

Agency: Department of Transportation and Public Facilities

Project Title:

Project Type: Remodel, Reconstruction and Upgrades

Elmore Road/84th Ave-Coventry Traffic and Pedestrian Safety Improvements

State Funding Requested: \$6,500,000
One-Time Need

House District: 12 / F

Brief Project Description:

Installation of a traffic signal with a pedestrian crossing. Improvement and separation of lanes.

Funding Plan:

Total Project Cost:	\$6,500,000
Funding Already Secured:	(\$0)
FY2025 State Funding Request:	(\$6,500,000)
Project Deficit:	\$0

Funding Details:
The project has not started. It will remain on the Needs List for evaluation and prioritization.

Detailed Project Description and Justification:

This is the main access to the popular Abbott Loop Community Park and Far North Bicentennial Park. Traffic is heavy on Elmore Rd and crossing the road is dangerous for both people and cars. Residents exiting Coventry and 84th have long waits during rush hour traffic.

The current DOT proposal would create an unsignalized left turn lane at Elmore and Coventry and a pedestrian refuge median at both Elmore and Coventry and Elmore and 84th intersections. These changes will vastly improve the safety of pedestrians going from neighborhoods to the park and back and the ability of cars to safely and efficiently exit the neighborhood.

Project Timeline:

The South Anchorage Hillside Intersections Study of 2015 identified a need for a solution to the pedestrian danger at the Coventry and 84th intersection with Elmore and recommended several solutions to fix the issue. Further planning will have to take place upon receipt of the funds. Once the plans are finalized, phased construction can occur on both intersections with the possibility of the project taking more than one fiscal year to complete.

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

State of Alaska DOT

For use by Co-chair Staff Only:

\$300,000
Approved

12:20 PM 6/14/2024

Grant Recipient Contact Information:

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Has this project been through a public review process at the local level and is it a community priority? Yes No

For use by Co-chair Staff Only:

AMATS South Anchorage and Hillside Intersection Study

Project No: 51964

RECONNAISSANCE ENGINEERING STUDY

**STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES**

Kinney Engineering, LLC
750 W. Dimond Boulevard, Suite 203
Anchorage, Alaska 99515

December 2014

STATE OF ALASKA
DEPARTMENT OF TRANSPORTATION
AND PUBLIC FACILITIES
RECONNAISSANCE ENGINEERING STUDY

FOR

AMATS SOUTH ANCHORAGE AND HILLSIDE INTERSECTION STUDY

Project No: 51964



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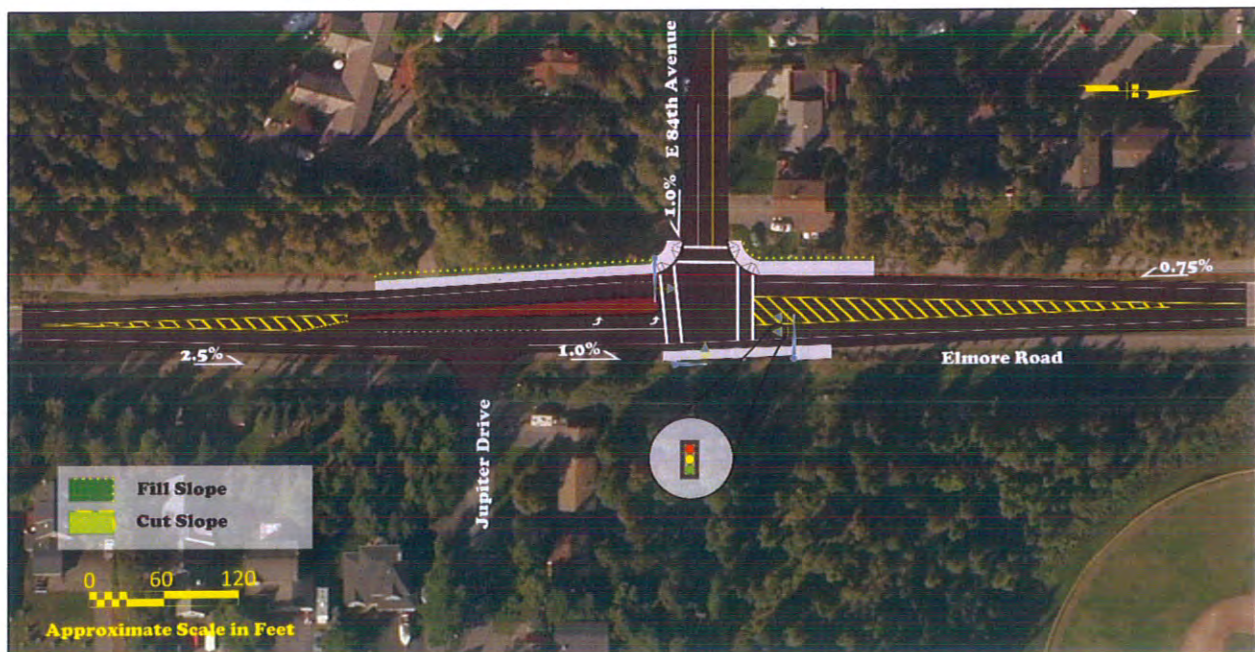
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84th Avenue and Elmore Road (COV)

Existing concerns at this intersection are mainly related to congestion and pedestrian delay; however, pedestrian demand for crossing Elmore Road, combined with higher volumes, may contribute to safety concerns in the future. The concerns are:

- Eastbound movements experience LOS D in the PM peak hour due to the heavy traffic volumes on Elmore Road. LOS for this movement is expected to deteriorate to LOS E by 2023.
- Pedestrian delay crossing Elmore Road in both the AM peak hour and the PM peak hour is high, resulting in LOS F.

A corridor analysis identified the installation of a traffic signal at 84th Avenue as the recommended alternative. A traffic signal provides predictable crossing opportunities to vehicle and pedestrian traffic at 84th Avenue, as well as improved platooning on Elmore Road, leading to more predictable crossing opportunities at unsignalized intersections along the corridor. The recommended alternative would limit Jupiter Drive traffic to right-in-right-out, but could be built to allow passenger cars to U-turn at 84th Avenue. The estimated cost of this alternative is \$3.0 million.



Recommended Alternative for 84th Avenue at Elmore Road Intersection

Coventry Drive and Elmore Road (COV)

Existing concerns at this intersection are mainly related to congestion and pedestrian delay; however, pedestrian demand for crossing Elmore Road, combined with higher volumes, may contribute to safety concerns in the future. The concerns are:

- Limited sight distance to the north from the west approach of Coventry Drive.
- Eastbound and westbound movements experience LOS E in the PM peak hour due to the heavy traffic volumes on Elmore Road. Delays are expected to increase over time. LOS for these movements will deteriorate to LOS F by 2023.
- Pedestrian delay crossing Elmore Road in both the AM peak hour and the PM peak hour is high, resulting in LOS F.

The installation of a traffic signal at 84th Avenue will improve platooning on the Elmore Road corridor, providing predictable crossing opportunities for side street traffic. However, pedestrians crossing Elmore Road at Coventry Drive will still have difficulty finding simultaneous gaps in the northbound and southbound traffic. Therefore, it is recommended that pedestrian refuge islands be installed at this intersection. Consideration should also be given to re-grading the north approach to Coventry Drive on Elmore Road. This will improve sight distance to the north for vehicles and pedestrians. The estimated cost of the pedestrian refuge islands and re-grading is \$2.5 million.



Recommended Alternative for Coventry Drive at Elmore Road Intersection

Elmore Road

South Anchorage Hillside Intersections Study 2015, with public input phase

Left turn lanes, pedestrian crossing, and/or a signal at 84th or Coventry desired,

- Elmore Road to Tudor Road connection opened to traffic in 2008 (Abbot Loop Road before that time)
- Functional Classification: Minor Arterial
- Speed Limit 45
- Traffic Volume: ~11,000 vehicles per day
- Design intent: “Connect Anchorage”, south Anchorage to UMed and Tudor/Muldoon
- ½ mile major intersection spacing of signals for maximum progression
- Movement of through traffic at typical arterial speeds, 45 MPH
- Minimize east side parks impacts to deliver project in a timely manner
-
- Recommendation: Elmore and 84th/Coventry project with 1 signal. New access. ~\$10 million

Future projects to access parks desirable

68th Avenue new east leg at signal to BLM Campbell Tract/Science Center

Combined Intersection project recommended as of 2015:

Elmore and 84th Avenue future signal and access to ballfields

Elmore and Coventry future median and 2 stage pedestrian crossing without markings

Concerns: hillcrest grade, steeper North leg, poor signal spacing, cut-thru from 84th Avenue

Requires AMATS funding or another source with Community Council support

- Road nearly “full” as of 2021 at 11,000 vehicles per day, gaps are difficult at peak times
- NOTE: A major capital project is required, with widening, for any upgrades.
- All signal concepts recommended with widening to serve left turns on the main road
Signals do not work well when the motorists still have to stop in thru lane and wait for gap, same as a 2 lane road
Stopping the other mainline direction every time “splits” the progression in case there is a left turn, and would lead to significant mainline traffic queues, backups, and resident complaints



Elmore and Coventry view North



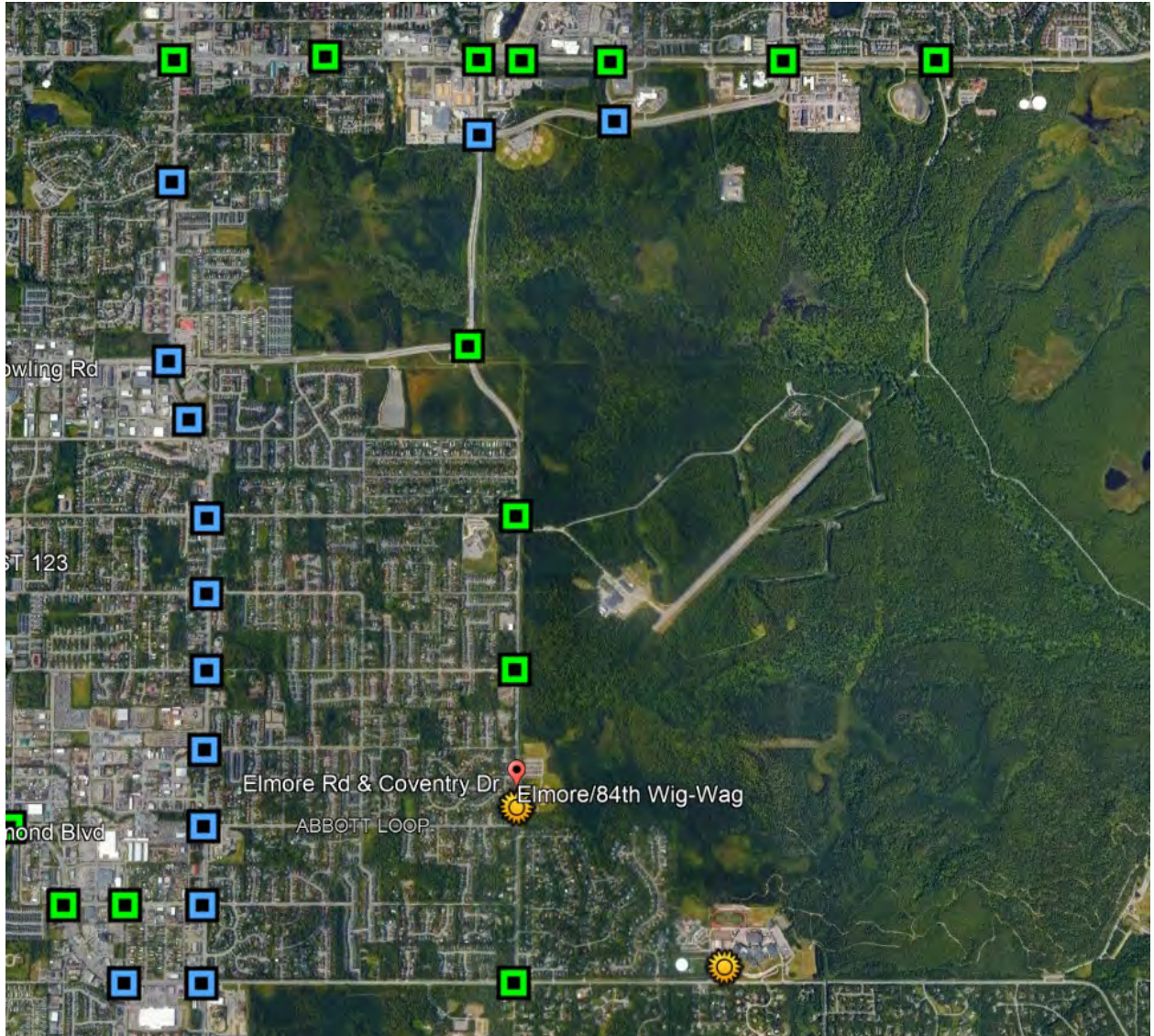
Elmore and 84th Ave view North



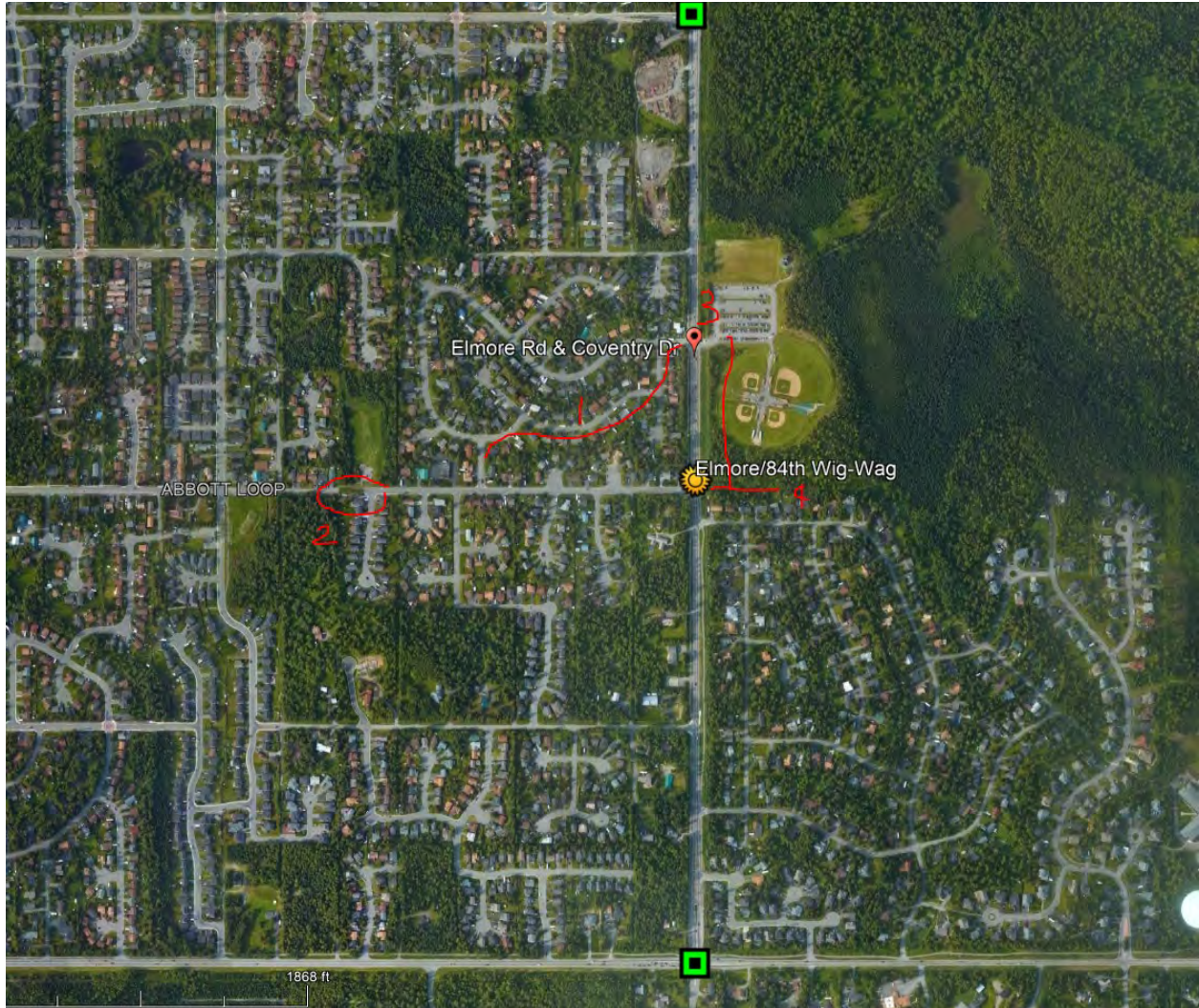
Elmore and Jupiter, Driveway close to 84th Ave, South Leg, view South from 84th



Recommended: 84th Ave Signal, LT lanes, pedestrian medians at 84th/Coventry, New access



Existing signals and devices along Elmore Road (1/2 mile) and Lake Otis Parkway (1/4 mile).



Elmore and 84th/Coventry Access Concerns and ways to keep the most options as more projects evolve:

Coventry:

- (3) Poor signal location for mainline green progression (< 1/2 and <1/4 mile uniformity for timing)
- Inconsistent with AMATS agencies Connect Anchorage intent
- on a hillcrest, steeper 4% grade on north leg for start/stop, 5% on Coventry approach
- (1) potential cut-thru traffic on a direct residential access street

84th Ave:

- Uniform signal location for mainline green progression (1/2 mile spacing)
- Consistent with AMATS agencies Connect Anchorage intent
- On a flatter approach for all legs
- Minimizes collected traffic away from most direct residential access
- Has the platted potential to equal 68th Ave as a way to distribute future traffic in area, serve for detours, emergencies, bus routes, etc.
- A future alternative to Jupiter Dr neighborhood as congestion worsens on Elmore or Abbott
- Requires difficult access reconfiguration if ballfields are to be served

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Figure 6.28 – Benefit and Cost Comparison for COV Alternatives

6.12.8 Recommended Combined Alternative

The recommended alternative combines COV-2 Pedestrian Refuge Island at Coventry Drive with Re-grading and COV-7 Signal at 84th. Table 6.56 shows the benefit and cost of the recommended alternative, including only the Coventry Drive portion of the benefits and costs of the COV-2 alternative.

Recommended Alternative	Total Benefit	Total Cost	B/C
COV-2 Pedestrian Refuge Island (at Coventry) COV-7 Signal at 84 th Avenue	\$122,881	\$5,512,303	0.02

Table 6.56 – Benefit/Cost Value for Recommended COV Alternative

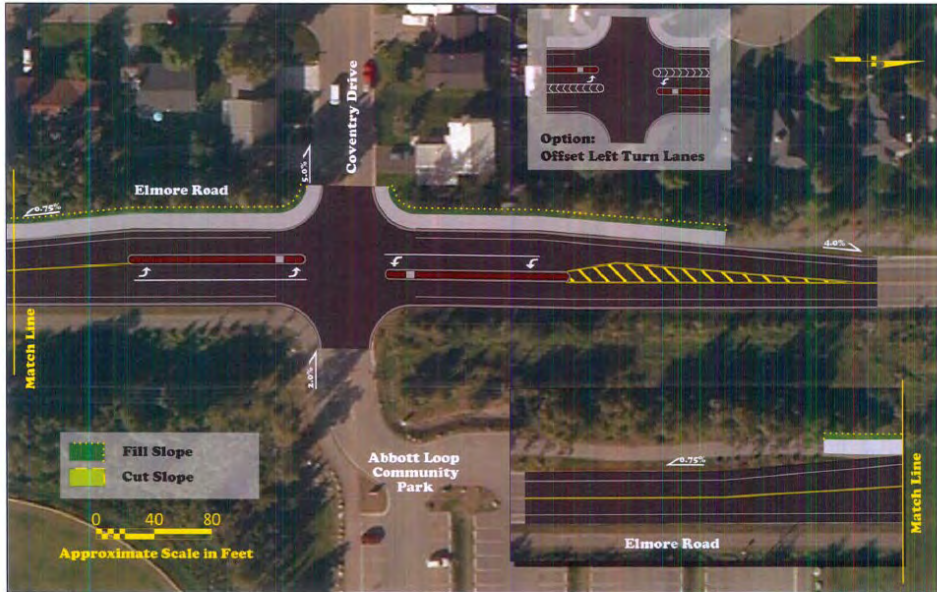


Figure 6.17 – COV-4 Left Turn Lane with Raised Medians Conceptual Diagram (2 of 2)

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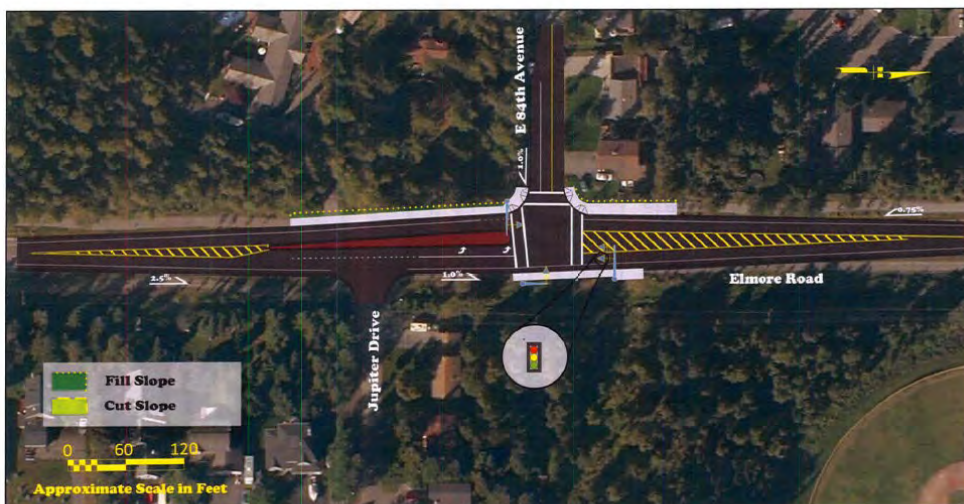


Figure 6.20 – COV-7 Signal Conceptual Diagram

6.12.9 Public Response to Alternatives:

Several comments have been received from the public in response to the draft reports (October 2013 and October 2014). All public comments can be found in Appendix B. General comments that were received include:

- Suggestion that curb ramps on multi-use pathway should be as wide as the path, so bicyclists do not need to weave to use them.
- Suggestion to add southbound right turn lanes at 84th Avenue and at Coventry Drive.
- Suggestion to connect 84th Avenue through to Lake Otis Parkway so that residents can access their homes from both Lake Otis and from Elmore Road.
- Suggestion that problems at 88th Avenue and at 80th Avenue should also be addressed.
- Desire for a noise fence.
- Desire for traffic calming features that will encourage drivers to use the Seward Highway instead of Elmore Road.
- Concerns about snow plowing with any of the raised median options. Also concerns that vehicles run into medians.
- Statements that Elmore Road carries a heavy volume of traffic, which will increase as other connection projects are completed, such as the connection from Elmore Road north to Bragaw or the connection of Elmore Road south to O'Malley.
- Statements that the pedestrian flashing beacon at 84th Avenue does not work to stop traffic so that pedestrians can cross Elmore Road safely.
- Statements that drivers use Jupiter Drive as a cut-through traveling from Service High School to Elmore Road.

Comments related to COV-3 Two Way Left Turn Lane include:

- Support for this alternative.

Comments related to COV-4 Left Turn Lanes with Raised Median include:

- Support for this alternative.

Comments related to the recommended alternative – COV-2 Pedestrian Refuge Islands at Coventry Drive and COV-7 Signal at 84th Avenue include:

- Support for this alternative.
 - Statement that re-grading Elmore Road near Coventry Drive is necessary to make this alternative work.
- Opposition to this alternative.
 - Concern that adding a signal to Elmore Road will make it too slow for through traffic, like Lake Otis.
- Opposition to limiting Jupiter Drive to right-in-right-out.
 - Desire to make a southbound left turn from Elmore Road to Jupiter Drive.
 - Desire to make westbound left turn from Jupiter Drive to Elmore Road.
 - Concerns about increased traffic at Mars Drive.
 - Concerns about increased traffic on Jupiter Drive.
 - Assertion that it benefits residents west of Elmore Road to the detriment of those living east of Elmore Road.
 - Assertion that it will make driving to Service High School in the morning peak very difficult – it is difficult to turn left from Mars Drive in the morning due to traffic backing up from the signal at Abbott Road and it is difficult to turn left from Jupiter onto Abbott due to the heavy traffic traveling both directions on Abbott Road.
- Concern that signal should be placed at Coventry Drive, rather than at 84th Avenue for the following reasons:
 - Assertion that sight distance is limited at Coventry Drive.
 - Assertion that heavy volumes from Abbott Loop Community Park will need a signal.
 - Assertion that pedestrians crossing Elmore Road to access the Abbott Loop Community Park will not walk to 84th Avenue to cross at the light there and the pedestrian refuge islands will not adequately serve the pedestrians at Coventry Drive.
 - Assertion that during the winter, the gravel path on the west side of Elmore Road isn't maintained, so it will be difficult to walk from the park driveway at Coventry Drive to 84th Avenue to use the signal to cross Elmore Road.
 - Assertion that if the signal were located at Coventry, it would not be necessary to limit access to Jupiter Drive to right-in-right-out.
- Concern that the pedestrian refuge islands will not adequately provide refuge for pedestrians.
 - Suggestion to widen the islands to fit a bicycle with a child trailer behind it.

- Suggestion to lengthen the islands to fit a greater volume of bicycle/pedestrian traffic.
- Suggestion to add flashing signals to warn drivers of pedestrians on the island.
- Concern that children will not be able to cross safely.
- Concern for safety of pedestrians crossing Elmore at Coventry when through vehicles go around left turning vehicles and there are pedestrians present.
- Concern that the pedestrian refuge island will make snow plowing difficult.
- Suggestion to use signage to encourage drivers to use 84th Avenue instead of Coventry Drive.
- Suggestion that the park driveway be relocated to line up with 84th Avenue.
- Suggestion to build parallel lefts between 84th Avenue and Jupiter Drive.

Comments related to alternatives that were considered and dismissed include:

- Support for a roundabout.
- Support for a marked crosswalk at 84th Avenue.
- Support for signaling both Jupiter Drive and 84th Avenue.

Suggestions for other alternatives to consider include:

- Placing a signal at the intersection of Abbott Road and Jupiter Drive.
- Building a pedestrian overpass over Elmore Road.

This is a long-term planning-level study that can be used to pursue funding for future projects and to prioritize projects. Once funding has been identified for improvements at any of these intersections, the project will enter the environmental and preliminary design stage. The preliminary engineering will include updating the traffic and crash analyses using the most up-to-date data and re-evaluating the alternatives. The environmental process will consider other factors that influence the recommended engineering alternative, including social and environmental costs. The public involvement process will continue throughout the preliminary design, final design, and construction process. Public comments submitted during this Reconnaissance Engineering phase remain part of the project record and will be considered further during the next phase of project development.