

Louisville Metro Land Development & Transportation Committee - October 12, 2023  
Neighborhood Meetings - November 29 & 30, 2022, and June 13, 2023

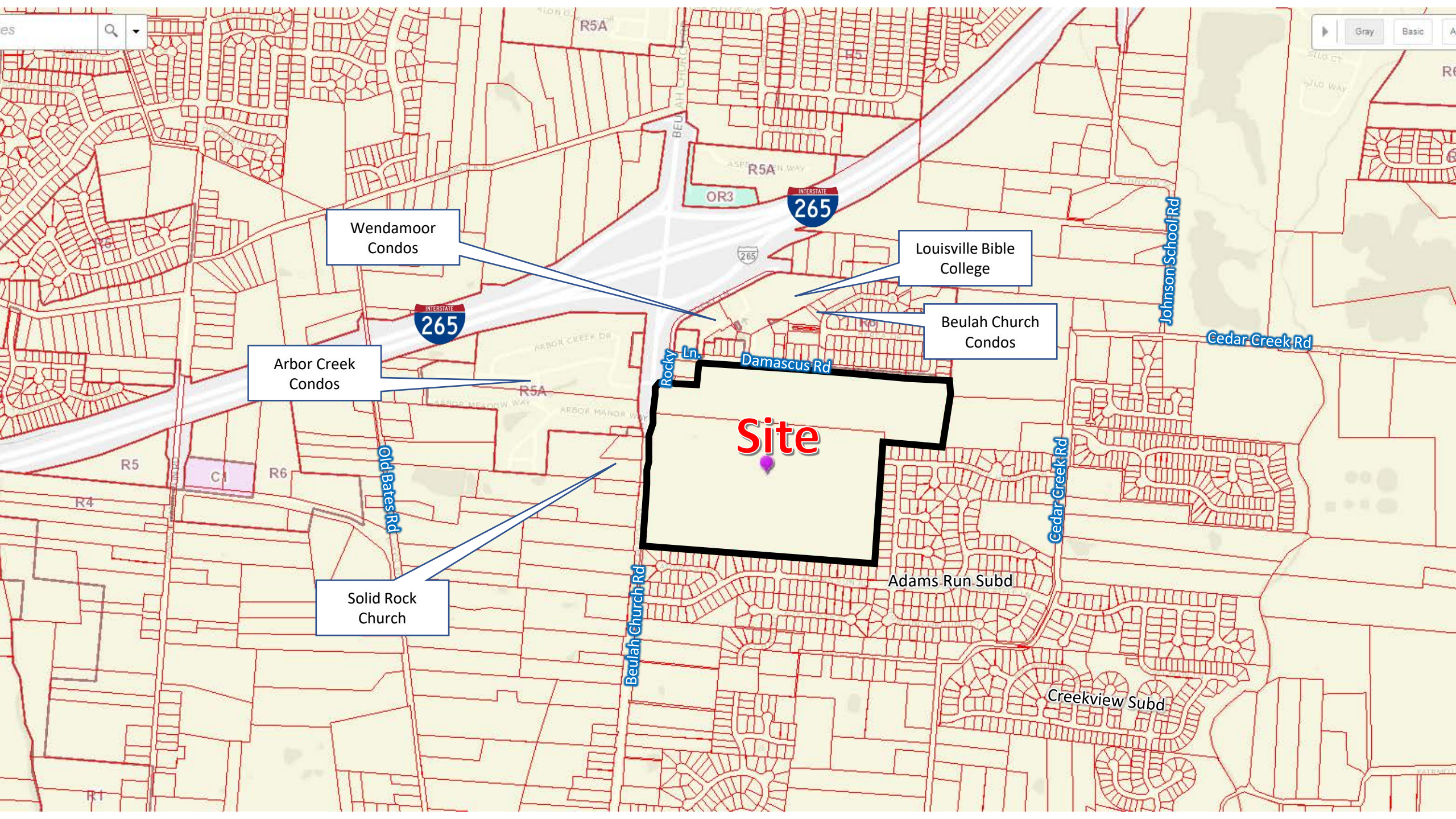
## Docket No. 23-ZONE-0030

Zone Change from R-4 to R-5, R-5A, R-6 and C-1 to allow a mixed-use development  
on property located at 6803 and 6805 Beulah Church Road

Applicant: BEULAH CHURCH ROAD, LLC  
c/o Patrick Madden

Attorneys: Bardenwerper Talbott & Roberts, PLLC  
Land Planner, Landscape Architect & Engineer: Land Design & Development, Inc.  
Traffic Engineer: Diane B. Zimmerman Traffic Engineering, LLC





Wendamoor  
Condos

Louisville Bible  
College

Beulah Church  
Condos

Arbor Creek  
Condos

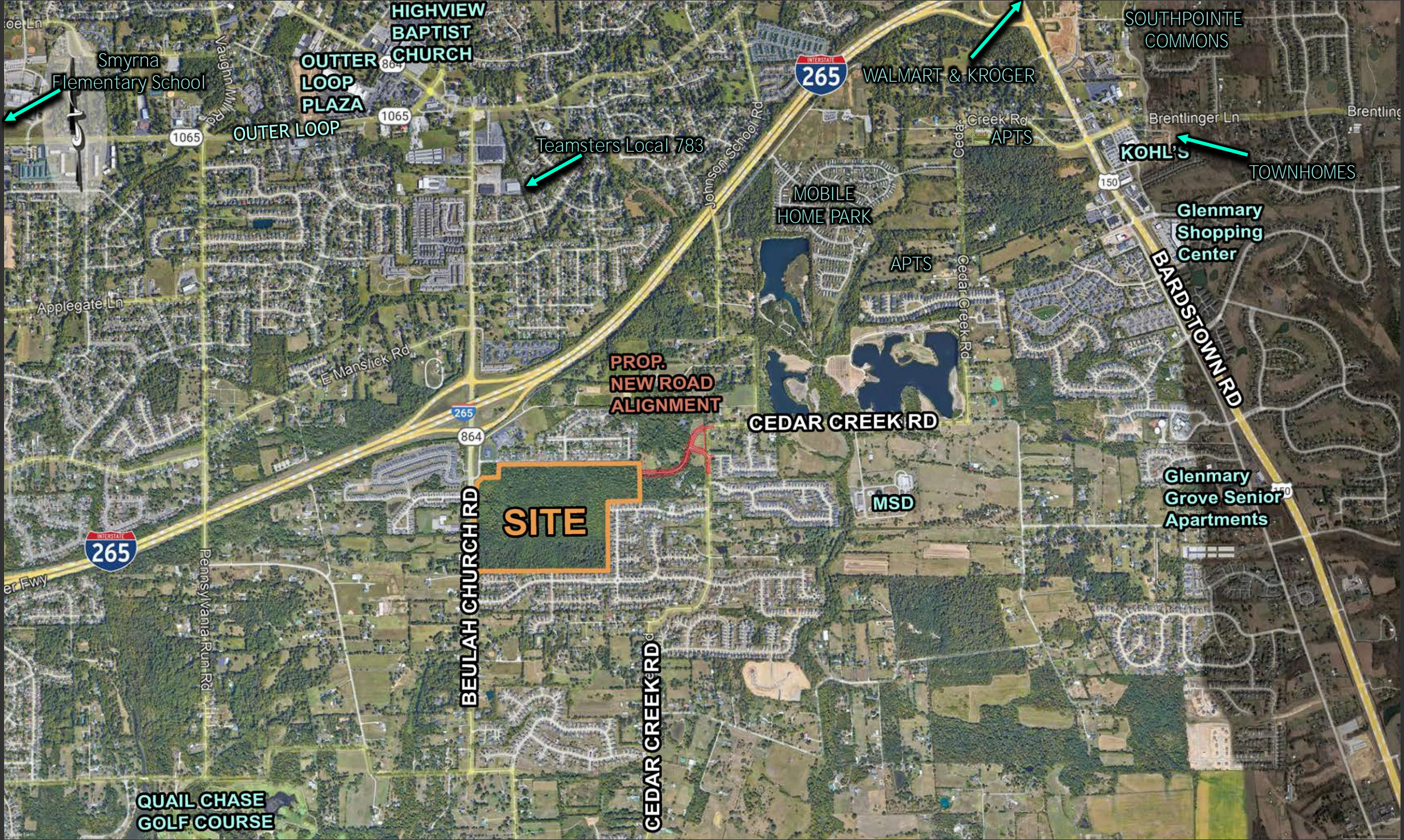
Site

Solid Rock  
Church

Adams Run Subd

Creekview Subd





oe Ln

Smyrna  
Elementary School

1065

OUTTER  
LOOP  
PLAZA

OUTER LOOP

1065

864

HIGHVIEW  
BAPTIST  
CHURCH

Teamsters Local 783

INTERSTATE  
265

WALMART & KROGER

Creek Rd  
APTS

KOHL'S

SOUTHPOINTE  
COMMONS

TOWNHOMES

Glenmary  
Shopping  
Center

BARDSTOWN RD

Glenmary  
Grove Senior  
Apartments

Applegate Ln

E Mansick Rd

PROP.  
NEW ROAD  
ALIGNMENT

CEDAR CREEK RD

MSD

SITE

BEULAH CHURCH RD

CEDAR CREEK RD

QUAIL CHASE  
GOLF COURSE

INTERSTATE  
265

er Fwy

Pennsylvania Run Rd





Wendamoor  
Condos

Louisville Bible  
College

Beulah Church  
Condos

Arbor Creek  
Condos

Solid Rock  
Church

MSD Cedar Ck WTP

**SITE**

INTERSTATE  
265

265

Old Bates Rd

BEULAH CHURCH RD

Rocky Ln

Damascus Rd

Johns Johnson School Rd

Cedar Creek Rd

Cedar Creek Rd

Beulah Church Rd

FAIRMOUNT





← 6998 Arbor Creek Dr  
Louisville, Kentucky  
Google Street View  
Oct 2018 See more dates

SITE

Rocky Ln

Beulah Church Rd

View of site from Rocky Lane (which leads to Damascus Rd).



← 8000 Damascus Rd  
Louisville, Kentucky

Google Street View

Apr 2019 [See more dates](#)



**SITE**



Looking east down Damascus Road. Site is to the right.






Looking south down Beulah Church Road (Rocky Ln leads to Damascus Rd). Site is to the left.



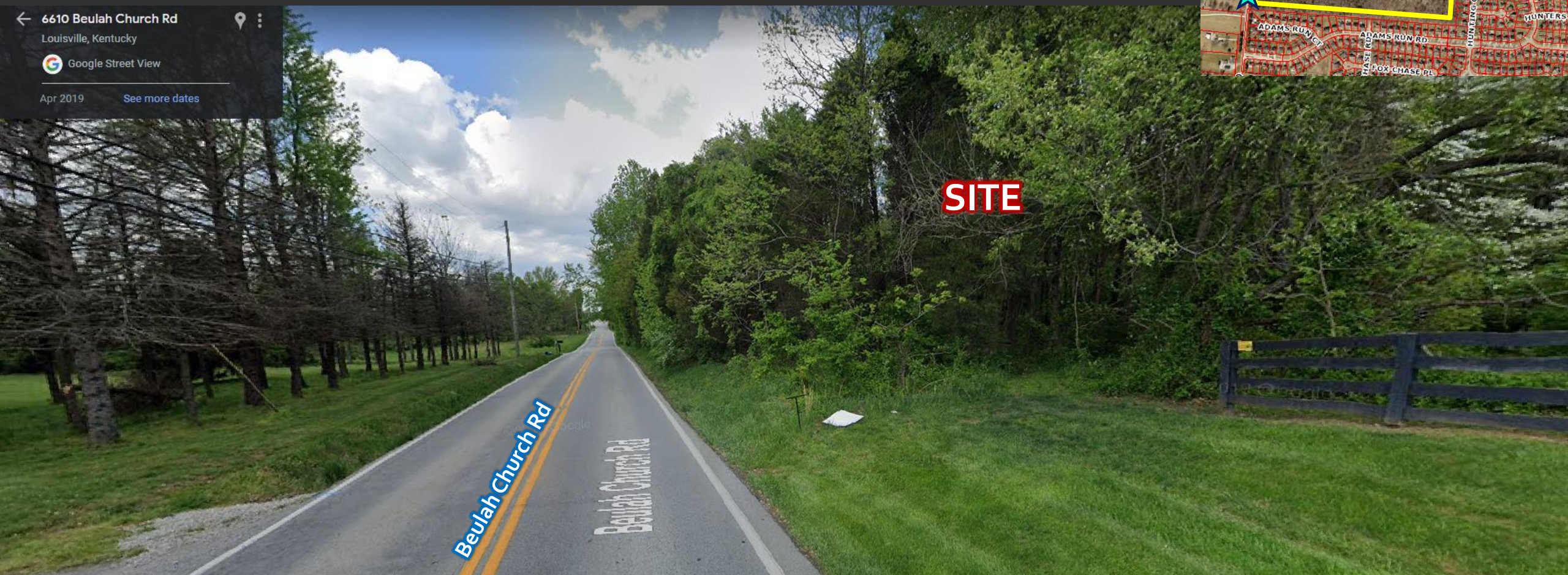




← 6610 Beulah Church Rd  
Louisville, Kentucky

 Google Street View

Apr 2019    [See more dates](#)



Looking north up Beulah Church Road. Site is to the right.



← 9003 Black Powder Ln  
Louisville, Kentucky  
Google Street View  
Oct 2015 See more dates



6803 Beulah Church Rd,  
Louisville, KY 40228

Looking west down Black Powder Lane towards site.



← Fox Chase Rd  
Louisville, Kentucky  
Google Street View  
Oct 2015 See more dates



Looking north down Fox Chase Road towards site.

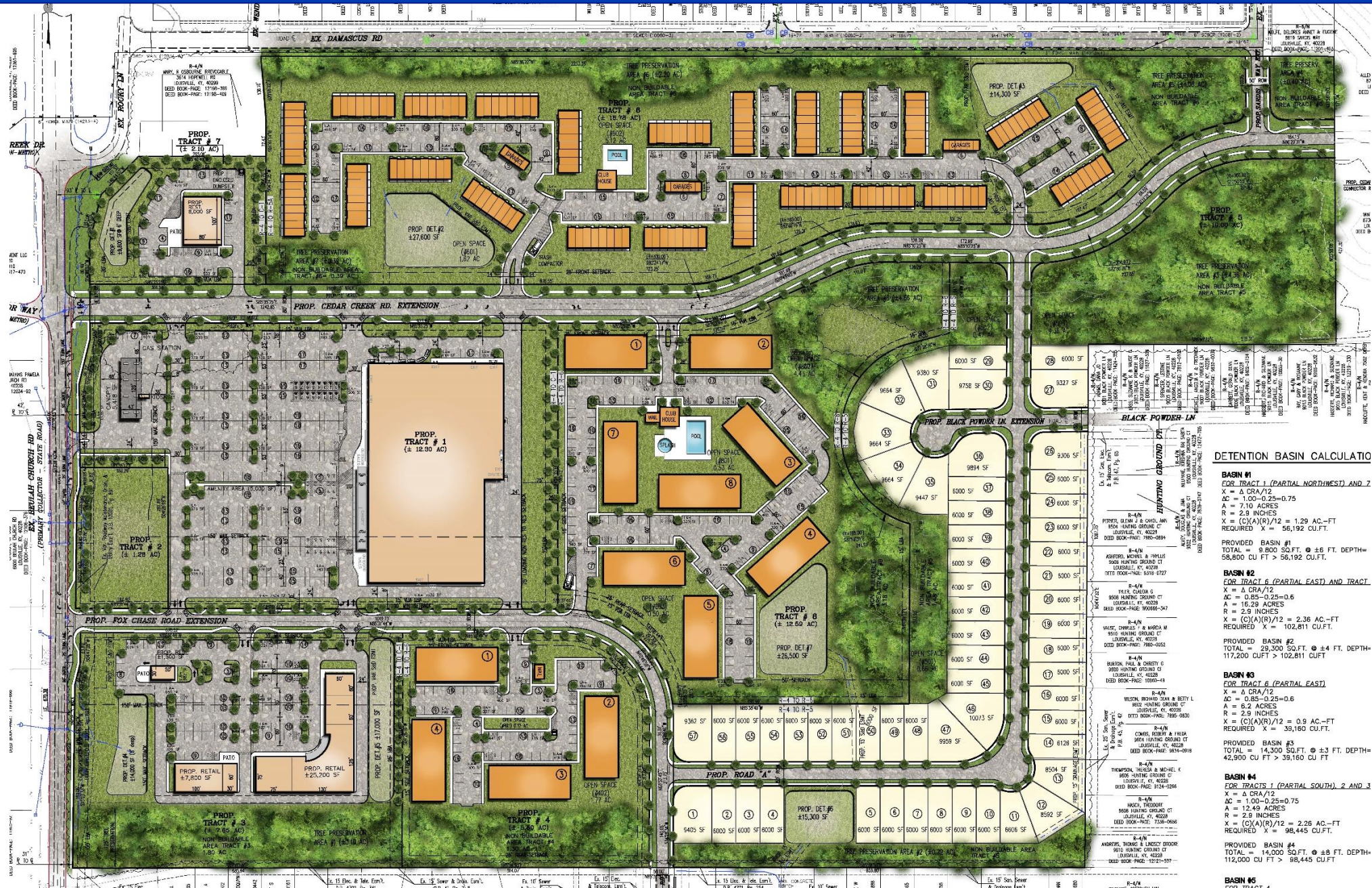


# Plan shown at the November 29 and 30, 2022 neighborhood meetings





# Plan shown at the June 13, 2023 neighborhood meeting



## DETENTION BASIN CALCULATION

**BASIN #1**  
FOR TRACT 1 (PARTIAL NORTHWEST) AND 7  
X = A CRA/12  
AC = 1.00-0.25=0.75  
A = 7.10 ACRES  
R = 2.9 INCHES  
X = (C(A)R)/12 = 1.29 AC-FT  
REQUIRED X = 56,192 CU.FT.

**PROVIDED BASIN #1**  
TOTAL = 9,800 SQ.FT. @ ±6 FT. DEPTH= 58,800 CU.FT > 56,192 CU.FT.

**BASIN #2**  
FOR TRACT 6 (PARTIAL EAST) AND TRACT 8  
X = A CRA/12  
AC = 0.85-0.25=0.6  
A = 16.29 ACRES  
R = 2.9 INCHES  
X = (C(A)R)/12 = 2.36 AC-FT  
REQUIRED X = 102,811 CU.FT.

**PROVIDED BASIN #2**  
TOTAL = 26,300 SQ.FT. @ ±4 FT. DEPTH= 117,200 CU.FT > 102,811 CU.FT

**BASIN #3**  
FOR TRACT 6 (PARTIAL EAST)  
X = A CRA/12  
AC = 0.85-0.25=0.6  
A = 6.2 ACRES  
R = 2.9 INCHES  
X = (C(A)R)/12 = 0.9 AC-FT  
REQUIRED X = 39,160 CU.FT.

**PROVIDED BASIN #3**  
TOTAL = 14,300 SQ.FT. @ ±3 FT. DEPTH= 42,900 CU.FT > 39,160 CU.FT

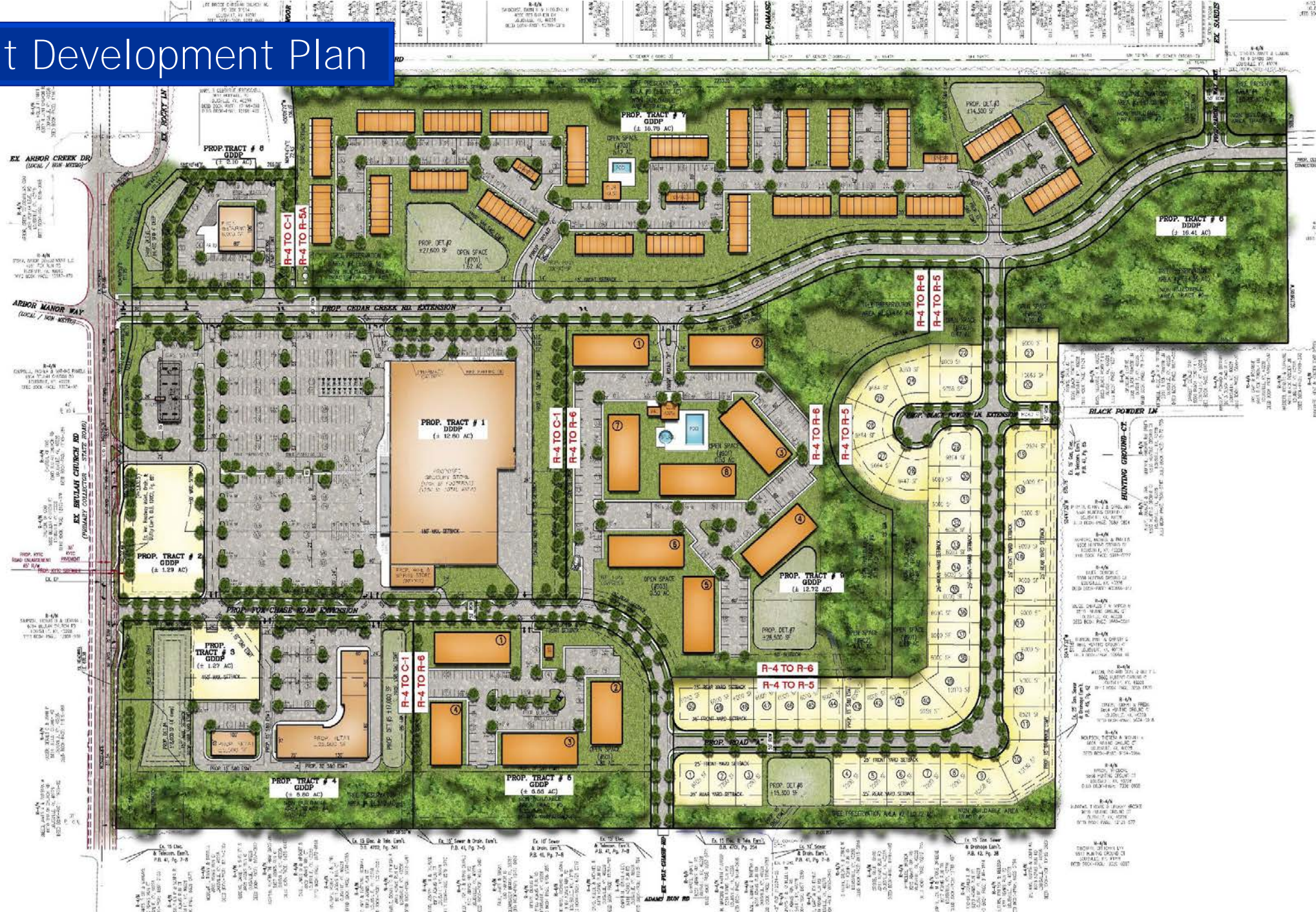
**BASIN #4**  
FOR TRACTS 1 (PARTIAL SOUTH), 2 AND 3  
X = A CRA/12  
AC = 1.00-0.25=0.75  
A = 12.49 ACRES  
R = 2.9 INCHES  
X = (C(A)R)/12 = 2.26 AC-FT  
REQUIRED X = 98,445 CU.FT.

**PROVIDED BASIN #4**  
TOTAL = 14,000 SQ.FT. @ ±8 FT. DEPTH= 112,000 CU.FT > 98,445 CU.FT

**BASIN #5**



## Current Development Plan



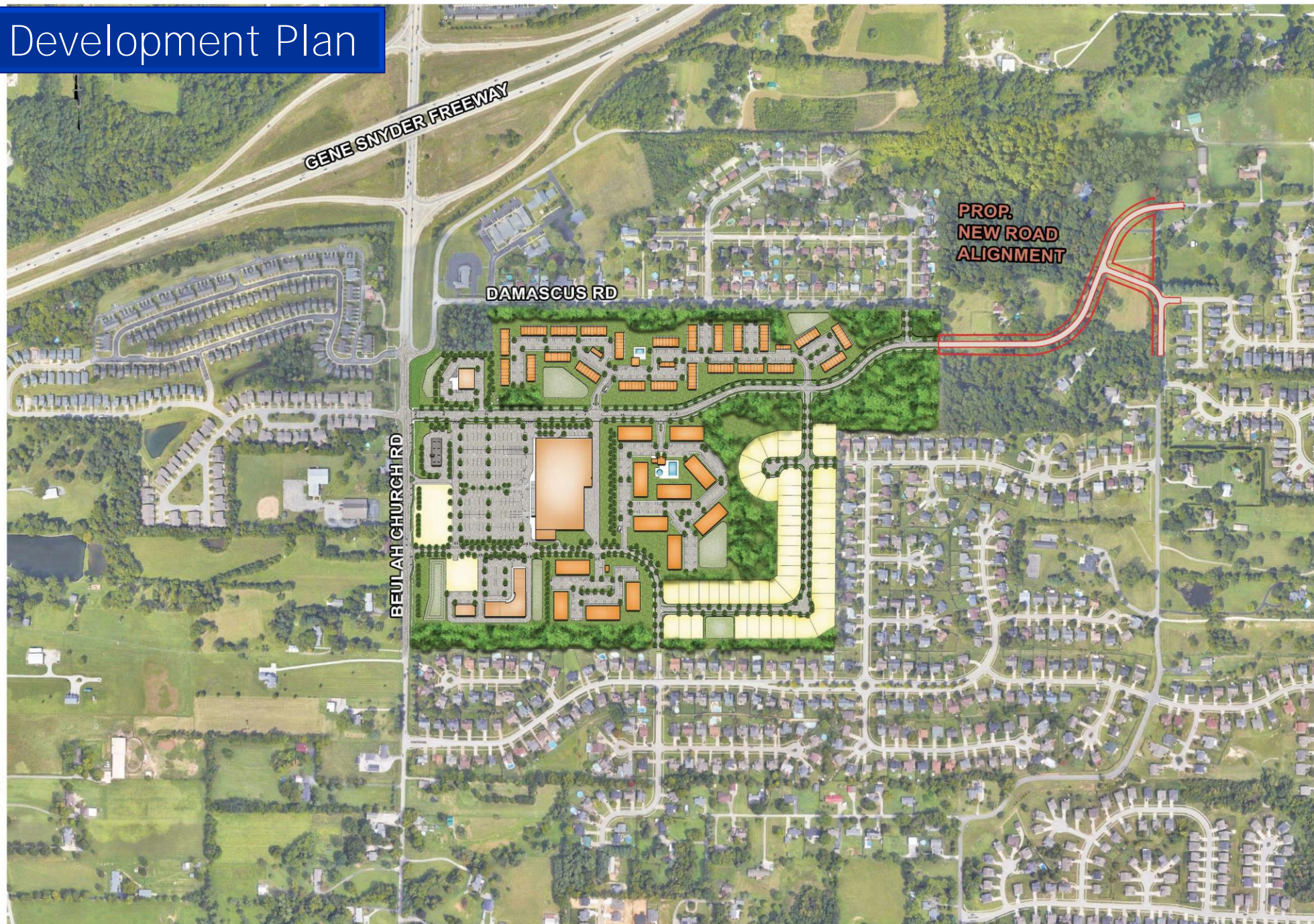


Uses	11/29/22 NM	06/13/23 NM	Current Dev Plan
Single Family lots*	111 lots	57 lots	50 lots
Multifamily	192 units	288 units	288 units
Townhouses	168 units	184 units	184 units
Commercial/Retail/Restaurant	14,000 sf	42,500 sf	38,500 sf
Grocery with Gas Station	56,000 sf	122,000 sf	127,000 sf
Assisted Living or Office or Hotel	68,800 sf	0 sf	0 sf
Tree Canopy Protection Area	11.92 ac	16.92 ac	16.92 ac

\*Eliminated sf lots along Damascus Rd and replaced them with TCPA. Also, increased sizes of some lots adjoining sf neighborhoods to the south and east

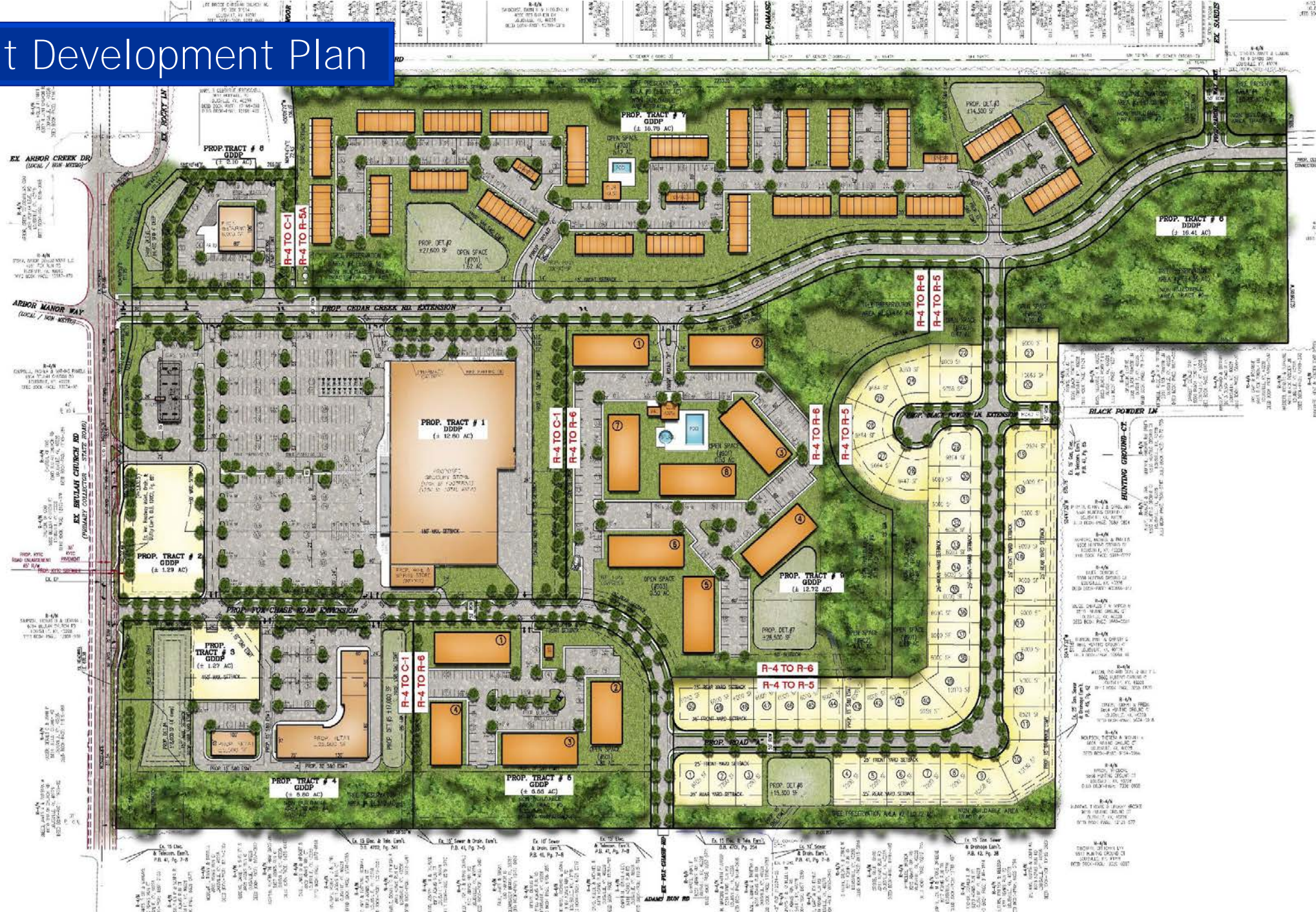


# Current Development Plan





## Current Development Plan







Not in contract

FUTURE  
RETAIL

FUTURE  
RETAIL

864

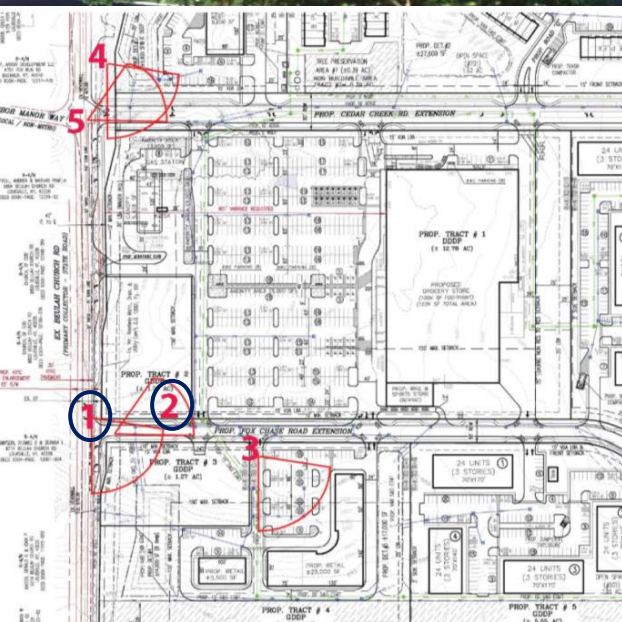




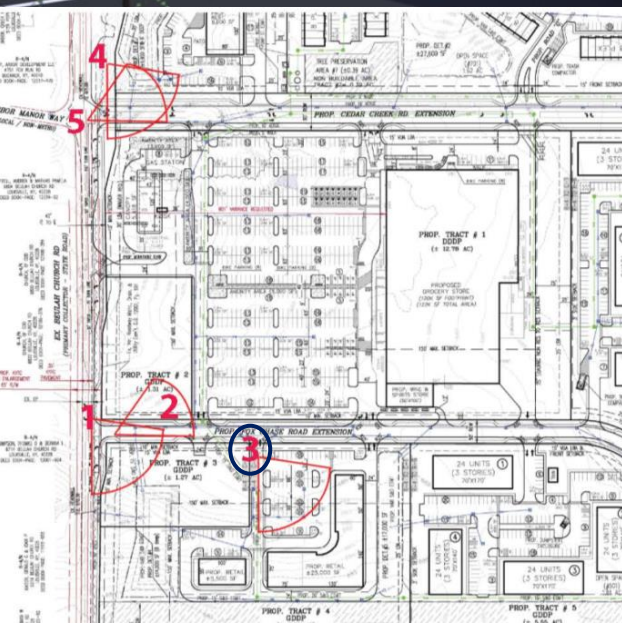
FUTURE  
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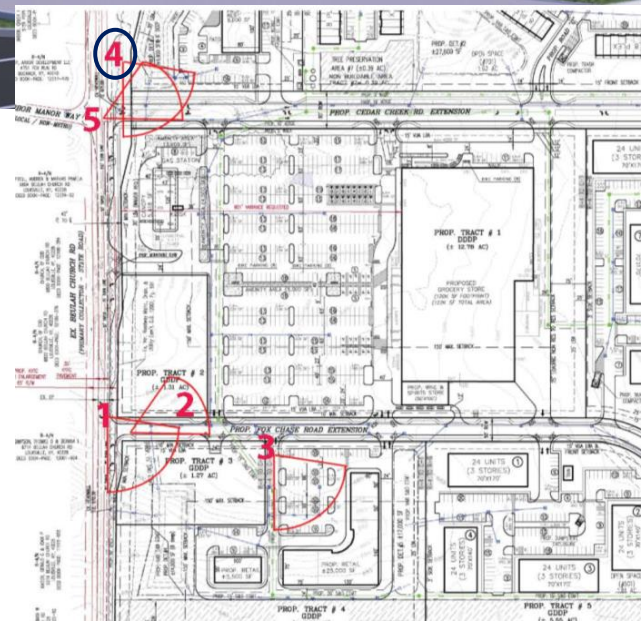


















# Current Development Plan





# final report

March 6, 2023

## Traffic Impact Study

6805 Beulah Church Road (KY 864)  
Louisville, KY

Prepared for

Louisville Metro Planning Commission  
Kentucky Transportation Cabinet





## INTRODUCTION

The development plan for 6805 Beulah Church Road (KY 864) in Louisville, KY shows a mix of retail, office, hotel and residential units. **Figure 1** displays a map of the site. Access to the site will be from two entrances on Beulah Church Road (one is the Cedar Creek Road extension) and three connections to adjacent stub streets – Sardis Way, Black Powder Lane, and Fox Chase Road. The purpose of this study is to examine the traffic impacts of the development upon the adjacent highway system. For this study, the impact area was defined to be the intersections of Beulah Church Road with I 265 ramps, Arbor Creek Drive/Rocky Lane, Arbor Manor Way, and Adams Run Road; Adams Run Road with Fox Chase Road, and Cedar Creek Road with Black Powder Lane.



Figure 1. Site Map

## EXISTING CONDITIONS

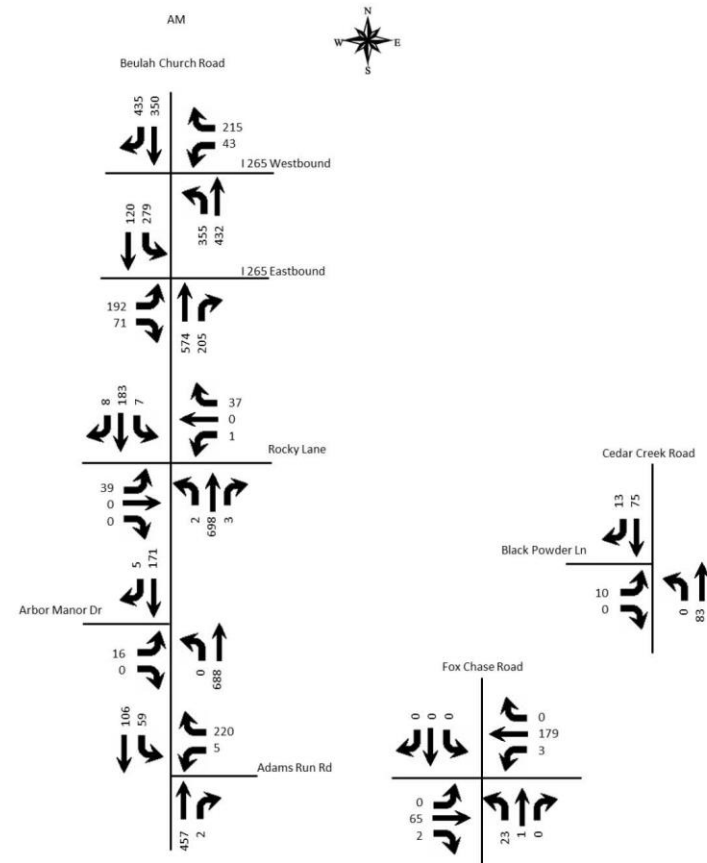
Beulah Church Road, KY 864, is maintained by the Kentucky Transportation Cabinet (KYTC) with an estimated 2022 ADT of 10,000 vehicles per day south of I 265 as estimated from a 2019 count at KYTC station 269. The road is a two-lane highway with ten-foot lanes with three-foot shoulders through the study area (provided by the Kentucky Transportation Cabinet). The speed limit is 35 mph. There is a sidewalk on the west side between Arbor Manor Way and Arbor Creek Drive. The intersections with I 265 ramps are controlled with a traffic signal. At both intersections Beulah Church Road has a left lane and the right turn lanes are free flow. A two-way left turn lane begins south of I 265 and ends at Arbor Manor Drive. The intersections of Arbor Creek Drive/Rocky Lane, Arbor Manor Way and Adams Run Road are controlled with a stop sign on the minor street approach.



# Beulah Church Road Traffic Impact Study

The intersections of Fox Chase Road and Black Powder Lane are all controlled with stop signs and there are no turn lanes present.

Peak hour traffic count for the intersections were obtained on Wednesday, November 16, 2022. The a.m. peak was 7:00 to 8:00 and the p.m. peak hour varied. **Figure 2** illustrates the existing a.m. and p.m. peak hour traffic volumes. The Appendix contains the full count data.





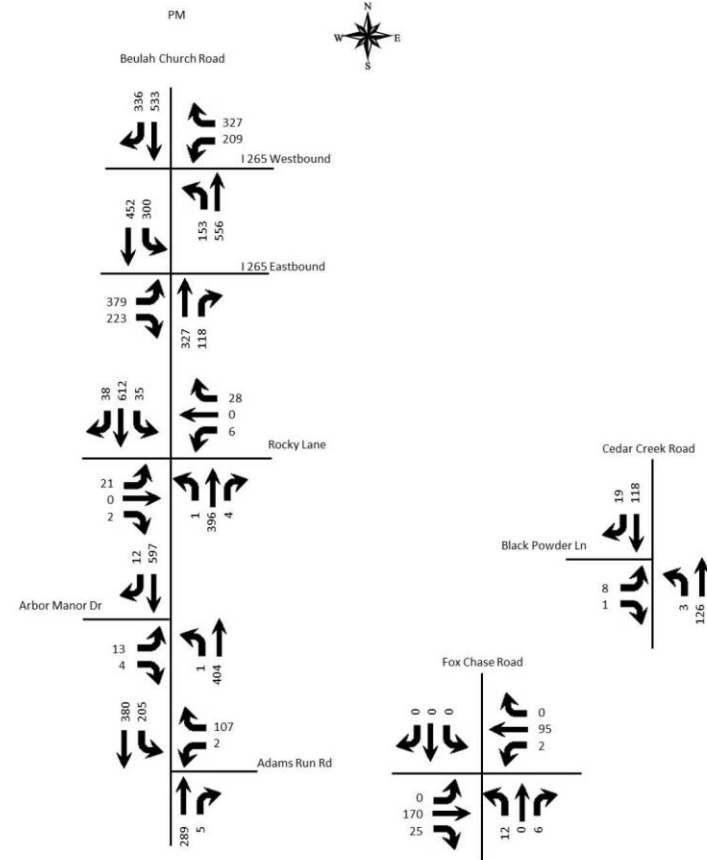
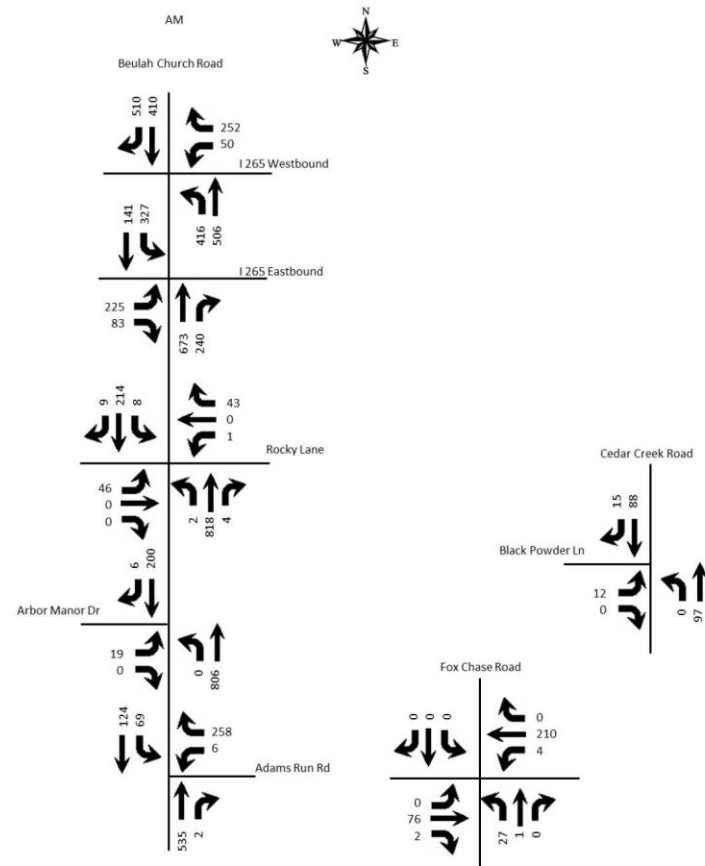


Figure 2. Existing Peak Hour Volumes



## FUTURE CONDITIONS

The projected completion year for this development is 2030. To predict traffic conditions in 2030, 2.0 percent annual growth in traffic was applied to Beulah Church Road south of I 265. This growth is based upon a review of the historical count data at the KYTC count station 269. The Kentucky Transportation Cabinet has a project to improve the Beulah Church Road from I 265 to Cedar Creek Road. This project is scheduled to be completed in 2025. **Figure 3** illustrates the 2030 traffic volumes without the development.





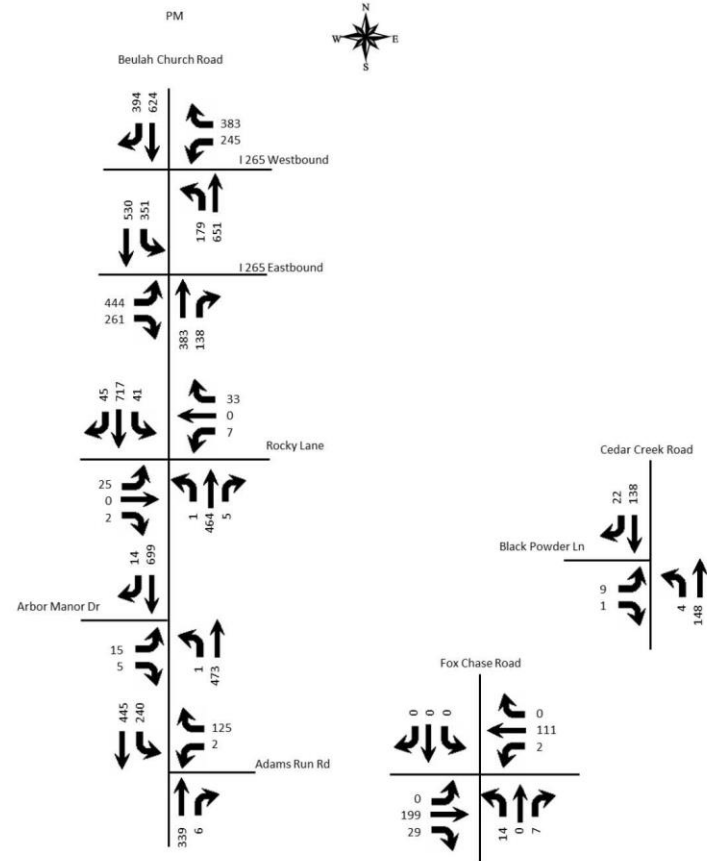


Figure 3. 2030 Peak Hour No Build Volumes



## TRIP GENERATION

The Institute of Transportation Engineers [Trip Generation Manual](#), 11<sup>th</sup> Edition contains trip generation rates for a wide range of developments. The land uses listed in **Table 1** were reviewed and determined to be the best match. The trip generation results are listed in **Table 1**. The trips were assigned to the highway network with the percentages shown in **Figure 4**. Pass-by trips were assigned according to the directional traffic flow on Beulah Church Road. **Figure 5** shows the trips generated by this development and distributed throughout the road network during the peak hours. **Figure 6** displays the individual turning movements for the peak hours when the development is completed.

**Table 1. Peak Hour Trips Generated by Site**

### AM Peak Hour

Land use	ITE Code	Intensity	Total Trips			Internal Trips				External Trips			Pass-by Trips		New Trips		
			In	Out	Total	In	Out	Total	%	In	Out	Total	%	Volume	In	Out	Total
Office	710	40,600 sf	68	9	77	17	8	25	32.5%	51	1	52	0%	0	51	1	52
Shopping Plaza	821	70,000 sf	153	94	247	14	20	34	13.8%	139	74	213	0%	0	139	74	213
Strip Retail	822	34,900 sf	40	26	66	0	0	0	0.0%	40	26	66	0%	0	40	26	66
High Turnover	932	4,000 sf	21	17	38	13	7	19	51.1%	8	10	19	0%	0	8	10	19
Fast Food w drive	934	1,500 sf	34	33	67	22	13	35	52.5%	12	20	32	50%	16	6	10	16
Convenience w gas	945	16 pumps	253	253	506	0	0	0	0.0%	253	253	506	76%	385	61	61	121
Coffee w Drive	937	2,000 sf	88	84	172	0	0	0	0.0%	88	84	172	50%	86	44	42	86
Single Family	210	57 units	11	34	45	0	0	0	0.0%	11	34	45	0%	0	11	34	45
SF Attached	215	184 units	22	68	90	3	15	18	20.0%	19	53	72	0%	0	19	53	72
Multi-Family (1-3)	220	288 units	27	85	112	0	0	0	0.0%	27	85	112	0%	0	27	85	112
Business Hotel	312	96 rooms	14	22	36	1	7	8	22.2%	13	15	28	0%	0	13	15	28
Total			731	725	1,456	70	70	140	9.6%	661	655	1,316	37.0%	486	419	411	830

### PM Peak Hour

Land use	ITE Code	Intensity	Total Trips			Internal Trips				External Trips			Pass-by Trips		New Trips		
			In	Out	Total	In	Out	Total	%	In	Out	Total	%	Volume	In	Out	Total
Office	710	40,600 sf	13	66	79	10	15	25	31.6%	3	51	54	0%	0	3	51	54
Shopping Plaza	821	70,000 sf	315	341	656	72	109	181	27.6%	243	232	475	40%	190	146	139	285
Strip Retail	822	34,900 sf	95	94	189	0	0	0	0.0%	95	94	189	40%	76	57	56	113
High Turnover	932	4,000 sf	22	14	36	10	11	21	59.5%	12	3	15	43%	6	7	2	8
Fast Food w drive	934	1,500 sf	26	24	50	14	16	30	59.2%	12	8	20	55%	11	5	4	9
Convenience w gas	945	16 pumps	215	215	430	0	0	0	0.0%	215	215	430	75%	323	54	54	108
Coffee w Drive	937	2,000 sf	39	39	78	0	0	0	0.0%	39	39	78	0%	0	39	39	78
Single Family	210	57 units	37	22	59	0	0	0	0.0%	37	22	59	0%	0	37	22	59
SF Attached	215	184 units	63	43	106	40	23	63	59.8%	23	20	43	0%	0	23	20	43
Multi-Family (1-3)	220	288 units	91	53	144	56	32	88	60.8%	35	21	56	0%	0	35	21	56
Business Hotel	312	96 rooms	18	14	32	8	4	12	37.5%	10	10	20	0%	0	10	10	20
Total			934	925	1,859	210	210	420	22.6%	724	715	1,439	42.1%	606	416	417	833



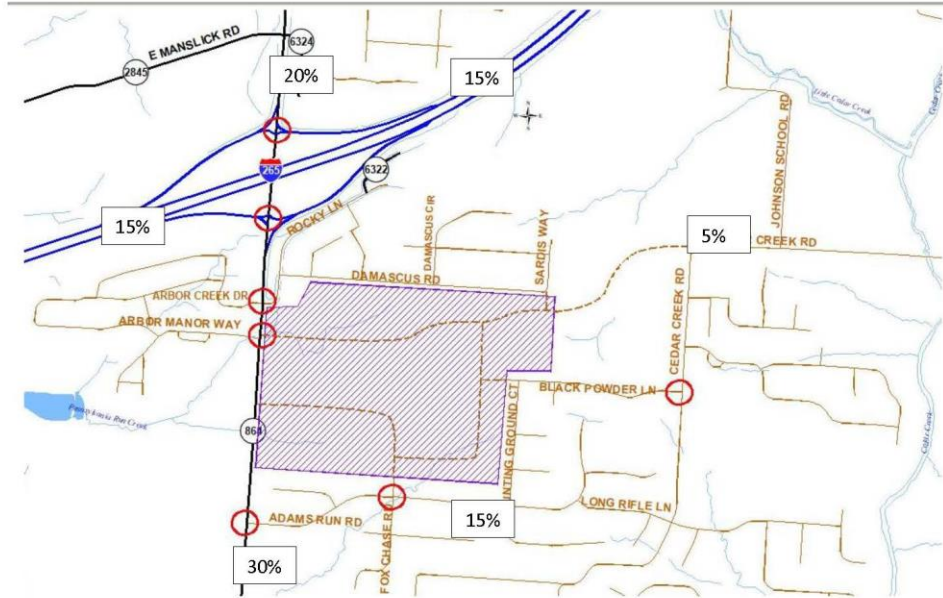
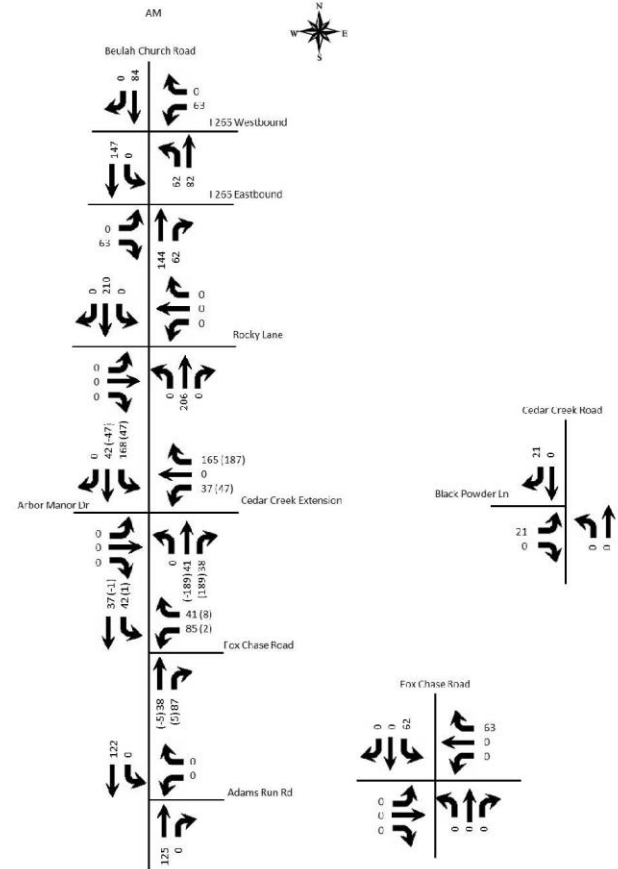


Figure 4. Trip Distribution Percentages



Beulah Church Road  
Traffic Impact Study





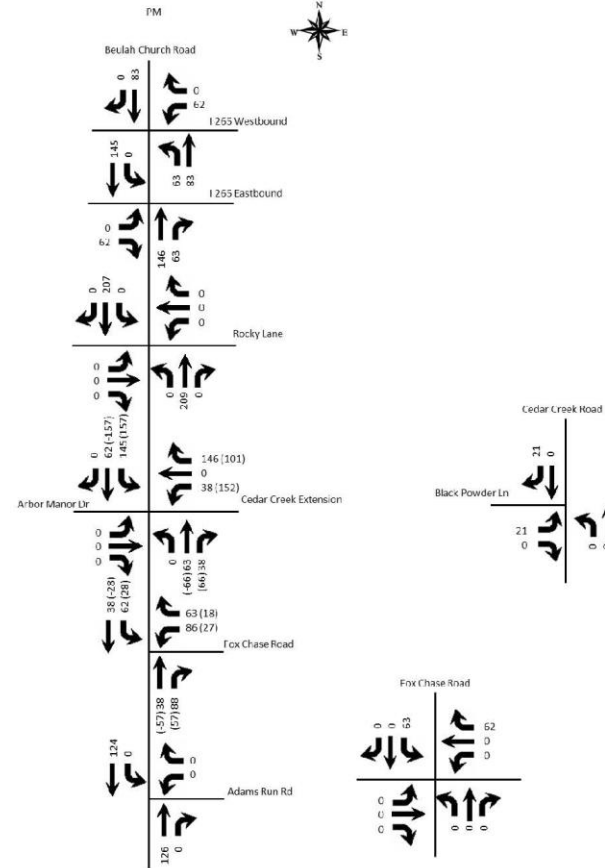
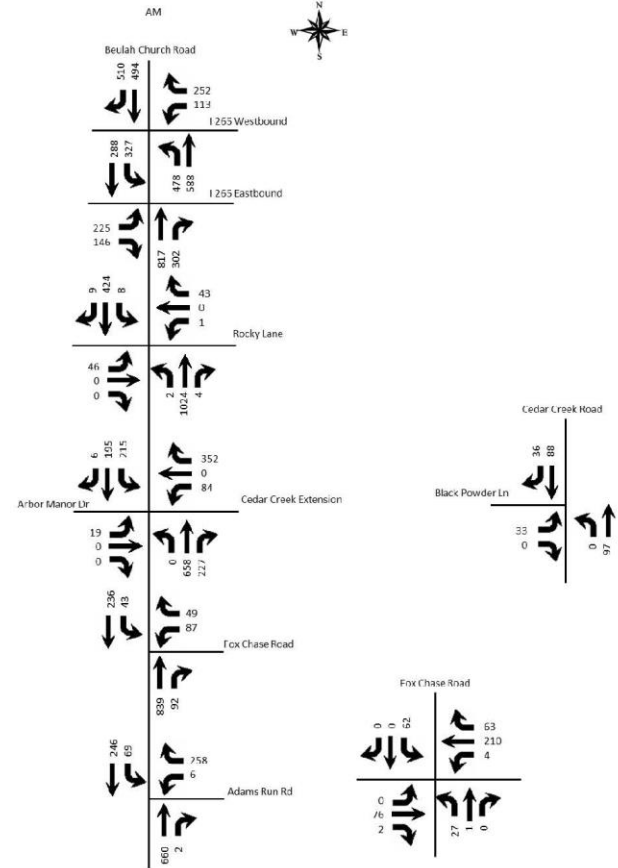


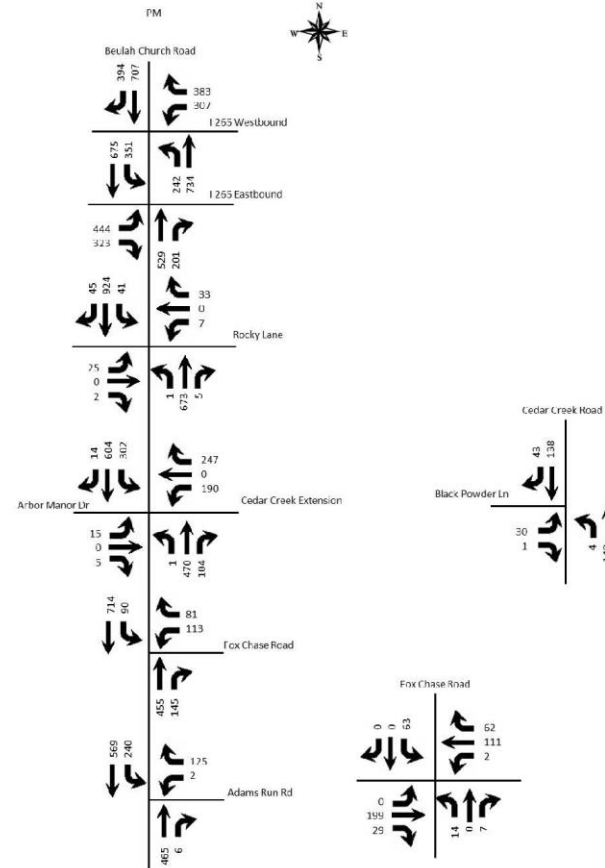
Figure 5. Peak Hour Trips Generated by Site



Beulah Church Road  
Traffic Impact Study







## ANALYSIS

The qualitative measure of operation for a roadway facility or intersection is evaluated by assigning a "Level of Service". Level of Service is a ranking scale from A through F, "A" is the best operating condition and "F" is the worst. Level of Service results depend upon the facility that is analyzed. In this case, the Level of Service is based upon the total delay experienced at an intersection.

To evaluate the impact of the proposed development, the vehicle delays at the intersections were determined using procedures detailed in the [Highway Capacity Manual](#), 7<sup>th</sup> edition. Future delays and Level of Service were determined for the intersections using the HCS Streets and TWSC (version 2023) software. The delays and Level of Service are



summarized in **Table 2**. The analysis for 2030 Build traffic signals includes optimization of the signal timing and the installation of a traffic signal at the entrance/Cedar Creek Road Extension intersection. The hourly trip generation is included in the appendix on page 24. These calculations demonstrate Warrant 1A will be satisfied for 10 hours at completion.

**Table 2. Peak Hour Level of Service**

Approach	A.M.			P.M.		
	2022 Existing	2030 No Build	2030 Build	2022 Existing	2030 No Build	2030 Build
<b>Beulah Church Road at I 265 Westbound</b>	<b>B</b> <b>19.9</b>	<b>C</b> <b>22.2</b>	<b>C</b> <b>20.6</b>	<b>C</b> <b>27.5</b>	<b>D</b> <b>40.9</b>	<b>C</b> <b>26.8</b>
I 265 Westbound	D 37.8	D 44.9	D 46.6	D 41.7	E 64.0	D 42.7
Beulah Church Road Northbound	B 14.4	B 14.8	B 11.0	B 10.6	B 10.6	A 8.6
Beulah Church Road Southbound	B 19.1	C 21.7	C 22.2	D 35.1	D 54.7	D 37.8
<b>Beulah Church Road at I 265 Eastbound</b>	<b>C</b> <b>30.5</b>	<b>D</b> <b>47.0</b>	<b>C</b> <b>26.1</b>	<b>C</b> <b>30.1</b>	<b>D</b> <b>42.0</b>	<b>C</b> <b>26.7</b>
I 265 Eastbound	C 31.1	C 34.0	D 50.1	D 49.0	E 79.9	D 41.7
Beulah Church Road Northbound	D 39.7	E 67.5	C 21.5	C 26.6	C 29.4	C 30.4
Beulah Church Road Southbound	B 16.3	C 25.2	B 19.7	B 16.8	B 17.7	B 12.2
<b>Beulah Church Road at Rocky Lane</b>						
Arbor Creek Eastbound	C 19.7	D 25.0	E 40.0	C 18.7	C 22.5	D 32.5
Rocky Lane Westbound	B 15.0	C 17.4	C 22.8	B 12.5	B 13.8	C 17.6
Beulah Church Road Northbound	A 7.6	A 7.7	A 8.3	A 9.0	A 9.4	B 10.3
Beulah Church Road Southbound	A 9.9	B 10.5	B 11.8	A 8.3	A 8.6	A 9.4
<b>Beulah Church at Arbor Manor Drive</b>			<b>C</b> <b>25.3</b>			<b>C</b> <b>20.3</b>
Arbor Manor Drive Eastbound	C 17.8	C 21.5	D 35.7	C 18.5	C 22.5	D 41.7
Cedar Creek Road Ext Westbound			D 45.7			D 44.1



Approach	A.M.			P.M.		
	2022 Existing	2030 No Build	2030 Build	2022 Existing	2030 No Build	2030 Build
Beulah Church Road Northbound	A 7.6	A 7.7	C 21.1	A 8.8	A 9.2	B 16.3
Beulah Church Road Southbound			B 12.0			B 10.8
<b>Beulah Church at Fox Chase Road Ext.</b>						
Fox Chase Road Ext Westbound			C 20.8			C 24.4
Beulah Church Road Southbound			B 10.6			A 9.3
<b>Beulah Church at Adams Run Road</b>						
Adams Run Road Westbound	C 16.1	C 20.6	D 28.9	B 11.4	B 12.0	B 13.9
Beulah Church Road Southbound	A 8.6	A 8.9	A 9.5	A 8.5	A 8.9	A 9.6
<b>Adams Run Road at Fox Chase Road</b>						
Adams Run Road Eastbound	A 7.6	A 7.7	A 7.8	A 7.4	A 7.4	A 7.6
Adams Run Road Eastbound	A 7.3	A 7.4	A 7.4	A 7.6	A 7.7	A 7.7
Fox Chase Road Northbound	B 10.5	B 11.0	B 11.3	B 10.3	B 10.7	B 10.9
Fox Chase Road Southbound	0	0	B 11.8	0		B 12.3
<b>Cedar Creek Road at Black Powder Lane</b>						
Black Powder Lane Eastbound	A 9.7	A 9.9	B 10.2	A 9.9	B 10.3	B 10.6
Cedar Creek Road Northbound	A 7.4	A 7.5	A 7.5	A 7.5	A 7.5	A 7.6

Key: Level of Service, Delay in seconds per vehicle

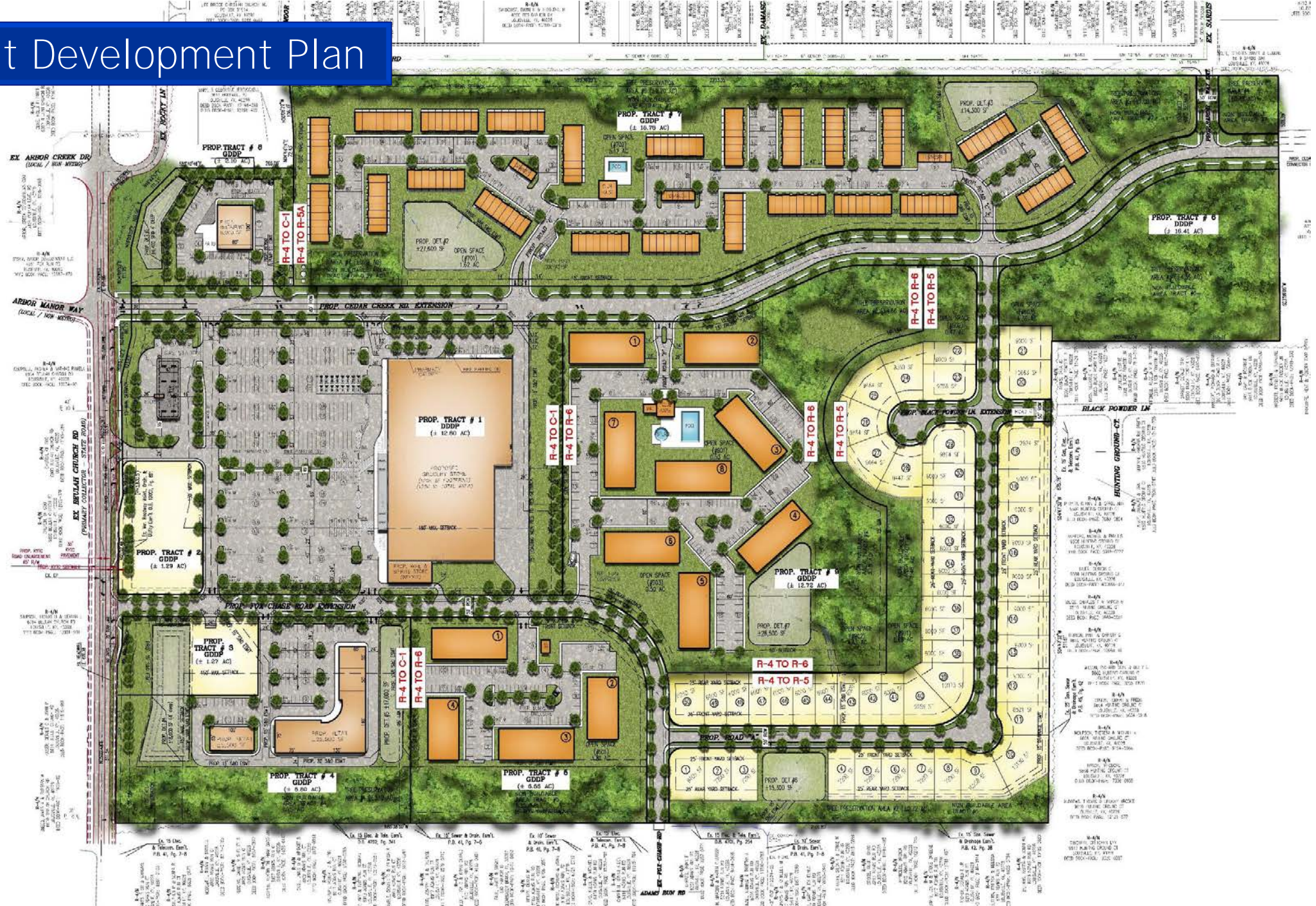
The entrance on Lees Lane was evaluated for turn lanes using the Kentucky Transportation Cabinet [Highway Design Guidance Manual](#) dated July, 2020. The volumes in Figure 6 were utilized to determine turn lane requirements. Both entrances meet the volume warrants for installing left and right turn lanes.

## CONCLUSIONS

Based upon the volume of traffic generated by the development and the amount of traffic forecasted for the year 2030, there will be an impact to the existing highway network, with Levels of Service remaining within acceptable ranges. Left and Right turn lanes will be required at the entrances on Beulah Church Road (KY 864).



# Current Development Plan





Questions?

