

MEMORANDUM

To: Traffic Study Files

From: City of Austin Transportation and Public Works Department

Date: June 1, 2023

Subject: Reduced Speed School Zone Investigation

Location: Escarpment Boulevard, Trissino Drive, Bernia Drive

Date(s) of Previous Investigation: None

A traffic engineering investigation has been conducted to determine if a reduced speed school zone is appropriate on Escarpment Boulevard, Trissino Drive, and Bernia Drive for students attending Bear Creek Elementary School

The following information was collected and analyzed for this determination.

General Conditions

The streets of concern are located within the Avana Subdivision, a single-family neighborhood south of SH 45.

Escarpment Boulevard in the segment south of Padua Drive to south of Bernia Drive functions as a north-south Level 2 Collector between SH 45 and the Avana subdivision with one travel lane in each direction. Bear Creek Elementary School is located on Escarpment Boulevard between Trissino Drive and Bernia Drive. A gated private school is located on Escarpment Boulevard south of Bernia Drive.

Trissino Drive functions as a Level 1 residential street with front facing single-family housing. It has a pavement width of 28 feet. A small neighborhood is located east on Trissino Drive and a larger neighborhood of single-family residences and a community pool are located west on Trissino Drive.

Bernia Drive functions as a Level 1 residential street that connects a gated neighborhood to the east and a larger neighborhood of single-family residences to the west. It has a pavement width of 28 feet.

Bear Creek Elementary School

The Austin Independent School District (AISD) opened Bear Creek Elementary School in the Fall of 2020. It has an enrollment capacity of approximately 522 students. The school site is located on the east side of Escarpment Boulevard and the main entrance is located mid-block between the roundabout intersections of Trissino Drive and Bernia Drive. The parent drop-off utilizes the first driveway on Escarpment Boulevard south of Trissino Drive. The bus loop utilizes the driveway south of the parent drop-off driveway. Students walking and biking to Bear Creek Elementary School access the main entrance on Escarpment Boulevard.

Existing Conditions

Escarpment Boulevard has a 32 feet wide cross section that includes two travel lanes, one in each direction. There is no on-street parking along Escarpment Boulevard. There are two roundabouts, one at the intersection of Trissino Drive and one at the intersection of Bernia Drive. At each leg of the roundabout are marked pedestrian crosswalks with pedestrian refuge at the splitter islands; however, vehicular traffic is uncontrolled through the crossings.

Trissino Drive has a 28 feet wide cross section that includes bi-directional travel lanes and onstreet parking. The on-street parking is mostly utilized in front of single-family residences farther east from the intersection of Escarpment Boulevard. At the intersection with Escarpment Boulevard, there is a roundabout. At each leg of the roundabout are marked pedestrian crosswalks with pedestrian refuge at the splitter islands; however, vehicular traffic is uncontrolled through the crossings.

Bernia Drive has a 28 feet wide cross section that includes bi-directional travel lanes and on-street parking. The on-street parking is mostly utilized in front of single-family residences farther west from the intersection of Escarpment Boulevard. The eastern leg of Bernia Drive is a gated neighborhood. At the intersection with Escarpment Boulevard, there is a roundabout. At each leg of the roundabout are marked pedestrian crosswalks with pedestrian refuge at the splitter islands; however, vehicular traffic is uncontrolled through the crossings.

Proximity of Pedestrian Crossings to the School

Pedestrian crossing volume counts were observed in the morning drop-off and afternoon pick-up times at Bear Creek Elementary School in September 2022. Students utilize the sidewalks on Escarpment Boulevard, the pedestrian crossings at the Trissino Drive roundabout, and the pedestrian crossings at the Bernia Drive roundabout to access the main entrance of Bear Creek Elementary School. The existing pedestrian crossings are located at the roundabouts of Escarpment Boulevard and Trissino Drive and Escarpment Boulevard and Bernia Drive and are 520 feet and 0.2 miles from Bear Creek Elementary School, respectively.

Pedestrian Crossing Volumes

It was observed that there were more than 100 pedestrians utilizing the pedestrian crossings at the roundabout at Escarpment Boulevard and Trissino Drive and more than 50 pedestrians utilizing the pedestrian crossings during the morning peak at the roundabout at Escarpment Boulevard and Bernia Drive. Similar pedestrian volumes also occur during the afternoon peak.

Presence of Adult Crossing Guard or Student Safety Patrol

There are two adult crossing guards that are stationed at the Escarpment Boulevard and Trissino Drive roundabout pedestrian crossings. There are no adult crossing guards at the Escarpment Boulevard and Bernia Drive roundabout pedestrian crossings.

Sight Distance

There are no sight distance concerns for the school zones proposed on Escarpment Boulevard, Trissino Drive, and Bernia Drive.

Sidewalks

Continuous sidewalks are present on the east and west sides of Escarpment Boulevard between Trissino Drive and Bernia Drive.

Continuous sidewalks are present on the north and south sides of Trissino Drive from Padua Drive to Mundomar Drive.

A continuous sidewalk is present on the north and south sides of Bernia Drive from Vicenza Drive to Escarpment Boulevard and a sidewalk is present on the south side of Bernia Drive into the gated neighborhood.

Recommendation

Based on the analysis of the information provided in the above sections:

A reduced speed school zone of 15 miles per hour (mph) should be installed on Escarpment Boulevard from 160 feet north of Trissino Drive to 600 feet south of Trissino Drive.

A reduced speed school zone of 15 miles per hour (mph) should be installed on Escarpment Boulevard from 160 feet north of Bernia Drive to 60 feet south of Bernia Drive.

A reduced speed school zone of 15 mph should be installed on Trissino Drive from 120 feet west of Escarpment Boulevard to 120 feet east of Escarpment Boulevard.

A reduced speed school zone of 15 mph should be installed on Bernia Drive from 120 feet west of Escarpment Boulevard to 80 feet east of Escarpment Boulevard.

Figure 1 presents the investigation area and limits of the proposed reduced speed school zone on Escarpment Boulevard. Figure 2 presents the investigation area and limits of the proposed reduced

speed school zone on Trissino Drive. Figure 3 presents the investigation area and limits of the proposed reduced speed school zone on Bernia Drive.

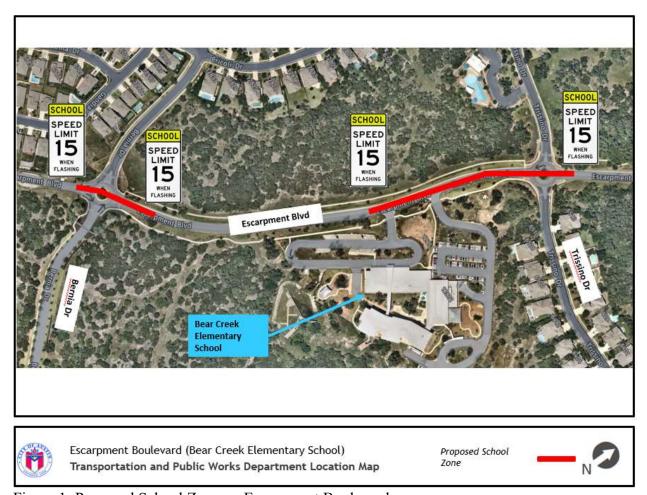


Figure 1: Proposed School Zone on Escarpment Boulevard



Figure 2: Proposed School Zone on Trissino Drive

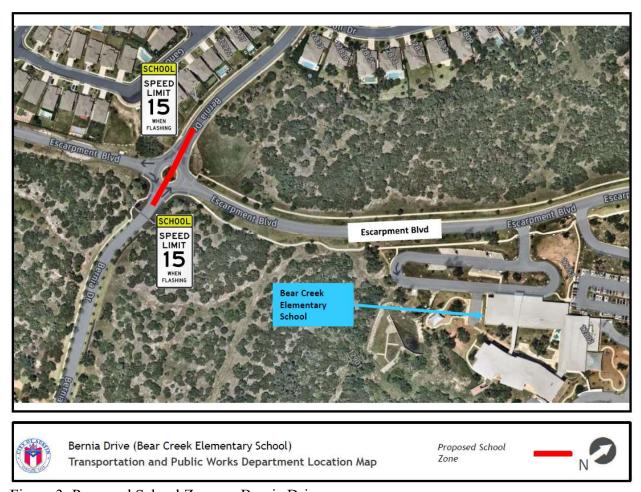


Figure 3: Proposed School Zone on Bernia Drive