

CITY OF SANTA ROSA
CITY COUNCIL

TO: MAYOR AND CITY COUNCIL
SUBJECT: SPEED LIMITS ON HOEN FRONTAGE ROAD, HIDDEN VALLEY DRIVE, AND RANGE AVENUE
STAFF PRESENTER: MICHAEL A. VANMIDDE, ASSISTANT ENGINEER TRANSPORTATION AND PUBLIC WORKS
AGENDA ACTION: RESOLUTION

ISSUE(S)

Shall the Council pass a resolution establishing radar enforceable speed limits on segments of Hoen Frontage Road between Farmers Lane and Hoen Avenue, Hidden Valley Drive between Parsons Drive and Chanate Road, and Range Avenue between West Steele Lane and Russell Avenue?

BACKGROUND

1. This item is updating the segment limits on the engineering and traffic surveys for Hidden Valley Drive and Range Avenue while maintaining the current speed limits. The speed limit is being lowered on Hoen Frontage Road.
2. The basic intent of speed zoning is to influence drivers to operate at or near the same speed, thus reducing conflicts created by differentials in operating speeds. The California Vehicle Code reflects the viewpoint that speed zoning should be based on traffic conditions and natural driving behavior.
3. The Basic Speed Law states, "No person shall drive a vehicle upon a highway at a speed greater than is reasonable or prudent having due regard for weather, visibility, the traffic on, and the surface and width of, the highway, and in no event at a speed which endangers the safety of persons or property" (California Vehicle Code Section 22350). The law is founded on the belief that most motorists are able to modify their driving behavior properly, as long as they are aware of the conditions around them.
4. California Vehicle Code Sections 22357 and 22358 permit local authorities to set intermediate speed limits between 25 miles per hour and 65 miles per hour on the basis of an engineering and traffic survey. These intermediate speed limits must be posted to clearly define the limits of the zone and the prima facie speed established.

5. Section 40802 of the California Vehicle Code permits the use of radar for speed enforcement where the speed limit is justified by an engineering and traffic survey.
6. An engineering and traffic survey is defined in California Vehicle Code Section 627 as “a survey of highway and traffic conditions in accordance with methods determined by the Department of Transportation for use by state and local authorities.” An engineering and traffic survey shall include consideration of prevailing speeds, as determined by traffic engineering measurements, accident records, and highway, traffic and roadside conditions not readily apparent to a driver. Local authorities may also consider residential density and pedestrian and bicyclist safety when conducting an engineering and traffic survey.
7. The California Manual of Uniform Traffic Control Devices provides the methodology for conducting an engineering and traffic survey. Speeds are established at the nearest 5-mile-per-hour increment of the 85th-percentile speed of free flowing traffic, which is defined as that speed at or below which 85% of the traffic is moving. Other factors to be considered include collision history, roadway design speed, safe stopping distance, superelevation, shoulder conditions, profile conditions, intersection spacing and offsets, commercial driveway characteristics and pedestrian traffic in the roadway without sidewalks. The posted speed may be reduced by 5 miles per hour from the nearest 85th-percentile speed where engineering study indicates the need for a reduction in speed to match existing conditions with the traffic safety needs of the community.

ANALYSIS

1. Hoen Frontage Road is classified as a minor arterial street on the latest Federal Highway Administration (FHWA) Functional Classification System map. Hidden Valley Drive and Range Avenue are classified as major collector streets on the latest FHWA Functional Classification System map. As such, when speed limits are established on these streets, radar speed enforcement can be used.
2. Engineering and traffic surveys were completed on each segment for the purpose of establishing a radar enforceable speed limit. The following gives a summary of those results:

Hoen Frontage Road between Farmers Lane and Hoen Avenue

Existing Speed Limit:	40 mph
85th-percentile speed:	39 mph
50th-percentile speed:	34 mph
Number of lanes:	2 travel lanes
Daily traffic volume:	21,807 vehicles per day
Area Type:	Residential/Commercial

Speed Limits on Hoen Frontage Road, Hidden Valley Drive, and Range Avenue

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Special Circumstances: There are no special circumstances.
Proposed Speed Limit: 35 mph
Comments: Hoen Frontage Road is a two-lane minor arterial street. The collision rate is lower than the statewide average for similar streets. The speed limit was rounded down from the nearest 85th-percentile speed in accordance with California Vehicle Code Section 21400 (b).

Hidden Valley Drive between Parsons Drive and Chanate Road

Existing Speed Limit: 25 mph
85th-percentile speed: 31 mph
50th-percentile speed: 27 mph
Number of lanes: 2 travel lanes
Daily traffic volume: 1,581 vehicles per day
Area Type: Residential
Special Circumstances: Hidden Valley Drive is located in a residence district as defined in Section 515 of the California Vehicle Code.
Proposed Speed Limit: 25 mph
Comments: Hidden Valley Drive is a fully developed major collector street. There are horizontal and vertical curves throughout that limit sight distance. Residential driveways require vehicles to back into the roadway. The survey extends the limits from Northwood Drive to Parsons Drive at the south end and from Meadow Glen Drive to Chanate Road at the north end.

Range Avenue between West Steele Lane and Russell Avenue

Existing Speed Limit: 40 mph
85th-percentile speed: 42 mph
50th-percentile speed: 38 mph
Number of lanes: 2 travel lanes
Daily traffic volume: 11,691 vehicles per day
Area Type: Residential/Commercial
Special Circumstances: There are no special circumstances.
Proposed Speed Limit: 40 mph
Comments: The survey updates the limits from West Steele to Russell Avenue. The collision rate is lower than the statewide average for similar streets. The results of the radar speed survey indicate that a speed limit of 40 mph is reasonable and safe.

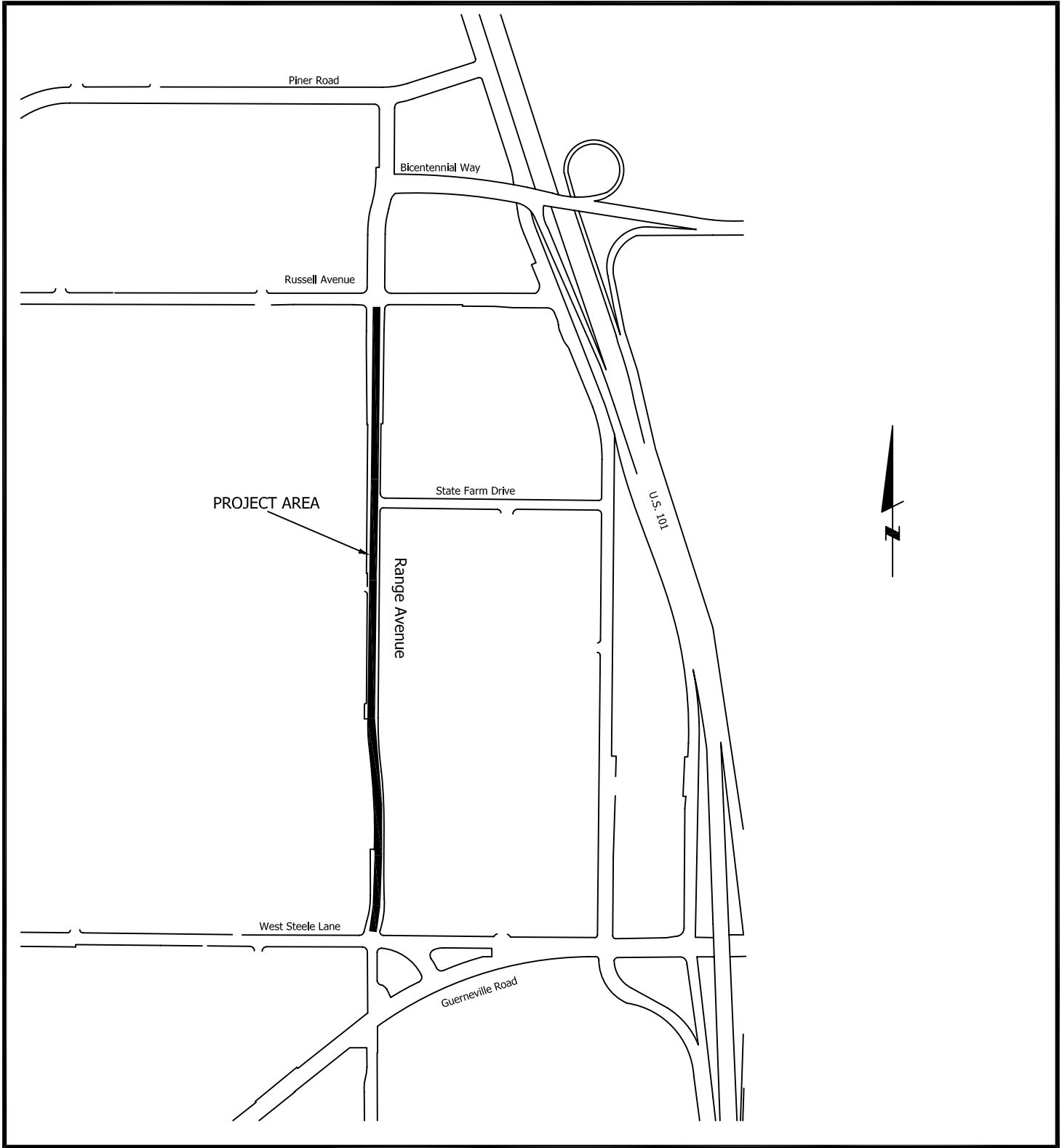
RECOMMENDATION

It is recommended by the Transportation and Public Works Department that the Council, by resolution, establish radar enforceable speed limits of 35 mph for Hoen Frontage Road between Farmers Lane and Hoen Avenue; 25 mph for Hidden Valley Drive between Parsons Drive and Chanate Road; and 40 mph for Range Avenue between West Steele Lane and Russell Avenue.

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Attachments:

- Vicinity Maps



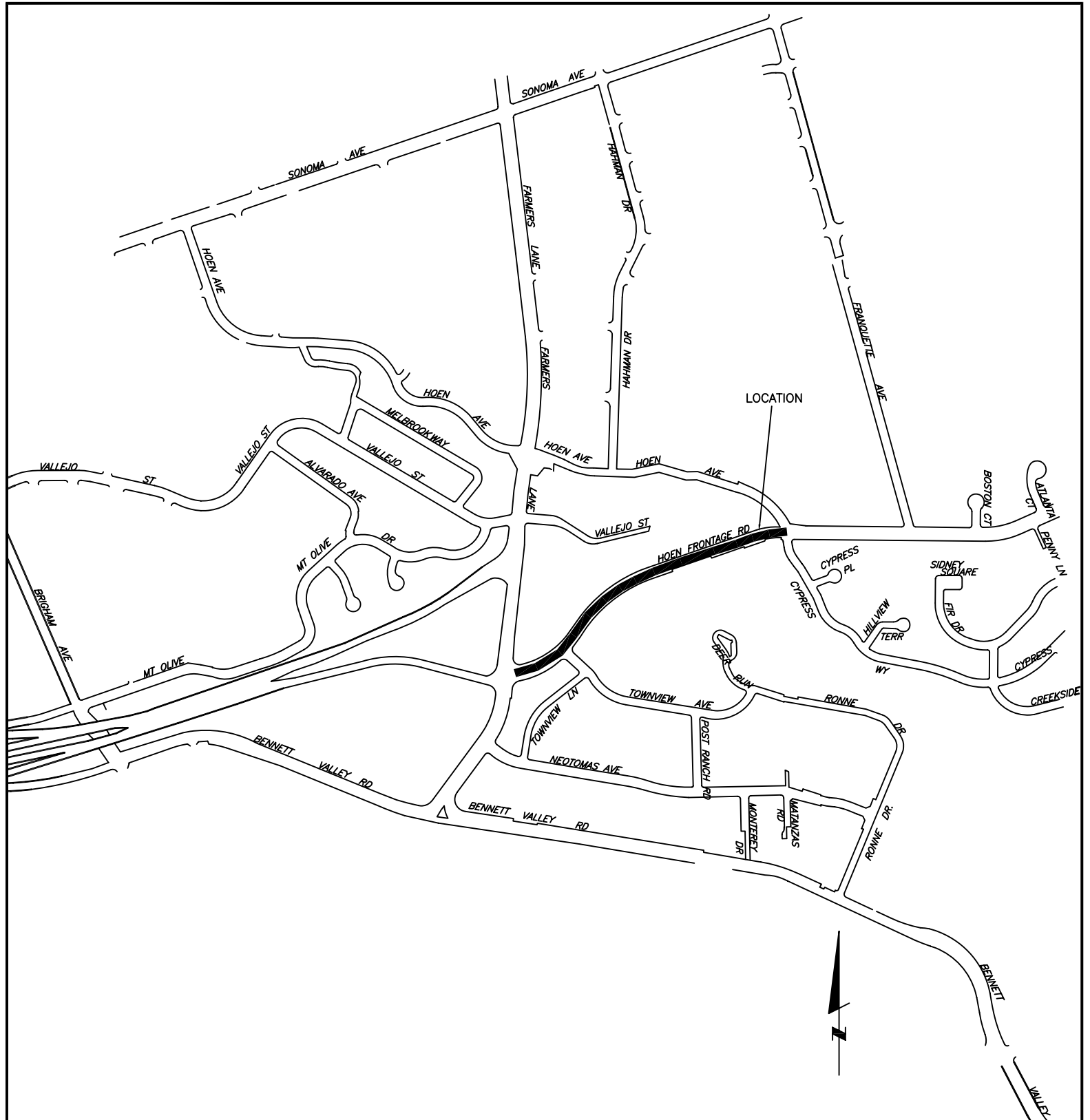
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VICINITY MAP OF
RANGE AVENUE, FROM
WEST STEELE LANE TO RUSSELL AVENUE

Scale: NTS

Date: Nov 2012

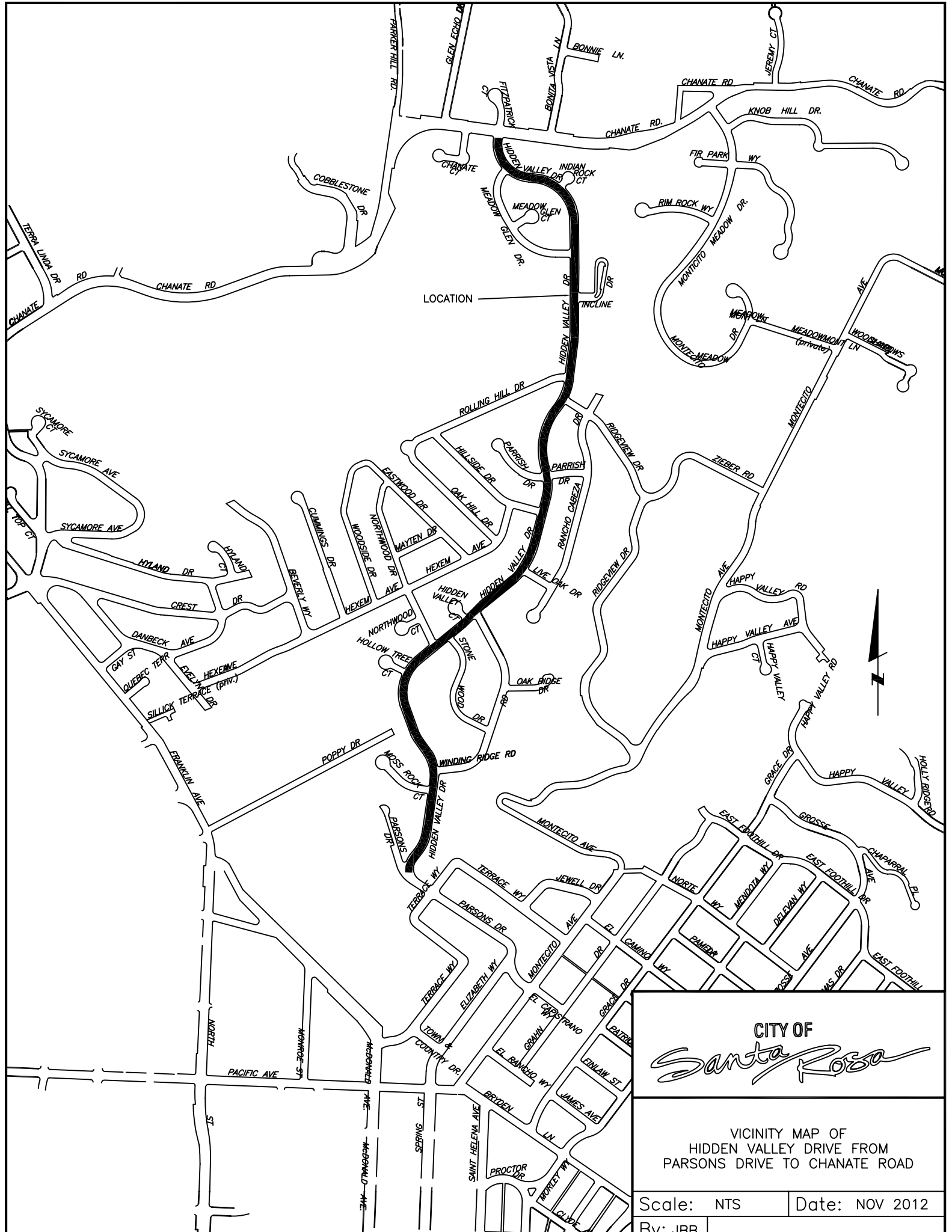
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VICINITY MAP OF
 HOEN FRONTAGE ROAD
 FARMERS LANE TO HOEN AVENUE

Scale: NTS	Date: Oct 2012
By: JBB	



LOCATION

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VICINITY MAP OF
 HIDDEN VALLEY DRIVE FROM
 PARSONS DRIVE TO CHANATE ROAD

Scale: NTS	Date: NOV 2012
By: JBB	