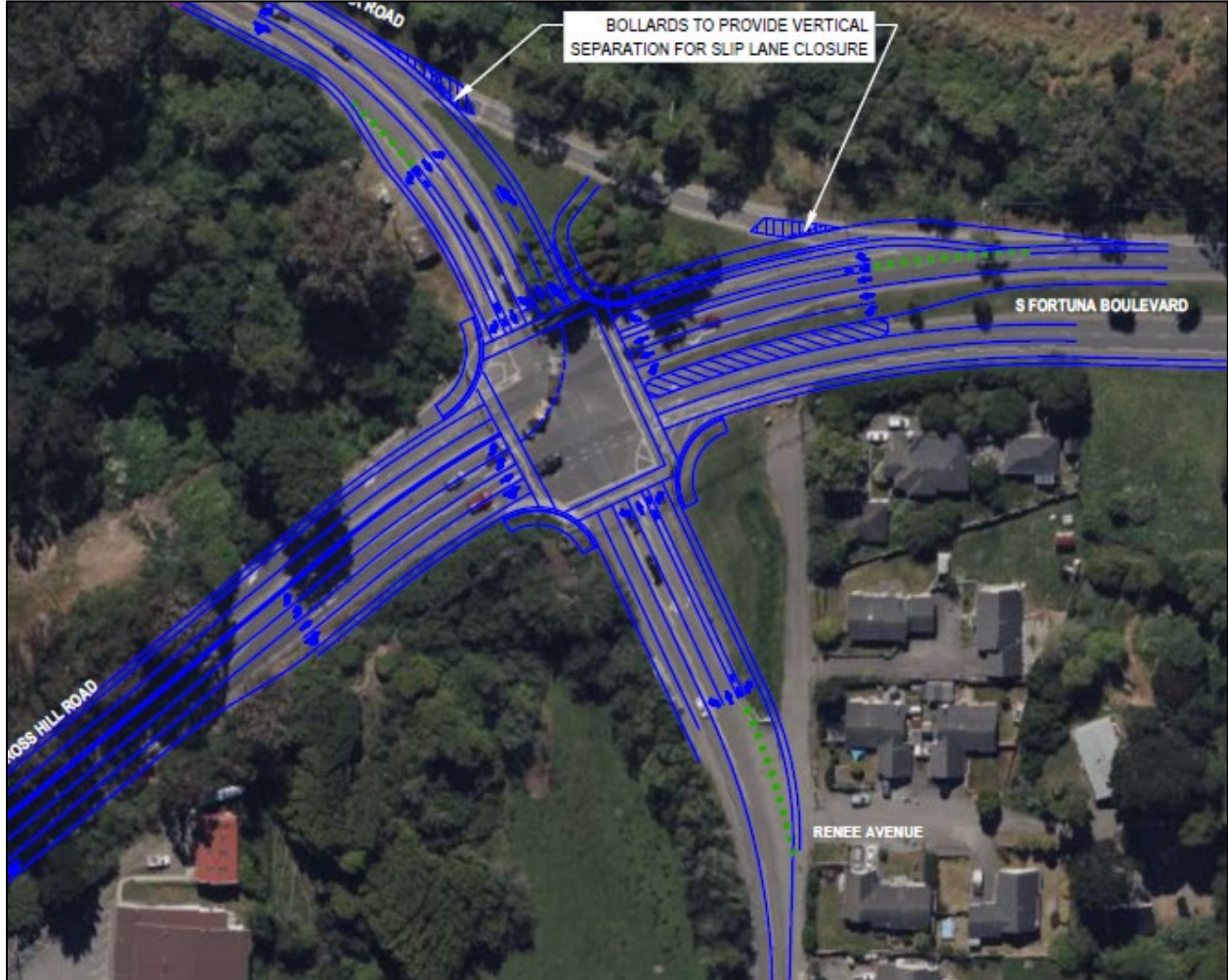
Option A – Signalized Intersection Retrofit

This minimum build project alternative would include a number intersection alterations aimed at addressing as many of the intersection problem as possible for a lower project cost. Project components would include adding an additional inbound lane on eastbound Kenmar, which would help to significantly reduce AM and PM peak hour vehicle queues. The southbound left turn pocket on South Fortuna Boulevard would also be extended to accommodate more vehicles. The 'slip lane' to westbound Kenmar is also proposed to be removed, and one of the southbound lanes on the Boulevard would be converted into a right turn onto Kenmar Road at the signal. This alternative would include no improvements to the northbound Ross Hill Road traffic, and therefore operations and future issues would continue to be an issue under this alternative.



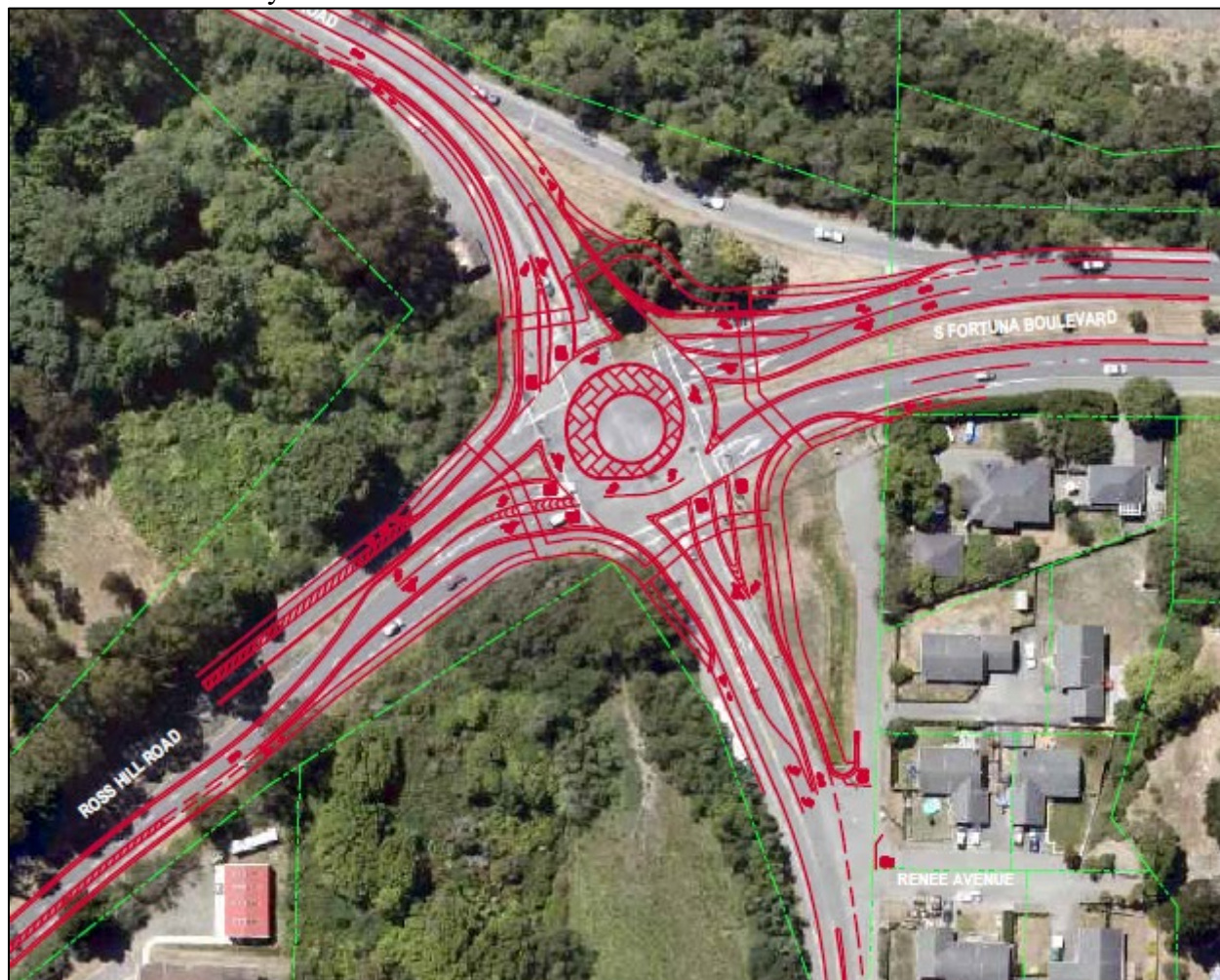
Option B – New Signalized Intersection

This alternative would include reconstructing the entire signalized intersection to current design standards while accommodating for projected future traffic volumes. This alternative is graphically shown in Figures 3-4 of Attachment A. For this alternative widening would be required beyond the paved limits on all legs of the intersection. Additionally, given the widening required on Kenmar Road in between the intersection and the highway, the project would likely include some encroachment into the creek channel (and therefore some potential realignment), and the replacement of the main box culvert that takes Mill Creek beneath Kenmar Road.



Option C – Roundabout

The final alternative identified would reconfigure the entire signalized intersection into a roundabout, similar to what is being proposed for the Kenmar and 12th Street Interchanges. This alternative is graphically shown in Figures 5-6 of Attachment A. As shown the roundabout would almost entirely fit within the existing paved limits, with only minor widenings required on the City-owned medians near the Gateway Sign and on the east side of the intersection. One key difference of this roundabout as compared to the ones proposed at the highway interchanges is that due to traffic volumes, the northbound Ross Hill Road/Fortuna Boulevard movement has two entry lanes. As such, although still standard in roundabout design and construction there would be more complexity to the operation of this roundabout than for a conventional single-lane roundabout. Note that addition of another leg to provide Mill Site access will require adjustments to the location and size of the facility.



Comparison of Alternatives

The table below provides a comparison for how each of the proposed alternatives addresses the main existing issues noted above. It should be noted that this table is not included in the PSR, this has been developed by staff to help aid the Council and the public in understanding the tradeoffs for various alternatives.

Table 1. Comparison of project alternatives.

Alternative	Estimated Cost	Average Level of Service	Queuing	Safety	Non-Motorized Accessibility	Design Life ¹
<u>Option A</u> Minimum Build Signal	\$2.9 M	C/D	Medium – almost all movements contained within available intersection storage, with the exception of northbound traffic on Ross Hill Road. Kenmar operations do not impact highway interchanges	Medium to Good	Medium – improves east/westbound bike and pedestrian accessibility	20-30 years for improved portions, less for unimproved portions (northbound Ross Hill Road). Life may depend heavily on what happens at the Mill Site
<u>Option B</u> New Signalized Intersection	\$12.6 M	C	Medium – almost all movements contained within available intersection storage. Kenmar operations do not impact highway interchanges	Good	Good – bicycles and pedestrians serviced for all routes	30-50 years. Life may depend heavily on what happens at the Mill Site
<u>Option C</u> New Roundabout	\$8.7 M	A	Minimal – none exceeding available storage	Good	Good – bicycles and pedestrians serviced for all routes	50-year or beyond under all potential development scenarios

1. Estimated based on engineering judgement. Current PSR only projects traffic volumes through 2045.

Staff recommend that the Council select a preferred project alternative, taking into consideration the comparison of alternatives and discussion provided above, and direct staff to submit the Kenmar Ross Hill intersection Project Approval and Environmental Documentation (PAED) phase for funding through the 2026 STIP.

FINANCIAL IMPACT:

Future fiscal impacts that will result from the PSR specifically pertain to the preferred improvement alternative identified by the Council. As shown in the table in the executive summary section, or in the PSR itself, future costs for project improvements range from approximately \$2.5 million to \$11 million. With a preferred alternative identified, staff will work to develop a funding plan. Regardless of the alternative selected, it's likely that the majority of funding will come from grants or future STIP funding.

RECOMMENDED COUNCIL ACTION:

1. Receive staff presentation and review Council questions with staff
2. Open and close Public Comment
3. Select a preferred alternative and make a motion to direct staff to pursue potential funding opportunities.

Sample Motion: I make a motion to select Option X as the City's preferred design alternative for the intersection of Kenmar and Ross Hill Roads and direct staff to submit the PAED phase of design for funding in the upcoming 2026 STIP cycle.