

PLANNING COMMISSION'S LAND DEVELOPMENT & TRANSPORTATION COMMITTEE

JANUARY 12, 2023 – CONTINUED FROM → NOVEMBER 10, 2022

CASE # 22-ZONEPA-0017

Change in Zoning: R4, Single-Family → R6, Multi-Family

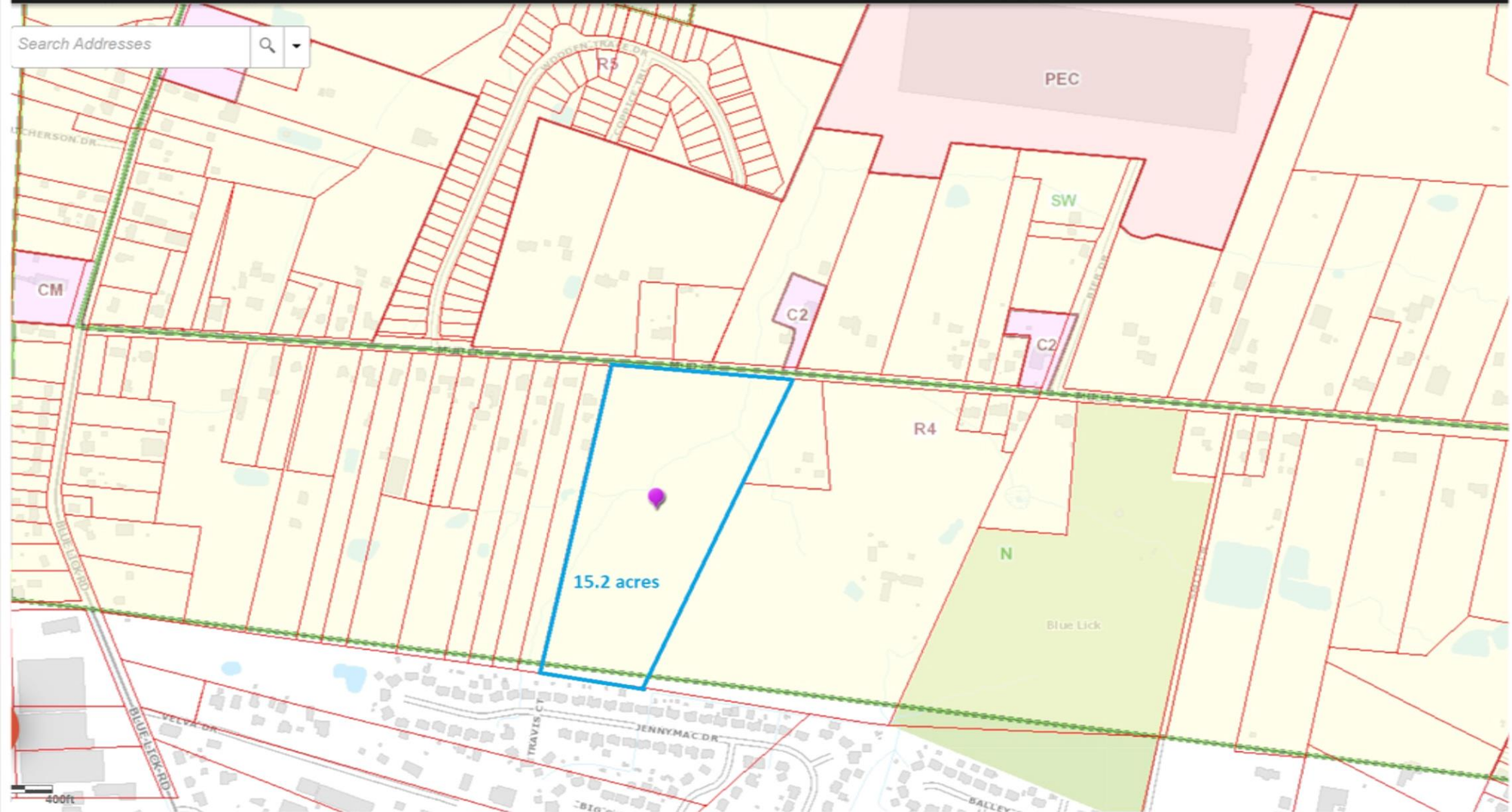
Property Owner

Hubert L. Hester Living Trust

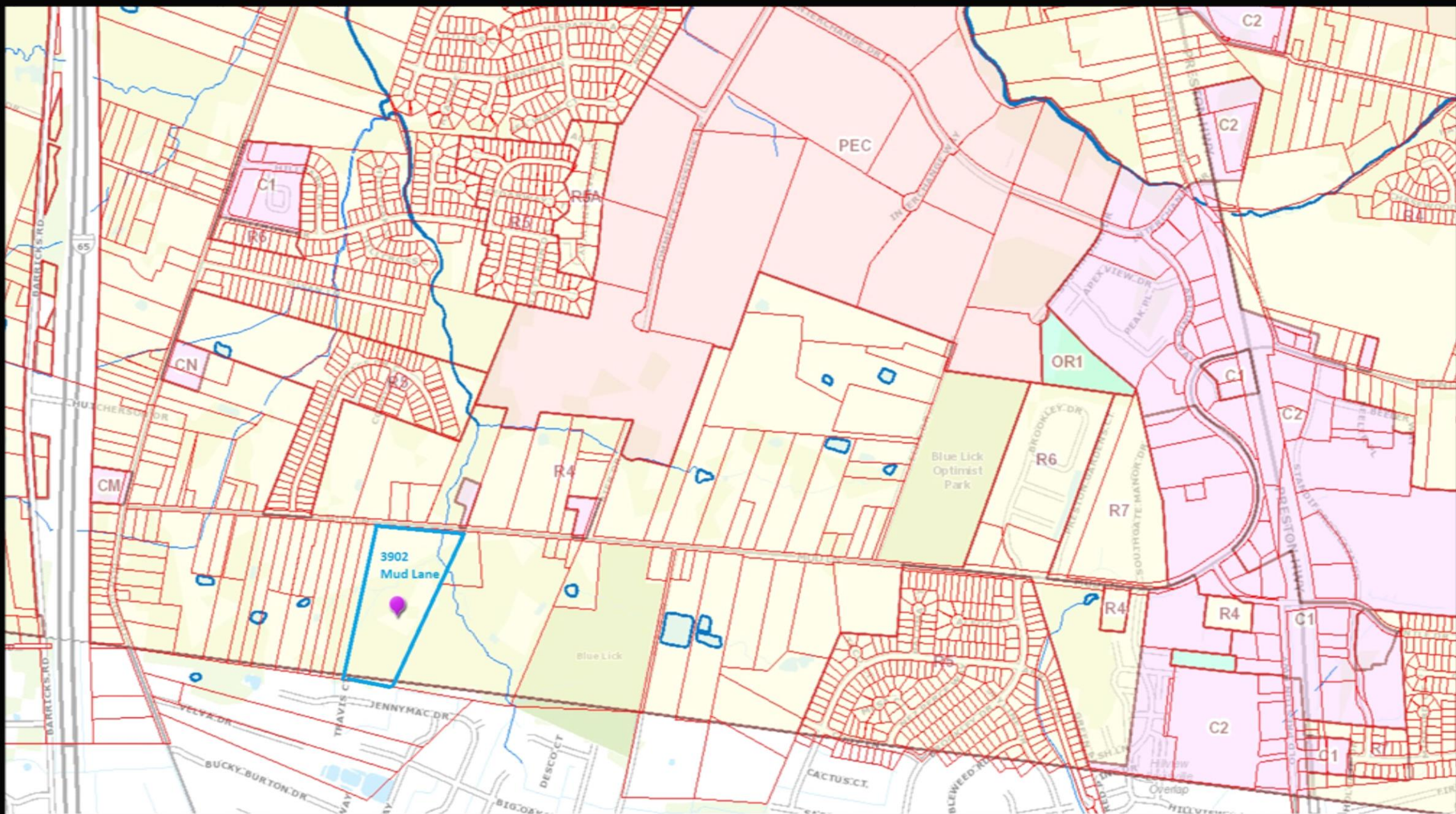
REPRESENTATIVES

JON BAKER – WYATT, TARRANT & COMBS

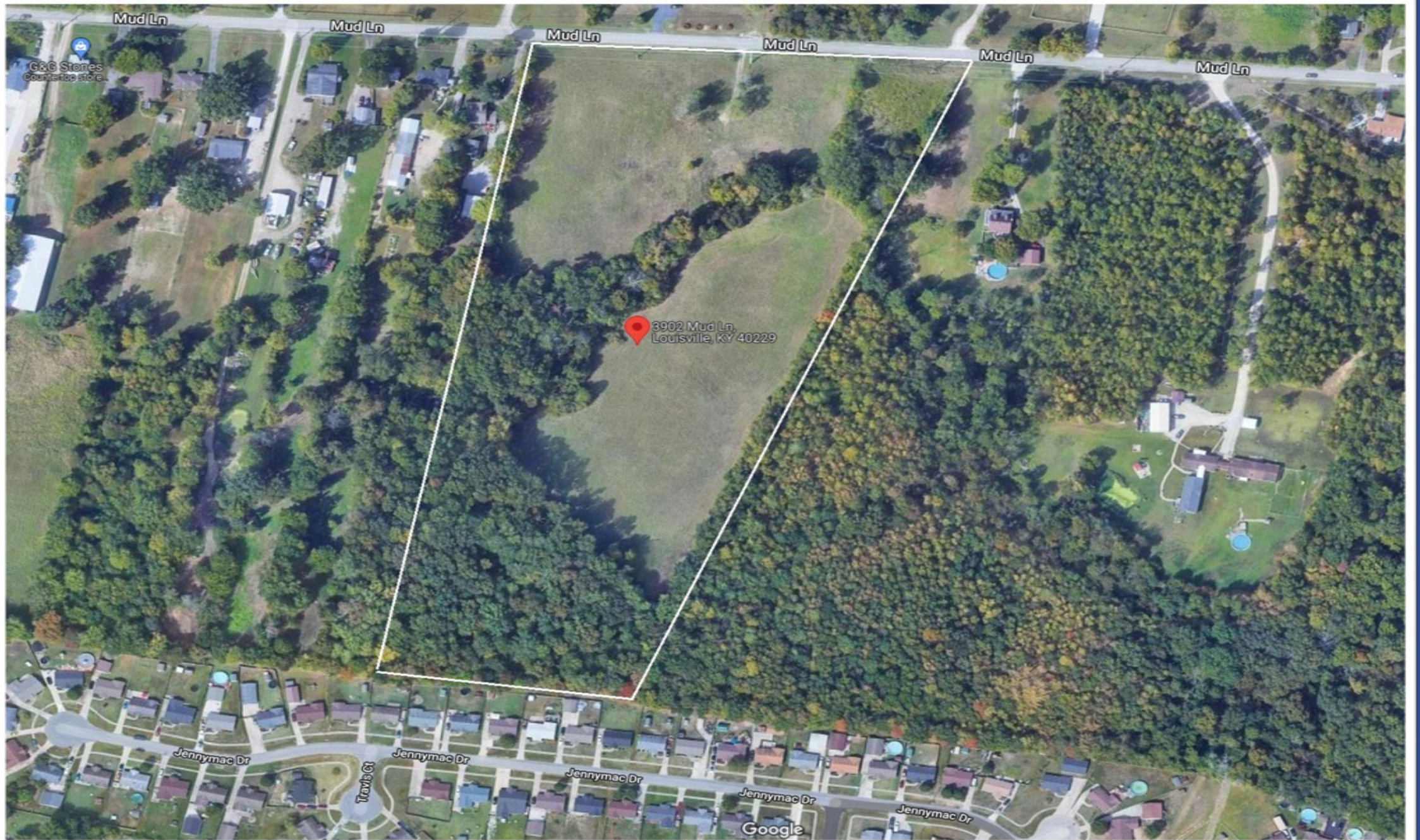
DEREK TRIPLETT – LAND DESIGN & DEVELOPMENT, INC.

OnlineA GIS Partnership to Meet the
Growing Needs of Louisville, KY**ZONING MAP**

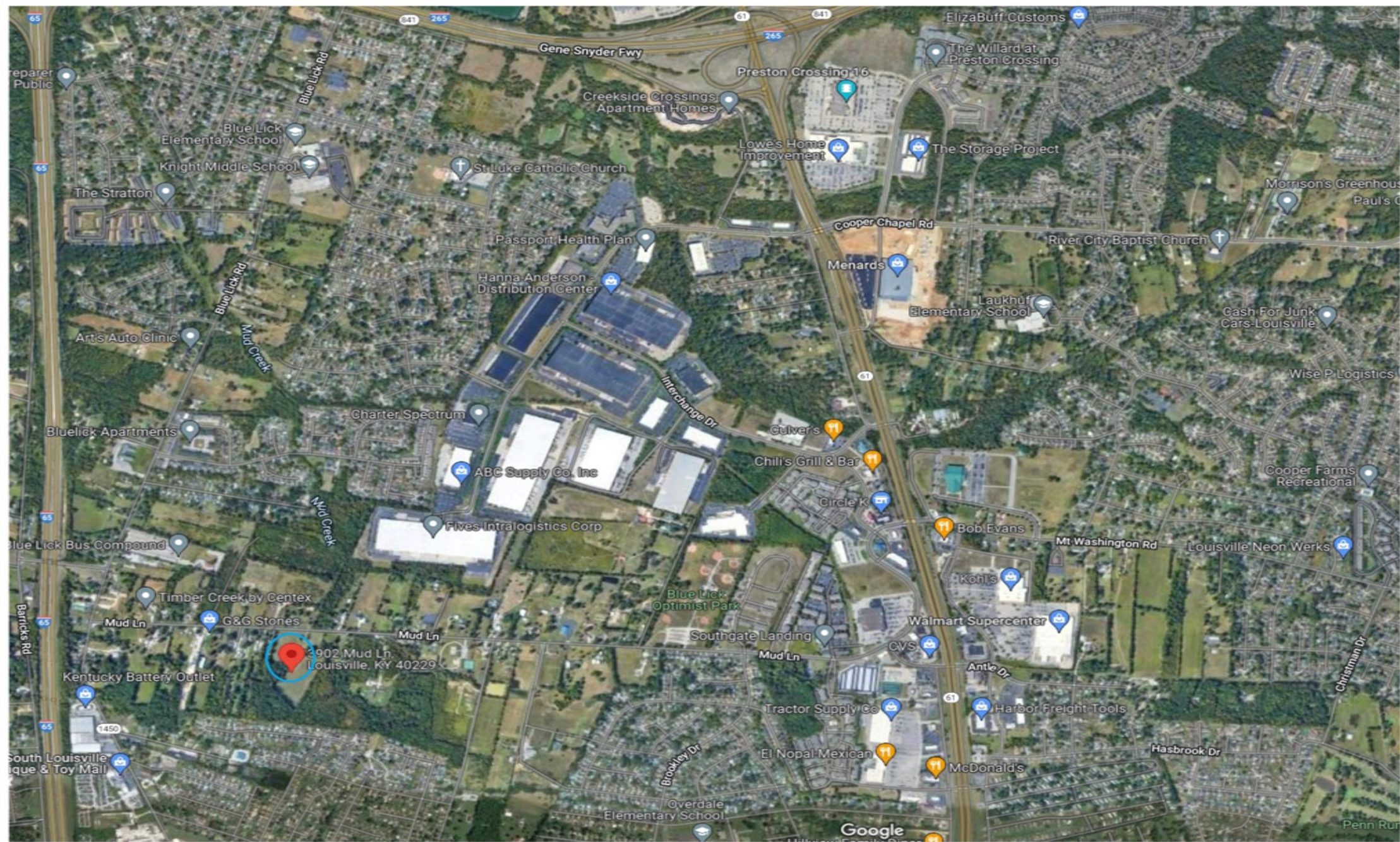
ZONING MAP



AERIAL PHOTOGRAPH



AERIAL PHOTOGRAPH



SITE IMAGES – SITE



SITE IMAGES – SITE



SITE IMAGES – ADJACENT



SITE IMAGES – SITE



SITE IMAGES – ADJACENT



SITE IMAGES - STREET



SITE PLAN



SITE RENDERING



SITE RENDERING



Traffic Impact Study Report

3902 Mud Lane Apartments

Louisville, Jefferson Co., KY

Prepared For:

Hubert L. Hester Trust

Prepared By:



adam kirk engineering

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October 7, 2022
Revised January 9, 2023

EXISTING CONDITIONS

Mud Lane is a two-lane roadway with a posted speed of 35 mph. East of Cody Lane Mud Lane is widened to a 3-lane section with a center left turn lane. Significant residential development to the south exists with access to the east of the proposed site, at Cody Lane and Brookley Drive. The intersection of Mud Lane at Blue Lick Road is a 'T' intersection with stop control on Mud Lane. The intersection of Mud Lane at Preston Highway is signal controlled and aligns with Mt. Washington Road to the east. Left and right auxiliary turn lanes are present on Mud Lane at the intersection.

AM and PM turning movement counts were collected on Thursday September 29, 2022 between 7-9 a.m. and 4-6 p.m. at the study intersections. Full turn movement count data is provided in Appendix B. AM and PM peak hour traffic volumes are summarized in Figure 2.

Figure 2: AM and PM Peak Hour Turning Movement Counts



TRIP GENERATION

Trip Generation was conducted in accordance with the ITE Trip Generation Web Based App, 11th edition. Trip Generation utilized **ITE Land Use Code 221 Multi-family Housing (mid-rise)**. Based on this land use and the proposed 252 multi-family homes, the development is expected to generate 99 vehicles per hour during both the AM and PM peak hour of the adjacent street traffic,. **Table 1** summarizes the trip generation and **Appendix C** contains output from the ITE Trip Generation Manual. No reductions for pass-by trips or internal trip capture trips were made.

ITE Land Use Code	Land Use Description	Ind. Var. (X)	Ind. Var. Units	Entering/ Exiting	AM Trips Generated	PM Trips Generated
221	Multi-Family Residential (mid rise)	252	dwelling units	Total	99	99
				entering	23	60
				exiting	76	39

TRAFFIC FORECASTING

Historic traffic counts were available for Mud Lane at station 056283, which is immediately east of the proposed access and east of Cody Lane and Brookley Drive. Based on this data, historic traffic patterns indicate a growth rate of 2.5 percent per year on Mud Lane. Historic traffic counts on Preston Highway were also reviewed and identified a growth rate of -0.36, traffic volumes on Preston Highway were assumed to remain constant for future year analysis. **Appendix D** contains the historic traffic data and output from the KYTC Traffic forecasting spreadsheet. 2023 No Build and 2033 No Build traffic volumes are summarized in **Figures 3 and 4**.

TRIP DISTRIBUTION METHODOLOGY

Generated trips were distributed onto the roadway network based on recorded travel patterns on Mud Lane as identified through the traffic data collection detailed above. Existing traffic patterns indicated 80% of traffic was to/from the east (towards Preston Highway) during both the AM peak period, and 65 percent of traffic to/from the east during the PM peak period. Traffic destined to the west towards Blue Lick Road was assigned to the western access (Access Point 1) and the remaining traffic to the eastern access (Access Point 2) Trip distribution is shown in **Figure 5**. **Figures 6 and 7** show the final build traffic volumes for 2023 and 2033.

Updated Traffic Distribution



3902 Mud Lane Apartments
Traffic Impact Study

TRIP DISTRIBUTION METHODOLOGY

Generated trips were distributed onto the roadway network based on recorded travel patterns and discussions with Planning and Design Staff. A final distribution of 70 percent of traffic to/from Preston Highway and 30 percent of traffic to/from Blue Lick Road was used for both the AM and PM peak periods. Traffic destined to the west towards Blue Lick Road was assigned to the western access (Access Point 1) and the remaining traffic to the eastern access (Access Point 2). Trip distribution is shown in **Figures 5 and 6**. **Figures 6 and 7** show the final build traffic volumes for 2023 and 2033.

CAPACITY ANALYSIS

Capacity analysis for the existing, no build and build scenarios was completed for the study intersection during the AM and PM peak hours using HCM methodologies as applied Synchro Capacity Software version 10. **Table 1** summarizes the LOS, and delay for the No Build and Build scenarios. Full capacity analysis output is provided in **Appendix E**.

Table 1: Capacity Analysis Summary (Opening Year 2023)

Intersection/Movement	AM Peak				PM Peak			
	No Build		Build		No Build		Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Mud Lane at Blue Lick Road								
Westbound	B	11.1	B	11.3	E	44	E	48.5
Southbound (Left Turn)	A	3.4	A	3.5	A	5.7	A	5.8
Mud Lane at Access 1								
Northbound	-	-	B	10.0	-	-	B	14.7
Westbound (Left Turn)	-	-	A	0.0	-	-	A	0
Mud Lane at Access 2								
Northbound	-	-	A	9.3	-	-	B	10.7
Westbound (Left Turn)	-	-	A	1.3	-	-	A	1.2
Mud Lane at Preston Highway								
Intersection	D	39.8	D	41.7	D	53.9	E	55.7
Eastbound	E	61.5	E	62.3	F	87.5	F	89
Westbound	E	58.3	E	59.1	E	71.3	E	73.9
Northbound	C	31.6	C	34.0	E	58.0	E	59.3
Southbound	C	26.3	C	27.4	D	38.7	D	40.3

Table 2: Capacity Analysis Summary (Design Year 2033)

Intersection/Movement	AM Peak				PM Peak			
	No Build		Build		No Build		Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Mud Lane at Blue Lick Road								
Westbound	B	12.2	B	12.5	F	214.5	F	238.4
Southbound (Left Turn)	A	3.6	A	3.6	A	6.6	A	6.7
Mud Lane at Access 1								
Northbound	-	-	B	10.4	-	-	C	17.1
Westbound (Left Turn)	-	-	A	0.0	-	-	A	0
Mud Lane at Access 2								
Northbound	-	-	A	9.5	-	-	B	11.3
Westbound (Left Turn)	-	-	A	1.1	-	-	A	1.1
Mud Lane at Preston Highway								
Intersection	D	39	D	45.1	E	62.7	E	65.3
Eastbound	E	66.6	E	63.8	F	92.4	F	100.1
Westbound	D	53.8	E	61.0	E	79.7	F	81.1
Northbound	C	29.4	D	38.7	E	70.3	E	73.5
Southbound	C	24.2	C	29.8	D	46.2	D	47

CAPACITY ANALYSIS

Capacity analysis for the existing, no build and build scenarios was completed for the study intersection during the AM and PM peak hours using HCM methodologies as applied Synchro Capacity Software version 10. **Table 1** summarizes the LOS, and delay for the No Build and Build scenarios. Full capacity analysis output is provided in **Appendix E**.

Table 1: Capacity Analysis Summary (Opening Year 2023)

Intersection/Movement	AM Peak				PM Peak			
	No Build		Build		No Build		Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Mud Lane at Blue Lick Road								
Westbound	B	11.1	B	11.4	E	49.6	F	64.2
Southbound (Left Turn)	A	3.4	A	3.5	A	5.7	A	5.9
Mud Lane at Access 1								
Northbound	-	-	B	10.1	-	-	B	14.9
Westbound (Left Turn)	-	-	A	0.0	-	-	A	0
Mud Lane at Access 2								
Northbound	-	-	A	9.3	-	-	B	10.7
Westbound (Left Turn)	-	-	A	1.0	-	-	A	0.9
Mud Lane at Preston Highway								
Intersection	D	39.8	D	41.7	D	53.9	E	55.7
Eastbound	E	61.5	E	62.3	F	87.5	F	89
Westbound	E	58.3	E	59.1	E	71.3	E	73.9
Northbound	C	31.6	C	34.0	E	58.0	E	59.3
Southbound	C	26.3	C	27.4	D	38.7	D	40.3

Table 2: Capacity Analysis Summary (Design Year 2033)

Intersection/Movement	AM Peak				PM Peak			
	No Build		Build		No Build		Build	
	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Mud Lane at Blue Lick Road								
Westbound	B	12.3	B	12.8	F	261.9	F	319.2
Southbound (Left Turn)	A	3.6	A	3.7	A	6.6	A	6.8
Mud Lane at Access 1								
Northbound	-	-	B	10.5	-	-	C	17.5
Westbound (Left Turn)	-	-	A	0.0	-	-	A	0
Mud Lane at Access 2								
Northbound	-	-	A	9.5	-	-	B	11.4
Westbound (Left Turn)	-	-	A	0.9	-	-	A	0.8
Mud Lane at Preston Highway								
Intersection	D	39	D	45.1	E	62.7	E	65.3
Eastbound	E	66.6	E	63.8	F	92.4	F	100.1
Westbound	D	53.8	E	61.0	E	79.7	F	81.1
Northbound	C	29.4	D	38.7	E	70.3	E	73.5
Southbound	C	24.2	C	29.8	D	46.2	D	47

ALL-WAY STOP CONTROL

2023 Capacity Analysis									
Intersection	Movement	Exisiting (TWSC)		Build (TWSC)		Exisiting (AWSC)		Build (AWSC)	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
AM Peak Hour									
Blue Lick Road at Mud Lane	Intersection	-	-	-	-	-	-	-	-
	westbound	B	11.1	B	11.4	A	8.2	A	8.5
	northbound					A	8.4	A	8.5
	southbound (left turn)	A	3.4	A	3.5	A	9.7	B	10
PM Peak Hour									
Blue Lick Road at Mud Lane	Intersection	-	-	-	-	-	-		
	westbound	E	49.6	F	64.2	C	16.6	C	18.8
	northbound					C	16.5	C	18.5
	southbound (left turn)	A	5.7	A	5.9	D	34.3	E	46
2033 Capacity Analysis									
Intersection	Movement	Exisiting (TWSC)		Build (TWSC)		Exisiting (AWSC)		Build (AWSC)	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
AM Peak Hour									
Blue Lick Road at Mud Lane	Intersection	-	-	-	-	-	-	-	-
	westbound	B	12.3	B	12.8	A	8.8	A	9.1
	northbound					A	9	A	9.2
	southbound (left turn)	A	3.6	A	3.7	B	11	B	11.3
PM Peak Hour									
Blue Lick Road at Mud Lane	Intersection	-	-	-	-	-	-		
	westbound	F	261.9	F	319.2	D	27.3	D	29.5
	northbound					D	29.5	D	30.9
	southbound (left turn)	A	6.6	A	6.8	F	132.4	F	147.6

Alternative analysis was conducted for the intersection of Blue Lick Road and Mud Lane to evaluate if an All-Way Stop Control (AWSC) would improve delay at the intersection. **Table 3** summarizes this analysis. This analysis showed that AWSC would decrease delay on Mud Lane, but would also increase delay on the previously uncontrolled approaches of Blue Lick Road. As Blue Lick Road (KY 1450) is a state route, modifications and alternatives at this intersection should be coordinated with KYTC.

TURN LANE WARRANT ANALYSIS

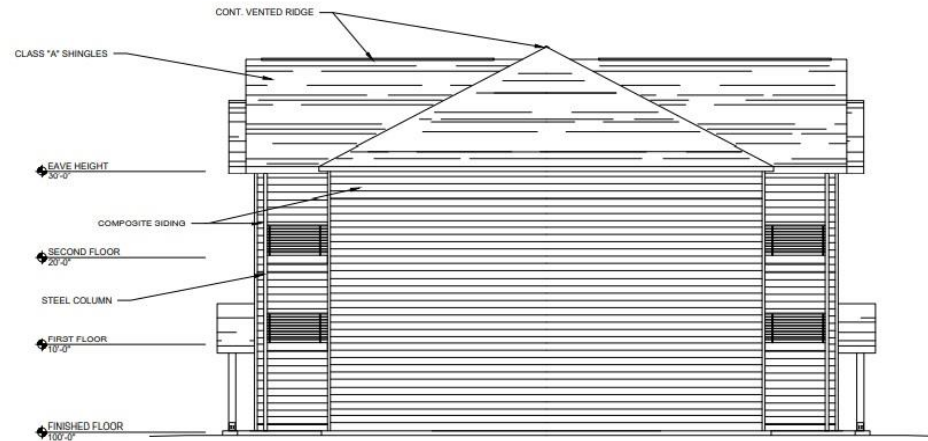
Auxiliary turn lane warrant analysis was conducted in accordance with KYTC Auxiliary Turn Lane policy, as applied by the Warrant Calcs Interactive excel spreadsheet provided on the KYTC Division of Design website. Based on this analysis, a left turn lane is warranted at Access Point 2, the eastern most access point, based on PM peak hour volumes. Right turn lanes were not warranted at either access point. Output from the warrant analysis is provided in **Appendix F**.

RECOMMENDATIONS

No additional improvements beyond the proposed access improvements and the left turn at Access Point 2 have been identified at this time.



01 FRONT & REAR ELEVATIONS
SCALE: 1/8" = 1'-0"



02 SIDE ELEVATION
SCALE: 1/8" = 1'-0"

HOUSING EXAMPLES



HOUSING EXAMPLES



Questions?

Ashley B Casey
602 Jennymac Drive
Louisville, KY 40229
Parcel No. 043-NW0-25-072
D.B. PG.

Ryan Glen Caldwell
590 Jennymac Drive
Louisville, KY 40229
Parcel No. 043-NW0-25-071
D.B. PG.

Barbara J Hale
580 Jennymac Drive
Louisville, KY 40229
Parcel No. 043-NW0-25-070
D.B. PG.

Marvin Amigo Sanchez
568 Jennymac Drive
Louisville, KY 40229
Parcel No. 043-NW0-25-069
D.B. PG.

Fay Servicing LLC
939 W North Ave Ste 680
Chicago IL 60642
Parcel No. 043-NW0-25-068
D.B. 931 PG. 727

Fundra Iyadskiy Sosa
544 Jennymac Dr
Louisville, KY 40229
Parcel No. 043-NW0-25-0676
D.B. 956 PG. 655

Patricia Napper
536 Jennymac Dr
Louisville, KY 40229
Parcel No. 043-NW0-25-066
D.B. PG.

Lisa Ann Logsdon
524 Jennymac Dr
Louisville, KY 40229
Parcel No. 043-NW0-25-065
D.B. 983 PG. 617

R-4/N
Silvia Sanchez Almaraz &
Aquilino Guerrero Ariza
3804 Mud Lane
Louisville, KY 40229
DB. 11308 PG. 0599

R-4/N
Theresa Lynn Cutsinger
4100 Mud Lane
Louisville, KY 40229
DB. 6435 PG. 0348

R-4/N
Michael C & Terry D Misback
4002 Mud Lane
Louisville, KY 40229
DB. 5908 PG. 0867

R-4/SW
Joe Burnett Sr
3050 Mud Lane
P.O. Box 43544
Louisville, KY 40253
DB. 8851 PG. 0425

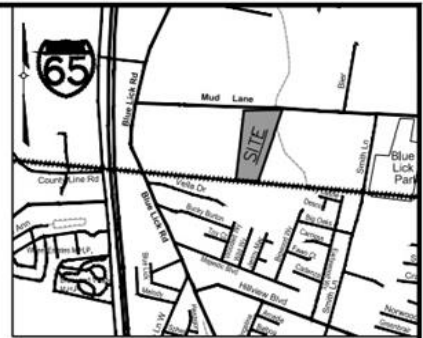
R-4/SW
John H & Louise A Bricken
3905 Mud Lane
Louisville, KY 40229
DB. 5605 PG. 0901

R-4/SW
John H & Louise A Bricken
3905 Mud Lane
Louisville, KY 40229
DB. 5605 PG. 0901

R-4/SW
John H & Louise A Bricken
3905 Mud Lane
Louisville, KY 40229
DB. 5605 PG. 0901

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John H & Louise A Bricken
3905 Mud Lane
Louisville, KY 40229
DB. 5605 PG. 0901

R-4/SW
John H & Louise A Bricken
3905 Mud Lane
Louisville, KY 40229
DB. 5605 PG. 0901



LOCATION MAP
NOT TO SCALE

PROJECT DATA

TOTAL SITE AREA	= 15.26± Ac. (664,909 SF)
R/W DEDICATION AREA	= 0.47± Ac. (20,265 SF)
NET SITE AREA	= 14.79± Ac. (644,644 SF)
EXISTING ZONING	= R-4
PROPOSED ZONING	= R-6
FORM DISTRICT	= NEIGHBORHOOD
EXISTING USE	= UNDEVELOPED
PROPOSED USE	= MULTI-FAMILY RESIDENTIAL
NO. OF UNITS	= 252 UNITS
BUILDING HEIGHT	= 3 STORY (35' MAX. ALLOWED)
BUILDING AREA	= 313,266 SF
NET DENSITY	= 17.04 DU/AC. (17.42 DU/AC. MAX. ALLOWED)
GROSS DENSITY	= 16.51 DU/AC. (17.42 DU/AC. MAX. ALLOWED)
PARKING REQUIRED	1 SP/UNIT MIN. 2 SP/UNIT MAX.
	MIN. 252 SP MAX. 504 SP
TOTAL PARKING PROVIDED	= 420 SPACES (22 HC SP INCLUDED)
OPEN SPACE REQUIRED	= 96,697 SF
OPEN SPACE PROVIDED	= 236,332 SF
RECREATIONAL OPEN SPACE REQUIRED	= 48,349 SF (50% OF REQUIRED)
RECREATIONAL OPEN SPACE PROVIDED	= 48,349 SF
TOTAL VEHICULAR USE AREA	= 144,158 SF
INTERIOR LANDSCAPE AREA REQUIRED	= 13,315 SF
INTERIOR LANDSCAPE AREA PROVIDED	= 13,315 SF
EXISTING IMPERVIOUS	= 0 SF
PROPOSED IMPERVIOUS	= 264,055 SF

GENERAL NOTES:

1. Parking areas and drive lanes to be a hard and durable surface.
2. An encroachment permit and bond will be required for all work done in the right-of-way.
3. No increase in drainage run off to state roadways.
4. There shall be no commercial signs in the right-of-way.
5. Site lighting shall not shine in the eyes of drivers. If it does it shall be re-aimed, shielded, or turned off.
6. Construction fencing shall be erected prior to any construction or grading activities preventing compaction of root systems of trees to be preserved. The fencing shall enclose the area beneath the drip line of the tree canopy and shall remain in place. No parking, material storage, or construction activities shall be permitted within the fenced area.
7. Mitigation measures for dust control shall be in place during construction to prevent fugitive particulate emissions from reaching existing roads and neighboring properties.
8. Compatible utilities shall be placed in a common trench unless otherwise required by appropriate agencies.
9. Wheel stops or curbing, at least six inches high and wide, shall be provided to prevent vehicles from overhanging abutting sidewalks, properties or public right-of-ways, to protect landscaped areas and adjacent properties. Wheel stops shall be located at least (3) feet from any adjacent wall, fence, property line, woody vegetation, walkway or structure.
10. Benchmark and topographical information shown hereon were derived from Loic data. Boundary information was taken from deeds.
11. A site visit was conducted by Derek Triplett RLA on 3/17/22 and there was no evidence of karst features.
12. Street trees to be provided in all adjacent rights-of-way. Final location and type to be shown on the approved landscape plan.
13. Construction plans, bond, and permit are required by Metro Public Works prior to construction approval.

MSD NOTES:

1. All retail shops must have individual connections per MSD's fats, oils and grease policy.
2. Construction plans and documents shall comply with Louisville and Jefferson County Metropolitan Sewer District Design Manual and Standard Specifications and other local, state and federal ordinances.
3. Sanitary sewer service will be provided by lateral extension and subject to applicable fees. A Downstream Facilities Capacity request will be submitted to MSD.



MUD LN & BLUE LICK RD

