



**PETERS & ASSOCIATES**  
ENGINEERS, INC.

February 8, 2021

Fisher Arnold  
Attn: Mr. Jeremy Bevill, P.E., CFM  
1801 Latourette Drive  
Jonesboro, AR 72404

Re: P2032-A  
Approximate 30 Acre Development Adjacent to Southern Hills  
Site-Generated Traffic Volumes  
Single-Family Residential and Commercial Tracts  
Southern Ridge Boulevard  
Jonesboro, Arkansas

Dear Mr. Bevill:

Peters & Associates Engineers, Inc. has calculated what can be the expected trip-generation of the proposed 72 lot residential single-family land use plus 5 tracts of commercial development along the south side of Southern Ridge Boulevard, just east of the planned Southern Hills development in Jonesboro, Arkansas. This site is approximately 2,500 feet east of Southwest Drive. It is expected that Southern Ridge Boulevard will connect to the east to Culberhouse Road. A reduced copy of the site plat of approximate 30-acre tract is attached.

The Trip Generation, an Informational Report, published by the Institute of Transportation Engineers (ITE) Trip Generation Manual 10th Edition, 2017, were utilized in calculating the magnitude of traffic volumes expected to be generated by the proposed 72 lot residential single-family land use plus 5 tracts of commercial land use within the approximate 30 acres. These are reliable and current sources for this information and are commonly used in the traffic engineering profession.

Using the selected trip generation rates, calculations were made to provide a reliable estimate of traffic volumes that can be expected to be associated with the site development as proposed. Applying the appropriate trip-generation rates to the proposed land uses makes these calculations. Results of these calculations are summarized on Table 1, "Summary of Trip-Generation."

ASSUMED LAND USE	APPROXIMATE SIZE	ITE CODE	24-HOUR TWO-WAY WEEKDAY VOLUME	AM PEAK HOUR VOLUME		PM PEAK HOUR VOLUME	
				ENTER	EXIT	ENTER	EXIT
Single-Family Residential	72 Lots	210	680	13	40	45	26
Retail Commercial	37,000 Sq. Ft.	820	1,397	22	13	68	73
<b>UNADJUSTED TOTAL DRIVEWAY VOLUMES</b>			<b>2,077</b>	<b>35</b>	<b>53</b>	<b>113</b>	<b>99</b>
<b>TOTAL ENTERING + EXITING</b>				<b>88</b>		<b>212</b>	

Table 1 – Summary of Trip Generation

These calculations indicate that approximately 2,077 vehicle trips (combined in and out) per average weekday are projected to be generated by the proposed 72 lot residential single-family land use plus 5 tracts of commercial land use development on this site. Of this total, approximately 88 vehicle trips (35 entering and 53 exiting) are estimated during the traffic conditions of the AM peak hour and approximately 212 vehicle trips (113 entering and 99 exiting) are estimated during the traffic conditions of the PM peak hour.

Directional distributions have been estimated for the site-generated traffic to reflect the percent of entering and exiting volumes accessing the approximate 30-acre development along Southern Ridge Boulevard to/from the east (via an anticipated connection to Culberhouse Road) and to/from the west (via Southwest Drive and Southern Hills Development). These estimated percentages and associated site-generated traffic volumes are as follows:

Assumed 35% to/from the East (via Culberhouse Road)

- 24-Hour: Approximately 727 vehicle trips (two-way).
- AM Peak Hour of the Adjacent Street: Approximately 31 vehicle trips (two-way).
- PM Peak Hour of the Adjacent Street: Approximately 74 vehicle trips (two-way).

Assumed 65% to/from the West (via Southwest Drive and Southern Hills Development)

- 24-Hour: Approximately 1,350 vehicle trips (two-way).
- AM Peak Hour of the Adjacent Street: Approximately 57 vehicle trips (two-way).
- PM Peak Hour of the Adjacent Street: Approximately 138 vehicle trips (two-way).

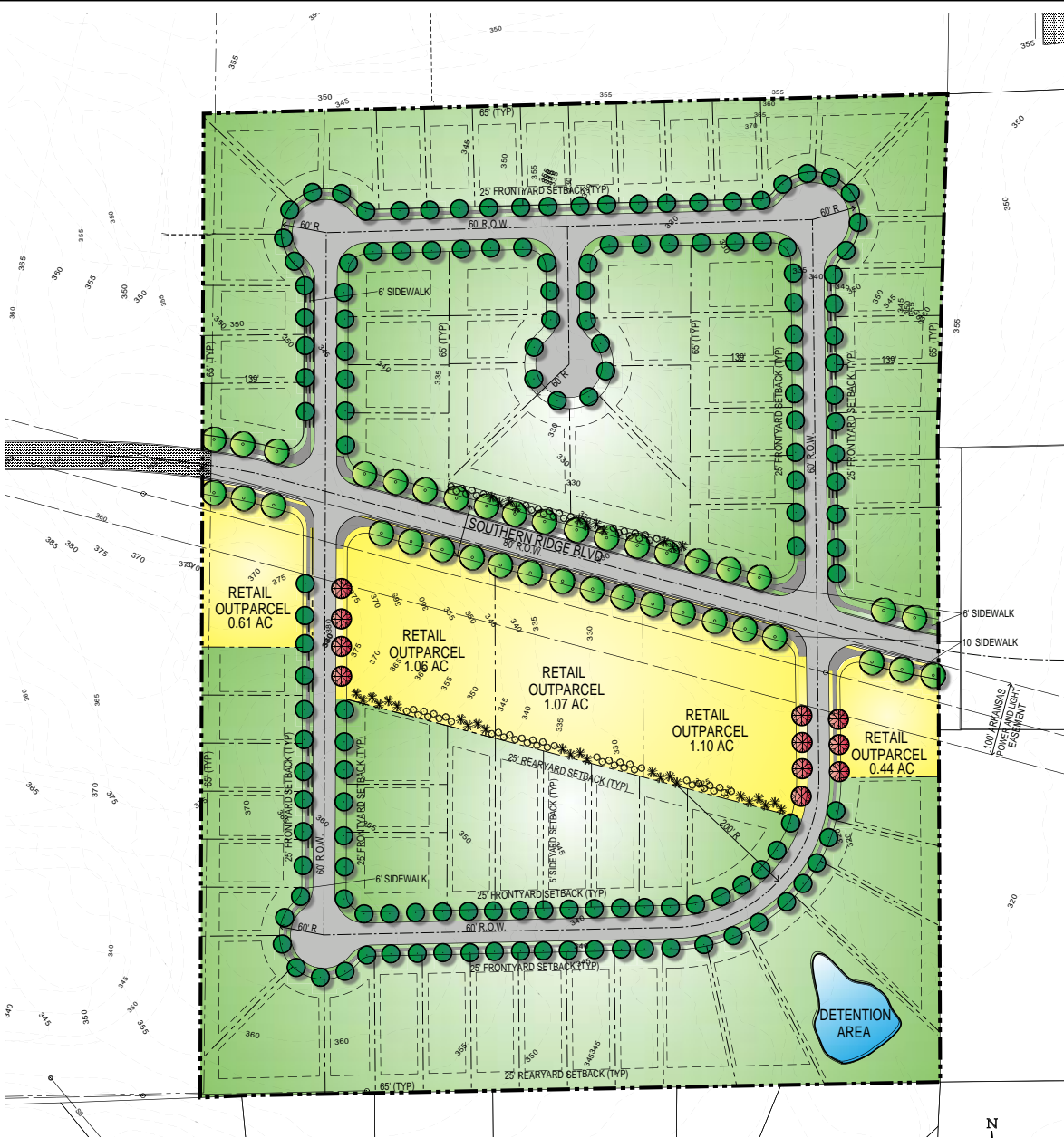
As this project moves forward, a full traffic impact analysis study (TIA) will be conducted. The TIA will include assumed Southern Ridge Boulevard connection to the east to Culberhouse Road and to the west to Southwest Drive (with planned traffic signal at the intersection of Southwest Drive and Southern Ridge Boulevard). The TIA will also include examination of traffic signal warrants for projected traffic conditions for the intersection of Culberhouse Road and future Southern Ridge Boulevard.

Please let us know if you need additional information.

Sincerely,  
**PETERS & ASSOCIATES, ENGINEERS, INC.**

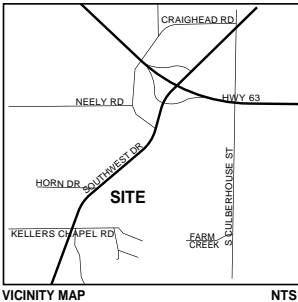


Ernest J. Peters, P.E.  
President



**PLAN DATA**

TOTAL AREA.....30 ACRES  
 TOTAL LOTS.....77 LOTS  
 (5 RETAIL)  
 DENSITY.....2.56 DU/AC  
 3 LANE ROAD LENGTH.....1,027 L.F.  
 2 LANE ROAD LENGTH.....3,336 L.F.



**NOTE:**  
 BOUNDARY AND TOPOGRAPHIC INFORMATION OBTAINED FROM OTHERS.  
 THIS PROPERTY IS NOT LOCATED WITHIN THE LIMITS OF A FEMA/FIRM IDENTIFIED SPECIAL FLOOD HAZARD AREA ACCORDING TO PANEL 05031C0150 C DATED SEPTEMBER 27, 1991



**GRAPHIC SCALE**



( IN FEET )  
 1 inch = 100 ft.

**CONCEPT PLAN**  
**SOUTHERN HILLS**  
**SUBDIVISION**  
 JONESBORO, ARKANSAS  
 JANUARY, 2021

TOTAL AREA: 1,315,076 Sq. Ft. / 30.19 Ac.  
 FEMA PANEL NO. 05031C0150 C / ELEV. N/A  
 PARCEL 01-143364-00200

PREPARED FOR:  
**CARROLL CALDWELL**  
**REAL ESTATE, DEVELOPMENT**  
 2704 S CULBERHOUSE, SUITE A  
 JONESBORO, AR 72401

**FISHER ARNOLD**  
 ENGINEERS | ARCHITECTS | CONSULTANTS | PLANNERS  
 1801 Latourette Drive | Jonesboro, AR 72404  
 888.583.9724 | www.fisherarnold.com

**ITE TRIP-GENERATION 10TH EDITION**  
**Southern Hills**  
**Approximate 37,000 Sq. Ft. Commercial Retail Land-Use (ITE 820)**  
**2/5/2021**  
**P2032**

**Weekday Daily Volume**

<u>DATA STATISTICS</u>
<b>Land Use:</b>
Shopping Center (820) <a href="#">Click for more details</a>
<b>Independent Variable:</b>
1000 Sq. Ft. GLA
<b>Time Period:</b>
Weekday
<b>Setting/Location:</b>
General Urban/Suburban
<b>Trip Type:</b>
Vehicle
<b>Number of Studies:</b>
147
<b>Avg. 1000 Sq. Ft. GLA:</b>
453
<b>Average Rate:</b>
37.75
<b>Range of Rates:</b>
7.42 - 207.98
<b>Standard Deviation:</b>
16.41
<b>Fitted Curve Equation:</b>
$\ln(T) = 0.68 \ln(X) + 5.57$
<b>R<sup>2</sup>:</b>
0.76
<b>Directional Distribution:</b>
50% entering, 50% exiting
<b>Calculated Trip Ends:</b>
Average Rate: 1397 (Total), 698 (Entry), 699 (Exit)
Fitted Curve: 3058 (Total), 1529 (Entry), 1529 (Exit)

**Weekday AM Peak Hour**  
**of Adjacent Street**

<b>Directional Distribution:</b>
62% entering, 38% exiting
<b>Calculated Trip Ends:</b>
Average Rate: 35 (Total), 22 (Entry), 13 (Exit)
Fitted Curve: 170 (Total), 105 (Entry), 65 (Exit)

**Weekday PM Peak Hour**  
**of Adjacent Street**

<b>Directional Distribution:</b>
48% entering, 52% exiting
<b>Calculated Trip Ends:</b>
Average Rate: 141 (Total), 68 (Entry), 73 (Exit)
Fitted Curve: 260 (Total), 125 (Entry), 135 (Exit)

**ITE TRIP-GENERATION 10TH EDITION**  
**Southern Hills**  
**Approximate 72 Residential Single-Family Land-Use (ITE 210)**  
**2/5/2021**  
**P2032**

**Weekday Daily Volume**

<u>DATA STATISTICS</u>
<b>Land Use:</b> Single-Family Detached Housing (210) <a href="#">Click for more details</a>
<b>Independent Variable:</b> Dwelling Units
<b>Time Period:</b> Weekday
<b>Setting/Location:</b> General Urban/Suburban
<b>Trip Type:</b> Vehicle
<b>Number of Studies:</b> 159
<b>Avg. Num. of Dwelling Units:</b> 264
<b>Average Rate:</b> 9.44
<b>Range of Rates:</b> 4.81 - 19.39
<b>Standard Deviation:</b> 2.10
<b>Fitted Curve Equation:</b> $\ln(T) = 0.92 \ln(X) + 2.71$
<b>R<sup>2</sup>:</b> 0.95
<b>Directional Distribution:</b> 50% entering, 50% exiting
<b>Calculated Trip Ends:</b> Average Rate: 680 (Total), 340 (Entry), 340 (Exit) Fitted Curve: 769 (Total), 384 (Entry), 385 (Exit)

**Weekday AM Peak Hour**  
**of Adjacent Street**

<b>Directional Distribution:</b> 25% entering, 75% exiting
<b>Calculated Trip Ends:</b> Average Rate: 53 (Total), 13 (Entry), 40 (Exit) Fitted Curve: 56 (Total), 14 (Entry), 42 (Exit)

**Weekday PM Peak Hour**  
**of Adjacent Street**

<b>Directional Distribution:</b> 63% entering, 37% exiting
<b>Calculated Trip Ends:</b> Average Rate: 71 (Total), 45 (Entry), 26 (Exit) Fitted Curve: 74 (Total), 47 (Entry), 27 (Exit)