



# MEMORANDUM

Date: October 12, 2023

To: The Honorable Chair and Members  
Pima County Board of Supervisors

From: Jan Leshner   
County Administrator

Re: **Additional Information on October 17, 2023 Agenda Item #55 – P23SP00001 N. Thornydale Road Specific Plan and Comprehensive Plan Amendment**

The referenced item is on the October 17, 2023, Board of Supervisors Agenda. The Planning & Zoning Commission has considered the request and recommended approval subject to conditions on an 8-1 vote. Based on the concerns expressed related to this proposal, the Regional Flood Control District (RFCD) and Pima County Department of Transportation (PCDOT) have provided additional information.

The attached memorandum from Eric Shepp, RFCD Director, outlines the existing conditions of the floodplain and riparian areas and the effects of the proposed development (Attachment 1). The memorandum concludes that the proposed development meets mitigation and flood standards, does not cause adverse impact to others and avoids disturbance of riparian habitat other than a bridge crossing.

Kathryn Skinner, PCDOT Director, also provided a memorandum covering the history of Thornydale Road, traffic conditions and volume, crash history, and conditions that the project will be subject to if approved (Attachment 2). The required improvements include installation of two multi-use paths along adjacent roadways and construction of a northbound turn lane at the project’s entrance on Thornydale Road as a means of mitigating traffic impacts associated with the project.

JKL/anc

Attachments


- c: Carmine DeBonis, Jr., Deputy County Administrator
- Francisco García, MD, MPH, Deputy County Administrator and Chief Medical Officer
- Steve Holmes, Deputy County Administrator
- Carla Blackwell, Director, Development Services Department
- Eric Shepp, Director, Regional Flood Control District
- Kathryn Skinner, Director, Department of Transportation

OCT 12 2023 PM 03:29 PCDOT/CLK/DFB

# ATTACHMENT 1

**DATE:** October 10, 2023

**TO:** Jan Leshner  
County Administrator

**FROM:** Eric Shepp, P.E.   
Director

**SUBJECT: Thornydale-Sumter Canyon Specific Plan – Floodplain and Riparian Habitat Information**

On August 30, 2023, the Planning and Zoning Commission Hearing (Commission) approved the Thornydale-Sumter Specific Plan on an 8-1 vote. As part of the discussion during that agenda item, nearby residents commented on floodplain and riparian area concerns in their attempt to reduce the footprint of or stop the development proposal from proceeding. Notwithstanding the Commission's 8-1 vote to recommend approval of the Specific Plan, the Regional Flood Control District (District) anticipates that the nearby residents will comment to the Board of Supervisors with similar concerns. This memorandum is intended to provide information regarding the flood risks and the disturbance and mitigation of regulated riparian habitat.

#### **FLOOD HAZARDS**

The Thornydale-Sumter project site is located within North Ranch Wash watershed and is impacted by a federally designated Special Flood Hazard Area (SFHA), Zone A. This Zone A floodplain is considered an approximate floodplain, and this portion of the watercourse has never been studied in a detailed manner. As part of the development process, the applicant is obligated to perform the necessary detailed study and delineate a more accurate 100-year floodplain. This delineation will be subject to the review and approval of both the District and FEMA.

In 2019, the District completed a detailed study of the northern portion of the watershed ending north of the North Ranch subdivision. This detailed study was approved by FEMA and revised SFHAs became effective in 2021. This Specific Plan references and utilizes the information from the District's detailed study. Based on this information, which will require review and approval from the District and FEMA prior to the authorization of any development, the floodplain footprint shrinks considerably. This development essentially avoids the newly delineated floodplains with only nominal encroachment associated with the proposed road crossing. The Specific Plan states that a bottomless arch culvert is proposed which will minimize flow obstruction as well as allow for safe passage of small/medium wildlife.

With respect to downstream concerns, the subdivision to the south has set aside the floodplain as open space and no additional impacts are anticipated. To ensure that the increased runoff from the proposed development does not cause adverse drainage conditions, the District requires that the first 0.5 inches of rainfall is retained onsite. This rainfall depth represents the 85th percentile storm, meaning that 85% of all daily rainfall events are less than 0.5 inches. This will significantly limit the frequency of discharges from the development. The District has agreed that it is likely that the requirement for detention can be waived. The reasoning for this is related to the timing of the peak flood of the North Ranch Wash relative to the timing of the peak flows from the subject property. Due to the anticipated length of time for peak flows from North Ranch Wash to arrive to the area, it is sometimes better to not detain onsite flows which could exacerbate that peak. This issue will be reviewed in detail at the time of permitting.

Jan Lesher, County Administrator

**Thornsdale-Sumter Canyon Specific Plan – Floodplain and Riparian Habitat Information**

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**RIPARIAN HABITAT**

The Thornsdale-Sumter Specific Plan project site contains mapped Important Riparian Area (IRA) with an underlying classification of Xeroriparian C habitat. The only disturbance of the IRA associated with this development is for the road crossing. That disturbance is only anticipated to be 0.08 acres, which is 3.8% of the total IRA on site. This level of disturbance is in compliance with Pima Prospers and the Floodplain Management Ordinance, which state that the goal for preservation of IRA is 95% as determined at a landscape scale. In addition, even though the disturbance falls below the mitigation threshold, the District will require that any disturbance be mitigated using values from the Riparian Habitat Mitigation Guidelines, even if the actual plant density is less.

**CONCLUSION**

The District's perspective is the development as proposed meets the federal, state, and local flood mitigation standards for this type of development and can be constructed such that it is at minimal risk of flood damage and that it does not cause an adverse impact to others. Further, the development footprint thoughtfully avoids disturbance of regulated riparian habitat other than the bridge crossing.


Please contact me if you have any questions.

ES/tj

c: Carmine DeBonis, Jr., Deputy County Administrator – Public Works

# ATTACHMENT 2

**DATE:** October 11, 2023



*Paul Casertano, AICP, for*

**TO:** Jan Leshner  
County Administrator

**FROM:** Kathryn Skinner, P.E.  
Director

**RE: Thornydale Road – Sumter Drive Specific Plan Development P23SP00001**

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This memorandum addresses concerns expressed by constituents about the safety of Thornydale Road between N. Lambert Lane and Linda Vista Boulevard and the projected increase in traffic resulting from proposed Thornydale - Sumter development. On August 30, 2023, the Pima County Planning and Zoning Commission recommended approval of P23SP00001, Thornydale - Sumter Specific Plan. To provide further context for evaluating the current development proposal and future actions, this memo reviews the history of planning and roadway investments along this corridor, current developments, and roadway conditions to this urban minor arterial.

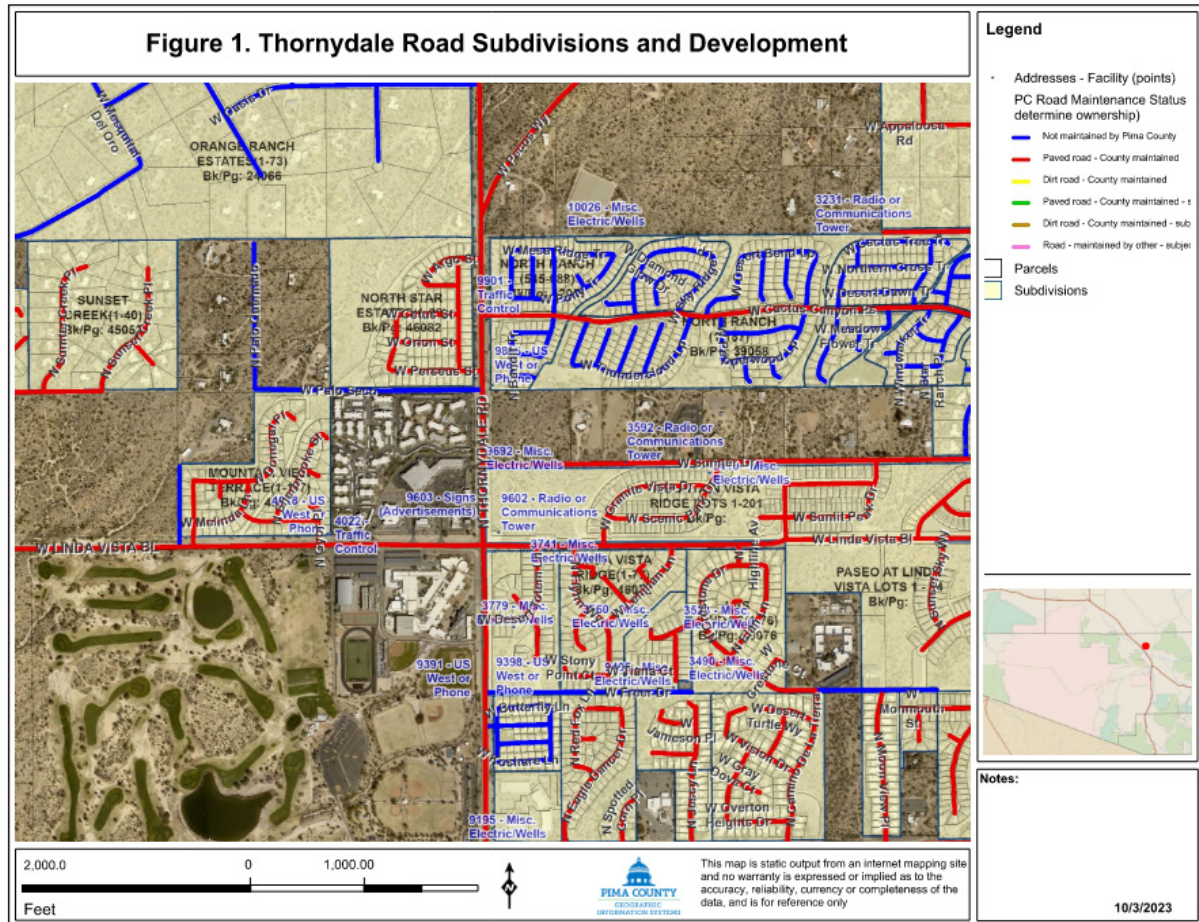
### **Thornydale Corridor**

#### *Historical Growth and Development*

Within the past 10 years, there have been several subdivisions developed along Thornydale Road from Magee Road to Lambert Lane including the Mountain Vista Ridge subdivision that consisted of 201 residential lots along Linda Vista Boulevard between Thornydale Road and Shannon Road. Construction of this subdivision and associated roadway infrastructure was completed and accepted into Pima County Department of Transportation's maintenance system on April 20, 2022. Other single family residential subdivisions were constructed south of Linda Vista as well as a commercial car wash adjacent to the intersection of Cortaro Road and Thornydale Road.

The Thornydale - Sumter specific plan (P23SP00001) boundary is bordered by the North Ranch subdivision to the north, Mountain Vista Ridge subdivision to the south, an apartment complex and a large commercial shopping center that were both developed in the late 90's across Thornydale Road to the west, and existing unsubdivided residential properties to the east (Figure 1). Mountain View High School is also located near the project site at the intersection of Thornydale Road and Linda Vista Boulevard.

Capital improvement project 4TCFLV, Thornydale Road from Cortaro Road to Linda Vista (1997 Bond) was completed in 2019. This project originally consisted of widening Thornydale Road to four lanes with auxiliary lanes and other improvements; however, due to funding constraints the project scope was reduced to the construction of a two-way left-turn lane and paved shoulders to Thornydale Road. The County has submitted the widening of Thornydale Road from Cortaro Road to Tangerine Road for inclusion in RTA Next. This project includes the expansion and modernization of the roadway to a four-lane divided cross section with bicycle and pedestrian facilities.



**Traffic Conditions**

*Functional Classification and Roadway Volumes*

Collectors in urban areas balance mobility and land access by distributing trips from arterials to local streets and conversely collecting and channeling traffic from local streets to the arterial system. Sumter Drive is a two-lane, urban minor collector bound by Thornydale Road, an urban minor arterial, to the west and Shannon Road, an urban minor arterial, to the east. There has been no significant growth in traffic volume along both Sumter Drive and Shannon Road over the past five years (See Tables 1, 2, and 2a). Thornydale Road has also seen a minimal decrease in AADT (See Table 3).

Concerns from the public regarding a recently approved project within the Town of Marana near Thornydale Road and Tangerine Road and the potential for increased traffic along Thornydale Road have been raised. A traffic impact analysis (TIA) was completed for the Thornydale - Sumter specific plan. This TIA used the Pima Association of Governments (PAG) 2% growth rate, which is a widely accepted method of estimating growth. This method is used to account for the generally anticipated growth in the area, rather than looking at specific parcel by parcel growth.

<b>Table 1. Annual Average Daily Traffic (AADT) Sumter Drive (Thornydale to Shannon)</b>	
Year	2022*
AADT	661

\*PAG counts`

<b>Table 2. Annual Average Daily Traffic (AADT) Shannon Road (Cactus Canyon Pass to Overton Rd)</b>		
Year	2021*	2022*
AADT	7,699	8,288

\*PAG Counts using Miovision Data

<b>Table 2a. Annual Average Daily Traffic (AADT) Shannon Road (Cactus Canyon Pass to Lambert Lane)</b>			
Year	2017*	2021*	2022*
AADT	3,934	3,890	3,976

\*PAG Counts

\*\*PAG estimated AADT

<b>Table 3. Annual Average Daily Traffic (AADT) Thornydale Road (Lambert Lane to Linda Vista Blvd)</b>				
Year	2016*	2019*	2021*	2022**
AADT	16,608	15,318	13,576	13,875

\*PAG counts

\*\*PAG estimated AADT

*Impact of Proposed Development on Roadway Volume*

In accordance with the 11<sup>th</sup> edition of the Institute of Transportation Engineers Trip Generation Manual and Pima County Department of Transportation (PCDOT) requirements, the most recent TIA provided in July 2023 indicates that an additional 1,860 daily trips will be generated with the proposed mixed-use development of 270 low-rise apartments and a hair salon with access on Thornydale Road and Sumter Drive. During the specific plan submittal and review process, Pima County requested that the driveway on Sumter Drive be designed as a full access driveway to allow residents the opportunity to enter and exit this driveway. The design of a full access driveway can help distribute vehicular trips between both Shannon Road and Thornydale Road.

During the Planning and Zoning Commission meeting, a concern was voiced regarding whether the correct ITE trip generation code was used for this project. The comment made was related to the use of low-rise apartment trip generation factor compared to the mid-rise apartment since some buildings are proposed to be up to three stories in height. The correct ITE code (low-rise) was used for this



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project as the mid-rise classification is a lower trip generator due to those developments being constructed within the urban core of cities with walkable amenities.

While there will be an increase in traffic along Thornydale Road contributing to the overcapacity, the traffic volume is not expected to significantly affect the level of service of the signalized and unsignalized intersections analyzed in the TIA in accordance with the 2016 Pima County Subdivision and Development Street Standards.

*Crash History and Safety Improvements*

As is illustrated in Figure 2, Thornydale Road has seen a steady decline in crashes since 2017. The historical 5-year rolling crash total has declined from 55 in 2017 to 23 in 2022. The severity of the crashes has remained consistent with 75% of all crashes, or 64 crashes, resulting in no injury which is comparable to the current 5-year average of 67% for the County.

Figure 2.

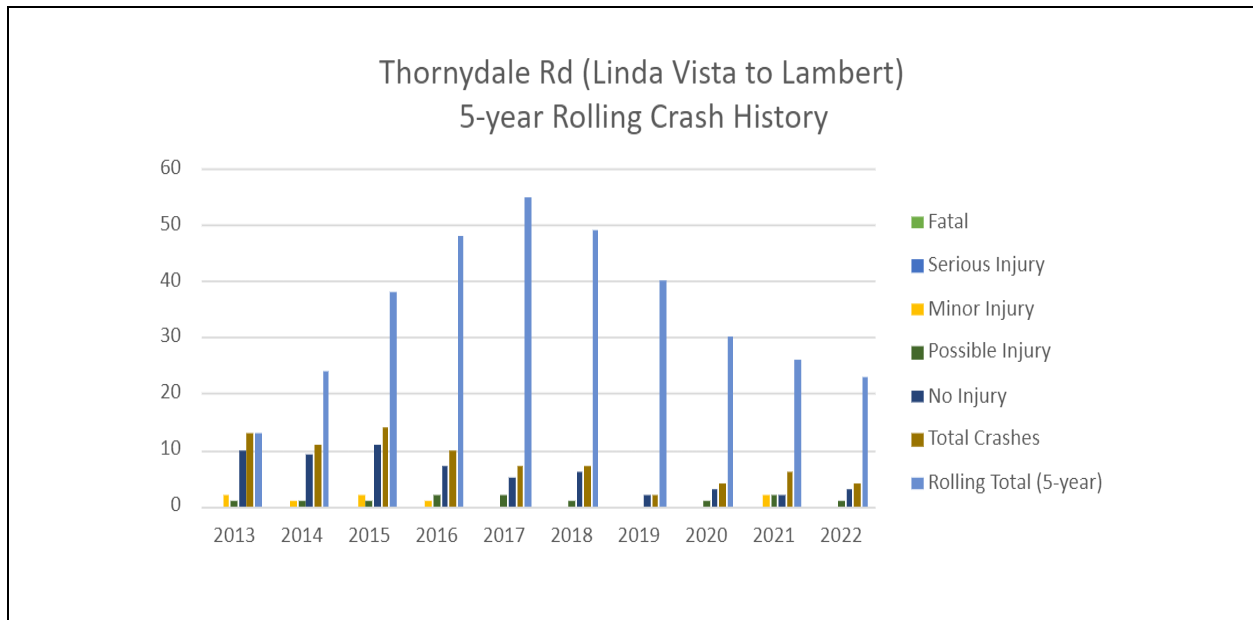
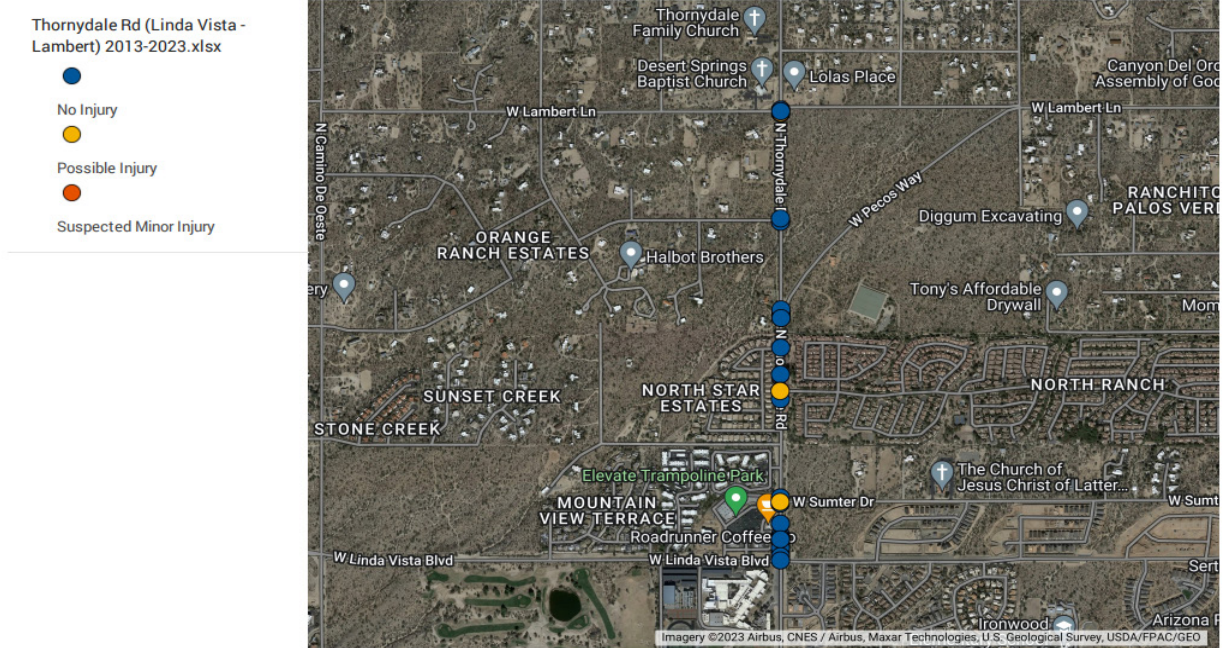


Table 4. Thornydale Road Detailed Crash History												
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Total
<b>Fatal</b>												0
<b>Serious Injury</b>												0
<b>Minor Injury</b>	2	1	2	1					2			8
<b>Possible Injury</b>	1	1	1	2	2	1		1	2	1	1	13
<b>No Injury</b>	10	9	11	7	5	6	2	3	2	3	6	64
<b>Total Crashes</b>	<b>13</b>	<b>11</b>	<b>14</b>	<b>10</b>	<b>7</b>	<b>7</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>4</b>	<b>7</b>	<b>85</b>

Figure 3.

### Thornydale Rd Crashes



#### *Intersection of Thornydale Road and Linda Vista Boulevard*

The TIA provided with the specific plan analyzed the Thornydale Road and Linda Vista Boulevard signalized intersection. The traffic engineer analyzed the intersection with existing conditions as well as future conditions with the additional traffic from the proposed project and found that all movements will be operating within an acceptable level of service outlined in the Subdivision and Development Street Standards. Since all movements will be operating at an acceptable level of service, mitigation is not required.

Table 5. Thornydale Road and Linda Vista Boulevard Detailed Intersection Crash History							
	2018	2019	2020	2021	2022	2023	Total
<b>Fatal</b>							0
<b>Serious Injury</b>							0
<b>Minor Injury</b>	1			2			3
<b>Possible Injury</b>	2		1	2	1	0	6
<b>No Injury</b>	8	2	3	2	1	3	19
<b>Total Crashes</b>	<b>11</b>	<b>2</b>	<b>4</b>	<b>6</b>	<b>2</b>	<b>3</b>	<b>28</b>

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Per the August 30, 2023 staff report, the developer will be responsible for the following improvements:

- A multi-use path will be constructed to Pima County standards along the west side of Thornydale Road from the Thornydale Road/Linda Vista Boulevard intersection to the North Ranch subdivision.
- A second multi-use path will be constructed along the north side of Sumter Drive from Thornydale Road/Sumter Drive intersection to the driveway entrance on Sumter Drive.
- The northbound right turn lane will be constructed on Thornydale Road at the project's driveway entrance with Thornydale.

### **Conclusion**

This project is a secondary Transportation Concurrency concern per the 2007 Concurrency policy of Pima County. Thornydale Road is a major north/south corridor that is operating above capacity; however, the developer has committed to providing a multi-use path that will provide an additional option for the public to utilize in lieu of vehicular transportation and the adjacent intersections are functioning with acceptable level of service for all movements with the exception of one turning movement at Sumter Drive and Thornydale Road during the PM peak.

Should the rezoning be approved, the above outlined improvements will be required to address the project's impact on the adjacent roadways based on the current traffic volumes and new trips associated with the proposed development. If the timing of review of the site and development plans is more than three years from the date of the already performed Traffic Impact Analysis, an updated analysis will be required. If an update becomes required, the Transportation Department and Development Services Department will follow existing design requirements in evaluating the updated Traffic Impact Analysis and site development plans compared to traffic volumes and crash data at that time, which may require the developer to make additional off-site improvements such as turn lanes, acceleration or deceleration lanes, etc. as necessitated by their development at their cost.

Please let me know if you have any questions.

KS:PC/JG:jh

c: Carmine DeBonis, Jr., Deputy County Administrator  
Carla Blackwell, Director, Development Services  
Eric Shepp, Director, Flood Control District  
Paul Casertano, AICP, Deputy Director, Transportation  
Lauren Ortega, P.E., Deputy Director, Transportation