

Arnold Mill Rd Corridor Study – Summary Report



Prepared For:
Cherokee County



Prepared By:
Lowe Engineers



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1 Introduction and Purpose

The Arnold Mill Corridor from Neese Rd to SR-20 was identified by Cherokee County for investigation of improvement. The roadway snakes through eastern Cherokee County traveling primarily east / west and the typical roadway cross section consists of two lanes of travel, grassed shoulders, limited turn lanes, and limited sight distance in several areas. Most of the corridor is comprised of neighborhood driveways and unsignalized intersections with local and collector roads. The roadway serves as a connection from these residential zones to local schools, the City of Woodstock to the west and SR 140 (to Alpharetta) to the east. Four schools (three public and 1 private) are located along the corridor impacting off peak traffic flow.

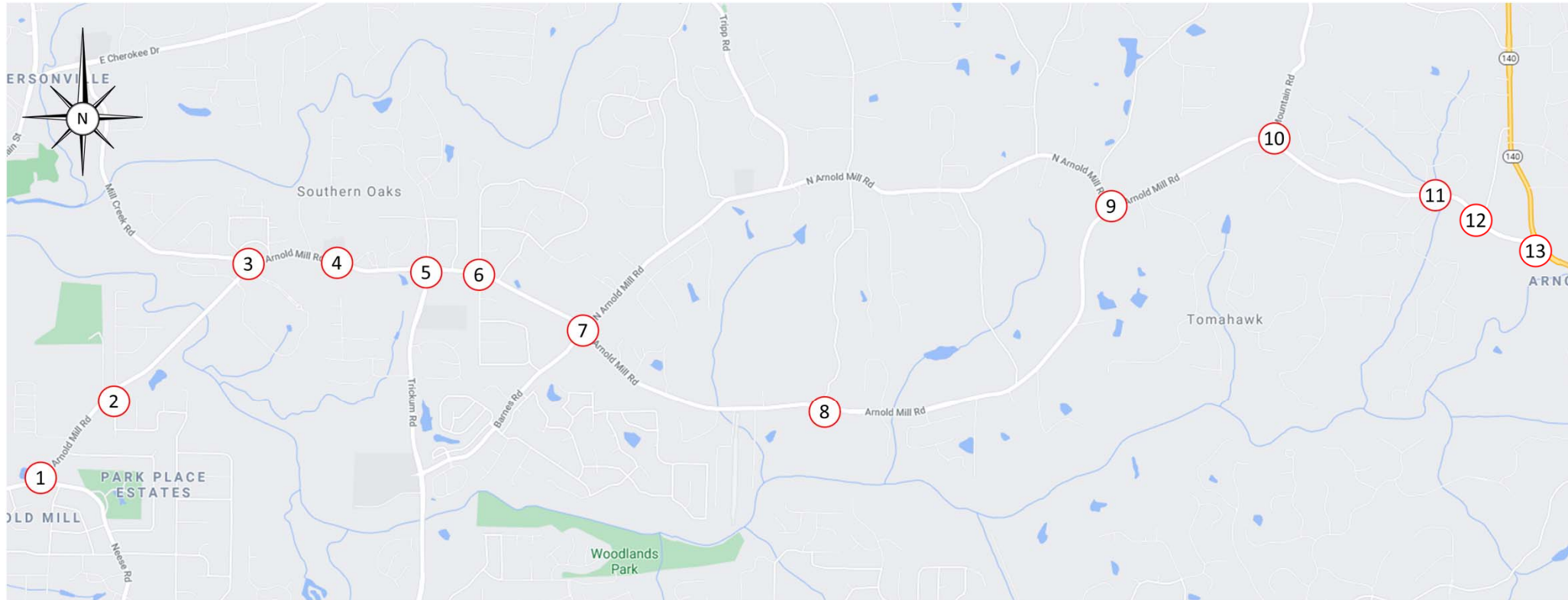
Thirteen intersections were identified for analysis with Neese Rd being the furthest west traveling to SR-20 on the east end. The corridor was analyzed for three scenarios, existing / short range (2021), mid-range (2029), and long range (2039). The study considered the anticipated population growth of the area and planned projects / improvements in the development of future year traffic volumes. The study recommends several improvements for the corridor along with a benefit / cost analysis for project prioritization to assist Cherokee County in project list development.

Traffic data and observations for the corridor were conducted in the fall of 2019 and early 2020 prior to any closures due to the COVID-19 pandemic.

Study intersections are shown in Figure 1.



Figure 1: Study Intersections



- | | | |
|---|-------------------------------|----------------------|
| 1. Neese Rd | 6. Farmington Dr | 10. Mountain Rd |
| 2. Druw Cameron Dr/Little River/N River | 7. N Arnold Mill Rd/Barnes Rd | 11. River Laurel Way |
| 3. Mill Creek | 8. Hendon Rd | 12. Grimes Rd |
| 4. King's Academy | 9. N Arnold Mill Rd | 13. SR-140 |
| 5. Trickum Rd | | |

2 Summary of Results

Figure 2: Intersection Summary

#	Intersection	Recommended Improvement		
		Short-Range	Mid-Range	Long-Range
1	Neese Rd			
2.1	Druw Cameron Ct		EBL Turn Lane SBR Turn Lane	
2.2	Little River Dr	WBL Turn Lane		
2.3	N River Dr	EBL Turn Lane		
3	Mill Creek Rd / River Ridge HS.			
4	Kings Academy			
5	Trickum Rd			Widening Dual NBL and taper
6	Farmington Dr	EBL Turn Lane		
7	Barnes Rd / N Arnold Mill Rd	Right Turn Lane All Approaches		
8	Hendon Rd		WBR Turn Lane	
9	N Arnold Mill Rd	WBR Turn Lane SBR Turn Lane Roundabout (Alt.)	EBL Turn Lane	
10	English Ivy Way / Mountain Rd			Signalization (Alt.)
11	River Laurel Way	WBL Turn Lane		
12	Grimes Rd		SBL Turn Lane	
13	SR 140			Signalization

Individual intersection summaries can be found in section 4 Intersection and Corridor Recommendations.

3 Methodology

3.1 Existing Conditions, Data Collection, and Field Observations

Traffic counts were performed at the study intersections on Thursday February 13th, 2020. Intersection peak hours were determined on a per intersection basis. Turning movement counts, 24-hour bi-directional volume counts, and vehicle speed counts were obtained at targeted locations. The peak hour turning movement volumes are shown graphically in Appendix A along with the full turning movement data collected.

Existing traffic signal timings were obtained from Cherokee County for use in analysis. Traffic signal timings used in analysis are presented along with the Synchro output files in Appendix B.

Field observations were conducted over the course of the analysis on multiple days. Traffic operations of the study network were observed for morning and afternoon peak hours, and school drop-off / pickup times. Observations for school operations can be found in Appendix C.

Over the course of this study the study network was impacted by the COVID-19 pandemic which closed schools and businesses. All data collection was performed prior to any closures due to the pandemic.

3.2 Crash History Analysis

Five-year crash history was obtained from the GDOT GEARS accident reporting system. Individual intersection crash histories were summarized by type and year. An analysis was performed to determine if a pattern of crashes emerged, and if any safety related mitigation was required. A full crash history summary including raw data can be found in Appendix D. Individual intersection crash summaries can be found on their related fact sheets section 4.

3.3 Growth Rate Development and Traffic Volume Projections

Background traffic growth is the analysis method of analyzing historic trends in traffic volumes / population growth, and future growth projections to determine an annual growth rate which is applied to the existing traffic counts on the study network. For the purposes of this study several sources were considered. Historic traffic volumes were available from GDOT at several locations on the study network. Population growth data was obtained from the US Census, Cherokee County Comprehensive Plan, and the Atlanta Regional Commission (ARC) Population data. A summary of the growth rate analysis is shown in Table 1 full growth rate data is provided in Appendix E.

Table 1: Growth Rate Summary

Source	Year Range	Growth Rate
Arnold Mill Rd	2017 - 2018	-2.3%
West of Washington Ave	2016 - 2018	1.6%
	2015 - 2018	3.3%
Arnold Mill Rd	2017 - 2018	0.0%
East of N River Dr	2016 - 2018	7.4%
	2015 - 2018	9.0%
Arnold Mill Rd	2017 - 2018	-0.1%
East of Milestone Manor Ct	2016 - 2018	2.8%
	2015 - 2018	4.5%
Arnold Mill Rd	2017 - 2018	-1.1%
West of River Laurel Way	2016 - 2018	2.4%
	2015 - 2018	4.0%
Cherokee County	2016 - 2017	2.5%
U.S. Census Bureau	2013 - 2017	2.5%
Canton	2016 - 2017	6.2%
U.S. Census Bureau	2013 - 2017	3.6%
Woodstock GA	2016 - 2017	2.4%
U.S. Census Bureau	2013 - 2017	4.4%
Cherokee County	2015 - 2020	2.8%
Cherokee Comp. Plan	2010 - 2020	2.3%
Woodstock	2015 - 2020	2.4%
Cherokee Comp. Plan	2010 - 2020	2.3%
Canton	2015 - 2020	1.8%
Cherokee Comp. Plan	2010 - 2020	1.8%
Cherokee County	2015 - 2050	1.3%
ARC Population		

The traffic and population growth were analyzed, and the Cherokee County Engineering department approved a proposed growth rate of 2.5% per year from 2019 to 2029, and 1.5% per year from 2029 to 2039 for use in analysis.

Existing traffic volumes were grown using the selected growth rate. On driveways and intersections where no growth is expected (i.e. fully developed neighborhoods, schools, etc.) the entering and exiting volumes for those approaches were not grown.

Future year traffic volumes are shown graphically in Appendix A.



3.4 Capacity Analysis

Intersection capacity analysis utilizes a grading system from A to F where the more delay that is incurred on the average vehicle over the course of the peak hour decreases the Level of Service (LOS). A LOS of A indicates free flow conditions with LOS F indicating severe congestion. Typically, LOS A through D is considered acceptable with LOS E and F is considered failing.

LOS thresholds vary by intersection control.

Table 2: Level of Service Thresholds

LOS	Signalized Delay (s/veh)	Unsignalized Delay (s/veh)
A	≤ 10	≤ 10
B	10-20	10-15
C	20-35	15-25
D	35-55	25-35
E	55-80	35-50
F	> 80	> 50

Intersection LOS and queueing was analyzed using a Synchro 10/ SimTraffic 10 model for signalized and unsignalized intersections. Roundabout capacity and queueing analysis were performed utilizing the GDOT Roundabout Tool v4.2. Roadway segments were analyzed with HCS 7 utilizing HCM 6th Edition methodology.

3.5 Cost Analysis

A cost analysis was performed for recommended improvements to the study network. The cost analysis utilized a modified version of the ARC Planning Level Cost Estimation Tool (2016). The cost estimate tool was updated to include current GDOT pay item costs, as well as an adjusted annual inflation.

The cost estimate tool provides a planning level cost estimation and actual construction, and development costs will vary. In several cases extra contingency was added based on anticipated factors such as utility relocation, grading, ROW, etc. Project prioritization is not a direct result of cost, multiple factors such as need, safety, and capacity improvements were considered.

Cost analysis summary worksheets can be found in Appendix F.

4 Intersection and Corridor Recommendations

Intersection and corridor recommendations are summarized the following section. Each intersection has a separate fact sheet available summarizing analysis, results, and recommendations.

1. Neese Rd



Capacity Analysis Summary

Intersection Needs Description:

Problem:

The intersection operates well in existing conditions. By 2039 the LOS drops to F during the AM peak hour due to the number northbound right-turns from Neese Rd combined with a 0.68 PHF further creating complications.

Improvements:

- A right-turn overlap signal phasing can help to alleviate queueing and delay for the right-turn from Neese Rd.
- Cost estimate includes a minor signal upgrade, adding a signal head and adjusting timing only can be completed by the county significantly cheaper

- **Background**
 - 2019: Intersection LOS C
 - 2029: Intersection LOS E/C
 - 2039: Intersection LOS F/C
- **Build (Signal Timing)**
 - 2029: Intersection LOS C/C
 - 2039: Intersection LOS D/C

Crash History Summary 2015-2019

Type	PDO	Injury	Fatal	Total
Angle	6	5	0	11
Head-On	0	1	0	1
Rear End	4	0	0	4
Sideswipe - Same	1	0	0	1
Sideswipe - Opposite	0	0	0	0
Not a Collision w/ Motor Veh	1	0	0	1

Cost Analysis

Planned Improvement	Cost	Year
Minor Signal Upgrade	\$ 108,000.00	2029

2. Druw Cameron Ct / Little River Dr / N River Dr



Intersection Needs Description:

Problem:

Three closely spaced intersections can have negative interactions during peak hours. Druw Cameron Dr provides access to J.J. Biello Park which can host a number of vehicles and sporting events releasing vehicles in short periods of time.

Improvements:

Short Range:

- Westbound left turn lane at Little River Dr
- Eastbound left turn lane at N River Dr

Mid-Range:

- Eastbound left and southbound right turn lanes at Druw Cameron Ct

Comment:

A two-way left-turn lane is recommended between Druw Cameron and N River

Capacity Analysis Summary

#	Intersection	Lane Group Movement	No Build (AM/PM)		
			Existing	2029	2039
2.1	Druw Cameron Ct	SB	E/C	F/D	F/E
2.2	Little River Dr	NB	C/C	D/D	E/F
2.3	N River Dr	SB	D/C	F/D	F/E

#	Intersection	Lane Group Movement	No Build (AM/PM)	
			2029	2039
2.1	Druw Cameron Ct	SBL	D/E	F/D
		SBR	A/C	D/C
2.2	Little River Dr	NBL	C/D	D/E
2.3	N River Dr	SB	E/D	F/E

Crash History Summary 2015-2019

Type	PDO	Injury	Fatal	Total
Angle	2	1	0	3
Head-On	0	0	0	0
Rear End	12	8	0	20
Sideswipe - Same	0	0	0	0
Sideswipe - Opposite	0	0	0	0
Not a Collision w/ Motor Veh	2	0	0	2

Cost Analysis

Planned Improvement	Cost	Year
SBR(Druw)+ TWLTL	\$ 632,000.00	2029

3. Mill Creek Rd / River Ridge Highschool



Intersection Needs Description:

Problem:

Mill Creek Rd is the primary connection to the north (E Cherokee Dr). A large number of vehicles utilize the road causing congestion at both ends particularly during the PM peak hour.

Due to the large number of left and right-turns from Arnold Mill to go north the intersection begins to have difficulty in 2039. The intersection can continue to operate at LOS E during the PM peak hour with improvements to timing.

Additional southbound left-turn queueing capacity is difficult due to the close proximity of Fountain Circle

Improvements:

Signal timing improvements help to alleviate delay.

Major improvement may be required past 2039

Capacity Analysis Summary

- **Background**
 - 2019: Intersection C/C
 - 2029: Intersection C/F
 - 2039: Intersection E/F
- **Build**
 - 2029: Intersection D/D
 - 2039: Intersection D/E

Crash History Summary 2015-2019

Type	PDO	Injury	Fatal	Total
Angle	14	6	0	20
Head-On	2	1	0	3
Rear End	23	10	0	33
Sideswipe - Same	3	0	0	3
Sideswipe - Opposite	1	0	0	1
Not a Collision w/ Motor Veh	2	1	0	3



4. Kings Academy



Capacity Analysis Summary

Intersection Needs Description:

Problem:

Side-street stop-controlled school driveways have inherent issues with vehicle capacity and delay. During school drop-off and pickup queueing is mostly caused by the condensed time period of school operations.

By 2039 Arnold Mill this stretch of Arnold Mill has a large main-line volume making exiting the driveways difficult, particularly during the PM peak hour.

Queueing in 2039 is minimal at 1-2 vehicles.

Improvements:

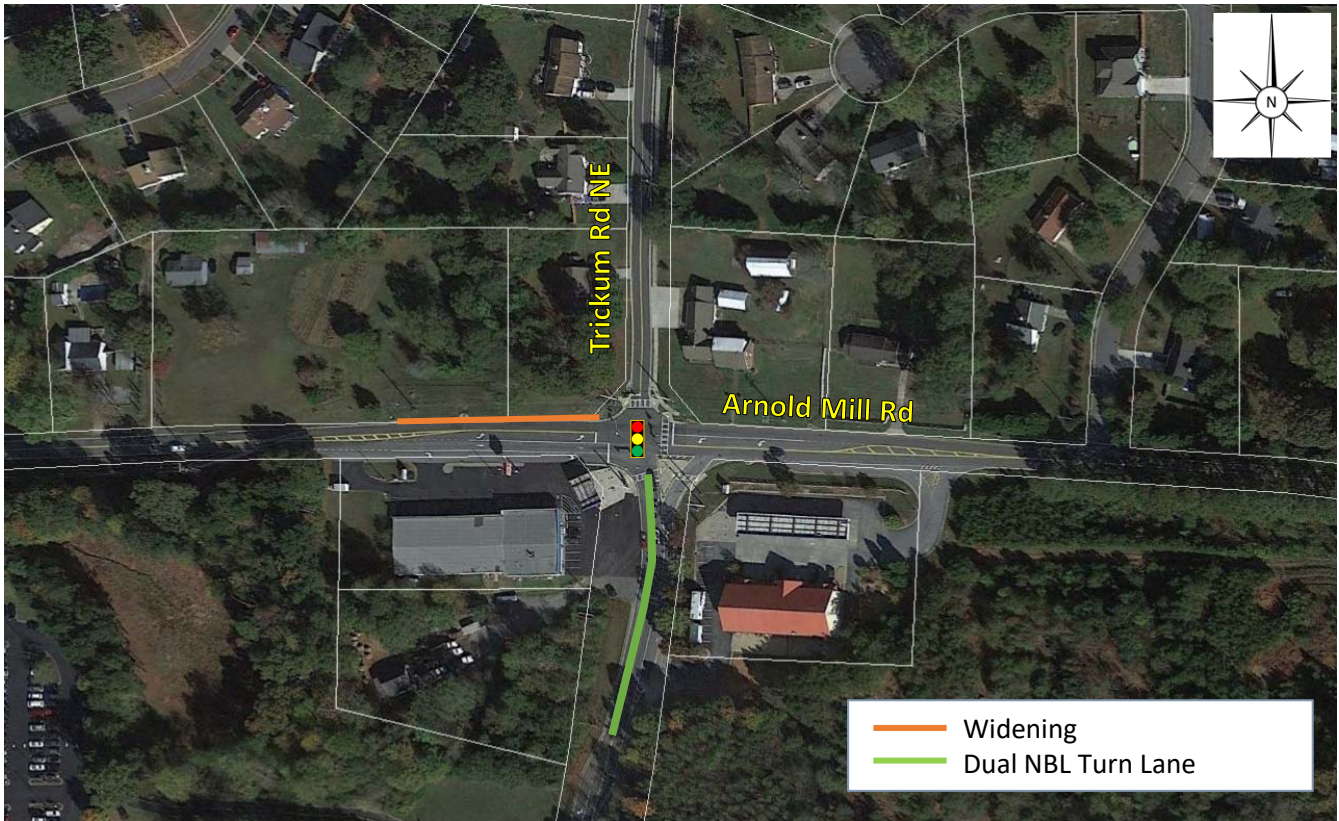
- Issues are primarily a function of school operation; police control can be considered during drop-off and pickup.

#	Intersection	Lane Group Movement	No Build (AM/PM)		
			Existing	2029	2039
4.1	Kings Academy (Enter)	SB	C/F	C/F	D/F
4.2	Kings Academy (Exit)	NB	C/C	C/D	D/E

Crash History Summary 2015-2019

Type	PDO	Injury	Fatal	Total
Angle	0	0	0	0
Head-On	0	0	0	0
Rear End	0	0	0	0
Sideswipe - Same	0	0	0	0
Sideswipe - Opposite	0	0	0	0
Not a Collision w/ Motor Veh	0	0	0	0

5. Trickum Rd



Intersection Needs Description:

Problem:

Trickum Rd serves as a major connection to the south and has large turning movement volumes. The intersection operates with a split signal phasing due to a large number of northbound left-turning vehicles.

Any widening to add capacity will require the ROW acquisition from the gas station on the southwest quadrant and would likely incur significant environmental fees to remove the underground gas tanks.

Improvements:

Long Range:

- Widening
- Dual Northbound left turn lane and taper

Capacity Analysis Summary

- **Background**
 - 2019: Intersection D/D
 - 2029: Intersection E/F
 - 2039: Intersection F/F
- **Build**
 - 2029: Intersection E/E
 - 2039: Intersection F/F
- **Alternative**
 - 2039: Intersection D/D

Crash History Summary 2015-2019

Type	PDO	Injury	Fatal	Total
Angle	11	1	0	12
Head-On	0	0	0	0
Rear End	20	4	0	24
Sideswipe - Same	1	0	0	1
Sideswipe - Opposite	0	0	0	0
Not a Collision w/ Motor Veh	1	0	0	1

Cost Analysis

Planned Improvement	Cost	Year
Dual NBL + Widening	\$ 6,920,000.00	2039

6. Farmington Dr



Capacity Analysis Summary

Intersection Needs Description:

Problem:

Side-street movements will likely experience difficulty in 2039 due to the nature of the intersection control and the number of vehicles on Arnold Mill Rd.

Improvement:

Short Range:

- Eastbound left turn lane

Intersection	Lane Group Movement	No Build (AM/PM)			No Build (AM/PM)	
		Existing	2029	2039	2029	2039
Farmington Dr	NB	D/D	E/E	F/F	E/E	F/F
	SB	C/B	C/C	D/C	C/C	D/C

EBL improves queueing on Arnold Mill, LOS remains the same at LOS B (AM) / LOS A (PM)
All queueing for the movement will be contained within the turn-lane

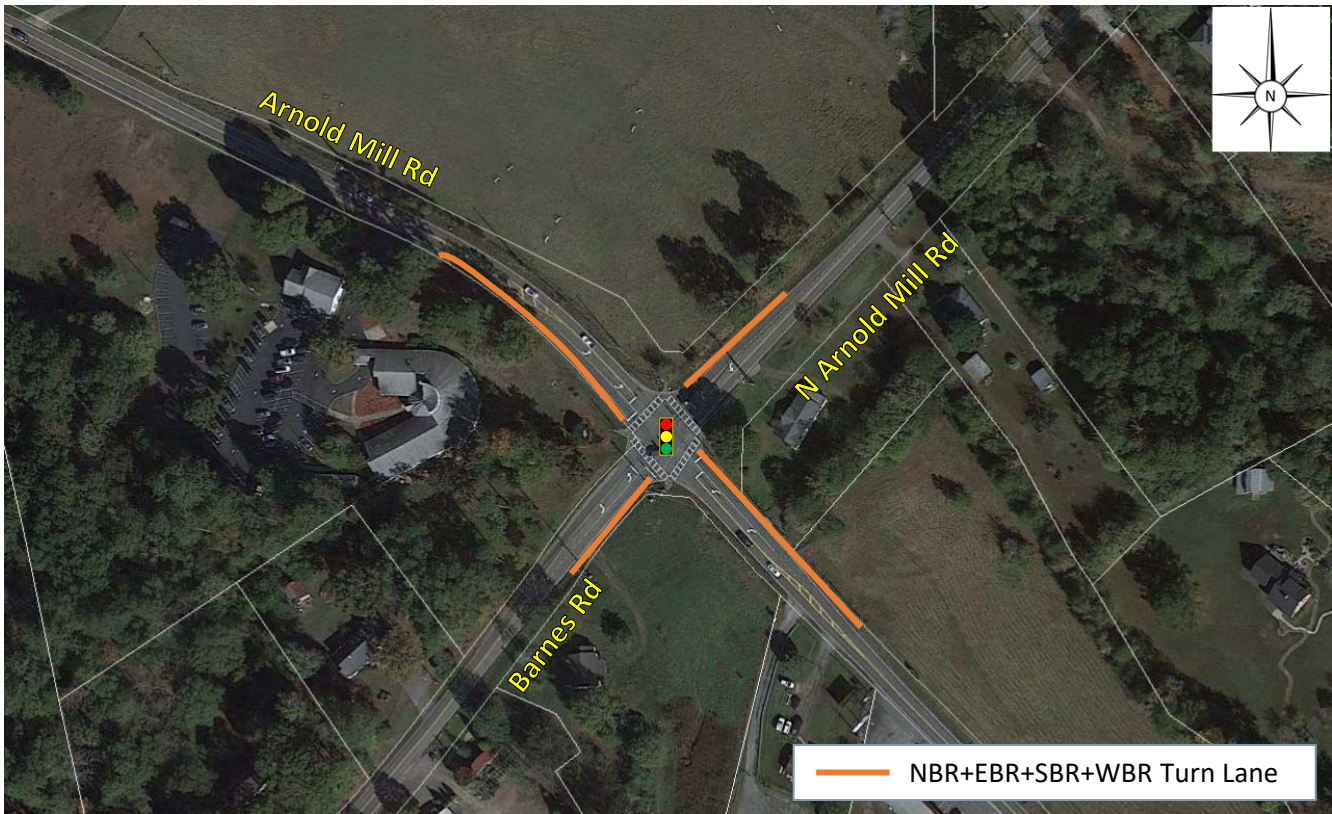
Crash History Summary 2015-2019

Type	PDO	Injury	Fatal	Total
Angle	2	0	0	2
Head-On	0	1	0	1
Rear End	1	0	0	1
Sideswipe - Same	1	0	0	1
Sideswipe - Opposite	0	0	0	0
Not a Collision w/ Motor Veh	2	1	0	3

Cost Analysis

Planned Improvement	Cost	Year
EBL	\$ 340,000.00	2021

7. N Arnold Mill Rd / Barnes Rd



Capacity Analysis Summary

Intersection Needs Description:

Problem:

The intersection begins to experience difficulty in 2029 and fails by 2039 with no improvements. The intersection has left-turn lanes for all movements but no right-turn lanes.

Adding right-turn lanes will likely impact existing signal equipment necessitating a rebuild / upgrade.

Improvement:

Short-Range:

- Right turn lanes on all approaches

• Background

- 2019: Intersection C/C
- 2029: Intersection E/D
- 2039: Intersection F/F

• Build

- 2029: Intersection C/C
- 2039: Intersection D/D

Crash History Summary 2015-2019

Type	PDO	Injury	Fatal	Total
Angle	2	1	0	3
Head-On	0	0	0	0
Rear End	7	3	0	10
Sideswipe - Same	0	0	0	0
Sideswipe - Opposite	3	0	0	3
Not a Collision w/ Motor Veh	4	0	0	4

Cost Analysis

Planned Improvement	Cost	Year
Signal Upgrade +NBR+SBR+EBR+WBR	\$ 927,000.00	2021

8. Hendon Rd/Arnold Mill Rd



Capacity Analysis Summary

Intersection Needs Description:

Problem:

The intersection receives some queueing from Arnold Mill Elementary School to the east during the AM peak hour.

A right-turn lane is warranted in future conditions. However, the improvement will primarily improve safety over capacity.

Improvement:

Mid-Range:

- Westbound right turn lane

- **Background**
 - 2019: SB LOS E/C
 - 2029: SB LOS F/C
 - 2039: SB LOS F/D
- **Build**
 - 2029: SB LOS F/C
 - 2039: SB LOS F/C

Crash History Summary 2015-2019

Type	PDO	Injury	Fatal	Total
Angle	0	0	0	0
Head-On	0	0	0	0
Rear End	1	0	0	1
Sideswipe - Same	0	0	0	0
Sideswipe - Opposite	2	0	0	2
Not a Collision w/ Motor Veh	4	0	0	4

Cost Analysis

Planned Improvement	Cost	Year
WBR	\$ 199,000.00	2029

9. N Arnold Mill Rd



Capacity Analysis Summary

Intersection Needs Description:

Problem:

N Arnold Mill Rd is used as a connection north to E Cherokee Dr. Due to the nature of side-street stop-controlled intersections the SB approach fails by 2029 and operates at LOS E in existing conditions.

Improvement:

Short Range:

- Westbound and Southbound right turn lanes
- Eastbound left turn lane
- Alternative: Roundabout

- **Background**
 - 2019: SB LOS E/D
 - 2029: SB LOS F/F
 - 2039: SB LOS F/F
- **Build**
 - 2029: SB LOS F/E
 - 2039: SB LOS F/F
- **Roundabout Alternative**
 - 2039: Intersection B/C

Crash History Summary 2015-2019

Type	PDO	Injury	Fatal	Total
Angle	2	0	0	2
Head-On	0	0	0	0
Rear End	3	0	0	3
Sideswipe - Same	0	0	0	0
Sideswipe - Opposite	0	0	0	0
Not a Collision w/ Motor Veh	6	1	0	7

Cost Analysis

Planned Improvement	Cost	Year
WBR + EBL + SBR	\$ 602,000.00	2021
Roundabout	\$ 762,000.00	2021

10. Mountain Rd / English Ivy Way



Capacity Analysis Summary

Intersection Needs Description:

Problem:

The intersection operates as a four-way stop control due to sight distance issues.

During the field observations it was found that vehicles would regularly be stuck at the stop sign with no vehicles on other approaches.

The roundabout alternative includes one home displacement in the cost estimate as well as contingency for grading.

A traffic signal will not be warranted based on traffic volumes alone. Re-examine in the future to check volumes.

Improvement:

- Signalization with left-turn lanes on Arnold Mill

- **Background**
 - 2019: Intersection D/E
 - 2029: Intersection F/F
 - 2039: Intersection F/F
- **Signalization**
 - 2039: Intersection B/C

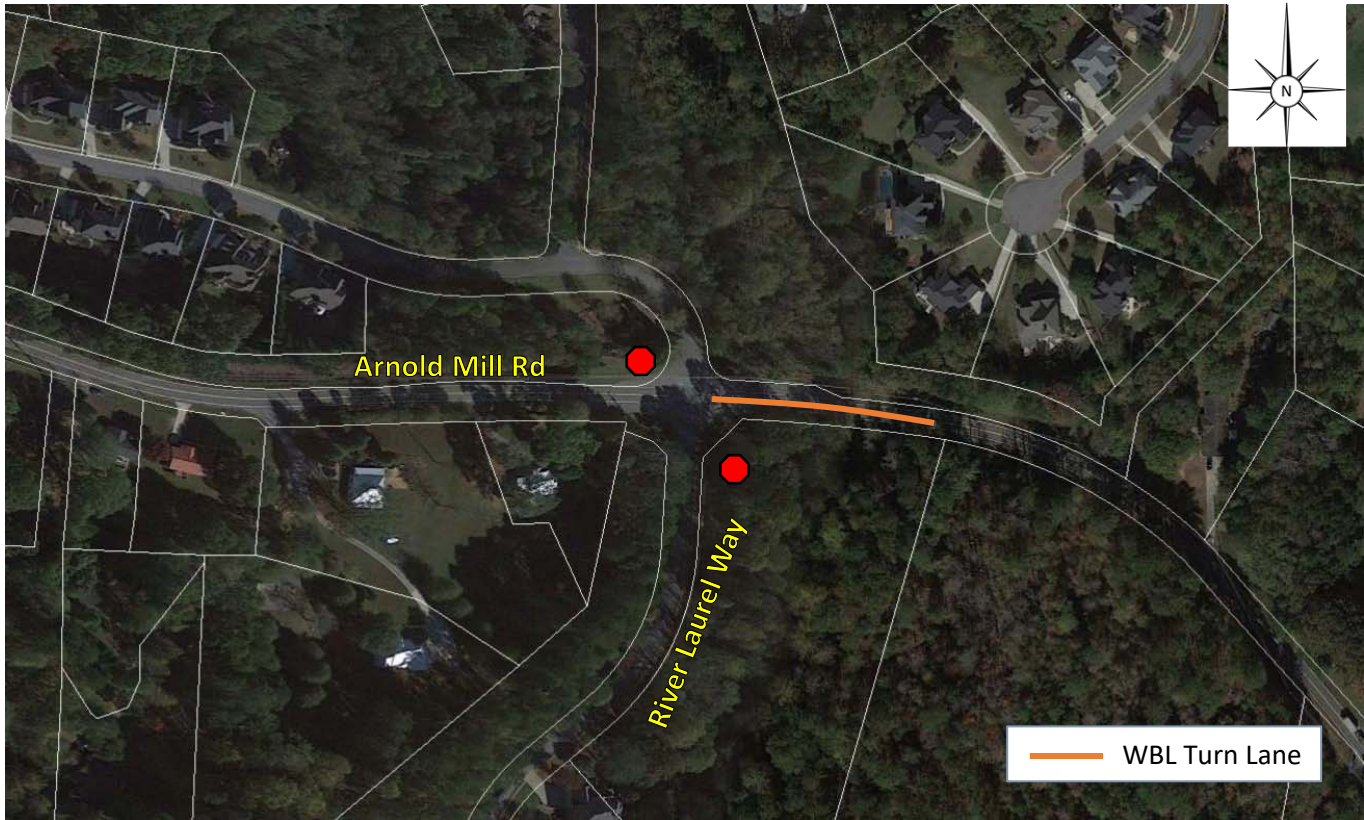
Crash History Summary 2015-2019

Type	PDO	Injury	Fatal	Total
Angle	1	0	0	1
Head-On	0	0	0	0
Rear End	2	0	0	2
Sideswipe - Same	0	0	0	0
Sideswipe - Opposite	0	0	0	0
Not a Collision w/ Motor Veh	4	0	0	4

Cost Analysis

Planned Improvement	Cost	Year
Signalization + EBL + WBL	\$ 1,125,000.00	2029

11. River Laurel Way



Capacity Analysis Summary

Intersection Needs Description:

Problem:

River Laurel Way serves residential neighborhoods north and south of Arnold Mill Rd. A westbound left-turn lane is warranted based on volumes,

Improvement:

Short-Range:

- Westbound Left Turn Lane

Intersection	Lane Group Movement	No Build (AM/PM)			No Build (AM/PM)	
		Existing	2029	2039	2029	2039
River Laurel Way	NB	B/B	C/C	C/C	C/C	C/C
	SB	B/C	C/D	C/E	C/D	C/E

Crash History Summary 2015-2019

Type	PDO	Injury	Fatal	Total
Angle	0	0	0	0
Head-On	0	0	0	0
Rear End	4	0	0	4
Sideswipe - Same	0	0	0	0
Sideswipe - Opposite	1	0	0	1
Not a Collision w/ Motor Veh	3	1	0	4

Cost Analysis

Planned Improvement	Cost	Year
WBL	\$ 340,000.00	2021

12. Grimes Rd



Capacity Analysis Summary

Intersection Needs Description:

Problem:

The intersection has limited sight distance due to horizontal and vertical curves.

The speed limit on Arnold Mill is posted at 20 mph, however a speed study was performed and the 85th percentile speed for eastbound traffic is 46 mph, and 41 mph for westbound.

Grimes Rd can be used as a cut-through to SR 140 during peak hours.

Improvement:

Speed limit feedback signs

Mid-Range:

- Southbound left Turn Lane

• Background

- 2019: Grimes Rd (WB) – B/C
- 2029: Grimes Rd (WB) – B/C
- 2039: Grimes Rd (WB) – C/D

• Build

- 2029: Grimes Rd (WB) – B/C
- 2039: Grimes Rd (WB) – C/D

Crash History Summary 2015-2019

Type	PDO	Injury	Fatal	Total
Angle	4	0	0	4
Head-On	1	0	0	1
Rear End	0	0	0	0
Sideswipe - Same	0	0	0	0
Sideswipe - Opposite	0	0	0	0
Not a Collision w/ Motor Veh	5	0	0	5

Cost Analysis

Planned Improvement	Cost	Year
SBL	\$ 161,000.00	2029

13. SR 140



Capacity Analysis Summary

Intersection Needs Description:

Problem:

SR 140 experiences significant congestion for both peak hours with vehicles queued past the intersection with Arnold Mill. Drivers were observed to leave a gap for left-turning vehicles essentially making it a free flow movement during the heavy congestion.

Installing a traffic signal will likely cause more issues due to the 1,000 vehicles making a left turn during the PM peak hour now being stopped.

A traffic signal is warranted in 2039 using the main-line northbound left-turn warrant.

Improvement:

Long Range:

- Signalization

Capacity analysis is not representative of actual field operation. LOS is modeled as F (AM peak hour) starting in existing conditions.

Crash History Summary 2015-2019

Type	PDO	Injury	Fatal	Total
Angle	10	2	0	12
Head-On	0	2	0	2
Rear End	41	5	0	46
Sideswipe - Same	1	1	0	2
Sideswipe - Opposite	1	0	0	1
Not a Collision w/ Motor Veh	4	1	0	5

Cost Analysis

Planned Improvement	Cost	Year
Signalization	\$ 363,000.00	2039



5 Summary and Conclusions

The following tables summarize recommended intersection / corridor improvements including cost and recommended priority. Project priority is based on multiple factors including cost, benefit of capacity improvement, benefit of safety improvement, and best use of funding. For example for the cost of a large widening project slightly increasing delay for a small segment multiple smaller projects can be completed improving safety and operations for more areas. Seventeen (17) projects were identified as part of this study, with three (3) alternative projects identified for consideration. For intersections requiring improvements over multiple ranges improvements were grouped into a single project to reduce mobilization and design cost.

Table 3: Improvement Summary

#	Intersection	Recommended Improvement		
		Short-Range	Mid-Range	Long-Range
1	Neese Rd			
2.1	Druw Cameron Ct		EBL Turn Lane SBR Turn Lane	
2.2	Little River Dr	WBL Turn Lane		
2.3	N River Dr	EBL Turn Lane		
3	Mill Creek Rd / River Ridge HS.			
4	Kings Academy			
5	Trickum Rd			Widening Dual NBL and taper
6	Farmington Dr	EBL Turn Lane		
7	Barnes Rd / N Arnold Mill Rd	Right Turn Lane All Approaches		
8	Hendon Rd		WBR Turn Lane	
9	N Arnold Mill Rd	WBR Turn Lane SBR Turn Lane Roundabout (Alt.)	EBL Turn Lane	
10	English Ivy Way / Mountain Rd			Signalization (Alt.)
11	River Laurel Way	WBL Turn Lane		
12	Grimes Rd		SBL Turn Lane	
13	SR 140			Signalization

Table 4: Short Range B/C Project Prioritization

I. #	Cross Street	Planned Improvement	Cost	Priority
2.1-2.3	Druw Cameron Ct / Little River Dr / N River Dr	SBR(Druw) + TWLTL	\$ 632,000.00	Medium
6	Farmington Dr	EBL	\$ 340,000.00	Medium
7	Barnes Rd / N Arnold Mill Rd	Signal Upgrade +NBR+SBR+EBR+WBR	\$ 927,000.00	Medium
9	N Arnold Mill Rd	WBR + EBL + SBR	\$ 602,000.00	Medium
11	River Laurel Way	WBL	\$ 340,000.00	Low
Total			\$ 2,841,000.00	



Table 5: Mid-Range B/C Project Prioritization

I. #	Cross Street	Planned Improvement	Cost	Priority
1	Neese Rd	Minor Signal Upgrade	\$ 108,000.00	Medium
8	Hendon Rd	WBR	\$ 199,000.00	Low
12	Grimes Rd	SBL	\$ 161,000.00	Low
Total			\$ 468,000.00	

Table 6: Long-Range B/C Project Prioritization

I. #	Cross Street	Planned Improvement	Cost	Priority
5	Trickum Rd	Widening + Dual NBL	\$ 6,920,000.00	Medium
13	SR 140	Signalization†	\$ 363,000.00	Low
Total			\$ 7,283,000.00	

Table 7: Alternative Projects for Consideration

I. #	Cross Street	Planned Improvement	Cost
9	N Arnold Mill Rd	Roundabout (2021)	\$ 762,000.00
10	English Ivy Way / Mountain Rd	Signalization (2029) + EBL/WBL	\$ 1,125,000.00

