North Rd./Urban St. Intersection All-Way Stop Evaluation

Incorporated County of Los Alamos

Transportation Board Meeting

June 4, 2026

BACKGROUND

- March 15, 2026, Pedestrian Fatality Crash at intersection
- March 25, 2026, Citizen Petition submitted to consider making intersection 4-way stop (aka All-Way Stop)
- April 7, 2026, Council Meeting, staff directed to investigate, research and return with a recommendation within 90-days
- Data Collection & Analysis has been completed
- Recommendation Finalized ready for implementation
- Present Recommendations to Transportation Board on June 4, 2026
- Present Recommendations to Council on June 23, 2026

EXISTING CONDITIONS - Intersection

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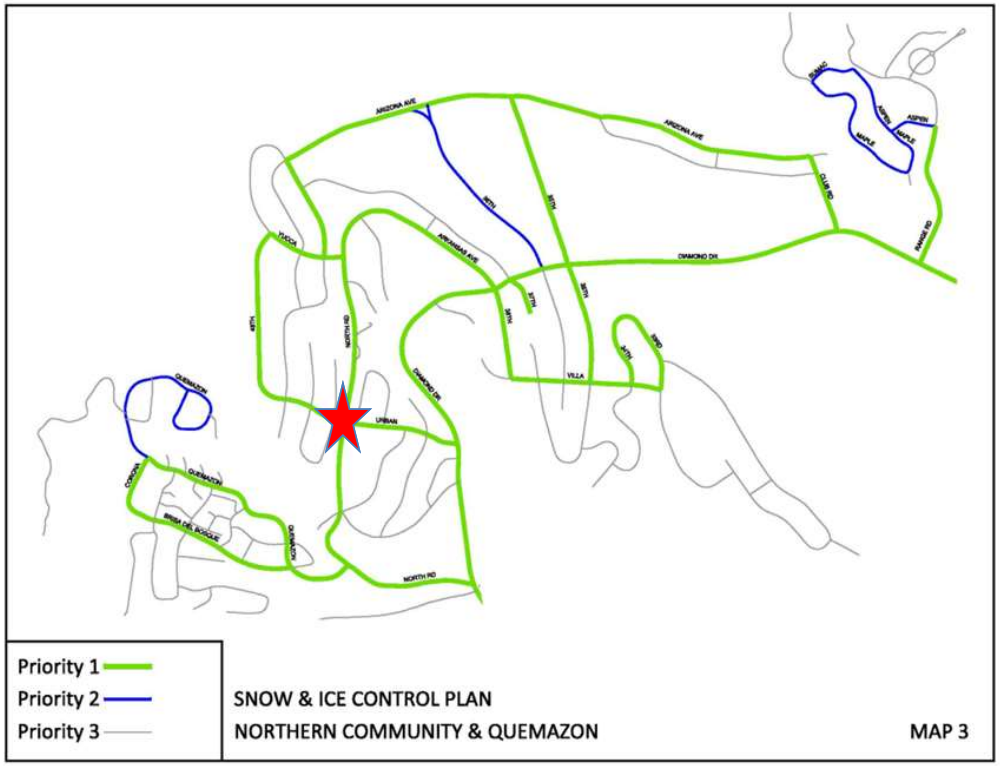
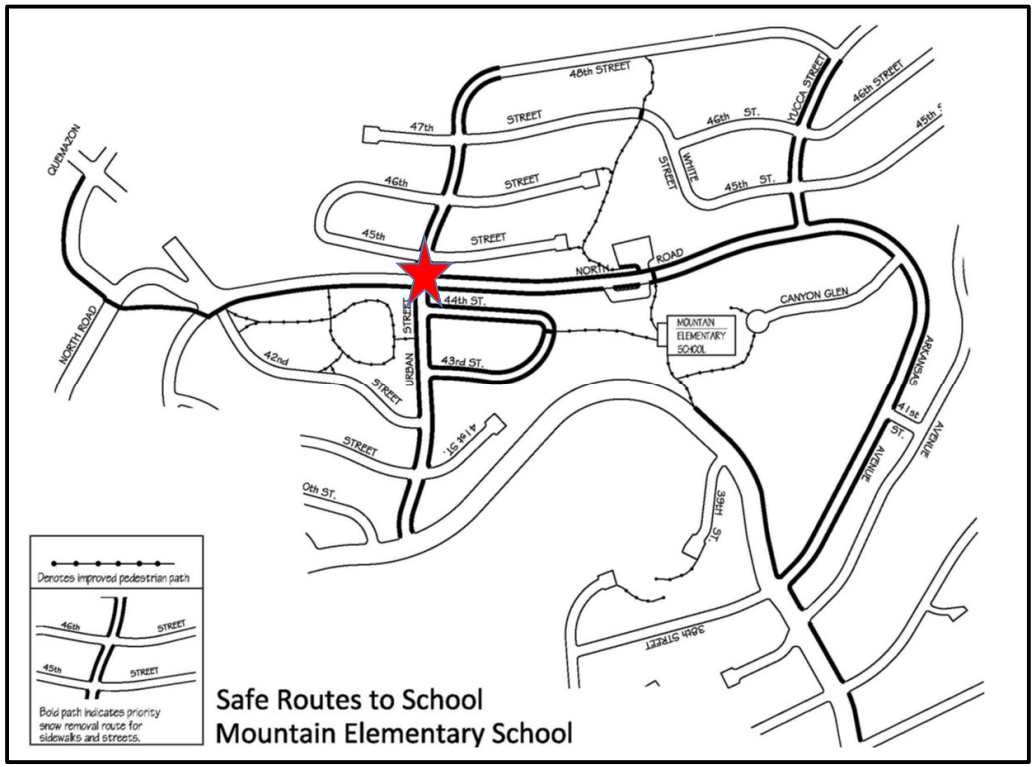
EXISTING CONDITIONS – Bus Service

EXISTING CONDITIONS – Snow & Ice Control



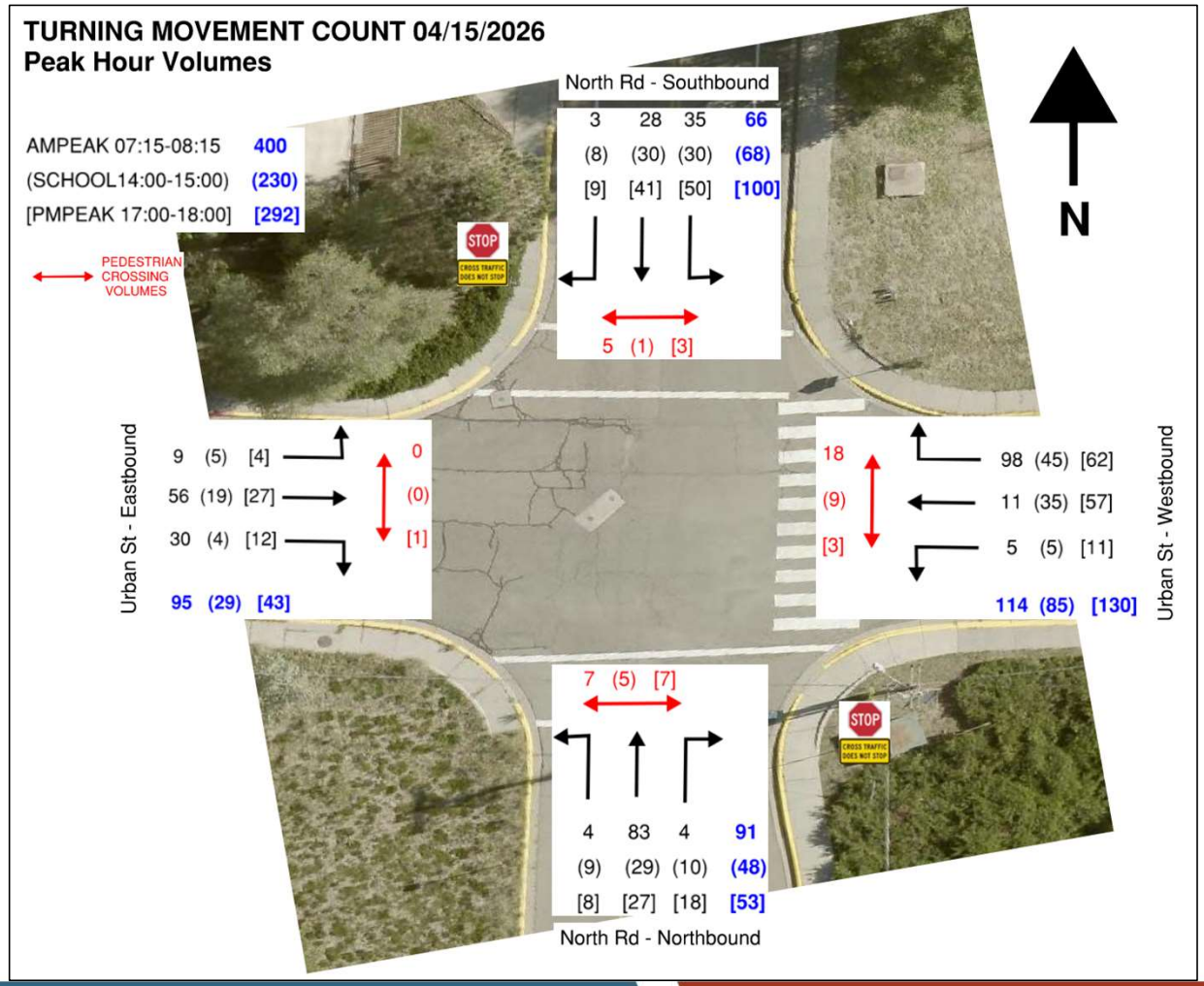
Source: 2026 Snow & Ice Control Plan



Source: 2026 Snow & Ice Control Plan

★ Urban St/North Rd Intersection

EXISTING CONDITIONS – Traffic Volumes



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EXISTING CONDITIONS – Crash History

Collision Diagram

	Jurisdiction: LOS ALAMOS COUNTY
Location Description: URBAN STREET @ NORTH ROAD	**Period From:** January 1, 2019
	Period To: March 31, 2026

Crash Summary
8 Crashes Total
1 Fatal (Pedestrian)
3 Injury
4 Property Damage Only

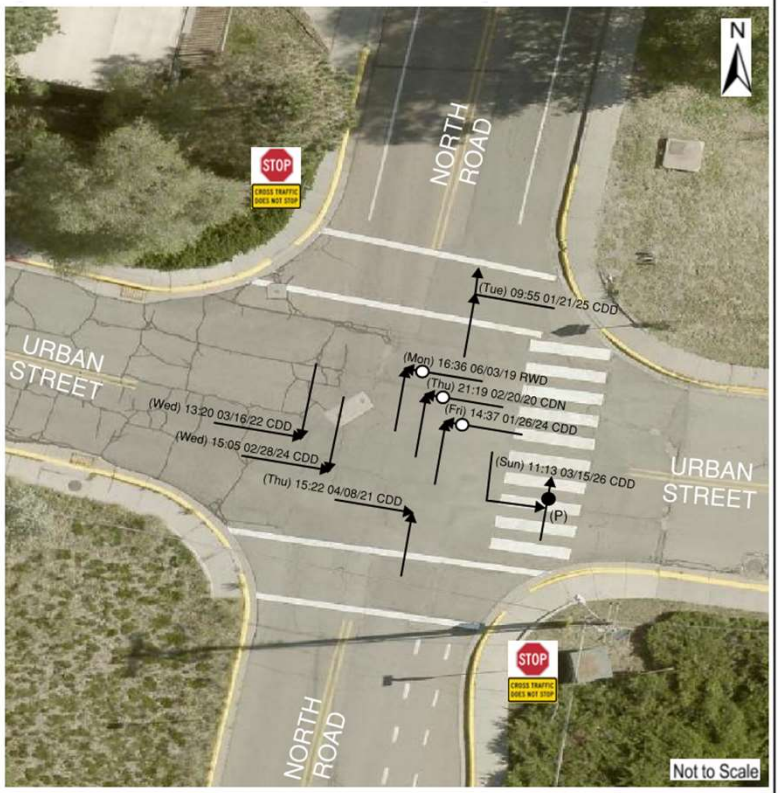
Crash Time
2019 = 1 (Jun, Mon, 16:36)
2020 = 1 (Feb, Thu, 21:19)
2021 = 1 (Apr, Thu, 15:22)
2022 = 1 (Mar, Wed, 13:20)
2023 = 0
2024 = 2 (Jan, Fri, 14:37)
(Feb, Wed, 15:05)
2025 = 1 (Jan, Tue, 09:55)
2026 = 1 (Mar, Sun, 11:13)

Weather
7 Clear
1 Rain

Road Conditions
7 Dry
1 Wet

Light Conditions
7 Daylight
1 Dark

Citations
7 Stop Sign Violations
1 TBD



Key to Symbols			
Vehicle Type	**Collision Type**	**Environment Condition**	* Avoidance of Animal
→ Automobile	→| Rear-end	C Clear	
(T)→ Truck	↱ Turning Movement	R Rain	
(B)→ Bus	→□ Fixed Object	S Snow	
(C)→ Bicycle	→A Animal	F Fog	
(P)→ Pedestrian	↯ Out of Control	**Road Surface Condition**	(Mon) 18:00 07/13/07 CDD (weekday); time; month/day/year environment; road surface; lighting
Vehicle Movement	↗ Angle	D Dry	
↖ Left	↗ Sideswipe (same direction)	W Wet	
→ Straight		S Snow	
↘ Right	↙ Sideswipe (opposite direction)	I Ice	
↔ Reversing		**Light Condition**	
Traffic Control	**Crash Severity**	D Daylight	
Stop Sign	→| Property Damage Only	A Dawn/Dusk	
Traffic Signal	→○→ Non-Fatal Injury	N Dark	
	→●→ Fatality	L Streetlight	

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EXISTING CONDITIONS – Speed Data

EXISTING CONDITIONS – Sight Distance

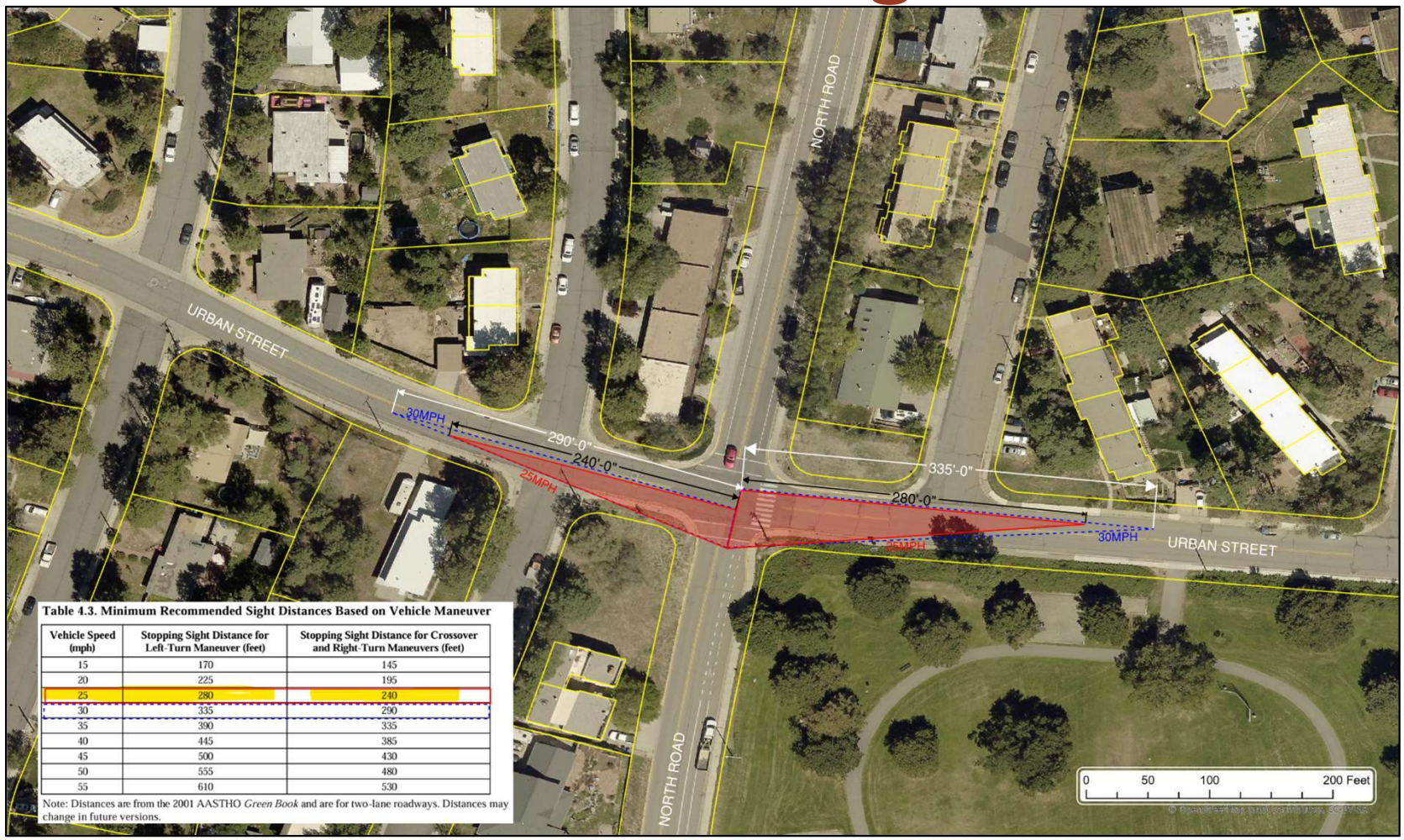

Table 4.3. Minimum Recommended Sight Distances Based on Vehicle Maneuver

Vehicle Speed (mph)	Stopping Sight Distance for Left-Turn Maneuver (feet)	Stopping Sight Distance for Crossover and Right-Turn Maneuvers (feet)
15	170	145
20	225	195
25	280	240
30	335	290
35	390	335
40	445	385
45	500	430
50	555	480
55	610	530

Note: Distances are from the 2001 AASTHO *Green Book* and are for two-lane roadways. Distances may change in future versions.

EXISTING CONDITIONS – Sight Distance

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EVALUATION – MUTCD Warrants

Section 2B.12 All-Way Stop Control

Support:

01 The provisions in the following sections describe warrants for the recommended engineering study to determine all-way stop control. Warrants are not a substitute for engineering judgment. The fact that a warrant for a particular traffic control device is met is not conclusive justification to install or not install all-way stop control. Because each intersection will have unique characteristics that affect its operational performance or safety, it is the engineering study for a given intersection that is ultimately the basis for a decision to install or not install all-way stop control.

02 All-way stop controls at intersections with substantially differing approach volumes can reduce the effectiveness of these devices for all roadway users.

Guidance:

03 *The decision to establish all-way stop control at an unsignalized intersection should be based on an engineering study. The engineering study for all-way stop control should include an analysis of factors related to the existing operation and safety at the intersection, the potential to improve these conditions, and the applicable factors contained in the following all-way stop control warrants:*

- *A. All-Way Stop Control Warrant A: Crash Experience (see Section 2B.13)*
- *B. All-Way Stop Control Warrant B: Sight Distance (see Section 2B.14)*
- *C. All-Way Stop Control Warrant C: Transition to Signal Control or Transition to Yield Control at a Circular Intersection (see Section 2B.15)*
- *D. All-Way Stop Control Warrant D: 8-Hour Volume (Vehicles, Pedestrians, Bicycles) (see Section 2B.16)*
- *E. All-Way Stop Control Warrant E: Other Factors (see Section 2B.17)*

Option:

04 The decision to install all-way stop control on site roadways open to public travel may be based on engineering judgment.

Standard:

05 **The satisfaction of an all-way stop control warrant or warrants shall not in itself require the installation of all-way stop control at an unsignalized intersection.**

Source: Manual on Uniform Traffic Control Devices (MUTCD), 11th Edition

EVALUATION – MUTCD Warrant A

Section 2B.13 All-Way Stop Control Warrant A: Crash Experience

Option:

01 All-way stop control may be installed at an intersection where an engineering study indicates that:

A. For a four-leg intersection, there are five or more reported crashes in a 12-month period or six or more reported crashes in a 36-month period that were of a type susceptible to correction by the installation of all-way stop control.

B. For a three-leg intersection, there are four or more reported crashes in a 12-month period or five or more reported crashes in a 36-month period that were of a type susceptible to correction by the installation of all-way stop control.

8 Crashes Reported in 7.25 Years
1 Crash in latest 12-month period
4 Crashes in latest 36-month period
(Note: Majority of crash types are susceptible to correction by the installation of all-way stop.)

WARRANT NOT MET

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EVALUATION – MUTCD Warrant B

Section 2B.14 All-Way Stop Control Warrant B: Sight Distance

Option:

01 All-way stop control may be installed at an intersection where an engineering study indicates that sight distance on the minor-road approaches controlled by a STOP sign is not adequate for a vehicle to turn onto or cross the major (uncontrolled) road.

Support:

02 At such a location, a road user, after stopping, cannot see conflicting traffic and is not able to negotiate the intersection unless conflicting cross traffic is also required to stop.

Sight Distance on North Road southbound approach is met for 25MPH Speed Limit, but at 85th percentile Speed of 27MPH sight line would be right on the edge of a large tree.

WARRANT COULD BE MET based on Engineering Judgement

EVALUATION – MUTCD Warrant C

Section 2B.15 All-Way Stop Control Warrant C: Transition to Signal Control or Transition to Yield Control at a Circular Intersection

Option:

01 All-way stop control may be installed at locations where all-way stop control is an interim measure that can be installed to control traffic while arrangements are being made for the installation of a traffic control signal (see Chapter 4C) at the intersection or for the installation of yield control at a circular intersection.

Current Traffic Operations do not necessitate the installation of a traffic signal or circular intersection (roundabout)

WARRANT NOT MET

EVALUATION – MUTCD Warrant D

Section 2B.16 All-Way Stop Control Warrant D: 8-Hour Volume (Vehicles, Pedestrians, Bicycles)

Option:

01 All-way stop control may be installed at an intersection where an engineering study indicates:

A. The combined motor vehicle, bicycle, and pedestrian volume entering the intersection from the major-street approaches is at least 300 units per hour for each of any 8 hours of a typical day; and

B. The combined motor vehicle, bicycle, and pedestrian volume entering the intersection from the minor-street approaches is at least 200 units per hour for each of any of the same 8 hours.

02 If the 85th-percentile approach speed of the major-street traffic exceeds 40 mph, the minimum vehicular volume warrants may be reduced to 70 percent of the values given in Items A and B in Paragraph 1 of this Section.

No hours of the day exceed 300 vehicles per hour from the major-street (Urban Street) approaches

No hours of the day exceed 200 vehicles per hour from the minor–street (North Road) approaches

WARRANT NOT MET

EVALUATION – MUTCD Warrant E

Section 2B.17 All-Way Stop Control Warrant E: Other Factors

Option:

01 All-way stop control may be installed at an intersection where an engineering study indicates that all-way stop control is needed due to other factors not addressed in the other all-way stop control warrants. Such other factors may include, but are not limited to, the following:

A. The need to control left-turn conflicts,
B. An intersection of two residential neighborhood collector (through) streets of similar design and operating characteristics where all-way stop control would improve traffic operational characteristics of the intersection, or
C. Where pedestrian and/or bicyclist movements support the installation of all-way stop control.

North Road and Urban Street act as collector street and are of similar design and operating characteristics

WARRANT COULD BE MET under Item B

EVALUATION – MUTCD Warrant Summary

- Warrant A: Crash Experience – NOT MET
- Warrant B: Sight Distance – COULD BE MET
- Warrant C: Transition to Signal or Roundabout – NOT MET
- Warrant D: 8-Hour Volumes – NOT MET
- Warrant E: Other Factors – COULD BE MET

Based on Warrants B and E and Engineering Judgement Installation of All-Way Stop Control can be considered at this intersection.

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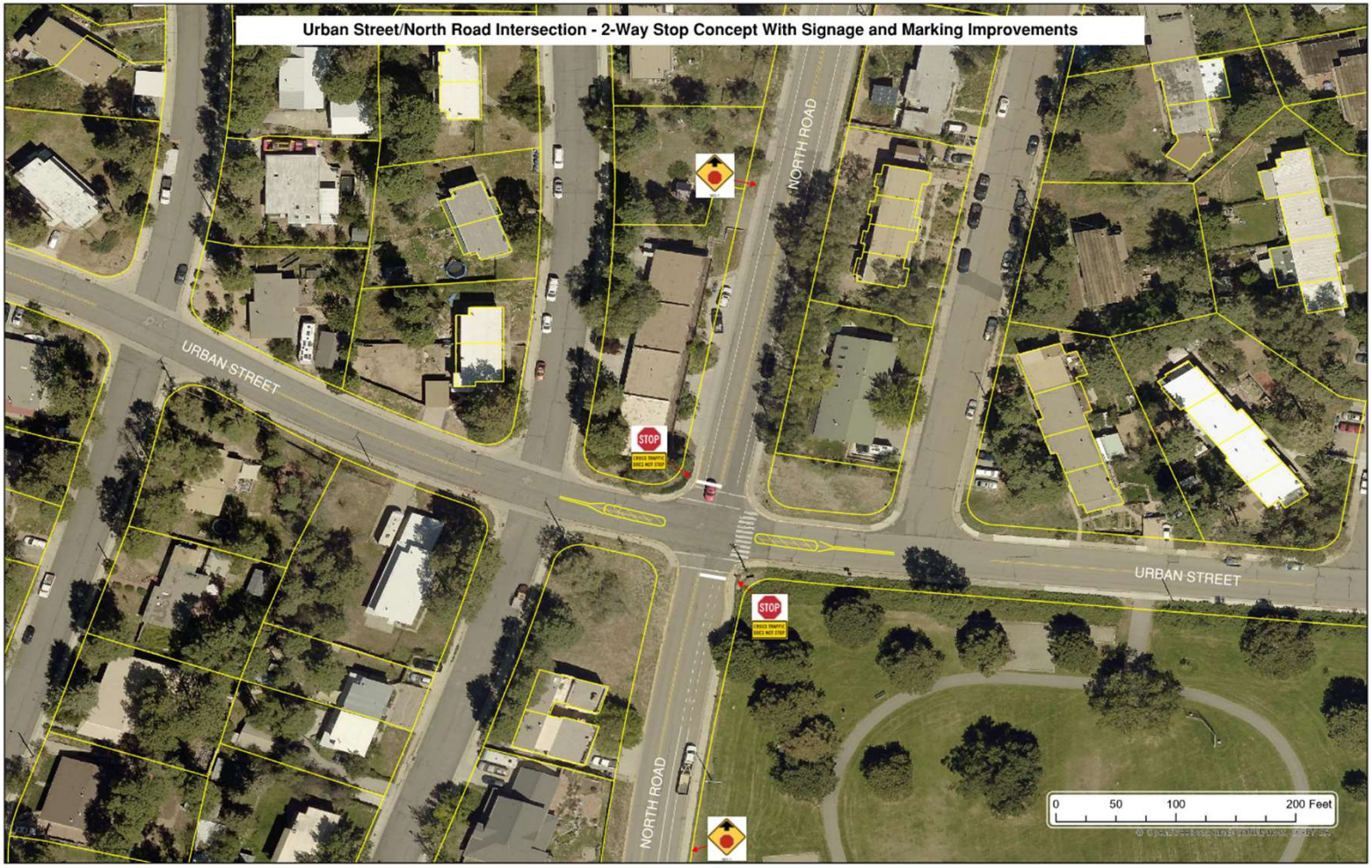
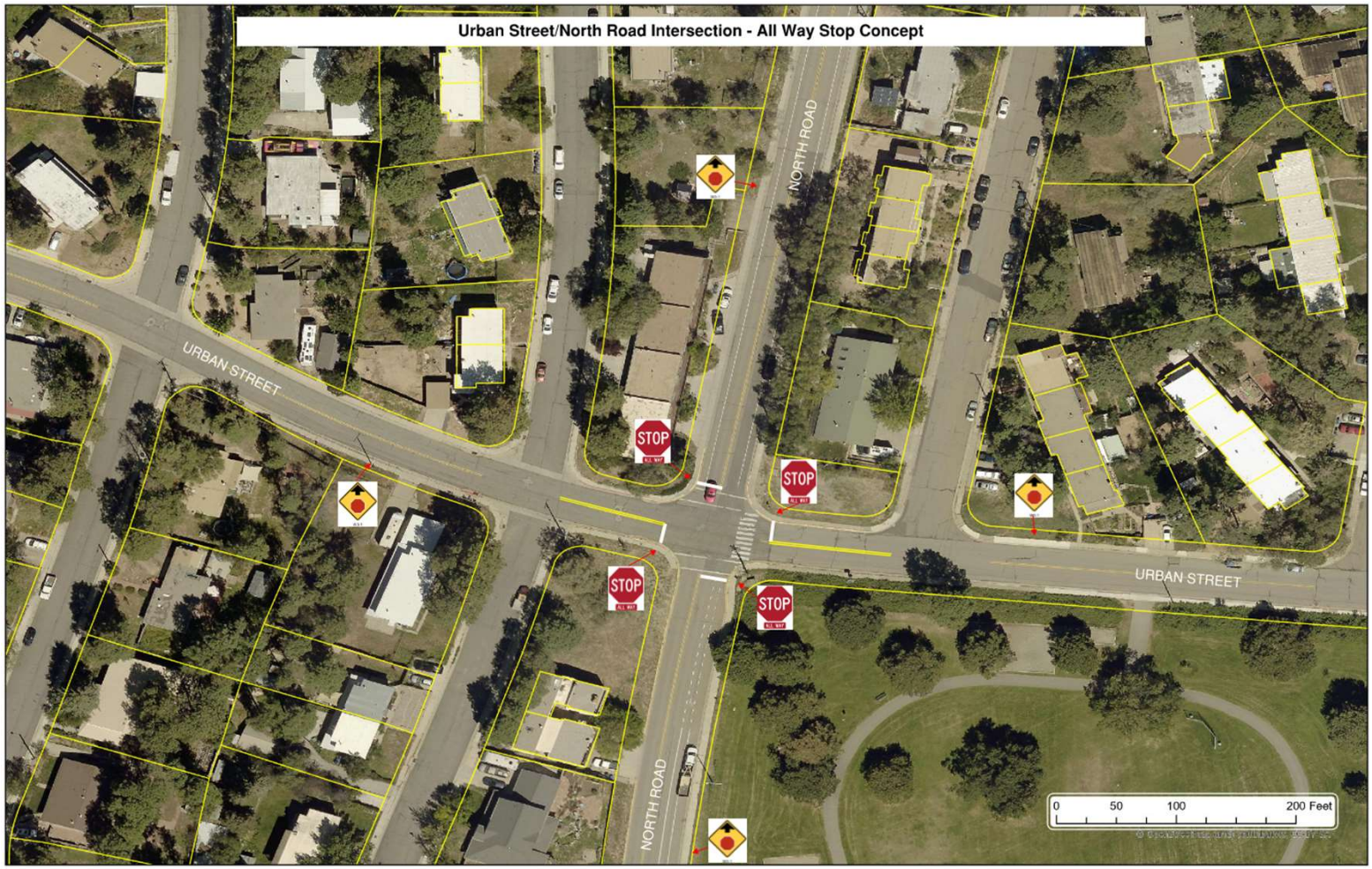
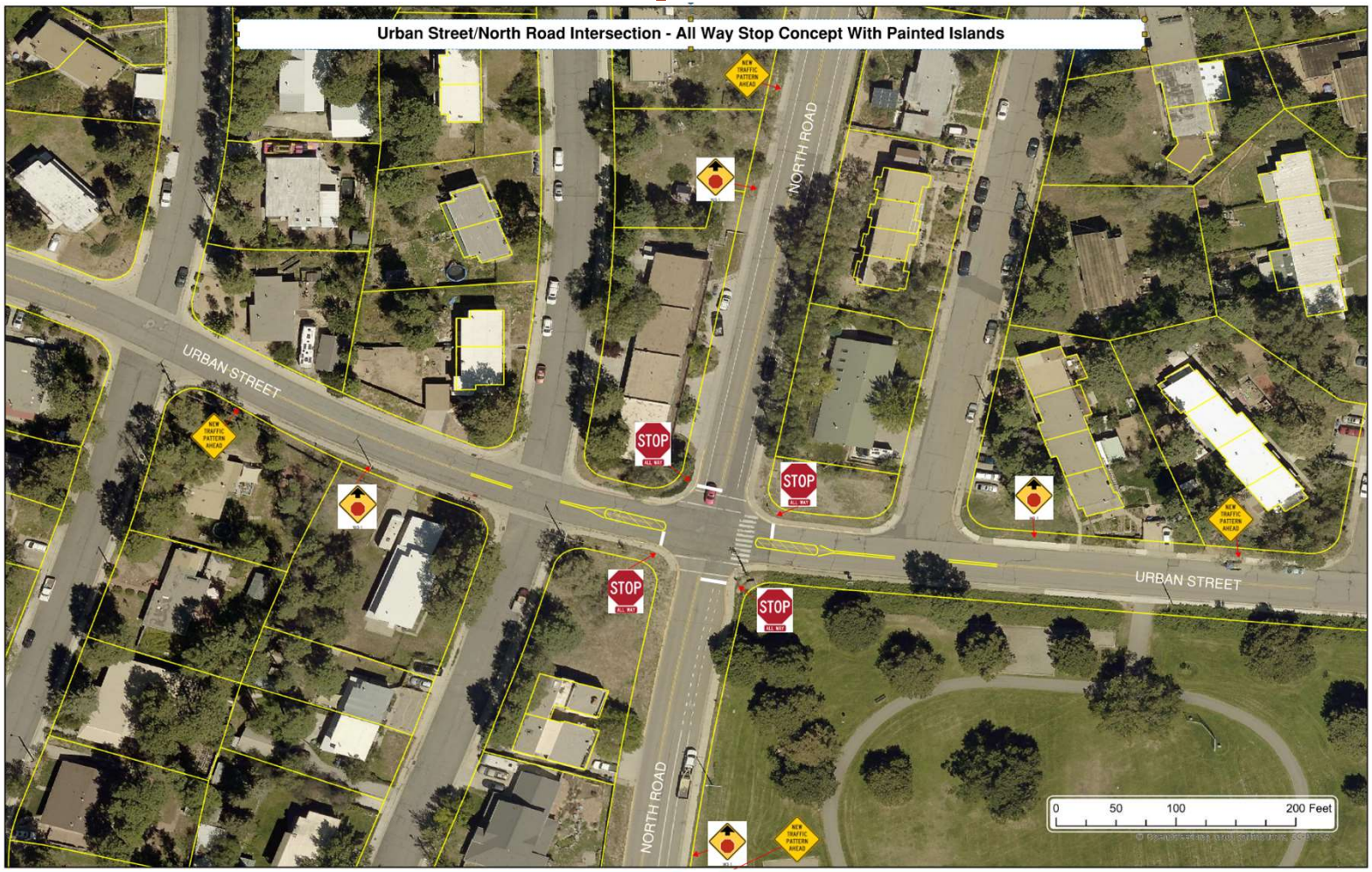
EVALUATION – Concepts Considered



EVALUATION – Concepts Considered



EVALUATION – Concept Recommended



NEXT STEPS

- Public Works crews are moving forward to implement the recommended concept within the next 2 weeks.
- Working with the University of Nevada, Reno to collect data with LiDAR Sensors to produce a variety of traffic and safety metrics. Urban/North Intersection is being used to test the system. Depending on the results Los Alamos County may start utilizing LiDAR for traffic and safety studies.

Questions?