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PA 94 CROSS KEYS
Corridor Improvements Study

PREPARED FOR:
Adams County Transportation Planning Organization

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PA Route 94 Cross Keys Corridor Improvements Study

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List of Acronyms

AADT – Annual Average Daily Traffic

ACS – American Community Survey

ACTPO – Adams County Transportation Planning Organization

ARLE – Automated Red-Light Enforcement Program

ASA – Agricultural Security Area

BIL – Bipartisan Infrastructure Law

CKV – Cross Keys Village

CVSD – Conewago Valley School District

DCED – Pennsylvania Department of Community and Economic Development

GHC – Gettysburg-Hanover Connector

GLG – Green Light Go

HACC – Harrisburg Area Community College

HSM – Highway Safety Manual

HSIP – Highway Safety Improvement Program

ISTEA – Intermodal Surface Transportation Efficiency Act

LEHD – Longitudinal Employer-Household Dynamics

MAP – Municipal Assistance Program

MPH – Miles Per Hour

MPO – Metropolitan Planning Organization

MTF – Multimodal Transportation Fund

NHPP – National Highway Performance Program

NHS – National Highway System

PCIT – Pennsylvania Crash Information Tool

PennDOT – Pennsylvania Department of Transportation

PIB – Pennsylvania Infrastructure Bank

PTI – Planning Time Index

RAISE – Rebuilding American Infrastructure with Sustainability and Equity

RSA – Road Safety Audit

SRTA – Susquehanna Regional Transit Authority

STC – State Transportation Commission

STP – Surface Transportation Program

TASA – Transportation Alternatives Set-Aside

TIP – Transportation Improvement Program

TIS – Traffic Impact Study

TTI – Travel Time Index

TYP – Twelve-Year Program

YAMPO – York Area Metropolitan Planning Organization

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Study Purpose and Objectives

The Adams County Transportation Planning Organization (ACTPO) initiated the PA 94 Cross Keys Corridor Improvements Study in response to concerns expressed by officials from Berwick, Hamilton, and Oxford Townships, citing safety issues and potential impacts of future development on traffic and transportation along the corridor. The study establishes a framework of short-term, mid-term, and long-term recommendations for improving traffic operations and safety for all modes, as well as addressing land use and economic development impacts along this critical north-south gateway into the greater Hanover area.

The primary goal of the PA 94 Cross Keys Corridor Improvements Study is to identify short-term and long-term transportation system improvements that will address the following objectives:

- Improve overall road network and connectivity.
- Improve safety and reduce accidents.
- Improve access for transit and freight movements.
- Coordinate transportation improvements with economic development opportunities.

FIGURE 1: STUDY AREA EXTENTS

Study Area Location and Extents

The study area is located within Berwick, Hamilton, and Oxford Townships and is centered on a five-mile section of the PA 94 corridor from Dicks Dam Road to the north and Hanover Street to the south (**Figure 1**). The study area also includes a section of US 30 between Lincoln Street and Stanley Drive. Both corridors include a total of 18 intersections that were examined as part of the study process, including the main intersection of PA 94 and US 30 (known locally as "Cross Keys").

Study Elements

To achieve these objectives, study development involved a series of corridor planning elements, including:

- Data Collection and Analysis
- Corridor Field View
- Public Survey
- Recommendation Development
- Stakeholder Engagement
- Recommendation Prioritization
- Implementation Plan

Study Methodology/Approach

Project Management Team

A project management team was formed to provide direction regarding the study process and included staff from Adams County Office of Planning and Development (the staff entity for ACTPO), PennDOT District 8-0, PennDOT Central Office, and the consultant team. Primary activities of the management team included monthly conference calls, review of the project scope/schedule, coordination on stakeholder and public engagement, and provide recurring feedback on draft study products.

Study Advisory Committee

At the outset of the project, an Advisory Committee was formed and convened four times throughout the study process. The primary role of the Advisory Committee was to provide local guidance and knowledge as well as feedback at key milestones throughout the project. Committee membership comprised of representatives of the Adams County Office of Planning and Development, Berwick Township, Hamilton Township, Oxford Township, and the Pennsylvania Department of Transportation (PennDOT).

Data Collection

To establish a planning level baseline, several datasets related to traffic/transportation and land use were gathered and analyzed to develop a profile of existing conditions. This included an analysis of data related to traffic safety and operations, multimodal transportation, and land use/development. To supplement desktop data collection, an in-person field view of the study corridor was held in February 2023 with municipal representatives, MPO staff, and PennDOT District 8-0. The field view included a high-level overview of the study corridor as well as several priority intersections that were identified and analyzed as part of the initial data collection phase.

Public and Stakeholder Outreach

In the early stages of the study process, the MPO published a public survey and interactive comment map to gather feedback from community members on their concerns, ideas, and desires for the PA 94 corridor and the Cross Keys area. The survey was advertised and promoted through press releases to local area news outlets, on social media, and the Adams County Office of Planning and Development website.

In addition to public survey input, the study included a robust stakeholder outreach effort through a series of interviews with area businesses, economic development representatives, local developers, neighboring municipalities, and the Conewago Valley School District. Discussions revolved around major planned developments, transportation concerns, and feedback on an initial set of study recommendations.

Prioritization and Implementation

Based on the information garnered from data collection, the field view, and public and stakeholder engagement efforts, a refined set of recommendations was developed and vetted with the study's Advisory Committee. Since many recommendations are concentrated at specific intersections or key locations throughout the corridor, the project team and the Advisory Committee worked together to prioritize the recommendations by location using a "high-medium-low" framework and based on a series of considerations, such as safety, development activity, freight activity, congestion/operations, and costs/funding.

PA 94 at Hanover Street (facing north)
Image Source: Adams County Office of Planning and Development

Existing Conditions Profile

Commuter Trends

Commuter trends were analyzed at the municipal level and include the following municipalities:

- Berwick Township
- Hamilton Township
- Oxford Township
- Abbottstown Borough
- New Oxford Borough

Although Abbottstown and New Oxford Boroughs do not fall within the limits of the study area, commuter travel and zoning/development in these communities could have implications for travel and transportation along the PA 94 and US 30 corridors.

According to the latest LEHD data for the area (2021), over 7,000 resident workers live within the five municipalities surrounding the Cross Keys area. Of these workers, 85 percent travel to destinations outside of the study area for work while the remaining 15 percent work within the study area (**Figure 2**). This outflow is almost 20 percent higher than the average for Adams County. Top employment destinations for the study area's resident workers include Hanover, New Oxford, Gettysburg, York, and Harrisburg as well as Frederick, Maryland. Nearly 5,000 jobs in the study area are filled by workers who do not live in the study area.

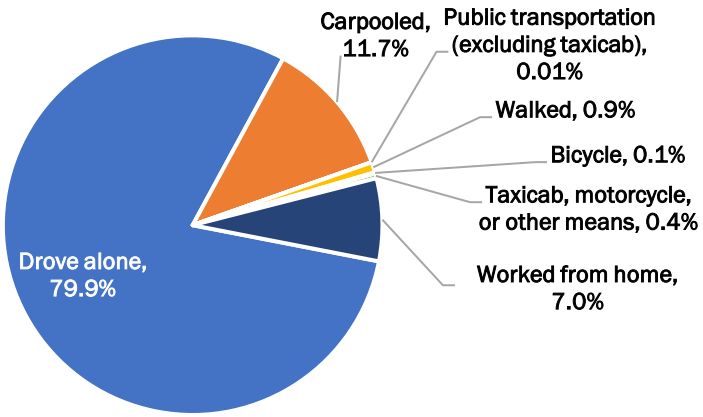
FIGURE 2: WORKER INFLOW/OUTFLOW TRENDS

Source: U.S. Census LEHD OnTheMap

Note: Inflow and outflow arrows do not indicate directionality of worker flow between home and employment locations.

Estimates from the U.S. Census American Community Survey (ACS) show that 80 percent of residents in the study area's municipalities commute to work by driving alone, followed by carpooling (**Figure 3**). Approximately 7 percent work from home and alternative modes such as public transportation, walking, and biking comprise just over 1 percent. It is important to note that this data does not account for the impact of rabbittransit's Gettysburg-Hanover Connector service, which has had success since its launch in 2022.

FIGURE 3: JOURNEY TO WORK TRENDS



Source: U.S. Census ACS 5-Year Estimates (2022)

Land Use and Economic Development

Existing land use, municipal zoning, and recent development activity were analyzed for the municipalities within the PA 94 study area to understand the potential effects/impacts of future development. Zoning and land use were evaluated for the three municipalities in the PA 94 study area – Berwick, Hamilton, and Oxford Townships – and neighboring Abbottstown and New Oxford Boroughs. Collectively, these five municipalities encompass 32 square miles (20,554 acres).

Table 1 shows each municipality's share of the study area.

TABLE 1: LAND AREA BY MUNICIPALITY

Municipality Name	Number of Acres	Share of Study Area
Berwick Township	4,962	24%
Hamilton Township	8,688	42%
Oxford Township	6,213	30%
Abbottstown Borough	354	2%
New Oxford Borough	338	2%

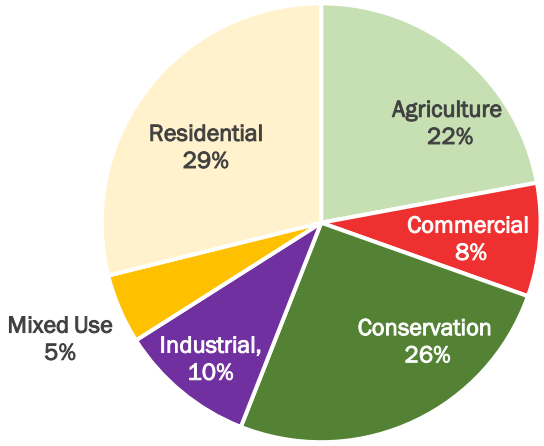
Source: Adams County Office of Planning and Development and Calculations

Municipal Zoning

Among the five municipalities, zoning was generalized into six districts based on similarities in purpose and permitted uses. Many districts tend to allow for the same fundamental uses;

however, regulations related to how these districts are developed can vary by municipality. Nearly half of the study area is generally zoned for agriculture (22%) or conservation (26%). Residential zoning accounts for 29 percent of the study area, followed by Industrial (10%), Commercial (8%) and Mixed Use (5%) zones.

FIGURE 4: STUDY AREA ZONING SHARE BY LAND AREA

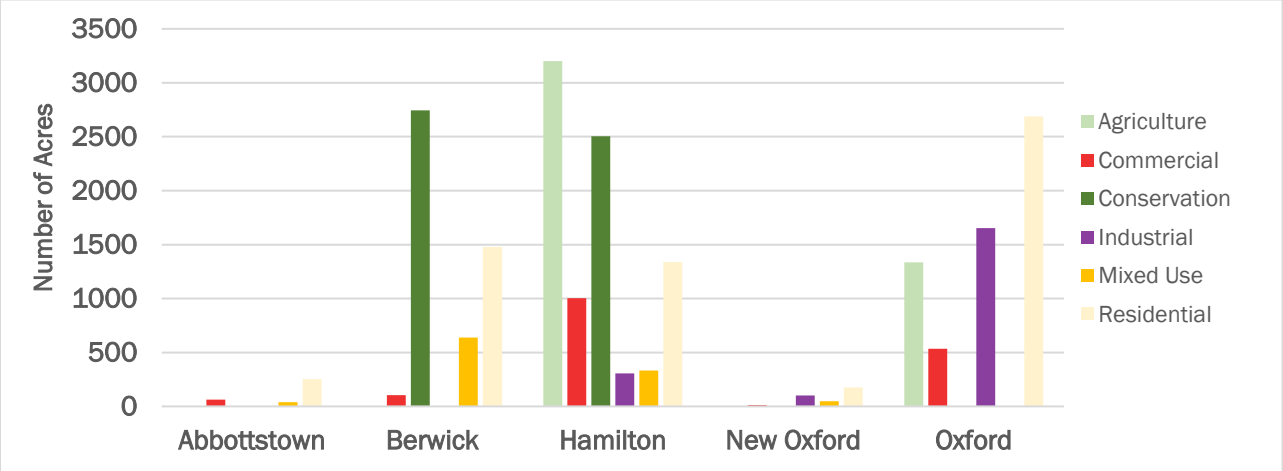


Source: Adams County Office of Planning and Development and Calculations

Generalized zoning districts by acreage for each of the study area municipalities reflect a mix of uses that are typical to a suburban corridor, per the Smart Transportation Guidebook (**Figure 5**). Hamilton Township has the largest share of land that is commercially zoned while Oxford Township has the greatest share of land zoned for industrial and residential uses. Most parcels with commercial, mixed use, and industrial zoning designations abut the PA 94 and US 30 corridors, particularly at the main Cross Keys intersection. In Hamilton Township, over 65 percent of land is zoned for agricultural or conservation-based uses. Similarly, approximately 55 percent of land in Berwick Township is zoned for conservation-based uses. Agricultural zoning reflects the importance of farming to the local economy as a significant share of this land is preserved under the Adams County Agricultural Land Preservation Program or falls within a designated agricultural security area (ASA). Other parcels fall under a conservation easement or are zoned with the intent of protecting natural landscapes.

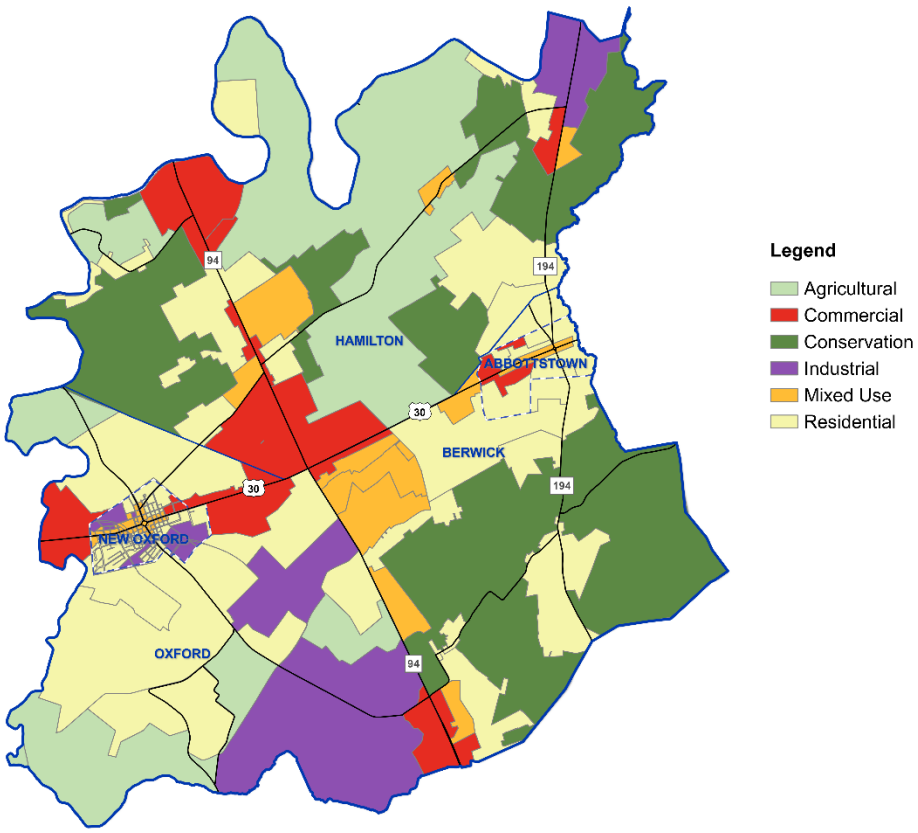
Generalized zoning is shown spatially in **Figure 6**.

FIGURE 5: GENERALIZED ZONING DISTRICT ACREAGE BY MUNICIPALITY



Source: Adams County Office of Planning and Development and Calculations

FIGURE 6: STUDY AREA GENERALIZED ZONING DISTRIBUTION



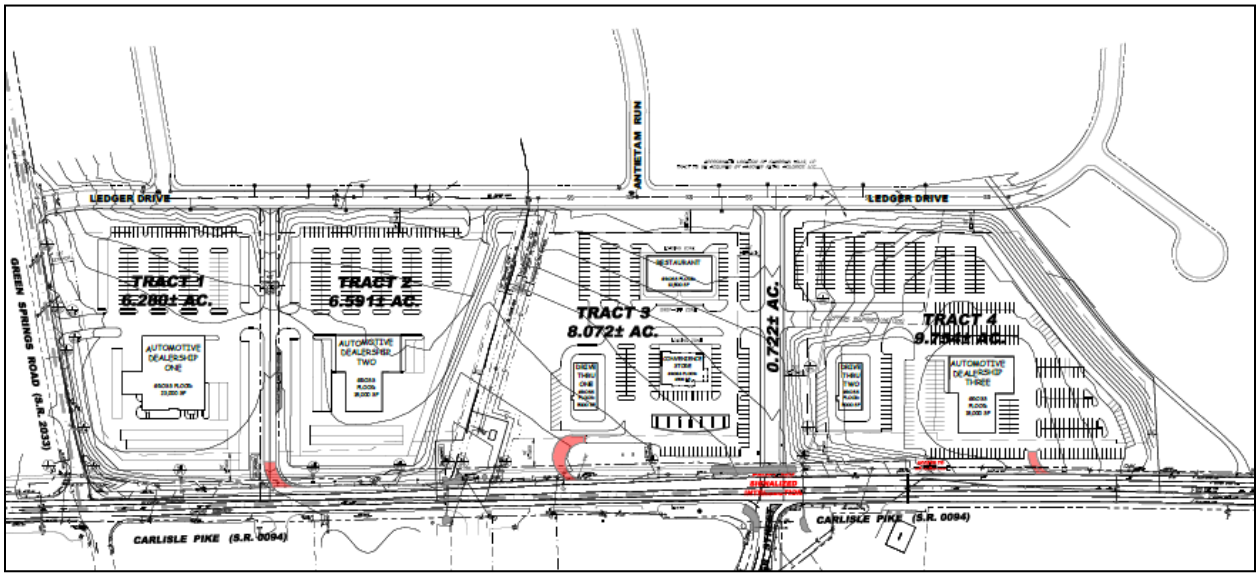
Source: Adams County Office of Planning and Development

Development Proposed and Under Construction

As of Fall 2024, the following land developments have been proposed, are pending, or are in early stages of construction within the study area. These are developments that could have a potential impact on the PA 94 study area.

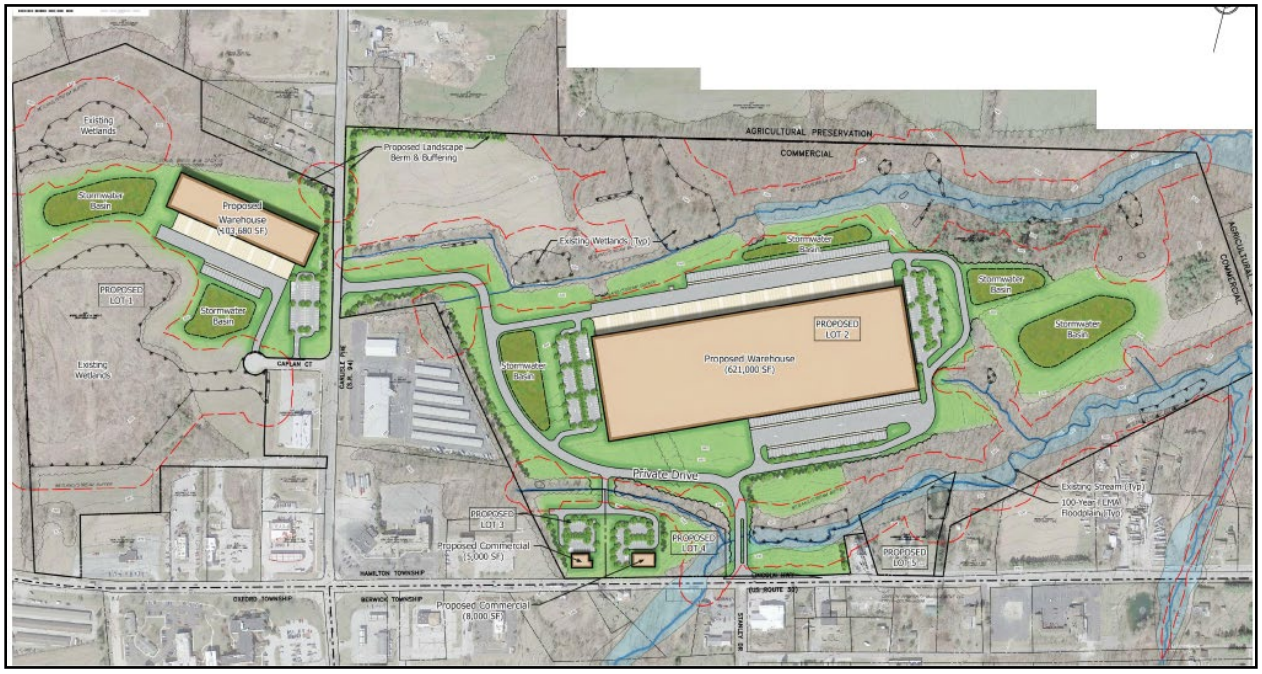
Berwick Township	
Residence at the Bridges	Adjacent to The Bridges Golf Club. Environmental analyses (e.g., wetland delineation) have been completed for Phase 1 with future phases forthcoming.
Cambrian Hills Residential Development	The residential phase of the Cambrian Hills was under construction at the time of study development. Of the 133 proposed single-family homes, 59 have been constructed.
Hanover Retail Holdings ("Cambrian Hills Commercial Site")	Located near the intersection of PA 94 and Green Springs Road, the project proposes include three auto dealerships, three restaurants, and a convenience store totaling 144,500 square feet on nearly 31 acres of land adjacent to the Cambrian Hills residential development. The proposed development also includes the construction of a new street that will align with PA 94 at Hanover Street, an intersection which will be signalized. Additional full access driveways are proposed on both Green Springs Road and PA 94. The conceptual site plan is shown in **Figure 7**.
Hamilton Township	
New Oxford Logistics	Original development proposal included two warehouses (600,000 and 150,000 square feet) and three retail/restaurant out parcels, generating over 4,400 trips per day. The larger warehouse and the three outparcels are proposed for the northeast quadrant of the PA 94/US 30 intersection and the second, smaller warehouse behind Dollar General, as shown in **Figure 8**. As of September 2024, the second, smaller warehouse has been removed from the site plan. The revised proposal was under consideration for a special exception by the Township's Zoning Hearing Board at the time of study development.
Oxford Township	
Berlin Junction	New 210,000 square foot manufacturing facility with full access onto Brickyard Road. The traffic impact study for this development recommended the signalization of Brickyard Road with stop bars appropriately placed to accommodate truck turning movements. Oxford Township is working with PennDOT to obtain the necessary permits to install the warranted, recommended signal at the time of study development.
Bridgewater Landing at Cross Keys Village	Construction of 59 new residential units with a community clubhouse on the Cross Keys Village campus near Brickyard Road.
Chohany Enterprises, LLC	Proposed self-storage facility off of PA 94 near Brickyard Road.
Oxen Country Meadows Phase II	Construction of 18 residential units and associated parking.
Summerfield Residential Development	Construction of 78 single family homes and 238 townhomes underway at the time of study development. Access improvements include a new full access point north of Shank Road and converting Shank Road to right-in, right-out operation to/from PA 94 southbound.

FIGURE 7: HANOVER RETAIL HOLDINGS CONCEPTUAL DEVELOPMENT PLAN



Source: Sharrah Design Group, Inc. Hanover Retail Holdings, LLC, Conceptual Development Plan. January 19 2021.

FIGURE 8: NEW OXFORD LOGISTICS SITE PLAN (MAY 2024)



Source: Rettew Associates, Inc. New Oxford Logistics Center TIS v2, May 16, 2024.

Traffic and Transportation

Traffic and transportation data was collected and analyzed to establish a baseline of existing traffic conditions and patterns within the study area.

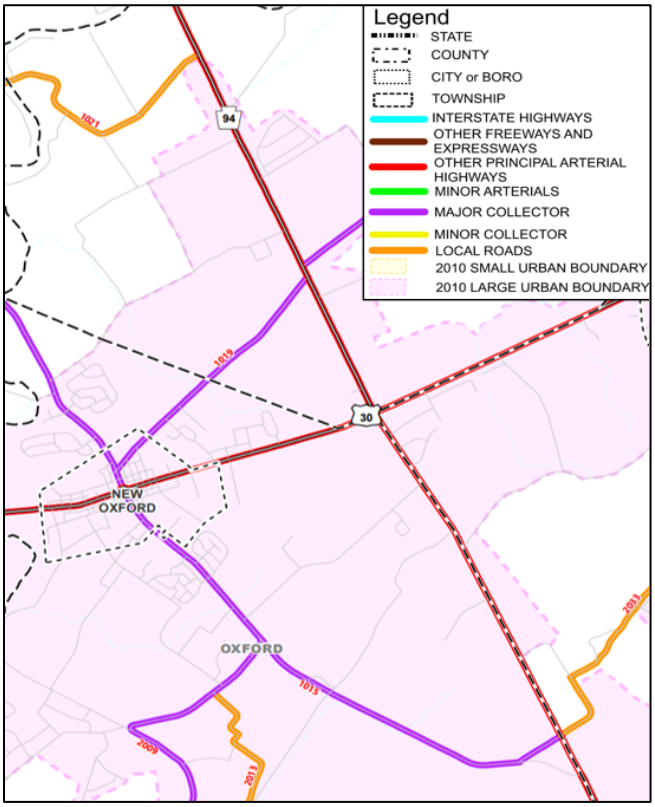
Functional Classification

Roadway functional classifications help define the role a corridor plays in the larger roadway network based on their level of mobility and access to adjacent land uses. Within the study limits, the PA 94 and US 30 corridors are federally classified as principal arterial highways, carrying high traffic volumes and providing connections to and from US 15 and Interstate 83. Both study corridors are included on the National Highway System (NHS), a federal designation created by Congress in 1995 as part of the passage of the Intermodal Surface Transportation Efficiency Act (ISTEA).

The roadways intersecting with the study corridor consist of both lower-order, state-owned roadways as well as local, township-owned roadways. In terms of classification, Berlin Road/Pine Run Road (SR 1019) and Hanover Street (SR 1015) are all considered major collector roads, which are designed to route traffic from local roadways onto arterial routes such as PA 94 and US 30. While labeled as state routes, Dicks Dam Road (SR 1021) and Green Springs Road (SR 2033) are both considered local roads.

A map detailing the federal functional classification of PA 94 and key adjacent roadways is provided in **Figure 9.**

FIGURE 9: FUNCTIONAL CLASSIFICATION



Source: PennDOT Federal Functional Classification Map

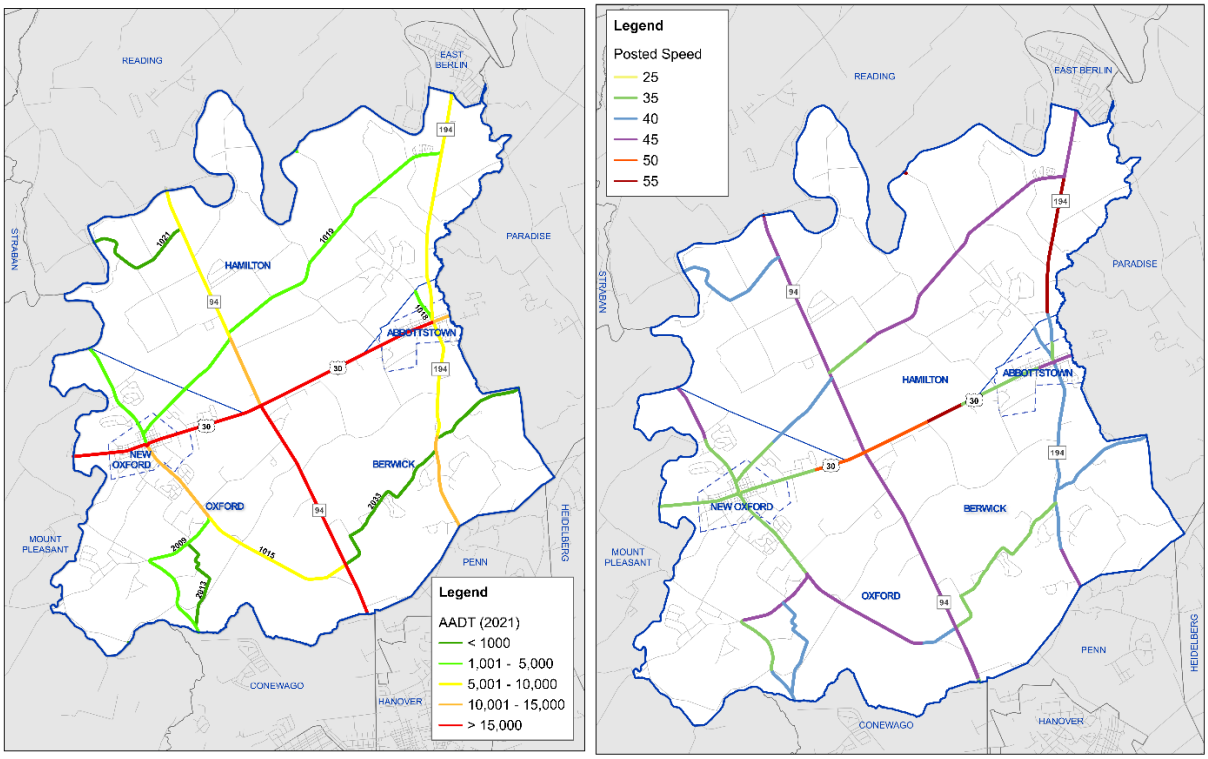
Traffic Volumes and Speed Limits

Within the study area, the annual average daily traffic (AADT) volumes along PA 94 range from 5,000-15,000+ vehicles per day, with the southern half of the study corridor (between US 30 and Hanover Street) experiencing the highest daily traffic volumes. The corridor has a posted speed limit of 45 MPH. The US 30 corridor also accommodates over 15,000 vehicles per day with posted speed limits ranging between 35 MPH and 50 MPH. When traveling along US 30 in the Cross Keys area, speed limits reductions occur as motorists enter downtown New Oxford and Abbottstown.

Of the intersecting roadways along the corridor, Hanover Street experiences the highest amount of daily traffic, with AADTs of approximately 5,000-10,000 vehicles per day. Other routes, like Berlin and Pine Run Roads accommodate 1,000-5,000 vehicles daily.

AADT volumes and posted speed limits are shown in **Figure 10**.

FIGURE 10: AVERAGE ANNUAL DAILY TRAFFIC AND SPEED LIMITS

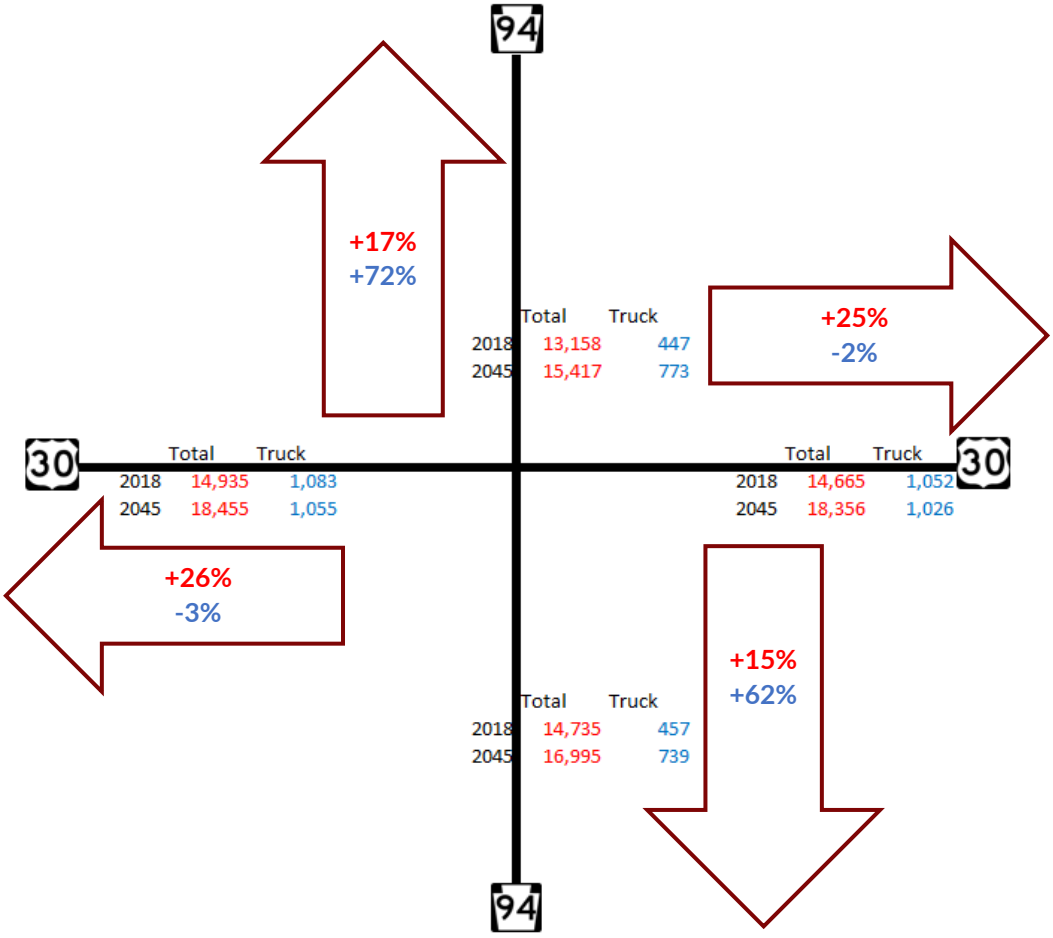


Source: PennDOT Roadway Management System (RMS)

Travel Demand Forecasts

The South-Central Pennsylvania Travel Demand Model was used to forecast potential travel demand along the corridor through 2045 using a base year of 2018. The model outputs reveal that total traffic volumes on both PA 94 and US 30 are expected to increase by 2045. In terms of truck traffic, PA 94 is forecasted to see volumes increase by 62-72 percent from 2018 volumes while US 30 volumes remain stable with decreases of 2-3 percent (**Figure 11**).

FIGURE 11: SOUTH CENTRAL TRAVEL DEMAND MODEL RESULTS (ADTS) - PA 94 AND US 30



LEGEND	
###	Total Traffic Volumes* *(Passenger + Commercial Vehicles)*
###	Truck Traffic Volumes* *(Commercial Trucks Only)*

Source: South Central Pennsylvania Travel Demand Model
**Note: Raw numbers for overall traffic volumes reflect Average Daily Traffic (ADT) values. Raw numbers for truck volumes reflect Average Daily Truck Traffic (ADTT) values.*

Travel Time Reliability

Travel time reliability refers to the consistency and predictability of travel times on a roadway. It is crucial because unexpected delays can cause issues for travelers, shippers, and businesses. Two common ways to measure the reliability of a road are Travel Time Index (TTI) and the Planning Time Index (PTI). For the PA 94 Corridor Study, the PTI was used, which compares the worst travel times during peak hours to the best travel times when traffic is light. This helps travelers know how much extra time they should plan for to be on time to their destination. A PTI value of 1.5 or higher means the road is considered "unreliable."

Figures 12 and 13 below show the weekday planning time index values for both PA 94 (Carlisle Pike) and US 30 (York Road) in 2023. The orange and red colors indicate roadway sections and hours of the day where reliability is worst. The main Cross Keys intersection of PA 94 and US 30 is the most congested area along the corridor according to PTI data from INRIX. On PA 94, northbound PTI values range from 2.2 to 2.5 during evening peak hours (3:00-6:00pm), meaning a 30-minute trip could take 65 to 75 minutes. Southbound PTI values range from 1.6 to 2.2 during both morning (7:00-9:00am) and evening peak hours. In comparison, US 30 is more reliable, with PTI values of 1.9 and 2.2 heading westbound through the intersection at various times of the day.

PA 94 and US 30 Intersection looking southbound
Source: Adams County Office of Planning and Development

FIGURE 12: PA 94 WEEKDAY PLANNING TIME INDEX

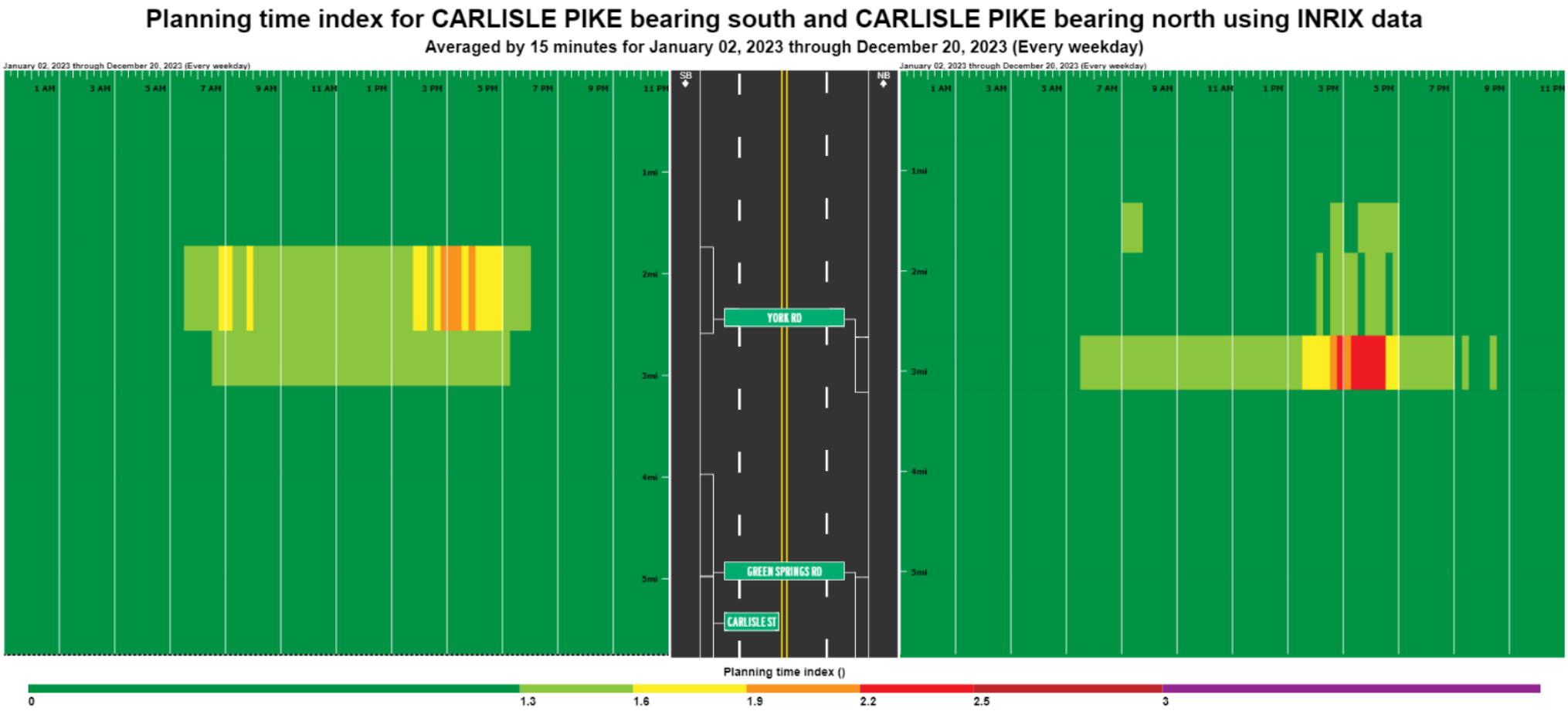
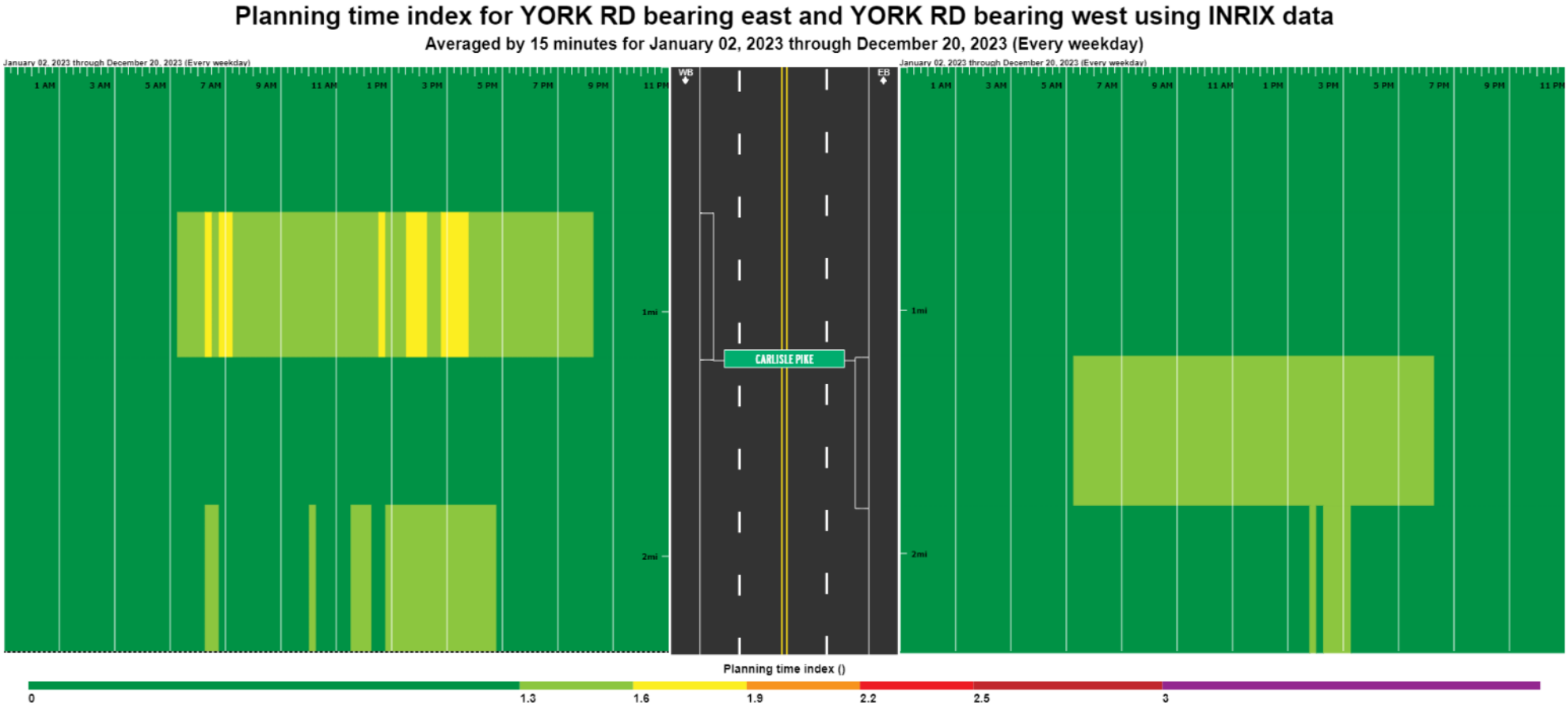


FIGURE 13: US 30 WEEKDAY PLANNING TIME INDEX

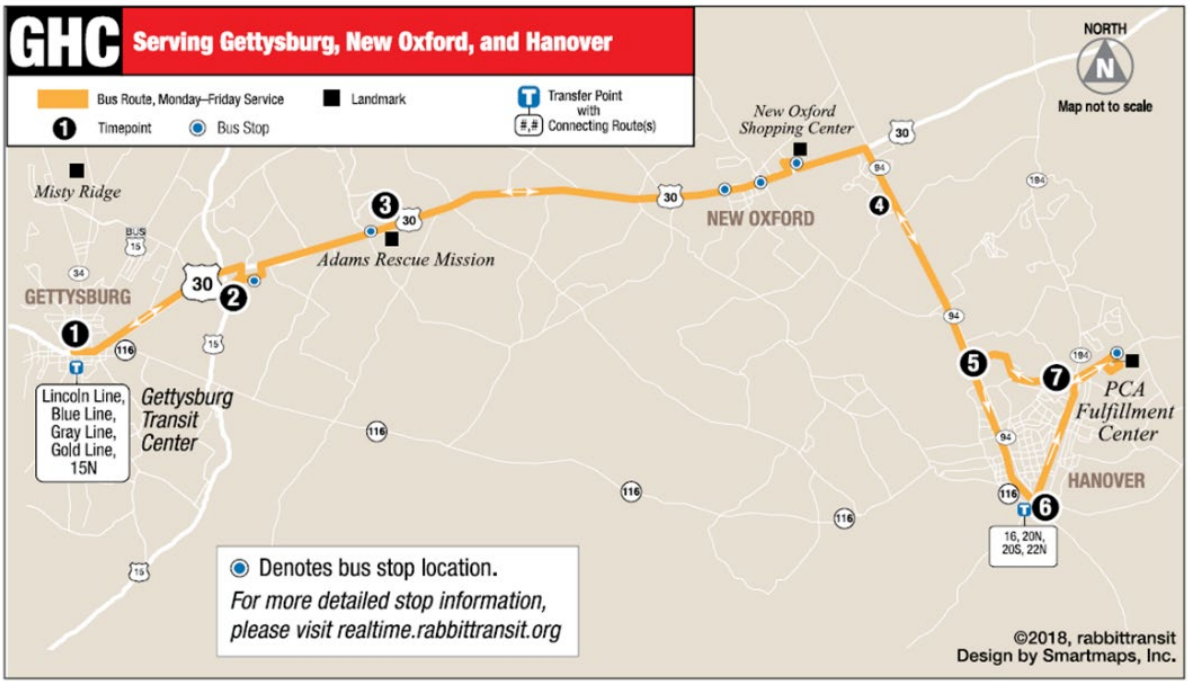


Alternative Transportation Modes

Public Transportation

Susquehanna Regional Transit Authority (SRTA, under rabbittransit) provides local fixed route transit service via the Gettysburg-Hanover Connector (GHC). This route offers weekday service between the agency's Gettysburg Transit Center and downtown Hanover. Within the study area, designated transit stops for the GHC are located at Cross Keys Village on Adams Drive as well as the intersection of Billerbeck Street and Golden Lane behind the New Oxford Shopping Center. Other nearby stops outside the study limits include the Emory Methodist Church in New Oxford Borough, Gateway Hanover Shopping Center, Hanover Crossing Shopping Center, and the PCA Fulfillment Center. The service helps connect riders to rabbittransit's 15N Express Route, providing access to employment opportunities, multimodal transportation connections (e.g., Amtrak, Greyhound Bus, Harrisburg International Airport), and other major destinations (e.g., HACC) in the Harrisburg area. The GHC route and stop locations are shown in **Figure 14**.

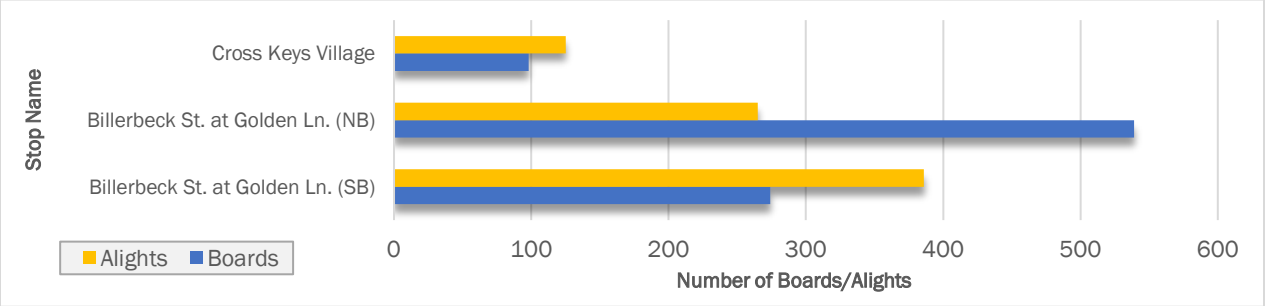
FIGURE 14: GETTYSBURG-HANOVER CONNECTOR ROUTE



Source: rabbittransit

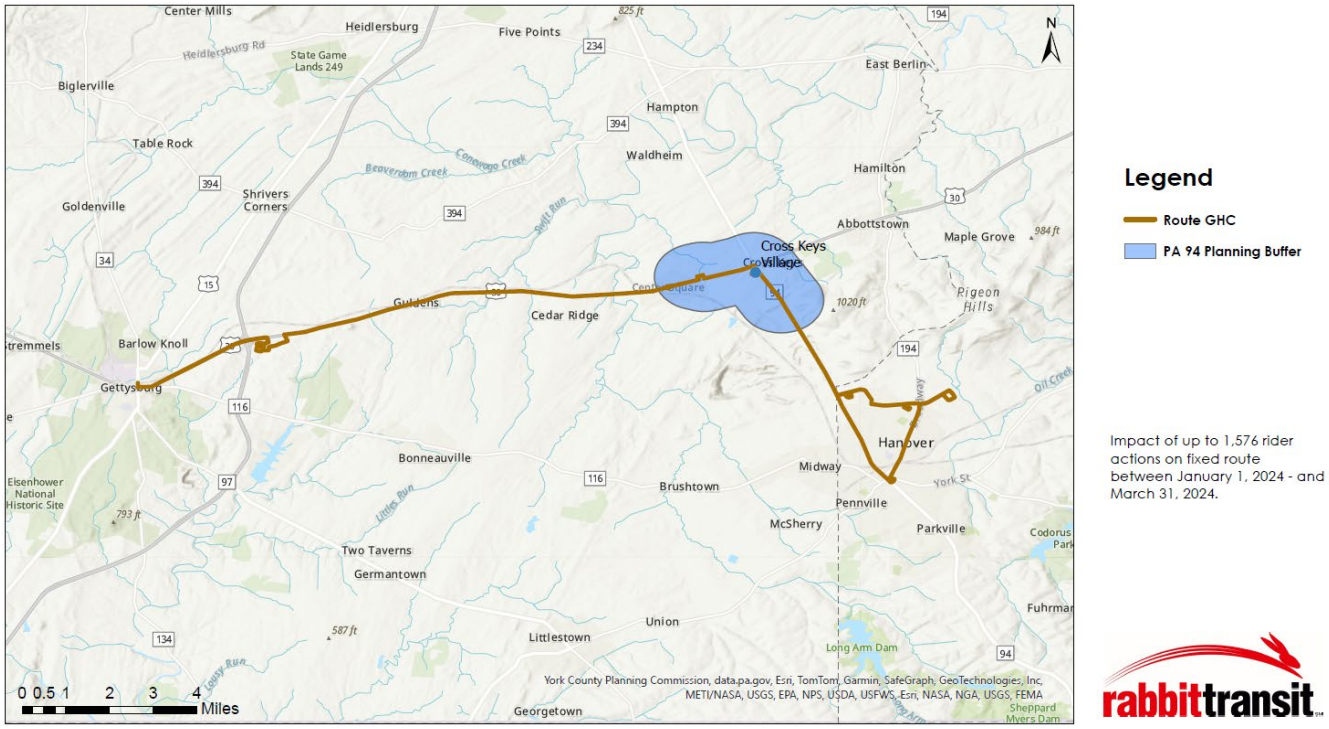
In FY 2023, the Gettysburg-Hanover Connector had a total ridership of 8,702 riders. Of these riders, 10 percent board the bus at one of the study area's two stops. The bus stop at Billerbeck Street and Golden Lane is the most utilized of the two with over 500 riders boarding the bus (**Figure 15**). An analysis of the corridor's impact on regional transit access conducted by rabbittransit reveals that the study corridor has an impact of up to 1,576 rider actions on fixed route in the first quarter of FY 2024 (**Figure 16**).

FIGURE 15: GETTYSBURG-HANOVER CONNECTOR RIDERSHIP (FY2023)



Source: rabbittransit

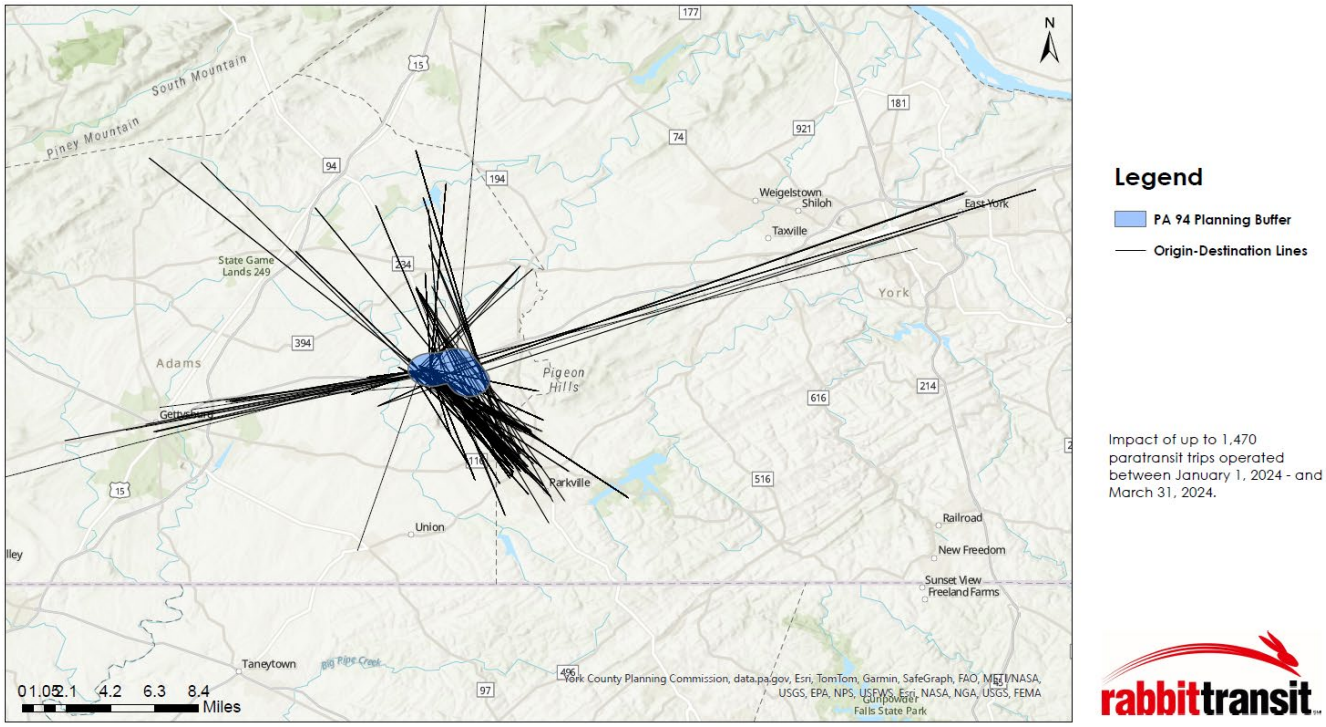
FIGURE 16: CROSS KEYS CORRIDOR - IMPACT TO REGIONAL TRANSIT ACCESS (FIXED ROUTE)



Source: rabbittransit

Rabbittransit also provides paratransit service within the study area and throughout Adams County. This on-demand service, also known as “shared ride”, provides consolidated trips between origins and destinations that may not always be well served by fixed route bus service. This includes specialized programs for seniors, individuals with disabilities, and medical transportation. According to analyses conducted by rabbittransit, paratransit users located within the Cross Keys area had a regional transit access impact of 1,470 rider actions in the first quarter of 2024 (**Figure 17**).

FIGURE 17: PARATRANSIT ORIGIN AND DESTINATION LINES



Source: rabbittransit

In addition to the transit services provided by rabbittransit, CommutePA has programs that connects commuters in the area with various transportation alternatives to driving alone to work (e.g., transit options, carpool/vanpool matching). The organization's service area covers a nine-county region in South Central Pennsylvania and includes Adams County. Once a commuter registers for this service, CommuterPA representatives can use information provided in the individual's application (origin/destination, work schedule, etc.) to pair them with available opportunities.

Bicycle and Pedestrian Facilities

While there are no designated BicyclePA routes within the immediate study area, two designated east-west routes are located nearby:

- **BicyclePA Route S** routes along PA 234 (East Berlin Road), which intersects with PA 94 approximately 2.5 miles north of Dicks Dam Road, the study corridor's northern terminus. At over 420 miles, BicyclePA Route S is the state's longest bicycle route allowing experienced bicyclists to traverse the state from the West Virginia border (Washington County) to the Delaware River in Bucks County.
- **US Bicycle Route (USBR) 11** travels through 14 Pennsylvania counties, beginning at Pennsylvania's northern border near Lawrenceville, New York and ending at the Maryland border near Greencastle, Franklin County. This national bike route leverages the same alignment as BicyclePA Route S through Adams County.

In terms of pedestrian infrastructure, sidewalks are not present along PA 94 or US 30; however, sidewalk connections are concentrated internally to various developments along the corridor.

Highway Safety

Reportable Crash Trends

Reportable crash data for a five-year period (2018-2022), obtained from PennDOT's Crash Information Tool (PCIT), was reviewed across the study area's road network to identify any trends and safety "hot spots". In the five-year period, the PA 94 study corridor experienced 192 reportable crashes with three crashes resulting in fatalities and three in suspected serious injuries. On US 30, a total of 28 crashes were reported. For both corridors, the most common crash types are rear end, angle, and hit fixed object crashes. Common contributing driver actions include speeding (24%), distracted driving (20%), tailgating (13%), improper turns (12%), and proceeding without clearance (11%).

Of the total crashes occurring in the same five-year period, 107 occurred at an intersection. Crash trends by intersection reveal that the Cross Keys intersection (PA 94 & US 30) experienced 20 crashes, the highest number of crashes along the corridor during the five-year period. Other intersections experiencing a notable number of crashes include PA 94 & Gun Club Road (11) and US 30 & Lincoln Street (8). The most common intersection crash type was rear end crashes (53 percent). One fatal crash occurred at the PA 94 & US 30 intersection involving a northbound vehicle running a red light.

Tables 2 and 3 provide reportable crash data summaries by collision type and crash severity, respectively, at key intersections within the study area.

TABLE 2: REPORTABLE CRASH DATA (2018-22) BY COLLISION TYPE

Intersection	Collision Type							
	Angle	Head On	Same Dir. Sideswipe	Hit Fixed Object	Pedestrian	Other	Rear End	Total
PA 94 & Hanover Street	2	2	0	1	0	0	1	**6**
PA 94 & Appler Road/Green Springs Road	2	0	0	0	0	0	0	**2**
PA 94 & Municipal Road	3	0	1	0	0	1	0	**5**
PA 94 & Shank Road	0	0	0	0	0	0	0	**0**
PA 94 & Race Track Road	0	0	0	1	0	0	3	**4**
PA 94 & Red Hill Road	2	0	0	0	0	0	0	**2**
PA 94 & Brickyard Road	3	0	0	0	0	0	1	**4**
PA 94 & Enterprise Drive/Village Drive	0	0	0	1	0	0	5	**6**
PA 94 & Adams Avenue/Little Avenue	2	0	0	0	0	0	3	**5**
PA 94 & US 30	9	0	0	0	0	0	11	**20**
PA 94 & Sheetz/McDonalds Access Drive	7	0	0	0	0	0	0	**7**
PA 94 & Berlin Road	2	1	1	0	0	0	0	**4**
PA 94 & Pine Run Road	3	0	0	2	0	0	0	**5**
PA 94 & Forest Drive	0	0	0	0	0	0	3	**3**
PA 94 & Gun Club Road	1	0	0	2	0	0	8	**11**
PA 94 & Cedar Road	0	0	0	0	0	0	3	**3**

Intersection	Collision Type							
	Angle	Head On	Same Dir. Sideswipe	Hit Fixed Object	Pedestrian	Other	Rear End	Total
PA 94 & 700 Road	0	0	0	1	0	1	2	4
PA 94 & Green Ridge Road	0	0	0	0	0	0	1	1
PA 94 & Dicks Dam Road	0	0	0	0	0	0	0	0
US 30 & Lincoln Street	2	0	0	1	0	0	5	8
US 30 & Village Drive	3	0	0	0	1	0	0	4
US 30 & Stanley Drive	0	0	0	1	0	1	1	3
Total	**41**	**3**	**2**	**10**	**1**	**3**	**47**	**107**

Source: Pennsylvania Crash Information Tool

TABLE 3: REPORTABLE CRASH DATA (2018-22) BY CRASH SEVERITY

Intersection	Crash Severity							
	PDO	Suspected Minor	Possible Injury	Suspected Serious	Fatal	Unknown Severity	Unknown If Injured	Total
PA 94 & Hanover Street	4	0	2	0	0	0	0	6
PA 94 & Appler Road/Green Springs Road	2	0	0	0	0	0	0	2
PA 94 & Municipal Road	3	1	0	0	0	1	0	5
PA 94 & Shank Road	0	0	0	0	0	0	0	0
PA 94 & Race Track Road	1	1	1	0	0	0	1	4
PA 94 & Red Hill Road	1	0	1	0	0	0	0	2
PA 94 & Brickyard Road	3	0	1	0	0	0	0	4
PA 94 & Enterprise Drive/Village Drive	4	2	0	0	0	0	0	6
PA 94 & Adams Avenue/Little Avenue	3	2	0	0	0	0	0	5
PA 94 & US 30	12	1	4	0	1	1	1	20
PA 94 & Sheetz/McDonalds Access Drive	**1**	**4**	**2**	**0**	**0**	**0**	**0**	**7**
PA 94 & Berlin Road	2	0	0	0	0	2	0	4
PA 94 & Pine Run Road	3	1	1	0	0	0	0	5
PA 94 & Forest Drive	2	0	1	0	0	0	0	3
PA 94 & Gun Club Road	7	3	0	1	0	0	0	11
PA 94 & Cedar Road	0	2	1	0	0	0	0	3
PA 94 & 700 Road	3	0	0	0	0	1	0	4
PA 94 & Green Ridge Road	0	1	0	0	0	0	0	1
PA 94 & Dicks Dam Road	0	0	0	0	0	0	0	0
US 30 & Lincoln Street	7	1	0	0	0	0	0	8
US 30 & Village Drive	2	1	1	0	0	0	0	4
US 30 & Stanley Drive	2	0	1	0	0	0	0	3
Total	**62**	**20**	**16**	**1**	**1**	**5**	**2**	**107**

Source: Pennsylvania Crash Information Tool

Highway Safety Network Screening

All intersections and segments along PA 94 and US 30 within the study area were reviewed using the 2021 PennDOT highway safety network screening results, available in PCIT, to determine the excess predicted average crash frequencies at these locations. The excess predicted average crash frequency takes the observed crash frequency of a site and adjusts it based on the variance in the crash data. The average crash counts for a site's reference population is then compared to the average frequency of crashes for the reference population. This method produces a more accurate way of determining crash frequency, with a positive excess value indicating a site experiences a higher crash frequency than typical, while a negative excess value indicates a site experiences a lower crash frequency than typical.

For the roadways and intersections accounted for in the 2021 Highway Safety Network Screening, the following intersections were found to have excess crash values (shown in parenthesis):

- PA 94 & 700 Road (0.44)
- PA 94 & Gun Club Road (0.82)
- PA 94 & Berlin Road (0.17)
- PA 94 & Adams Avenue (0.26)

All intersections were found to have to have small positive excess crash values, but the analysis gave insight into locations to focus on for safety improvements. In addition, the following corridor segments were found to have excess crash values:

TABLE 4: SEGMENTS WITH HSNS EXCESS CRASH VALUES

Corridor	From	To	Excess Crash Value
PA 94	700 Road	Green Ridge Road	0.25
	Pine Run Road	Cedar Road	0.36
	Forest Drive	Berlin Road	0.06
	Sheetz/McDonalds/Burger King Access	Caplan Court	0.07
	US 30	Sheetz/McDonalds/Burger King Access	0.24
	Brickyard Road	US 30	0.98

Source: PennDOT Highway Safety Network Screening (HSNS) Results

Most corridor segments with positive excess crash values are considered minor with the exception of the segment of PA 94 between Brickyard Road and US 30, which had the highest positive excess crash value along the corridor.

Road Safety Audit Findings (2010)

In 2010, a Road Safety Audit (RSA) was conducted along PA 94 from Shank Road to Lake Meade Road. An RSA is a proactive process that provides recommendations which can be implemented in stages as time and resources permit. The 2010 RSA involved multiple entities, including PennDOT District 8-0, Hamilton Township, Oxford Township, and Adams County. The audit identified a series of short-term, mid-term, and long-term strategies to further enhance safety along the study corridor, which are summarized in **Appendix B**.

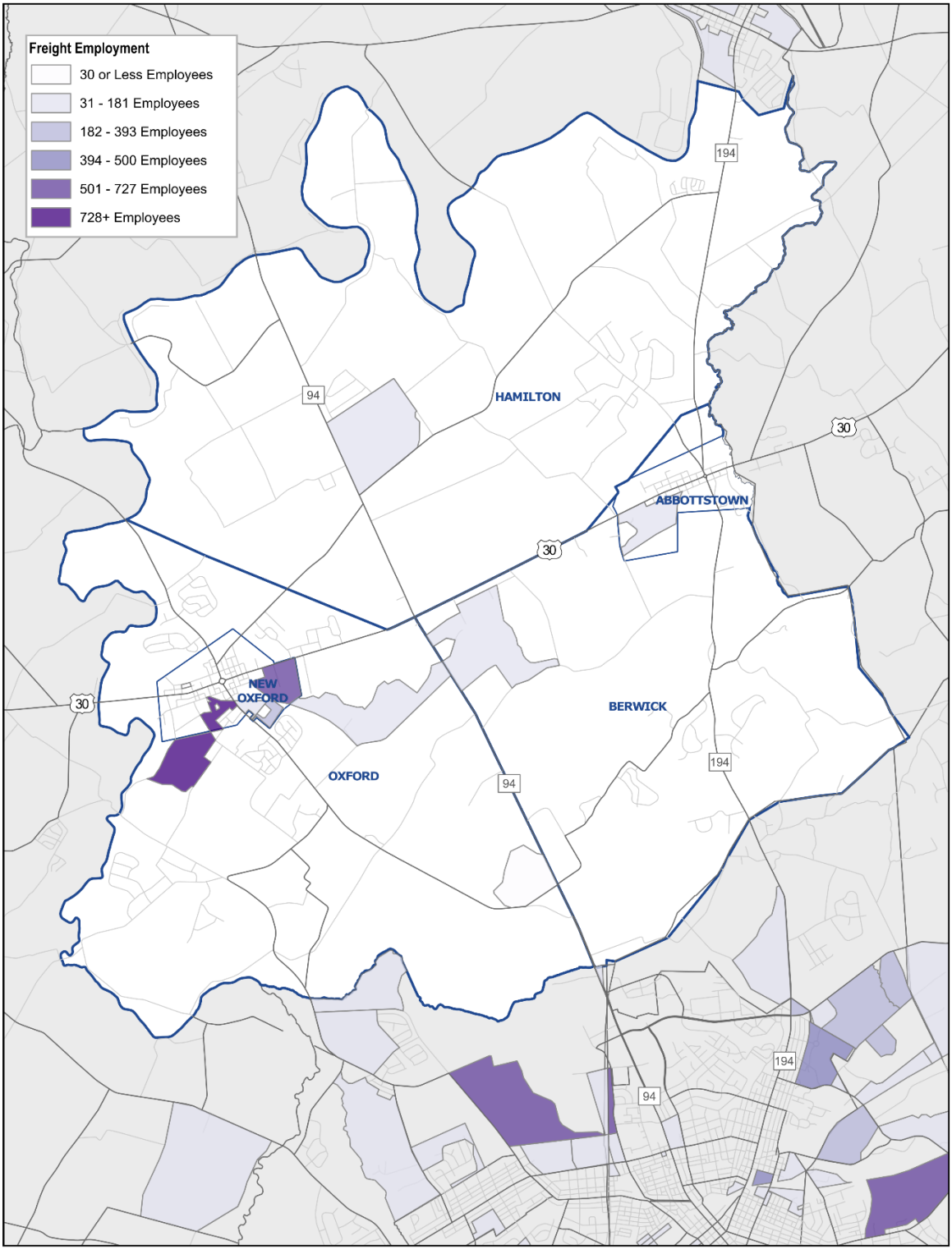
Freight Activity

Average annual daily truck traffic data from PennDOT's Traffic Information Repository (TIRe) indicate that the PA 94 corridor to the south of US 30 accommodates the heaviest truck volumes in the study area at approximately 1,600 trucks daily. US 30 carries similar volumes, ranging from 1,300-1,400 trucks per day. North of US 30, PA 94 experiences lower truck traffic levels, ranging from 800-900 trucks per day.

Origin and destination data for a sample set of freight trips traveling through the PA 94/US 30 intersection revealed that these trips are commonly concentrated within the South-Central Pennsylvania region. Noteworthy freight trip origins include Hanover, York, Greencastle, Mechanicsburg, Carlisle, and Bedford as well as Frederick and Washington Counties in Maryland. These trips are primarily destined for locations within Adams County and the Hanover area. Other destinations include Chambersburg, Greencastle, and Bedford, as well as Hagerstown and Frederick in Maryland and Winchester, Virginia.

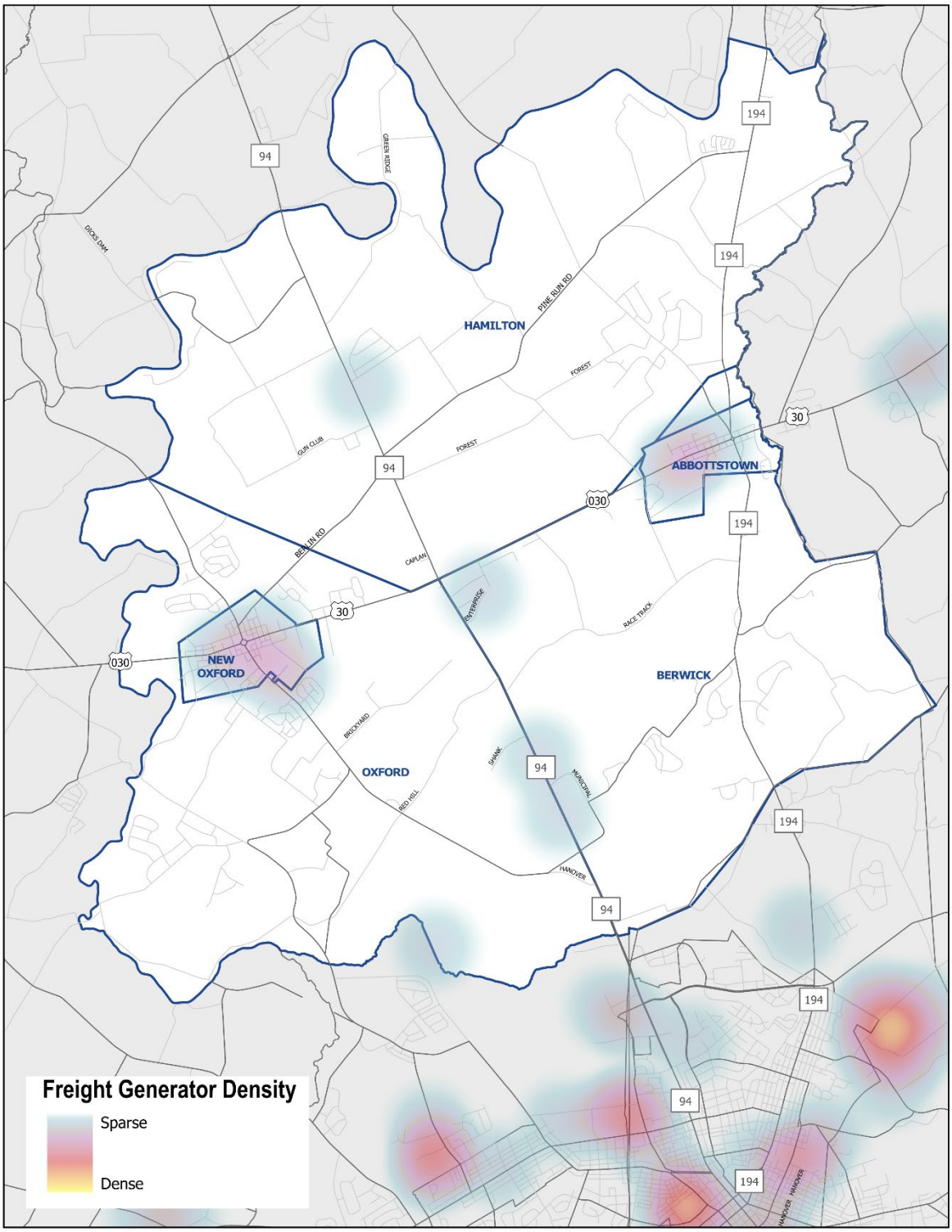
When assessing the density of freight generating activity and employment, heavy concentrations are observed near New Oxford Borough (e.g., Yazoo Mills, PCA Packaging) and the greater Hanover area (e.g., Penn Township Industrial Park). Major freight generators accessible from the PA 94 corridor include Vulcan Quarry, Hanover Concrete, and York Materials Group. When considering freight employment typologies, the study area has an increased presence of manufacturing with commercial retail more prevalent at the southern terminus of the study area. This concentration of retail development is largely attributed to the increased presence of shopping centers and other retail establishments along Eisenhower Boulevard and Wilson Avenue in Hanover. Freight employment concentrations and freight generator activity are shown graphically in **Figures 18 and 19**.

FIGURE 18: FREIGHT EMPLOYMENT BY CENSUS BLOCK



Source: PennDOT OneMap

FIGURE 19: FREIGHT GENERATOR ACTIVITY



Source: FreightFinder (2021)

Planned Improvements

2025 Twelve-Year Program

ACTPO works with PennDOT and other transportation partners in developing a four-year Transportation Improvement Program (TIP), which serves as the first four-year period of the Twelve-Year Program (TYP). The TYP is a project-specific, fiscally constrained list of the region's programmed projects, including highway, bridge, safety, and multimodal projects. As the TIP and TYP are developed, municipal input is collected through the PennDOT Connects process and is an asset to the development of the program. ACTPO adopted its 2025 TIP in June 2024, the TYP was approved by the State Transportation Commission (STC) in August 2024, and the new program officially took effect on October 1, 2024. The 2025 TYP includes a few projects that fall within the PA 94 study area, which are shown in **Table 5**.

TABLE 5: 2025 TWELVE-YEAR PROGRAM PROJECTS WITHIN STUDY AREA

MPMS	Project Name	Type	Municipality	Est. Construction Cost	Anticipated Let Date
78672	PA 94 and Berlin Road	Intersection Realignment	Hamilton	$4,000,000	2034
115745	Carlisle Pike Resurface 2	Pavement Preservation/ Resurfacing	Hamilton, Reading	$4,592,000	2025
99784	York Road Bridge over Pine Run	Bridge Replacement	Hamilton, Berwick	$550,000	2034
90702	Pine Run Road Bridge	Bridge Replacement	Hamilton	$3,000,000	2034

Source: PennDOT OneMap

Proposed TIS-Based Improvements

In addition to the improvement projects included as part of the 2025 TYP, traffic impact studies have been conducted for proposed and pending developments in the area to assess the impact each site will have on traffic and transportation. Some TIS analyses were still ongoing at the time of study development. Access and roadway improvements in the area include:

Development Name	Proposed Improvements
New Oxford Logistics	Two proposed full access driveways, one along the east side of PA 94 north of US 30 and one along US 30 across from Stanley Drive.
Cambrian Hills Commercial Site	Construct a proposed local road with a separate left, through, and right lane with 275 ft. of storage at the PA 94 & Hanover Street intersection. ○ Stripe 275 ft. northbound left turn lane on PA 94 ○ Construct 365 ft. northbound through/right lane on PA 94 ○ Continue existing southbound through lane beyond the intersection on PA 94 terminating at Green Springs Road. ○ Construct a 225 ft. southbound right turn lane on PA 94 ○ Construct Hanover Street to include a 150 ft. left turn lane and a channelized right turn movement • Construct two right-in low volume driveways from PA 94 (east side) north of Hanover Street • Construct a northbound right turn lane at the PA 94 & Green Springs Road/Appler Road intersection
Summerfield Residential Development	• Convert the Shank Road approach to PA 94 to a right-out only operation. • Add northbound and eastbound right turn overlap phases and optimize traffic signal timings at the PA 94 & US 30 intersection • Signalize the intersection of PA 94 and Site Access Road
Berlin Junction	• Signalize the intersection of PA 94 and Brickyard Road

Field View Findings

A field view of the study corridor was conducted in February 2024 with representatives of ACTPO, PennDOT Central Office, PennDOT District 8-0, Berwick Township, Hamilton Township, Oxford Township, and the consulting team. The field view took place at key locations along the study corridor, including the following locations:

- PA 94 & US 30 Intersection
- Sheetz/McDonalds/Burger King Access Driveway
- US 30 & Lincoln Street Intersection
- PA 94 & Cedar Road Intersection
- PA 94 & Gun Club Road Intersection
- PA 94 & Village Drive/Enterprise Drive Intersection
- PA 94 & Red Hill Road Intersection
- PA 94 & Tropical Treat Driveway
- PA 94 & Municipal Road Intersection
- PA 94 & Hanover Street Intersection

Key discussion points raised during the field view included the following:

Speed and Congestion at the PA 94 & US 30 Intersection: Participants noted that they have observed long queues along both PA 94 approaches with worse conditions occurring on the weekends. Drivers (both passenger and truck) have been observed speeding through and running red lights at this location.

Exit Movements from Sheetz/McDonalds/Burger King Access Driveway: Observed southbound queues at the PA 94 and US 30 intersection extend past the dedicated access driveway for Sheetz, Burger King, and McDonald's. As a result, sight distances for vehicles trying to exit the driveway onto PA 94 are obstructed leading to collisions and "close calls."

Turning Movements at Cedar Road and Gun Club Road: Participants expressed safety concerns at these locations due to challenging turning movements. Both intersections have experienced a history of rear end crashes as a result of these challenges.

Tropical Treat Access: Vehicle speeds and sight distances have led to safety risks for vehicles entering and exiting Tropical Treat.

A full summary of the project field view is included in **Appendix A.**

Public and Stakeholder Engagement

Online Public Survey Results

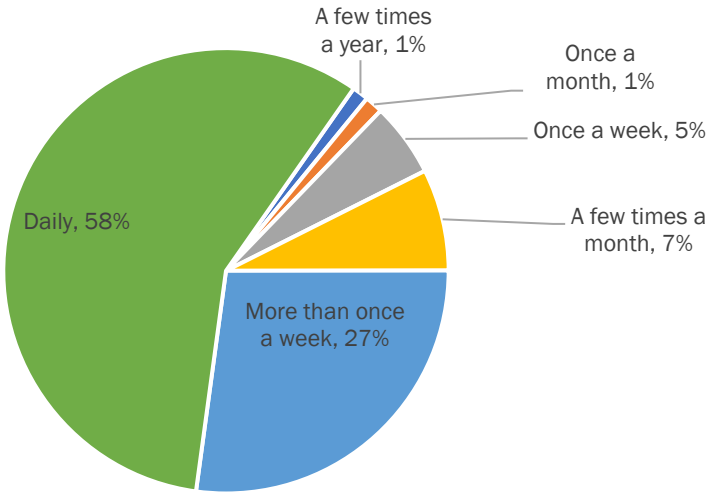
ACTPO launched an online survey and interactive comment map in April 2024 to gather public input on issues/concerns within the study area as well as to gauge community support for various types of safety and mobility improvements. The survey was open for approximately four weeks and gathered 839 responses as well as 148 comments on the interactive comment map application. As part of the survey, respondents were asked the following:

- Indicate their primary mode of transportation/travel frequency through the Cross Keys area.
- Indicate their level of comfort traveling along PA 94 and US 30.
- Identify their level of support for seven potential improvement types.
- Provide open-ended feedback on issues/concerns related to transportation in the Cross Keys area
- Drop a "pin" on an interactive map to identify location-specific concerns.

Travel Behavior and Level of Comfort

To understand how community members use the PA 94 and US 30 corridor, respondents were asked to identify their primary travel mode and travel frequency through the Cross Keys area. Nearly all survey participants (98%) indicated that they rely on driving as their primary mode when traveling through the study area with the remaining two percent indicating they bike, walk, or take transit. In terms of travel frequency, over half of survey respondents travel through the Cross Keys study area daily (**Figure 20**).

FIGURE 20: TRAVEL FREQUENCY



Users were also asked to indicate their level of comfort when traveling along PA 94 and US 30 on a scale of one (not comfortable at all) to 5 (very comfortable). Approximately 24 percent of respondents indicated they feel uncomfortable traveling along PA 94 while 20 percent indicated discomfort traveling along US 30. Community members cited several reasons for their discomfort, including reckless driver behaviors (speeding, aggressive/distracted driving, red light

running), difficult/unsafe turn movements from side streets, past travel experiences (e.g., witnessed/involved in a crash), and high congestion levels.

Level of Support for Potential Corridor Improvements

Participants were asked to indicate their level of support for the following potential improvement categories:

- **Widening/Lane Capacity**: Examine widening appropriate sections of the corridor to provide additional lane capacity.
- **Dedicated Turn Lanes**: Study the necessity of dedicated turn lanes along PA 94 to provide safer movements onto key side streets.
- **Access Management Strategies**: Consider reducing the number of driveways or implementing raised medians/median islands to preclude cross-road movement.
- **Speed Management Strategies**: Promote effective speed enforcement, traffic calming, and other improvements to reduce travel speeds.
- **Traffic Signal Operations**: Install advanced traffic signal detection/upgrade traffic signals to better manage congestion at intersections.
- **Pedestrian Accommodations**: Consider roadside pedestrian accommodations in areas with existing pedestrian infrastructure (sidewalks, shared use paths).
- **Traffic Controls**: Evaluate/improve existing controls (e.g., stop signs, etc.) and explore construction of roundabouts to reduce crashes, reduce delays, and promote lower speeds/traffic calming.

Figure 21-27 summarize these results. Overall, respondents were supportive of nearly all potential improvement categories, including widening/lane capacity, dedicated turn lanes, speed management, traffic signal operations, and traffic controls. Community members felt more neutral toward the implementation of access management strategies and pedestrian accommodations.

FIGURE 21: COMMUNITY LEVEL OF SUPPORT - WIDENING/LANE CAPACITY

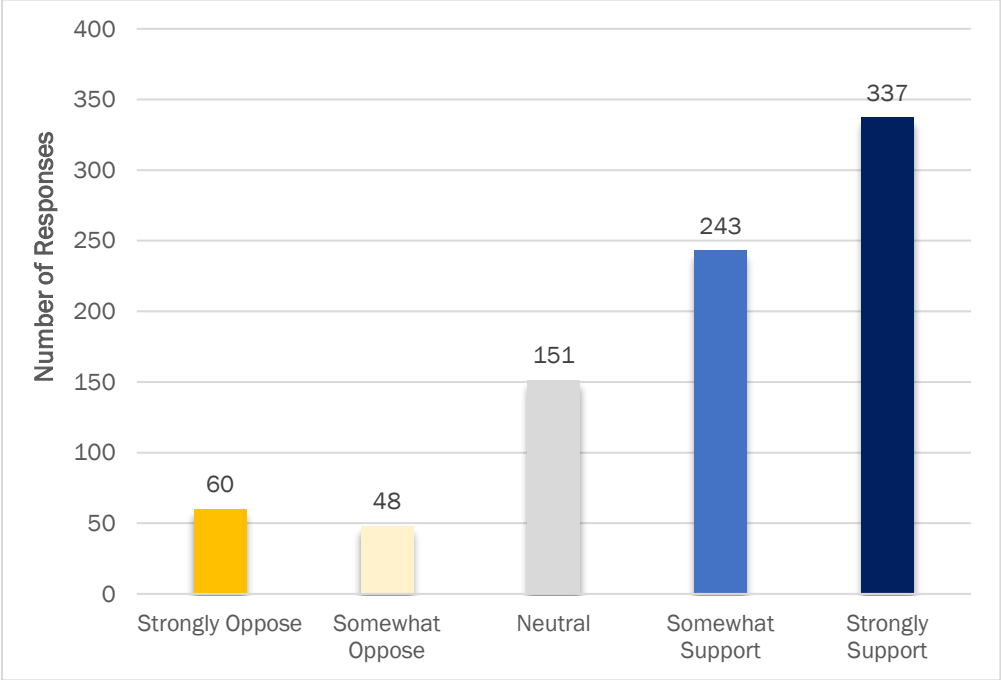


FIGURE 22: COMMUNITY LEVEL OF SUPPORT - DEDICATED TURN LANES

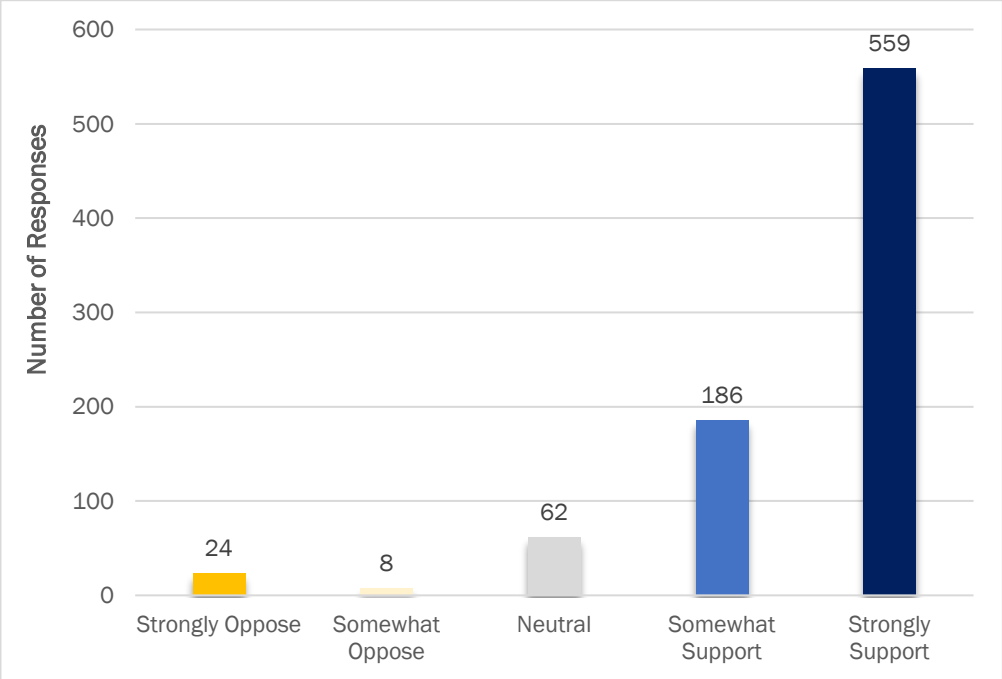


FIGURE 23: COMMUNITY LEVEL OF SUPPORT - ACCESS MANAGEMENT STRATEGIES

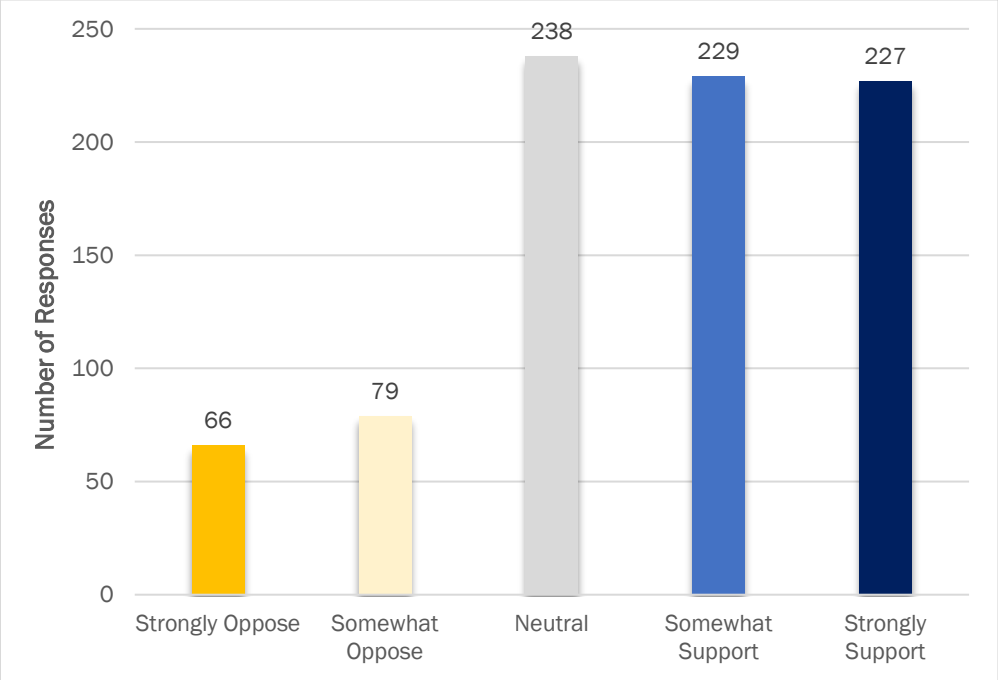


FIGURE 24: COMMUNITY LEVEL OF SUPPORT - SPEED MANAGEMENT STRATEGIES

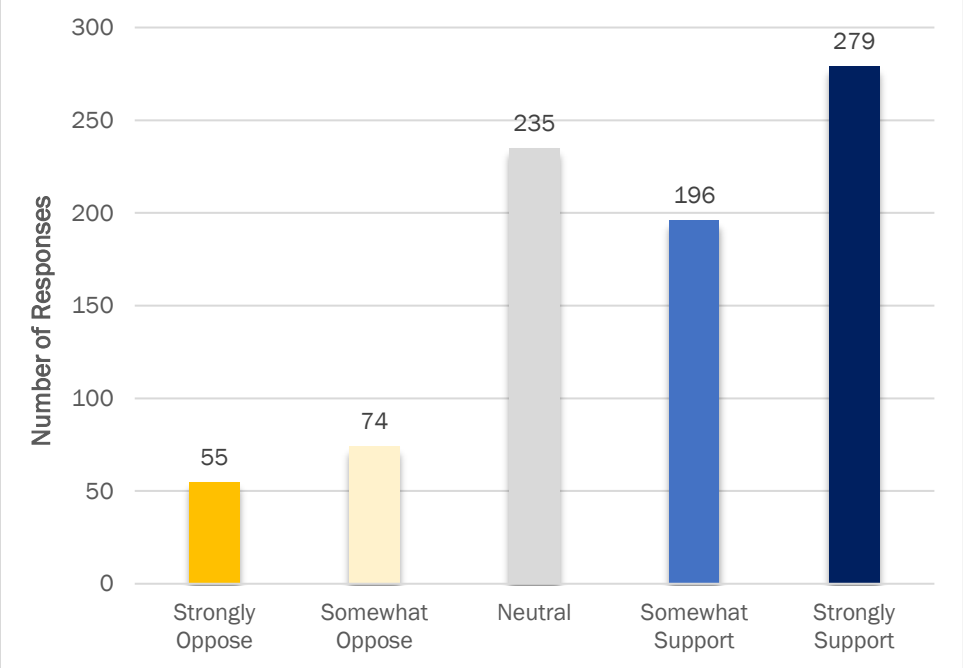


FIGURE 25: COMMUNITY LEVEL OF SUPPORT - TRAFFIC SIGNAL OPERATIONS

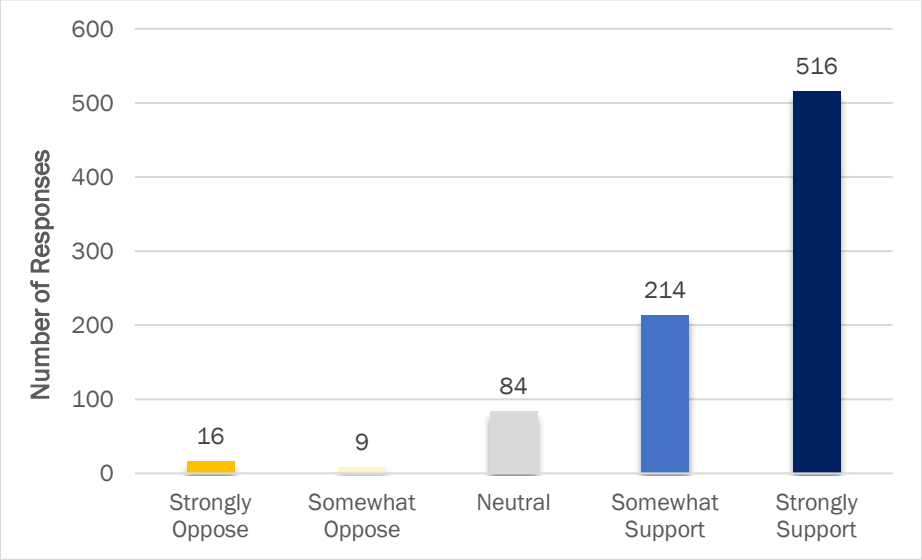


FIGURE 26: COMMUNITY LEVEL OF SUPPORT - PEDESTRIAN ACCOMMODATIONS

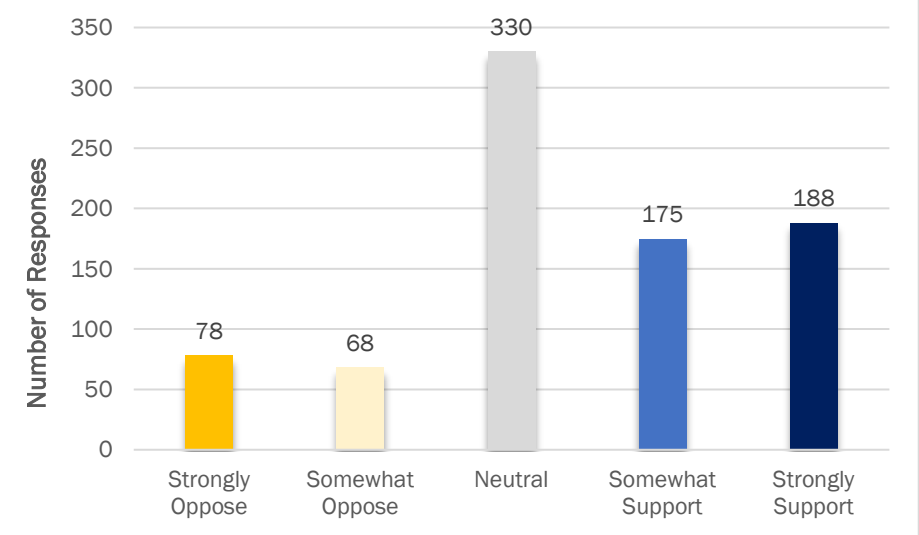
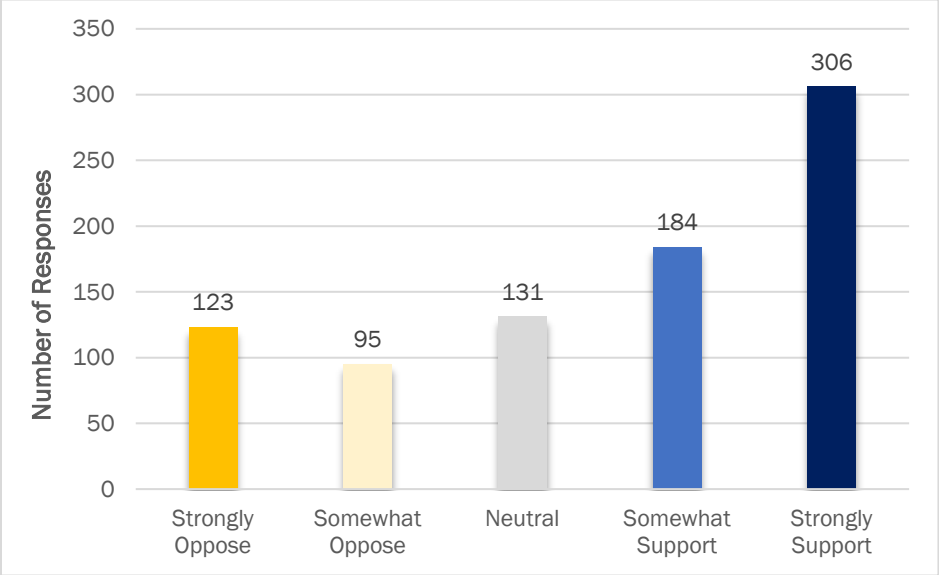


FIGURE 27: COMMUNITY LEVEL OF SUPPORT - TRAFFIC CONTROLS



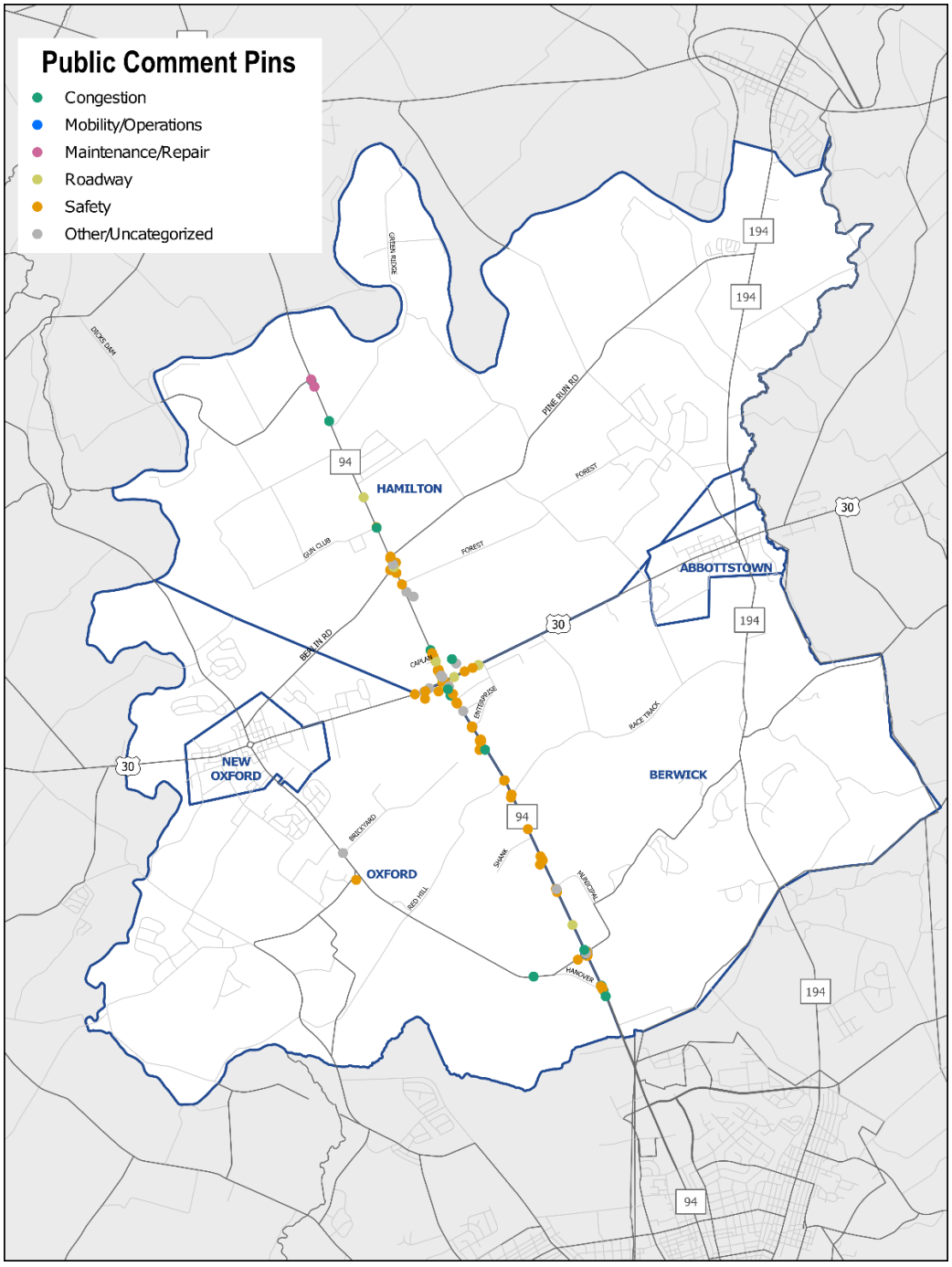
In addition to the improvement categories identified, participants suggested the study also consider the following corridor improvements:

- Additional police presence/traffic enforcement
- Dedicated turn lanes throughout the corridor to improve ingress/egress from side streets
- Implement traffic calming measures to slow driver speeds
- Realigning the access to McDonald's, Burger King, and Sheetz to Caplan Court
- Improve/maintain existing pavements
- Install wider shoulders
- Better synchronization of traffic signals throughout the corridor
- Extending existing turn lanes at the intersection with of PA 94 and US 30
- Promote better coordination between traffic management and proposed developments/land use
- Stormwater management/drainage improvements
- Better lighting
- Strategies to make the corridor more accessible to cyclists and pedestrians

Interactive Map Comments

In addition to the feedback provided through the study's survey form, ACTPO staff also developed an interactive map application for users to place a "pin" on specific locations to identify issues or concerns along the study corridor. Users also had the option to categorize their pin under several issue types such as safety, congestion, mobility/operations, maintenance/repair, roadway, and "other". Nearly 150 "pins" were placed on the map, as shown in **Figure 28**. The comments associated with each pin are detailed in **Appendix E**.

FIGURE 28: INTERACTIVE PUBLIC COMMENT MAP



While many of the comments provided expressed corridor/study area wide concerns that mirror those listed above, the following summarizes location-specific concerns identified by the public.

PA 94 and Berlin/Pine Run Road
Concerns regarding the intersection of PA 94 and Berlin Road/Pine Run Road included difficult turning movements to and from PA 94 due to high travel speeds and impeded sight distance due to roadway grade. Specifically, members of the public felt the left turn lane from PA 94 northbound onto Berlin Road is too short and there would be benefit in extending it further south. Other community members noted that the intersection is difficult to see and navigate at night. Improvement suggestions at this location included the installation/extension of dedicated turning lanes and lowering the grade to improve safety.

PA 94 and McDonald's/Sheetz/Burger King Access
Several concerns were expressed regarding the difficulty of turning movements out of the McDonald's/Sheetz/Burger King access route, notably left turns onto PA 94 northbound. This is attributed to long queues from the PA 94/US 30 signal blocking the access point and many "close calls" have been observed as a result of speeding motorists on PA 94 traveling northbound. Several individuals suggested that the access point be closed and rerouted to Caplan Court.

PA 94 and US 30
The main Cross Keys intersection had the highest number of pins compared to the rest of the corridor with many comments raising operational issues at the intersection, citing long queues and travel delays. Key themes from the map comments at this location include:

- If approved, safety and operations at the intersection will likely worsen with increased truck traffic entering and exiting the proposed New Oxford Logistics development.
- Turning lanes on the PA 94 approaches are too short and are contributing to high congestion levels.
- Reckless driver behavior (e.g., speeding, red light running) and "severe incidents" have been observed at this location. Several comments suggested lowering posted speeds and increasing enforcement activities.
- Pavement markings approaching the intersection are faded and should be repainted with reflectors added.
- Several concerns mentioned that there are too many business access driveways located too close to the intersection, leading to safety concerns and difficult turning movements.

PA 94 and Red Hill Road/Racetrack Road
Comments at these two intersections expressed concern about traffic controls and difficult turning movements. Roadway grades on PA 94 impede sight distances for vehicles looking to turn left out of Red Hill Road. Although signage was installed to restrict left turns in and out of Red Hill Road, members of the community felt these signs are ineffective as motorists still make these movements. Another individual suggested realigning Red Hill Road across from Racetrack Road to remove the sight distance concerns. In contrast, a suggestion was made to restrict left turns from Racetrack Road onto PA 94 southbound.

PA 94 and Tropical Treat Access
Several community members felt that there are too many driveways accessing Tropical Treat, leading to motorist confusion and safety concerns. There was an expressed desire for dedicated turn lanes to help separate turning movements (enter turn lane for both Summerfield and Tropical Treat; dedicated right turn lane from PA 94 north into Tropical Treat) from through traffic. Specific suggestions included the installation of a center turn lane for motorists accessing both Tropical Treat and the nearby Summerfield Residential Development as well as a dedicated right turn lane on PA 94 northbound into Tropical Treat. One individual suggested that Tropical Treat's "center two entrances" be closed off.

PA 94 and Appler Road/Green Springs Road
Second to the PA 94/US 30 intersection, the intersection of PA 94 and Appler/Green Springs Road received a significant number of comments (36) expressing concerns about motorists traveling at high speeds and dangerous turning movements. Several respondents felt that these concerns will be exacerbated with the Cambrian Hills development and many comments expressed a desire for a traffic signal at this location.

PA 94 and Hanover Street
Several comments cited motorist confusion when making right turns onto PA 94 southbound from Hanover Street. Existing signage and lane striping does not clearly communicate that motorists have a dedicated lane when turning right out of Hanover Street. A few commenters also stated that the existing dedicated left turn lane on PA 94 northbound onto Hanover Street is not long enough, which leads to long queues and congestion. Recommended solutions included a traffic signal, extending existing turn lanes, and even re-routing traffic to the Appler/Green Springs Road intersection.

Stakeholder Outreach

Stakeholders in the study area were contacted to provide input on draft recommendations, identify roadway and traffic issues/concerns within the study area, and identify future development that could potentially impact travel along the PA 94 corridor. A total of nineteen stakeholders representing area businesses, economic development organizations, and municipal government were engaged through one-on-one interviews or focus group discussions.

Stakeholder input is summarized in this section as follows:

- **Corridor-Wide Impact** – Findings from interviews with larger stakeholders traveling regularly throughout the study area, including those that influence/will influence traffic patterns or will impact traffic patterns throughout the study area.
- **Intersection Specific Concerns** – Concerns or issues identified at intersections throughout the study area.
- **Hanover Area Development** – Locations in the greater Hanover area where future development (proposed or anticipated) could influence traffic patterns along the PA 94 corridor.

A consistent takeaway from the interviews is that stakeholders have noticed a marked increase in tractor trailer traffic travelling northbound and southbound on PA 94.

Stakeholder Engagement

1. Conewago Valley School District
2. Cross Keys Village: The Brethren Home Community
3. Rabbittransit
4. NOBPA, LLC (New Oxford Logistics Developer)
5. Rettew
6. Transportation Research Group
7. McDonald's
8. Sheetz
9. Burger King
10. Dollar General
11. Turkey Hill
12. Tropical Treat
13. Frock Brothers Trucking
14. Adams Economic Alliance
15. Hanover Area Chamber of Commerce
16. Hanover Borough, York County
17. Penn Township, York County
18. Conewago Township, Adams County
19. York Area Metropolitan Planning Organization (YAMPO)

Corridor-Wide Impact

Impacts of Forecasted Growth

Conewago Valley School District (CVSD)'s master plan projects 3 percent growth in enrollment, most of which is being driven by new housing and younger families purchasing existing housing stock. CVSD owns a 75-acre parcel along Berlin and Garber Roads that could accommodate this growth through the construction of a new facility, as the district's current campuses do not have the space to accommodate forecasted enrollment increases. Depending on the development feasibility of this parcel, CVSD anticipates construction occurring in approximately five years and understands that traffic controls will likely be required at the intersection of PA 94 and Berlin Road.

Similarly, Cross Keys Village: The Brethren Home Community (CKV) is home to 1,000 assisted living residents and 600 cottages. CKV forecasts its resident base growing in the next 5 to 10 years per its master plan. To address this growth, CKV is constructing 59 new cottages as part of its Bridgewater Landing expansion and these new cottages are already 70 percent sold.

New or Future Circulation Plans

While the number of student drivers has been declining, CVSD has observed an increase in "parent drivers" (parents driving their kids to school), citing the length of time students spend on the bus or the time of day in which students need to be at their assigned bus stop. This increase has led to long queues on Berlin Road. To address this issue, CVSD is implementing a new circulation plan that includes the addition of passenger vehicle spaces on campus and splitting bus/parent traffic to different access points to reduce traffic pressure on Berlin Road.

Similarly, on-site traffic circulation and access at CKV will be re-evaluated if additional development/expansions are constructed. This could potentially include changes to current access points, such as restricting Village Drive to right-in, right-out access instead of a full access point.

Transit Access

As mentioned in the Existing Conditions section, rabbittransit operates the Gettysburg Hanover Connector (GHC) through the study area. One stop is located near the Adams Avenue entrance of the CKV campus; however, rabbittransit has recorded low ridership traffic from this stop. While CKV is not open to having additional bus stops on property due to the impact large buses could have on the campus' privately owned streets, they are open to exploring the possibility of a new bus stop on Village Drive to serve as a link between US 30 and PA 94.

In contrast, the GHC's stop on Billerbeck Street near the New Oxford Shopping Center has recorded higher ridership volumes and rabbittransit is interested in expanding/improving walkability and pedestrian connections accessing that stop.

Right-of-Way

The developer of the proposed New Oxford Logistics development (NOBPA, LLC) has offered excess right-of-way (ROW) along PA 94 and US 30, should the ROW be required for future development.

Intersection Specific Concerns

PA 94 & 700 Road/Cedar Road/Gun Club Road

Several stakeholders mentioned the difficulty of turning movements at these three intersections, specifically left turns, due to high vehicle speeds on PA 94, narrow turning radii, and narrow roadway widths. These challenges are experienced all day long, no specific time of day. These three intersections accommodate school bus traffic looking to access CVSD campuses, located on Berlin Road. The Cedar Road intersection is accessed several times daily by school buses looking to pick up/drop off students at nearby housing developments. CVSD buses have also been reported using the intersection with Gun Club Road as an alternative to Berlin Road in accessing homes north on PA 94.

PA 94 Northbound near 700 Road

PA 94 & Berlin Road/Pine Run Road

Stakeholders reported that the intersection of PA 94 Berlin Road/Pine Run Road is one of the worst intersections in terms of safety and visibility. The roadway topography near this intersection was addressed 15 years ago to address sight distance issues at the Pine Run Road leg of this intersection. Improved lighting at this intersection was recommended to help improve visibility as well as exploring the possibility of reducing speed limits on PA 94 between Pine Run Road and US 30. The Berlin Road approach is the most frequented by school bus traffic and

CVSD representatives noted that drivers experience similar challenges to those at 700 Road, Cedar Road, and Gun Club Road. To access US 30, buses travel through downtown New Oxford to either avoid the PA 94/US 30 intersection or making left turns from Berlin Road onto PA 94.

PA 94 & Caplan Court

Representatives from Dollar General said that cars often back up past the store's driveway while traveling southbound through the PA 94/US 30 intersection. Other interviewees in the immediate area (e.g., McDonald's, Sheetz, Burger King) were supportive of constructing an access road behind Dollar General to connect to Caplan Court, resulting in the possible closure of the existing access point onto PA 94.

PA 94 & Sheetz/McDonald's/Burger King Access Drive

Representatives at Sheetz, McDonald's, and Burger King have observed vehicles traveling at excessive speeds along the access road behind their buildings and cutting through their parking lots to bypass the light at PA 94 & US 30. It was noted that a McDonald's employee was almost hit by a fast-moving vehicle crossing the parking lot. Drivers have also been observed cutting through the Burger King parking lot to avoid travelling through the PA 94/US 30 intersection.

During morning and evening rush hours, it was noted that traffic looking to turn left onto PA 94 northbound backs up on the access road with queues extending past Sheetz and to the Burger King entrance. On weekends (most notably in the summer months), traffic from/looking to access McDonald's will sometimes back up onto US 30 westbound. An initial study recommendation included exploring the feasibility of a roundabout at this location; however, stakeholders in the area felt that installing a roundabout would not be effective as traffic would still back up due to queues at the PA 94/US 30 traffic signal.

PA 94 & US 30

CONGESTION IMPACTS AND SIGNAL TIMING

Congestion was a primary concern raised by multiple stakeholders at this intersection. Several interviewees commented that the dedicated "left green arrow" cycle on the PA 94 approaches is too short and drivers looking to travel through the intersection will wait up to 4 light cycles during mid-day/lunch hour and around 4:00 PM. Despite concerns with the signal's "green" cycles, it was reported that the "blinking yellow" light has been effective in alerting drivers that the light will be turning red soon. Turkey Hill representatives reported that intersection queues at the PA 94 northbound approach will sometimes result in difficult right turn movements onto PA 94.

Congestion in the area has also had a longstanding impact on school bus traffic. As a result of traffic delays at the intersection, CVSD has added more buses to their fleet to ensure students are not on buses for more than one hour. This parameter is "self-imposed" by CVSD and is not a state regulation.

DESIRE FOR ADDITIONAL/EXTENDED TURN LANES

Interviewees thought the addition of Dynamic Max green timing at the intersection will be helpful; however, an additional through lane in all directions at the PA 94/US 30 intersection would be the most effective solution. Specifically, stakeholders suggested the installation of a dedicated right turn lane on PA 94 traveling southbound, citing the possibility of using excess property adjacent to the sidewalk at Sheetz. They also felt that the southbound left turn lane

from PA 94 onto US 30 should be extended, as cars have been observed traveling outside of the existing travel lane to get into the left turn lane and bypass traffic travelling through the intersection or making a right turn on US 30.

SAFETY CONCERNS

Frequent accidents were reported at the PA 94/US 30 intersection. An accident in July resulted in a power outage for 3 days, closing businesses.

PA 94 & Enterprise Drive/Village Drive

Staff from Cross Keys Village noted that turning movements onto PA 94 have been difficult for their residents, resulting in crashes and "close calls". They also mentioned that the new signal at Brickyard Road should mitigate these issues and will continue to monitor changes resulting from its implementation.

PA 94 & Brickyard Road

Several stakeholders, including Cross Keys Village and Frock Brothers Trucking, felt the installation of the new signal at Brickyard Road will provide easier access onto PA 94 in multiple locations. It was noted that queuing on Brickyard Road to access PA 94 has resulted delays up to 10 minutes. Frock Brothers Trucking also noted that truck drivers are restricted from making right turns onto PA 94 from Brickyard Road due to narrow cartway widths.

PA 94 & Tropical Treat

Discussions with Tropical Treat revealed that the owner has considered consolidating the business's four access points; however, noted that it may be challenging due to narrow site configuration. The northernmost access point also provides access to several homes. High speeds on southbound PA 94, roadway grade, and sight distance issues have led to rear end crashes at least once per season.

PA 94 & Municipal Road and Appler Road/Green Springs Road

Three CVSD buses use Municipal Road or Green Springs Road to serve residents in the Eagle View Mobile Home Park. Green Springs Road will be used at the primary route for CSVD buses in accessing new homes in the Cambrian Hills development. At this time, there are no near-term plans to run additional buses planned; however, the need will be evaluated as residential development occurs in the area.

PA 94 & Hanover Street

Several stakeholders highlighted the potential transportation impacts from the Cambrian Hills residential development as well as the Hanover Retail Holdings commercial development. CSVD plans to evaluate the need for additional bus runs to the Cambrian Hills development as homes continue to be constructed. The Hanover Retail Holdings site is proposed to include auto dealerships and several retail establishments.

US 30 near Stanley Drive

Several stakeholders have observed reckless driver behavior in the vicinity of the existing pump station on US 30, just west of Stanley Drive. The roadway drops from two lanes down to one, and motorists accelerate to pass slower moving traffic before the passing lane ends.

US 30 and Village Drive

Like the concerns raised at the intersection of PA 94 and Village Drive, CKV staff stated that turning movements are also challenging at US 30. Drivers have been observed allowing traffic from Village Drive to make left turns onto US 30 westbound; however, other drivers making passing maneuvers at high speeds have resulted in crashes.

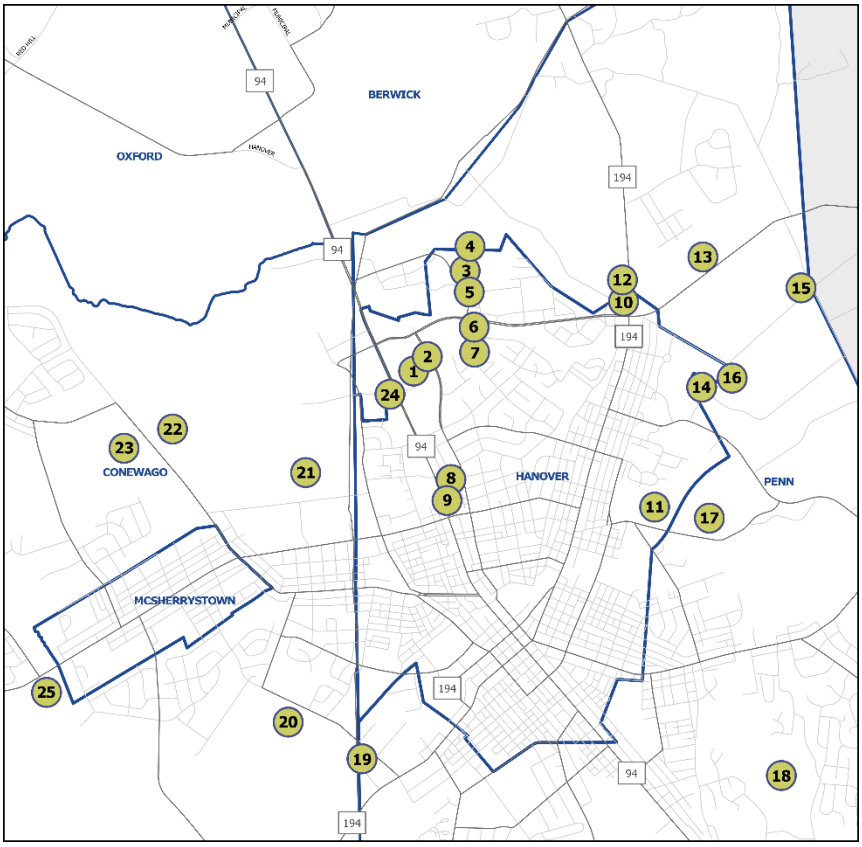
Greater Hanover Area Development Activity

While not in the study area, the proximity of the Greater Hanover area will continue to impact the Cross Keys corridor as development activity occurs. PA 94 serves as one of two north-south gateways into the Hanover region, making it a critical corridor for both transportation and the economic vitality of the area. Stakeholders from the Hanover area, including municipal officials and economic development interests, provided input on existing and planned development. The following summarizes potential development by municipality and overall transportation considerations, including comments provided by York Area MPO.

Planned & Potential Development

Planned and potential development in the Greater Hanover area was identified for the following municipalities: Hanover Borough, York County; Penn Township, York County; and Conewago Township, Adams County. Figure 29 maps the location of potential development and corresponds to the numbering in the table below.

FIGURE 29: PLANNED AND POTENTIAL DEVELOPMENT - GREATER HANOVER AREA



Source: Stakeholder Engagement – Google Earth Output

TABLE 6: HANOVER AREA DEVELOPMENT DESCRIPTIONS

Map #	Development Name	Brief Description
HANOVER BOROUGH, YORK COUNTY		
1	North Hanover Mall Redevelopment	A letter of intent currently exists to redevelop the North Hanover Mall (33 acres) into a mixed-use development. Hanover Borough has not received a concept plan for the redevelopment, but it is envisioned to include a mix of residential and retail uses.
2	Temporary Truck Parking	Utz Foods had been using the northeastern section of the North Hanover Mall parking lot as a temporary truck parking and staging. This use ceased in late 2024 when staging will be relocated to Utz Foods new facility off Kindig Lane.
3	Tractor Supply	A new Tractor Supply store is under construction east of Sam's Club on Wilson Avenue. 50% complete as of study date.
4	Developable Land	The land behind Tractor Supply is open for development. Light medical uses have been considered for the site; however, no plans have been submitted.
5	Met Ed Substation	A Met-Ed substation was recently constructed near the Tractor Supply.
6	Wawa/Raising Cane's	Developer is proceeding with redevelopment of the old Rite Aid location near the intersection of Wilson Avenue/Eisenhower Drive.
7	Proposed Hotel	A new 79-room hotel is proposed south of the Hampton Inn on Wilson Avenue.
8	Utz Foods	Utz relocated its administrative and manufacturing uses to its new logistics facility on Kindig Lane. The outlet store will continue to operate at the Clearview Road location and a potential tourist attraction (i.e., Turkey Hill Experience) is being considered for the vacated space. It is anticipated Utz will continue to have an impact on truck traffic along the PA 94 corridor and potential development may cause truck volumes to increase.
9	Former Mazda Dealership Redevelopment	Various uses have been considered for the former Mazda dealership just south of Utz's Clearview Road location, including a church, trade training with a Cal Ripken affiliation. Nothing has been confirmed; however, the Borough believes the uses would not generate significant traffic volumes.
10	Flickinger Road & PA 194	Various uses have been proposed for the northwest quadrant of the intersection, such as a convenience store and light medical offices. A potential roundabout has been studied for the intersection of PA 194 and Eisenhower Drive, which included Flickinger Road.
11	Cherry Tree V	Cherry Tree V includes 110 apartment units being constructed off Cherry Tree Court.
24	Possible Bus Pulloff	A former drive-through circulator lane off of Radio Road was identified as a possible location for a transit hub for the Hanover area. The site is currently owned by neighboring Taco Bell; however, the lane was formerly used as the drive-thru for a now demolished Hot-and-Now location.
PENN TOWNSHIP, YORK COUNTY		
12	LCBC Church Expansion	LCBC Church is expanding their location off PA 194, just north of Flickinger Road. After the expansion is completed, the church will have a total of 400 seats.
13	Moulstown Road 55+ Residential	The residential development will include 121 units and is estimated to be constructed in approximately 2 to 3 years.
14	Elsner Engineering	The development of the site off Industrial Drive has been stalled since 2021 and was to be developed for a COVID-19 related use.
15	Yazoo Mills	Yazoo Mills is developing the site at the corner of Industrial Drive and Gitts Run Road. This is located near the company's existing facility, which does not generate a significant amount of truck traffic.
16	Sheridan Press	Sheridan Press is developing a small warehouse near Industrial Drive.

Map #	Development Name	Brief Description
17	Conewago Enterprises	Conewago Enterprises has proposed a 395,360 sq. ft. warehouse with 12,320 sq. ft. of office space off Ridge Avenue.
18	Mustang Pointe	Mustang Pointe proposes 180 residential units off Bowman Road.
19	Holland Construction	Holland Construction is building a warehouse off Blettner Avenue, located southwest of the G&S Foods development site.
CONEWAGO TOWNSHIP, ADAMS COUNTY		
20	G&S Foods Warehouse	G&S Foods completed construction of a warehouse south of McSherrytown along N. Blettner Avenue and the facility is now operational.
21	Utz Warehouse Expansion	Utz is expanding its warehouse facility along Kindig Lane. The expansion should be complete by the end of 2024.
22	Oxford Avenue Development	Two industrial sites south of the Conewago Township building will likely be developed into four industrial/warehouse businesses. These sites will rely on the new Eisenhower Drive Extension to access PA 94 and is expected to help relieve potential traffic impact.
23		Divert was approved for a Special Exception as a Heavy Industrial Use. If a development is approved through Land Development, the development is expected to generate approximately 19 trucks daily.
25	Eagle Rock Development	Located off of Hanover Road (PA 116), this residential development is proposing 92 lots and construction is underway on the development's model home.

General Comments - Hanover Area Transportation

Stakeholders from the Greater Hanover area noted that the new Eisenhower Drive Extension project will improve overall traffic flow in the Area (**Figure 30**).

FIGURE 30 – EISENHOWER DRIVE EXTENSION – PREFERRED ALTERNATIVE

Source: https://eisenhowerdriveextension.com/preferred-alternative/

Freight-Intensive Economy Implications

Manufacturing is a major industry in the Hanover area, leading to freight intensive development and significant truck traffic generation. While area warehouse development has resulted in truck

traffic using PA 116 and PA 194, truck traffic on PA 94 is routed through Hanover and McSherrystown Boroughs, resulting in noise and traffic impacts.

The area faces truck parking challenges due to limited truck staging and parking facilities and area municipalities feel a new truck stop would be beneficial. Truck drivers tend to park on the shoulders of area roads, leading to visibility issues and resident concerns.

Transportation Connectivity

It was noted that transportation connectivity is an issue in the greater Hanover area. The region includes 11 municipalities, making it the second largest region in York County. Transit access in the Hanover area has been identified by rabbittransit as an ongoing concern. In addition to GHC route, rabbittransit also operates the McSherrystown Connector in the Hanover area.

Hanover Borough is interested in exploring opportunities to expand transit availability and would like to see transit be a core component of the proposed North Hanover Mall redevelopment. YAMPO is also open to discussing opportunities for bus pullouts in the area. One potential location for an area transit hub is located off of Radio Road, where a drive through circulator road from a former Hot-and-Now fast food location exists. This lane is located on property currently owned by the neighboring Taco Bell.

Increased Safety Focus

YAMPO staff suggested that the Cross Keys Corridor study include the following safety-specific recommendations:

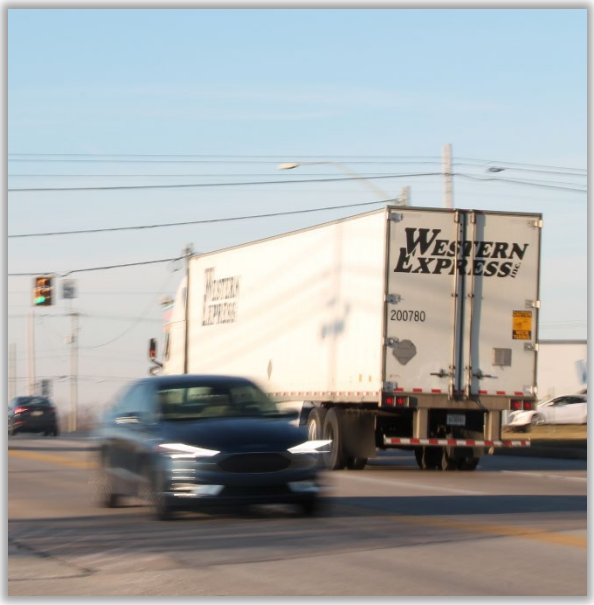
- Speed studies in the study area to help slow people down on both PA 94 and US 30
- Specific strategies at the locations where fatal crashes have occurred.
- Consider shoulder improvements for Amish horse and buggy traffic.

Corridor Issue Identification

Based on the data collected from research, the field view, public survey, and discussions with the advisory committee, the following overarching issues were identified along the corridor:

Speed Management

A common concern raised by Advisory Committee members and the public was motorists traveling at high speeds along the PA 94 corridor. While the posted speed limit of the corridor is 45 MPH, the Advisory Committee and public felt that speeds along the corridor are much higher than the posted speed limit. These high travel speeds have resulted in safety concerns, as 58 percent of all crashes (2018-22) occurring along the corridor were caused by high travel speeds or related behaviors (driving too fast for conditions, tailgating, speeding, etc.). These crashes appear under different collision types, including rear end, angle, and hit fixed object crashes. Further investigation into travel speeds along the study corridor should occur and, if speed issues are found/posted speed limit changes are warranted, then strategies should be developed to alleviate these issues. These strategies had a decent level of support from the community, with 57 percent of the public survey respondents in support of implementing speed management strategies along the corridor.



Corridor Congestion

Another common concern included congestion along the PA 94 corridor, particularly centered around the main PA 94 & US 30 intersection and areas south. During the project field view, congestion was observed at the PA 94 & US 30 intersection, with queues reaching the Sheetz/McDonalds/Burger King access driveway and, at points, further north near Caplan Court. In addition to field view observations and travel time reliability data analysis results, stakeholders and the public verified these concerns through the stakeholder interviews and public survey. With development being proposed or under construction along the corridor, additional traffic is expected in the area. Further study/monitoring of the PA 94 and US 30 corridors is needed to fully determine capacity and demand, and may include opportunities to study potential widening of the PA 94 corridor (as part of development transportation impact studies or independent studies).

Intersection Improvements

Investigation along the study corridor revealed potential safety concerns at some of the corridor's key intersections. Review of the reportable crash data revealed the following intersections had a crash history involving rear end crashes due to vehicles slowing down to turn into side streets:

- PA 94 & Gun Club Road
- PA 94 & Cedar Road
- PA 94 & 700 Road
- PA 94 & Municipal Road

In addition, the following intersections were discussed as needing operational improvements to increase safety and reliability along the corridor:

- PA 94 & US 30: Signal upgrades and timing revisions were reviewed to improve operations.
- PA 94 & Berlin Road/Pine Run Road: Opportunities to improve safety include realigning the Berlin Road/Pine Run Road to remove the offset between the roads.
- PA 94 & Red Hill Road: Restriping the gore area at the Red Hill Road approach to PA 94 designed to restrict to right-in/right-out movements and better highlight restricted movements would help to improve safety at the intersection.

The public survey revealed that the public was in favor of intersection improvements along the corridor, with 58 percent indicating they supported traffic control improvements that would help address challenging turn movements from side streets, including better lighting and signal improvements.

Access Management

The main Cross Keys intersection of PA 94 and US 30 has several access driveways into nearby commercial establishments. This concern was recognized by the Advisory Committee, local stakeholders, and the public. Most notably, the intersection of PA 94 with the Sheetz/ McDonalds/Burger King access driveway was found to have significant access management, operational, and safety concerns as a result of long queues from the PA 94 & US 30 intersection. Queuing along PA 94 either blocks the driveway or restricts sight distance of motorists turning out of the access driveway turning vehicles, leading to safety concerns. The results of the public survey reveal community support for access management strategies, with 54 percent of respondents indicating their support.

Multimodal Access/Transportation Enhancements

In addition to improving vehicle connections along the study corridor, attention should also be placed on improving pedestrian and transit connections at key locations, notably at the rabbittransit bus stop on Billerbeck Street near Golden Lane. This stop is located in an area with limited sidewalk connections. The public and several stakeholders indicated a desire to explore opportunities that improve pedestrian access and transit connections surrounding the US 30 & Lincoln Street intersection.

Study Recommendations

Based on the findings from the study's data analyses, field view, stakeholder/public engagement, and Advisory Committee consultations, a range of recommendations were developed for both specific intersections along the corridor and at a corridor wide scale for PA 94 and US 30. Recommendations were tailored to address transportation issues and operational/safety concerns throughout the study area.

The study's recommendations were developed to provide short-term (0-2 years), mid-term (3-5 years), and long-term (5+ years) options and are detailed in the following tables. Each recommendation includes the following information:

- **Description**: Brief description of the recommendation.
- **Lead Entity**: The lead entity responsible for advancing the recommendation.
- **Estimated Cost:** High level cost estimates. Note that these estimates are to be considered as planning level and are not detailed engineering cost estimates.
- **Time Frame**: General timeframe to complete the recommendation.
- **Category**: The type of improvement for each recommendation.
    - Traffic Safety – Addressing hotspots with excess crashes based on Highway Safety Manual (HSM) analyses and reportable crash data.
    - Traffic Operations – Including vehicle navigation aids, signage, signal timings, etc.
    - Transportation Enhancements – Including multimodal improvements such as pedestrian and transit improvements.
    - Planning and Administration - Coordination of planning efforts throughout the study area along PA 94 and US 30.
- **Issues/Concerns**: Summary of the issues and concerns identified at each location or throughout the PA 94 and US 30 corridors.
- **Recommendation Details**: Details on how the recommendation will be accomplished, including location, lead entity, and key partners.
- **Implementation**: Implementation strategy steps including key considerations, support partners, and potential funding sources.

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
1	Turn Lane Warrants – PA94 Corridor (North)	Conduct left and right turn lane warrant analyses along the PA 94 approaches to determine feasibility and required lengths.	Hamilton Township	N/A	0-2 years

- **Category:** Transportation Safety
- **Issues/Concerns:** Crash history at the following intersections indicates a trend of rear-end crashes from vehicles slowing down along PA 94 to turn onto intersection side roads. The construction of turn lanes along PA 94 (if warranted) would provide separation between turning vehicles and through vehicles, eliminating conflict areas and reducing the number of rear end crashes.
- **Recommendation Details:** PennDOT will conduct the turn lane warrant analyses on behalf of the municipality. If any warrants are met, the municipality should proceed with Recommendation 2 with assistance from ACTPO and PennDOT. The analyses should include the following intersections in Hamilton Township: PA 94 & Green Ridge Road (T-577), PA 94 & 700 Road (T-523), PA 94 & Cedar Road (T-575), PA 94 & Gun Club Road (T-493), PA 94 & Berlin Road/Pine Run Road (SR 1019)
- **Implementation:**
  - **Considerations:** Hamilton Township is responsible for making a formal request to PennDOT to conduct the turn lane warrant analyses.
  - **Support Partners:** PennDOT
  - **Potential Funding Sources:** N/A

2	Turn Lane Construction – PA 94 Corridor (North)	If left and/or right turn lane warrants are met along the PA 94 approaches, construct turn lanes to separate traffic to reduce congestion and improve safety.	PennDOT	$500,000 per location	3-5 years

- **Category:** Transportation Safety
- **Issues/Concerns:** Crash history at the following intersections indicates a trend of rear-end crashes from vehicles slowing down along PA 94 to turn onto intersection side roads. The construction of turn lanes along PA 94 would provide separation between turning vehicles and through vehicles, eliminating conflict areas and reducing the number of rear end crashes.
- **Recommendation Details:** If the turn lane warrant analyses outlined in recommendation 1 indicate warrant(s) are met for any PA 94 approaches at the following intersections, then Hamilton Township should coordinate with PennDOT and ACTPO to construct turn lanes to separate traffic and reduce the number of rear end crashes at any of the following locations: PA 94 & Green Ridge Road (T-577), PA 94 & 700 Road (T-523), PA 94 & Cedar Road (T-575), PA 94 & Gun Club Road (T-493), PA 94 & Berlin Road/Pine Run Road (SR 1019)
- **Implementation:**
  - **Considerations:** If multiple locations meet the warrants for turn lane(s), the intersection of PA 94 & Gun Club Road (T-493) should be considered a priority location as it has experienced the most rear end crashes of all locations.
  - **Support Partners:** Hamilton Township, ACTPO
  - **Potential Funding Sources:** NHPP, STP, Rural Surface Transportation Grant Program, State 581, ARLE

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
3	Intersection Monitoring – PA 94 & Berlin Road/Pine Run Road	Monitor changes at the PA 94 & Berlin Road/Pine Run Road (SR 1019) intersection as improvements/changes are made at neighboring intersections as part of future TIS developments.	Hamilton Township	N/A	3-5 years

- **Category:** Planning & Administration
- **Issues/Concerns:** Potential expansion of Conewago Valley School District (CVSD) facilities along Berlin Road as well as development at neighboring intersections would increase traffic. The intersection indicates a trend of reportable crashes and angle crashes.
- **Recommendation Details:** As development occurs, monitor the development activity and reports of traffic incidents at the intersection.
- **Implementation:**
  - **Considerations:** Support from ACTPO and PennDOT in monitoring issues at the Berlin Road/Pine Run Road intersection. This could include review of ongoing HPMS traffic counts and information from PennDOT's crash data system and assessing land use changes.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** N/A

4	PA 94 Corridor Monitoring (North)	As development occurs along the PA 94 corridor, monitor and evaluate two way left turn lane (TWLTL) needs along the corridor.	Hamilton Township	N/A	5+ years

- **Category:** Planning & Administration
- **Issues/Concerns:** Crash history at the following intersections indicates a trend of rear-end crashes from vehicles slowing down along PA 94 to turn onto intersection side roads. Additionally, many residences are located along PA 94 between the intersections.
- **Recommendation Details:** As a long-term solution, an effort should be made to review & consider construction of a two way left-turn lane (TWLTL) to address all turning movements at and between the following intersections: PA 94 & Green Ridge Road (T-577), PA 94 & 700 Road (T-523), PA 94 & Cedar Road (T-575), PA 94 & Gun Club Road (T-493).
- **Implementation:**
  - **Considerations:** As development occurs along the corridor, the idea of a TWLTL along the corridor to address safety/operational issues should be reviewed.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** N/A

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
5	Intersection Improvements – PA 94 & Berlin Road/Pine Run Road	Re-examine potential realignment opportunities to remove offset between Berlin Road and Pine Run Road.	ACTPO	N/A	5+ years

- **Category:** Planning & Administration
- **Issues/Concerns:** Berlin Road and Pine Run Road share the same state route designation (SR 1019), but both roadways are offset from each other at their intersection with PA 94. This leads to disjointed movements for vehicles traveling along SR 1019, creating additional turning movements.
- **Recommendation Details:** As development occurs along the corridor, this offset intersection should be considered for improvements to address the offset approaches as part of developer improvements. The realignment of this intersection was previously programmed on the ACTPO TIP; however, the project has since been removed.
- **Implementation:**
  - **Considerations:** Nearby developers should include this intersection as a study location as development occurs. During stakeholder outreach, CVSD indicated the intersection would be analyzed during potential development review.
  - **Support Partners:** Hamilton Township, PennDOT, CVSD
  - **Potential Funding Sources:** NHPP, STP, HSIP, Rural Surface Transportation Grant Program, State 581 Funds

6	Pavement Markings – PA 94 & Sheetz/ McDonald's/Burger King Access Drive	Install "Do Not Block Intersection" pavement markings to keep the intersection of PA 94 & Sheetz/McDonald's/Burger King Access Driveway clear for entering/exiting movements.	PennDOT	$3,000	0-2 years

- **Category:** Transportation Operations
- **Issues/Concerns:** Due to the intersection's proximity to the intersection of PA 94 & US 30, vehicle queues along PA 94 extend from US 30 to points north of the access driveway intersection. The vehicle queues block the access driveway, either completely blocking access into/out of the driveway or severely limiting sight distance for exiting vehicles.
- **Recommendation Details:** The "Do Not Block Intersection" pavement markings, when installed, are intended to prevent PA 94 queued vehicles from blocking the access driveway, allowing vehicles to exit onto PA 94.
- **Implementation:**
  - **Considerations:** This recommendation is intended to be a short-term solution while long-term strategies to address the intersection's proximity to US 30 and queuing concerns.
  - **Support Partners:** PennDOT
  - **Potential Funding Sources:** State 581, ARLE

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
7	Municipal Coordination – Commercial Driveway	Coordinate with commercial businesses and Dollar General/New Oxford Logistics to redirect access driveway to existing Dollar General/New Oxford Logistics driveway at Caplan Court.	Hamilton Township	$700,000	5+ years

- **Category:** Planning & Administration
- **Issues/Concerns:** Traffic into and out of the access road to Sheetz, Burger King, and McDonald's causes traffic delays in accessing PA 94 and pedestrian safety concerns due to speeding vehicles along the access drive. With access to the existing Dollar General from Caplan Court and New Oxford Logistics' potential development at the end of Caplan Court, there is an opportunity to redirect traffic behind the Dollar General and onto Caplan Court and close the current access road/driveway.
- **Recommendation Details:** This recommendation would involve coordination with local businesses that use the current access driveway and studying potential designs/alignments to re-route this access drive to Caplan Court. The realignment would result in the closure of the current access point south of Caplan Court. Manmade wetlands in the area could require additional mitigation measures as part of design/construction.
- **Implementation:**
  - **Considerations:** New Oxford Logistics' request for a special exception from the Hamilton Township Zoning Hearing Board will reconvene in October 2024.The details of this recommendation are dependent on the outcome of the special exception request. If a special exception is not granted, development of the property will still be subject to existing commercial zoning. The existing zoning permits uses like those currently located in this portion of Hamilton Township.
  - **Support Partners:** ACTPO, PennDOT, McDonald's, Burger King, Sheetz, Dollar General
  - **Potential Funding Sources:** Rural Surface Transportation Grant Program, RAISE Grant Program, DCED Business in Our Sites, MTF-DCED, MTF-PennDOT, Pennsylvania Infrastructure Bank, Municipal Operating Budgets

8	PA 94 Corridor Monitoring	As development occurs along the PA 94 corridor, monitor and evaluate capacity and demand along the corridor to determine if additional through lanes are necessary.	Berwick Township Hamilton Township Oxford Township	N/A	5+ years

- **Category:** Planning & Administration
- **Issues/Concerns:** Proposed development along the PA 94 corridor as well as proposed development, particularly from warehouses, will impact traffic flow throughout the corridor. Evaluating capacity will determine the necessity of additional through lanes along portions or along the entirety of the corridor.
- **Recommendation Details:** The municipalities will consult with ACTPO and PennDOT to monitor development activity throughout the corridor and any proposed transportation impact.
- **Implementation:**
  - **Considerations:** Support from ACTPO and PennDOT in monitoring and evaluating capacity. This could include review of ongoing HPMS traffic counts, information from PennDOT's crash data system, developer TIS, and assessing land use changes.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** N/A

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
9	Signal Improvements – PA 94 & US 30 Intersection	Implement Dynamic Max green timing at the intersection of PA 94 & US 30.	Berwick Township Hamilton Township Oxford Township	$6,000	0-2 years

- **Category:** Transportation Operations
- **Issues/Concerns:** Conversations with municipalities and stakeholders have identified queuing issues at all four intersection approaches, with the need to improve signal timing to improve intersection capacity. An opportunity to improve intersection capacity would be the implementation of Dynamic Max green timing, which allows the controller to increase the maximum green time for an approach/movement in intervals if additional queuing is present.
- **Recommendation Details:** Implement Dynamic Max green timing for intersection movements to provide volume responsive timing to improve operations and help alleviate queuing. This can be done as a short-term, low-cost improvement while other improvements are being considered. A controller upgrade would be recommended for this improvement. This work could be performed by the current signal maintenance operator once the permit plan is revised.
- **Implementation:**
  - **Considerations:** While Dynamic Max green timing can be implemented with the current controller, it is recommended that a controller upgrade be installed to maximize efficiency.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** Carbon Reduction Program, ARLE, Green Light Go

10	Signal Improvements – PA 94 & US 30 Intersection	Perform 24-hour traffic counts at the US 30 & PA 94 intersection and analyze to determine if max green time adjustments are required and identify if running multiple max green times are necessary.	Berwick Township Hamilton Township Oxford Township	$15,000	0-2 years

- **Category:** Transportation Operations
- **Issues/Concerns:** Conversations with municipalities and stakeholders have identified queuing issues at all four intersection approaches, with the need to improve signal timing to improve intersection capacity. An opportunity to improve intersection capacity includes studying the intersection to determine if maximum green time adjustments are necessary.
- **Recommendation Details:** Perform 24-hour traffic counts at the intersection and analyze the intersection to determine if max green time adjustments are required and identify if running multiple max green times are necessary throughout the day to reflect demand changes.
- **Implementation:**
  - **Considerations:** This recommendation can be implemented either with or without Recommendation 9.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** Municipal Operating Budgets

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
11	Signal Improvements – PA 94 & US 30 Intersection	Analyze and review adjacent signalized intersections at US 30 & Lincoln Street and PA 94 & Brickyard Road to determine if signal coordination is necessary at the US 30 & PA 94 intersection.	Berwick Township Hamilton Township Oxford Township	$10,000	0-2 years

- **Category:** Transportation Operations
- **Issues/Concerns:** Conversations with municipalities and stakeholders have identified queuing issues at all four intersection approaches, with the need to improve signal timing to improve intersection capacity. An opportunity to improve intersection capacity involves studying the adjacent intersections to determine if signal coordination is necessary to address platooning vehicles.
- **Recommendation Details:** Review and study the signalized intersections of US 30 & Lincoln Street and PA 94 & Brickyard Road to determine if platooning vehicles arriving from these intersections lead to queuing issues at the PA 94 & US 30 intersection.
- **Implementation:**
  - **Considerations:** This recommendation should take place after the signal at the PA 94 & Brickyard Road intersection is installed and begins operation, which allows motorists to acclimate to the new signal.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** Carbon Reduction Program, ARLE, Green Light Go, Pennsylvania Infrastructure Bank

12	Turn Lane Warrants – PA 94 & US 30 Intersection	Conduct left- and right- turn lane warrant analyses along all four approaches of the US 30 & PA 94 intersection to determine if turn lanes require lengthening.	Berwick Township Hamilton Township Oxford Township	N/A	0-2 years

- **Category:** Transportation Safety
- **Issues/Concerns:** Conversations with the municipalities and stakeholders identified queuing issues at all four intersection approaches, with insufficient storage length for the turn lanes potentially part of the issue. Turn lane analyses should be conducted for all four intersection approaches to ensure sufficient storage length is present for existing turn lanes, and if a need for additional turn lanes is warranted.
- **Recommendation Details:** PennDOT will conduct the turn lane warrant analyses on behalf of the municipalities. If any warrants are met, the municipalities should proceed with Recommendation 16 with assistance from ACTPO and PennDOT.
- **Implementation:**
  - **Considerations:** The municipalities are responsible for making the formal request to PennDOT to conduct the turn lane warrant analyses. If any new development is proposed in the area, any turn lane warrants should be reviewed as part of the traffic impact study (TIS) process.
  - **Support Partners:** PennDOT
  - **Potential Funding Sources:** N/A

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
13	Crosswalk Improvements – PA 94 & US 30 Intersection	Install high visibility crosswalk markings at all pedestrian crossings at the intersection of US 30 & PA 94.	PennDOT	$5,000	0-2 years

- **Category:** Transportation Enhancements
- **Issues/Concerns:** The intersection has crosswalks across all four approaches; however, the markings are worn/faded and difficult to see.
- **Recommendation Details:** The crosswalks should be repainted with high visibility crosswalk markings to improve pedestrian safety and create stronger, longer-lasting pavement markings.
- **Implementation:**
  - **Considerations:**
  - **Support Partners:** PennDOT
  - **Potential Funding Sources:** Transportation Alternatives Set-Aside, ARLE

14	Signal Improvements – PA 94 & US 30 Intersection	Consider upgrading existing infrastructure detection at the US 30 & PA 94 intersection to advanced video or radar.	Berwick Township Hamilton Township Oxford Township	$15,000	3-5 years

- **Category:** Transportation Operations
- **Issues/Concerns:** Conversations with municipalities and stakeholders have identified queuing issues at all four intersection approaches, with the need to improve signal timing to improve intersection capacity. An opportunity to improve intersection capacity would involve upgrading the detection at the intersection from loop detectors to advanced video or radar detection to more accurately detect vehicles and improve efficiency.
- **Recommendation Details:** Consider upgrading existing infrastructure detection to advanced video or radar. Due to the signal supports being mounted on span wire, detectors would be placed on existing strain poles or strain pole mounted luminaires and angled towards approaches, potentially leading to occlusion whereby periodic false or missed calls may be experienced.
- **Implementation:**
  - **Considerations:** Consider the installation of detectors on either pole mounted luminaires or on mast arms as indicated in Recommendation 15.
  - **Support Partners:** PennDOT, ACTPO
  - **Potential Funding Sources:** Carbon Reduction Program, ARLE, Green Light Go, Pennsylvania Infrastructure Bank

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
15	Signal Improvements – PA 94 & US 30 Intersection	Consider a full upgrade of the US 30 & PA 94 intersection signals from strain pole/span wire to mast arms.	Berwick Township Hamilton Township Oxford Township	$100,000	3-5 years

- **Category:** Transportation Operations
- **Issues/Concerns:** Conversations with municipalities and stakeholders have identified queuing issues at all four intersection approaches, with the need to improve signal timing to improve intersection capacity. An opportunity to improve intersection efficiency at the intersection would involve upgrading the intersection signals from strain pole/span wire to mast arms.
- **Recommendation Details:** A full upgrade of the signal from strain pole/span wire to mast arms would allow for advanced video/radar detection placement in preferred locations to minimize/eliminate occlusion concerns and improve signal head visibility.
- **Implementation:**
  - **Considerations:** The benefits of converting to mast arms also include sturdy support mounts for the signal heads, preventing movement due to high winds or other weather/traffic incidents. Improvements and upgrades should also consider back-up energy generation sources (e.g., batteries, generators) as some past crashes at the intersection have resulted in power outages/disruptions. An back-up energy generation source would allow traffic to continue flowing while any future outages are addressed.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** Carbon Reduction Program, ARLE, Green Light Go, Pennsylvania Infrastructure Bank

16	Turn Lane Construction – PA 94 & US 30 Intersection	If any turn lane lengthening warrants are met along the four approaches to the US 30 & PA 94 intersection, lengthen turn lanes to reduce congestion and improve safety.	PennDOT	$100,000	3-5 years

- **Category:** Transportation Safety
- **Issues/Concerns:** Conversations with the municipalities and stakeholders identified queuing issues at all four intersection approaches, with insufficient storage length for the turn lanes potentially part of the issue. Turn lane analyses should be conducted for all four intersection approaches to ensure sufficient storage length is present for existing turn lanes, and if additional turn lanes are warranted.
- **Recommendation Details:** If the turn lane warrant analyses outlined in Recommendation 12 indicate warrant(s) are met for any approaches, then the municipalities and PennDOT should construct/lengthen the appropriate turn lanes.
- **Implementation:**
  - **Considerations:** There is a potential need to acquire additional ROW to construct/widen turn lanes at the intersection. New Oxford Business Park Associates, LLC (NOBPA) reported that ROW has been offered to Hamilton Township as part of the proposed New Oxford Logistics development.
  - **Support Partners:** ACTPO, Study Area Municipalities
  - **Potential Funding Sources:** NHPP, STP, Rural Surface Transportation Program, State 581, ARLE

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
17	Intersection Monitoring – PA 94 & US 30	As development occurs along the PA 94 and US 30 corridor, monitor and evaluate capacity and demand along the corridor to determine if additional through lanes are necessary at the intersection for the northbound, southbound, and westbound approaches.	Berwick Township Hamilton Township Oxford Township	$4,000,000	5+ years

- **Category:** Planning & Administration
- **Issues/Concerns:** Projected development throughout PA 94 & US 30 corridors and to the south in the Hanover area will increase traffic. The preceding recommendations may not fully mitigate traffic issues.
- **Recommendation Details:** As development occurs, monitor the development activity and reports of traffic incidents at the intersection.
- **Implementation:**
  - **Considerations:** Support from ACTPO and PennDOT in monitoring the intersection which could include review of ongoing HPMS traffic counts and information from PennDOT's crash data system and assessing land use changes.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** NHPP, STP, Rural Surface Transportation Grant Program, State 581, PROTECT

18	Intersection Monitoring – PA 94 & US 30	If the planned New Oxford Logistics development does not occur, review the planned improvements from the developer's traffic study to determine what is necessary to improve for future developments, and monitor/evaluate the intersection to determine if the planned improvements need to be implemented prior to any new development.	ACTPO Berwick Township Hamilton Township Oxford Township	N/A	5+ years

- **Category:** Planning & Administration
- **Issues/Concerns:** If planned projected developments adjacent to the intersection fall through, then planned improvements will either fall to the next developer or could be initiated by ACTPO and/or the municipalities as part of the TIP development process if conditions warrant.
- **Recommendation Details:** Review the planned developer improvements at the intersection to determine what is necessary to improve for future developments.
- **Implementation:**
  - **Considerations:** Support from ACTPO and PennDOT in monitoring the intersections which could include review of ongoing HPMS traffic counts and information from PennDOT's crash data system and assessing land use changes.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** N/A

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
19	Intersection Monitoring – PA 94 & Village Drive/ Enterprise Drive	Monitor the intersections of PA 94 & Village Drive/Enterprise Drive and PA 94 & Adams Avenue/Little Avenue based on US 30 & PA 94 intersection improvements.	Oxford Township	N/A	0-2 years

- **Category:** Planning & Administration
- **Issues/Concerns:** Projected development throughout the PA 94 & US 30 corridors and to the south in the Hanover area will increase traffic. The preceding recommendations may not fully mitigate traffic issues.
- **Recommendation Details:** Monitor the impacts of the PA 94 & US 30 intersection improvements on intersection operations.
- **Implementation:**
  - **Considerations:** Support from ACTPO and PennDOT in monitoring the intersections which could include review of ongoing HPMS traffic counts and information from PennDOT's crash data system and assessing land use changes.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** N/A

20	Transit Improvements – Cross Keys Village	Review feasibility for protected bus stops along Village Drive in the general area for GHC route.	rabbittransit	N/A	0-2 years

- **Category:** Transportation Enhancements
- **Issues/Concerns:** rabbittransit operates a timed, sheltered bus stop at Cross Keys Village as part of its Gettysburg-Hanover Connector. There are also three additional rabbitransit bus stops in the study area in the vicinity of New Oxford Shopping Center, which are not sheltered. Connected access to bus stops is desirable for rabbittransit to provide safe secure pedestrian and multimodal connections.
- **Recommendation Details:** Determine the feasibly of installing protected bus stops in the study area.
- **Implementation:**
  - **Considerations:** Both rabbittransit and Cross Keys Village report low usage of the current bus stop at Cross Keys Village.
  - **Support Partners:** PennDOT, Study Area Municipalities
  - **Potential Funding Sources:** MTF-DCED, MTF-PennDOT, TASA

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
21	Restriping – PA 94 & Red Hill Road (T-495) Intersection	Re-stripe the gore area at the Red Hill Road (T-495) approach to PA 94 designed to restrict to right-in/right-out movements and better highlight restricted movements.	PennDOT	$2,000	0-2 years

- **Category:** Transportation Operations
- **Issues/Concerns:** The intersection is currently signed for no left turns along all approaches, with the Red Hill Road (T-495) approach having a striped-out gore area to highlight the turn restriction. This gore area; however, is in poor condition with faded pavement markings, and it was observed during a field view that vehicles continue to make left turns despite the restriction.
- **Recommendation Details:** Gore markings should be re-striped based on existing markings.
- **Implementation:**
  - **Considerations:** The intersection should continue to be monitored to see if further safety improvements are necessary to further restrict left-turn movements.
  - **Support Partners:** Oxford Township
  - **Potential Funding Sources:** Maintenance funds

22	Intersection Monitoring – PA 94 & Red Hill Road	Re-evaluate PA 94 & Red Hill Road (T-495) intersection movements once the traffic signal at the PA 94 & Brickyard Road intersection has been installed to determine if additional improvements are necessary.	Oxford Township	$10,000	3-5 years

- **Category:** Planning & Administration
- **Issues/Concerns:** Projected development throughout the PA 94 & US 30 corridors and to the south in the Hanover area will increase traffic. The new signal at the PA 94 & Brickyard Road intersection should mitigate intersection issues at the PA 94 & Red Hill Road intersection.
- **Recommendation Details:** Monitor the impacts of the new signal at the PA 94 & Brickyard Road intersection on the PA 94 & Red Hill Road intersection operations.
- **Implementation:**
  - **Considerations:** Support from ACTPO and PennDOT in monitoring the intersections which could include review of ongoing HPMS traffic counts and information from PennDOT's crash data system and assessing land use changes.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** Municipal operating budgets

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
23	Signing Installation Near Tropical Treat	Consider the installation of a warning sign and beacon along PA 94 north of Tropical Treat to alert drivers of upcoming turns coming in/out of the driveways.	Berwick Township Oxford Township	$50,000	0-2 years

- **Category:** Transportation Operations
- **Issues/Concerns:** The intersection of PA 94 & the Tropical Treat driveways has a crash history (12 crashes between 2018-2022) due to vehicles entering/exiting the driveways. A potential reason for these crashes is due to perceived sight distance concerns along PA 94 north of Tropical Treat, where a vertical curve and high travel speeds leave drivers unable to adequately see vehicles entering/exiting the driveways.
- **Recommendation Details:** A Watch for Turns warning sign (W11-107) (30"x30") and accompanying beacon should be considered for installation along PA 94 north of Tropical Treat to alert drivers of upcoming turns coming in/out of the driveways. The sign and beacon should be installed along southbound PA 94 just south of Shank Road at the crest of the vertical curve to give additional time for vehicles to react.
- **Implementation:**
  - **Considerations:** A sight distance study should also be conducted by the municipalities to ensure that sight distance issues are present.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** ARLE, State 581

24	Intersection Monitoring – PA 94 & Tropical Treat Driveway	Evaluate turning movement controls in and out of Tropical Treat.	Berwick Township Oxford Township	$10,000	3-5 years

- **Category:** Planning & Administration
- **Issues/Concerns:** The intersection of PA 94 & the Tropical Treat driveways has a crash history (12 crashes between 2018-2022) due to vehicles entering/exiting the driveways. A potential reason for these crashes is due to perceived sight distance concerns along PA 94 north of Tropical Treat, where a vertical curve and high travel speeds leave drivers unable to adequately see vehicles entering/exiting the driveways.
- **Recommendation Details:** Monitor any changes/impacts of the warning sign and beacon detailed in Recommendation 23 on future traffic incidents along PA 94 at the Tropical Treat driveways.
- **Implementation:**
  - **Considerations:** Support from ACTPO and PennDOT in monitoring the impact of the warning sign and beacon at Tropical Treat. This could include review of ongoing HPMS traffic counts and information from PennDOT's crash data system
  - **Support Partners:** ACTPO, PennDOT, Tropical Treat
  - **Potential Funding Sources:** Municipal operating budgets

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
25	Turn Restriction Study – PA 94 & Municipal Road (T-509)	Conduct a turn restriction study at the intersection of PA 94 & Municipal Road (T-509) to determine if left turns into and out from Municipal Road can be restricted, pushing access to Green Springs Road.	Berwick Township	N/A	0-2 years

- **Category:** Transportation Safety
- **Issues/Concerns:** Berwick Township expressed concern with safety issues at the intersection of PA 94 & Municipal Road (T-509) because of road grade and poor sight distance. The concerns involve southbound PA 94 vehicles turning left onto Municipal Road being unable to see over the crest of a vertical curve along PA 94, leading to crashes. Over the most recent five-year period (2018-2022) there were five total crashes, of which three were angle crashes resulting from vehicles turning onto Municipal Road. Due to the proximity of Green Springs Road, an alternate route to Municipal Road, there is an opportunity to restrict movements to Municipal Road leading to safety improvements.
- **Recommendation Details:** PennDOT will conduct the turn restriction study on behalf of the municipalities. If any restrictions are met, then the municipalities and PennDOT should work to restrict appropriate movements.
- **Implementation:**
  - **Considerations:** Berwick Township would be responsible for making a formal request to PennDOT to conduct the turn restriction study.
  - **Support Partners:** PennDOT
  - **Potential Funding Sources:** N/A

26	Turn Lane Warrant – PA 94 & Municipal Road (T-509)	If turn restrictions are not warranted at the PA 94 & Municipal Road (T-509) intersection, conduct southbound left turn lane warrant analyses at the intersection to determine feasibility and required lengths.	Berwick Township	N/A	3-5 years

- **Category:** Transportation Safety
- **Issues/Concerns:** Berwick Township expressed concerns regarding safety issues at the intersection of PA 94 & Municipal Road (T-509) because of road grade and poor sight distance. The concerns involve southbound PA 94 vehicles turning left onto Municipal Road being unable to see over the crest of a vertical curve along PA 94, leading to crashes. Over the most recent five-year period (2018-2022) there were five total crashes, of which three were angle crashes resulting from vehicles turning onto Municipal Road. Another opportunity to improve safety at the intersection would be the construction of turn lane(s) to separate traffic and create a storage pocket for turning vehicles.
- **Recommendation Details:** PennDOT will conduct the turn lane warrant analyses on behalf of the municipalities if a formal request is received. If any warrants are met, then the municipalities and PennDOT should work to construct appropriate turn lane(s).
- **Implementation:**
  - **Considerations:** Berwick Township is responsible for making a formal request to PennDOT to conduct the turn lane warrant study.
  - **Support Partners:** PennDOT
  - **Potential Funding Sources:** NHPP, STP, Rural Surface Transportation Grant Program, State 581, ARLE

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
27	Intersection Monitoring – PA 94 & Municipal Road	Re-evaluate the intersection of PA 94 & Municipal Road (T-509) after the PA 94 & Hanover Street intersection improvements have been completed as part of the Cambrian Hills Commercial Site to determine if additional improvements are necessary.	Berwick Township	N/A	3-5 years

- **Category:** Planning & Administration
- **Issues/Concerns:** Berwick Township expressed concern regarding safety issues at the intersection of PA 94 & Municipal Road (T-509) because of road grade and poor sight distance. The concerns involve southbound PA 94 vehicles turning left onto Municipal Road being unable to see over the crest of a vertical curve along PA 94, leading to crashes.
- **Recommendation Details:** Monitor the impact of Hanover Street intersection improvements associated with the Cambrian Hills commercial development on the PA 94 & Municipal Road intersection.
- **Implementation:**
  - **Considerations:** Support from ACTPO and PennDOT in reevaluating the PA 94 & Municipal Road intersection after Hanover Street intersection improvements are operational. This could include review of ongoing HPMS traffic counts and information from PennDOT's crash data system and assessing land use changes.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** N/A

28	Intersection Monitoring – PA 94 & Appler Road/ Green Springs Road	Monitor the intersection of PA 94 & Appler Road (SR 1015)/Green Springs Road (SR 2033) based on PA 94 & Hanover Street signalization to determine how traffic flow changes.	Berwick Township Oxford Township	N/A	0-2 years

- **Category:** Planning & Administration
- **Issues/Concerns:** Berwick Township and Oxford Township identified queuing issues along the Appler Road and Green Springs Road approaches to PA 94 because of vehicles making left turns onto PA 94. Hanover Street signalization could impact traffic flow at the PA 94 & Appler Road (SR 1015)/Green Springs Road (SR 2033) intersection.
- **Recommendation Details:** Monitor the impact of Hanover Street signalization on the PA 94 & Appler Road (SR 1015)/Green Springs Road (SR 2033) intersection.
- **Implementation:**
  - **Considerations:** Support from ACTPO and PennDOT in monitoring traffic flow changes which could include review of ongoing HPMS traffic counts.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** N/A

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
29	Turn Lane Warrants – PA 94 & Appler Road/Green Springs Road	Conduct left and right-turn lane warrant analyses along the Appler Road & Green Springs Road approaches to determine feasibility and required lengths.	Berwick Township Oxford Township	N/A	0-2 years

- **Category:** Transportation Safety
- **Issues/Concerns:** Berwick Township and Oxford Township identified queuing issues along the Appler Road and Green Springs Road approaches to PA 94 because of vehicles making left turns onto PA 94. To address this issue, turn lane warrants should be conducted to see if left-turn lanes are needed at these approaches. The construction of turn lanes would separate out turning vehicles, creating additional storage area and allowing for other movements to proceed.
- **Recommendation Details:** PennDOT will conduct the turn lane warrant analyses on behalf of the municipalities. If any warrants are met, then the municipalities proceed with Recommendation 30 with assistance from ACTPO and PennDOT.
- **Implementation:**
  - **Considerations:** Berwick Township and Oxford Township are responsible for making a formal request to PennDOT to conduct the turn lane warrant study.
  - **Support Partners:** PennDOT
  - **Potential Funding Sources:** N/A

30	Turn Lane Construction – PA 94 & Appler Road/ Green Springs Road	If left and/or right turn lane warrants are met along the Appler Road & Green Springs Road approaches to PA 94, construct turn lanes to separate traffic to reduce congestion and improve safety.	PennDOT	$500,000	5+ years

- **Category:** Transportation Safety
- **Issues/Concerns:** Berwick Township and Oxford Township identified queuing issues along the Appler Road and Green Springs Road approaches to PA 94 because of vehicles making left turns onto PA 94. To address this issue, turn lane warrants should be conducted to see if left-turn lanes are needed at these approaches. The construction of turn lanes would separate out turning vehicles, creating additional storage area and allowing for other movements to proceed.
- **Recommendation Details:** If the turn lane warrant analysis outlined in Recommendation 29 indicates warrant(s) are met for either approach, then Berwick and Oxford Townships should work with ACTPO and PennDOT to construct turn lanes to separate traffic and reduce the number of rear end crashes.
- **Implementation:**
  - **Considerations:** There is a potential need to acquire additional ROW to construct/widen turn lanes at the intersection.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** NHPP, STP, Rural Surface Transportation Grant Program, State 581, ARLE

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
31	Intersection Monitoring – PA 94 & Hanover Street	Monitor the intersection of PA 94 & Hanover Street (T-600) post-signalization to determine if any additional improvements are needed.	Oxford Township	N/A	0-2 years

- **Category:** Planning & Administration
- **Issues/Concerns:** Hanover Street intersection improvements including signalization are being implemented as part of the Cambrian Hills commercial development.
- **Recommendation Details:** Monitor the post-signalization impacts to identify additional improvements.
- **Implementation:**
  - **Considerations:** Monitoring support from ACTPO and PennDOT could include review of ongoing HPMS traffic counts and assessing land use changes.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** N/A

32	Intersection Monitoring – PA 94 & Hanover Street	If the planned Cambrian Hills Commercial Site development does not occur, review the planned improvements to determine what is necessary to improve for future developments, and monitor/evaluate the intersection to determine if the planned improvements need to be implemented prior to any new development.	ACTPO Berwick Township Oxford Township	$4,500,000	3-5 years

- **Category:** Planning & Administration
- **Issues/Concerns:** If planned projected developments adjacent to the intersection fall through, then planned improvements will either fall to the next developer or to the municipalities if conditions warrant.
- **Recommendation Details:** Review the planned developer improvements at the intersection to determine what is necessary to improve for future developments, consisting of the following:
  - Signalization of the intersection
  - Three southbound PA 94 lanes (dedicated left-turn only lane, a through lane, and a through/right turn lane)
  - Four northbound PA 94 lanes (a dedicated left-turn only lane, two through lanes, and a dedicated right-turn only lane)
  - Two eastbound Hanover Street lanes (a dedicated left-turn only lane and channelized right-turn lane)
  - Three westbound driving lanes (a dedicated left-turn only lane, a through lane, and a dedicated right-turn only lane)
- **Implementation:**
  - **Considerations:** Support from PennDOT in monitoring the intersections which could include review of ongoing HPMS traffic counts and information from PennDOT's crash data system and assessing land use changes. Cost estimate reflects total cost of all improvements listed above.
  - **Support Partners:** PennDOT
  - **Potential Funding Sources:** NHPP, STP, Rural Surface Transportation Grant Program, State 581, ARLE

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
33	Municipal Coordination – Hanover Street Connections	Coordinate between municipalities and businesses to develop more efficient driveway connections to Hanover Street.	Berwick Township Oxford Township	N/A	5+ years

- **Category:** Planning & Administration
- **Issues/Concerns:** Several businesses utilize separate driveways to access Hanover Street. Coordinating access points will improve traffic flow on Hanover Street and PA 94.
- **Recommendation Details:** As additional commercial and residential development occurs in the vicinity of the PA 94 & Hanover Street intersection, encourage municipal coordination to minimize access points on Hanover Street and PA 94.
- **Implementation:**
  - **Considerations:** Support from ACTPO and PennDOT in monitoring traffic flow changes which could include review of ongoing HPMS traffic counts.
  - **Support Partners:** ACTPO, PennDOT, Area Businesses
  - **Potential Resources:** LTAP Technical Assistance, PennDOT Connects

34	Transit Improvements – US 30 & Lincoln Street (T-702)	Evaluate the feasibility of improving pedestrian and transit connections at and surrounding US 30 & Lincoln Street (T-702) intersection.	rabbittransit	$40,000	0-2 years

- **Category:** Transportation Enhancements
- **Issues/Concerns:** rabbittransit operates fixed route transit in the study area as part of its Gettysburg-Hanover Connector. In addition to a time bus stop at Cross Keys Village there are three additional rabbittransit bus stops in the study area in the vicinity of New Oxford Shopping Center, particularly at the US 30 & Lincoln Street (T-702) intersection. Connected access to bus stops is desirable to provide safe secure pedestrian and multimodal connections.
- **Recommendation Details:** Assess opportunities to provide improved sidewalk connections and other walkability improvements to facilitate safe access to rabbittransit's Gettysburg-Hanover Connector and local businesses/shopping centers.
- **Implementation:**
  - **Considerations:** rabbittransit would need to work collaboratively with Hamilton Township and Oxford Township to improve pedestrian access to bus stops.
  - **Support Partners:** Hamilton Township, Oxford Township, ACTPO
  - **Potential Funding Sources:** MTF-DCED, MTF-PennDOT, Transportation Alternatives Set-Aside, Carbon Reduction Program

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
35	US 30 Expansion – US 30/Stanley Drive	Evaluate opportunities for widening US 30 to two full lanes between PA 94 and Stanley Drive, creating a uniform road layout.	ACTPO	$2,000,000	3-5 years

- **Category:** Planning & Administration
- **Issues/Concerns:** US 30 between PA 94 and Stanley Drive quickly shifts from two to one lanes to accommodate the pump station near Stanley Drive. Reckless driver behavior has been observed with motorists accelerating to pass slower moving traffic before the passing lane ends.
- **Recommendation Details:** Evaluate the feasibility of relocating the pump station, enabling the widening to two full lanes between PA 94 & Stanley Drive.
- **Implementation:**
  - **Considerations:** Consult with pump station owner to identify the feasibility and timeframe of relocating the pump station. Coordinate feasibility with PennDOT
  - **Support Partners:** Pump station owner, ACTPO, PennDOT
  - **Potential Funding Sources:** NHPP, STP, State 581

36	US 30 Corridor Monitoring	As development occurs within the area, monitor and evaluate TWLTL needs along the US 30 corridor.	Berwick Township Hamilton Township Oxford Township	N/A	5+ years

- **Category:** Planning & Administration
- **Issues/Concerns:** Crash history has indicated a trend of rear-end crashes from vehicles slowing down along US 30 to turn onto intersection side roads and commercial/residential driveways.
- **Recommendation Details:** As a longer-term solution, an effort should be made to review and consider the construction of a two way left turn lane (TWLTL) to address all turning vehicles along the corridor.
- **Implementation:**
  - **Considerations:** As development occurs along the corridor, the idea of a TWLTL along the corridor to address safety/operational issues should be reviewed.
  - **Support Partners:** ACTPO, PennDOT
  - **Potential Funding Sources:** N/A

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
37	PA 94 Corridor Monitoring	Evaluate capacity and demand along the corridor as development occurs to determine if widening is needed along portions/entirety of the corridor.	ACTPO Study Area Municipalities	$26,100,000* *(*full study area corridor widening)*	5+ years

- **Category:** Planning & Administration
- **Issues/Concerns:** Proposed development along the PA 94 corridor as well as development of warehouses in the Hanover area, will impact traffic flow throughout the corridor. Evaluating capacity will determine the necessity of additional through lanes along portions or along the entirety of the corridor.
- **Recommendation Details:** The municipalities will consult with ACTPO and PennDOT to monitor proposed/pending development activity throughout the corridor and its impact on corridor capacity and demand.
- **Implementation:**
  - **Considerations:** Support from area municipalities and PennDOT will be needed in monitoring and evaluating capacity. This could include review of ongoing HPMS traffic counts, information from PennDOT's crash data system, developer TISs, and assessing land use changes.
  - **Support Partners:** Study Area Municipalities, PennDOT
  - **Potential Funding Sources:** NHPP, STP, Rural Surface Transportation Grant Program, RAISE, PROTECT, State 581

38	Corridor Speed Assessment	Conduct a speed assessment in the study area with recommendations to help slow motorist speed on both PA 94 & US 30.	PennDOT	N/A	3 – 5 years

- **Category:** Transportation Safety
- **Issues/Concerns:** Municipalities and stakeholders reported speeding as a primary concern along both PA 94 and US 30.
- **Recommendation Details:** Request PennDOT conduct a speed assessment along PA 94 and US 30 in the study area. Recommendations should help deter motorists from speeding in the study area.
- **Implementation:**
  - **Considerations:** Study area municipalities would need to submit a formal request to PennDOT for speed assessments to be conducted along PA 94 and US 30.
  - **Support Partners:** Study Area Municipalities, ACTPO
  - **Potential Funding Sources:** N/A

Recommendation		Description	Lead Entity	Estimated Cost	Timeframe
39	Safe Corridor Passage for the Amish	Consider shoulder improvements to accommodate Amish horse and buggy traffic.	ACTPO	$700,000 (PA 94); $200,000 (US 30)	3 – 5 years

- **Category:** Transportation Safety
- **Issues/Concerns:** Horse and buggy traffic from an expanding Amish district is being observed throughout the study area. Shoulder widths along both PA 94 and US 30 do not currently accommodate increasing horse and buggy traffic.
- **Recommendation Details:** Conduct an analysis to determine if shoulder improvements are warranted considering increasing horse and buggy traffic.
- **Implementation:**
  - **Considerations:** There is a potential need to acquire additional ROW to improve roadway shoulders.
  - **Support Partners:** Study area municipalities, PennDOT
  - **Potential Funding Sources:** NHPP, STP, State 581

40	Asset Management Ordinance Evaluation/ Implementation	Encourage the development and adoption of access management ordinances for the PA 94 and US 30 corridors. If access management ordinances are already implemented, review to see if any amendments should be made.	Berwick Township Hamilton Township Oxford Township	N/A	0-2 years

- **Category:** Planning and Administration
- **Recommendation Details:** By adopting/updating access management ordinances at a municipal level, it ensures sound processes that help ensure that a community can best accommodate growth in traffic demand and development while preserving community character and quality of life.
- **Implementation:**
  - **Considerations: Any amendments or new ordinances developed should also be reviewed with the respective township's solicitor.**
  - **Support Partners:** Adams County Office of Planning and Development
  - **Potential Funding Sources:** DCED MAP

Funding for the recommendations described above could come from a variety of sources. **Table 7** below shows each of these sources, their associated acronyms, eligibility details, and the study recommendations eligible for each source. The numbers listed in the "applicable study recommendations" column correspond to the numbers in the recommendation tables above.

TABLE 7: POTENTIAL FUNDING SOURCES

Source Name	Acronym	Notes/Eligibility Information	Applicable Study Recommendations
FEDERAL SOURCES			
National Highway Performance Program	NHPP	For projects on Interstates and the NHS (PA 94 and US 30)	2, 5, 16, 17, 26, 30, 32, 35, 37, 39
Surface Transportation Program	STP	Federal funds for highway capital projects	2, 5, 16, 17, 26, 30, 32, 35, 37, 39
Carbon Reduction Program	CRP	Funding for projects focused on reducing transportation emissions, including TSMO initiatives. https://www.penndot.pa.gov/ProjectAndPrograms/Planning/Documents/Carbon%20Reduction%20Eligibility%20Examples.pdf	9, 11, 14, 15, 34
Promoting Resilient Operations for Transformative, Efficient and Cost-Saving Transportation Program	PROTECT	Available through both formula and discretionary programs	17, 37
Highway Safety Improvement Program	HSIP	https://highways.dot.gov/sites/fhwa.dot.gov/files/2022-06/BIL_HSIP_Eligibility_Guidance.pdf	5
Transportation Alternatives Set-Aside	TASA	Formerly known as the Transportation Alternatives (TA) Set-aside, competitive funding process. https://www.fhwa.dot.gov/environment/transportation_alternatives/guidance/ta_guidance_2022.pdf	20
Rural Surface Transportation Grant	RURAL	https://www.transportation.gov/grants/rural-surface-transportation-grant-program	5, 7, 16, 17, 26, 30, 32, 37
Rebuilding American Infrastructure with Sustainability and Equity (Rural).	RAISE	https://www.transportation.gov/sites/dot.gov/files/2024-02/FY%202024%20RAISE%20NOFO%20Amendment%201.pdf	7, 37
STATE SOURCES			
Automated Red Light Enforcement Program	ARLE	http://www.dot.state.pa.us/Portal%20Information/Traffic%20Signal%20Portal/FUNDARLE.html	2, 6, 9, 11, 13, 14, 15, 16, 23, 26, 30, 32
Green Light-Go: Pennsylvania's Municipal Signal Partnership Program	GLG	http://www.dot.state.pa.us/Portal%20Information/Traffic%20Signal%20Portal/FUNDGLG.html	9, 11, 14, 15
Multimodal Transportation Fund - DCED	MTF-DCED	https://dced.pa.gov/programs/multimodal-transportation-fund/	7, 20, 34

Source Name	Acronym	Notes/Eligibility Information	Applicable Study Recommendations
Multimodal Transportation Fund - PennDOT	MTF-PennDOT	https://www.penndot.gov/ProjectAndPrograms/MultimodalProgram/Pages/default.aspx	7, 20, 34
PennDOT Connects	PennDOT Connects	PennDOT funding for studies linking land use planning and transportation planning	33
DCED Business in our Sites	BOS	https://dced.pa.gov/programs/business-in-our-sites-grants-and-loans-bos/	7
DCED Municipal Assistance Program	MAP	https://dced.pa.gov/programs/municipal-assistance-program-map/	40
Pennsylvania Infrastructure Bank	PIB	https://www.penndot.gov/ProjectAndPrograms/Planning/Pages/PA-Infrastructure-Bank.aspx	7, 11, 14, 15
State Appropriation 581 (State Highway Funds)	State 581	State highway capital funds	2, 5, 6, 16, 17, 23, 26, 30, 32, 35, 37, 39
LOCAL SOURCES			
Municipal Operating Budgets	MB	Municipal operating budgets	7, 10, 22, 24

**Numbers listed in the "Applicable Study Recommendations" column correspond to the recommendation IDs in the "Study Recommendations" section.*

Sequencing Considerations

Recommendations at certain locations along the study corridor are designed to follow a sequential approach, including short-term recommendations that provide low-cost solutions and/or suggest additional analyses be conducted to justify the implementation of the proposed mid-term and long-term recommendations. Proposed sequencing considerations at key locations is described in the table below.

Location	Short-Term (0-2 Years)	Medium-Term (3-5 Years)	Long-Term (5+ Years)
PA 94 & Green Ridge Road (T-577)	Conduct left and right turn lane warrant analyses along the PA 94 approaches to determine feasibility and required lengths.	If left and/or right turn lane warrants are met along the PA 94 approaches, construct turn lanes to separate traffic to reduce congestion and improve safety.	As development occurs along the PA 94 corridor, monitor and evaluate TWLTL needs along the corridor.
PA 94 & 700 Road (T-523)	Conduct left and right turn lane warrant analyses along the PA 94 approaches to determine feasibility and required lengths.	If left and/or right turn lane warrants are met along the PA 94 approaches, construct turn lanes to separate traffic to reduce congestion and improve safety.	As development occurs along the PA 94 corridor, monitor and evaluate TWLTL needs along the corridor.
PA 94 & Cedar Road (T-575)	Conduct left and right turn lane warrant analyses along the PA 94 approaches to determine feasibility and required lengths.	If left and/or right turn lane warrants are met along the PA 94 approaches, construct turn lanes to separate traffic to reduce congestion and improve safety.	As development occurs along the PA 94 corridor, monitor and evaluate TWLTL needs along the corridor.
PA 94 & Gun Club Road (T-493)	Conduct left and right turn lane warrant analyses along the PA 94 approaches to determine feasibility and required lengths.	If left and/or right turn lane warrants are met along the PA 94 approaches, construct turn lanes to separate traffic to reduce congestion and improve safety.	As development occurs along the PA 94 corridor, monitor and evaluate TWLTL needs along the corridor.
PA 94 & Berlin Road/Pine Run Road (SR 1019)	Conduct left and right turn lane warrant analyses along the PA 94 approaches to determine feasibility and required lengths.	Monitor changes at the intersection as improvements/changes are made at neighboring intersections as part of future TIS developments.	Re-examine potential realignment opportunities to remove offset between Berlin Road and Pine Run Road.

Location	Short-Term (0-2 Years)	Medium-Term (3-5 Years)	Long-Term (5+ Years)
PA 94 & Sheetz/McDonalds/ Burger King Access Driveway & Caplan Court	Install "Do Not Block Intersection" pavement markings to keep the intersection clear for entering/exiting movements.		Coordinate with commercial businesses and Dollar General/New Oxford Logistics (or future developer) to redirect access driveway to existing Dollar General/New Oxford Logistics (or future developer) driveway. As development occurs along the PA 94 corridor, monitor and evaluate capacity and demand along the corridor to determine if additional through lanes are necessary.
US 30 & PA 94	Implement Dynamic Max green timing for intersection movements to provide volume responsive timing in order to improve operations and help alleviate queuing. This can be done as a short-term, low cost improvement while other improvements are being considered. A controller upgrade would be recommended for this improvement. This work could be performed by current Signal Maintenance Contractor once Permit Plan is revised.	If above recommendations do not adequately address queuing/operational concerns at the intersection or additional improvements are desired, consider upgrading detection to advanced video or radar detection on existing infrastructure. Due to the signal supports being mounted on span wire, detectors would be placed on existing strain poles or strain pole mounted luminaires and angled towards approaches, potentially leading to occlusion whereby periodic false or missed calls may be experienced.	As development occurs along the PA 94 and US 30 corridor, monitor and evaluate capacity and demand along the corridor to determine if additional through lanes are necessary at the intersection for the northbound, southbound, and westbound approaches.

Location	Short-Term (0-2 Years)	Medium-Term (3-5 Years)	Long-Term (5+ Years)
	Perform 24-hour traffic counts at the intersection and analyze the intersection to determine if max green time adjustments are required and identify if running multiple max green times are necessary throughout the day to reflect demand changes. This improvement could maintain the Dynamic Max green time implementation recommended in 2A.	Full upgrade of the signal from strain pole/span wire to mast arms to allow for advanced video/radar detection placement in preferred locations to minimize/eliminate occlusion concerns and improve signal head visibility.	If the proposed New Oxford Logistics development does not occur, review the planned improvements to determine what is necessary to improve for future developments, and monitor/evaluate the intersection to determine if the planned improvements need to be implemented prior to any new development.
	Analyze and review adjacent signalized intersections (US 30 & Lincoln St. & PA 94 & Brickyard Rd) to determine if signal coordination is necessary.		
	Conduct left and right turn lane warrant analyses along all four approaches to determine if turn lanes require lengthening.	If any turn lane lengthening warrants are met along the four approaches, lengthen turn lanes to reduce congestion and improve safety.	
	Install high visibility crosswalk markings at all pedestrian crossings.		
PA 94 & Village Drive /Enterprise Drive **PA 94 & Adams Ave/Little Ave**	Monitor locations based on US 30 & PA 94 intersection improvements and the signalization of the PA 94/Brickyard Road intersection.		-
	Review feasibility for protected bus stops along Village Drive/in general area for GHC route.		
PA 94 & Red Hill Road (T-495)	Re-stripe the gore area at the Red Hill Road approach designed to restrict to right-in/right-out movements and better highlight restricted movements.	Re-evaluate intersection movements once the traffic signal at the PA 94 & Brickyard Road intersection has been installed (as part of Berlin Junction development) to determine if additional improvements are necessary.	
PA 94 & Tropical Treat Traffic Flow	Consider the installation of a warning sign and beacon along PA 94 north of Tropical Treat to	Evaluate turning movement controls in and out of Tropical Treat.	

Location	Short-Term (0-2 Years)	Medium-Term (3-5 Years)	Long-Term (5+ Years)
	alert drivers of upcoming turns coming in/out of the driveways.		
PA 94 & Municipal Road (T-509)	Conduct a turn restriction study to determine if left turns into and out from Municipal Road can be restricted, pushing access to Green Springs Road.	Re-evaluate the intersection after the PA 94 & Hanover Street intersection improvements have been completed as part of the Cambrian Hills Commercial Site to determine if additional improvements are necessary.	
	If turn restrictions are not warranted, conduct southbound left turn lane warrant analyses at the intersection to determine feasibility and required lengths.		
PA & Appler Road (SR 1015)/Green Springs Road (SR 2033)	Monitor location based on PA 94 & Hanover Street signalization to determine how traffic flow changes.	Conduct left and right turn lane warrant analyses along the Appler Road & Green Springs Road approaches to determine feasibility and required lengths.	If left and/or right turn lane warrants are met along the PA 94 approaches, construct turn lanes to separate traffic to reduce congestion and improve safety.
PA 94 & Hanover Street (T-600)	Signalization of the intersection as part of on-going TIS improvements for the Cambrian Hills Commercial Site.	If the planned Cambrian Hills Commercial Site development does not occur, review the planned improvements to determine what is necessary to improve for future developments, and monitor/evaluate the intersection to determine if the planned improvements need to be implemented prior to any new development. Improvements consisted of the following: Three southbound PA	Coordinate between municipalities and businesses to develop more efficient driveway connections to Hanover Street.
	Widening of PA 94 at the intersection as part of on-going TIS improvements for the Cambrian Hills Commercial Site, consisting of three southbound lanes (a dedicated left-turn only lane, a through lane, and a through/right turn lane) and four northbound lanes (a dedicated left-turn only lane, two through lanes, and a dedicated right-turn only lane).		

Location	Short-Term (0-2 Years)	Medium-Term (3-5 Years)	Long-Term (5+ Years)
	Widening of Hanover Street at the intersection as part of on-going TIS improvements for the Cambrian Hills Commercial Site, consisting of two eastbound lanes (a dedicated left-turn only lane and channelized right-turn lane) and three westbound lanes serving as a driveway opposite Hanover Street (a dedicated left-turn only lane, a through lane, and a dedicated right-turn only lane).	94 lanes (dedicated left-turn only lane, a through lane, and a through/right turn lane); Four northbound PA 94 lanes (a dedicated left-turn only lane, two through lanes, and a dedicated right-turn only lane); Two eastbound Hanover Street lanes (a dedicated left-turn only lane and channelized right-turn lane); Three westbound driving lanes (a dedicated left-turn only lane, a through lane, and a dedicated right-turn only lane)	
	Monitor location post-signalization to determine if any additional improvements are needed.		
US 30 and Lincoln Street (T-702)	Evaluate the feasibility of improving pedestrian & transit connections at and surrounding US 30 & Lincoln Street (T-702) intersection.		
US 30 Corridor		Evaluate opportunities for widening US 30 to two full lanes between PA 94 & Stanley Drive, creating a uniform road layout.	As development occurs within the area, monitor and evaluate TWLTL needs along the US 30 corridor.
PA 94 Corridor			Evaluate capacity and demand along the corridor as development occurs to determine if widening is needed along portions/entirety of the corridor.
PA 94 Corridor & US 30 Corridor	Encourage the development and implementation of municipal access management ordinances.	Conduct a speed assessment in the study area with recommendations to help slow motorist speed on both PA 94 & US 30.	
		Consider shoulder improvements to accommodate Amish horse and buggy traffic.	

Prioritization of Study Recommendations

To establish a foundation for study implementation, the study team and the Advisory Committee worked together to prioritize the study's recommendations by location on a High-Medium-Low rating scale to pinpoint which locations (and therefore, recommendations) along the study corridor should ideally be addressed first as funds become available. Priority assignments were made based on several key considerations, including safety, congestion/operations, freight traffic/activity, development activity/potential, and findings from stakeholder/public engagement efforts. Although some of these locations are likely to be addressed through pending or proposed development (e.g., Hanover Street, Appler Road/Green Springs Road), the prioritization of these locations also considered a scenario in which development does not occur and improvements will need to advance through another means. Major factors that influenced a location's assigned priority rating are shown in **Table 6** below. Corridor wide recommendations were prioritized separately from location-specific recommendations.

TABLE 8: PRIORITIZATION OF STUDY RECOMMENDATION LOCATIONS

Priority Level	Location	Recommend-ations*	Rating Justification/Major Factors				
			Safety	Congestion/ Ops.	Development Activity	Freight Activity	Stakeholder/ Public Input
High	PA 94 & US 30	9, 10, 11, 12, 13, 14, 15, 16, 17, 18	•	•	•	•	•
High	PA 94 & McDonalds/Sheetz/Burger King Access	6, 7	•	•	•		•
High	PA 94 & Gun Club Road	1, 2, 4	•	•			•
High	PA 94 & Berlin Road/Pine Run Road	1, 3, 5	•		•		•
Medium	PA 94 & Tropical Treat Access	23, 24	•	•		•	•
Medium	PA 94 & Appler Road/Green Springs Road	28, 29, 30		•	•	•	•
Medium	PA 94 & Hanover Street	31, 32, 33	•		•	•	•
Medium	PA 94 & Cedar Road	1, 2, 4	•		•		
Medium	US 30 & Stanley Drive	35	•	•			•
Low	PA 94 & Green Ridge Road	1, 2, 4	•	•	•		
Low	PA 94 & 700 Road	1, 2, 4		•	•		
Low	PA 94 & Village/Enterprise Drive PA 94 & Adams/Little Avenue	19, 20		•			•
Low	PA 94 & Red Hill Road	21, 22	•	•			•
Low	PA 94 & Municipal Road	25, 26, 27		•			•
Low	US 30 & Lincoln Street	34		•	•		•

**Numbers correspond to the recommendation IDs in the "Study Recommendations" section.*

A full, detailed recommendation matrix outlining the full justification for each location's priority assignment is included in **Appendix C.**

In terms of corridor-wide recommendations, discussions with the Advisory Committee as well as feedback from area stakeholders and the public determined that the transportation concerns on PA 94 should be higher priority. These parties noted that the transportation issues facing both corridors are very similar; however, the PA 94 corridor was considered "worse" than US 30 and it was recommended it be addressed first. The one study area recommendation's ability to be implemented in the short-term influenced its high priority rating.

TABLE 9: CORRIDOR WIDE RECOMMENDATION PRIORITIZATION

Priority Level	Location	Recommendations*
High	PA 94 Corridor	37, 38, 39
High	Study Area	40
Medium	US 30 Corridor	36, 38, 39

Study Implementation and Next Steps

ACTPO, in collaboration with its partners in Berwick, Hamilton, and Oxford Townships, and PennDOT will look to implement the study recommendations through several transportation project programming mechanisms. This includes updates to the MPO's Long-Range Transportation Plan (LRTP) and the Transportation Improvement Program (TIP). Other improvements may be advanced through maintenance and operations forces at the municipal level or through PennDOT.

Appendices

Appendix A: Field View Summary

US 30 & PA 94 Intersection

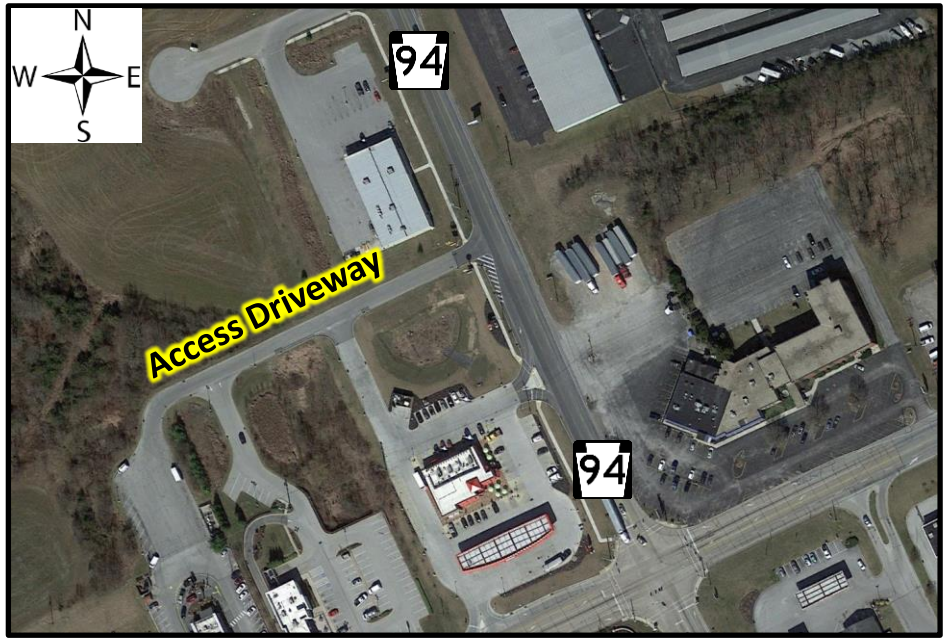
Existing Conditions:

- Signalized intersection (Hamilton, Oxford, & Berwick Twps.)
- 20 reportable crashes, 55% rear end crashes, 45% angle crashes (2018-2022)
  - 1 fatal crash – Angle crash involving NB vehicle running red light
- Advisory Committee Notes (1/9/24)
  - Long queues observed along both PA 94 approaches
  - Future development at or near intersection (Royal Farms/New Oxford Logistics)
    - TIS for both developments being developed

Thoughts/Observations/Considerations:

- Speed limit a concern at intersection (50 MPH along US 30, 45 MPH along PA 94).
- Based on observations, traffic conditions are worse during weekends.
- PA 94 NB right-turn lane becomes blocked by through traffic queues.
- Concern over FYA operations at intersection.
- Potential improvement: Converting from strain pole to mast arms.
- Potential improvement: Advanced detection to better manage intersection queues.

PA 94 & Sheetz/McDonalds/Burger King Access Driveway Intersection



Existing Conditions:

- Minor road stop-controlled intersection (Hamilton Twp.)
- 7 reportable crashes (all angle), 4 suspected minor injury crashes, 2 possible injury crashes (2018-2022)
- PA 94 ADT: 10,700 / Driveway ADT: Not Available
- Advisory Committee Notes (1/9/24)
  - Queues from US 30 intersection block intersection or obscure driver views when exiting driveway
  - Royal Farms proposing driveway opposite of access driveway

Thoughts/Observations/Considerations:

- McDonald's is the owner of the access driveway.
- West side of PA 94 was meant to be widened.
- Royal Farms potentially adding driveway opposite of the access driveway.
- Traffic signal not an option due to close proximity to US 30.
- Potential improvement: Do not block intersection pavement markings
- Potential improvement: Roundabout
- Potential improvement: Redirect access driveway to existing Dollar General/New Oxford Logistics driveway.

US 30 & Lincoln Street (T-531) Intersection

Existing Conditions:

- Signalized intersection (Oxford Twp.)
- 8 reportable crashes, 63% rear end crashes (2018-2022)
- US 30 ADT: 14,600 / Lincoln Street ADT: 700
- Advisory Committee Notes (1/9/24)
  - Crashes caused by vehicles driving too fast for conditions and red light running
  - Speed differential: 35 MPH between Lincoln St. & Oak Dr. and 50 MPH between Oak Dr. & Stanley Dr.

Thoughts/Observations/Considerations:

- Medical facility at the southwest corner of the intersection is moving, with land being redeveloped.
- No pedestrian activity present at the intersection.
- Existing pedestrian infrastructure can be improved (signal heads, push buttons, etc.).
- No queuing issues at intersection and no cut-through traffic along Lincoln Street to bypass US 30/PA 94 intersection.
- Focus should be placed on other intersections, but cursory recommendations at this location can be made.

PA 94 & Cedar Road (T-575) Intersection

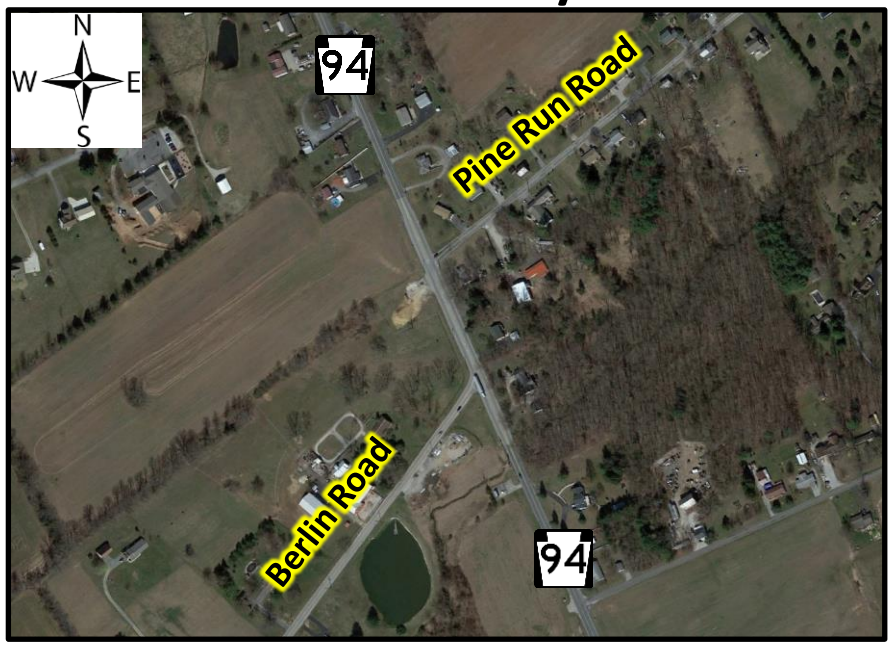
Existing Conditions:

- Minor road stop-controlled intersection (Hamilton Twp.)
- 3 reportable crashes, all rear end crashes (2018-2022)
- PA 94 ADT: 9,700 / Cedar Road ADT: 300
- Advisory Committee Notes (1/9/24)
  - Rear end crashes caused by vehicles slowing down to turn into Cedar Road.

Thoughts/Observations/Considerations:

- Amish community looking to purchase land (3 parcels) south of Cedar Road due to higher land prices in Lancaster.
  - Community does not want to cross US 15 and travels to churches in Glen Rock (13-15 miles).
  - Community could travel along PA 94 (accommodate horse & buggy).
- Potential improvement: Construction of PA 94 southbound left-turn lane and/or northbound right-turn lane (similar to Dicks Dam Road) to reduce rear end crashes.
  - Studies would be required to determine traffic volumes and if turn lanes are warranted.

PA 94 & Berlin Road/Pine Run Road (SR 1019) Intersection



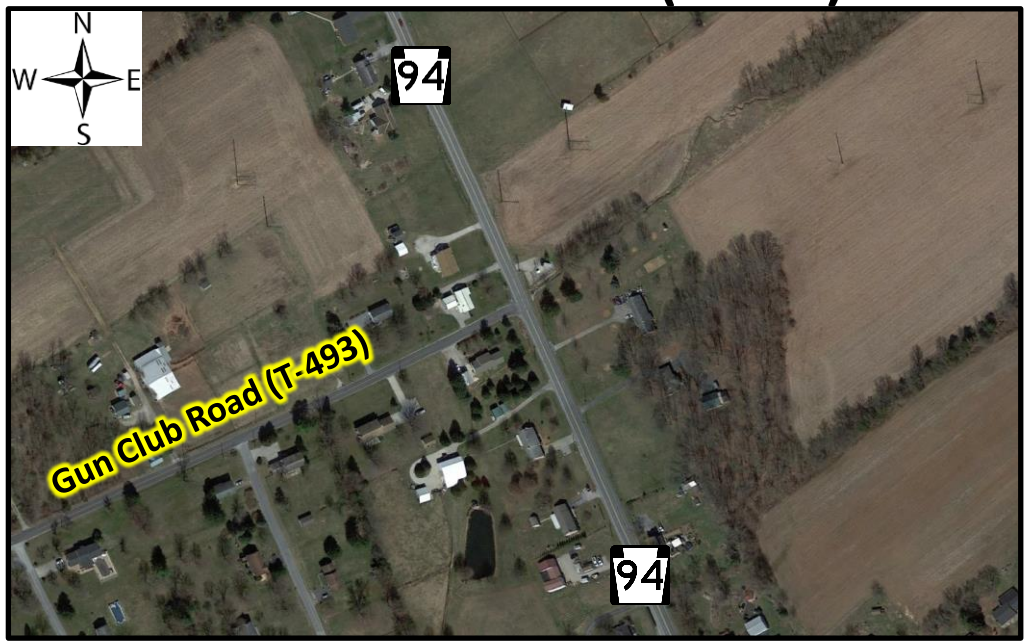
Existing Conditions:

- Minor road stop-controlled intersections (Hamilton Twp.)
- 4 reportable crashes at Berlin Road, 5 reportable crashes at Pine Run Road (2018-2022)
  - 5 total angle crashes, Berlin Road HSNS Total Excess Crashes: 0.17
- PA 94 ADT: 9,700 / Berlin Road ADT: 3000 / Pine Run Rd ADT: 2300
- Advisory Committee Notes (1/9/24)
  - Left turn lanes installed on PA 94, realignment of Pine Run Road has been programmed

Thoughts/Observations/Considerations:

- Kenana will look into the intersection realignment status to provide a further update.
- As part of the left turn lane construction, the PA 94 vertical crest south of Gun Club Road was cut down to improve sight distance.
- School bus traffic utilizes Berlin Road when exiting.

PA 94 & Gun Club Road (T-493) Intersection



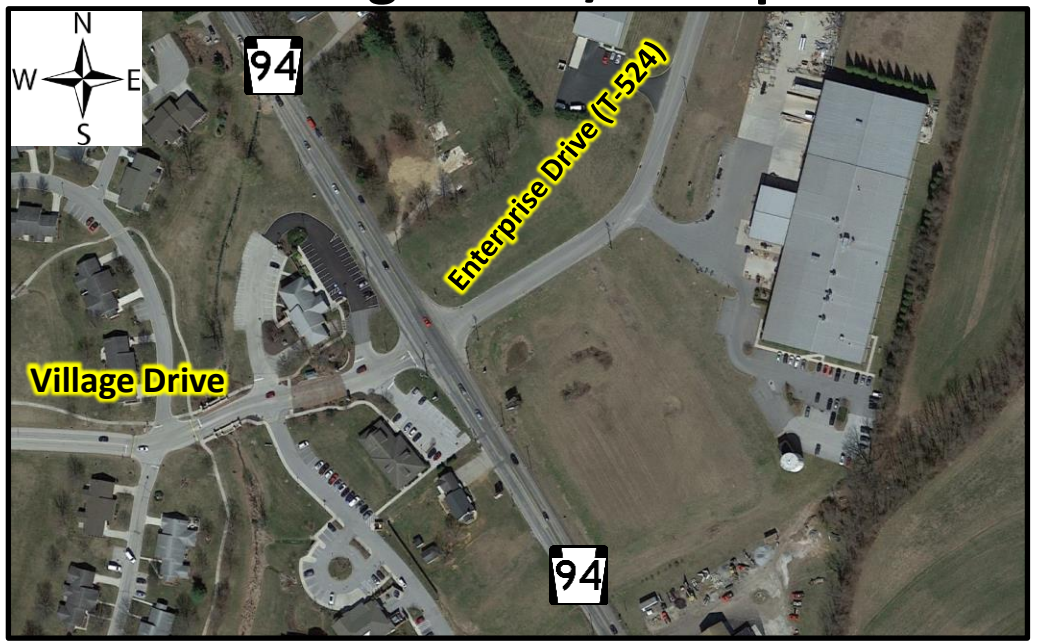
Existing Conditions:

- Minor road stop-controlled intersection (Hamilton Twp.)
- 11 reportable crashes (7 PDO crashes), 8 rear end crashes (2018-2022)
  - HSNS Total Excess Crashes: 0.82
- PA 94 ADT: 9,700 / Gun Club Road ADT: 300
- Advisory Committee Notes (1/9/24)
  - Rear end crashes caused by vehicles slowing down to enter Gun Club Road
  - Potential solution: Left turn lanes (similar to Dicks Dam Rd)
  - 2010 RSA: Improve/widen PA 94 to accommodate a shoulder by-pass lane

Thoughts/Observations/Considerations:

- New Oxford Municipal Authority maintains the pump station at the PA 94/Gun Club Road intersection.
- 700 Road used to access/connect with Gun Club Road.
- Location serves as a school bus ingress point.
- Potential improvement: Widen and add turn lanes (studies would be required to determine traffic volumes and turn lane warrants).
- This location is one of high concern based on attendee comments.

PA 94 & Village Drive/Enterprise Drive (T-524) Intersection



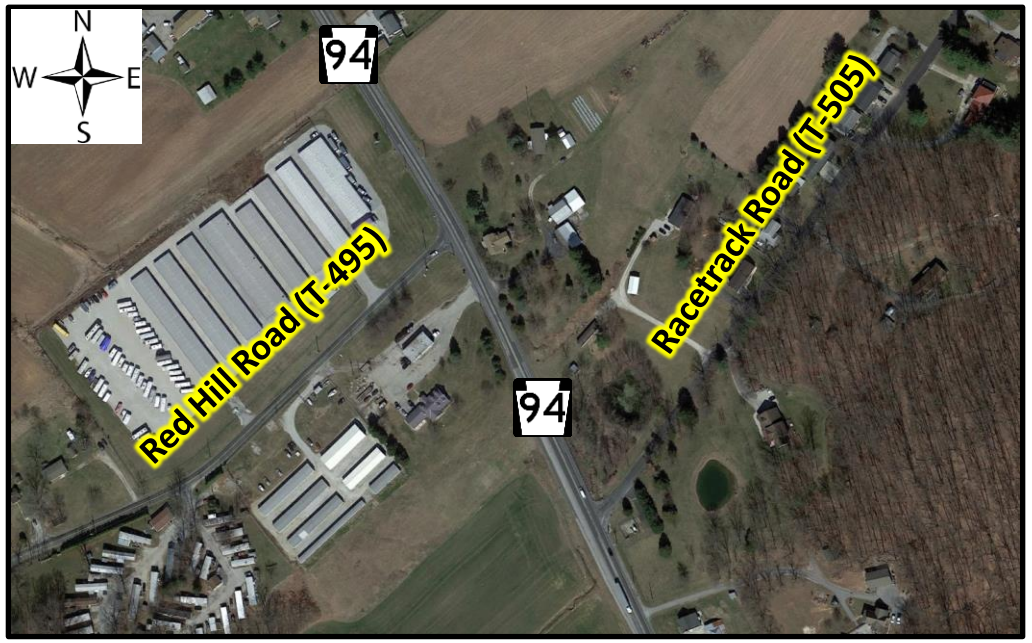
Existing Conditions:

- Minor road stop-controlled intersection (Oxford & Berwick Twps.)
- 6 reportable crashes, 5 rear end crashes (2018-2022)
- PA 94 ADT: 15,400 / Village Dr & Enterprise Dr ADT: 300
- Advisory Committee Notes (1/9/24)
  - Crashes caused by vehicles driving too fast for conditions and tailgating.
  - Future expansion plans of Cross Keys Village

Thoughts/Observations/Considerations:

- Cross Keys Village developing 59 additional cottages and constructing adult daycare north of Brickyard Road.
- PA 94 northbound queues from PA 94/US 30 intersection can reach back to this location.
- Signal construction at Brickyard Road and improvements to PA 94/US 30 intersection can improve safety/operations at this intersection.
- Transit exits at Village Drive to travel south along PA 94.

PA 94 & Red Hill Road (T-495) Intersection



Existing Conditions:

- Minor road stop-controlled intersection (Oxford Twp.)
- 2 reportable crashes, both angle crashes (2018-2022)
- PA 94 ADT: 15,400 / Red Hill Road ADT: 100
- Advisory Committee Notes (1/9/24)
  - Summerfield residential development adding entrance to Red Hill Road
  - 2010 RSA Recommendation: Add wig-wag units to intersection ahead warning signs
    - Construct a mountable concrete island to limit movements

Thoughts/Observations/Considerations:

- No Left Turn signs placed along PA 94 and Red Hill Road due to sight distance issues/vehicle speeds.
- Potential improvement: Construction of pork chop island to physically restrict right-in/right-out movements
- Racetrack Road: Intersection is busiest on Saturdays late at night when races conclude (attendees unsure what additional improvements can be made at this intersection).
- The Tropical Treat driveway was a concern raised by attendees due to sight distance concerns exiting driveway and vehicle speeds.
  - Owner is responsible to provide safe access and any changes made to driveway requires the owner to reapply for HOP approval.

PA 94 & Municipal Road (T-509) Intersection

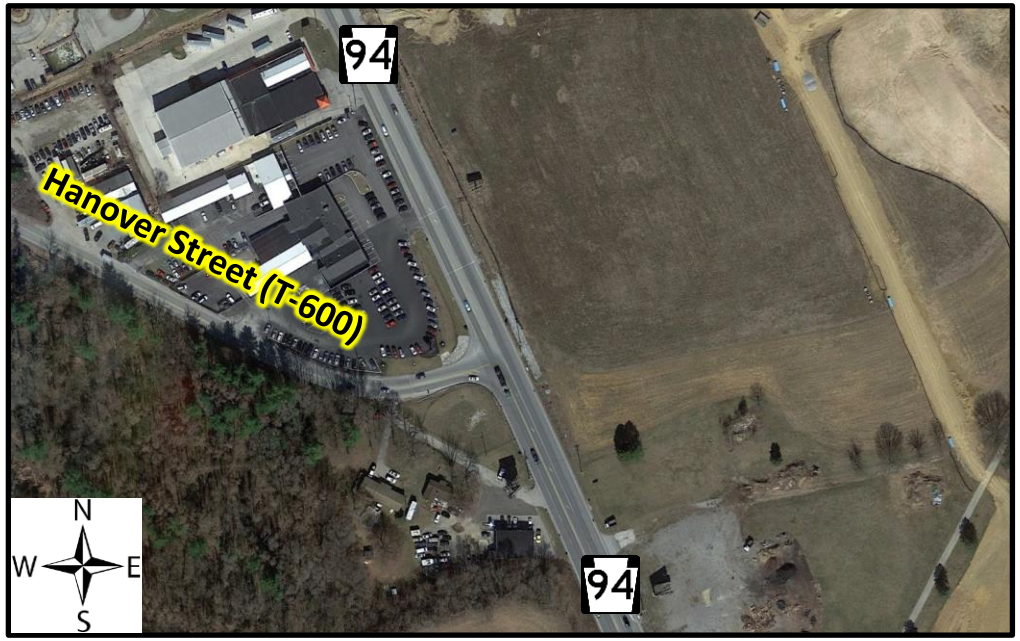
Existing Conditions:

- Minor road stop-controlled intersection (Berwick Twp.)
- 5 reportable crashes, 3 angle crashes(2018-2022)
- PA 94 ADT: 15,400 / Municipal Road ADT: 300
- Advisory Committee Notes (1/9/24)
  - Limitation to how Municipal Road is accessed. Southbound left turns are limited with site distance and grade issues

Thoughts/Observations/Considerations:

- Attendees would put the Tropical Treat driveway as a higher priority compared to the Municipal Road intersection.
- Berwick Township utilizes this roadway to access facilities (can also be access from Green Springs Road).
- Sight distance concerns along PA 94 southbound approach (specifically turning into Municipal Road).
- Potential improvements: Either construct turn lanes along PA 94 or remove left turns into Municipal Road, pushing access to Green Springs Road.
  - PennDOT would require a sight distance study be conducted before allowing improvements and submit reasons for restrictions/provide reasonable access.

PA 94 & Hanover Street (T-600) Intersection



Existing Conditions:

- Minor road stop-controlled intersection (Oxford Twp.)
- 6 reportable crashes, 2 head on crashes, 2 angle crashes (2018-2022)
- PA 94 ADT: 22,500 / Hanover Street ADT: 500
- Advisory Committee Notes (1/9/24)
  - 50% of crashes involved NB vehicles making improper left turns into Hanover Street
  - Future residential & commercial development east of intersection (Cambrian Hills Commercial Site)

Thoughts/Observations/Considerations:

- Commercial/residential developments being constructed east of PA 94.
- Left-out turning restrictions in place.
- As part of HOP improvements, intersection will become signalized, with work anticipated to start this year.
- Based on attendee feedback, signalization should address all intersection concerns.
- Hanover Street btwn Appler Road and PA 94 was a state-owned road, but was turned back to Oxford Township when turn restrictions were implemented. Now that turn restrictions are being removed, Oxford Township would like to turn the road back to PennDOT, which would start with filing a request.

Appendix B: Summary of RSA Strategies/Findings (2010)

Short-Range

- Install stop bars on the minor approaches of each intersection along the corridor and restripe crosswalks where applicable.
- Install advance street name signs under the existing advance intersection warning signs.
- Install raised pavement markings throughout the corridor.
- Install guide rail delineators throughout the corridor.
- Install centerline and edge line rumble strips throughout the corridor.
- Restrict the number of access points at Tropical Treat parking lot.
- Construct a concrete island at Shank Road to restrict access to right-in/ right-out only. Island should be mountable to allow emergency vehicle access.
- Remove guide rail radius and replace with an approved end treatment in the NE quadrant of Racetrack Road.
- Relocate utility pole in NE quadrant of Racetrack Road to improve sight distance.
- Add solar powered wig wag units to the advance intersection warning signs at Red Hill Road.
- Construct a concrete island at Red Hill Road to restrict access to right-in/ right-out only. Island should be mountable to allow emergency vehicle access.
- Add US 30 improvements if any after evaluating most recent signal plans.
- Relocate STOP sign on Pine Run Road closer to SR 94.
- Install luminaries at Pine Run and Berlin Roads.
- Provide shoulder back-up for the edge drop-off along the southbound side of SR 94 between Berlin and Pine Run Roads.
- Add solar powered wig way units to the advance intersection warning signs at Berlin and Pine Run Roads.
- Install “Intersection Ahead” pavement markings and “Look-Left-Right-Left” signing treatment at Berlin and Pine Run Roads.
- Restrict the number of access points at the Inn 94 parking lot.
- Add solar powered wig wag units to the advance intersection warning signs at SR 394.
- Eliminate the double STOP sign installation by providing curbing/ grass islands along SR 394 to narrow the intersection.
- Perform an engineering study at the intersection of SR 94 and 234 to determine the need for pedestrian accommodations.
- Trim vegetation in the sight triangle along SR 94 as well as the STOP AHEAD sign at the Lake Meade Road intersection.
- Add solar powered wig wag units to the advance intersection warning signs at Lake Meade Road.
- Add “Intersection Ahead” pavement marking treatment to SR 94 at Lake Meade Road.
- Install luminaries at the intersection of SR 94 and Lake Meade Road.
- Provide dual STOP sign installation on the township road approach at Lake Meade Road.
- Consider installing white LED lights around the STOP signs at Lake Meade Road to improve their visibility.

Mid-Range

- Cut back bank slope and relocate utility poles on the southbound side of SR 94 between Berlin and Pine Run Roads.

- Construct a center left turn lane between Berlin and Pine Run Roads.
- Widen SR 94 at Gun Club Road to provide a shoulder by-pass lane.
- Construct left turn lanes on SR 94 at the intersection of SR 394 to facilitate traffic flow and improve stopping sight distance.
- Construct left turn lanes on SR 94 at the intersection of SR 234 and provide appropriate left turn phasing.
- Improve curve radii at the intersection of SR 94 and 234 to accommodate large commercial vehicles.

Long-Range

- Consider widening SR 94 to a three lane cross section with a center turn lane.
- Consider realigning Berlin and Pine Run Roads to create a 4-way intersection with left turn lanes along SR 94.
- Consider constructing a roundabout at the intersection of SR 94 and 394 to facilitate turning movements and reduce vehicle speeds on SR 94 through Hampton.

Appendix C: Prioritization Justification Detailed Table

Priority Level	Location	Recommendation Description	Horizon	Cost	Priority Level Justification
High	**PA 94 & US 30**	Implement Dynamic Max green timing, controller upgrades.	Short Term	$	***Safety:** The intersection has experienced 20 reportable crashes in the five-year period ending in 2022, including one fatal crash involving a NB vehicle running a red light. Of the 20 reportable crashes, 55% were rear-end crashes and 45% were angle crashes. Other safety concerns cited by Advisory Committee members, stakeholders, and the public include motorists and trucks traveling at high speeds, red light running, distracted/reckless driving behavior. ***Development Activity/Potential:** New Oxford Logistics is proposing to develop warehousing and commercial use properties both northern quadrants of the intersection. The development is currently going through the Zoning Hearing Board process. While a Royal Farms gas station/convenience store was originally proposed for the former Cross Keys Diner/Motel site, that plan has since been withdrawn; however, it is assumed that a commercial use will eventually redevelop the site at some point. Zoning in the area allows for industrial and commercial uses. ***Congestion/Operations**: Intersection is currently experiencing long queues on the PA 94 approaches, leading to the NB right turn lane and SB driveways/access points being blocked. INRIX weekday PTI data shows reliability is at its worst (2.2-2.5 NB) between 2:00-6:00pm on the 94 approaches. Members of the Advisory Committee noted that while these traffic conditions are ongoing throughout the day (not just peak hours), weekends tend to be worse. Proposed/pending developments are anticipated to increase traffic volumes and modeling outputs from the South Central Travel Demand Model forecast total traffic along PA 94 increasing by 15-17% by 2045. ***Freight Traffic/Activity**: The intersection serves as a crossroads for truck traffic looking to access major corridors like US 15 and I-83 and destinations such as York, Hanover, Gettysburg, and Harrisburg. PA 94 north of the intersection currently accommodates ~9700 freight trips, south of the intersection ~11,600 trips. US 30 carries less freight trips - west of the intersection ~6,200 trips, east of the intersection ~7,200 trips. Travel demand model forecasts reveal truck traffic increases along PA 94 by 2045 (72% NB, 62% SB), most of which would be passing through this intersection. **Stakeholder/Public Input**: The developer of New Oxford Logistics has offered excess ROW to address transportation concerns at/near this primary intersection as part of the proposed development. Multiple stakeholders cited frequent accidents at the intersection as well as operational deficiencies, recommending the signal be retimed like the Hanover/Eisenhower Blvd. intersection, adding additional lanes in all directions, installing a dedicated SB right turn lane on PA 94. Members of the public cited concerns about long queue times, speeding, red light running, and dangerous driver behavior as well as concerns about increased truck traffic as a result of proposed development.
		Perform 24-hour traffic counts to determine if max green time adjustments are required.	Short Term	$	
		Analyze/review adjacent signalized intersections (Lincoln Street, Brickyard Road) to determine if signal coordination is necessary.	Short Term	$	
		Conduct left & right turn lane warrant analyses to determine if existing turn lanes need to be lengthened.	Short Term	$	
		Install high visibility crosswalk markings at all pedestrian crossings.	Short Term	$	
		Upgrade signal to advanced video or radar detection on existing infrastructure, if short term improvements are unsuccessful in addressing queues.	Mid-Term	$	
		Complete a full upgrade of the traffic signal from strain pole/span wire to mast arms.	Mid-Term	$$	
		Lengthen turn lanes along all four approaches, if warranted.	Mid-Term	$$	
		If the planned New Oxford Logistics development does not occur, review the planned improvements to determine what is necessary to improve for future developments, and monitor/evaluate the intersection to determine if the planned improvements need to be implemented prior to any new development.	Long Term	$	
		Monitor/evaluate capacity and demand along the PA 94 corridor to determine if additional through lanes are necessary.	Long Term	$	

Priority Level	Location	Recommendation Description	Horizon	Cost	Priority Level Justification
High	**PA 94 & McDonalds/Sheetz/Burger King Access Driveway & Caplan Court**	Install "Do Not Block Intersection" pavement markings/signage to keep the intersection clear for entering/exiting movements.	Short Term	$	***Safety**: The intersection has experienced 7 reportable crashes in the five-year period ending in 2022, all of which were angle crashes that resulted in minor/possible injuries. Field view observations, stakeholder input, and public survey results indicate that the intersection experiences high motorist speeds, close calls with pedestrians in the area. ***Development Activity/Potential**: New Oxford Logistics is proposing to develop warehousing and commercial uses on both sides of PA 94 near this intersection, with one of the access driveways located just north of the storage facility on the eastern side of the corridor. The land near the intersection is zoned for commercial use. ***Congestion/Operations:** The access driveway is stop-controlled. Southbound queues at the PA 94/US 30 intersection extend past the the access drive, blocking the right-in, right-out access at Sheetz and resulting in secondary queues on the access drive itself. Vehicles have been observed cutting through the Burger King parking lot to bypass queues at the PA 94/US 30 intersection. **Freight Traffic/Activity**: The segment of PA 94 at this intersection accomodates ~9700 freight trips. With potential industrial/warehousing development, this traffic could increase. **Stakeholder/Public Input:** Dollar General has observed SB queues on PA 94 past their entrance on Caplan Court and recommends the turn lane be extended. Area businesses have indicated they are supportive of relocating the access driveway to Caplan Court and noted that a roundabout would not be effective at this location. Previous plans have explored extending Caplan Court to connect to US 30 near Smith's Auto Sales. Other concerns highlighted by stakeholders and the public include high motorist speeds and close calls with pedestrians. Public comments also suggested/seemed supportive of the rerouting of the access drive to Caplan Court.
		Coordinate with commercial businesses, Dollar General, and New Oxford Logistics (or future developers) to redirect access driveway to existing Dollar General/New Oxford Logistics driveway.	Long Term	$$$$$	
		Evaluate roundabout feasibility at the driveway.	Long Term	$	
		Monitor/evaluate capacity and demand along the PA 94 corridor to determine if additional through lanes are necessary.	Long Term	$	
High	**PA 94 & Gun Club Road (T-493)**	Conduct left & right turn lane warrant analyses.	Short Term	$	***Safety:** The intersection has experienced 11 reportable crashes in the five year period ending in 2022. Of these crashes, one resulted in a suspected serious injury and three with suspected minor injuries. The remaining crashes were considered to be property damage only. Driver actions resulting in these crashes include speeding ("driving too fast for conditions") and tailgating. The HSNS results for this intersection indicate it is an area of safety concern. **Development Activity/Potential**: The area around the intersection is zoned for Rural Commercial and Low Density Residential uses with no proposed/pending development at this time. New Oxford Municipal Authority maintains a pump station at the intersection. **Congestion/Operations**: The Gun Club Road approach is stop controlled. Access in and out of the roadway is difficult due to motorists traveling at high speeds. While stakeholders noted that turning movements are difficult, no concerns were raised regarding queuing/congestion in the area. **Freight Traffic/Activity**: PA 94 at this intersection accomodates ~9,600 freight trips that use the PA 94/US 30 intersection. **Stakeholder/Public Input**: Stakeholders expressed concerns about traffic traveling at high speeds and overall access/turning movements at the intersection. Turning radii and roadway widths are too narrow, making turning movements difficult.
		Construct turn lanes along PA 94 approaches, if warranted.	Mid-Term	$$$$	
		Monitor and evaluate TWLTL needs along the corridor as development occurs.	Long Term	$	

Priority Level	Location	Recommendation Description	Horizon	Cost	Priority Level Justification
High	**PA 94 & Berlin Road/Pine Run Road (SR 1019)**	Conduct left & right turn lane warrant analyses.	Short Term	$	***Safety**: The offset intersection has experienced 9 total reportable crashes in the five year period ending in 2022, most resulting in property damage only. Four of these crashes occurred at the Berlin Road approach with the remaining five occuring at Pine Run Road. Highway Safety Network Screening results show Berlin Road having a total excess value of 0.17. ***Development Activity/Potential:** CVSD is currently conducting a survey of a 75-acre site along Berlin Road to determine if the land is able to be developed into a new campus to accommodate forecasted growth in enrollment. Any future development may trigger the need for additional traffic controls at the Berlin Road/Pine Run intersection. Zoning along the Berlin Road approach includes commercial and mixed use, while the Pine Run approach is zoned for Low Density Residential and Rural Commercial uses. There is no proposed/pending development at this time, but could occur in the next 5-10 years if CVSD property is developed. **Congestion/Operations**: Both the Berlin Road and Pine Run Road approaches are stop controlled. Congestion has been observed by stakeholders and the public at school drop off and pick up times. **Freight Traffic/Activity**: PA 94 at this intersection accomodates ~9,700 freight trips that use the PA 94/US 30 intersection. **Stakeholder/Public Input:** Berlin Road currently serves as a primary access route for school buses, student drivers, and parent pickup/drop off traffic for Conewago Valley School District (CVSD)'s secondary campus (New Oxford Middle and Senior High Schools). School buses have difficulty making the turn onto Berlin Road from PA 94 due to high speeds/topography of the area; however, CVSD is implementing a new circulation plan to reduce traffic pressure on Berlin Road. Multiple stakeholders have indicated difficult turning movements onto PA 94 NB and would like to see speed limits reduced on PA 94 between Pine Run Road and US 30. Additionally, the public raised concerns about poor sight distance due to the grade of PA 94, high motorist speeds, difficulty making safe turning movements, and crossing the interesection from Pine Run to Berlin (and vice versa).
		Monitor changes at the intersection as improvements are made at neighboring intersections along the 94 corridor.	Mid-Term	$	
		Realign the intersection to address off-set geometry.	Long Term	$$$$$	
Med.	**PA 94 & Tropical Treat Traffic Flow**	Install a warning sign & beacon along PA 94 SB north of Tropical Treat to alert drivers of upcoming driveways.	Short Term	$	***Safety:** Approximately 10 reportable crashes have occurred near the Tropical Treat between 2018 and 2022. Of these crashes, three resulted in suspected minor injury, one in possible injury, and six in property damage only. Six crashes were rear-end collisions and two were angle crashes. **Development Activity/Potential:** The Summerfield residential development is currently under construction nearby. Zoning in the area is designated for limited mixed use, medium-density residential, and agricultural use. ***Congestion/Operations:** There are four access points into the Tropical Treat location for when the business is open in the spring/summer months. The northern most access point also serves as a driveway to several homes. ***Freight Traffic/Activity**: PA 94 in the Tropical Treat area accommodates ~11,200 freight trips that use the PA 94/US 30 intersection. The number of freight trips could possibly increase with any industrial/commercial development in the area of the Cross Keys intersection and/or pending developments in the Hanover area. ***Stakeholder/Public Input**: The Tropical Treat area was raised as a safety concern during the project field view in February 2024 with municipal officials noting that it is a higher priority compared to the Municipal Road intersection. Tropical Treat stated that they observe at least one rear end crash per season and multiple stakeholders mentioned vehicles traveling at high speeds along PA 94 in the area. The public survey comment map had ~8 pins dropped in
		Evaluate turning movement controls in and out of Tropical Treat.	Mid-Term	$	

Priority Level	Location	Recommendation Description	Horizon	Cost	Priority Level Justification
					this area, highlighting sight distance issues and the desire for dedicated turning lanes to access Tropical Treat and the pending Summerfield residential development to improve safety.
Med.	**PA 94 & Appler Road (SR 1015)/Green Springs Road (SR 2033)**	Monitor location based on PA 94 & Hanover Street signalization to determine traffic flow changes.	Short Term	$	**Safety:** In the five year period ending in 2022, the intersection has experienced one reportable angle crash resulting in property damage only. **Development Activity/Potential**: The intersection will serve as a primary access point for the Cambrian Hills mixed use (residential/commercial) development that is currently under construction. ***Congestion/Operations:** The intersection is currently stop controlled and updates are planned as part of the Cambrian Hills development. ***Freight Traffic/Activity:** PA 94 at this intersection accommodates ~11,000 freight trips that use the PA 94/US 30 intersection. It is assumed this number could increase as the Cambrian Hills development completes construction and development occurs in the Hanover area. **Stakeholder/Public Input:** During the public survey period, this location received a significant number of "pins" on the interactive comment map, highlighting concerns regarding motorists traveling at high speeds, unsafe ingress/egress from 94 onto Appler and Green Springs, and the anticipated increase in traffic volumes resulting from the adjacent Cambrian Hills development.
		Conduct left & right turn lane warrant analyses along Appler Road & Green Springs Road approaches.	Mid-Term	$	
		If turn lane warrants are met along PA 94 approaches, construct turn lanes.	Long Term	$$$$	
Med.	**PA 94 & Hanover Street (T-600)**	Monitor intersection post-signalization to determine if additional improvements are necessary.	Short Term	$	***Safety:** The intersection has experienced six reportable crashes in the five-year period ending in 2022, with two being head-on collisions and two being angle crashes. ***Development Activity/Potential**: Vulcan Quarry is in the process of purchasing property across the street from its current location along Hanover Street. **Congestion/Operations:** The intersection is stop-controlled with left turns from Hanover Street to PA 94 restricted. This intersection will be signalized as part of the Cambrian Hills development, which should address concerns at this intersection. ***Freight Traffic/Activity**: PA 94 at this intersection carries ~10,900 freight trips that use the PA 94/US 30 intersection. It is assumed that this number could increase as the Cambrian Hills development completes construction, development occurs in the Hanover area, and Vulcan Quarry potentially expands operations. **Stakeholder/Public Input:** Similar to the neighboring intersection at Appler/Green Springs, PA 94's intersection with Hanover Street received several pins on the interactive comment map (9-10). Public comments at this intersection
		If the planned Cambrian Hills Commercial Site development does not occur, review the planned improvements to determine what is necessary to improve for future developments, and monitor/evaluate the intersection to determine if the planned improvements need to be implemented prior to any new development.	Mid-Term	$	

Priority Level	Location	Recommendation Description	Horizon	Cost	Priority Level Justification
		Coordinate with local municipalities and businesses to develop more efficient driveway connections/access management to Hanover Street.	Long Term	$	highlighted unsafe turning movements in and out of Hanover Street from PA 94, citing motorist confusion in navigating the intersection and inadequate lengths of existing turn lanes.
Med.	**PA 94 & Cedar Road (T-575)**	Conduct left & right turn lane warrant analyses.	Short Term	$	***Safety:** The intersection has experienced 3 reportable, rear-end crashes in the five-year period ending in 2022. The rear end crashes are caused by vehicles slowing down to turn onto Cedar Road from PA 94 as per observations by Advisory Committee members. When considering severity, two crashes resulted in suspected minor injury, and one in possible injury. ***Development Activity/Potential:** The area near the intersection is zoned for low density residential, rural commercial, and mixed use (SE quadrant). There is potential for additional residential development near the intersection (pending land purchase by an Amish buyer), but no plans have been submitted/confirmed. **Congestion/Operations:** Cedar Road approach is stop controlled. While stakeholders noted that turning movements are difficult, no concerns were raised regarding queuing/congestion in the area. **Freight Traffic/Activity**: PA 94 at this intersection accomodates ~9,600 freight trips that use the PA 94/US 30 intersection. **Stakeholder/Public Input:** Stakeholders expressed concerns about traffic traveling at high speeds and overall access/turning movements at the intersection. Turning radii and roadway widths are too narrow, making turning movements difficult. The Amish community could potentially use PA 94 to travel via horse and buggy as they do not wish to use US 15 to access churches in Glen Rock. PA 94 does not currently have adequate shoulder widths to safely accomodate horse and buggy travel. The public expressed no specific concerns with the intersection, but would like to see a dedicated turn lane between Dicks Dam Road and US 30 to help address access concerns and separate through movements from turning movements.
		Construct turn lanes along PA 94 approaches, if warranted.	Mid-Term	$$$$	
		Monitor and evaluate TWLTL needs along the corridor as development occurs.	Long Term	$	
Med.	**US 30 & Stanley Drive**	Evaluate opportunities to widen US 30 to two full lanes between PA 94 & Stanley Drive, creating a uniform road layout.		$$$	*Safety: *Development Activity/Potential: The proposed New Oxford Logistics development is proposing an access driveway across from Stanley Drive. Congestion/Operations: While stakeholders noted that turning movements are sometimes challengingt, no concerns were raised regarding queuing/congestion in the area. Freight Traffic/Activity: US 30 in this area accomodates ~*9,600* freight trips that use the PA 94/US 30 intersection. *Stakeholder/Public Input: Safety concerns were raised by the Advisory Committee, stakeholder interviewees, and the public regarding the "lane drop" near Stanley Drive. takeholders expressed concerns about traffic traveling at high speeds and overall access/turning movements at the intersection. Turning radii and roadway widths are too narrow, making turning movements difficult. The public expressed no specific concerns with the intersection, but would like to

Priority Level	Location	Recommendation Description	Horizon	Cost	Priority Level Justification
					see a dedicated turn lane between Dicks Dam Road and US 30 to help address access concerns and separate through movements from turning movements.
Low	**PA 94 & Green Ridge Road (T-577)**	Conduct left & right turn lane warrant analyses.	Short Term	$	***Safety:** The intersection has experienced one crash resulting in suspected minor injury in the five year period ending in 2022. It was a rear-end crash. ***Development Activity/Potential:** The area around the intersection is zoned for rural commercial and agricultural preservation with no proposed/pending development at this time. ***Congestion/Operations:** The Green Ridge Road approaches are stop controlled. While stakeholders noted that turning movements are difficult, no concerns were raised regarding queuing/congestion in the area. **Freight Traffic/Activity**: PA 94 at this intersection accomodates ~9,600 freight trips that use the PA 94/US 30 intersection. **Stakeholder/Public Input**: Stakeholders expressed concerns about traffic traveling at high speeds and overall access/turning movements at the intersection. Turning radii and roadway widths are too narrow, making turning movements difficult. The public expressed no specific concerns with the intersection, but would like to see a dedicated turn lane between Dicks Dam Road and US 30 to help address access concerns and separate through movements from turning movements.
		Construct turn lanes along PA 94 approaches, if warranted.	Mid-Term	$$$$	
		Monitor and evaluate TWLTL needs along the corridor as development occurs.	Long Term	$	
Low	**PA 94 & 700 Road (T-523)**	Conduct left & right turn lane warrant analyses.	Short Term	$	**Safety:** The intersection has experienced three total crashes in the five year period ending in 2022, all considered to be property damage only. Of these crashes, two were rear-end crashes. ***Development Activity/Potential**: The area is zoned for low density residential/rural residential use with no proposed/pending development at this time. ***Congestion/Operations**: The 700 Road approach is stop-controlled. While stakeholders noted that turning movements are difficult, no concerns were raised regarding queuing/congestion in the area. **Freight Traffic/Activity:** PA 94 at this intersection accomodates ~9,600 freight trips that use the PA 94/US 30 intersection. **Stakeholder/Public Input**: Stakeholders expressed concerns about traffic traveling at high speeds and overall access/turning movements at the intersection. Turning radii and roadway widths are too narrow, making turning movements difficult. The public expressed no specific concerns with the intersection, but would like to see a dedicated turn lane between Dicks Dam Road and US 30 to help address access concerns and separate through-traffic movements from turning movements.
		Construct turn lanes along PA 94 approaches, if warranted.	Mid-Term	$$$$	
		Monitor and evaluate TWLTL needs along the corridor as development occurs.	Long Term	$	

Priority Level	Location	Recommendation Description	Horizon	Cost	Priority Level Justification
Low	**PA 94 & Village Drive/Enterprise Drive AND PA 94 & Adams Avenue/Little Avenue**	Monitor intersections based on improvements made at PA 94/US 30 intersection.	Short Term	$	**Safety:** The intersection has experienced 8 reportable crashes in the five-year period ending in 2022. Of these crashes, 6 resulted in property damage only and two in suspected minor injury. Six crashes were rear end crashes while the other two were hit fixed object crashes. **Development Activity/Potential:** The intersection is zoned for High Density Residential, Employment Center, and Limited Mixed Uses with no proposed/pending development at this time. Future development at Cross Keys Village could potentially impact traffic at the Village Drive intersection. ***Congestion/Operations:** Turning movements from Village Drive, Enterprise Drive, Adams Avenue, and Little Avenue are stop-controlled. The neighboring intersection with Brickyard Road will be signalized in the near future which could help address turning/traffic flow issues in the area. **Freight Traffic/Activity**: PA 94 at this intersection accommodates ~11,500 freight trips that use the PA 94/US 30 intersection. **Stakeholder/Public Input**: Cross Keys Village noted that making turns onto PA 94 from Village Drive is difficult for the Village's residents and aging drivers overall. Right turns are the most difficult; however, it is believed that this issue will be addressed with the signalization of Brickyard Road and PA 94. Stakeholders have observed limited usage of the Gettysburg Hanover Connector bus stop on Adams Drive and paratransit service for future Cross Keys Village expansion is recommended. Primary issues noted by the public included making safe turn movements in and out of Adams Drive and Village Drive (most notably left-hand turns) and long queues from the US 30/PA 94 intersection blocking access to these roadways.
		Review feasibility for protected bus stops along Village Drive and in the general area of the Gettysburg-Hanover Connector route.	Short Term	$	
Low	**PA 94 & Red Hill Road (T-495)**	Restripe gore area at the Red Hill Road approach to restrict to right-in/right-out movements.	Short Term	$	**Safety:** There were 2 reportable angle crashes at the intersection between 2018-22, with one resulting in possible injury and the other in property damage only. **Development Activity/Potential**: Summerfield Residential Development will be adding an access point onto Red Hill Road. Zoning in the area is designated for medium density residential use (Summerfield) and industrial (to the north) on the west side of the PA 94 corridor. The eastern side is designated for limited mixed use/low density residential use. ***Congestion/Operations**: The intersection is stop controlled with signage restricting left turns onto or off of PA 94. The turn restriction was put in place as a result of poor sight distance and high vehicle speeds. The construction of a mountable, concrete island was recommended as a result of the 2010 RSA; however, during the project field view in February 2024, attendees indicated a preference to restripe the gore area and monitor the intersection rather than install the concrete island. The upcoming signalization of Brickyard Road could impact future intersection traffic movements which should be monitored after the signal is installed. **Freight Traffic/Activity**: PA 94 in the area of the Red Hill Road and Racetrack Road intersections accommodates ~11,400 freight trips. It is assumed that this number will increase as a result of forthcoming development in the Hanover area. **Stakeholder/Public Input**: Several stakeholders highlighted poor visibility/sight distance at this intersection. Members of the public indicated that the "no left turn" signs are not effective, as drivers still make left turns from Red Hill Road on PA 94 and vice versa.
		Re-evaluate intersection movements after the installation of the traffic signal at PA 94 & Brickyard Road to determine if additional improvements are necessary.	Mid-Term	$	

Priority Level	Location	Recommendation Description	Horizon	Cost	Priority Level Justification
Low	**PA 94 & Municipal Road (T-509)**	Conduct turn restriction study for left turns in & out from Municipal Road.	Short Term	$	**Safety:** 5 reportable crashes in the five year period ending in 2022, with three being angle crashes. Three crashes resulted in property damage only while two resulted in injuries - one minor, another of unknown severity. **Development Activity/Potential:** This roadway serves as the primary access road to Berwick Township's municipal facilities. The Cambrian Hills development is under construction nearby; however, it will primarily leverage the neighboring Green Springs Road intersection as its primary access point. ***Congestion/Operations:** The Municipal Road approach is stop-controlled. While stakeholders and the public noted that turning movements can be difficult, no concerns were raised regarding queuing/congestion in the area. **Freight Traffic/Activity**: PA 94 at this intersection accommodates ~11,200 freight trips that use the PA 94/US 30 intersection. It is assumed this number could increase as a result of pending development in the Hanover area. ***Stakeholder/Public Input:** During the field view in February 2024, attendees noted that the neighboring Tropical Treat area would be a higher priority compared to this intersection. The public highlighted the roadway topography causing sight line/distance issues when making left turns on to Municipal Road and out of Municipal Road onto PA 94. Additionally, the public noted that they felt the signage in the area of the intersection is located on the wrong side of the road, leading to motorist confusion and collisions.
		Conduct SB left turn lane warrant analysis, if turn restrictions are not warranted.	Short Term	$	
		Construct left turn lane on PA 94 SB approach, if warranted.	Mid-Term	$$$$	
		Re-evaluate intersection after the PA 94 & Hanover Street intersection improvements are completed as part of the Cambrian Hills development to determine if additional improvements are needed.	Mid-Term	$	
Low	**US 30 & Lincoln Street (T-702)**	Evaluate feasibility of improving pedestrian and transit connections at/surrounding the US 30 & Lincoln Street intersection.	Short Term	$	**Safety**: The intersection has experienced 8 reportable crashes between 2018-22, including 5 rear end crashes and 2 angle crashes. One crash resulted in suspected minor injury while the remaining were considered property damage only. Driver actions resulting in these crashes include driving too fast for conditions and red light running. The speed limit in the area transitions from 55 MPH to 35 MPH heading westbound as travelers enter New Oxford Borough. ***Development Activity/Potential**: The area is zoned commercial and includes access to New Oxford Shopping Center and other commercial/medical uses. There is no pending/proposed development in the area at this time. ***Congestion/Operations**: The intersection is signalized. During the field view in February 2024, it was expressed that the signal seems to be operating/timed well. **Freight Traffic/Activity:** US 30 at this intersection carries ~6,000 freight trips that use the PA 94/US 30 intersection. The number of freight trips could potentially increase with any future industrial/commercial development in the area of the Cross Keys intersection. ***Stakeholder/Public Input:** rabbittransit would like to see improved connections to the Gettysburg Hanover Connector bus stop as well as pedestrian connections/walkability improvements at this intersection. Local municipalities would like to see sidewalk connections kept internal to development, rather than located along PA 94 or US 30 in the interest of safety. There were no public comments that expressing transportation concerns at this location.
High	**PA 94 Corridor**	Evaluate capacity and demand along the corridor as development occurs to determine if widening is needed.	Long Term	$$$$$	Stakeholders and the public felt that conditions on PA 94 were worse than on US 30 and that PA 94 improvements should be higher priority.
		Conduct a speed assessment within the study area to identify strategies to	Mid-Term	$	

Priority Level	Location	Recommendation Description	Horizon	Cost	Priority Level Justification
		help slow motorist speeds on the US 30 corridor.			
		Consider shoulder improvements (widening, etc.) to accommodate Amish horse and buggy traffic.	Mid-Term	$$$$$	
High	**Study Area**	Encourage municipalities to develop and adopt access management ordinances. If already in place, review existing ordinances to determine if any amendments/revisions should be made.	Short Term	$	This strategy could be implemented in the short-term and
Med	**US 30 Corridor**	As development occurs in the study area, monitor and evaluate TWLTL needs along US 30 corridor	Long Term	$	Stakeholders and the public felt that conditions on PA 94 were worse than on US 30 and that PA 94 improvements should be higher priority.
		Conduct a speed assessment within the study area to identify strategies to help slow motorist speeds on the US 30 corridor.	Mid-Term	$	
		Consider shoulder improvements (widening, etc.) to accommodate Amish horse and buggy traffic.	Mid-Term	$$$	

** - indicates primary factor in assigning HML designation*

Legend for Estimated Costs

$	Between $0 - $50K
$$	Between $50K and $100K
$$$	Between $100K and $250K
$$$$	Between $250K and $500K
$$$$$	Over $500K

Appendix D: Summary of Suggested Improvements Not Included in Study Recommendations

PA 94 and Sheetz/McDonalds/Burger King Access Driveway

The initial set of study recommendations identified an evaluation of roundabout feasibility on PA 94 at the Sheetz/McDonalds/Burger King access driveway. Discussions with the project management team and the study's Advisory Committee resulted in the removal of this recommendation, citing that it will likely not be feasible to install a roundabout at this location due to its proximity to the PA 94 and US 30 intersection. The public survey results revealed divided opinions on the use of roundabouts in the area and several stakeholders felt that the queues from the PA 94 and US 30 intersection would impact traffic flow through a potential roundabout.

Pedestrian Accommodations along PA 94 and US 30

Several discussions with municipalities and other members of the study's Advisory Committee found that a preference for pedestrian accommodations be concentrated internally to area developments, rather than on the PA 94 or US 30 corridors. Members cited safety concerns as the primary reason behind this preference. A letter from Oxford Township expressing this preference is attached to this appendix.

Appendix E: Public Survey – Interactive Map Comments (By Location)

#	Concern	Concern Type
PA 94 at Dicks Dam Road		
1	Why stop here? Vehicular traffic of all types has increased exponentially in recent years all the way to Rte 15 and beyond.	Congestion
2	Redo lane striping in this section. While the new turn lane helps greatly, people traveling on 94 in both directions have sudden lane shifts that need to be smoother.	Repair/Maintenance
3	Improve line markings at Dicks Dam Road. While the new turn lane is helpful, drivers in both directions have sudden lane shift (needs to be smoother curves).	Repair/Maintenance
PA 94 at Green Ridge Road		
4	Run a center turn lane from Rt30 to Dick's Dam Rd to ease congestion & safety.	Congestion
PA 94 at Cedar Road		
5	turn lane	Roadway
PA 94 at Gun Club Road		
6	Could use a turn lane to prevent people trying to squeeze by on one lane	Roadway
7	Desperately need a turning lane here for people turning left from northbound rt 94	Safety
8	Turn lane would help keep traffic flowing at this location.	Congestion
PA 94 at Berlin Road/Pine Run Road		
9	The hill trying to pull out and people racing when making a right off 94 to pine run and using turning lane for others as a passing lane!	Safety
10	getting from Berlin to Pine Run	Safety
11	Reduce hill to improve sight lines at Pine Run and Berlin Roads. This has been a problem for decades.	Safety
12	Increase length of left turn lane for northbound traffic turning onto Berlin Road.	Safety
13	Left turn off 94 onto Berlin, blind hill from on coming trafic	Safety
14	The intersection is hard to see at night time and also hard to turn left onto 94	Not Specified
15	Left turn lane onto Berlin Rd from northbound rt 94 is too short & unsafe during rush hour	Roadway
16	Speed limit needs to be lowered at least from here south to to Brickyard	Not Specified
17	Very dangerous intersection with the added development and now add commercial businesses it needs a light.	Not Specified
18	left hand turn onto Rt.. 94 from Pine Run Rd.	Safety
PA 94 at Forest Drive		
19	Cannot make left off 94 safely or pull on 94 off forest safely.	Not Specified
20	Dangerous	Not Specified
21	Difficult to enter or exit on to Rt 94 safely	Safety

#	Concern	Concern Type
PA 94 at Caplan Court		
22	Future concern of large amount of truck traffic from proposed industrial complex entering Rt 94, particularly making left turns onto 94.	Safety
23	Why on earth does the turning lane end BEFORE Caplan Ct if you're turning left from north rt 94? It makes no sense & is unsafe	Safety
24	Left hand turn lane ends prior to entrance of Chaplin Ct.	Roadway
25	Potential large quantities of truck traffic entering and exiting onto Rt 94 based on impending development. Roadway not wide enough fto keep traffic moving safely. It will be too congested and add to safety issues along this stretch of roadway (Forest Dr	Congestion
26	IF both sides of 94 get industrial development (hopefully not), make access to Fireworks/DG/Sheetz/McD funnel through same roadway and put traffic signal here. Then eliminate Caplan/Sheetz access drive/etc.,	Safety
PA 94 at Sheetz/McDonald's/Burger King Access Driveway		
27	People use this exit only at Sheetz as an entrance, including large trucks	Not Specified
28	Eliminate	Safety
29	Reroute this access drive to Caplan Court to create an intersection there, then close this one. That moves traffic turning left onto 94 North farther from the 94/30 intersection.	Safety
30	Needs to be a light here	Safety
PA 94 and US 30		
31	Add right turn lane for 94 South. This will require taking property from Sheetz, as well as moving their entrance triangle.	Safety
32	Bro, you forgot a right turning lane onto rt. 30 from south rt 94. This contributes to congestion	Roadway
33	Need full right turn lane to eliminate traffic backed up to go 30W	Not Specified
34	Look how short the left turn lane is. 3 cars?? And people turn left into back of Sheetz, etc. highway traffic needs to be the priority.	Not Specified
35	Left turns in/out of Turkey Hill across several lanes of traffic.	Safety
36	Eliminate [access to Turkey Hill] so cars making left turns to ead south. Traffic could enter/exit down at the little shopping strip	Safety
37	Cannot see overhead traffic signal if a truck is in front.	Safety
38	At least eliminate left turns out of Turkey Hill completely (could leave right entrance), but better would be to close entrance completely forcing people to use access drive to shopping center to the south, then enter 94 there.	Safety
39	Left turning lane onto rt 30 west from northbound rt 94 is too short & contributes to congestion	Roadway
40	50 MPH is too fast for this intersection AND is it possible to widen the intersection to add turning lanes by using some of the vacant former CK Diner lot?	Safety
41	Heavy traffic at Cross Keys	Not Specified
42	Too much traffic coming from York	Congestion
43	Warehouse truck traffic and shift worker traffic will overwhelm the already stressed infrastructure	Not Specified
44	Safety	Not Specified

#	Concern	Concern Type
45	Often backed up enough difficult to get to left turn lane	Safety
46	too many openings to other roads near light	Congestion
47	Too much backup	Congestion
PA 94 at Cross Keys Shopping Center Access		
48	left turn onto 94 from this shopping center is dangerous. should be disallowed/barriers	Safety
PA 94 at Adams Avenue/Little Avenue		
49	turning left out of Brethren Home	Safety
50	turning into Brethren Home from Rt 94	Safety
51	Left hand turns	Safety
52	Difficult to make right- or left-hand turns from Adams Ave onto Route 94 and from Route 94 making lefthand turns onto Adams Ave.	Safety
PA 94 at Progress Avenue		
53	Traffic backs up blocking this entrance/exit and unable to see if cars are topping the hill.	Not Specified
PA 94 at Village Drive/Enterprise Drive		
54	Many people entering and exiting during high traffic times	Not Specified
55	Traffic signal to help facilitate left turns out of Cross Keys Village.	Safety
56	Need for a signal light to facilitate traffic moving in and out of Cross Keys Community, Day Care, and Medical Building.	Safety
57	Busy cross section	Safety
58	Difficult making left hand turns from Route 94 northbound onto Village Drive due to speed of traffic coming from light at Route 30. Also, difficult to make right, or worse left hand, turns from Village Drive onto Route 94.	Safety
PA 94 at Brickyard Road		
59	Add left turn lane to turn onto Brickyard Road from South 94 to improve flow of traffic	Congestion
60	Eliminate left turns	Safety
61	When traffic signal is installed, be sure to FORCE FROCK BROS AND ROHRBAUGH TRUCKS TO USE RT 94 INTERSECTION. By allowing them to go to Hanover St they still make left turns onto Hanover south which causes sight problems at that intersection.	Safety
62	Visibility for left turn across traffic coming over the hill	Safety
63	Ability to make left turn out of CKV across busy traffic	Safety
64	Disallow left turns onto Brickyard Rd from northbound rt 94, and from Brickyard Rd onto rt 94 northbound. It's very unsafe! Perhaps find a way to connect Brickyard Rd to Lincoln St	Safety
65	Unsafe turns.	Safety
66	Traffic signs on Rte. 30 between rite aide store and Rte. 94	Safety
67	Trying to make a left turn from Brickyard Road onto Route 94 is nearly impossible. All the tractor trailers entering and exiting Route 94 from this road make for long wait times and dangerous, accident-prone situations.	Safety
68	Making left hand turns onto Brickyard Road from Route 94 is dangerous, not only due to a lot of southbound traffic but also the northbound traffic flying around to the right where there is no turning lane for this maneuver.	Safety
69	turning from Brickyard to 94	Safety

#	Concern	Concern Type
70	It is nearly impossible to make a left turn from Brickyard Road onto Route 94 north at most times of the day. It's only marginally less dangerous making a righthand turn onto Route 94 due to high traffic speeds and density of traffic.	Safety
71	Not safe to enter or exit.	Congestion
PA 94 at Red Hill Road		
72	Close this intersection by rerouting Red Hill Road, either to the south to align with Race Track, or to Brickyard.	Safety
73	Get rid of sign telling people not to turn left onto rt 94 northbound from Red Hill Rd. There simply is no feasible alternative. It is what it is	Safety
PA 94 at Racetrack Road		
74	Speed of traffic coming south over the hill causes great danger	Safety
75	Disallow left turn from Race Track Rd onto southbound rt 94. It's very unsafe. There's no feasible alternative. I'll let the geniuses at PennDOT come up with a solution	Safety
PA 94 at Shank Road		
76	safe driveway access	Safety
PA 94 at Tropical Treat Access		
77	Center Turning Lane for traffic entering Tropical Treat Lot	Congestion
78	Need turn lanes for entering Tropical Treat	Roadway
79	Designated turn lane or bypass lane for turning vehicles; thru travelers do not slow for turning vehicles	Safety
80	Too many entrances and exits for this business, people never know which one to enter.	Safety
81	hard to see when coming south a a person wants to turn into the treat.	Safety
82	For the love of all that is holy, put some turning lanes here. Center turning lane for Tropical Treat & that god forsaken new development up the road. Also need right turn lane into the Treat from northbound 94	Safety
83	Eliminate center 2 entrances to Treat and force people to use north and south-most entrances. This would actually allow Treat to add more spaces along 94 side of their lot. Add turn lanes to 94 (right coming north, left coming south) at those entrances.	Safety
84	residential development & businesses	Safety
PA 94 at Municipal Road		
85	multiple collisions, speed, limited visibility of turning vehicles	Safety
86	Raise the roadway on northbound 94 before Municipal Rd to eliminate blind spot for people turning left onto Municipal.	Safety
87	STREET SIGN ON WRONG SIDE OF ROAD, CAUSING MAJOR ACCIDENTS	Not Specified
PA 94 Near Hanover Concrete Quarry		
88	cannot add lanes due to quarry	Roadway
PA 94 at Appler Road/Green Springs Road		
89	confusing intersection when multiple vehicles present	Congestion
90	Needs a light	Safety
91	No right turn lane to turn from 94 North onto Green Springs Road	Not Specified

#	Concern	Concern Type
92	No safe way to get across to Green Springs Road. The traffic is to consistent along 94 without wide enough gaps in the flow of traffic to cross the intersection safely.	Not Specified
93	Need right turn lane into Green Springs Rd from northbound 94	Safety
94	Appler Rd and Green Springs Rd should be more aligned with each other. Currently they are off-center if you're facing the other side. This creates confusion amongst drivers.	Roadway
95	Extremely dangerous trying to make left here. Traffic light is needed as the development off Green Springs will double in size when completed	Safety
96	right turn lane is needed as cars are traveling fast and often go into other lane to pass right turning cars making it dangerous for those turning left off Carlisle	Safety
97	Road is often used to bypass Hanover St/Carlisle St intersection	Congestion
98	High traffic area VERY DANGEROUS	Not Specified
99	HIGH TRAFFIC AREA, TRAFFIC LIGHT NEEDED	Not Specified
100	HIGH SPEED AREA	Not Specified
101	RIGHT TURN LANE NEEDED	Not Specified
102	Traffic light needed	Not Specified
103	need stop light	Not Specified
104	Need Light	Safety
105	Light needed	Not Specified
106	Slow Trucks, Need LIGHT	Not Specified
107	NEED LIGHT	Not Specified
108	need a light to slow traffic and make it safe	Not Specified
109	dangerous	Not Specified
110	high speed area	Not Specified
111	need a lite	Not Specified
112	stop light needed	Not Specified
113	this intersection needs a light, like our border needs a wall	Safety
114	the intersection is clogged like my grand daddy's toilet after thanksgiving	Congestion
115	the intersection is as dangerous as chuck norris	Safety
116	needs a light here. this area is as dangerous as a fart after taco nightt	Safety
117	this area is as dangerous as dating in 2024	Safety

#	Concern	Concern Type
118	need light	Mobility/Operations
119	dangerous and congested area. slow trucks. fast cars. high traffic	Mobility/Operations
120	put a traffic light here so people dont die	Mobility/Operations
121	Traffic light here. All truck traffic from Quarry should enter 94 off of Green Spring.	Safety
122	This intersection is too dangerous and Appler road is prone to sinkholes. Reroute Green Springs to align with Hanover St., install traffic light, and close Appler permanently..	Safety
123	Turn lane won't help	Not Specified
124	existing roads with new developments	Congestion
PA 94 at Hanover Street		
125	Improved signage advising drivers from Hanover Street to stay in lane and not stop for traffic on Route 94 since they have their own dedicated lane.	Congestion
126	Why not create a barrier the force the traffic coming out of the side road to stay in the right lane on 94 South and not allow them to try to turn left out of it. You could then eliminate the stop sign and just have them yield as caution.	Safety
127	Create 4-way intersection with traffic light. Close Appler Road and reroute Green Springs to align at this intersection (Hanover Street) to create the 4-way and eliminate intersection at Appler/Green Springs.	Safety
128	Increase length of left turn lane for northbound vehicles onto Hanover.	Safety
129	See location marker at CSX crossing near Vulcan entrance to the west.	Congestion
130	Add concrete barrier or flexible markers to keep lanes separate to service center entrance. People turn right then cross into the other lane, and people traveling south on 94 also switch lanes, even though signs and solid white line exists.	Safety
131	Intersection	Not Specified
132	Where is our long-promised traffic light at Subaru to resolve traffic & safety issues for Appler Rd, Green Springs, and Hanover St??	Safety
133	Find a way to encourage motorists to move into the turning lane sooner when they want to turn left onto Hanover St from northbound 94. Right now they're slowing to a crawl in the main road & moving over at the last minute, which increases congestion	Congestion
134	Extreme backups and not long enough turning lane into this road causes major congestion and safety concerns	Congestion
135	Cars making right often go into other lane even though there is a lane for right turns. Barrier or curbing should be installed to discourage this behavior and would help flow of traffic as people often wait until Carlisle is clear to pull out	Safety
US 30 at Village Drive		
136	People make Left off Rt 30 and exit turn left onto Rt 30	Not Specified

#	Concern	Concern Type
137	Future concern of large amount of truck traffic from proposed industrial complex entering Rt 30, particularly making left turns onto 30.	Safety
138	no slow down lane for turning right	Not Specified
139	entering/exiting CKV	Safety
140	Difficult to make either right or lefthand turns from Village Drive entrance to CKV onto or even from Route 30 at this location.	Safety
US 30 near Stanley Drive		
141	Why funnel into one lane to then open to two lanes? Widen roadway to 2 lanes all the way to where it becomes 2 lanes again	Roadway
142	Stay right and pass on the left, but no one listens to these signs and the painting on the road does not show this.	Roadway
143	Two lanes eastbound begin at intersection, then reduce to 1 lane unexpectedly, then go back to 2 lanes near Stanley Drive.	Roadway
144	Future concern of large amount of truck traffic from proposed industrial complex entering Rt 30, particularly making left turns onto 30.	Safety
145	Do something to enforce/control center lane for left turns in businesses. When traffic is backed up I constantly see people on 30W getting the center lane long before Wendy's to turn left onto 94S. Very dangerous!!	Safety
Outside Study Area		
146	Not directly in the study area but related -- work with CSX to have them load/unload trains during off-peak hours. They have to move back back/forward/back to change sidings and traffic backs up from this crossing all the way to Route 94.	Congestion
147	people do not stop when heading to Hanover from New Oxford	Safety
148	Make separate right turn lane and left turn lane (Hanover Street at Brickyard Road)	Not Specified