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# VIOLET TOWNSHIP THOROUGHFARE PLAN

Fairfield County, Ohio

June 2008

*Violet Township*



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## **1.0 PROJECT OVERVIEW**

### **1.1 Introduction**

Violet Township is a dynamic and adaptive community highly influenced by growth and development within its borders. The once rural landscape of Violet Township has not escaped the challenges and pressures associated with its locale on the southeast fringe of the greater Columbus metropolitan area. The ever-changing township is further influenced by major highway corridors of Interstate 70 and State Route 33.

This Thoroughfare Plan serves as an update to the plan included as part of the Violet Township Land Use and Transportation Plan accepted in March, 2005 by the Violet Township Trustees. Access modifications and upgrades along the US 33 corridor introduce the opportunity for increased growth and development within the Township and adjacent municipalities. Growth and development within the area presents a significant challenge to Township staff as they consider future transportation needs.

### **1.2 Study Area**

Violet Township is located in the northeast corner of Fairfield County, Ohio on the eastern border of Columbus, Ohio. Violet Township includes all unincorporated areas as well as the City of Pickerington and portions of the City of Reynoldsburg and the Village of Canal Winchester, as illustrated in **Figure 1**. The Study Area identified for this project includes all of Violet Township exclusive of incorporated areas.

A larger Land Use Review Area was identified beyond the limits of the Violet Township Study Area. The Land Use Review Area includes the Study Area, incorporated portions of Violet Township as well as Franklin County west of Violet Township to Gender Road, Liberty Township east to Heimberger Road, and Etna Township north to Interstate 70.

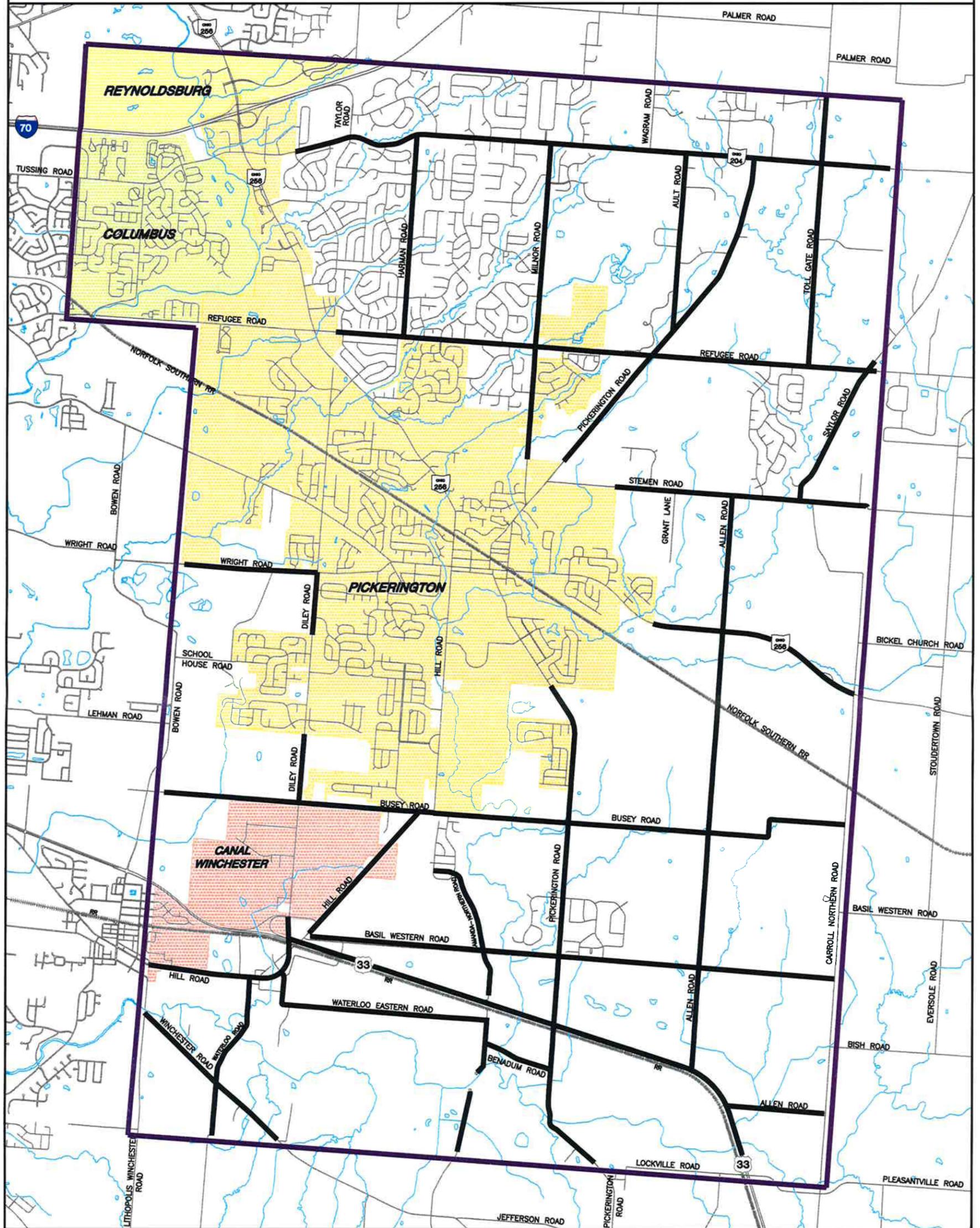
### **1.3 Purpose and Need**

The Violet Township Thoroughfare Plan is intended to serve as a planning tool and guide for Township officials to pursue future transportation investments. The purpose of the plan is to create a vision of the future roadway network by assessing transportation needs and establishing a functional hierarchy of roadways that address local and regional connectivity and increased roadway capacity. A classified roadway network tuned to the needs of the Township and the greater regional area will provide design and right-of-way guidelines for new and expanded roadway corridors.

The conceptual nature of the thoroughfare plan document does not replace the need for more detailed study of intersection and roadway operation, detailed design for road improvements, or identification of alignments for new roadways prior to further considerations of the plan recommendations.



# VIOLET TOWNSHIP THOROUGHFARE PLAN



## LEGEND

- = Violet Township
- = Village of Canal Winchester
- = City of Reynoldsburg
- = Township Roadways
- = City of Pickerington
- = City of Columbus

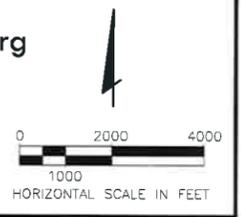


FIGURE 1

Violet Township Study Area



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## **2.0 EXISTING STUDY AREA TRANSPORTATION SYSTEM**

### **2.1 Existing Roadway Conditions**

Conditions of the existing Violet Township transportation system were inventoried for use in establishing the base roadway network. Features of the Study Area transportation system have been presented graphically on **Figure 2**, including number of travel lanes, intersection control and posted speed limits.

Two railroad corridors bisect Violet Township creating highway-rail crossing locations at various locations within the township. The Norfolk Southern railroad traverses Violet Township through the City of Pickerington with continuation across the eastern portion of the township, intersecting Allen Road and Carroll-Northern Road. The second railroad line traverses the southern portion of Violet Township, travelling parallel to US 33 on the south side with grade crossing locations at Amanda-Northern Road, Pickerington Road, Allen Road, and Lockville Road. All at-grade crossing locations stated above feature “crossbuck” signage and stop bars but are not equipped with on-pavement markings, automatic gates or flashing-light signals.

### **2.2 Existing Roadway Jurisdictions**

The Violet Township study area encompasses the City of Pickerington and portions of the City of Reynoldsburg and the Village of Canal Winchester. Each of these jurisdictions, as well as Fairfield County and the Ohio Department of Transportation has roadway operation and maintenance responsibilities within the study area boundaries.

A portion of the roadway system within Violet Township, including Interstate 70, US 33 and State Routes 256 and 204 outside the incorporated areas, is administered by the Ohio Department of Transportation. State routes within the incorporated areas are maintained by the respective municipality. Most of the remaining major roadways within Violet Township are maintained by the Fairfield County Engineers Office with the exception of Allen Road, Waterloo Road, Amanda-Northern Road, Busey Road, Ault Road, Tollgate Road and Saylor Road which are maintained by Violet Township.

### **2.3 Current Traffic Volumes**

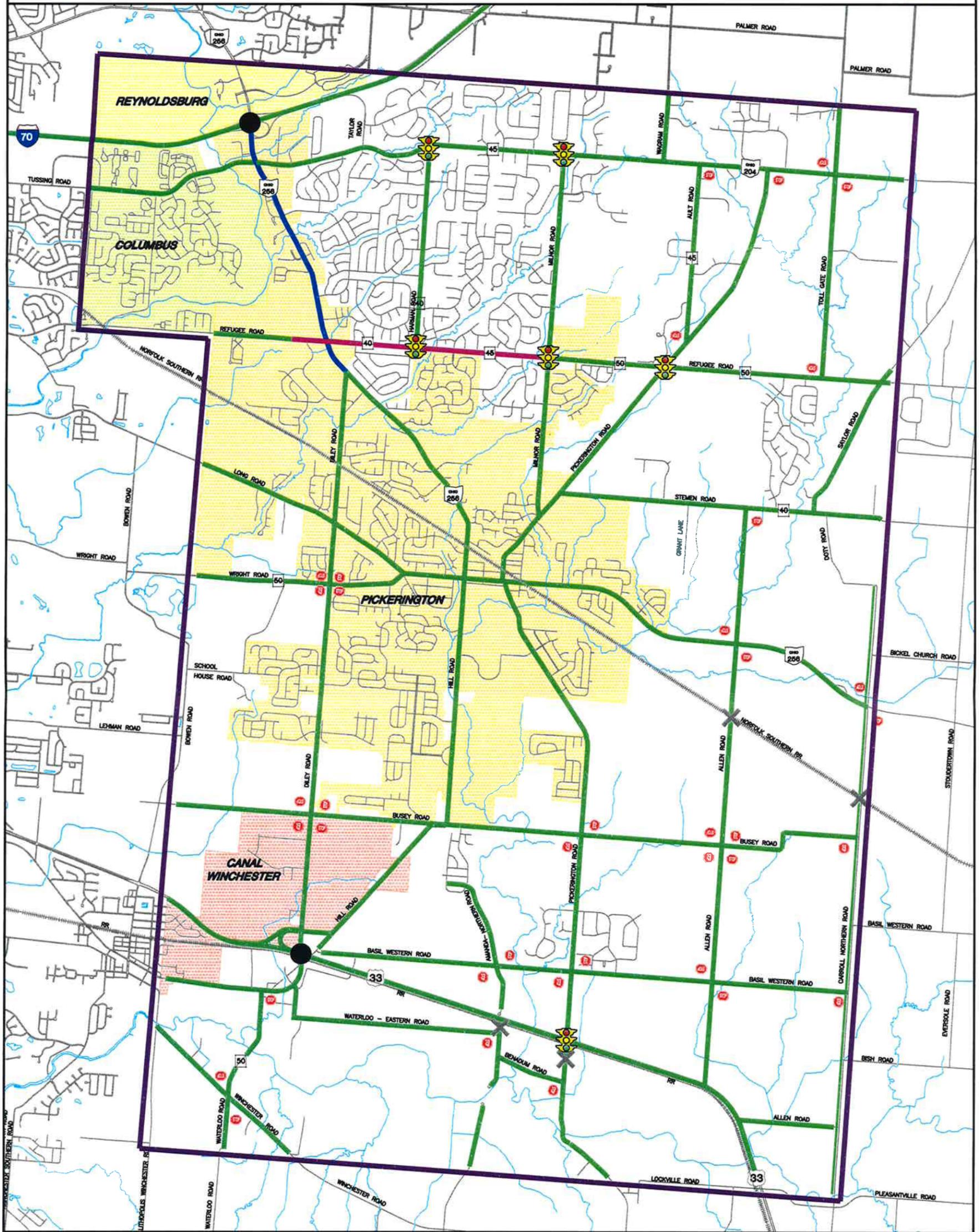
Current daily traffic volumes (ADT) within the Study Area have been presented graphically on **Figure 3**. Current traffic volumes represent mechanical traffic counts performed in 2006 in conjunction with this plan update, 2006 data published in the ODOT Traffic Survey Reports, and 2004 count data published in the Mid Ohio Regional Planning Commission (MORPC) Traffic Count Maps.

### **2.4 US 33 Corridor Modifications**

U.S. Route 33 is currently in the process of being upgraded to a limited access freeway facility between Interstate 270 in Franklin County and the Lancaster Bypass. This process includes the eventual elimination of all at-grade intersections with construction of interchanges at select locations along the corridor. Once completed, US 33 corridor will function in a manner similar to a freeway or interstate highway. In addition to the recently constructed US 33/Diley Road - Hill Road interchange, a second interchange on US 33 is under consideration within Violet Township. The Ohio Department of Transportation has identified Pickerington Road as the preferred location for the new US 33 interchange in Violet Township with funding for preliminary engineering scheduled for year 2010.

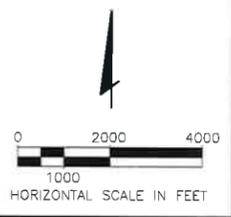


# VIOLET TOWNSHIP THOROUGHFARE PLAN



## LEGEND

-  = Violet Township
-  = 2 Lane Existing Roadway
-  = Traffic Signal Control
-  = Existing Interchange
-  = 3 Lane Existing Roadway
-  = Traffic Stop Sign Control
-  = 5 Lane Existing Roadway
-  = Railroad Crossing Location
-  = Posted Speed Limit (MPH)



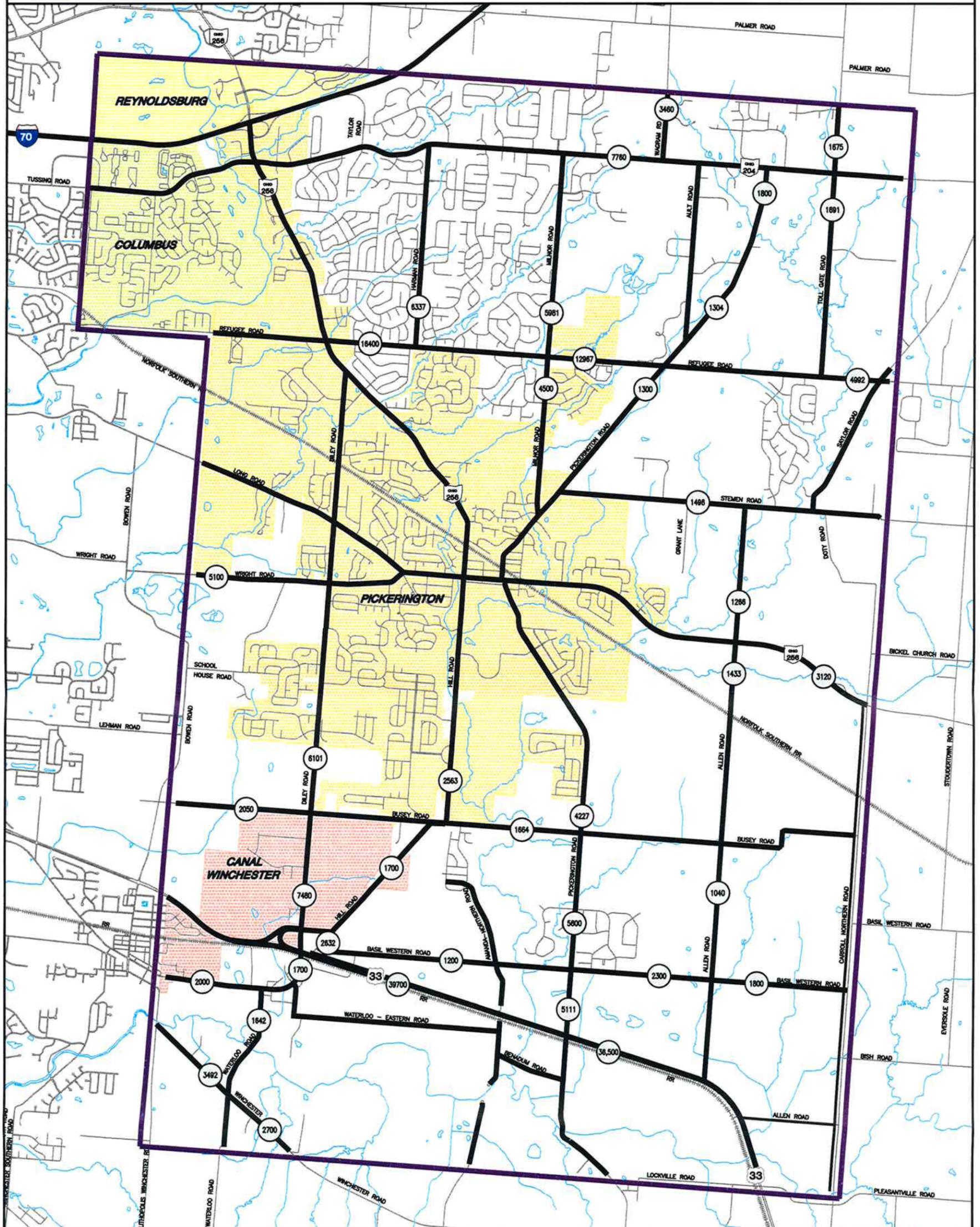
**FIGURE 2**  
Existing Study Area Conditions



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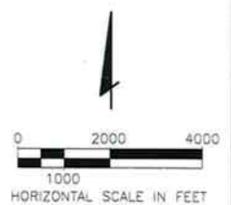


# VIOLET TOWNSHIP THOROUGHFARE PLAN



## LEGEND

-  = Violet Township
-  = Study Area Roadway
-  = Current Average Daily Traffic Volume (ADT)



**FIGURE 3**  
**Current Average Daily Traffic Volumes**



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### 3.0 LAND USE AND TRAFFIC VOLUME FORECASTS

Identification of improvements or changes to an existing transportation network is directly related to surrounding land uses, both existing and future. The first step in this thoroughfare planning process was to determine the amount of traffic expected to be generated upon full build out of expected land uses.

#### 3.1 Land Use Review Area

Since the Township's transportation network is highly influenced by roadway infrastructure and land use decisions of the adjacent municipalities, a Land Use Review Area was identified beyond the limits of the Study Area. The Land Use Review Area includes the Study Area, incorporated portions of Violet Township as well as Franklin County west of Violet Township to Gender Road, Liberty Township east to Heimberger Road, and Etna Township north to Interstate 70. Traffic forecasts reflect full build out of the Land Use Planning Area and traffic generated thereby.

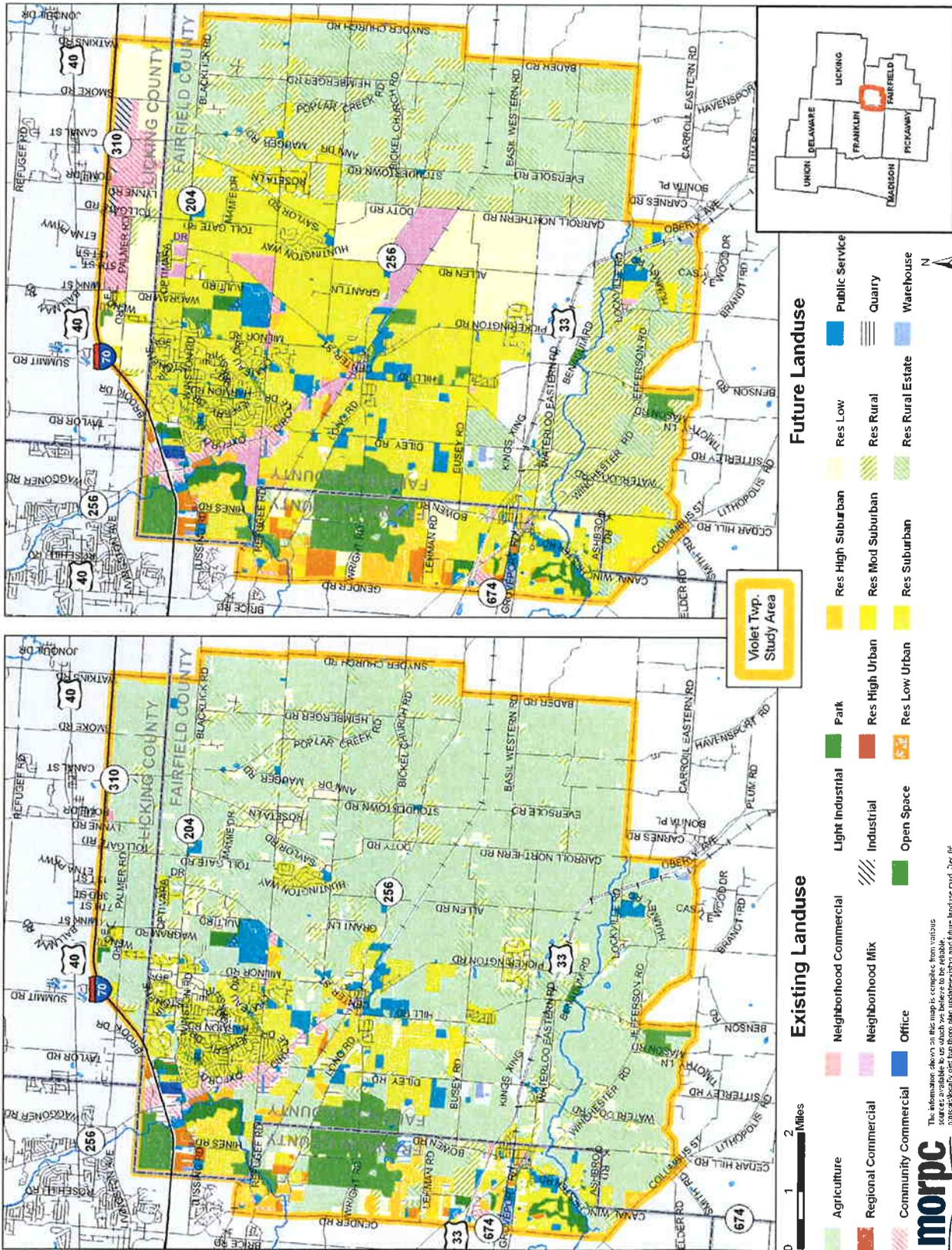
#### 3.2 Land Use Forecasts

Land use assumptions and forecasts were developed by the Mid-Ohio Regional Planning Commission (MORPC) for use in this Thoroughfare Plan update. Land use inventories and projections were developed by MORPC for use in generating design year 2030 traffic projections via the regional transportation demand model. The Land Use Review Area was divided into 90 subareas referred to as Traffic Analysis Zones (TAZ). The TAZ structure is the means by which the travel demand model generates, assigns and distributes traffic to the transportation network. The MORPC land use document, including land use tables by TAZ, has been included in **Appendix A**.

Various local land use planning documents, including the 2005 Violet Township Land Use and Transportation Plan were referenced in preparation of the land use forecasts. Densities assumed for each generalized land use category have been summarized in **Table 1**. The MORPC existing and future land use map for the Violet Township study area has been included below. Land use forecasts developed for this plan represent full build out of all available property within the Study Area, not assuming regional development constraints.

**TABLE 1**  
**Land Use Densities**

Land Use	Density
Suburban/Rural Residential (Single Family)	2 units per acre
Urban Residential (Multi Family)	5 - 20 units per acre
Office	10,000 square feet per acre
Retail/Commercial	2,000 - 8,000 square feet per acre
Industrial/Warehouse/	10,000 square feet per acre





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### **3.3 Traffic Volume Forecasts**

Traffic volume projections were prepared by the Mid-Ohio Regional Planning Commission (MORPC) based on land use forecasts and future alternative roadway networks. A travel demand model is a computer modeling tool by which land use information is translated into travel estimates to provide planning level information relating to a specific transportation system. Travel demand modeling utilizes a four-step process which includes trip generation, trip distribution, mode-choice and trip assignment. The MORPC travel demand model was used to forecast design year 2030 average daily traffic volumes (ADT) for the base roadway network and for six alternative roadway networks described in further detail in section 5 of this report.



#### 4.0 BASE ROADWAY NETWORK ANALYSIS

##### 4.1 Existing + Committed Base Roadway Network

Certain modifications to the existing roadway network have been identified as committed roadway improvements. Committed improvements represent planned roadway improvement projects identified in the MORPC Transportation Improvement Program (TIP) for fiscal years 2008 – 2011 that are likely to be funded for construction. Committed improvements are not attributable to analytical work prepared as part of the thoroughfare planning process. A listing of committed roadway improvements has been summarized in **Table 2**. The existing roadway network combined with committed improvements establishes the existing and committed (E+C) base roadway network illustrated in **Figure 4**.

**TABLE 2**  
**Committed Roadway Improvements**

US 33/Pickerington Road Interchange
US 33/Carroll Area Interchange
Diley Road Widening (5-Lanes from US 33 to SR 256)
Ebright Road overpass at US 33
Bowen Road overpass at US 33
Hill Road/Diley Road connection
Busey Road extension to Gender Road

##### 4.2 Base Roadway Network Deficiencies

The level of service (LOS) of a roadway is a quality measure describing operational conditions within a traffic stream expressed in terms of letter grades. Six levels of service (LOS) have been defined, with LOS A representing the highest quality traffic flow and minimal delay, and LOS F representing poor traffic operations, significant delay, and substantial queuing.

Urban arterial and collector roadways are normally designed to provide adequate capacity to serve design year traffic volumes at LOS D or better. For this study, a roadway is considered to have exceeded capacity when it reaches threshold volumes between LOS D and LOS E. Level of service D/E thresholds for various lane configurations and traffic volumes have been summarized in **Table 3**. These volumes are not intended to predict capacity or levels of service at individual intersections on a given roadway but are guidelines to estimate capacity thresholds on roadways where the number of through lanes controls the analysis.



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**TABLE 3**  
**Level of Service D/E Threshold Levels**

Roadway Section	Average Daily Traffic <sup>1</sup>
2/3 Lane Section <sup>2</sup>	10,000 – 15,000
4/5 Lane Section <sup>2</sup>	15,000 – 35,000
6/7 Lane Section <sup>2</sup>	35,000 – 50,000

1. Assumes approximately 10% of daily traffic occurs during the peak hour with a 60/40 directional split. Variations in peaking characteristics and/or directional distribution will influence peak hour operations.
2. Threshold depends on access point spacing and assumes presence of left turn lanes at intersections.

A critical factor in the evaluation of future roadway capacity is the proportion of the facility's capacity expected to be used by projected traffic volumes. This value, known as the volume to capacity (v/c) ratio is defined as the ratio of projected traffic flow (2030 ADT volume on a given roadway link) to the capacity of the roadway (LOS D/E capacity thresholds for the respective number of lanes on the link). A roadway section with a volume to capacity (v/c) ratio greater than 1.0 predicts that the roadway section will be capacity deficient when the land uses shown in **Table 1** are fully build throughout the area..

Deficient links were identified for the E+C base roadway network by loading the existing roadways with 2030 average daily traffic volumes and comparing these volumes with threshold levels from **Table 3**. Roadway links with corresponding v/c ratios and number of travel lanes needed to accommodate projected traffic volumes have been summarized in **Table 4**. Roadway links with v/c ratios less than 1.0 are expected to function adequately without widening to add through lanes. Roadway links with v/c ratios greater than 1.0 are designated “deficient links” which indicates that widening improvements will be needed to accommodate projected 2030 traffic volumes.

Average daily traffic volumes and deficient roadway links for the E+C base roadway network have been graphically illustrated in **Figure 5**. Traffic volumes provided in **Figure 5** denote the projected 2030 ADT for each roadway link, with links shown in red denoting deficiencies in the existing roadway capacity. Number of travel lanes designated on **Figure 5** represent the existing or near-term planned condition for each respective roadway link, and does not imply the number of travel lanes needed to improve deficient conditions.



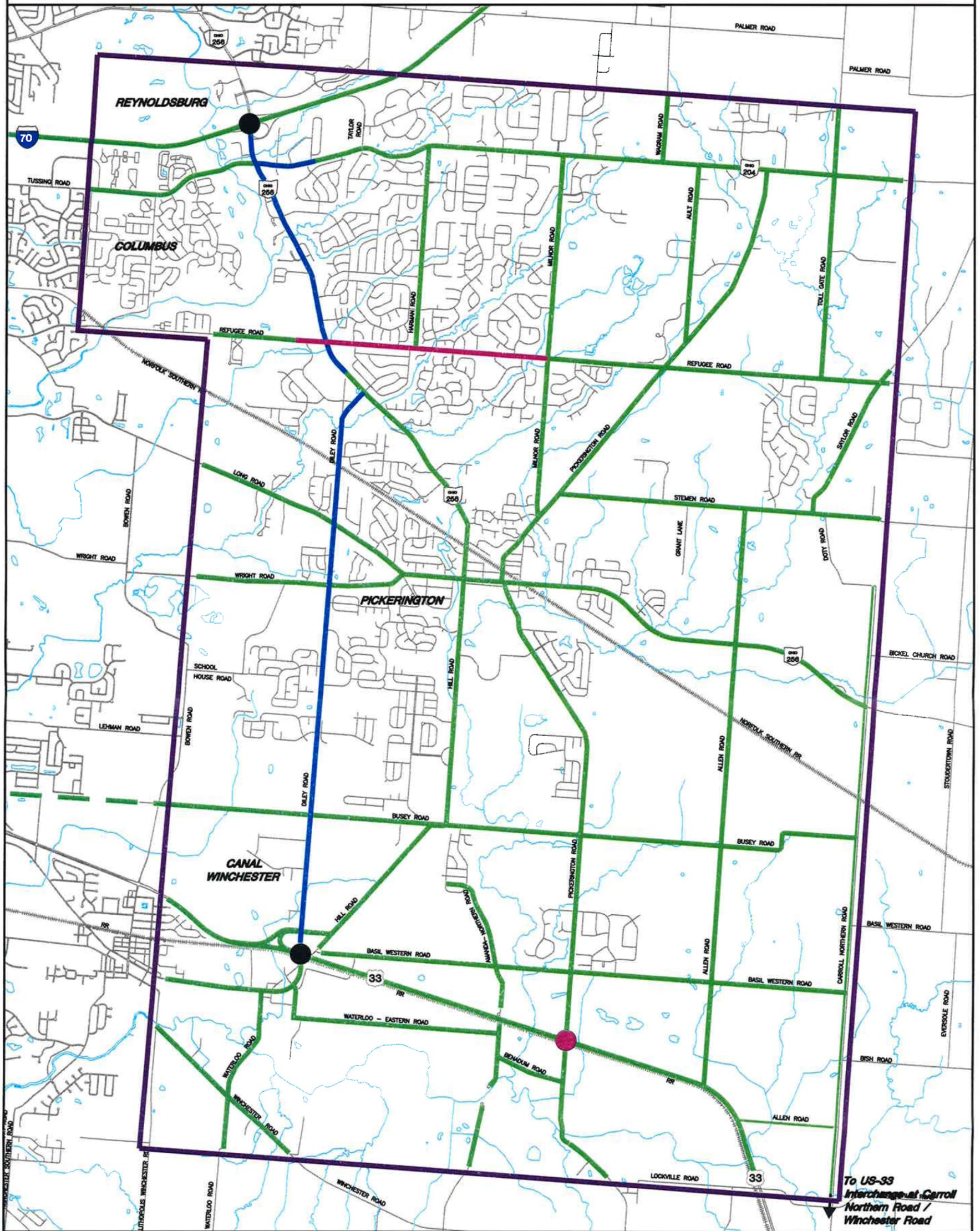
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**TABLE 4**  
**2030 V/C Ratios on the E+C Base Roadway Network**

Roadway	From	To	LOS D/E Capacity (ADT)	2030 E+C Base Roadway Network			
				ADT Projected	v/c	Deficient Link?	# Lanes for LOS D/E
Allen Road	US 33	Basil Western Road	12,000	1,700	0.14	no	2
Allen Road	Basil Western Road	Busey Road	12,000	4,200	0.35	no	2
Allen Road	Busey Road	SR 256	12,000	13,300	1.11	YES	3
Allen Road	SR 256	Stemen Road	12,000	7,700	0.64	no	2
Allen Road (Connector)	Stemen Road	Refugee Road	15,000	-	-	-	-
Allen Road (Connector)	Refugee Road	Toll Gate Road	15,000	-	-	-	-
Ault Road	Pickerington Road	SR 204	12,000	4,100	0.34	no	2
Amanda Northern Road	Basil Western Road	Busey Road	12,000	4,500	0.38	no	2
Basil Western Road	Hill Road	Amanda Northern Road	12,000	24,300	2.03	YES	5
Basil Western Road	Amanda Northern Road	Pickerington Road	12,000	21,700	1.81	YES	5
Basil Western Road	Pickerington Road	Allen Road	12,000	24,900	2.08	YES	5
Basil Western Road	Allen Road	Carroll Northern Road	12,000	23,300	1.94	YES	5
Busey Road	Bowen Road	Diley Road	12,000	9,200	0.77	no	2
Busey Road	Amanda Northern Road	Pickerington Road	12,000	14,500	1.21	YES	3
Busey Road	Pickerington Road	Allen Road	12,000	17,300	1.44	YES	5
Busey Road	Allen Road	Carroll Northern Road	12,000	13,000	1.08	YES	3
Carroll-Northern Road	Allen Road	Basil Western Road	12,000	9,500	0.79	no	2
Carroll-Northern Road	Basil Western Road	Basil Western Road	12,000	19,800	1.65	YES	5
Carroll-Northern Road	Basil Western Road	Busey Road	12,000	9,500	0.79	no	2
Carroll-Northern Road	Busey Road	SR 256	12,000	16,800	1.40	YES	5
Carroll-Northern (Connector)	SR 256	SR 310	15,000	-	-	-	-
Diley Road	Waterloo Road	US 33	12,000	41,000	3.42	YES	7
Diley Road	US 33	Busey Road	12,000	47,300	3.94	YES	7
Diley Road	Busey Road	Wright Road	12,000	38,500	3.21	YES	7
Harman Road	Refugee Road	SR 204	12,000	12,900	1.08	YES	3
Hill Road	Bowen Road	Waterloo Road	12,000	15,900	1.33	YES	3
Hill Road	Basil Western Road	Busey Road	12,000	13,400	1.12	YES	3
Hill Road	Busey Road	SR 256	12,000	9,600	0.80	no	2
Kings Crossing	Diley Road	Hill Road	12,000	37,000	3.08	YES	7
Long Road	Bowen Road	Diley Road	12,000	7,200	0.60	no	2
Milnor Road	Pickerington Road	Refugee Road	12,000	11,700	0.98	no	2
Milnor Road	Refugee Road	SR 204	12,000	17,500	1.46	YES	5
Pickerington Road	Township Line	Benadum Road	12,000	19,500	1.63	YES	5
Pickerington Road	Benadum Road	US 33	12,000	31,000	2.58	YES	5
Pickerington Road	US 33	Basil Western Road	12,000	35,000	2.92	YES	5
Pickerington Road	Basil Western Road	Busey Road	12,000	16,800	1.40	YES	5
Pickerington Road	Busey Road	SR 256	12,000	12,000	1.00	no	2
Pickerington Road	Busey Road	Connector Road	12,000	-	-	-	-
Pickerington Road	Connector Road	SR 256	12,000	-	-	-	-
Pickerington Road	Stemen Road	Refugee Road	12,000	13,600	1.13	YES	3
Pickerington Road	Ault Road	SR 204	12,000	12,500	1.04	YES	3
Refugee Road	Township Line	SR 256	15,000	19,400	1.29	YES	5
Refugee Road	SR 256	Harman Road	15,000	33,600	2.24	YES	5
Refugee Road	Milnor Road	Pickerington Road	12,000	26,200	2.18	YES	5
Refugee Road	Toll Gate Road	Saylor Road	12,000	21,400	1.78	YES	5
SR 204	Township Line	SR 256	12,000	18,000	1.50	YES	5
SR 204	SR 256	Taylor Road	12,000	24,400	2.03	YES	5
SR 204	Taylor Road	Harman Road	12,000	34,200	2.85	YES	5
SR 204	Milnor Road	Wagram Road	12,000	31,200	2.60	YES	5
SR 204	Toll Gate Road	Saylor Road	12,000	17,800	1.48	YES	5
SR 256 (Hill Road)	Interstate 70	Diley Road	35,000	65,300	1.87	YES	7
SR 256 (Hill Road)	Diley Road	SR 256 (Columbus St)	12,000	11,300	0.94	no	2
SR 256	Pickerington Road	Allen Road	12,000	11,900	0.99	no	2
SR 256	Allen Road	Carroll Northern Road	12,000	15,400	1.28	YES	3
Stemen Road	Pickerington Road	Allen Road	12,000	4,400	0.37	no	2
Toll Gate Road	Refugee Road	SR 204	12,000	12,000	1.00	no	2
Toll Gate Road	SR 204	Township Line	12,000	12,000	1.00	no	2
Waterloo Eastern Road	Diley Road	Amanda Northern Road	12,000	1,200	0.10	no	2
Waterloo Road	Winchester Road	Hill Road	12,000	14,700	1.23	YES	3
Wagram Road	SR 204	Palmer Road	12,000	28,300	2.36	YES	5
Winchester Road	Utopolis-Winchester Road	Waterloo Road	12,000	8,600	0.72	no	2
Winchester Road	Waterloo Road	Pickerington Road	12,000	10,800	0.90	no	2
Wright Road	Township Line	Diley Road	12,000	7,400	0.62	no	2
Pickerington/Allen Connector	Pickerington Road	Allen Road	15,000	-	-	-	-

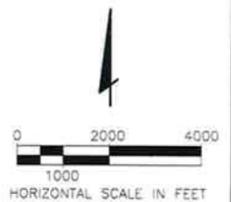


# VIOLET TOWNSHIP THOROUGHFARE PLAN



## LEGEND

-  = Violet Township
-  = Future Interchange
-  = Existing Interchange
-  = 2 Lane Roadway
-  = 2 Lane Planned New Roadway
-  = 3 Lane Roadway
-  = 5 Lane Roadway

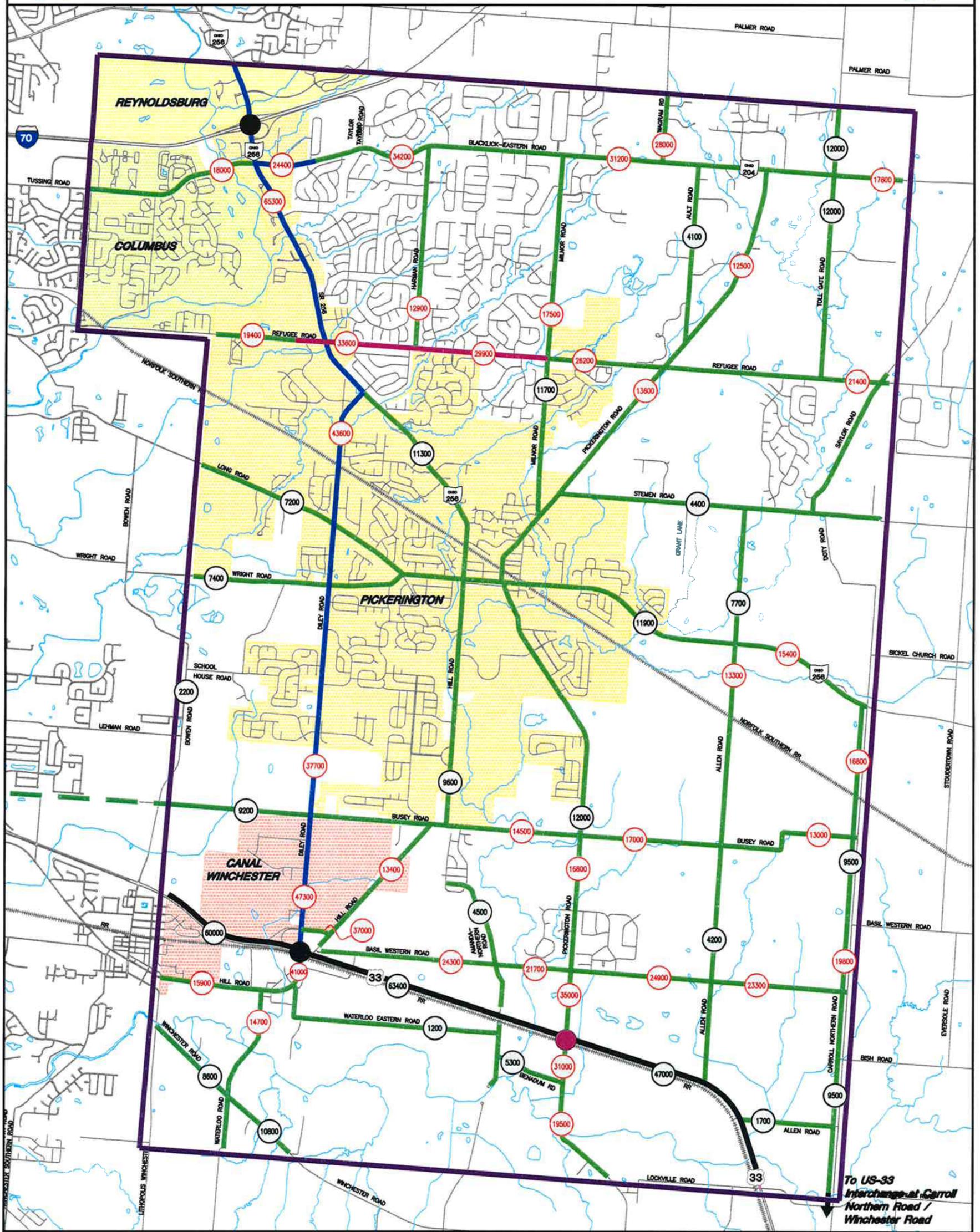


**FIGURE 4**  
Existing + Committed Base Roadway Network



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# VIOLET TOWNSHIP THOROUGHFARE PLAN



## LEGEND

- |  |                        |  |   |  |                              |
|--|------------------------|--|---|--|------------------------------|
|  | = Violet Township      |  | = 2030 ADT Adequate Capacity on Existing Roadway  |  | = 2 Lane Roadway             |
|  | = Future Interchange   |  | = 2030 ADT Deficient Capacity on Existing Roadway |  | = 2 Lane Planned New Roadway |
|  | = Existing Interchange |  |   |  | = 3 Lane Roadway             |
|  |                        |  |   |  | = 5 Lane Roadway             |

**FIGURE 5**  
Existing + Committed Base Roadway Network  
2030 ADT & Deficient Link Summary

**EMHT**

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## 5.0 ALTERNATIVE ROADWAY NETWORK ANALYSIS

In addition to the E+C base roadway network, six (6) future alternative roadway networks were developed for evaluation. Network alternatives were selected based on the need to address and provide insight into the following key issues affecting the future structure of the overall Violet Township transportation system:

- Location of a new interchange on US 33 within Violet Township
- Level of benefit provided by a new connection to Interstate 70 between SR 256 and SR 310
- Level of benefit provided by a north/south arterial corridor within Violet Township

### 5.1 Future US 33 Interchange Location – Violet Township Area

The Ohio Department of Transportation has identified Pickerington Road as the preferred location for the new US 33 interchange in Violet Township. The ODOT preferred interchange location at Pickerington Road has been met with criticism based on challenges it poses to the surrounding communities and lack of economic development opportunities (Violet Township Land Use and Transportation Plan, 2005). Many of the surrounding communities, including Violet Township, have indicated that an interchange at Allen Road may better serve the needs of the region. However, lower construction costs and better local roadway conditions and connections have been cited to support Pickerington Road as the State's preferred interchange location.

With no other changes to the existing roadway network, a new US 33 interchange at Pickerington Road effectively designates Pickerington Road as a primary north/south connection between US 33 and SR 204. However, the portion of Pickerington Road through the City of Pickerington is not designed or intended to service the large volume of traffic expected to result from a new interchange at Pickerington Road. If Pickerington Road is ultimately selected as the US 33 interchange location, a potential solution is to create a new roadway connection between Pickerington Road and Allen Road and improve existing Allen Road to provide an alternative for through traffic outside the City of Pickerington. A Pickerington Road/Allen Road connection was a recommendation of the 2005 Pickerington Thoroughfare Plan. If Allen Road is ultimately selected as the US 33 interchange location, the Pickerington Road/Allen Road connection would not be needed.

The various alternative roadway networks were developed such that the level of benefit provided by the two potential interchange locations as well as the Pickerington Road/Allen Road connection could be evaluated in the context of the overall Violet Township transportation structure. Three of the alternative roadway networks model a new US 33 interchange at Pickerington Road, with and without the Pickerington Road/Allen Road connection. The remaining three alternatives model a new interchange at Allen Road and do not include the Pickerington Road/Allen Road connection. Each alternative with the interchange at Allen Road assumes an overpass on Pickerington Road at US 33.



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## 5.2 Future US 33 Interchange Location – Carroll Area

An additional interchange on US 33 is under development by the Ohio Department of Transportation for the Carroll area of Bloom Township. This interchange would replace an existing signalized intersection at the US 33/Winchester Road intersection. This future interchange will interface with the local road network via a new connection between Winchester Road and Carroll Northern Road. This future interchange location, which will provide transportation benefits to the eastern portions of Violet Township, was assumed in the E+C base roadway network and has been included in each alternative roadway network.

## 5.3 Expanded Access to Interstate 70

The 2005 Violet Township Thoroughfare Plan identified Wagram Road as the “route most likely to intersect a future I-70 interchange between the existing interchanges at Taylor Road and State Route 310, and thus a road alignment that connects directly with this intersection may facilitate future access to and from the Interstate”. Similarly, the Pickerington Thoroughfare Plan identifies Wagram Road/Mink Road as the location for a future interchange with Interstate 70. A new Interstate 70 interchange at or near Wagram Road supports the previously recommended alignment for the future extension of Allen Road, creating a north/south arterial corridor.

Planning for a new interchange on Interstate 70 is in its infancy and therefore an exact location has yet to be determined. Differing slightly from the current Violet Township and Pickerington plans, the MORPC 2030 Transportation Plan identifies a future Interstate 70 interchange at a location east of Mink Road/Wagram Road. Recent discussions with MORPC staff have indicated that environmental constraints near Mink Road/Wagram Road limit the feasibility of an interchange at that location and that a location at or near Tollgate Road has been discussed as a more feasible alternative.

The various alternative roadway networks were developed such that the level of benefit provided by expanded access to Interstate 70 could be evaluated in the context of the overall Violet Township transportation structure. Three of the alternative roadway network scenarios developed for this plan model the transportation system with expanded access to Interstate 70 via an interchange location at Tollgate Road.

Another option is the extension of Carroll-Northern Road to the east to connect to SR 310 at the SR 204 intersection. This alternative would create a north/south arterial corridor to utilize access to Interstate 70 via the existing interchange at SR 310. The challenges associated with this alternative are that the majority of the arterial corridor would be outside Violet Township which may reduce the overall level of benefit to the township.

## 5.4 Future North/South Arterial Corridor

The extension of Allen Road from its northern terminus at Stemen Road to Blacklick-Eastern Road (SR 204) was a primary focus of the transportation improvements recommended in the 2005 Violet Township Thoroughfare Plan. The importance of the Allen Road extension centered on the need to provide connection between the north and south portions of Violet Township by creating a north/south arterial corridor outside the City of Pickerington. This need still exists and is a primary focus of the alternative road networks developed for this plan update.



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Two alternative alignments were identified in the 2005 Violet Township Thoroughfare Plan for the northern extension of Allen Road. Each alternative involved the extension of Allen Road directly north to Refugee Road followed by an alignment parallel to Ault Road with connection to Blacklick-Eastern Road at or near Wagram Road. The 2005 Pickerington Thoroughfare Plan presents a similar recommendation for the extension of Allen Road. The Pickerington recommendation involves the extension of Allen Road directly north to Refugee Road followed by a new alignment utilizing a portion of existing Ault Road with connection to Blacklick-Eastern Road.

Since the feasibility of a new Interstate 70 interchange at or near Wagram Road/Mink Road is relatively low given various constraints at that location, the previously recommended alignment for the north/south arterial corridor may not be the most suitable solution. An alternative roadway alignment involving the extension of Allen Road north to Refugee Road with a new roadway connection between Refugee Road and Tollgate Road was developed for evaluation in this plan update. Regardless of the ultimate outcome of expanded access to Interstate 70, this alignment scenario would fulfill the goal of creating a new north/south corridor within the township and could capitalize on interstate access should an interchange at Tollgate Road ultimately be constructed.

## **5.5 Alternative Roadway Networks**

A description of each alternative roadway network has been provided in the following sections. Traffic volumes projected for each of the six alternative roadway networks were compared to level of service thresholds to ascertain the number of travel lanes needed to accommodate 2030 traffic volumes based on variations in the future roadway network. Deficient link tables for each alternative roadway network have been included in **Appendix B**. Average daily traffic volumes and recommended number of travel lanes for each of the six alternative roadway networks have been graphically illustrated in **Figure 6** through **Figure 11**. Number of designated travel lanes represents the number of travel lanes needed for each respective roadway link to accommodate projected 2030 traffic volumes.

### **5.5.1 Roadway Network Alternative #1**

Network Alternative #1 builds on the E+C network with the following changes:

- Connector roadway between Pickerington Road and Allen Road
- Extension of Allen Road to Blacklick-Eastern Road (SR 204) via Tollgate Road
- New interchange on Interstate 70 in the Tollgate Road area

Note that Network Alternative #1 assumes US 33 interchanges at Pickerington Road and in the Carroll Area as identified in the E+C base roadway network.

### **5.5.2 Roadway Network Alternative #2**

Network Alternative #2 builds on the E+C network with the following changes:

- No connector roadway between Pickerington Road and Allen Road
- Extension of Allen Road to Blacklick-Eastern Road (SR 204) via Tollgate Road
- New interchange on Interstate 70 in the Tollgate Road area



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Note that Network Alternative #2 assumes US 33 interchanges at Pickerington Road and in the Carroll Area as identified in the E+C base roadway network.

### **5.5.3 Roadway Network Alternative #3**

Network Alternative #3 builds on the E+C network with the following changes:

- New US 33 interchange at Allen Road (replaces Pickerington Road interchange from the E+C network)

Note that Network Alternative #3 continues to assume a US 33 interchange in the Carroll Area as identified in the E+C base roadway network.

### **5.5.4 Roadway Network Alternative #4**

Network Alternative #4 builds on the E+C network with the following changes:

- New US 33 interchange at Allen Road (replaces Pickerington Road interchange from the E+C network)
- Extension of Allen Road to Blacklick-Eastern Road (SR 204) via Tollgate Road

Note that Network Alternative #4 continues to assume a US 33 interchange in the Carroll Area as identified in the E+C base roadway network.

### **5.5.5 Roadway Network Alternative #5**

Network Alternative #5 builds on the E+C network with the following changes:

- New US 33 interchange at Allen Road (replaces Pickerington Road interchange from the E+C network)
- Extension of Allen Road to Blacklick-Eastern Road (SR 204) via Tollgate Road
- New interchange on Interstate 70 in the Tollgate Road area

Note that Network Alternative #5 continues to assume a US 33 interchange in the Carroll Area as identified for the E+C base network.

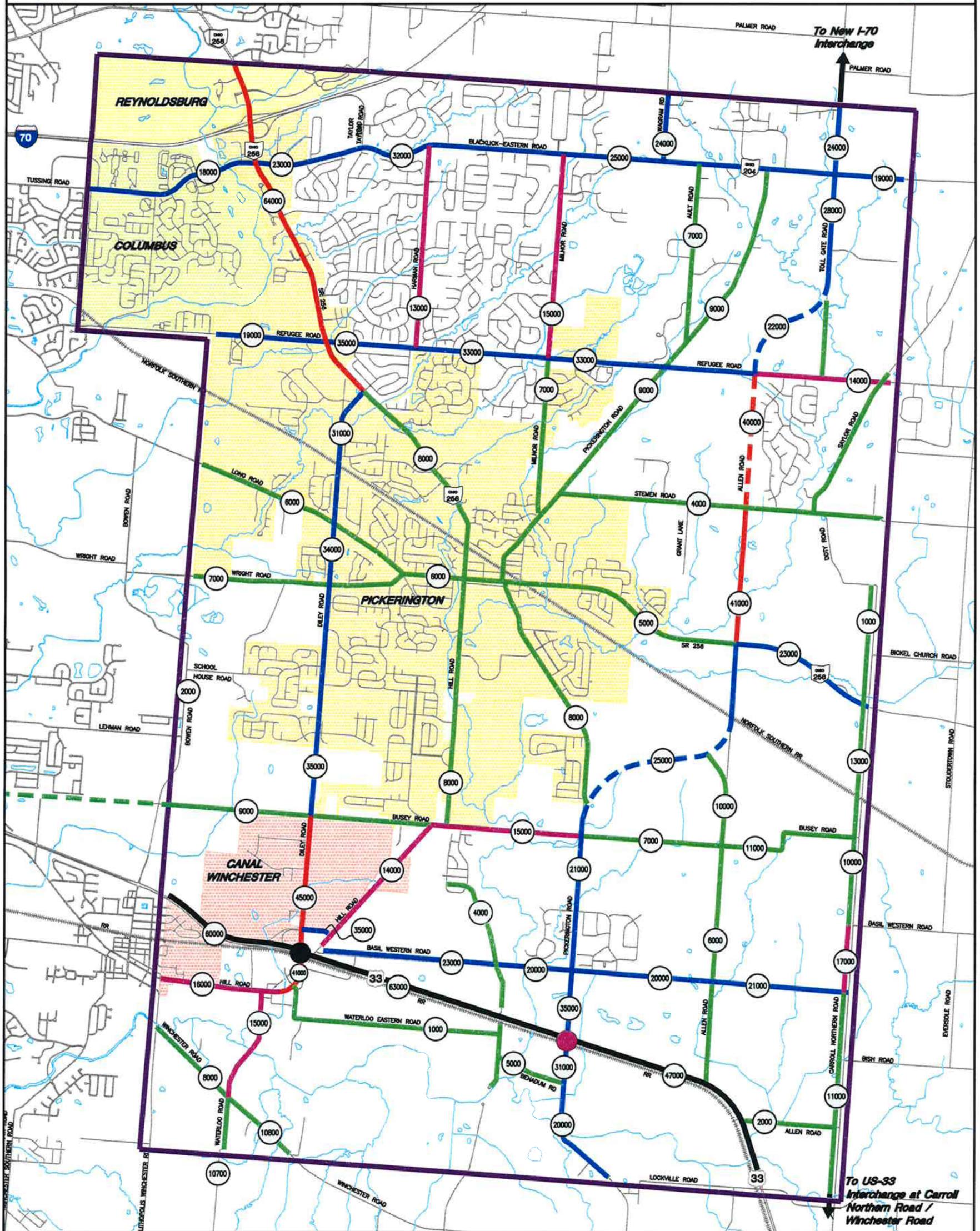
### **5.5.6 Roadway Network Alternative #6**

Network Alternative #6 builds on the E+C network with the following changes:

- Extension of Carroll Northern Road with connection to SR 310 at Blacklick Eastern Road (SR 204)

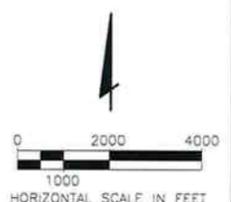
Note that Network Alternative #6 assumes US 33 interchanges at Pickerington Road and Carroll Area as identified for the E+C base network.

# VIOLET TOWNSHIP THOROUGHFARE PLAN



## LEGEND

- |  |                        |  |                  |  |                        |
|--|------------------------|--|------------------|--|------------------------|
|  | = Violet Township      |  | = 2 Lane Roadway |  | = 2 Lane Roadway (New) |
|  | = Future Interchange   |  | = 3 Lane Roadway |  | = 3 Lane Roadway (New) |
|  | = Existing Interchange |  | = 5 Lane Roadway |  | = 5 Lane Roadway (New) |
|  | = 2030 ADT             |  | = 7 Lane Roadway |  | = 7 Lane Roadway (New) |

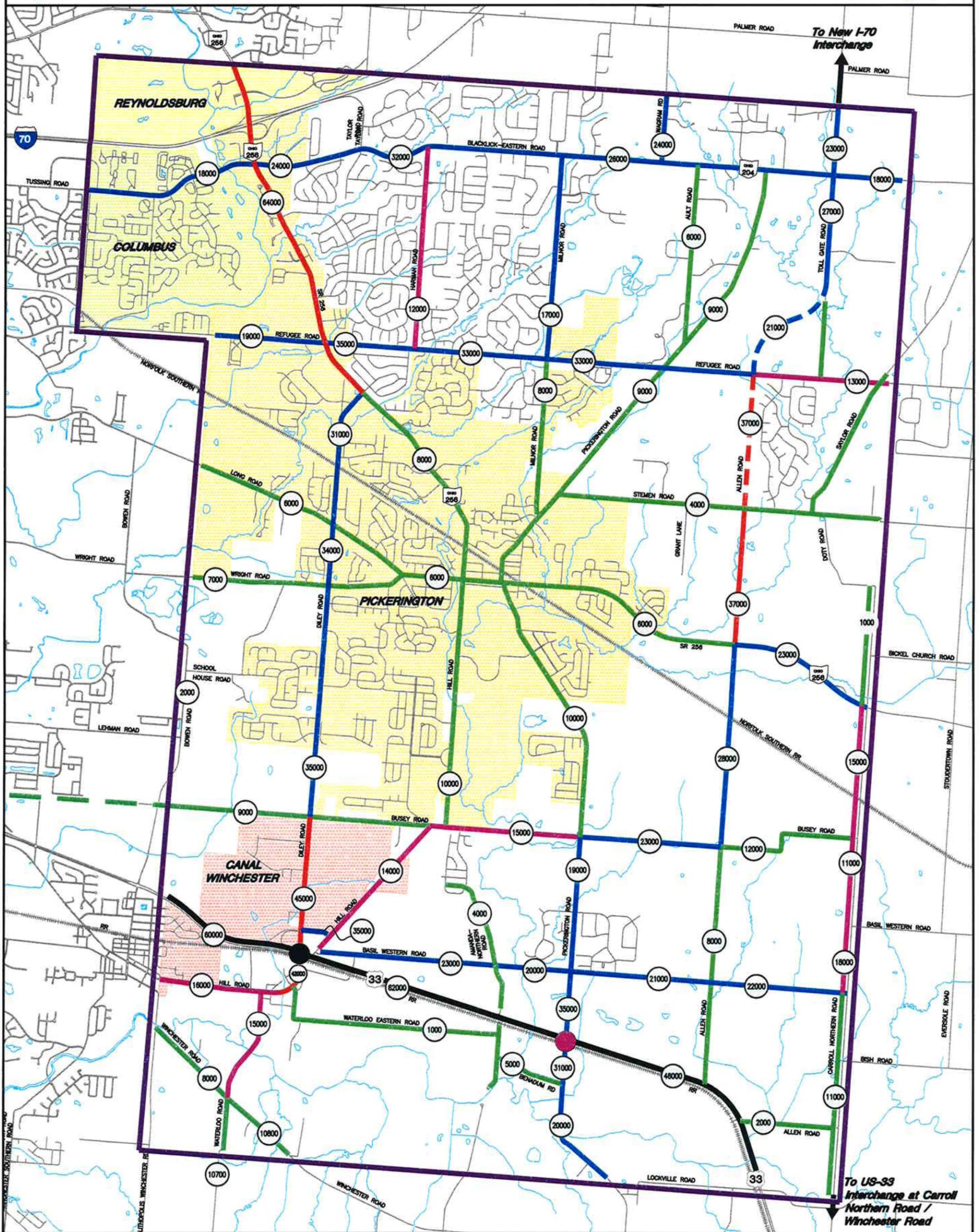


**FIGURE 6**  
**Roadway Network Alternative #1**  
**2030 ADT & Associated Roadway Improvements**



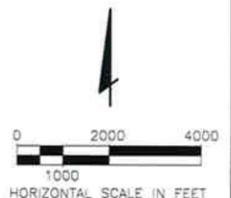
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# VIOLET TOWNSHIP THOROUGHFARE PLAN



## LEGEND

- |  |                        |  |                  |  |                        |
|--|------------------------|--|------------------|--|------------------------|
|  | = Violet Township      |  | = 2 Lane Roadway |  | = 2 Lane Roadway (New) |
|  | = Future Interchange   |  | = 3 Lane Roadway |  | = 3 Lane Roadway (New) |
|  | = Existing Interchange |  | = 5 Lane Roadway |  | = 5 Lane Roadway (New) |
|  | = 2030 ADT             |  | = 7 Lane Roadway |  | = 7 Lane Roadway (New) |

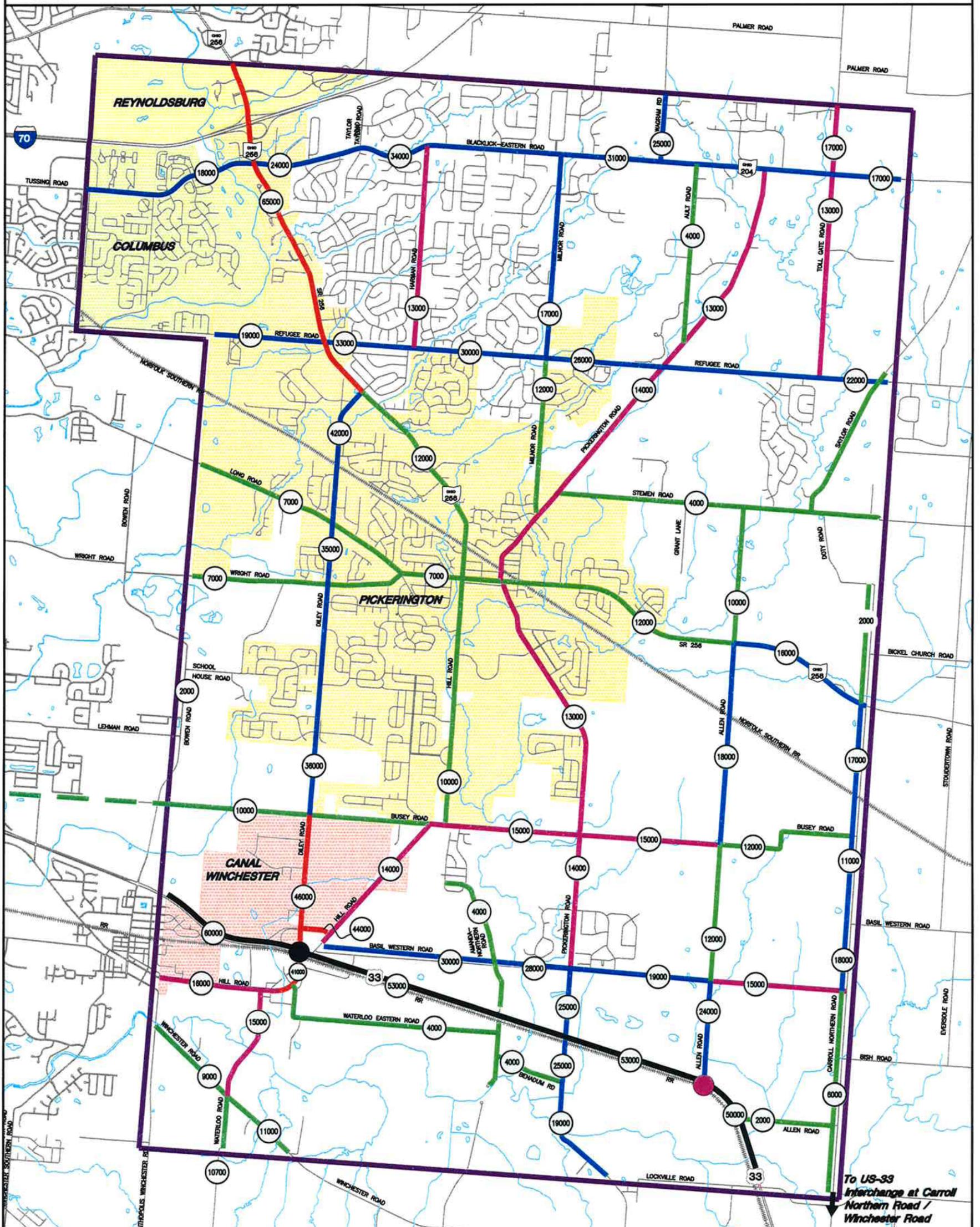


**FIGURE 7**  
**Roadway Network Alternative #2**  
**2030 ADT & Associated Roadway Improvements**



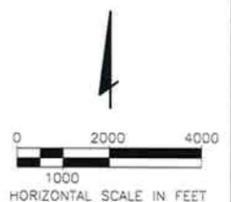
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# VIOLET TOWNSHIP THOROUGHFARE PLAN



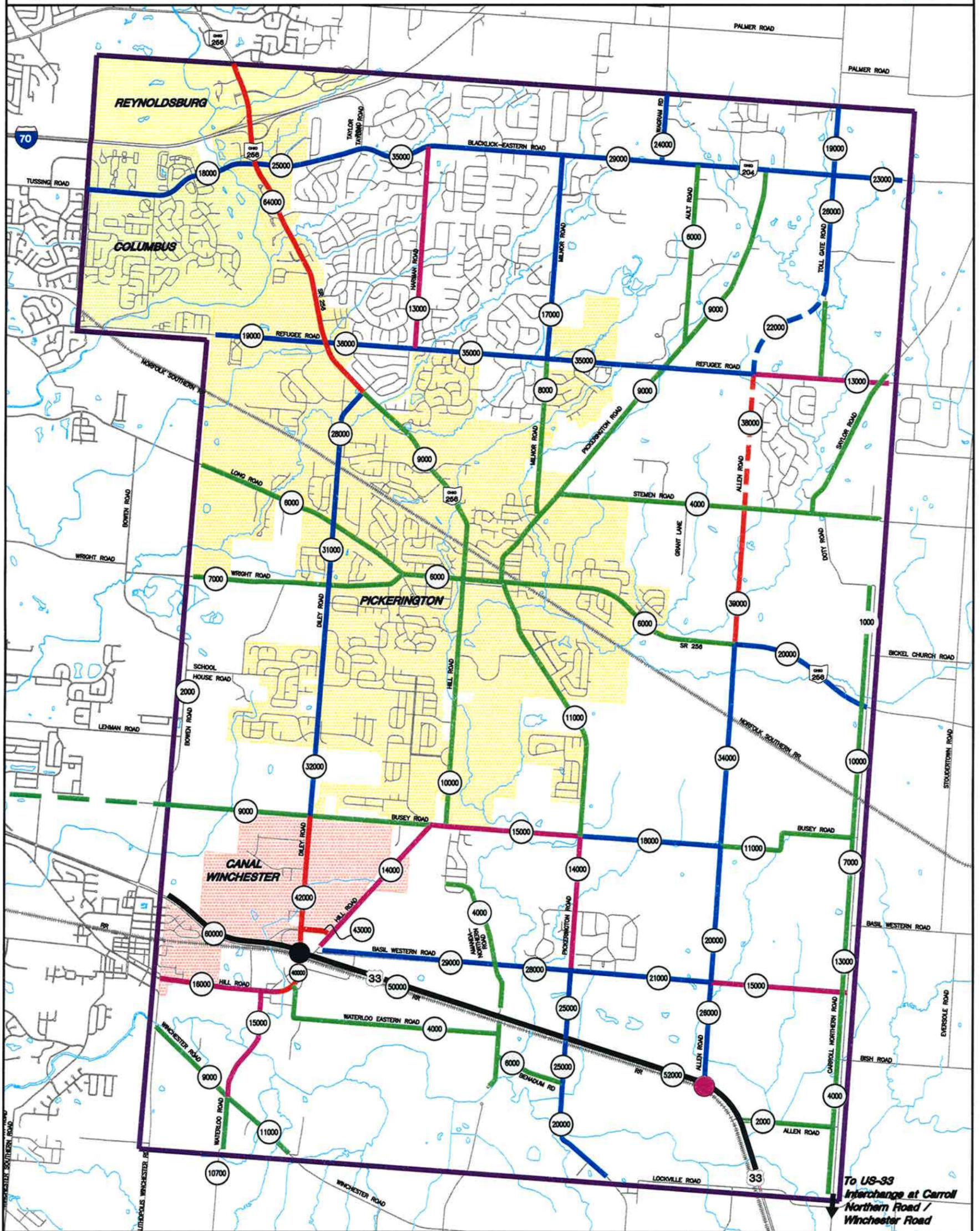
## LEGEND

- |  |                        |  |                  |  |                        |
|--|------------------------|--|------------------|--|------------------------|
|  | = Violet Township      |  | = 2 Lane Roadway |  | = 2 Lane Roadway (New) |
|  | = Future Interchange   |  | = 3 Lane Roadway |  | = 3 Lane Roadway (New) |
|  | = Existing Interchange |  | = 5 Lane Roadway |  | = 5 Lane Roadway (New) |
|  | = 2030 ADT             |  | = 7 Lane Roadway |  | = 7 Lane Roadway (New) |



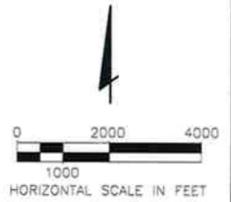
**FIGURE 8**  
**Roadway Network Alternative #3**  
**2030 ADT & Associated Roadway Improvements**

# VIOLET TOWNSHIP THOROUGHFARE PLAN



## LEGEND

- |  |                        |  |                  |  |                        |
|--|------------------------|--|------------------|--|------------------------|
|  | = Violet Township      |  | = 2 Lane Roadway |  | = 2 Lane Roadway (New) |
|  | = Future Interchange   |  | = 3 Lane Roadway |  | = 3 Lane Roadway (New) |
|  | = Existing Interchange |  | = 5 Lane Roadway |  | = 5 Lane Roadway (New) |
|  | = 2030 ADT             |  | = 7 Lane Roadway |  | = 7 Lane Roadway (New) |

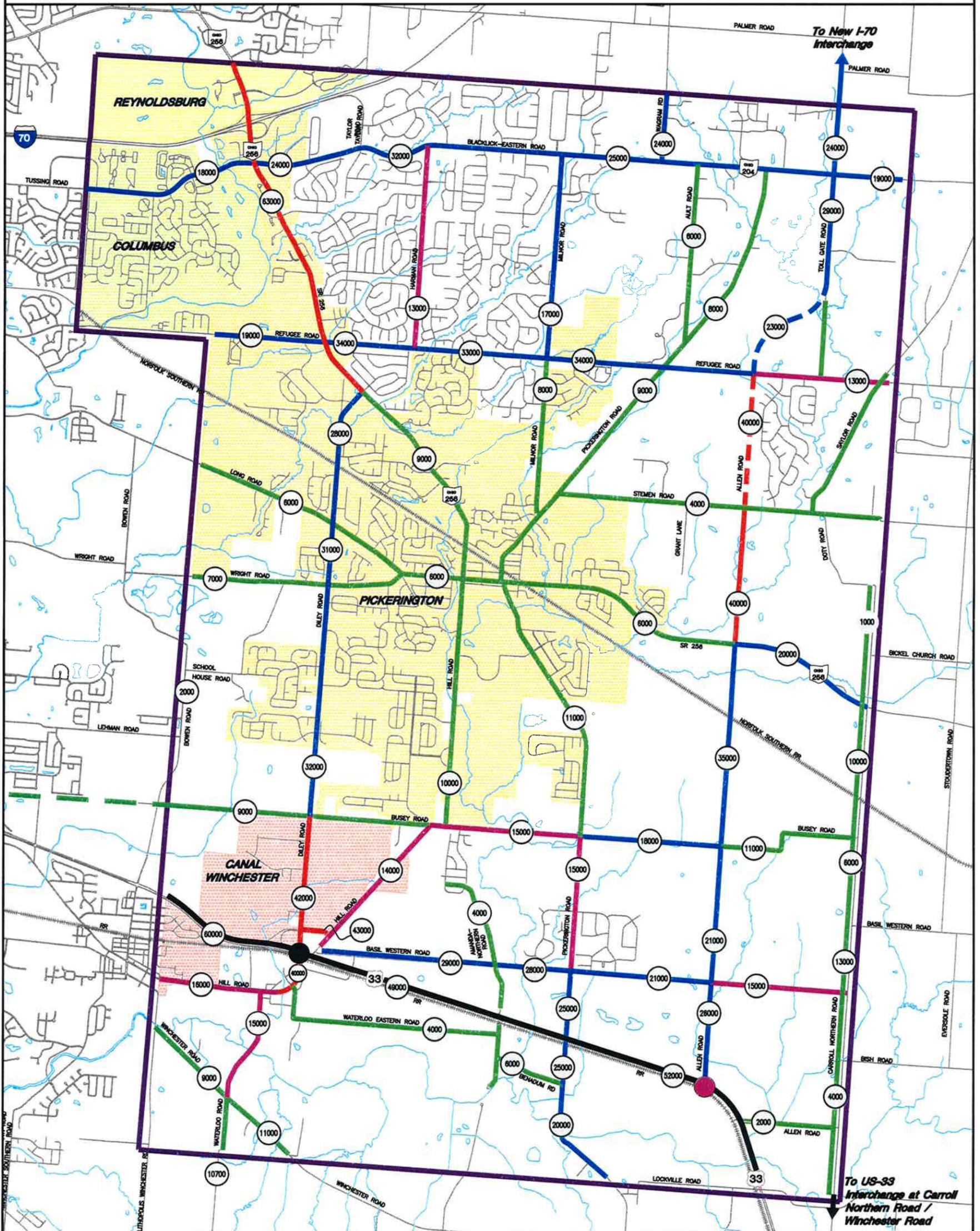


**FIGURE 9**  
**Roadway Network Alternative #4**  
**2030 ADT & Associated Roadway Improvements**



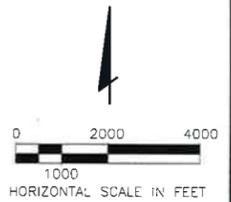
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# VIOLET TOWNSHIP THOROUGHFARE PLAN



## LEGEND

- |  |                        |  |                  |  |                        |
|--|------------------------|--|------------------|--|------------------------|
|  | = Violet Township      |  | = 2 Lane Roadway |  | = 2 Lane Roadway (New) |
|  | = Future Interchange   |  | = 3 Lane Roadway |  | = 3 Lane Roadway (New) |
|  | = Existing Interchange |  | = 5 Lane Roadway |  | = 5 Lane Roadway (New) |
|  | = 2030 ADT             |  | = 7 Lane Roadway |  | = 7 Lane Roadway (New) |



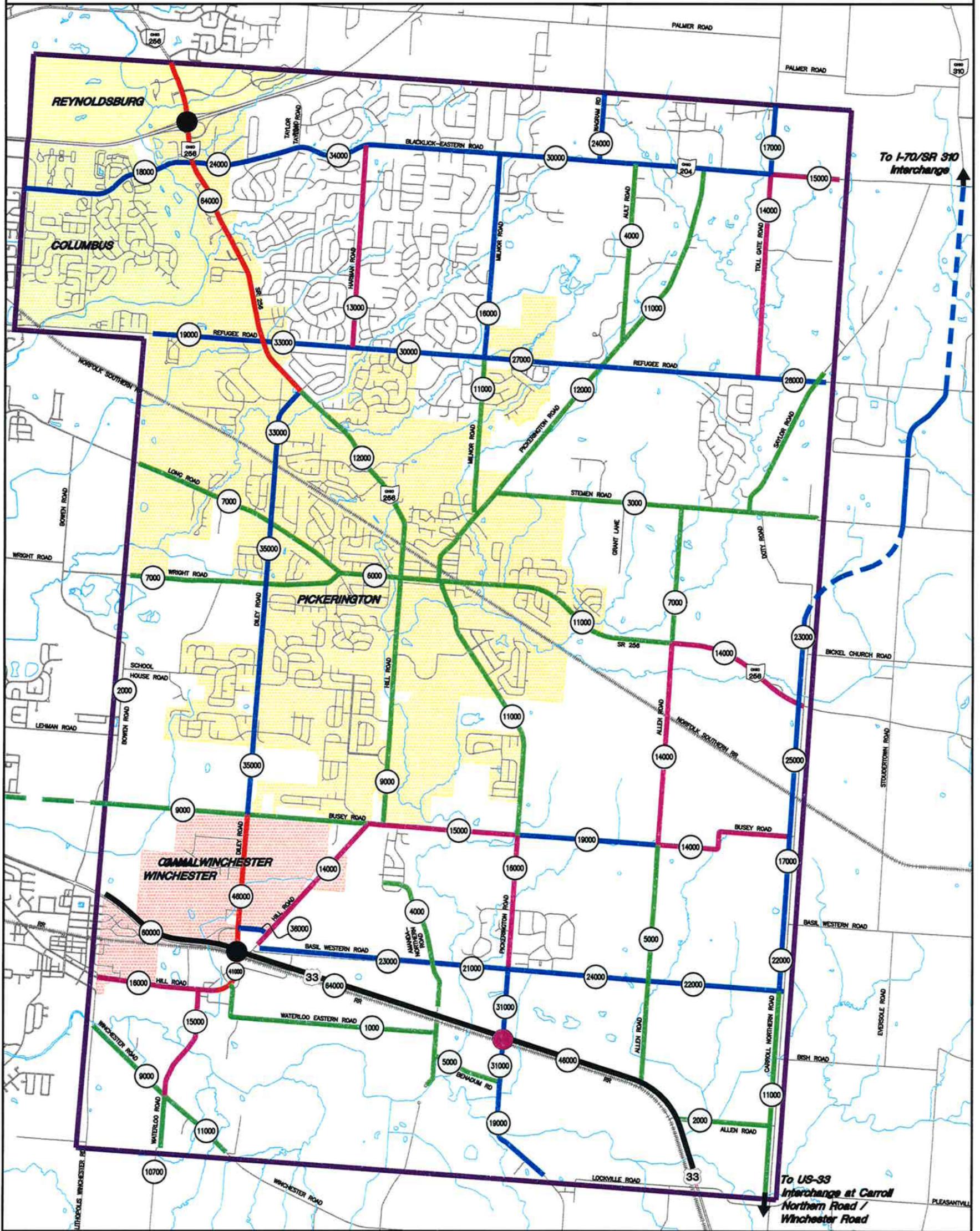
**FIGURE 10**  
**Roadway Network Alternative #5**  
**2030 ADT & Roadway Improvements**



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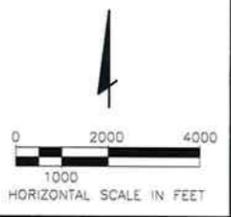


# VIOLET TOWNSHIP THOROUGHFARE PLAN



## LEGEND

- |  |                        |  |                  |  |                        |
|--|------------------------|--|------------------|--|------------------------|
|  | = Violet Township      |  | = 2 Lane Roadway |  | = 2 Lane Roadway (New) |
|  | = Future Interchange   |  | = 3 Lane Roadway |  | = 3 Lane Roadway (New) |
|  | = Existing Interchange |  | = 5 Lane Roadway |  | = 5 Lane Roadway (New) |
|  | = 2030 ADT             |  | = 7 Lane Roadway |  | = 7 Lane Roadway (New) |



**FIGURE 11**  
**Roadway Network Alternative #6**  
**2030 ADT & Roadway Improvements**



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## 6.0 FUTURE ROADWAY NETWORK RECOMMENDATIONS

By the 2030 design year, traffic volumes are expected to increase significantly on much of the roadway system throughout the Violet Township study area. Most of the study area roadways were not originally designed to accommodate traffic volumes of these magnitudes and provisions for most improvements are not currently planned or funded. To meet the demands of full development build out within the township, major upgrades will be needed on many of the study area roadways irrespective of roadway network changes that may occur in the future. By the 2030 design year assuming developmental build out of the township, few of the arterial and collector roadways will be capable of servicing traffic demands in their current two-lane configuration.

The future Violet Township roadway network will be faced with challenges and constraints that will ultimately guide and influence the overall structure of the transportation system. The most significant challenges will include the location of a future US 33 interchange and expanded access to Interstate 70 between SR 256 and SR 310, both of which will involve coordination and cooperation with state and federal agencies.

Expanded access to US 33 coupled with new roadway connections and other infrastructure improvements will provide benefit to Violet Township and the surrounding region. Roadway network modifications and improvements should be planned to support land use goals and to efficiently distribute traffic throughout the area.

### 6.1 Assessment of US 33 Interchange at Allen Road

Of significant importance to the overall transportation system is the location of the future US 33 interchange. The Ohio Department of Transportation has identified Pickerington Road as the preferred location for the new US 33 interchange in Violet Township. Surrounding communities, including Violet Township, have indicated that an interchange at Allen Road may better serve the needs of the region. Evaluation of the alternative roadway networks with 2030 traffic volume projections revealed certain advantages and disadvantages to locating the US 33 interchange at Allen Road, as summarized below.

- With the interchange at Allen Road and no other changes to the base roadway network, traffic volumes on Pickerington Road and SR 256 through the City of Pickerington remain at a level similar to that projected for the base roadway network.
- With the interchange at Allen Road, traffic volumes on Pickerington Road between US 33 and Basil-Western Road decrease by 10,000 vehicles per day. However, this section of Pickerington Road will require a five-lane roadway section regardless of the interchange location.
- With the interchange at Allen Road and no other changes to the base roadway network, traffic volumes on Pickerington Road between Basil-Western Road and Busey Road are reduced by 3,000 vehicles per day when compared to volumes projected for the base roadway network.
- The Allen Road interchange location provides less opportunity for southerly connections compared to the Pickerington Road interchange location.



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- With the interchange at Allen Road, traffic volumes on Kings-Crossing increase by 7,000 vehicles per day or 19-percent compared to the interchange at Pickerington Road.
- With the interchange at Allen Road, traffic volumes on Basil-Western Road between Hill Road and Pickerington Road increase by 6,000 to 7,000 vehicles per day, likely attributable to traffic diverted from US 33.
- Traffic volumes on Diley Road remain relatively constant regardless of interchange location.

## **6.2 Assessment of North/South Arterial Corridor**

Creation of a north/south arterial corridor is recommended via the extension of Allen Road to Blacklick-Eastern Road (SR 204). The Allen Road extension was a recommendation of both the 2005 Violet Township Thoroughfare Plan and the 2005 Pickerington Thoroughfare Plan and is recommended regardless of the location ultimately selected for the US 33 interchange. A new north/south arterial corridor within Violet Township, formed by the extension of Allen Road, will provide benefit to the township and surrounding communities by reducing reliance on other routes for travel outside the City of Pickerington. The extension of Allen Road will result in a significant reduction in traffic volume on SR 256 and Pickerington Road within the City of Pickerington, regardless of the US 33 interchange location or expanded access to Interstate 70.

## **6.3 Assessment of Arterial Corridor Alignment and New Interstate 70 Interchange**

Previous thoroughfare plans have presented concepts for alignment of the Allen Road extension that utilize Ault Road to connect to SR 310 at or near Wagram Road. This alignment concept was supported by the notion of a new interchange on Interstate 70 at or near Wagram Road/Mink Road. Recent discussions indicate that environmental constraints near Mink Road/Wagram Road may limit the feasibility of an interchange at that location. The MORPC 2030 Transportation Plan identifies a future Interstate 70 interchange at a location east of Mink Road/Wagram Road. An interchange location at or near Tollgate Road may present a more feasible alternative.

An alternative roadway alignment scenario involving the extension of Allen Road north to Refugee Road with a new roadway connection between Refugee Road and Tollgate Road is recommended. Regardless of the ultimate outcome of expanded access to Interstate 70, this alignment scenario supports the recommendation for a new north/south corridor within the township and would facilitate convenient interstate access should an interchange at Tollgate Road ultimately be constructed.

The following conclusions were made based on evaluation of the alternative roadway network scenarios that included expanded access to Interstate 70 via a new interchange at or near Tollgate Road:

- Connection to Interstate 70 at or near Tollgate Road provides a benefit to the overall transportation system, but is not the only factor supporting the northerly extension of Allen Road.



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- The extension of Allen Road with connection to Interstate 70 at Tollgate Road decreases traffic volumes on Blacklick-Eastern Road (SR 204) by up to 6,000 vehicles per day.
- The extension of Allen Road with connection to Interstate 70 at Tollgate Road increases traffic volumes on Refugee Road by up to 9,000 vehicles per day.
- The extension of Allen Road decreases traffic volumes on SR 256 through Pickerington by up to 6,000 vehicles per day, regardless of expanded access to Interstate 70.
- The Allen Road corridor will carry significant traffic whether or not it accesses Interstate 70. The north/south arterial corridor formed by the extension of Allen Road should be planned as a five to seven lane roadway, regardless of Interstate 70 access at Tollgate Road.

#### **6.4 Assessment of Alternative Access to Interstate 70**

An alternative to a new Interstate 70 interchange was evaluated by modeling the extension of Carroll-Northern Road to the east to connect to SR 310 at the SR 204 intersection. This alternative would provide a north/south arterial corridor and capitalize on existing freeway access at the SR 310 interchange. The following conclusions were made based on evaluation of the alternative roadway network scenario that included extension of Carroll-Northern Road:

- The alignment of a northerly extension of Carroll-Northern Road would occur outside Violet Township. This more easterly alignment may reduce the overall level of benefit to Violet Township and the City of Pickerington.
- The extension of Carroll-Northern Road would provide no reduction in traffic volume on Blacklick-Eastern Road (SR 204).
- The extension of Carroll-Northern Road would not provide traffic volume reduction through the City of Pickerington.
- Traffic volumes projected with the extension of Carroll-Northern Road would require a five-lane roadway section and would still necessitate improvements to Allen Road. Conversely, with the US 33 interchange at Allen Road and the extension of Allen Road, Carroll-Northern Road not require similar improvement.

#### **6.5 Assessment of Pickerington Road/Allen Road Connector**

If the US 33 interchange is located at Pickerington Road, an arterial connection between Pickerington Road and Allen Road is recommended in conjunction with the northerly extension of Allen Road. This connection is consistent with recommendations of the 2005 Pickerington Thoroughfare Plan. The following conclusions were made based on evaluation of the alternative roadway network scenarios that included the Pickerington Road/Allen Road connection:

- A Pickerington Road/Allen Road connection reduces traffic volumes through the City of Pickerington by 3,000 to 4,000 vehicles per day when compared to the base roadway network.
- A Pickerington Road/Allen Road connection reduces traffic volumes on Busey Road between Pickerington Road and Allen Road by as much as 16,000 vehicles per day, reducing the need to widen Busey Road east of Pickerington Road.



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## **6.6 Additional Roadway Network Recommendations**

In addition to major roadway network recommendations previously described in this section, the following minor network changes are recommended:

- Connection of the off-set legs of Basil-Western Road east and west of Carroll-Northern Road. Traffic volumes projected for Basil-Western Road suggest benefit by providing roadway continuity.
- Correction of geometric deficiencies on Busey Road between Allen Road and Carroll-Northern Road.
- Relocation of Basil Western Road at Hill Road to connect with Kings Crossing.
- Further evaluation of existing at-grade highway/rail crossing locations on Allen Road, Carroll-Northern Road, Amanda-Northern Road, Pickerington Road, and Lockville Road. Grade separation is recommended at the Allen Road rail crossing due to the importance of Allen Road as a primary north/south arterial corridor. Upgrades to the remaining crossing locations including signing, on-pavement markings, flashing light signal, or automatic gates may prove necessary as traffic volumes increase along these roadways.



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## 7.0 THOROUGHFARE PLAN

### 7.1 Roadway Functional Classification

The Ohio Department of Transportation defines functional classification as “the grouping of roads, streets, and highways in a hierarchy based on the type of highway service they provide”. Roadways are designed to provide mobility, land access or a combination of both and can be categorized based on the degree of each provided. Classification of roadways based on function and purpose serves as the foundation for policy guidelines of access management, right-of-way preservation, and future roadway improvements.

A thoroughfare plan provides a classification of streets that identifies the purpose, function and importance of each within the overall roadway network. Roadways in Violet Township are classified as one of the following:

- Freeway/Expressway
- Major Arterial
- Minor Arterial
- Collector
- Local

**TABLE 5**  
**Characteristics of Functional Roadway Classifications**

	<b>Freeway/ Expressway</b>	<b>Major Arterial</b>	<b>Minor Arterial</b>	<b>Collector</b>	<b>Local</b>
Traffic and Property Access	Optimal mobility; Limited and controlled access	High level of mobility; some controlled access	High level of mobility; no controlled access	Mobility and access of equal importance	Optimal access; Mobility is incidental
Traffic Flow Characteristics	Unrestricted and uninterrupted	Minimal interruption except at signalized intersections	Minimal interruption except at signalized intersections	Interruption at traffic signals or stop signs	Interruption at traffic signals or stop signs
Average Trip Length	> 3 Miles	> 1 Mile	> 1 Mile	< 1 Mile	< ½ Mile
Speed Limit	55 – 65 MPH	35 – 50 MPH	35 – 45 MPH	25 – 35 MPH	25 MPH
Intersection / Interchange Spacing	1 – 3 Miles	½ - 1 Mile	¼ - 1 Mile	500 – 1000 Feet	As Required
Typical ADT	50,000–10,000	25,000–50,000	15,000–35,000	2,000-15,000	100-2,000

Functional classifications have been described below in further detail.



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### **Freeway**

Urban freeway facilities serve long distances at high speeds with a primary function of mobility. Minimal interruption of free flow traffic is achieved through limited access without at-grade intersections.

### **Major Arterial**

Major arterial roadways provide a high degree of mobility for long distance trips. Property access is secondary to traffic movement. Preservation of the roadway capacity requires emphasis on access management including spacing of signalized intersections and frequency and design of unsignalized intersections.

### **Minor Arterial**

Minor arterial roadways provide a moderate degree of mobility and interconnect with and augment the major arterial roadway system. Minor arterials accommodate shorter trips at lower speeds with a greater emphasis on property access than major arterials.

### **Collector**

Collector roadways provide land access within residential, commercial and industrial areas with a lesser emphasis on vehicular mobility. Collector roadways are designed to “collect” traffic from local roadways for distribution to the arterial road system. Collectors are intended to penetrate residential areas but should not have continuity such that through traffic patterns are encouraged.

### **Local**

Local streets provide direct property access in any land use setting and offer the lowest level of vehicular mobility. Local streets connect to Collectors with short travel distances and low travel speeds.

A successful classification scheme should include design accommodations and continuity for pedestrians and bicyclists while providing for vehicular circulation and connectivity. With proper design, a hierarchical classification system can create mobility for multiple modes of transportation.

Roadway classifications and descriptions referenced in this section were obtained from various traffic engineering sources including: Transportation and Land Development, 2<sup>nd</sup> Edition (Institute of Transportation Engineers, 2002).



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## 7.2 Area Thoroughfare Plans

The Violet Township study area is quite large and encompasses parts of two counties, three cities, and one village. Each of these jurisdictions, as well as the Ohio Department of Transportation, has roadway operation and maintenance responsibilities within the study area boundaries. Existing area thoroughfare plans were reviewed to assess consistency of transportation plans and functional classification designations for roadways within multiple jurisdictions. A comparison of roadway functional classifications from available thoroughfare plans has been summarized in the following table.

**TABLE 6**  
**Functional Classification Comparison by Jurisdiction**

Roadway Section	2005 Violet Twp Thoroughfare Plan	2004 Fairfield County Thoroughfare Plan	2005 Pickerington Thoroughfare Plan	ODOT Functional Class Maps
<b>Allen Road</b>	Minor Arterial	Minor Arterial	Minor Arterial	Local
<b>Ault Road</b>	Collector	---	Minor Arterial	Local
<b>Amanda Northern Road</b>	Collector	Local	Local	---
<b>Basil Western Road</b>				
East of Pickerington Road	Minor Arterial	Major Collector	Major Collector	Major Collector
West of Pickerington Road	Minor Arterial	Major Collector	Major Collector	Major Collector
<b>Busey Road</b>	Collector	Local	Minor Arterial	Local
<b>Carrol Northern Road</b>	Minor Arterial	Minor Collector	---	Local
<b>Diley Road</b>	Minor Arterial	Minor Arterial	Minor Arterial	Minor Arterial
<b>Harman Road</b>	Collector	Minor Collector	Major Collector	Collector
<b>Hill Road</b>	Collector	Collector	Major Collector	---
<b>Long Road</b>	Collector	Collector	Major Collector	---
<b>Milnor Road</b>	Collector	Minor Collector	Major Collector	Collector
<b>Pickerington Road</b>				
North of Busey Road	Minor Arterial	Major Collector	Collector	Collector
South of Busey Road	Minor Arterial	Major Collector	Minor Arterial	Collector
<b>Refugee Road</b>	Minor Arterial	Minor Arterial	Minor Arterial	Minor Arterial
<b>Saylor Road</b>	Local	Local	Local	Local
<b>SR 204</b>				
West of SR 256	Minor Arterial	Minor Arterial	Minor Arterial	Major Collector
East of SR 256	Minor Arterial	Major Collector	Minor Arterial	Major Collector
<b>SR 256</b>				
I-70 to Diley Road	Minor Arterial	Major Collector	Minor Arterial	Minor Arterial
Diley Road to Twp Line	Minor Arterial	Major Collector	Minor Arterial/Major Col	Collector
<b>Stemen Road</b>				
West of Allen Road	Minor Arterial	Local	Major Collector	Local
East of Allen Road	Minor Arterial	Local	Minor Collector	Local
<b>Tollgate Road</b>	Collector	Local	Minor Collector	Local
<b>US 33</b>	Interstate Highway	Principal Arterial	Freeway/Expressway	Principal Arterial
<b>Waterloo-Eastern Road</b>	Collector	Local	---	Local
<b>Waterloo Road</b>	Collector	Minor Collector	---	Collector
<b>Wagram Road</b>	Collector	Local	Minor Arterial	Collector
<b>Winchester Road</b>	Minor Arterial	Minor Collector	---	Minor Collector
<b>Wright Road</b>	Collector	Local	Local	Local



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Roadway classifications from the ODOT Functional Classification Map are used primarily to address state and federal funding issues. Many of the ODOT designations deviate from those of local jurisdictions due in part to their scope and purpose.

Classification of Ault Road and Wagram Road differ greatly between jurisdictions, with designations ranging from local to minor arterial. Classifications of Ault Road and Wagram Road are highly dependent on the ultimate alignment selected for the Allen Road extension. Since the Pickerington Thoroughfare Plan depicts the extension of Allen Road with connection to Ault Road and Wagram Road, the arterial designation is appropriate. However, these arterial designations may not be necessary if the new alignment for the Allen Road extension connects with Tollgate Road.

Classification of Busey Road differs greatly between jurisdictions, with designation ranging from local to minor arterial. The planned extension of Busey Road to Gender Road will create a new east/west connection spanning Violet Township between Gender Road and Carroll Northern Road. This connection likely was a contributing factor in the arterial designation given by the Pickerington Thoroughfare Plan.



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### 7.3 Violet Township Roadway Functional Classification

Classifications for existing and proposed roadways within the Violet Township Study Area have been presented in **Table 7**. This classification system in conjunction with recommended roadway network modifications represents the “preferred” Violet Township Thoroughfare Plan as illustrated in **Figure 12**. The preferred plan supports Violet Township’s desire for the US 33 interchange at Allen Road in conjunction with recommended north/south arterial corridor formed by the northerly extension of Allen Road.

An “alternative” Thoroughfare Plan is provided as **Figure 13** and is applicable if the US 33 interchange is ultimately located at Pickerington Road. The extension of Allen Road remains a recommendation of the alternative thoroughfare plan and includes a connection between Pickerington Road and Allen Road. Under the alternative scenario, classifications for certain roadways may differ from the preferred plan, namely for Allen Road and sections of Busey Road.

**TABLE 7**  
**Violet Township Roadway Classifications**

Freeway/Expressway	Arterial	Collector	Local
US 33	Allen Road SR 204 (Blacklick-Eastern Road) Basil Western Road Carroll Northern Road Diley Road Pickerington Road (Busey Road south to Twp. Line) Refugee Road SR 256 (Hill Road) (Twp. Line south to Diley Road) SR 256 (Hill Road) (Allen Road east to Twp. Line) Tollgate Road **	Ault Road Amanda Northern Road Busey Road Harman Road Hill Road Long Road Milnor Road Pickerington Road * (Stemen Road north to SR 204) SR 256 (Hill Road) * (Diley Road to Allen Road) Stemen Road * Waterloo-Eastern Road Waterloo Road Wagram Road Winchester Road * Wright Road	All Others

\* Identified as a Minor Arterial in the 2005 Thoroughfare Plan

\*\* Identified as a Collector in the 2005 Thoroughfare Plan



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#### 7.4 Roadway Design Guidelines by Functional Classification

Basic design elements for each street classification have been summarized in **Table 8** with detailed cross sections included and discussed in the following sections. Street design elements include the recommended number of travel lanes, pavement width, curb and gutter width, tree lawn width, and minimum right-of-way width. This report does not include design guidelines for Freeways/Expressways which are controlled by the Ohio Department of Transportation.

**TABLE 8**  
**Design Guidelines by Functional Roadway Classification**

Functional Classification	Number of Lanes	Pavement Width	Tree Lawn Width	Right-of-Way Width
		(f/c to f/c) *	(f/c to walk) *	Minimum
Arterial	7	90 feet	9 feet	120 feet
	5	66 feet	11 feet	100 feet
Collector	5	66 feet	11 feet	100 feet
	3	42 feet	8 feet	70 feet
	2 (w/Parking)	42 feet	8 feet	70 feet
	2 (w/out Parking)	32 feet	8 feet	60 feet
Local	2 (Option 1)	32 feet	8 feet	60 feet
	2 (Option 2)	28 feet	10 feet	60 feet

\* f/c = Face of Curb

Curbed roadway sections are normally used on urban streets where the design speed is less than 50 miles per hour. ODOT maintained roadways with design speeds of 50 miles per hour or greater are subject to a four-foot curbed shoulder requirement which is not accounted for in the pavement widths listed in **Table 8**.

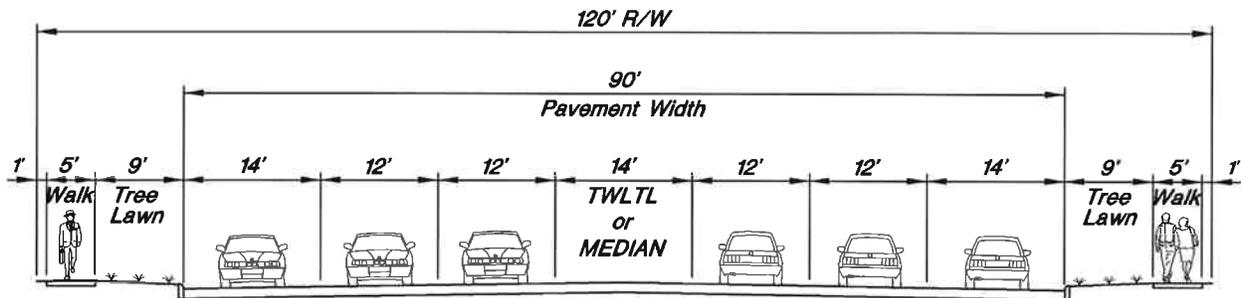
Widths provided in **Table 8** do not include additional pavement or right-of-way needed if parking lanes or wide medians are desired. Additional right-of-way may be required for roadway sections without curb and gutter. Minimum right-of-way recommendations provided in **Table 8** are adequate in mid-block sections for a given roadway classification; however additional right-of-way may be required at intersections for turn lanes and other geometric considerations, including right-of-way needed to ensure adequate turning radii.

Sidewalks should be provided on both sides of all arterial and collector streets. Sidewalks along arterial and collector streets should be located as far as possible from the curb, with a minimum of 15-feet for arterial roadways and a minimum of 8-feet for collector roadways.

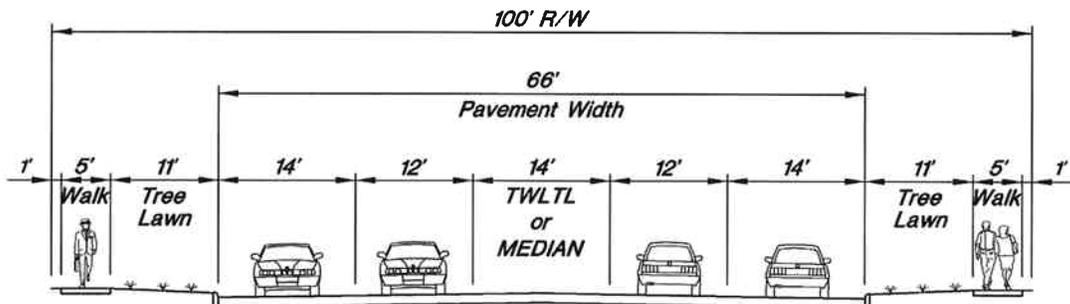
### 7.4.1 Cross Section Guidelines for Arterial Streets

The recommended right-of-way for arterial roadways is either 120 feet or 100 feet depending on the number of recommended travel lanes. This typical roadway section provides for 12-foot travel lanes and a 14-foot center median or center left turn lane. A two-foot offset between the edge of the traffic lane and the face of curb is included in the total pavement width. This offset will accommodate a standard two-foot gutter. A tree lawn area is preserved on each side of the roadway for curbs, utilities and street trees. The typical section includes a five-foot sidewalk on both sides of the roadway with a one-foot offset to the right-of-way.

#### Typical Roadway Section for 7-Lane Arterial



#### Typical Roadway Section for 5-Lane Arterial

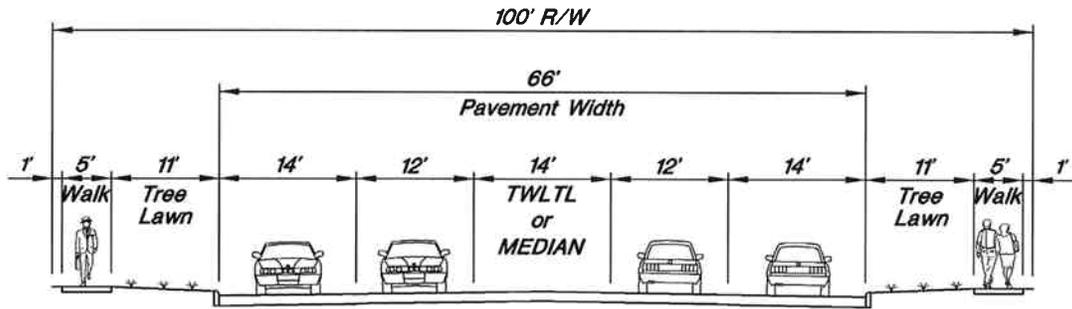


### 7.4.2 Cross Section Guidelines for Collector Streets

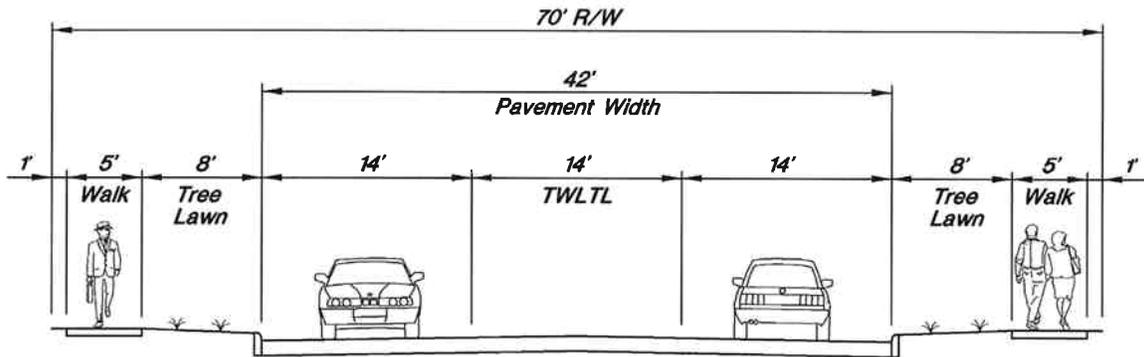
The recommended right-of-way for collector streets is between 70 feet and 100 feet depending on the number of recommended travel lanes. This typical roadway section provides for 12-foot travel lanes and a 14-foot center median or left turn lane. A two-foot offset between the edge of the traffic lane and the face of curb is included in the total pavement width. This offset will accommodate a standard two-foot gutter. A tree lawn area is preserved on each side of the roadway for curbs, utilities and street trees. The typical section includes a five-foot sidewalk on both sides of the roadway with a one-foot offset to the right-of-way.

A collector street with a 42-foot pavement width will provide for two different cross-section configurations; two 14-foot travel lanes with a 14-foot center turn lane or two 13-foot travel lanes with parking on both sides. A collector street with a 32-foot pavement width will provide for two 16-foot travel lanes.

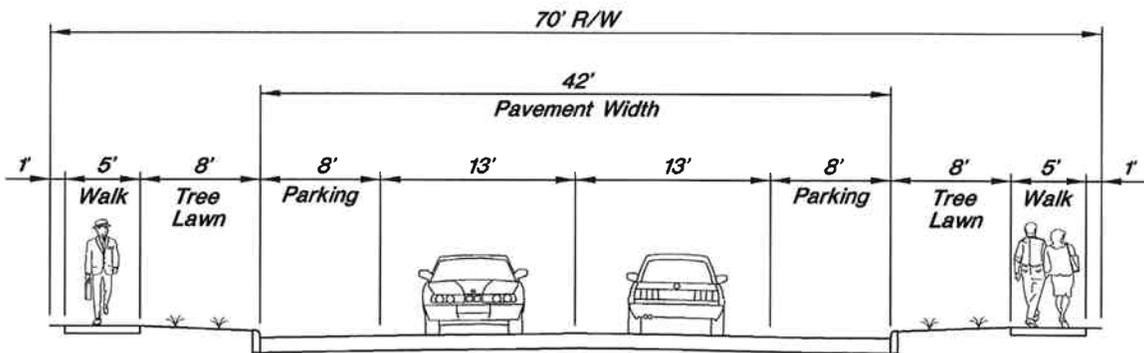
### Typical Roadway Section for 5-Lane Collector



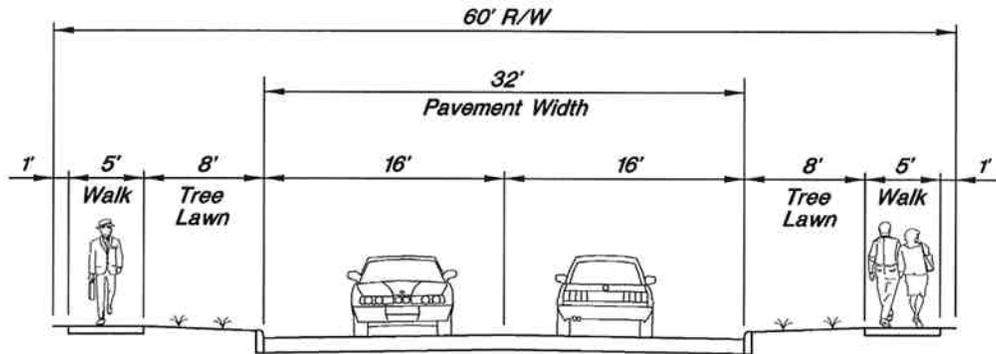
### Typical Roadway Section for 3-Lane Collector



### Typical Roadway Section for 2-Lane Collector with Parking



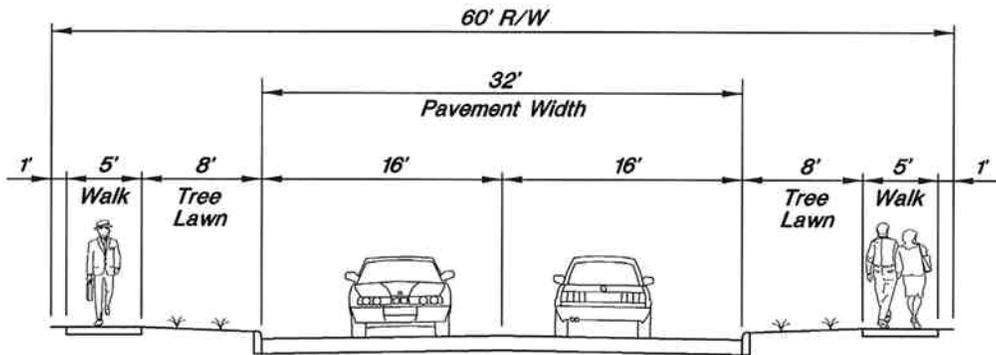
### Typical Roadway Section for 2-Lane Collector without Parking



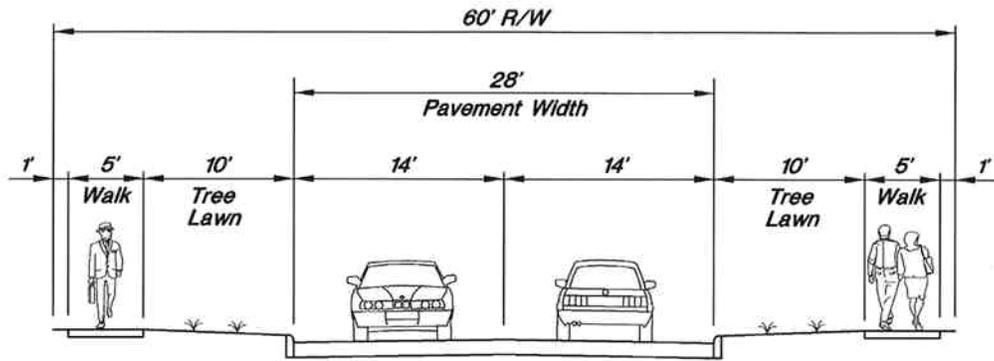
#### 7.4.3 Cross Section Guidelines for Local Streets

The recommended right-of-way for local streets is 60 feet with pavement widths of either 28-feet or 32-feet. The 32-foot pavement section provides for 16-foot travel lanes sufficient to accommodate on-street parking on both sides with an eight-foot tree lawn. The 28-foot pavement section provides for 14-foot travel lanes and a 10-foot tree lawn for curbs, utilities and street trees.

### Typical Roadway Section for 2-Lane Local – Option 1

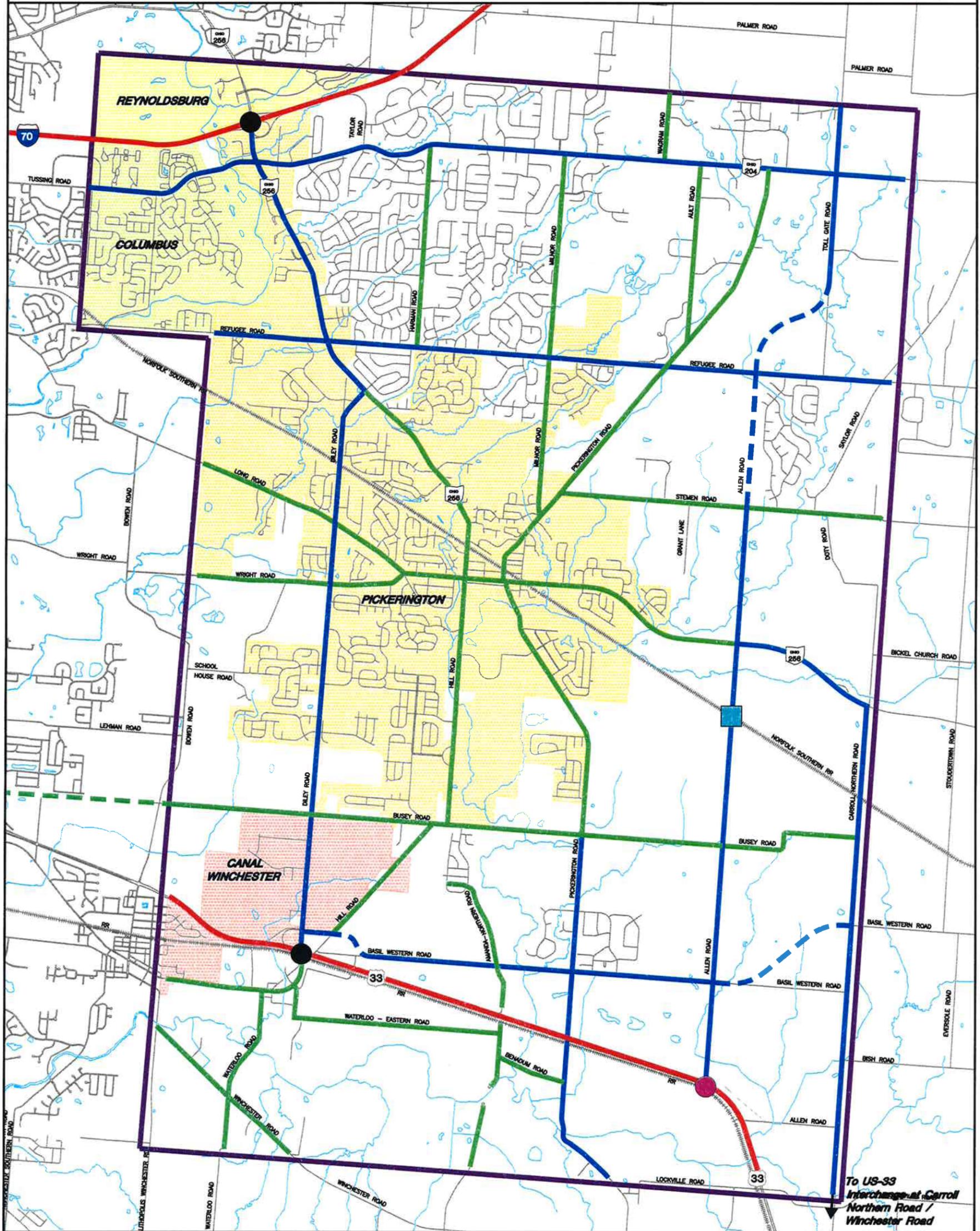


**Typical Roadway Section for 2-Lane Local – Option 2**





# VIOLET TOWNSHIP THOROUGHFARE PLAN



## LEGEND

- |  |                           |  |   |  |                      |
|--|---------------------------|--|---|--|----------------------|
|  | = Violet Township         |  | = Future Interchange Preferred Location   |  | = Interstate/Freeway |
|  | = Existing Interchange    |  | = Future Interchange Alternative Location |  | = Arterial           |
|  | = Future Grade Separation |  | = Collector                               |  | = Proposed Arterial  |
|  |                           |  | = Proposed Collector                      |  |                      |

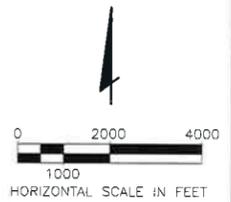


FIGURE 12

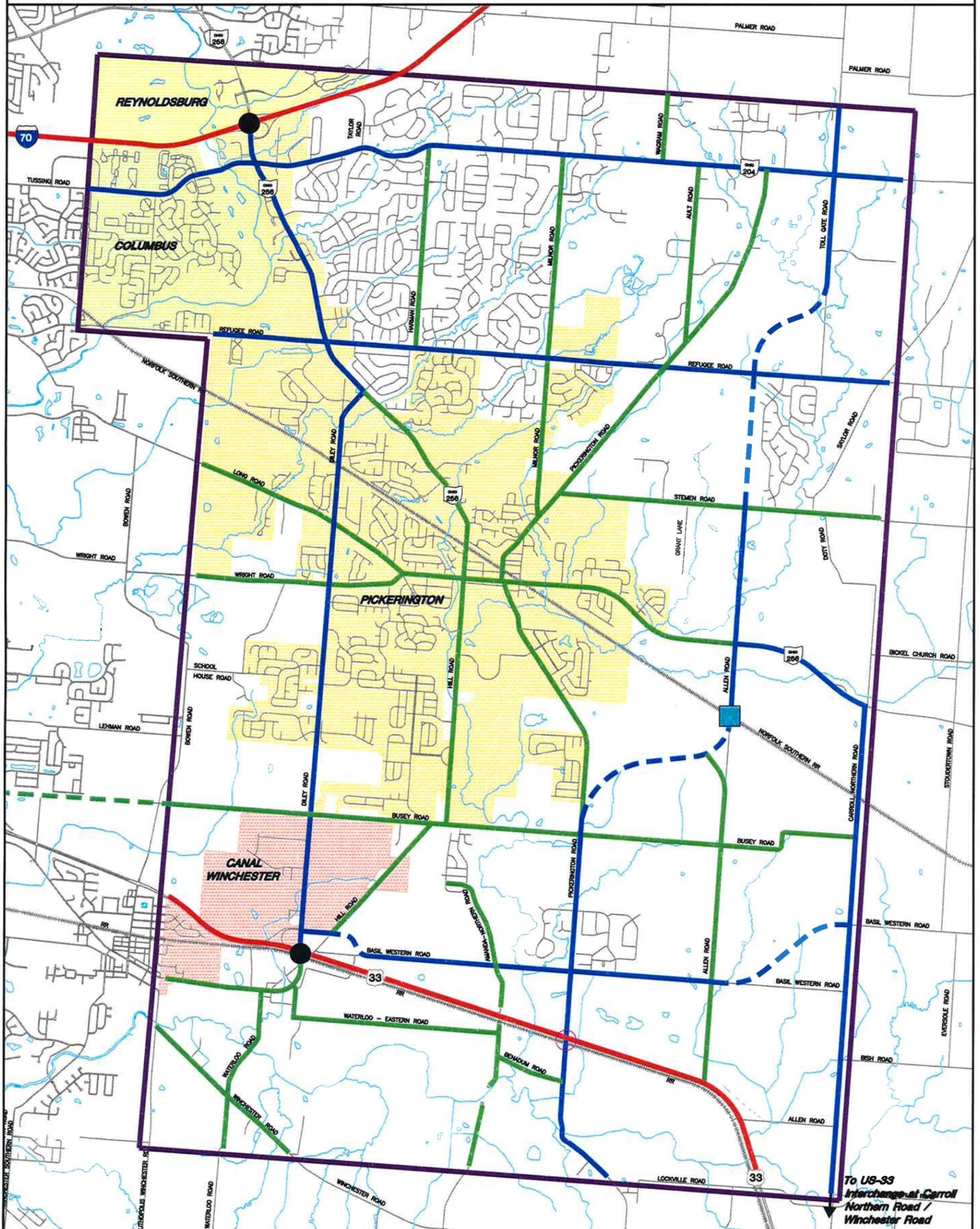
Violet Township Thoroughfare Plan - Preferred  
With US 33 Interchange at Allen Road



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# VIOLET TOWNSHIP THOROUGHFARE PLAN



## LEGEND

- |   |                        |   |   |   |                      |
|---|------------------------|---|---|---|----------------------|
|  | = Violet Township      |  | = Future Interchange Preferred Location   |  | = Interstate/Freeway |
|  | = Existing Interchange |  | = Future Interchange Alternative Location |  | = Arterial           |
|   |                        |  | = Future Grade Separation                 |  | = Proposed Arterial  |
|   |                        |   |   |  | = Collector          |
|   |                        |   |   |  | = Proposed Collector |

FIGURE 13

Violet Township Thoroughfare Plan - Alternative With US 33 Interchange at Pickerington Road



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**APPENDIX A**  
**MORPC LAND USE REVIEW DOCUMENT**

## Violet Township Thoroughfare Plan Update – Land Use Assumptions

### Land Use Review Area

The land use review area is bounded by Gender Road on the west, I-70 on the north, Watkins\Snyder Church\Bader Roads on the east, and Winchester\Slough\Lithopolis Roads on the south.

### Land Use Plans Referenced

The following Future Land Use Plans were referenced to determine the future land use of the review area:

- Violet Township Land Use & Transportation Plan – 2005
- Canal Winchester and Violet Township CEDA Plan – 2005
- Village of Canal Winchester Community Plan Update - 1999
- City of Pickerington Comprehensive Land Use Plan and Development Plan - 2001
- Fairfield County Development Strategy and Land Use Plan - 2002
- Etna Township Future Land Use Plan - 2003
- Columbus Southeast Area Plan - 2000
- Columbus Brice\Tussig Area Plan – 1990

### Build Out Assumptions

The following table outlines the land use assumptions used in developing the forecasts:

Land Use	Dwellings / Acre	Industrial Square Feet /Acre	Retail Square Feet / Acre	Office Square Feet / Acre
Agriculture	0	0	0	0
Office	0	0	0	10,000
Community Commercial	0	0	8,000	2,000
Neighborhood Commercial	3.2	0	3,000	3,000
Neighborhood Mix	4.8	0	2,000	2,000
Industrial	0	10,000	0	0
Light Industrial	0	10,000	0	0
Warehouse	0	10,000	0	0
Quarry	0	0	0	0
Open Space	0	0	0	0
Park	0	0	0	0
Public Service	0	0	0	0
Res High Urban	20	0	0	0
Res Low Urban	8	0	0	0
Res High Suburban	5	0	0	0
Res Mod Suburban	2	0	0	0
Res Suburban	2	0	0	0
Res Low	2	0	0	0
Res Rural	0.2	0	0	0
Res Rural Estate	0.05	0	0	0

Retail floor area and employment is divided by the following percentages:

Retail Mix	
Retail Goods	70%
Retail Services	20%
Retail Office	10%

Employment is calculated by floor area. The following table contains the assumptions used:

Square Feet per Job	
Industrial	400
Retail Goods	400
Retail Service	250
Retail Office	250
Office	250

The assumed percentage developed by land use type at build out is in the following table. All land use types assumed a 15% set aside for infrastructure. Also, Industrial and Office were only assumed to build out at 80% because of overall regional market competition and absorption.

% Developed	
Residential	85%
Industrial	65%
Retail	85%
Office	65%

The build out household size assumed is 2.49 residents per household.

Based on the increase in population, it was necessary to add public education facilities. The assumptions for new schools are as follows:

	Residents per School	Acres	Employees	Enrollment
Elementary	6,000	5	35	600
Middle	15,000	10	75	900
High	35,000	50	200	1,600

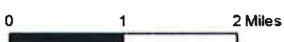
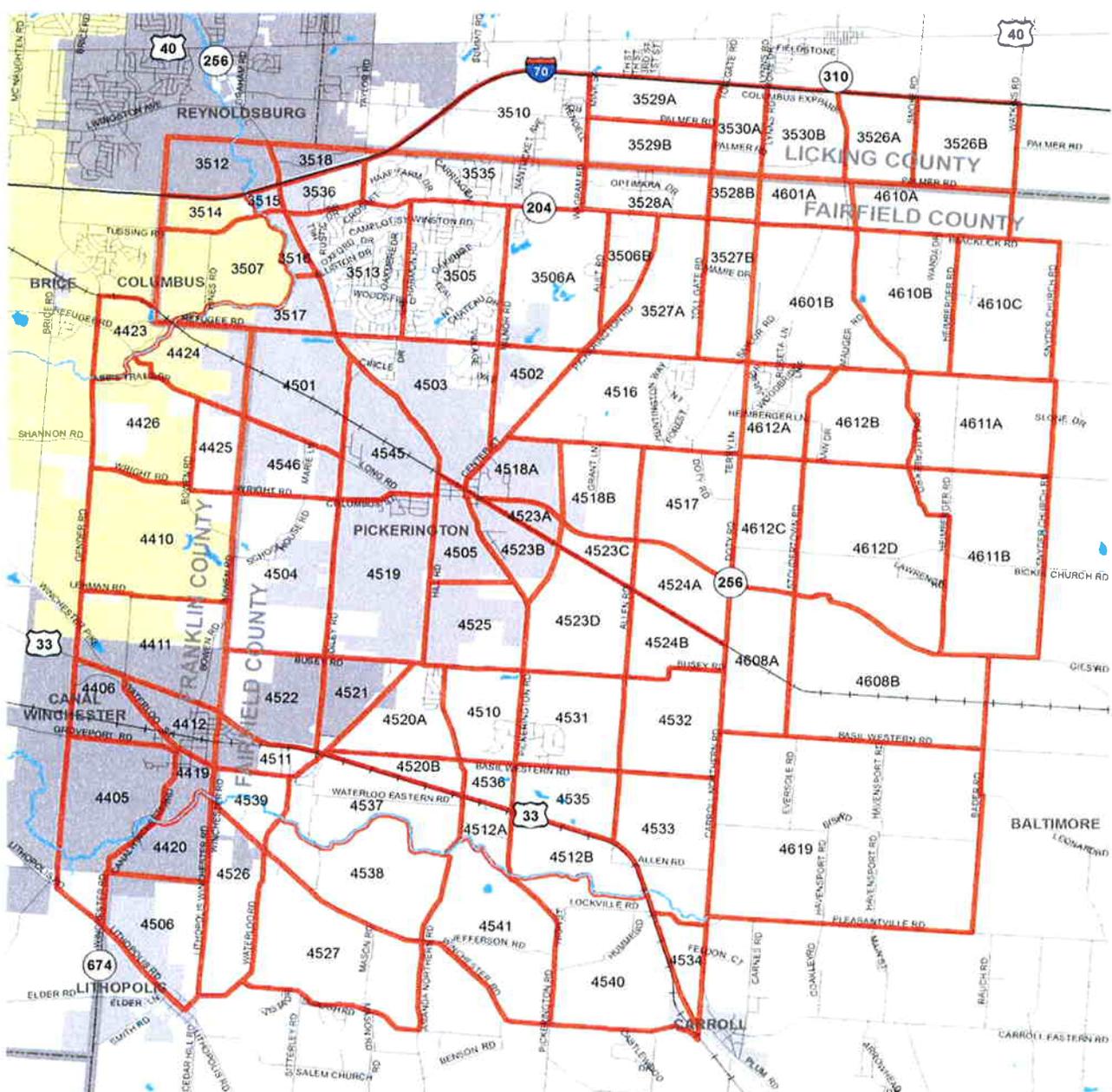
New schools were added in the following TAZs:

- 1 High – 4611A
- 2 Middle – 4532, 4611A
- 4 Elementary – 4540, 4608A, 3527A, 4611A

### Build Out Land Use Forecast Data

Future population, households, employment, and retail\office\industrial floor areas are based on the MORPC 2008 Transportation Plan 2030 Land Use Projections and the previously outlined build out assumptions. The overall results of the build out analysis project as follows:

Total Study Area	2000 (Actual)	2005 (Actual)	2030 (Forecast)	Build Out (Forecast)	%Change 2000- 2005	% Change 2005- 2030	% Change 2005 – Build Out
Total Population	47,984	60,185	96,297	119,035	25.4%	60.0%	97.8%
Total Households	7,685	21,859	38,688	45,619	23.6%	77.0%	108.7%
Residential Acreage	7,296	16,186	23,770	34,945	121.9%	46.9%	115.9%
Residential Density (Units\Acre)	2.42	1.35	1.63	1.31	-44.3%	20.5%	-3.3%
Total Employment	9,021	11,385	25,591	69,729	26.2%	124.8%	512.5%
Industrial Floor Area	1,660,933	1,676,004	4,888,517	13,371,283	0.9%	191.7%	697.8%
Retail Floor Area	2,406,919	3,131,779	3,389,790	7,738,324	30.1%	8.2%	147.1%
Office Floor Area	1,055,285	766,398	965,275	4,437,468	-27.4%	25.9%	479.0%



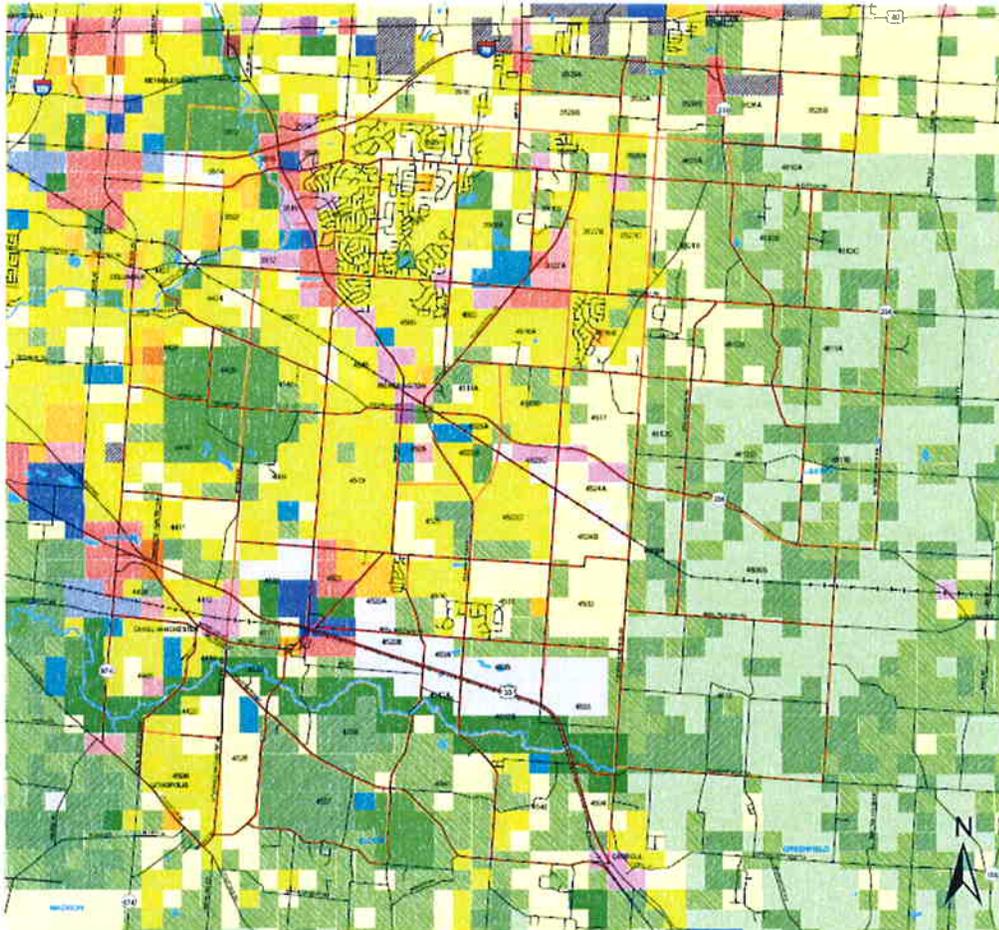
### Violet Twp. Thoroughfare Plan Update

- Traffic Analysis Zone
- Corporation Boundary



The information shown on this map is compiled from various sources made available to us which we believe to be reliable. n:\arcgis\local\violet twp thoro plan\ taz.mxd Dec 06

# Violet Township Area Future Land Use



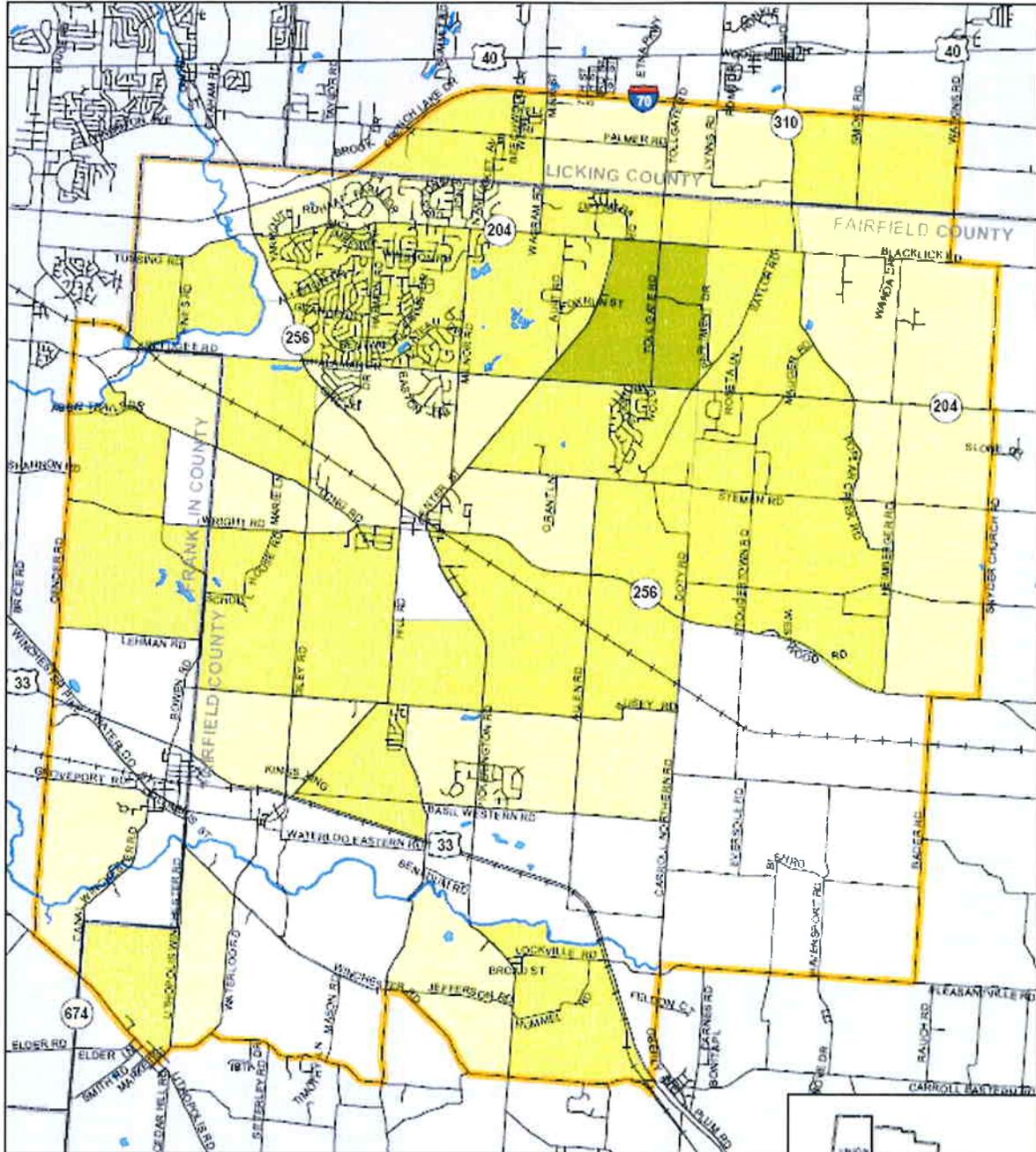
## Future Land Use

- Agriculture
- Protected
- CBD
- Neighborhood Mix
- Regional Commercial
- Community Commercial
- Neighborhood Commercial
- Commercial
- Office
- Light Industrial
- Industrial
- Open Space
- Park
- Public Service
- Quarry
- Warehouse
- Res High Urban
- Res Low Urban
- Res High Suburban
- Res Mod Suburban
- Res Suburban
- Res Low
- Res Rural
- Res Rural Estate
- Water

0 1 2 Miles

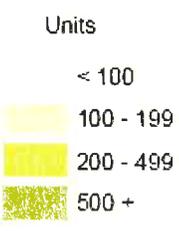
The information shown on this map is compiled from various sources made available to us which we believe to be reliable Feb 2006





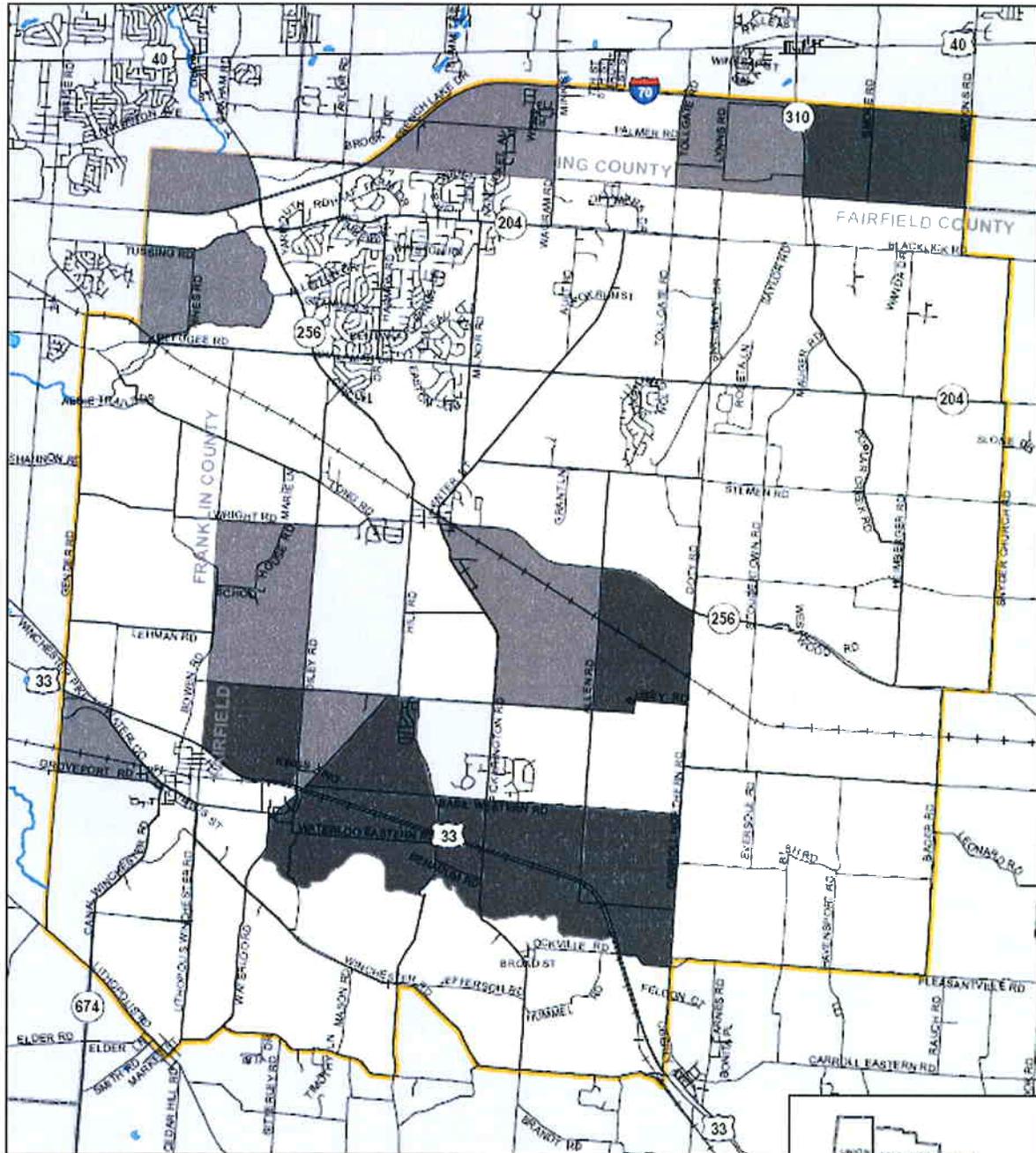
0 1 2 Miles Change in Housing Units 2005 - Build Out by TAZ

Violet Twp.  
Study Area



**MORPC** The information shown on this map is compiled from the most accurate available to us when we believe to be reliable. It is guaranteed only by those participating agencies with original data.



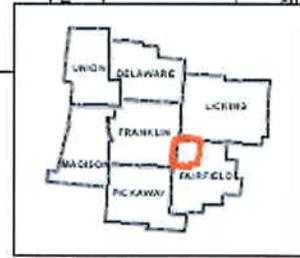


0 1 2 Miles

**Change in Industrial Floor Area  
2005 - Build Out by TAZ  
Square Feet**

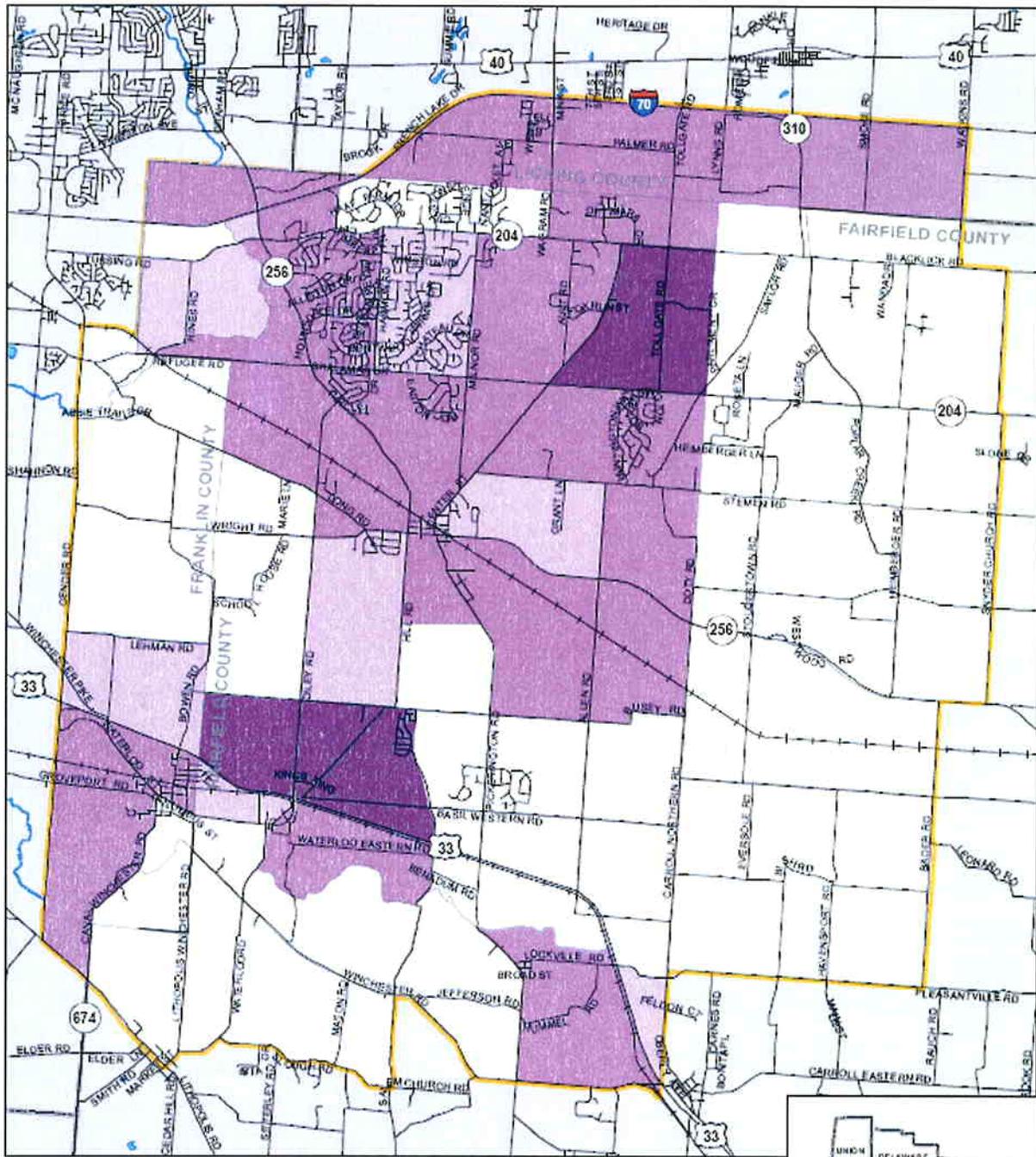
**Violet Twp.  
Study Area**

- < 1
- 1 - 9999
- 10,000 - 199,999
- 200,000 +



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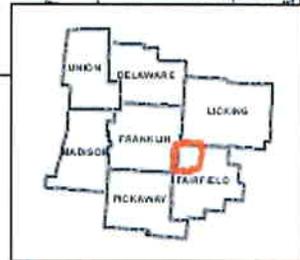
0 1 2 Miles

**Change in Office Floor Area  
2005 - Build Out by TAZ**

Square Feet

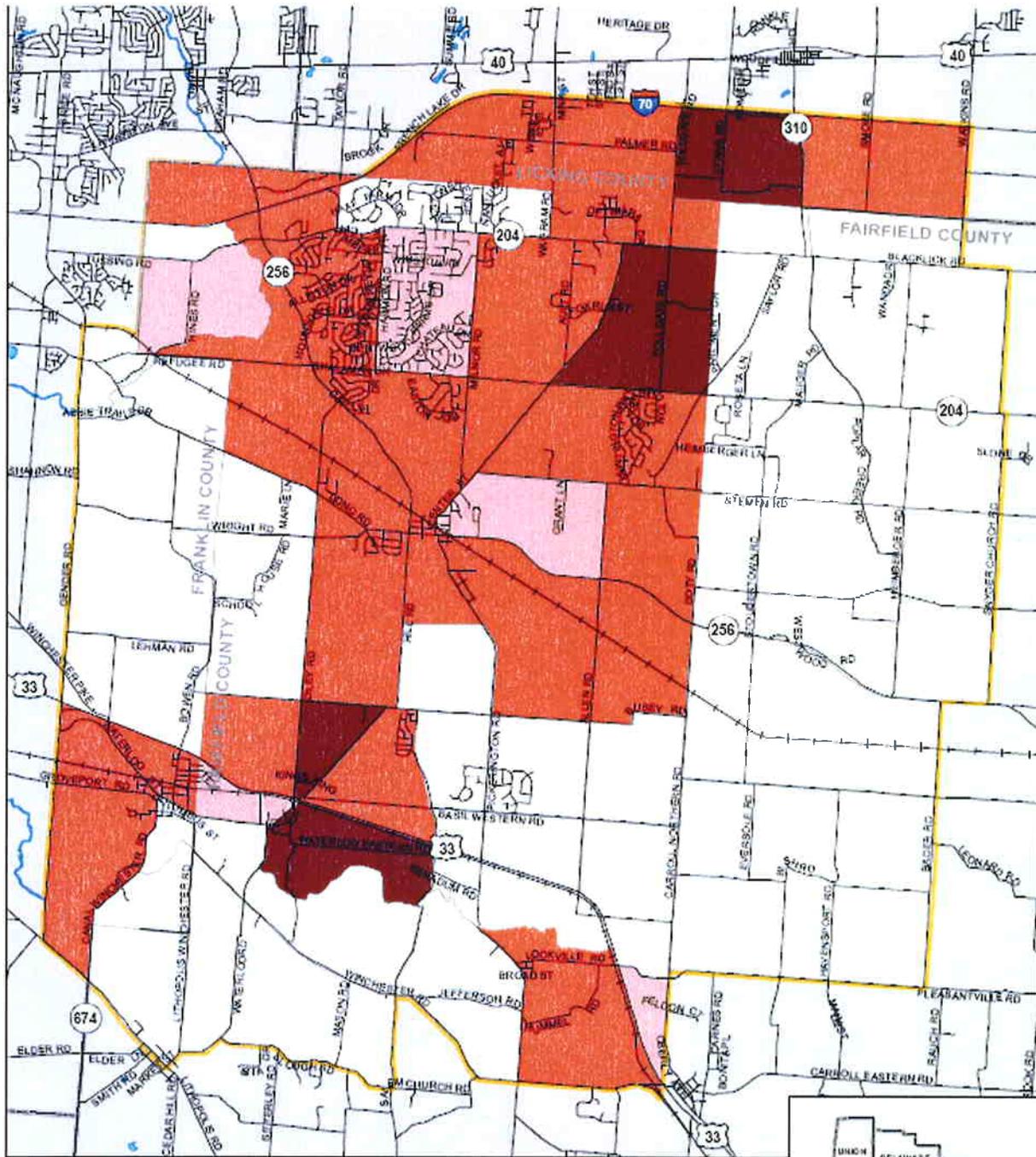
Violet Twp.  
Study Area

- < 1
- 1 - 9999
- 10,000 - 199,999
- 200,000 +



The information shown on this map is compiled from various sources and is not intended to be used as a substitute for a professional survey. The information is provided for informational purposes only and is not intended to be used for any other purpose.



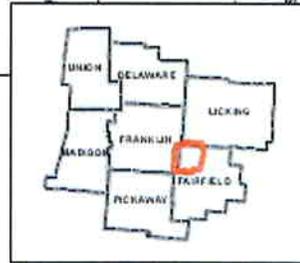


0 1 2 Miles

**Change in Retail Floor Area  
2005 - Build Out by TAZ**  
Square Feet

Violet Twp.  
Study Area

- < 1
- 1 - 9999
- 10,000 - 199,999
- 200,000 +



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**APPENDIX B**  
**DEFICIENT LINK TABLE FOR ALTERNATIVE**  
**ROADWAY NETWORKS**

**VIOLET TOWNSHIP THOROUGHFARE PLAN  
DEFICIENT LINKS TABLE**

Roadway	From	To	LOS D/E Capacity (ADT)	Alternative Roadway Network #1				Alternative Roadway Network #2				Alternative Roadway Network #3				Alternative Roadway Network #4				Alternative Roadway Network #5				Alternative Roadway Network #6			
				ADT Projected	v/c	Deficient Link?	# Lanes for LOS D/E	ADT Projected	v/c	Deficient Link?	# Lanes for LOS D/E	ADT Projected	v/c	Deficient Link?	# Lanes for LOS D/E	ADT Projected	v/c	Deficient Link?	# Lanes for LOS D/E	ADT Projected	v/c	Deficient Link?	# Lanes for LOS D/E	ADT Projected	v/c	Deficient Link?	# Lanes for LOS D/E
Allen Road	US 33	Basil Western Road	12,000	2,000	0.17	no	2	2,000	0.17	no	2	24,000	2.00	YES	5	26,000	2.17	YES	5	26,000	2.17	YES	5	2,000	0.17	no	2
Allen Road	Basil Western Road	Busey Road	12,000	6,000	0.50	no	2	8,000	0.67	no	2	12,000	1.00	no	2	20,000	1.67	YES	5	21,000	1.75	YES	5	5,000	0.42	no	2
Allen Road	Busey Road	SR 256	12,000	10,000	0.83	no	2	28,000	2.33	YES	5	18,000	1.50	YES	5	34,000	2.83	YES	5	35,000	2.92	YES	5	14,000	1.17	YES	3
Allen Road	SR 256	Stemen Road	12,000	41,000	3.42	YES	7	37,000	3.08	YES	7	10,000	0.83	no	2	39,000	3.25	YES	7	40,000	3.33	YES	7	7,000	0.58	no	2
Allen Road (Connector)	Stemen Road	Refugee Road	15,000	40,000	2.67	YES	7	37,000	2.47	YES	7	-	-	-	-	38,000	2.53	YES	7	40,000	2.67	YES	7	-	-	-	-
Allen Road (Connector)	Refugee Road	Toll Gate Road	15,000	22,000	1.47	YES	5	21,000	1.40	YES	5	-	-	-	-	22,000	1.47	YES	5	23,000	1.53	YES	5	-	-	-	-
Ault Road	Pickerington Road	SR 204	12,000	7,000	0.58	no	2	6,000	0.50	no	2	4,000	0.33	no	2	6,000	0.50	no	2	6,000	0.50	no	2	4,000	0.33	no	2
Amanda Northern Road	Basil Western Road	Busey Road	12,000	4,000	0.33	no	2																				
Basil Western Road	Hill Road	Amanda Northern Road	12,000	23,000	1.92	YES	5	23,000	1.92	YES	5	30,000	2.50	YES	5	29,000	2.42	YES	5	29,000	2.42	YES	5	23,000	1.92	YES	5
Basil Western Road	Amanda Northern Road	Pickerington Road	12,000	20,000	1.67	YES	5	20,000	1.67	YES	5	28,000	2.33	YES	5	28,000	2.33	YES	5	28,000	2.33	YES	5	21,000	1.75	YES	5
Basil Western Road	Pickerington Road	Allen Road	12,000	20,000	1.67	YES	5	21,000	1.75	YES	5	19,000	1.58	YES	5	21,000	1.75	YES	5	21,000	1.75	YES	5	24,000	2.00	YES	5
Basil Western Road	Allen Road	Carroll Northern Road	12,000	21,000	1.75	YES	5	22,000	1.83	YES	5	15,000	1.25	YES	3	15,000	1.25	YES	3	15,000	1.25	YES	3	22,000	1.83	YES	5
Busey Road	Bowen Road	Diley Road	12,000	9,000	0.75	no	2	9,000	0.75	no	2	10,000	0.83	no	2	9,000	0.75	no	2	9,000	0.75	no	2	9,000	0.75	no	2
Busey Road	Amanda Northern Road	Pickerington Road	12,000	15,000	1.25	YES	3																				
Busey Road	Pickerington Road	Allen Road	12,000	7,000	0.58	no	2	23,000	1.92	YES	5	15,000	1.25	YES	3	18,000	1.50	YES	5	18,000	1.50	YES	5	19,000	1.58	YES	5
Busey Road	Allen Road	Carroll Northern Road	12,000	11,000	0.92	no	2	12,000	1.00	no	2	12,000	1.00	no	2	11,000	0.92	no	2	11,000	0.92	no	2	14,000	1.17	YES	3
Carroll-Northern Road	Allen Road	Basil Western Road	12,000	11,000	0.92	no	2	11,000	0.92	no	2	6,000	0.50	no	2	4,000	0.33	no	2	4,000	0.33	no	2	11,000	0.92	no	2
Carroll-Northern Road	Basil Western Road	Basil Western Road	12,000	17,000	1.42	YES	5	18,000	1.50	YES	5	18,000	1.50	YES	5	13,000	1.08	YES	3	13,000	1.08	YES	3	22,000	1.83	YES	5
Carroll-Northern Road	Basil Western Road	Busey Road	12,000	10,000	0.83	no	2	11,000	0.92	no	2	11,000	0.92	no	2	7,000	0.58	no	2	6,000	0.50	no	2	17,000	1.42	YES	5
Carroll-Northern Road	Busey Road	SR 256	12,000	13,000	1.08	YES	3	15,000	1.25	YES	3	17,000	1.42	YES	5	10,000	0.83	no	2	10,000	0.83	no	2	25,000	2.08	YES	5
Carroll-Northern (Connector)	SR 256	SR 310	15,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diley Road	Waterloo Road	US 33	12,000	41,000	3.42	YES	7	42,000	3.50	YES	7	41,000	3.42	YES	7	40,000	3.33	YES	7	40,000	3.33	YES	7	41,000	3.42	YES	7
Diley Road	US 33	Busey Road	12,000	45,000	3.75	YES	7	45,000	3.75	YES	7	46,000	3.83	YES	7	42,000	3.50	YES	7	42,000	3.50	YES	7	46,000	3.83	YES	7
Diley Road	Busey Road	Wright Road	12,000	35,000	2.92	YES	5	35,000	2.92	YES	5	36,000	3.00	YES	7	32,000	2.67	YES	5	32,000	2.67	YES	5	36,000	3.00	YES	7
Harman Road	Refugee Road	SR 204	12,000	13,000	1.08	YES	3	12,000	1.00	no	2	13,000	1.08	YES	3												
Hill Road	Bowen Road	Waterloo Road	12,000	16,000	1.33	YES	3																				
Hill Road	Basil Western Road	Busey Road	12,000	14,000	1.17	YES	3																				
Hill Road	Busey Road	SR 256	12,000	7,000	0.58	no	2	7,000	0.58	no	2	10,000	0.83	no	2	8,000	0.67	no	2	8,000	0.67	no	2	9,000	0.75	no	2
Kings Crossing	Diley Road	Hill Road	12,000	35,000	2.92	YES	5	35,000	2.92	YES	5	44,000	3.67	YES	7	43,000	3.58	YES	7	43,000	3.58	YES	7	36,000	3.00	YES	7
Long Road	Bowen Road	Diley Road	12,000	6,000	0.50	no	2	6,000	0.50	no	2	7,000	0.58	no	2	6,000	0.50	no	2	6,000	0.50	no	2	7,000	0.58	no	2
Milnor Road	Pickerington Road	Refugee Road	12,000	7,000	0.58	no	2	8,000	0.67	no	2	12,000	1.00	no	2	8,000	0.67	no	2	8,000	0.67	no	2	11,000	0.92	no	2
Milnor Road	Refugee Road	SR 204	12,000	16,000	1.33	YES	5	17,000	1.42	YES	5	16,000	1.33	YES	5												
Pickerington Road	Township Line	Benadum Road	12,000	20,000	1.67	YES	5	20,000	1.67	YES	5	19,000	1.58	YES	5	20,000	1.67	YES	5	20,000	1.67	YES	5	19,000	1.58	YES	5
Pickerington Road	Benadum Road	US 33	12,000	31,000	2.58	YES	5	31,000	2.58	YES	5	25,000	2.08	YES	5	25,000	2.08	YES	5	25,000	2.08	YES	5	31,000	2.58	YES	5
Pickerington Road	US 33	Basil Western Road	12,000	35,000	2.92	YES	5	35,000	2.92	YES	5	25,000	2.08	YES	5	25,000	2.08	YES	5	25,000	2.08	YES	5	36,000	3.00	YES	7
Pickerington Road	Basil Western Road	Busey Road	12,000	21,000	1.75	YES	5	19,000	1.58	YES	5	14,000	1.17	YES	3	14,000	1.17	YES	3	15,000	1.25	YES	3	15,000	1.25	YES	3
Pickerington Road	Busey Road	SR 256	12,000	-	-	-	-	10,000	0.83	no	2	13,000	1.08	YES	3	11,000	0.92	no	2	11,000	0.92	no	2	11,000	0.92	no	2
Pickerington Road	Busey Road	Connector Road	12,000	28,000	2.33	YES	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pickerington Road	Connector Road	SR 256	12,000	8,000	0.67	no	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pickerington Road	Stemen Road	Refugee Road	12,000	9,000	0.75	no	2	9,000	0.75	no	2	14,000	1.17	YES	3	9,000	0.75	no	2	9,000	0.75	no	2	12,000	1.00	no	2
Pickerington Road	Ault Road	SR 204	12,000	9,000	0.75	no	2	9,000	0.75	no	2	13,000	1.08	YES	3	9,000	0.75	no	2	8,000	0.67	no	2	11,000	0.92	no	2
Refugee Road	Township Line	SR 256	15,000	19,000	1.27	YES	5																				
Refugee Road	SR 256	Harman Road	15,000	35,000	2.33	YES	5	35,000	2.33	YES	5	34,000	2.27	YES	5	37,000	2.47	YES	7	34,000	2.27	YES	5	33,000	2.20	YES	5
Refugee Road	Milnor Road	Pickerington Road	12,000	33,000	2.75	YES	5	33,000	2.75	YES	5	26,000	2.17	YES	5	35,000	2.92	YES	5	34,000	2.83	YES	5	27,000	2.25	YES	5
Refugee Road	Toll Gate Road	Saylor Road	12,000	14,000	1.17	YES	3	13,000	1.08	YES	3	22,000	1.83	YES	5	13,000	1.08	YES	3	13,000	1.08	YES	3	26,000	2.17	YES	5
SR 204	Township Line	SR 256	12,000	18,000	1.50	YES	5																				
SR 204	SR 256	Taylor Road	12,000	23,000	1.92	YES	5	24,000	2.00	YES	5	24,000	2.00	YES	5	25,000	2.08	YES	5	24,000	2.00	YES	5	24,000	2.00	YES	5
SR 204	Taylor Road	Harman Road	12,000	32,000	2.67	YES	5	32,000	2.67	YES	5	34,000	2.83	YES	5	35,000	2.92	YES	5	32,000	2.67	YES	5	34,000	2.83	YES	5
SR 204	Milnor Road	Wagram Road	12,000	25,000	2.08	YES	5	26,000	2.17	YES	5	31,000	2.58	YES	5	29,000	2.42	YES	5	25,000	2.08	YES	5	30,000	2.50	YES	5
SR 204	Toll Gate Road	Saylor Road	12,000	19,000	1.58	YES	5	18,000	1.50	YES	5	17,000	1.42	YES	5	23,000	1.92	YES	5	19,000	1.58	YES	5	15,000	1.25	YES	3
SR 256 (Hill Road)	Interstate 70	Diley Road	35,000	64,000	1.83	YES	7	64,000	1.83	YES	7	65,000	1.86	YES	7	64,000	1.83	YES	7	63,000	1.80	YES	7	64,000	1.83	YES	7
SR 256 (Hill Road)	Diley Road	SR 256 (Columbus St)	12,000	7,000	0.58	no	2	7,000	0.58	no	2	12,000	1.00	no	2	9,000	0.75	no	2	9,000	0.75	no	2	11,000	0.92	no	2
SR 256	Pickerington Road	Allen Road	12,000	5,000	0.42	no	2	6,00																			