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Title: Receive Staff's Evaluation of Traffic Concerns on Shandrew Drive, Blakely Lane, and Fort Hill Drive

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Attachments: 1. All Way Stop Worksheet_Blakely and Shandrew

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TRANSPORTATION ADVISORY BOARD AGENDA ITEM

ACTION REQUESTED:

Receive Staff's Evaluation of Traffic Concerns on Shandrew Drive, Blakely Lane, and Fort Hill Drive

DEPARTMENT: Transportation, Engineering and Development

SUBMITTED BY: Michael Prousa, TED Project Manager

BACKGROUND:

In October of 2022, residents reached out to the Transportation, Engineering and Development (TED) Department with concerns regarding speeding on Shandrew Drive, Blakely Lane, and Fort Hill Drive. Along with speeding, residents also wanted Shandrew Drive and Blakely Lane evaluated for an all-way stop. Residents from the area attended the November Transportation Advisory Board (TAB) Meeting to express their concerns about these roadways and the overnight parking program code modifications. TAB tabled the discussion on the overnight parking program and requested that staff's findings and recommendations regarding the traffic concerns be presented at the December TAB meeting.

DISCUSSION:

TED Staff conducted a speed and volume study at six locations on Shandrew Drive, Blakely Lane, and Fort Hill Drive.

- Blakely Lane between Lexington Lane and Shandrew Drive
- Blakely Lane between Blakely Lane/Henley Lane and Shandrew Drive
- Shandrew Drive between Paisley Lane and Blakely Lane
- Shandrew Drive between Rosedale Avenue and Paisley Lane
- Shandrew Drive between Ogden Avenue and Rosedale Avenue
- Fort Hill Drive between Blakely Lane and Fairbanks Court

- Fort Hill Drive between Audrey Avenue and Three Farms Avenue

When reviewing speed data on a street, the 85th percentile speed is the primary consideration. Per the Institute of Transportation Engineers, the 85th percentile speed is the speed at which 85 percent of free-flowing vehicles are traveling at or below. Use of the 85th percentile speed is based on the theory that the large majority of drivers are reasonable and prudent, do not want to have a crash, and desire to reach their destination in the shortest time possible.

The City’s Master Thoroughfare Plan classifies streets based upon their function, access, and connectivity. Fort Hill Drive is classified as a Collector (connect local and Neighborhood Connector through or adjacent to multiple neighborhoods and have continuity between arterial streets) with a 30 -mph speed limit as well as with a 20-mph school zone for Cowlshaw Elementary while children are present. Blakely Lane and Shandrew Drive are classified as local streets with a 25-mph speed limit. The City has been collecting annual speed and volume data on about 30-40 segments of road for the past 20 years. With this data, staff has established typical speeds and volumes for most road classifications. Our table of the city-wide typical speeds and volumes are listed below.

Roadway Classification	City-wide Typical 85th-Percentile Speed Range	City-wide Typical Weekday Volume (Two-way)
Collector	29 - 34 mph	5,000 - 12,000 vpd
Neighborhood Connector	29 - 34 mph	500 - 5,000 vpd
Local	27 - 32 mph	0 - 1,500 vpd

The table below details the speed and volume data collected at each location.

Blakely Lane between Lexington Lane and Shandrew Drive	
85 th Percentile Speed	29 mph
Vehicles per day	750

Blakely Lane between Blakely Lane/Henley Lane and Shandrew Drive	
85 th Percentile Speed	28 mph
Vehicles per day	825

Shandrew Drive between Paisley Lane and Blakely Lane	
85 th Percentile Speed	26 mph
Vehicles per day	675

Shandrew Drive between Rosedale Avenue and Paisley Lane	
85 th Percentile Speed	30 mph
Vehicles per day	600

Shandrew Drive between Ogden Avenue and Rosedale Avenue	
85 th Percentile Speed	30 mph

Vehicles per day	550
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Fort Hill Drive between Blakley Lane and Fairbanks Court	
85 th Percentile Speed	42 mph
Vehicles per day	7,300

Fort Hill Drive between Audrey Avenue and Three Farms Avenue	
85 th Percentile Speed	43 mph
Vehicles per day	7,250

The data tables show that the speeds on Shandrew Drive and Blakely Lane are within our citywide typical thresholds for local streets. The data tables show that Fort Hill Drive has speeds that are above our typical thresholds for a Collector street.

When looking at tools that can be used to slow vehicles down, the City uses the Traffic Calming Toolkit. Based on the data collected and the applicable toolkit options, City staff recommends the following items for Fort Hill Drive.

- The rotating driver feedback signs
- Tree trimming in the parkway to improve visibility of speed limit signs
- Targeted times of enforcement for the Police department

While reviewing the area, staff also found that there is currently no neighborhood 25 mph speed limit sign for southbound traffic on Shandrew Drive. This sign will be installed with the other recommendations as well.

City staff also reviewed Shandrew Drive and Blakely Lane for all-way stop control. Both Shandrew Drive and Blakely Lane are local streets. Staff uses the residential all-way stop worksheet to see if thresholds are met for all-way stop installation. Based upon the data and analysis, Shandrew Drive and Blakely Lane did not meet the thresholds for consideration of an all-way stop. The all-way stop worksheet can be found as attachment 1.

Stop signs are used to assign right of way control and not to prevent speeding. Drivers typically go faster in between stop signs to make up for lost time. Unwarranted stop signs also create stop compliance issues because of the lack of conflict with vehicles.

During the traffic investigation, staff also found that the school walk route map for Cowlshaw Elementary was outdated. Staff is currently in the process of updating the map to include the neighborhoods to the west of Fort Hill Drive. A part of this update is installing marked crosswalks on the north legs of Shandrew Drive and Blakely Lane and Lexington Lane and Blakely Lane. These installations will be included with the City's 2023 pavement marking contract.