US-60/Newman's Branch Road

Traffic Study

Final Report

Prepared for: KYOVA Interstate Planning Commission

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Table of Contents

List of Tables

List of Figures

I. Purpose & Background

Carpenter Marty Transportation (CM) was selected to develop a US-60/Newman's Branch Road Traffic Study for the City of Milton, West Virginia. The purpose of this project is to study and assess the traffic impacts of a new Milton Elementary School on the north side of Newman's Branch Road, north of IR-64. This study provides recommendations and guidance for implementing strategies to correct existing deficiencies and perform necessary crash analyses to create a safer and more efficient transportation network for all users. The scope of this study falls in line with the West Virginia Division of Highways (WVDOH) Traffic Engineering Directive 106-2, Procedure for Conducting Traffic Impact Studies (TIS) and previous discussions with Kentucky-Ohio-West Virginia Interstate Planning Commission (KYOVA).

A project location map is provided in **Figure 1.** A study area map is provided in **Figure 2**.

Figure 1 - Project Location Map

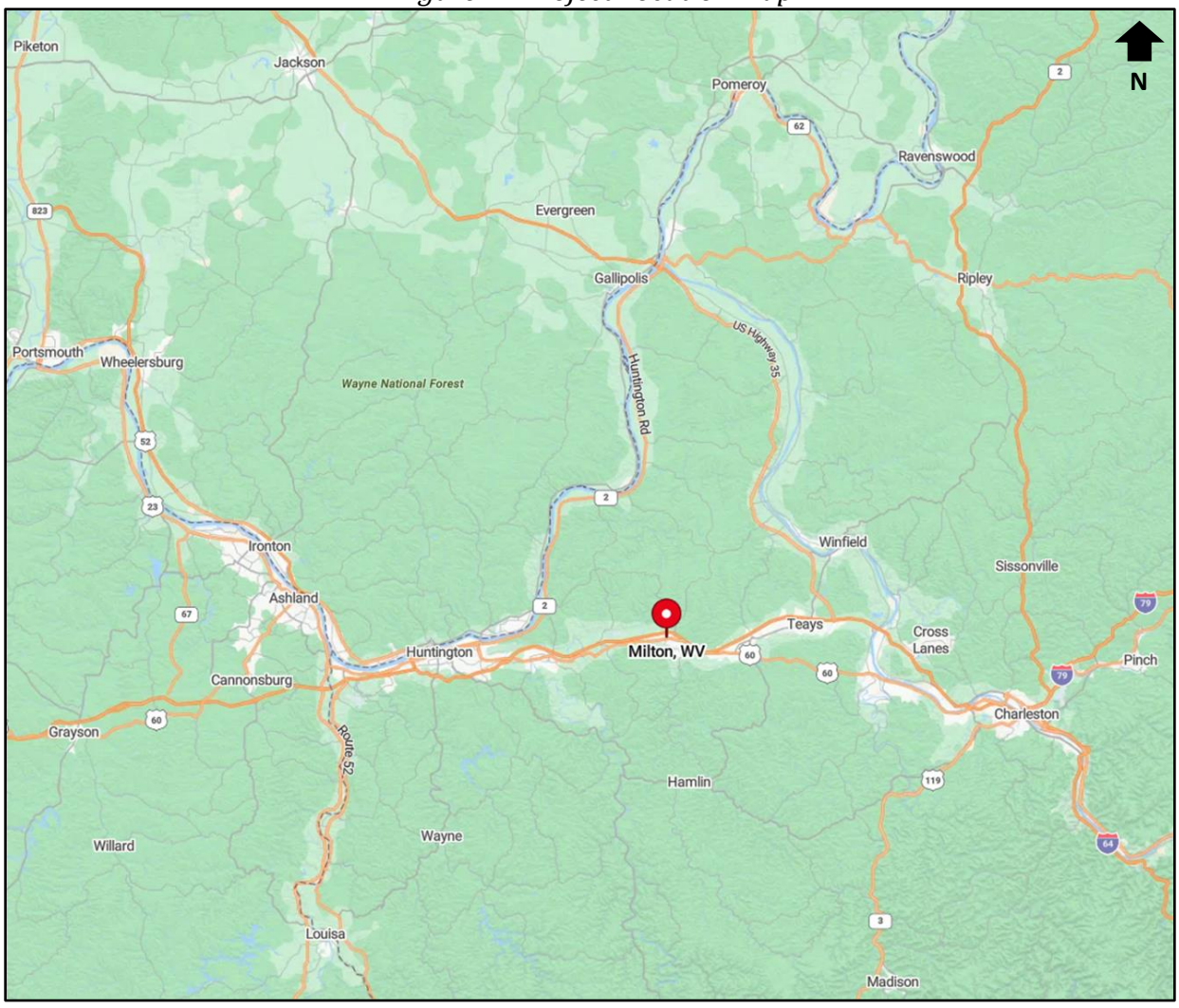
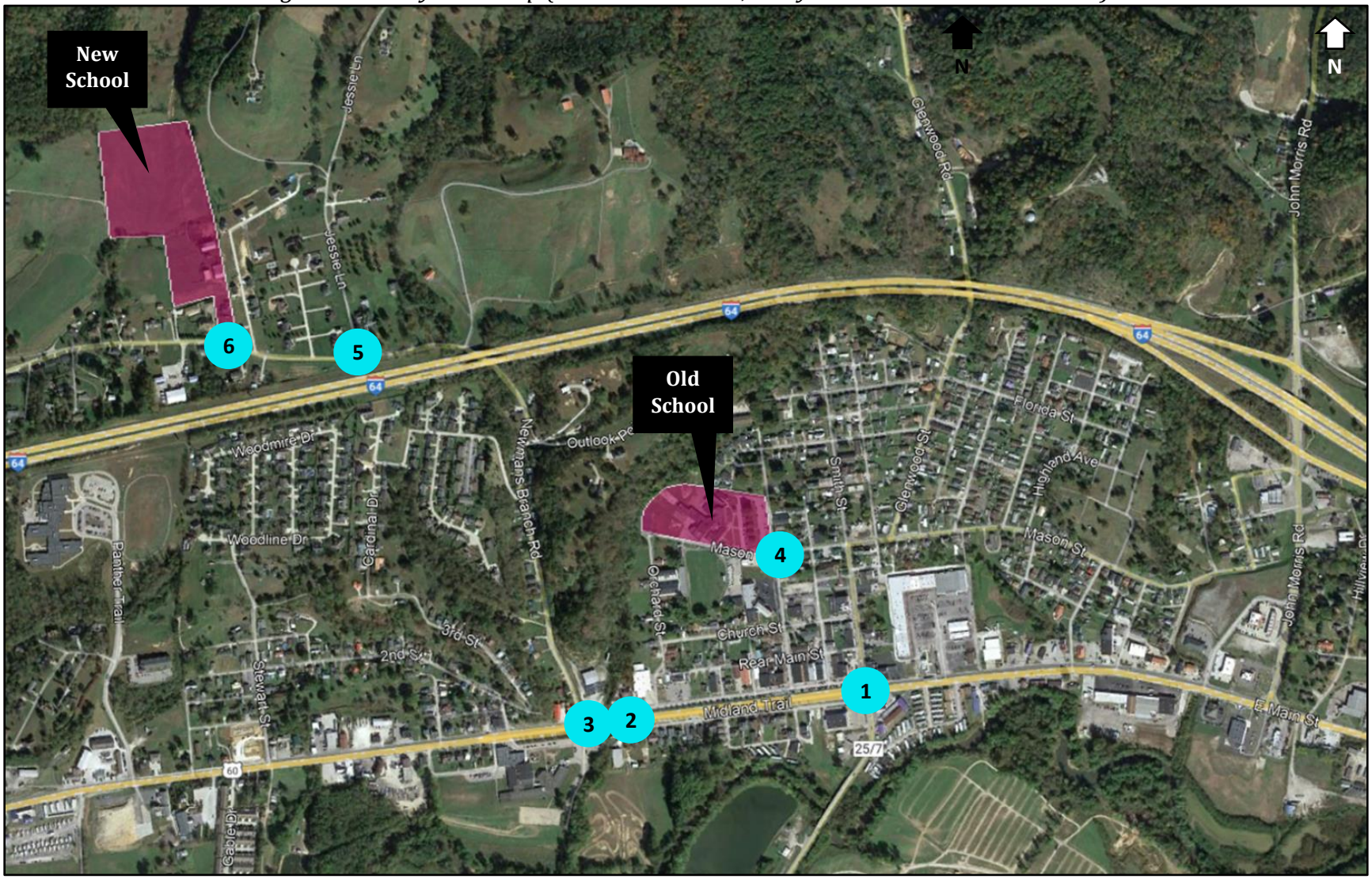


Figure 2 – Study Area Map (sites shown in red, study intersections shown in blue)



II. Relevant Previous Studies

CM systematically reviewed relevant previous studies provided. A summary of each is provided below.

A. 2019 Milton Mobility Study

The purpose of this study was to evaluate the mobility and circulation of traffic in Milton, West Virginia. The study was driven by a proposed mixed-use development called The Grand Patrician Resort. The study incorporated existing Milton transportation conditions, expected and proposed developments, previously completed transportation studies, and current issues identified within Milton.

Field observations were conducted to witness the extent of the issues identified within Milton and to identify any additional issues with mobility and circulation. The planning-level impacts of the traffic from expected and proposed development was analyzed. This analysis was used in conjunction with previously completed studies in the area to recommend improvements needed to maintain a safe, efficient, and effective roadway network. The study included the following recommendations:

Key Improvements:

1. Implementation of the Culloden Interchange
2. John Morris Road
    a. Access management
    b. Widening of roadway to five lanes
    c. Improvements to the John Morris Road and US-60 intersection
3. Morris Memorial Road (required as part of The Grand Patrician Resort development)
    a. Curve warning signs and advisory speed plates
    b. Replacement of the existing one-lane bridge with a two-lane bridge or culvert
4. Sight distance improvements on US-60 east of John Morris Road

Minor Improvements:

1. Restrict the Trenol Road loop to one-way
2. Pavement marking improvements to the intersection of Pine Haven Drive and US-60
3. Installation of vehicle detection for the northbound left turn lane of the Harbour Way and John Morris intersection
4. Installation of stop bars at the intersection of Harbour Way and John Morris Road
5. Support of the expansion efforts of TTA

Other Improvements:

1. Implement the major recommendations from the CDM Smith Non-Motorized Mobility Study

For Future Study:

1. The Grand Patrician Resort Traffic Impact Study
2. Eastbound left turn lane on US-60 onto North Main Street West End
3. North Main Street operations

B. 2020 Cabell and Wayne Counties Safety Study

The purposes and goals of the Cabell and Wayne Counties Safety Study were as follows:

- Create a safer transportation network for both motorized and non-motorized modes of transportation
- Focus on the urbanized areas of Cabell and Wayne counties
- Identify crash trends and high crash locations
- Recommend infrastructure improvements and other strategies
- Prioritize improvements and strategies

Crash "hot spots" were identified. Locations were ranked using Equivalent Property Damage Only (EPDO) factors which weigh the relative severity of crashes and total crash frequency. For the highest-ranked locations from the high-level prioritization, methodologies in the Highway Safety Manual (HSM) were used to determine how the locations in Cabell and Wayne Counties were performing relative to other locations with similar geometric characteristics and traffic volumes.

Intersections within Milton were not ranked high compared to other intersections in the county. Therefore, no site-specific improvements were recommended for Milton intersections. However, general traffic signal improvements to mitigate crashes were provided including optimizing signal timing clearance intervals and improving signal head visibility. Behavioral countermeasures were also provided, including the directive to invite a safety officer to KYOVA Technical Advisory Committee meetings, enact targeted, high visibility sobriety checkpoints, and education campaigns at local high schools.

The highest ranked Milton intersections, segments, and interchanges include:

- US-60 (E. Main Street) & Smith Street (ranked #69 out of 119)
- US-60 (E. Main Street) & John Morris Road (ranked #76 out of 119)
- US-60 (W. Main Street) & Newman's Branch Road (ranked #100 out of 119)
- US-60 from Brenda Street to Brickyard Avenue (ranked #8 out of 16)
- John Morris Interchange (ranked #6 out of 8)

III. Stakeholder and Public Engagement

With the assistance of KYOVA, a stakeholder group was formed. Stakeholders included:

- Chris Chiles, KYOVA
- Saleem Salameh, KYOVA
- Bethany Wild, KYOVA
- Brian Carr, WVDOH
- Rob Pennington, WVDOH D2
- Justin Boggs, Cabell County BOE
- Dave Lieving, HADCO

Initial stakeholder meetings were held on November 1st and 8th, 2023. The goal of these meetings was to introduce the team, gather information, and discuss the scope, schedule, and expectations of the study. Additional meetings were held on January 11, 2024, February 6, 2024, and February 22, 2024 to discuss study progress/results, plan the public

meeting, and next steps. CM provided an overview and status of the study at the KYOVA Technical Advisory Committee (TAC) meeting on December 5th, 2023 and February 27th, 2024. A public meeting was held on February 12th, 2024, which is further described later in this report.

IV. Existing Conditions

A. Elementary School Site

The existing Milton Elementary School site is located in the northwest corner of the Mason Street & Pike Street intersection. Both roadways are low-speed, and the surrounding area is primarily residential. The school has open frontage on both roadways. Sidewalk is present along some roadways in the surrounding area, but not all.

B. Roadways

US-60

- US-60 is the main thoroughfare in the City of Milton, connecting many cities east and west. It has an intersection with John Morris Road, which has an interchange with IR-64. It is classified as a Feeder per the WVDOT State Functional Classification Map.
- Generally, US-60 is a four-lane typical section with a 2' center median in the study area. The roadway widens to a five-lane typical section to provide left turn lanes at the Smith Street/Bill Blenko Drive and continues with a five-lane typical section eastward.
- A 1' paved shoulder with no curb/gutter is present between Smith Street and Newman's Branch Road. A 10' paved shoulder with curb/gutter is present west of Newman's Branch Road.
- Each through lane is approximately 11' wide
- Raised pavement markers (RPMs) are present
- Posted speed limit of 40 MPH

Newman's Branch Road

- Newman's Branch Road starts at US-60 and continues north with many horizontal and vertical curves, and an underpass under IR-64. It primarily provides access to residential neighborhoods and single-family homes. It is classified as a Collector per the WVDOT State Functional Classification Map.
- Two-lane typical section
- Each through lane is approximately 10' wide
- A 0-1' paved shoulder is present
- Posted speed limit of 25 MPH

N./S. Main Street

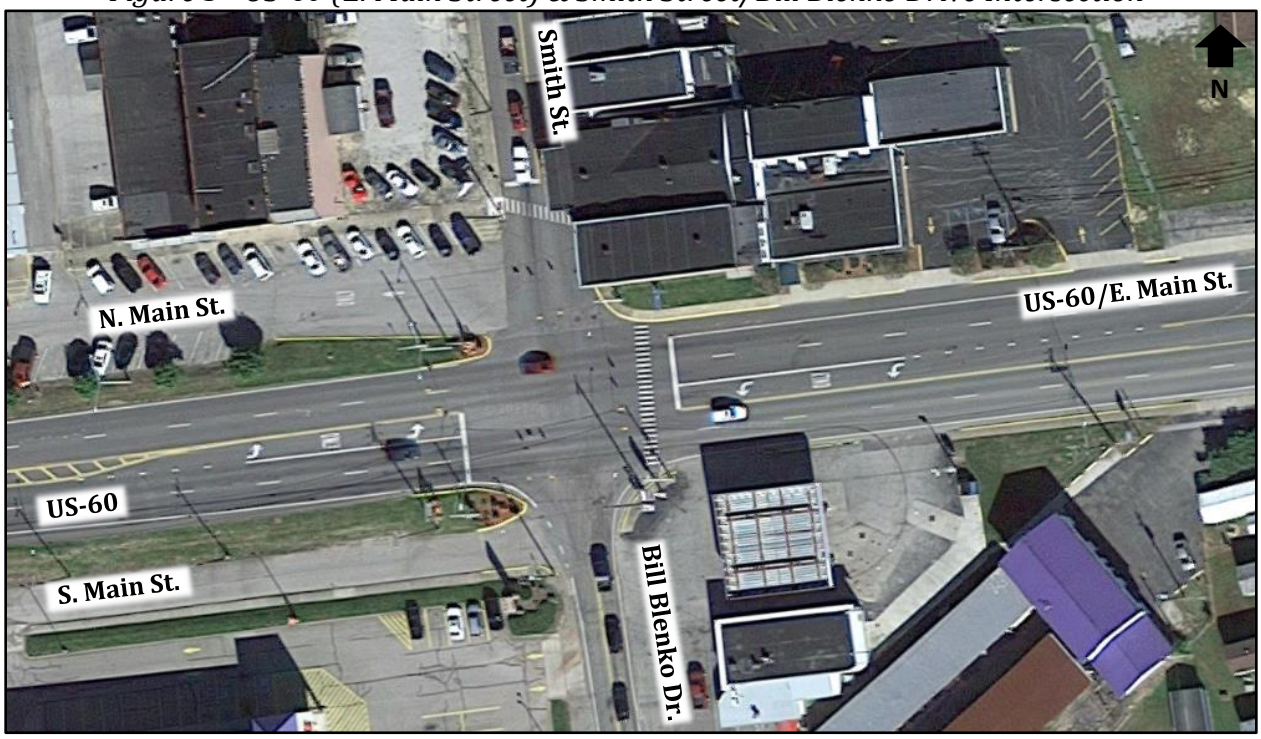
- These serve as frontage roadways with on-street parking which runs parallel to US-60 between Smith Street to just east of Newman's Branch Road
- N. Main Street is one-way westbound between Smith Street and Pike Street and two-way from Pike Street to its terminus at US-60 to the west, with a posted speed limit of 25 MPH. No curb/gutter is provided.
- S. Main Street is generally two-way with a posted speed limit of 15 MPH. Curb/gutter is generally present along the south side of the roadway.

C. Intersections

Existing study intersections are described below. Numbers correspond to **Figure 2**.

1. US-60 (E. Main Street) & Smith Street/Bill Blenko Drive (see **Figure 3**)
   - Four-leg intersection
   - Traffic signal controlled
   - North/south approaches are single-lane and east/west approaches have a left turn lane, a through lane, and a shared through/right turn lane
   - All movements are permitted-only except the westbound left which is permitted-protected
   - All signal heads are painted yellow with no backplates
   - No right turn on red signs are posted for the westbound and southbound approaches
   - Intersection lighting is present
   - Marked pedestrian crossings on east and north legs
   - Pedestrian signal heads provided for east leg crossing
   - Main Street frontage roads start in the northwest and southwest corners
   - The northbound and southbound stop lines are set back from the intersection, behind the frontage roads

Figure 3 - US-60 (E. Main Street) & Smith Street/Bill Blenko Drive Intersection



2. US-60 (W. Main Street) & N. Main Street/S. Main Street (see **Figure 4**)
   - Four-leg intersection
   - US-60 is free-flow and N. Main Street/S. Main Street are stop-controlled
   - East/west approaches have a shared through/left turn lane and a shared through/right turn lane. The southbound approach has a right turn lane and a left turn lane. The northbound approach is a single-lane approach.
   - Intersection lighting is present
   - Sidewalk is present on the north side of N. Main Street and on the south side of S. Main Street. No marked pedestrian crossings are present at the intersection.

Figure 4 - US-60 (W. Main Street) & N. Main Street/S. Main Street Intersection

3. US-60 (W. Main Street) & Newman's Branch Road/James River Turnpike Road (see **Figure 5**)
   - Four-leg intersection
   - US-60 is free-flow and Newman's Branch Road/James River Turnpike Road are stop-controlled
   - North/south approaches are single-lane and east/west approaches have a shared through/left turn lane and a shared through/right turn lane.
   - Intersection lighting is present
   - Sidewalk is present on the north and south sides of US-60. A marked pedestrian crossings is present on the east leg of the intersection, but no pedestrian warning signage is present.

Figure 5 - US-60 & Newman's Branch Road/James River Turnpike Road Intersection

D. Pedestrian Infrastructure

Sidewalk is present on both sides of US-60, on the north side of N. Main Street, and on the south side of S. Main Street. A signalized crossing of US-60 is present at Smith Street/Bill Blenko Drive, but nowhere else in the study area. No pedestrian infrastructure is present on Newman's Branch Road.

V. Proposed Conditions

A. On-Site Development

The new elementary school site is located on the north side of Newman's Branch Road, just west of Kings Gate Drive. The new elementary school is proposed to have a capacity for 464 students, the same amount as the current elementary school. The new school is proposed to have one full access point on Newman's Branch Road. The site concept plan is provided in **Appendix A.** The surrounding area has rolling terrain and is moderately developed with residential homes. It is currently unknown what will occur to the old elementary school site. The gym and fields may remain for use. The site may be demolished.

B. Off-Site Developments

The City of Milton has the following planned developments and potential for future growth:

- **The Grand Patrician Resort**: This is the largest and most significant development proposed in the City. This proposed development will encompass the former Morris Memorial Hospital and the surrounding 189± acres. The development is roughly 20% of the total land area of Milton.
- **Development Due to Flood Wall**: The WV Corps of Engineers has proposed building a flood wall to protect Milton north of the Mud River. Large portions of Milton are within the flood plain. Much of the vacant land north of the flood wall will be developable once it is completed.

VI. Traffic Volumes

A. Data Collection

CM collected 24 hours of turning movement count data on a typical weekday (Tuesday, Wednesday, or Thursday) for the study intersections. The hours of 6:00 AM-9:00 AM and 2:00 PM-6:00 PM were processed. These hours were chosen to ensure school peak hours and typical AM and PM peak hours were captured in the data.

The study intersections where data was collected are listed below. Numbers correspond to **Figure 2**.

1. US-60 (E. Main Street) & Smith Street/Bill Blenko Drive
2. US-60 (W. Main Street) & N. Main Street/S. Main Street
3. US-60 (W. Main Street) & Newman's Branch Road/James River Turnpike Road
4. Mason Street & Pike Street
5. Newman's Branch Road & Jessie Lane

Count data can be found in **Appendix B**.

B. Background Traffic

For analysis, the Opening Year of the development is 2024 and the Design, or Horizon Year, is 2044. A blanket, linear annual growth rate of 2% was utilized throughout the study area, per recommendation of KYOVA. The growth rate was applied to the count data to produce background, or No Build, volumes for the Opening and Horizon Years. Growth rate correspondence can be found in **Appendix B**.

C. Trip Generation

Trips for the existing elementary school were generated using ITE methodologies and the Trip Generation Manual, 11th Edition. Land use code (LUC) *520 – Elementary School* was used to generate trips for the elementary school. Pass-by and internal capture reductions do not apply to this development. **Table 1** summarizes the trip generation for the elementary school. Since the new elementary school is proposed to have the same capacity as the existing school, the trip generation for both the existing and proposed school is the same. The full trip generation outputs can be found in **Appendix C**.

Table 1 – Elementary School Trip Generation Summary

Land Use	Size	Weekday AM Peak		Weekday PM Peak	
		Entry	Exit	Entry	Exit
520 – Elementary School	464 Students	188	160	96	113

Two different site traffic distributions were developed using StreetLight Origin-Destination (OD) and Top Routes. StreetLight primarily uses Connected Vehicle Data (CVD) from vehicles with location technology, along with other sources, to generate metrics for all vehicles on the road. The data is utilized to understand vehicle origin and destination patterns in the study area and between routes.

The first distribution showed how traffic flows to and from the existing elementary school site on the corner of Pike Street and Mason Street. Using this distribution, existing trips generated by the existing elementary school were removed from the No Build volumes, producing Background volumes for the Opening and Horizon Years.

The second set of distributions shows how traffic flows to and from the new elementary school site off Newman's Branch Road. Using this distribution, new trips were added to the Background volumes to produce Build volumes for the Opening and Horizon Years.

The full volume calculations can be found in **Appendix D.**

VII. Traffic Analysis

A. Turn Lane Warrant & Length Analysis

A turn lane warrant analysis was conducted at all stop-controlled intersections using industry standard turn lane warrant graphs. If a turn lane was warranted in any particular scenario, the length was calculated using industry standards and it was represented as such in the capacity analysis unless otherwise noted. Turn lane lengths were also calculated for all existing turn lanes at the study intersections.

B. Capacity Analysis

Synchro 11 software, using the latest module of the Highway Capacity Manual (HCM), was used to analyze capacity at all intersections. Highway Capacity Software (HCS) version 2023 was utilized for analysis when considering the implementation of a roundabout. A minimum Level-of-Service (LOS) of D for the overall intersection/approaches, and LOS E for individual movements, during peak traffic hours was considered acceptable at each intersection. If unacceptable LOS/delay occurred in No Build or Build analysis scenarios, mitigation was determined to bring LOS/delay back to acceptable levels.

C. Queuing Analysis

The SimTraffic module of Synchro software and HCS outputs for roundabouts was utilized to evaluate average and 95th percentile queue lengths for individual movements at all study intersections. If queue lengths significantly exceeded available storage space, mitigation was attempted to reduce said queue lengths.

D. Crash History Analysis

Crash data for the study area was provided by KYOVA for 2018-2022. The crash data was plotted in GIS and summarized in heat maps. Crash types and trends at key locations were summarized.

E. Pedestrian/Cyclist Analysis

A review of the study area was completed to determine locations where accommodations for active transportation can be improved. Active transportation refers to any form of human-powered transportation, like walking, biking, or rolling. Active transportation offers many benefits to a community such as reduced traffic congestion, reduced carbon emissions, improved personal health, and more community engagement. Implementation of active transportation options in a community ensures equitable, safe, and efficient transportation options are provided for all users in a community.

F. Sight Distance Analysis

Horizontal sight distance exhibits were developed based on standards in the AASHTO Green Book to determine if sight distance is adequate for vehicles exiting the proposed elementary school site onto Newman's Branch Road.

G. Design Vehicle Analysis

School buses and truck traffic are currently present on Newman's Branch Road. However, this traffic is expected to increase with the addition of the proposed elementary school and anticipated nearby development. Through and turning movements for a school bus and WB-67 truck on Newman's Branch Road were simulated using AutoTurn to determine if existing lane widths can accommodate additional, larger vehicles.

VIII. Results

A. Turn Lane Warrant & Length Analysis

The results of the Horizon Year turn lane warrant analysis can be seen in **Table 2**. All turn lane lengths are inclusive of a 50' diverging taper. The full turn lane warrant analysis, including calculated turn lane lengths for all existing turn lanes, can be found in **Appendix E.**

Table 2 – Horizon Year Turn Lane Warrant and Length Summary

Intersection	Turn Lane	Existing	No Build	Build	Build – with Improvements
US-60 & Smith St.	EBL	185’	225’	175’	---
	WBL	250’	325’	325’	---
US-60 & N./S. Main St.	EBL	N/A	Met – 275’	Met – 175’	275’
	EBR	N/A	Not Met	Not Met	---
	WBL	N/A	Not Met	Not Met	175’
	WBR	N/A	Not Met	Not Met	---
US-60 & Newman's Branch Rd.	EBL	N/A	Met – 175’	Met – 225’	---
	EBR	N/A	Not Met	Not Met	---
	WBL	N/A	Met – 175’	Met – 175’	---
	WBR	N/A	Met – 225’	Met – 275’	---
Newman's Branch Rd. & School Access	EBL	N/A	N/A	Not Met	---
	WBR	N/A	N/A	Not Met	---

B. Capacity Analysis

Results of the baseline capacity analysis for the study intersections in each analysis year scenario can be seen in **Tables 3-5**. Red text identifies an approach or movement that exceeds LOS/delay criteria. Warranted turn lanes were not included in the Baseline analysis. Planning-level signal timings were utilized for the existing US-60 & Smith Street signal. The full capacity analysis can be found in **Appendix F.**

Table 3 – 2023 Baseline Capacity Analysis Summary (LOS/delay)

Intersection *Control Type*	Approach/ Movement	No Build		
		AM Peak	PM Peak	School PM Peak
US-60 & Smith Street/ Bill Blenko Drive *Signal*	EB	B/15.9	B/17.7	B/16.3
	WB	A/6.6	A/7.0	A/6.8
	NB	B/16.7	B/17.3	B/16.0
	SB	B/16.1	B/16.1	B/15.6
	Total	**B/13.1**	**B/12.2**	**B/12.1**
US-60 & N./S. Main Street *Stop Control*	EBL	A/8.8	A/9.0	A/8.6
	WBL	A/8.7	A/8.3	A/0.0
	NB	C/19.8	B/14.1	B/14.6
	SB	B/13.3	B/14.5	B/12.6
US-60 & Newman's Branch Road *Stop Control*	EBL	A/8.7	A/9.1	A/8.6
	WBL	A/9.0	A/8.3	A/8.3
	NB	C/15.0	B/14.4	B/11.7
	SB	D/34.0	D/25.9	C/18.5

Table 4 – 2024 Baseline Capacity Analysis Summary (LOS/delay)

Intersection *Control Type*	Approach/ Movement	No Build			Build		
		AM Peak	PM Peak	School PM Peak	AM Peak	PM Peak	School PM Peak
US-60 & Smith St./ Bill Blenko Dr. *Signal*	EB	B/15.8	B/17.7	B/16.4	B/16.2	B/17.7	B/16.9
	WB	A/6.5	A/6.9	A/6.8	A/6.5	A/6.8	A/6.7
	NB	B/17.1	B/17.5	B/16.1	B/18.4	B/18.3	B/16.3
	SB	B/16.5	B/16.3	B/15.6	B/15.9	B/16.1	B/15.0
	Total	**B/13.2**	**B/12.2**	**B/12.1**	**B/13.4**	**B/12.2**	**B/12.2**
US-60 & N./S. Main St. *Stop-Control*	EBL	A/8.8	A/9.0	A/8.6	A/8.9	A/9.0	A/8.6
	WBL	A/8.7	A/8.4	A/0.0	A/8.9	A/8.5	A/0.0
	NB	C/20.3	B/14.3	B/14.9	C/17.8	B/13.9	B/14.5
	SB	B/13.4	B/14.6	B/12.8	C/16.6	C/21.4	B/14.0
US-60 & Newman's Branch Rd. *Stop Control*	EBL	A/8.8	A/9.1	A/8.7	A/9.3	A/9.3	A/8.8
	WBL	A/9.1	A/8.4	A/8.3	A/8.7	A/8.2	A/8.2
	NB	C/15.2	B/14.6	B/11.8	C/17.4	C/15.8	B/12.1
	SB	E/35.9	D/27.1	C/19.0	F/294.1	F/51.1	D/26.9
Newman's Branch Rd. & School Access *Stop Control*	EBL	---	---	---	A/7.7	A/7.5	A/7.5
	SB	---	---	---	B/11.2	B/10.1	A/9.8

Table 5 – 2044 Baseline Capacity Analysis Summary (LOS/delay)

Intersection *Control Type*	Approach/ Movement	No Build			Build		
		AM Peak	PM Peak	School PM Peak	AM Peak	PM Peak	School PM Peak
US-60 & Smith St./ Bill Blenko Dr. *Signal*	EB	C/23.6	B/19.3	B/19.1	C/22.0	B/19.7	B/18.2
	WB	A/9.9	A/8.2	A/8.0	A/8.7	A/8.3	A/7.1
	NB	C/21.4	C/21.4	B/19.0	C/23.8	C/22.2	C/20.4
	SB	C/22.9	C/20.3	B/19.6	C/21.3	B/19.3	B/19.2
	Total	**B/18.8**	**B/14.2**	**B/14.3**	**B/18.0**	**B/14.3**	**B/13.7**
US-60 & N./S. Main St. *Stop-Control*	EBL	A/9.9	B/10.2	A/9.5	A/9.9	B/10.1	A/9.5
	WBL	A/9.6	A/9.0	A/0.0	A/9.8	A/9.1	A/0.0
	NB	E/45.2	C/21.2	C/22.4	D/34.6	C/19.6	C/21.1
	SB	C/22.3	C/24.1	C/18.0	D/26.5	E/38.7	C/19.7
US-60 & Newman's Branch Rd. *Stop-Control*	EBL	A/9.7	B/10.3	A/9.5	B/10.5	B/10.7	A/9.7
	WBL	B/10.2	A/9.0	A/8.9	A/9.7	A/8.9	A/8.7
	NB	D/27.6	C/21.7	C/15.0	E/42.1	C/24.9	C/16.0
	SB	F/348.0	F/108.6	E/38.8	F/1419.6	F/400.0	F/115.4
Newman's Branch Rd. & School Access *Stop-Control*	EB	---	---	---	A/7.8	A/7.6	A/7.5
	SB	---	---	---	B/11.7	B/10.4	B/10.0

As shown in **Tables 3-5**, the southbound approach of the US-60 & N./S. Main Street intersection shows unacceptable delay in the 2044 PM Build scenario. Additionally, the southbound approach of the US-60 & Newman's Branch Road intersection shows unacceptable delay in the 2024 AM No Build, 2024 AM and PM Build, and all 2044 No Build and Build scenarios.

To mitigate the unacceptable delays on the southbound approach in 2044, and to improve safety, the US-60 & N./S. Main Street intersection was analyzed assuming a median could be installed at the intersection, restricting eastbound and westbound left movements as well as northbound and southbound left and through movements. Additionally, a "road diet" was considered along US-60. This assumed the existing three-lane section from Stewart Street would be extended to just west of the Smith Street/Bill Blenko Drive intersection, where it would taper to meet the existing five-lane section east of the study area. These conditions are present in all of the "mitigated" capacity analysis scenarios in **Table 6**.

A signal warrant analysis at the US-60 & Newman's Branch Road intersection was performed utilizing 2024 No Build and Build volumes to determine if a signal would be an appropriate mitigation. The results of this analysis show that a signal is not warranted utilizing 2024 No Build volumes but is warranted using 2024 Build volumes. Therefore, this intersection was analyzed as a signal in all Build scenarios. The full signal warrant analysis can be found in **Appendix G**. It was assumed the aforementioned road diet along US-60 is implemented in the signalized capacity analysis, and eastbound and westbound left turn lanes are provided. The calculated lengths for these turn lanes can be seen in **Table 2**. Additionally, roundabout analysis was performed for the US-60 & Newman's Branch Road intersection as an alternative to implementing a traffic signal.

The results of the previously described improvements at the study intersections can be seen in **Table 6.** All improvements are further described in detail in the Recommendations section.

Table 6 – Mitigated Capacity Analysis Summary (LOS/delay)

Intersection *Control Type*	Approach/ Movement	2024 Build			2044 Build		
		AM Peak	PM Peak	School PM Peak	AM Peak	PM Peak	School PM Peak
US-60 & Smith St./ Bill Blenko Dr. *Signal*	EB	C/24.9	B/17.7	B/16.6	C/21.3	B/19.4	B/17.9
	WB	A/6.1	A/6.8	A/6.7	A/8.8	A/8.3	A/7.2
	NB	D/37.6	B/18.4	B/16.5	C/24.5	C/22.3	C/20.8
	SB	C/33.8	B/16.4	B/15.4	C/22.7	C/20.1	C/20.5
	Total	**C/21.9**	**B/12.3**	**B/12.3**	**B/18.1**	**B/14.4**	**B/14.1**
US-60 & N./S. Main St. *Stop-Control*	EB	---	---	---	---	---	---
	WB	---	---	---	---	---	---
	NB	B/13.7	B/12.0	B/11.7	C/18.0	B/14.4	B/13.8
	SB	B/12.6	B/13.2	B/12.3	C/16.2	C/16.9	C/15.6
US-60 & Newman's Branch Rd. *Signal*	EB	A/9.6	A/5.8	A/5.0	B/19.5	A/8.6	A/7.1
	WB	A/1.9	A/7.0	A/5.6	B/18.5	B/11.9	A/8.9
	NB	C/27.7	C/33.4	D/35.5	C/26.2	C/32.5	C/27.1
	SB	D/36.2	D/39.8	D/40.1	D/39.6	D/41.2	C/30.5
	Total	**B/12.0**	**B/11.1**	**B/11.2**	**C/22.4**	**B/14.0**	**B/11.4**
US-60 & Newman's Branch Rd. *Roundabout*	EB	B/11.9	A/7.3	A/6.7	D/31.9	B/10.7	A/9.3
	WB	A/9.5	A/9.1	A/7.9	C/16.3	C/16.6	B/11.9
	NB	A/8.6	A/5.1	A/6.1	B/13.4	A/6.6	A/6.7
	SB	A/9.3	A/7.4	A/6.6	C/15.8	B/11.3	A/7.6
	Total	**B/10.4**	**A/8.2**	**A/7.2**	**C/22.8**	**B/13.7**	**B/10.2**
Newman's Branch Rd. & School Access *Stop-Control*	EBL	A/7.7	A/7.5	A/7.5	A/7.8	A/7.6	A/7.5
	SB	B/11.2	B/10.1	A/9.8	B/11.7	B/10.4	B/10.0

As seen in **Table 6**, all study intersections operate acceptably in all Mitigated scenarios.

C. Queuing Analysis

Results of the baseline queuing analysis for the study intersections can be seen in **Tables 7-9**. Red text identifies queue lengths that exceed available storage space. The full capacity analysis can be found in **Appendix H.**

Table 7 – AM Peak Baseline Queuing Analysis Summary (Average/95th Percentile)

Intersection	Approach	Movement	Available Storage	AM Peak				
				2023	2024 No Build	2024 Build	2044 No Build	2044 Build
US-60 & Smith St./ Bill Blenko Dr.	EB	L	135’	12’/39’	11’/37’	0’/0’	22’/68’	0’/0’
		T	1,430’	68’/110’	64’/111’	74’/126’	113’/186’	108’/185’
		T/R	1,430’	80’/130’	75’/124’	83’/130’	128’/202’	126’/206’
	WB	L	220’	28’/59’	28’/62’	27’/55’	37’/70’	35’/64’
		T	1,270’	53’/95’	51’/93’	51’/88’	79’/135’	77’/131’
		T/R	1,270’	51’/96’	44’/92’	35’/78’	75’/140’	56’/103’
	NB	L/T/R	2,600’	74’/132’	74’/112’	79’/137’	113’/189’	110’/187’
	SB	L/T/R	350’	73’/128’	72’/129’	47’/87’	103’/174’	77’/132’
US-60 & N./S. Main St.	EB	L/T	165’	24’/62’	27’/63’	14’/44’	47’/108’	34’/84’
		T/R	165’	0’/0’	0’/0’	0’/0’	3’/32’	6’/40’
	WB	L/T	1,430’	0’/6’	0’/5’	0’/0’	1’/9’	0’/4’
		T/R	1,430’	0’/0’	0’/3’	0’/0’	0’/0’	0’/0’
	NB	L/T/R	585’	9’/36’	8’/34’	8’/32’	11’/39’	12’/44’
	SB	L/T	85’	12’/40’	12’/39’	13’/43’	21’/56’	14’/46’
		R	275’	42’/71’	39’/74’	23’/55’	49’/87’	35’/69’
US-60 & Newman's Branch Rd.	EB	L/T	415’	6’/30’	6’/31’	42’/102’	17’/60’	61’/134’
		T/R	415’	0’/0’	0’/0’	2’/27’	0’/0’	8’/62’
	WB	L/T	180’	7’/29’	8’/33’	9’/34’	17’/51’	13’/41’
		T/R	180’	0’/6’	0’/3’	3’/15’	2’/22’	3’/16’
	NB	L/T/R	185’	30’/64’	32’/69’	33’/71’	39’/101’	39’/78’
	SB	L/T/R	1,440’	46’/89’	43’/79’	169’/386’	145’/367’	430’/588’
Newman's Branch Rd. & School Access	EB	L/T	4,225’			2’/15’		2’/12’
	WB	T/R	785’			0’/0’		0’/0’
	SB	L/R	N/A			40’/63’		43’/70’

Table 8 – PM Peak Baseline Queuing Analysis Summary (Average/95th Percentile)

Intersection	Approach	Movement	Available Storage	PM Peak				
				2023	2024 No Build	2024 Build	2044 No Build	2044 Build
US-60 & Smith St./ Bill Blenko Dr.	EB	L	135’	14’/43’	18’/44’	7’/27’	25’/65’	18’/68’
		T	1,430’	66’/114’	61’/106’	67’/117’	96’/155’	111’/170’
		T/R	1,430’	75’/126’	69’/120’	73’/124’	109’/166’	127’/184’
	WB	L	220’	47’/82’	45’/83’	44’/82’	68’/117’	73’/120’
		T	1,270’	61’/106’	60’/104’	63’/106’	92’/151’	91’/155’
		T/R	1,270’	65’/115’	64’/116’	55’/99’	104’/170’	99’/173’
	NB	L/T/R	2,600’	68’/118’	62’/115’	65’/123’	107’/181’	101’/174’
	SB	L/T/R	350’	61’/105’	56’/97’	37’/75’	86’/151’	64’/113’
US-60 & N./S. Main St.	EB	L/T	165’	15’/47’	15’/45’	6’/29’	31’/90’	17’/58’
		T/R	165’	1’/11’	0’/0’	0’/0’	6’/44’	1’/15’
	WB	L/T	1,430’	2’/14’	1’/10’	1’/13’	2’/16’	2’/17’
		T/R	1,430’	1’/9’	0’/3’	0’/0’	0’/0’	0’/3’
	NB	L/T/R	585’	10’/37’	7’/30’	9’/36’	13’/40’	13’/43’
	SB	L/T	85’	13’/40’	16’/41’	15’/45’	18’/45’	17’/47’
		R	275’	22’/50’	25’/51’	5’/24’	31’/59’	10’/33’
US-60 & Newman's Branch Rd.	EB	L/T	415’	10’/45’	13’/47’	28’/78’	29’/94’	50’/118’
		T/R	415’	0’/0’	0’/0’	0’/0’	1’/17’	2’/30’
	WB	L/T	180’	3’/18’	3’/16’	3’/16’	4’/30’	9’/37’
		T/R	180’	1’/9’	0’/3’	1’/12’	0’/6’	3’/19’
	NB	L/T/R	185’	13’/38’	13’/38’	14’/38’	16’/43’	18’/47’
	SB	L/T/R	1,440’	31’/57’	31’/55’	65’/119’	47’/90’	160’/341’
Newman's Branch Rd. & School Access	EB	L/T	4,225’			0’/6’		1’/11’
	WB	T/R	785’			0’/0’		0’/5’
	SB	L/R	N/A			37’/57’		35’/54’

Table 9 – School PM Peak Baseline Queuing Analysis Summary (Average/95th Percentile)

Intersection	Approach	Movement	Available Storage	School PM Peak				
				2023	2024 No Build	2024 Build	2044 No Build	2044 Build
US-60 & Smith St./ Bill Blenko Dr.	EB	L	135'	2'0/47'	17'/47'	12'/39'	31'/72'	19'/50'
		T	1,430'	52'/90'	59'/102'	60'/101'	89'/147'	87'/142'
		T/R	1,430'	62'/105'	63'/114'	70'/119'	106'/167'	106'/170'
	WB	L	220'	39'/79'	37'/68'	36'/66'	56'/99'	48'/90'
		T	1,270'	53'/95'	58'/102'	55'/100'	82'/142'	78'/140'
		T/R	1,270'	51'/94'	54'/102'	53'/99'	92'/159'	81'/145'
	NB	L/T/R	2,600'	58'/116'	62'/115'	65'/119'	96'/175'	100'/179'
	SB	L/T/R	350'	68'/114'	68'/116'	48'/86'	104'/180'	81'/142'
US-60 & N./S. Main St.	EB	L/T	165'	21'/57'	18'/54'	12'/39'	37'/90'	29'/83'
		T/R	165'	1'/11'	0'/0'	0'/0'	1'/11'	2'/32'
	WB	L/T	1,430'	0'/0'	0'/0'	0'/0'	0'/0'	0'/6'
		T/R	1,430'	0'/5'	0'/3'	0'/3'	1'/8'	0'/5'
	NB	L/T/R	585'	9'/37'	6'/29'	8'/33'	12'/40'	11'/37'
	SB	L/T	85'	14'/44'	16'/45'	17'/49'	28'/66'	23'/61'
		R	275'	43/77'	43'/77'	28'/62'	51'/93'	43'/80'
US-60 & Newman's Branch Rd.	EB	L/T	415'	10'/39'	7'/31'	23'/61'	16'/58'	39'/99'
		T/R	415'	0'/0'	0'/0'	0'/3'	0'/0'	3'/32'
	WB	L/T	180'	3'/16'	2'/16'	1'/12'	5'/26'	4'/22'
		T/R	180'	0'/0'	0'/3'	0'/6'	0'/0'	1'/12'
	NB	L/T/R	185'	29'/65'	33'/65'	30'/61'	38'/70'	39'/78'
	SB	L/T/R	1,440'	29'/57'	30'/57'	59'/112'	43'/90'	98'/199'
Newman's Branch Rd. & School Access	EB	L/T	4,225'			1'/8'		1'/8'
	WB	T/R	785'			0'/0'		0'/0'
	SB	L/R	N/A			36'/54'		37'/58'

As seen in **Tables 7-9**, all queue lengths are within currently available storage. Thus, no additional mitigation was attempted for the study intersections.

Results of the Mitigated conditions queuing analysis for the study intersections can be seen in **Table 10**.

Table 10 – Mitigated Queuing Analysis Summary (Average/95th Percentile)

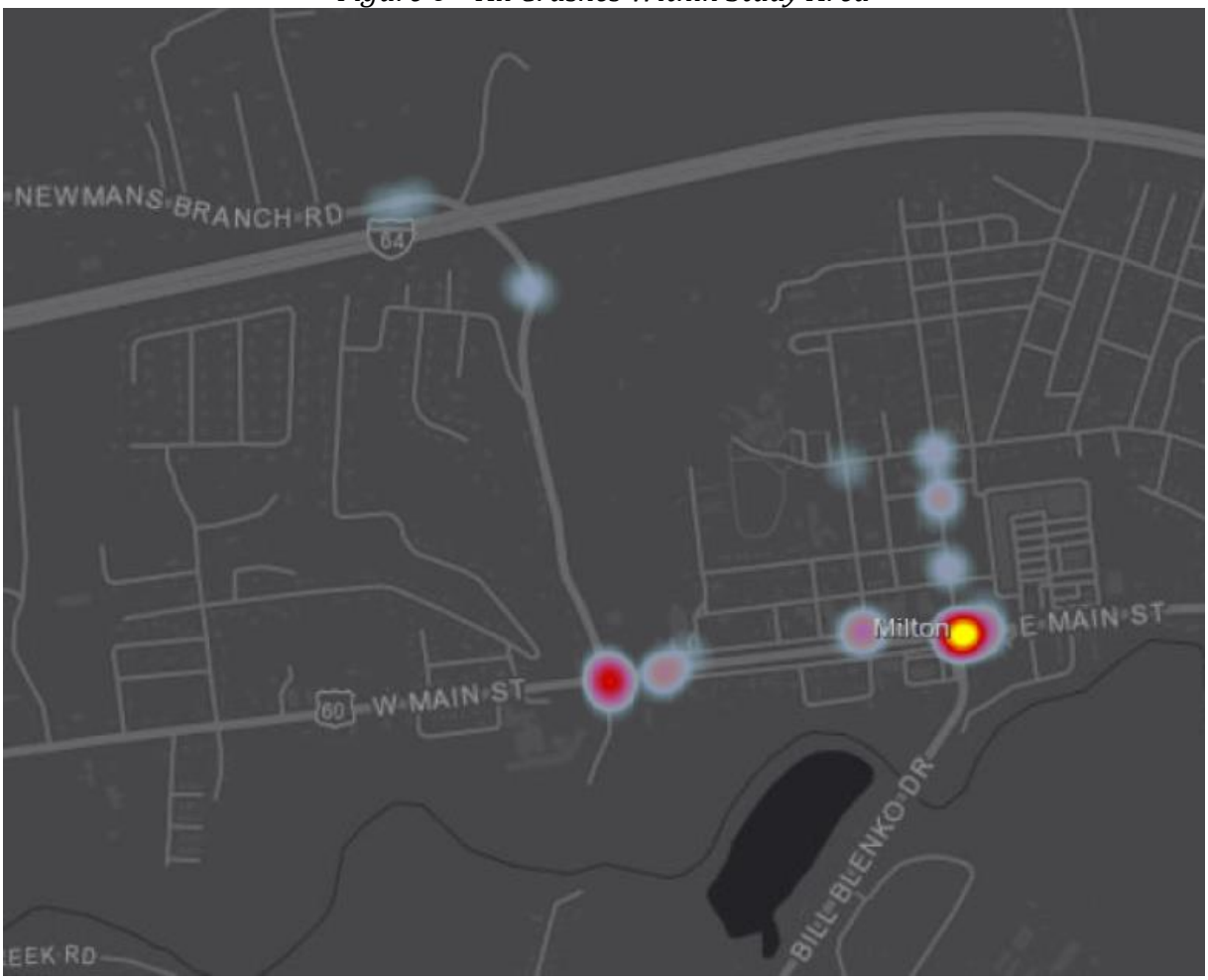
Intersection	Approach	Movement	Available Storage	AM Peak		PM Peak		School PM Peak	
				2024 Build	2044 Build	2024 Build	2044 Build	2024 Build	2044 Build
US-60 & Smith St./ Bill Blenko Dr.	EB	L	135’	28’/74’	55’/118’	15’/43’	45’/96’	33’/70’	59’/114’
		T	1,430’	86’/158’	122’/214’	66’/110’	102’/172’	63’/108’	90/’161’
		T/R	1,430’	97’/170’	144’/235’	76’/126’	119’/183’	73’/124’	106’/180’
	WB	L	220’	25’/55’	36’/67’	48’/87’	83’/150’	37’/69’	52’/95’
		T	1,270’	68’/129’	94’/157’	76’/133’	128’/214’	64’/111’	99’/169’
		T/R	1,270’	35’/87’	61’/121’	60’/109’	128’/212’	51’/97’	87’/156’
	NB	L/T/R	2,600’	121’/205’	125’/212’	72’/128’	126’/229’	64’/116’	103’/187’
	SB	L/T/R	350’	61’/114’	73’/136’	37’/72’	66’/126’	57’/105’	90’/161’
US-60 & N./S. Main St.	EB	T/R	165’	0’/0’	0’/0’	0’/0’	0’/0’	0’/0’	0’/0’
	WB	T/R	1,430’	2’/21’	14’/79’	2’/22’	9’/53’	0’/0’	11’/76’
	NB	R	585’	4’/21’	5’/24’	7’/31’	8’/31’	7’/31’	6’/28’
	SB	R	275’	24’/58’	46’/102’	6’/27’	12’/39’	34’/68’	48’/100’
US-60 & Newman's Branch Rd. *Signalized*	EB	L	275’	56’/127’	94’/225’	35’/74’	55’/116’	31’/70’	43’/83’
		T/R	415’	96’/219’	173’/404’	61’/122’	97’/183’	66’/129’	94’/182’
	WB	L	175’	14’/43’	25’/91’	5’/22’	12’/62’	3’/16’	8’/49’
		T/R	1700’	99’/202’	165’/299’	110’/217’	167’/286’	106’/202’	141’/259’
	NB	L/T/R	185’	30’/70’	34’/73’	9’/33’	11’/38’	29’/65’	36’/75’
	SB	L/T/R	1,440’	125’/215’	153’/270’	88’/160’	109’/188’	83’/157’	82’/143’
US-60 & Newman's Branch Rd. *Roundabout**	EB	L/T/R	415’	---/92’	---/286’	---/42’	---/86’	---/36’	---/66’
	WB	L/T/R	180’	---/68’	---/156’	---/72’	---/176’	---/50’	---/102’
	NB	L/T/R	185’	---/8’	---/14’	---/2’	---/2’	---/4’	---/6’
	SB	L/T/R	1,440’	---/36’	---/68’	---/18’	---/32’	---/14’	---/20’
Newman's Branch Rd. & School Access	EB	L/T	4,225’	2’/14’	2’/16’	0’/7’	1’/8’	1’/9’	1’/8’
	WB	T/R	785’	0’/0’	0’/0’	0’/0’	0’/0’	0’/0’	0’/0’
	SB	L/R	N/A	42’/64’	45’/72’	36’/53’	36’/57’	36’/56’	38’/62’

**Roundabout analysis only provides 95th percentile queue lengths*

As seen in **Table 10**, all queue lengths in the Mitigated conditions are within available storage.

Crash data at the study intersection was provided by KYOVA for 2018-2022. **Figures 6-7** show a summary of the crash data.

Figure 6 – All Crashes Within Study Area



As seen in **Figure 6**, the US-60 & Smith Street/Bill Blenko Drive intersection experiences the most crashes out of all the study intersections, followed by the US-60 & Newman's Branch Road intersection.

26 crashes were reported at the US-60 & Smith Street/Bill Blenko Drive intersection. The most prevalent crash type was angle crashes (46.2%), followed by rear end crashes (30.8%), sideswipe crashes (19.2%), and a single head-on crash (3.8%).

13 crashes were reported at the US-60 & Newman's Branch Road intersection. The most prevalent crash type was angle crashes (46.2%), followed by rear end crashes (15.4%), sideswipe crashes (15.4%), single vehicle crashes (15.4%), and a single head-on crash (7.7%).

Figure 7 – Injury Crashes Within Study Area

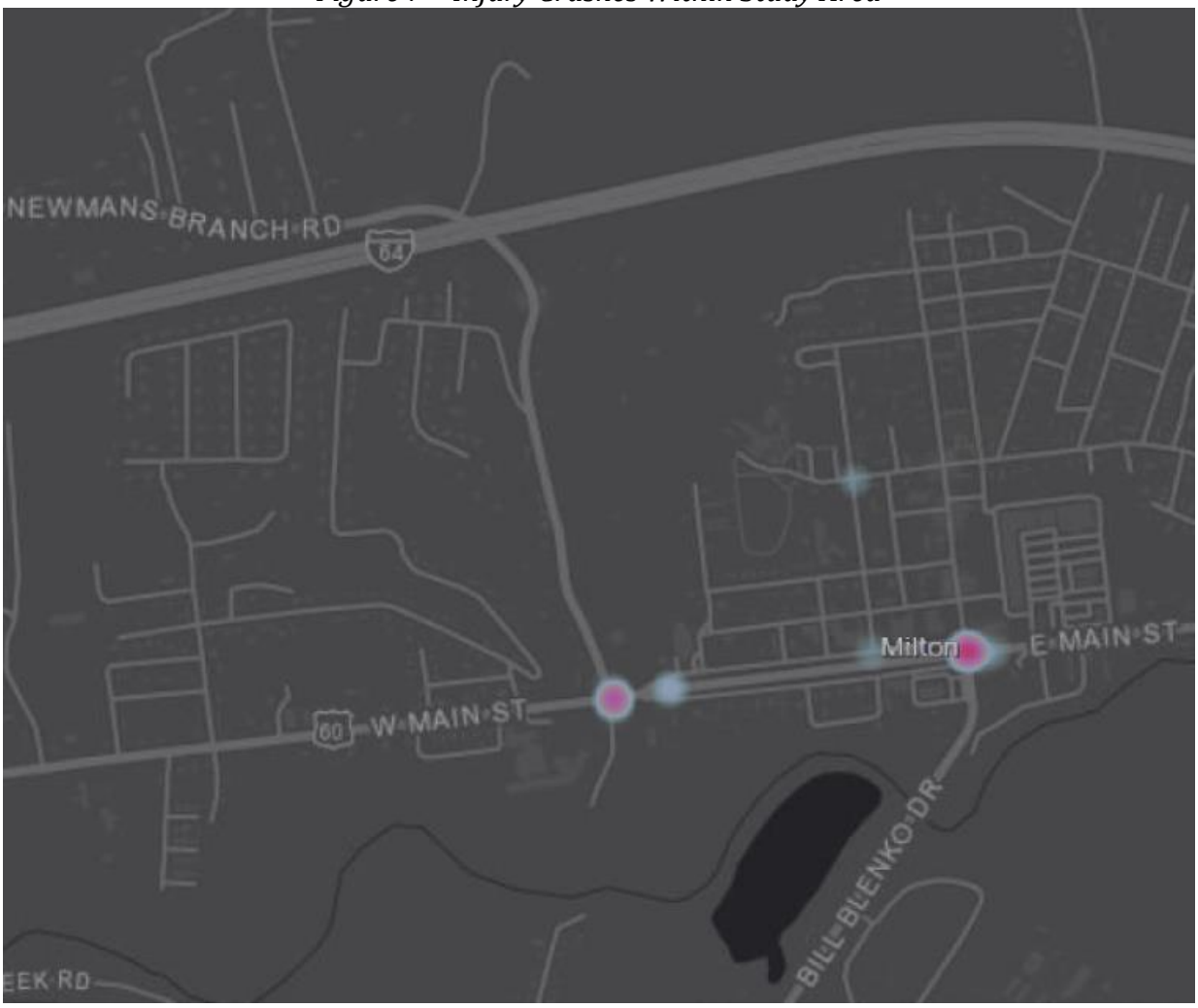


Figure 7 shows that injury crashes are mainly present at the US-60 intersections with Newman's Branch Road and Smith Street/Bill Blenko Drive.

At the Smith Street/Bill Blenko Drive intersection, nine of the 26 crashes were injury crashes. Five of the injury crashes were rear end crashes, three were angle, and one was a head-on crash.

At the Newman's Branch Road intersection, six of the 13 crashes resulted in injury. Five of the injury crashes were rear end crashes and one was a head-on crash. It is likely that the rear end crashes were the result of a lack of dedicated left turn lanes on US-60. Drivers may not expect vehicles in front of them to slow down or stop to make a left turn onto Newman's Branch Road.

E. Pedestrian/Cyclist Analysis

A review of study area and proposed school site plan was completed to determine locations where accommodations for active transportation can be improved. Below is a comprehensive list of improvement recommendations to be considered for the study area. Exhibits showing the recommended improvements can be found in the Recommendations section.

Sidewalk Improvements

US-60 generally has sidewalk on both sides of the roadway. However, there are several gaps where installation of sidewalk should be considered, including:

- North side of US-60, from Stewart Street to Heck Street
- South side of US-60, from Pine Haven Drive to Ray's Way
- South side of US-60, from Ray's Way to 2nd Street

Crossing Improvements

There are several crosswalks in the neighborhood surrounding the existing elementary school. Additionally, there are marked crosswalks along US-60, all but one at signalized intersections in the study area. The following improvements could be considered:

- Pedestrian crossing infrastructure and ADA compliant curb ramps at the intersection of US-60 and Newman's Branch Road. Capacity analysis in this study shows the need for intersection control improvements. Pedestrian crossing infrastructure should be included with these improvements.
- Pedestrian crossing infrastructure and ADA compliant curb ramps at the US-60 & Pinehaven Drive intersection. This intersection services traffic to/from Milton Middle School and would provide safer travel for walking students and other pedestrians.
- Many existing crosswalks are faded and difficult to distinguish. Consider restriping and providing driver warning signage for all pedestrian crossings.

Shared-Use Path (SUP) Improvements

There is currently no pedestrian infrastructure along Newman's Branch Road from US-60 to the proposed school location. An SUP installation could be considered on the east side of Newman's Branch Road. A crossing, and potentially a rectangular rapid flashing beacon (RRFB), could be considered at the Old River Drive & Newman's Branch Road intersection to provide SUP access to the neighborhood west of this intersection. This improvement would provide a safe, multi-modal connection between the north and south sides of IR-64.

On-site Improvements

The proposed school site plan does not currently show any pedestrian infrastructure from Newman's Branch Road to the school. It is recommended that the addition of sidewalk or SUP be considered with the installation of the new school.

F. Sight Distance Analysis

The sight distance exhibits can be found in **Appendix I**. No sight distance obstructions are present or expected for the site access point to Newman's Branch Road.

G. Design Vehicle Analysis

Through and turning movements for a school bus and WB-67 truck on Newman's Branch Road were simulated using AutoTurn. Design vehicle exhibits are provided in **Appendix J**.

From conversations with school officials, they have never heard school bus drivers complain about their experience driving on Newman's Branch Road. The roadway is relatively narrow and opposing school buses or large trucks occupying the roadway simultaneously is possible but could be a tight and uncomfortable experience. However, it should be noted that narrow lane widths do result in slower vehicle speeds, and slower speeds naturally reduce the possibility of crashes that result in injuries.

IX. Recommendations

A. Vehicular Infrastructure Recommended Improvements

US-60 Road Diet Extension

A road diet is recommended along US-60. A road diet involves converting an existing four-lane, undivided highway segment to a three-lane segment consisting of one through lane in each direction and a center two-way left turn lane (with dedicated left turn lanes at intersections). The existing three-lane section from Stewart Street can be extended to just west of the Smith Street/Bill Blenko Drive intersection, where it can taper to meet existing conditions. The excess roadway width could be utilized for bike lanes, pedestrian refuge islands, on-street parking, or a wide shoulder.

There are many local road intersections and access drives within the corridor. Four-lane undivided highways have a history of relatively high crash rates as the inside lane is shared by higher-speed through traffic and left turning vehicles. Based on the capacity analysis in this report and known ADT data, it is expected that a road diet would function with acceptable LOS. The recommended road diet is shown in **Figures 8 and 9.**

US-60 & Newman's Branch Road Intersection Improvements

A traffic signal is not currently warranted at the US-60 & Newman's Branch Road intersection. However, with traffic generated by the addition of the new elementary school, a traffic signal is expected to meet signal warrants. Without any traffic control improvement, the intersection will have failing LOS for the southbound approach.

It is recommended a traffic signal or roundabout be installed at this intersection. It is also recommended the aforementioned road diet along US-60 be implemented in conjunction with this improvement. Left turn lanes can then be provided at the signalized intersection or a single lane circulating roundabout can be installed. The capacity analysis shows comparable LOS for the traffic signal and roundabout options, with the roundabout showing slightly lower vehicle delays.

The FHWA Office of Safety identified roundabouts as a Proven Safety Countermeasure because of their ability to greatly reduce the types of crashes that result in serious injury or fatality. By reducing the number and severity of conflict points at the intersection, and because of lower speeds of vehicles moving through the intersection, roundabouts have

been proven to be a safer intersection type. Roundabouts are generally becoming more common throughout America. It is anticipated that traffic driving through the intersection will be reasonably familiar with roundabouts. However, there may be a learning curve and some additional education and public outreach may be necessary. The recommended traffic signal option is shown in **Figure 8**. The recommended roundabout option is shown in **Figure 9**.

US-60 & N./S. Main Street Intersection Improvements

The US-60 & N./S. Main Street intersection shows unacceptable delays on the southbound approach in 2044. Due to the atypical geometry, sight lines from the northbound and southbound approaches at this intersection are not ideal. The intersection is also located within 200' of the Newman's Branch Road intersection. To improve safety and operations, it is recommended a median be installed at the intersection, restricting eastbound and westbound left movements as well as northbound and southbound left and through movements. N./S. Main Street has many other roadway connections, and these newly restricted movements can reroute to the signalized Smith Street/Bill Blenko Drive intersection. This rerouted traffic was reflected in the capacity analysis results provided in **Table 5**. Note, this traffic volume added to the signalized Smith Street/Bill Blenko Drive intersection only increases 2044 peak hour approach delays by 1-2 seconds. Overall, this improvement is not expected to greatly impact drivers. The recommended improvement is shown in **Figures 8 and 9.**

Newman's Branch Road Roadway Improvements

Based on the existing narrow typical section and the knowledge that school bus and truck traffic is expected to increase with the addition of the proposed elementary school and anticipated nearby development, future widening of Newman's Branch Road could be considered. The recommended improvement is shown in **Figure 10.** This includes widening the roadway from 10' through lanes with 0-1' paved shoulder to 11' through lanes with curb/gutter from US-60 to the proposed elementary school. Note, this improvement is expected to be costly and impactful. A scaled-back option of widening only critical pinch-points could be considered.

Access Management

Access management is an important tool to increase roadway capacity, manage congestion, and reduce crashes in a roadway network. Poorly managed access can result in hazardous conditions for pedestrians and cyclists due to an increase in conflict points. US-60, within the City of Milton, has many developments with open frontage or multiple full movement access points. As parcels in or surrounding the study area develop or redevelop, consider access management improvements where appropriate.

It is recommended that only one access point be provided for each parcel unless it is shown that additional access points are necessary, and the additional access is not detrimental to the safety and operations of the traveling roadway. Access points should not be permitted within the functional and physical areas of an intersection. This will eliminate conflict points in areas where there are queued vehicles and turning movements that reduce perceived reaction time. Driveway density should be reduced when possible. Reducing the

number of driveways on any given stretch of road consistently shows reductions in crashes and more efficient travel. If multiple access points are needed for a development, consider restricting access to right-in/right-out (RIRO) when possible. Also, cross-access between developments should be encouraged, to further reduce the driveway density. Proposed access should be supported by a traffic impact study.

B. Pedestrian Infrastructure Recommended Improvements

It is recommended that gaps in the existing sidewalk along US-60 be filled with new sidewalk. This generally includes:

- North side of US-60, from Stewart Street to Heck Street
- South side of US-60, from Pine Haven Drive to Ray's Way
- South side of US-60, from Ray's Way to 2nd Street

A concept plan showing these sidewalk installations is included in **Figure 11**.

It is recommended an SUP be installed along the east side of Newman's Branch Road from US-60 to the new elementary school in conjunction with the proposed roadway widening. A crossing with an RRFB can be installed at the Old River Drive & Newman's Branch Road intersection to provide SUP access to the neighborhood west of this intersection. This is shown in **Figure 12**. Additionally, the proposed school site plan should be revised to include the addition of sidewalk or SUP from Newman's Branch Road to the school front door. This is shown in **Figure 13**.

Figure 8 – Concept Plan (Traffic Signal at Newman's Branch Road)

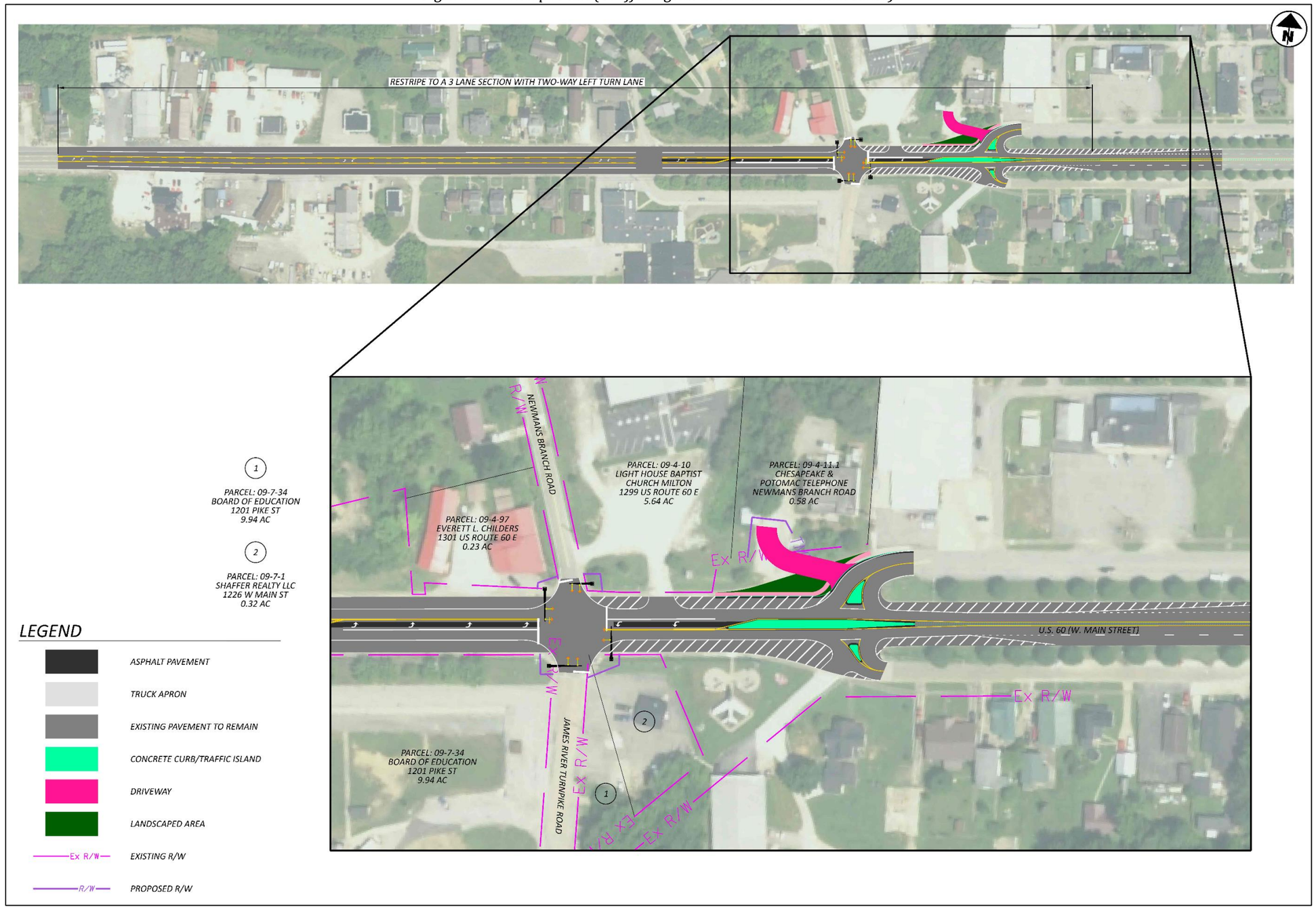


Figure 9 – Concept Plan (Roundabout at Newman's Branch Road)

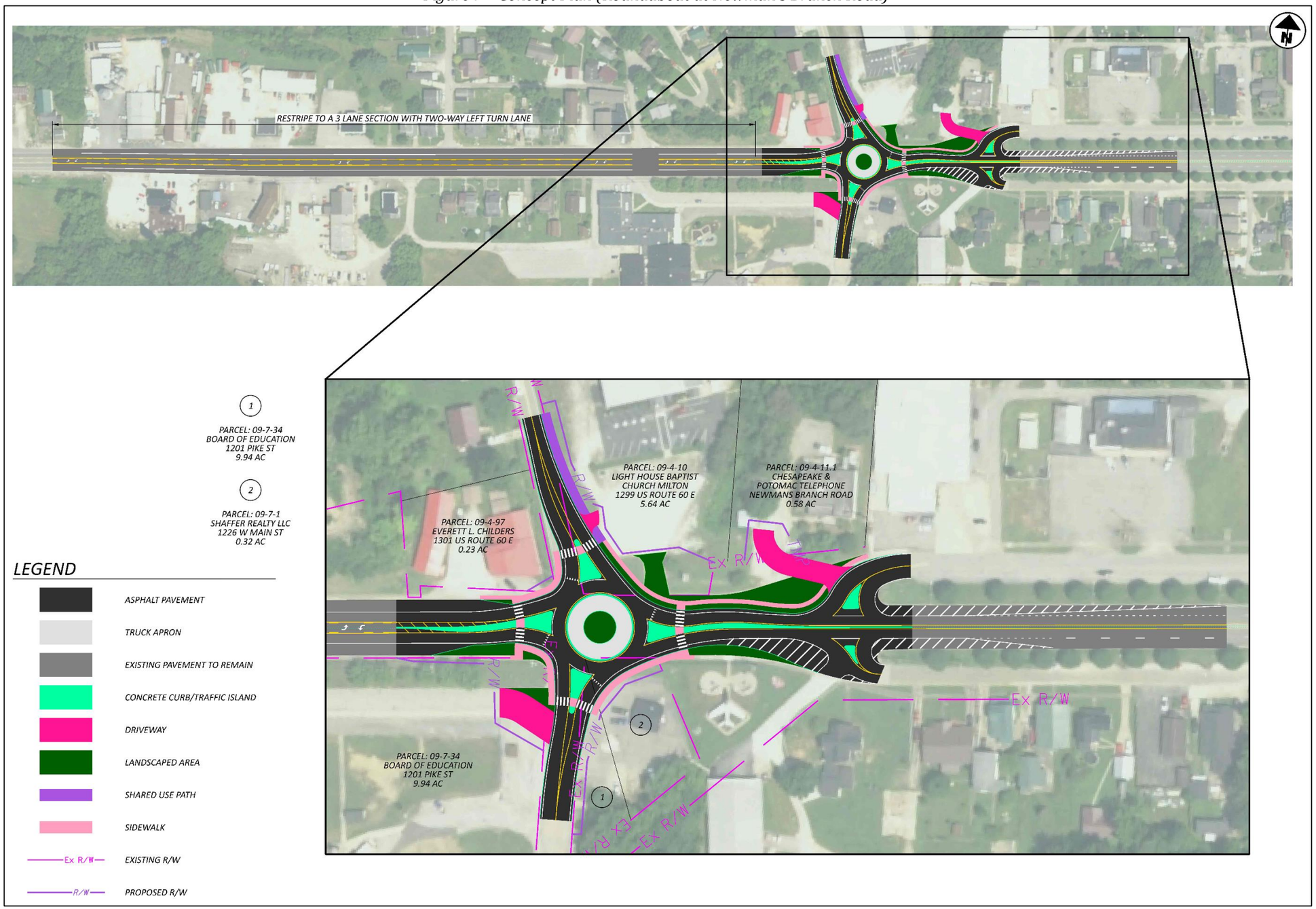


Figure 10 – Concept Plan (Newman's Branch Road Widening)

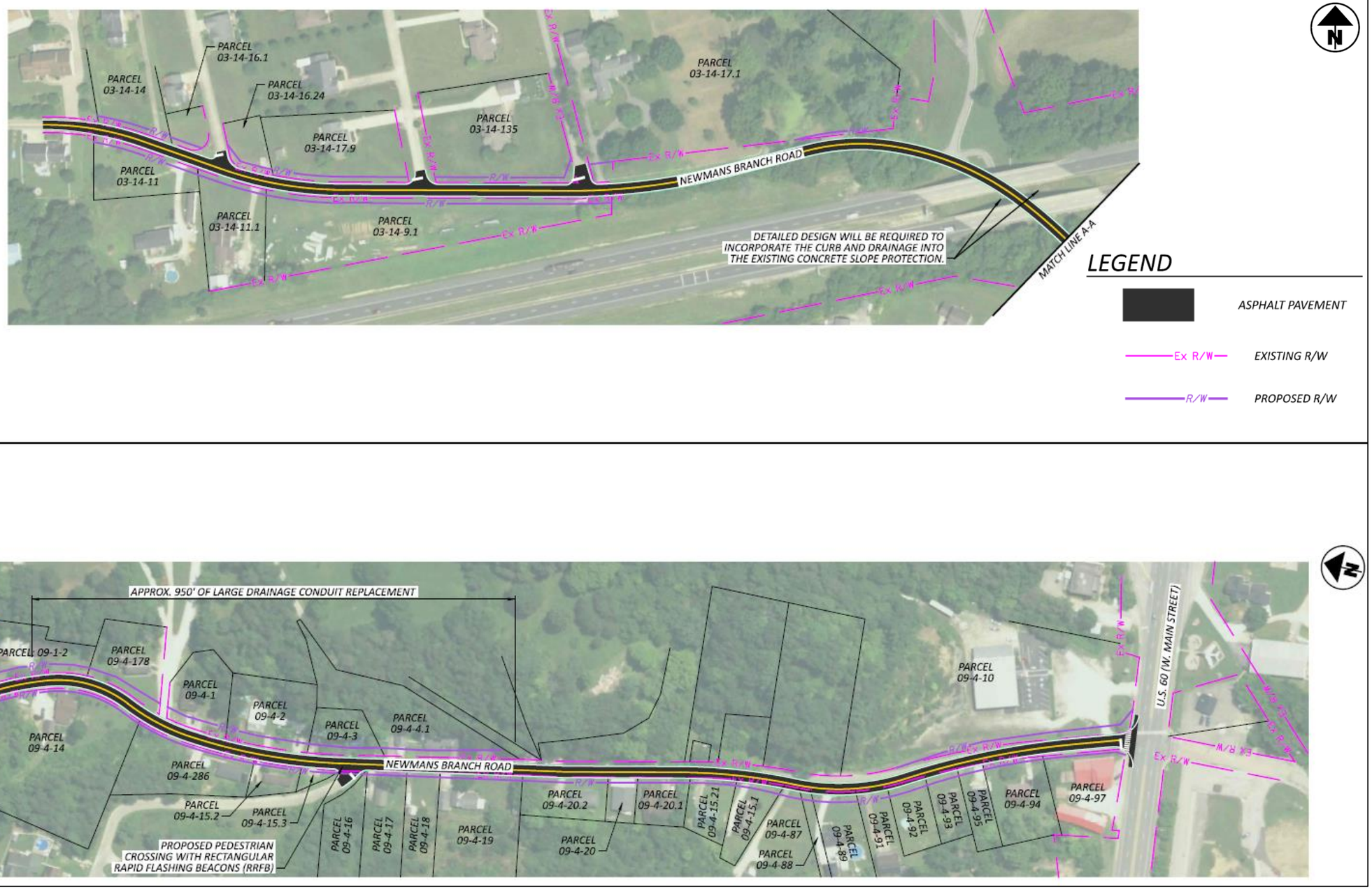


Figure 11 – Concept Plan (Pedestrian Improvements)

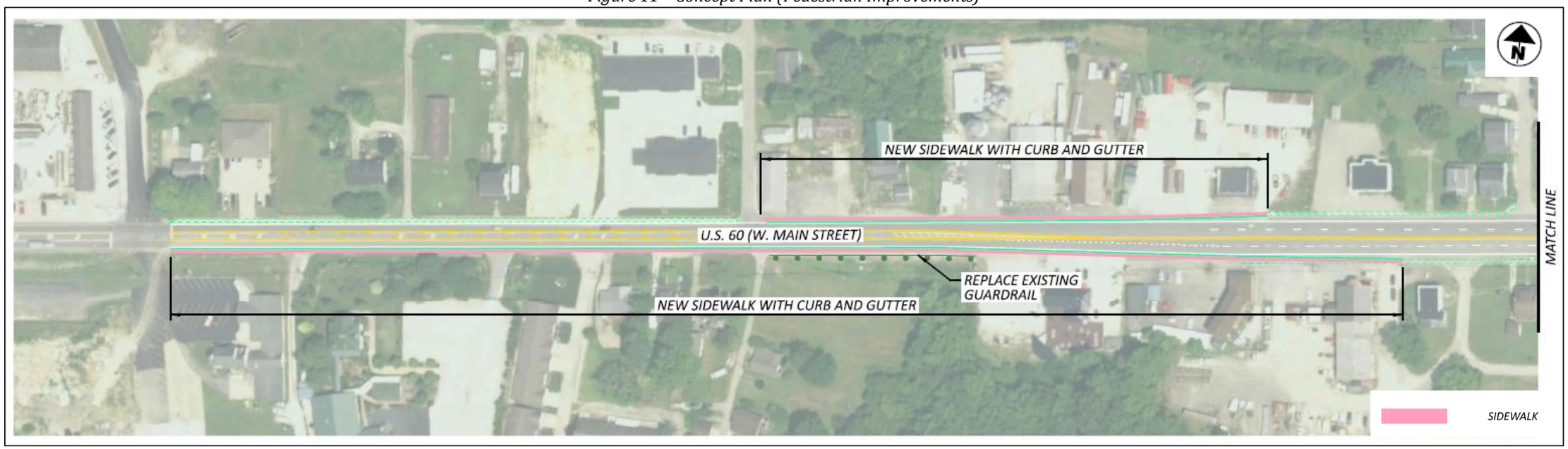


Figure 12 – Concept Plan (Newman's Branch Road Widening with SUP)

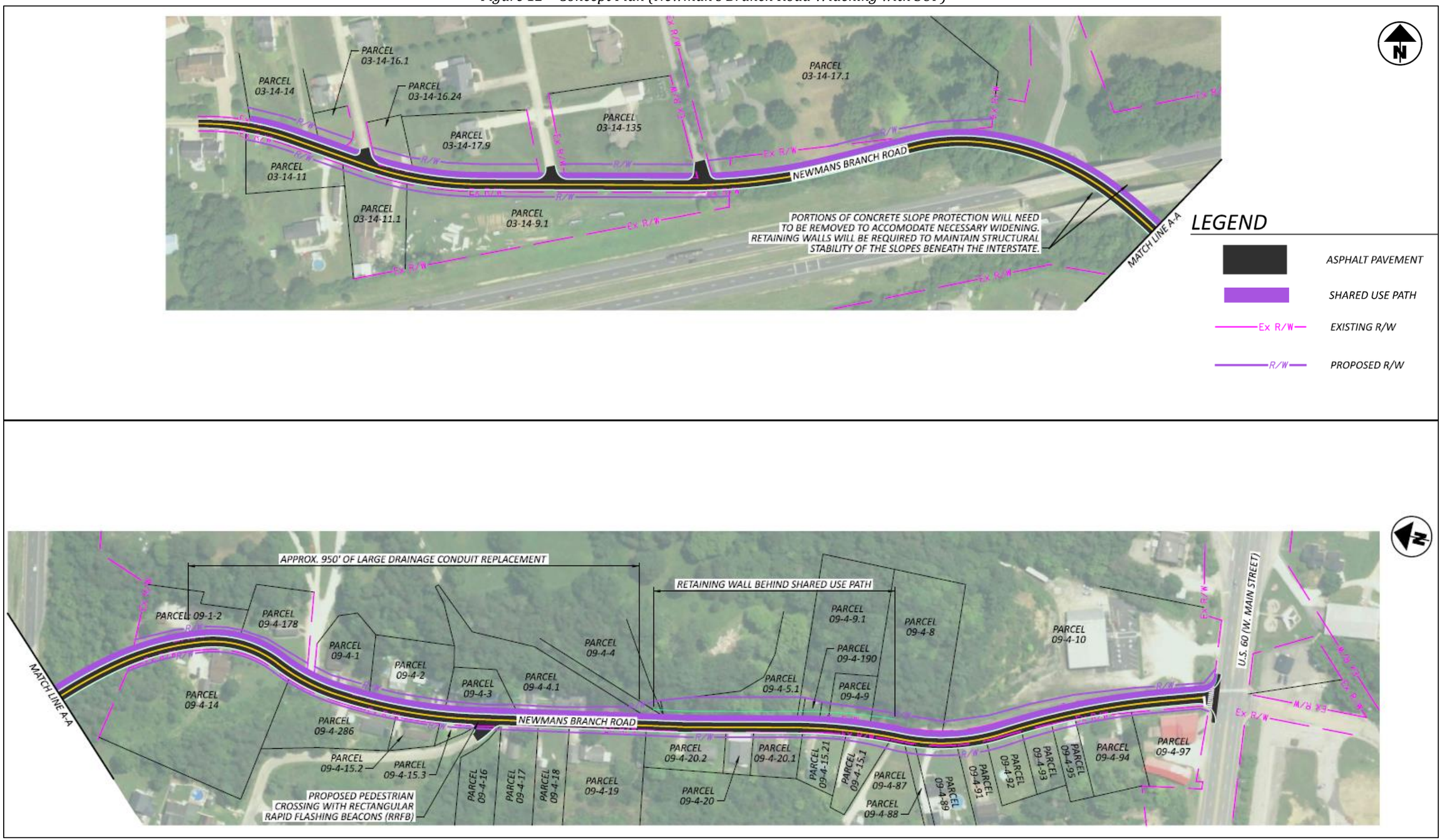
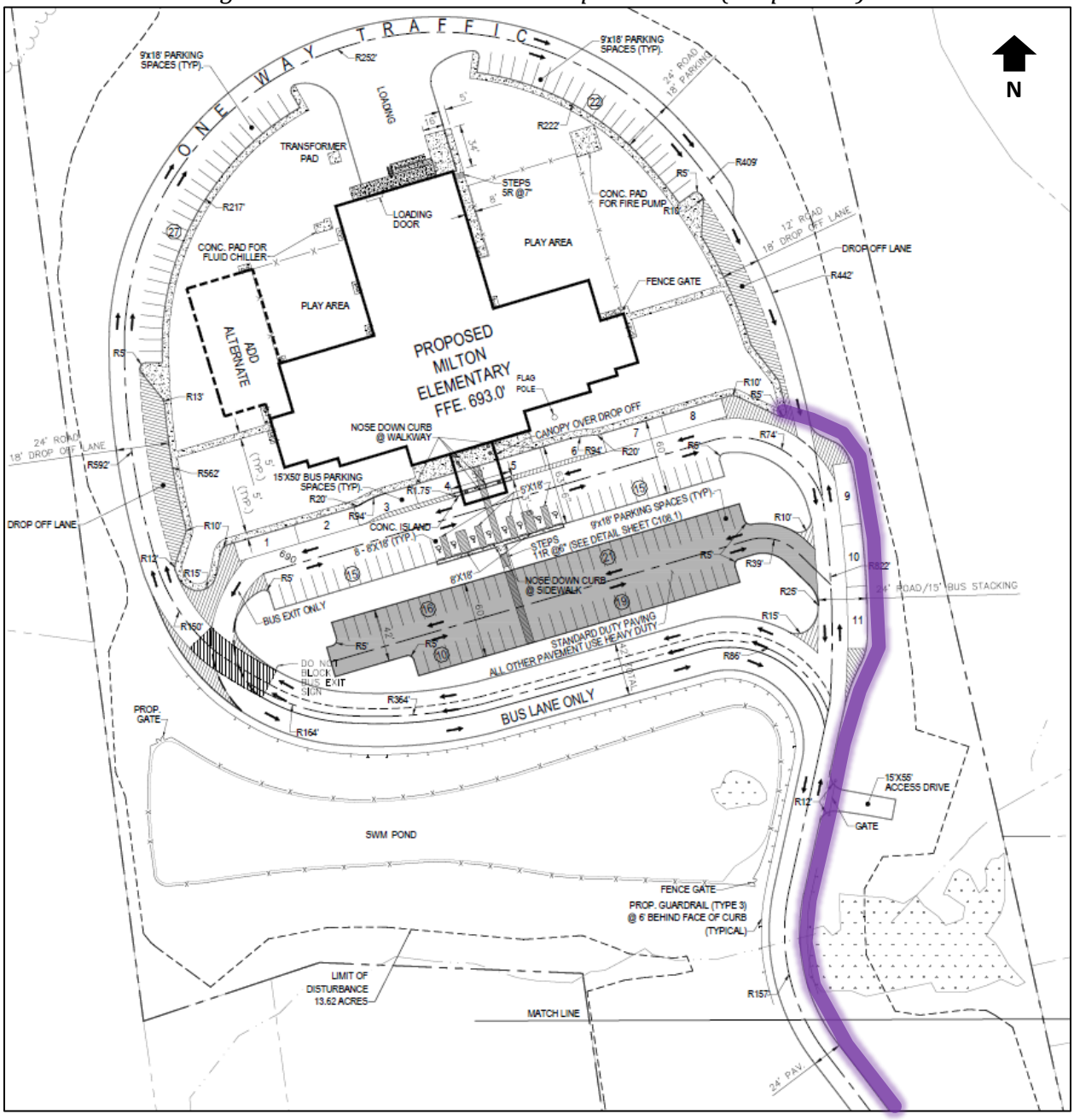


Figure 13 – On-Site Pedestrian Improvements (Purple SUP)



X. Cost Estimates

Cost estimates were prepared for all recommended improvements. The construction cost estimates assume the following:

- 15% engineering design
- 30% contingency
- 10% environmental, geotechnical, federal requirements
- 13.1% inflation rate for an estimated 2026 construction year[1]
- Right-of-way impacts
- Utility relocation costs are not included

The estimated cost for each recommended improvement is summarized in **Table 11.** Detailed cost estimates are included in **Appendix K.**

Table 11 – Cost Estimates

Countermeasures	Total
Newman's Branch Road Traffic Signal*	$1,298,100
Newman's Branch Road Roundabout*	$4,430,600
Newman's Branch Road Widening	$9,148,300
Newman's Branch Road Widening with SUP	$13,154,800
Newman's Branch Road Widening Scaled Back**	$2,056,300
Pedestrian Improvements***	$1,111,100

*Includes road diet restriping from Stewart Street to west of Smith Street and median/porkchop islands at N./S. Main Street.
** A scaled-back option of widening only critical pinch-points was considered. This assumes only widening under IR-64 and flattening the curvature south of IR-64.
***Only includes sidewalk additions shown in Figure 11. Does not include on-site SUP.

XI. Public Involvement

Preliminary findings from the study were provided to the public in the form of an open house meeting on February 12, 2024 from 6-7:30 PM at the Milton Middle School Cafeteria. Written comments received during the public meeting are summarized below. If comments had repeating themes, a number is provided indicating the frequency it is repeated. The comments are placed in order by level of frequency.

- Preference for traffic signal installation at US-60 & Newman's Branch Road intersection instead of roundabout. (6)
- Consideration of a new alternative with a bridge over IR-64 connecting the existing middle school to Newman's Branch Road. (5)
- General concerns regarding drainage and flooding on Newman's Branch Road. (3)
- Support for widening Newman's Branch Road and providing a shared-use path. (3)

[1] Note, inflation rates have been irregularly high recently. If the proposed project is not immediately moved forward, this cost estimate will likely need revised as time passes.

- General questions/concerns regarding the relationships between the timing of the study, construction/opening of the new school, and the implementation of expected roadway improvements. (2)
- General concerns regarding existing Newman's Branch Road curvature and truck presence in those areas. (2)
- There is a potentially historic property (orphanage from 1800's) with a pond on Newman's Branch Road that could be impacted.
- Opposition to proposed road diet on US-60.
- Suggestion to study US-60 & 2nd Street intersection due to experienced delays.

Documentation of the public meeting including advertisement, sign-in sheet, comments received, news coverage are provided in **Appendix L**.

XII. Improvement Considered but Dismissed

The option of installing a bridge over IR-64, connecting Panter Trail to Newman's Branch Road, was discussed during the public involvement meeting. The rough, conceptual limits of this option are shown in **Figure 14**. The assumed cost for this project is expected to be over $14,000,000. The new roadway connection is assumed to include standard curb/gutter and a shared-use path. This project would involve the complete take of four parcels on the north side of IR-64, relocating three tenants and filling an existing pond. Right-of-way needed on the south side of IR-64 would bisect the existing middle school property, separating the school from the athletic field and likely requiring reconstruction of the parking lot. The existing Panther Trail school drive would have to be replaced to ensure roadway design standards would be met. Cut-through traffic is expected to utilize this new connection. Existing issues on Newman's Branch Road would still exist. Additional complications are also expected to include grade changes, federal requirements, environmental impacts, and utility relocations. The process is expected to take approximately 5-10 years until the improvement is open to the public. For these reasons, this option was dismissed.

Figure 14 – Bridge Over IR-64 Improvement Considered but Dismissed
(rough conceptual limits shown in red)

XIII. City of Milton Support

CM and KYOVA met with the City of Milton officials at Milton City Hall on 3/7/24. The discussion included an overview of the revised draft report dated 2/8/24, public feedback received, and next steps. The City of Milton provided a letter of support for the recommended traffic signal at US-60 & Newman's Branch Road. The letter can be seen in **Appendix L**.

XIV. Appendices

Appendix A – Site Plan
Appendix B – Count Data and Growth Rate Data
Appendix C – Trip Generation
Appendix D – Volume Calculations
Appendix E – Turn Lane Warrant and Length Analysis
Appendix F – Capacity Analysis
Appendix G – Signal Warrant Analysis
Appendix H – Queuing Analysis
Appendix I – Sight Distance Analysis
Appendix J – Design Vehicle Exhibits
Appendix K – Cost Estimates
Appendix L – Public Involvement Meeting Documentation
Appendix M – City of Milton Letter of Support