

## APPENDIX B:

### Environmental Justice Review

**Wendell H. Ford Western Kentucky Parkway  
Interstate Conversion Environmental Justice Review within Hopkins,  
Muhlenberg and Ohio Counties, Kentucky**

**ENVIRONMENTAL JUSTICE REVIEW**

**April, 2020**

**Prepared for**

Kentucky Transportation Cabinet (KYTC) – Division of Planning



**Prepared by**

Pennyrile Area Development District



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## INTRODUCTION

This report presents a review of the socioeconomic characteristics in the study area, which is contiguous to the Wendell H. Ford Western Kentucky (W.K.) Parkway located in Hopkins, Muhlenberg and Ohio counties in Kentucky. This area is depicted in *Exhibit 1, WK Parkway Study Area*. Data from the U.S. Census Bureau's *2017 American Community Survey* has been utilized for the analysis of the Study Area. It is intended to be used as a "first look study" into the socioeconomic characteristics that exist within the Study area. If, at a later time specific projects and project locations are identified, a more in-depth analysis of the socioeconomic characteristics may be warranted. The information and results are intended to assist the Kentucky Transportation Cabinet in making informed and prudent transportation decisions in the study area, especially with regard to the requirements of *Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations* (signed February 11, 1994). Executive Order 12898 states:

...each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations..."

This report outlines the *2017 American Community Survey* statistics for the project area using tables and maps. Statistics are provided on minority, low-income, elderly, and disabled populations for the block groups and census tracts within the project area.

## WHAT IS ENVIRONMENTAL JUSTICE?

The U.S. Department of Transportation (DOT) outlines the three primary Environmental Justice Concepts as:

1. To avoid, minimize, or mitigate disproportionately high and adverse human health or environmental effects, including social and economic effects, on minority populations and low-income populations.
2. To ensure the full and fair participation by all potentially affected communities in the transportation decision-making process.
3. To prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority populations and low-income populations.

The U.S. DOT order defines minority as:

1. Black (a person having origins in any of the black racial groups of Africa);
2. Hispanic (a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race);
3. Asian American (a person having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands);

4. American Indian and Alaskan Native (a person having origins in any of the original people of North America and who maintains cultural identification through tribal affiliation or community recognition); or
5. Native Hawaiian or Other Pacific Islander (a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands).

A minority population is “any readily identifiable groups of minority persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons...”

Low-income is defined in U.S. DOT Order (5610.2) as “a person whose median household income is at or below the Department of Health and Human Services (HHS) poverty guidelines.” A low-income population is “any readily identifiable group of low-income persons who live in geographic proximity, and if circumstances warrant, geographically dispersed/transient persons...”

A disproportionately high and adverse effect on a minority or low-income population means an adverse effect that:

1. is predominately borne by a minority population and/or low-income population, or
2. will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.

Elderly and disabled populations (also used in this analysis) are not specifically recognized under the definition of an Environmental Justice community. However, the U.S. DOT specifically encourages the early examination of potential populations of the elderly, children, disabled, and other populations protected by Title VI of the Civil Rights Act of 1964 and related nondiscrimination statutes.

Limited English Proficiency (LEP) is a term used in the United States that refers to a person who is not fluent in the English language, often because it is not their native language. Both LEP and English-language learners (ELL) are terms used by the Office for Civil Rights, a sub-agency of the US Department of Education.

## METHODOLOGY

Data for this study was collected by using the method outlined by the KYTC document, “Methodology for Assessing Potential Environmental Justice Concerns for KYTC Planning Studies” that is located in *Appendix A, Methodology*. The U.S. Census Data used in the report is taken from American Fact Finder Summary File 3 including tables:

- P7. Hispanic or Latino By Race
- P8. Sex by Age
- P 41. Age by Types of Disability for the Civilian Non-institutionalized Population 5 Years and Over with Disabilities
- P 87. Poverty Status in 2017 by Age

The data was compiled with maps and tables to present a detailed description of the community conditions in and around the study area. The methodologies used in this planning document are appropriate for identifying possible areas of concern in small urban areas and potential project corridors. However, during future phases of project development a more detailed and robust analysis would be required for the NEPA documentation when assessing the potential for adverse and disproportionate impacts to low low-income and minority populations.

## CENSUS DATA ANALYSIS

U.S. Census data is arranged according to geographic unit. The U.S. Census Bureau defines geographical units as:

- **Census Tract (CT)** – “A small, relatively permanent statistical subdivision of a county or statistically equivalent entity delineated for data presentation purposes by a local group of census data users or the geographic staff of a regional census center in accordance with Census Bureau guidelines. CTs generally contain between 1,000 and 8,000 people. CT boundaries are delineated with the intention of being stable over many decades, so they generally follow relatively permanent visible features. They may also follow governmental unit boundaries and other invisible features in some instances; the boundary of a state or county is always a census tract boundary.”
- **Block Group (BG)** - “A statistical subdivision of a CT. A BG consists of all tabulation blocks whose numbers begin with the same digit in a CT. BGs generally contain between 300 and 3,000 people, with an optimum size of 1,500 people.”
- **Census Block (CB)** – “An area bounded on all sides by visible and/or invisible features shown on a map prepared by the Census Bureau. A CB is the smallest geographic entity for which the Census Bureau tabulates decennial census data.”

The US Census tables in this report include the total number and percentages for minorities, elderly population, disabled population and low-income population levels for the block groups, census tracts, County, State of Kentucky and the United States. There are two (2) census tracts and three (3) block groups that are relevant to this study area. Total population numbers are included in the census tract data even though all block groups within a census tract may not be included in the study area.

A method developed by the Ohio Department of Transportation (ODOT)<sup>1</sup> to identify target populations is applied in this study. This study will use the population percentages of the State as a reference threshold for identifying target populations.

In reviewing each block group for target populations, an analysis range was used based on the reference threshold in each of the four census categories utilized in this study. This range was set at 25 percent above the threshold to 25 percent below the threshold. The full explanation on how this reference threshold is applied is explained in *Appendix B*.

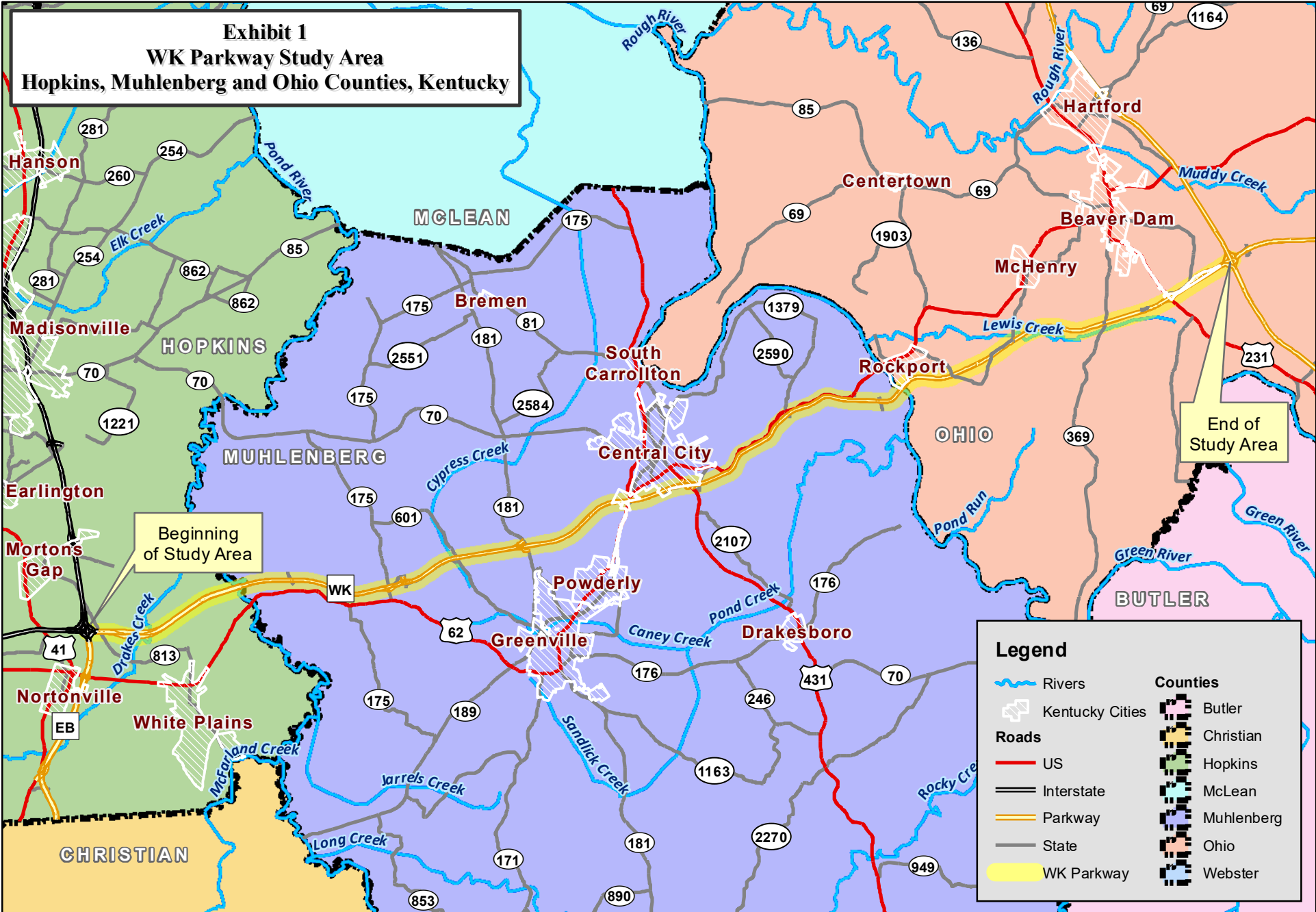


**PROJECT AREA: Wendell H. Ford Western Kentucky PKWY from the I-69 Interchange in Hopkins County to the I-165 Interchange in Ohio County, Kentucky.**

The scope of the Environmental Justice Study involves the western most section of the Wendell H. Ford Western Kentucky Parkway corridor, which begins at the I-69 interchange in the west and runs to the I-165 Interchange on the eastern end of the Study Area. At this time, the scope of this study assumes any road or right-of-way improvements will be confined to the existing right-of-way or within 200 feet of the existing right-of-way. Therefore, the Project Area for this Study is the existing right-of-way and within 200 feet of the existing right-of-way as shown on *Exhibit 1, WK Parkway Study Area, Hopkins, Muhlenberg and Ohio Counties, KY.*

The 2000 Census Block Groups that comprise the study area are shown in Exhibit 2A, 2B and 2C. It should be noted that some Block Groups shown on the maps fail to fall within the study area; therefore, any Block Groups that touches the boundary of the study area or are within 200 feet of the Parkway, are included.

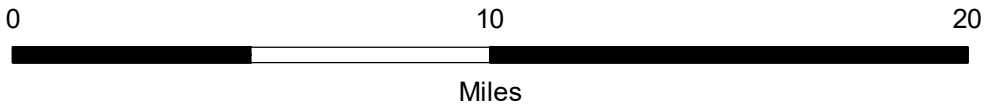
**Exhibit 1**  
**WK Parkway Study Area**  
**Hopkins, Muhlenberg and Ohio Counties, Kentucky**



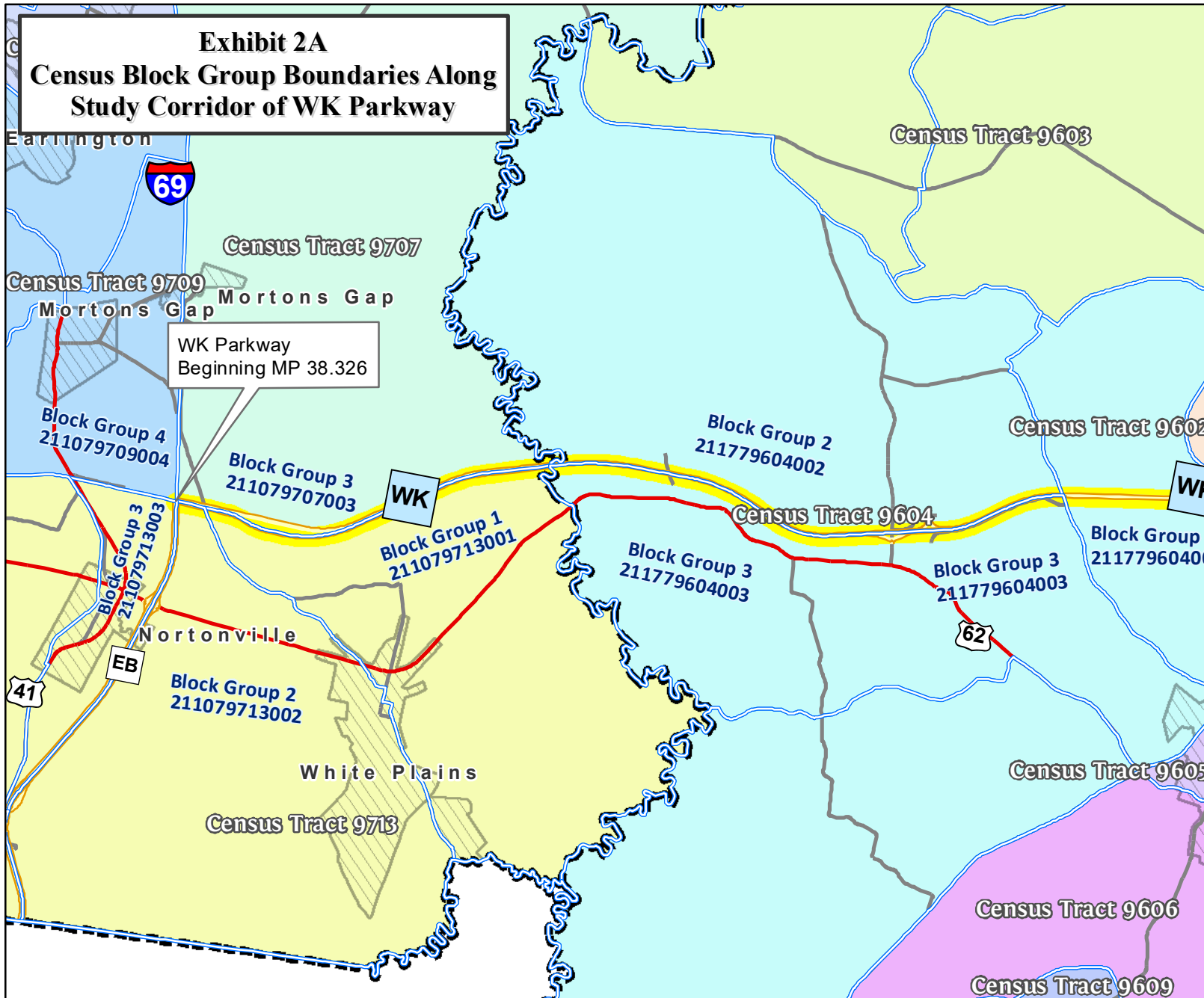
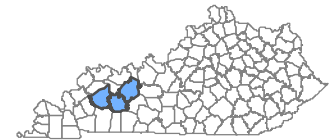
**Legend**

Rivers	Counties
Kentucky Cities	Butler
<b>Roads</b>	Christian
US	Hopkins
Interstate	McLean
Parkway	Muhlenberg
State	Ohio
WK Parkway	Webster

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 Pennyrile Area Development District  
 Date: February 2020  
 File: WK Parkway Study Area - Ex1.mxd



# Exhibit 2A Census Block Group Boundaries Along Study Corridor of WK Parkway

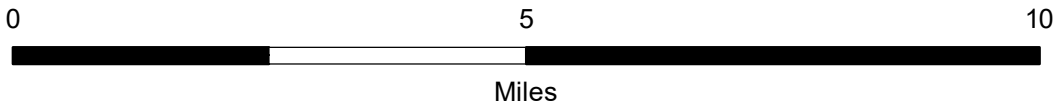
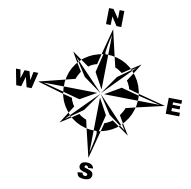


**Legend**

- Block Groups
- Roads
  - US
  - Interstate
  - Parkway
  - State
- Kentucky Cities
- Kentucky Counties
- WK Parkway

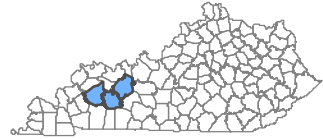
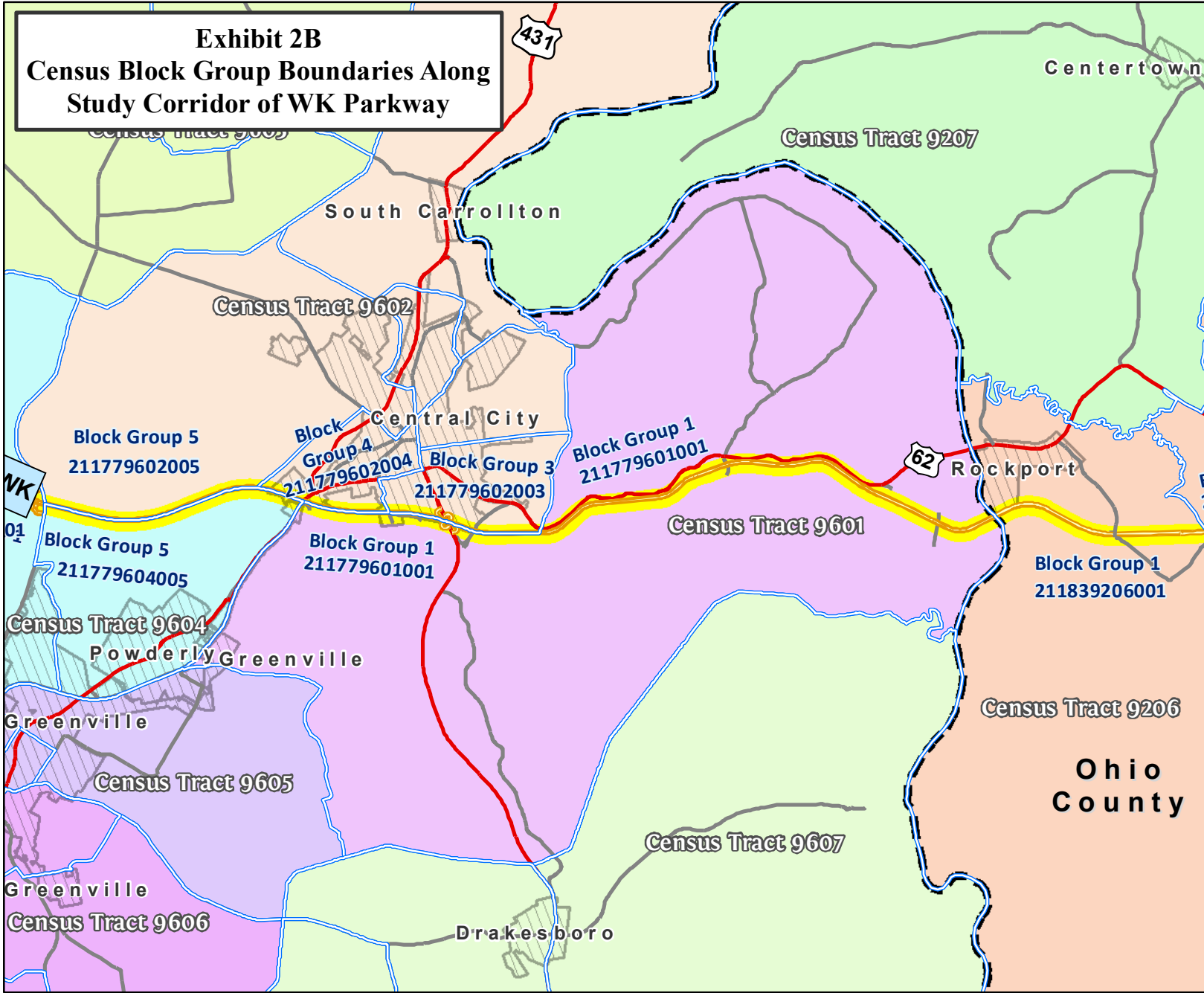
**Census Tracts Visible on Page**

- 960200
- 960300
- 960400
- 960500
- 960600
- 960900
- 970700
- 970800
- 970900
- 971300



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 Pennyrile Area Development District  
 Date: January 2020  
 File: WK Parkway - EJ Mapset.mxd

**Exhibit 2B**  
**Census Block Group Boundaries Along**  
**Study Corridor of WK Parkway**

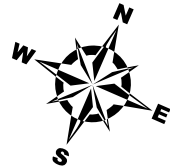


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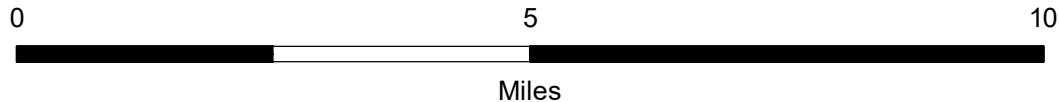
- Block Groups
- Kentucky Cities
- Kentucky Counties
- WK Parkway

**Census Tracts Visible on Page**

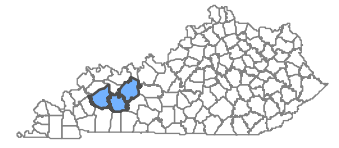
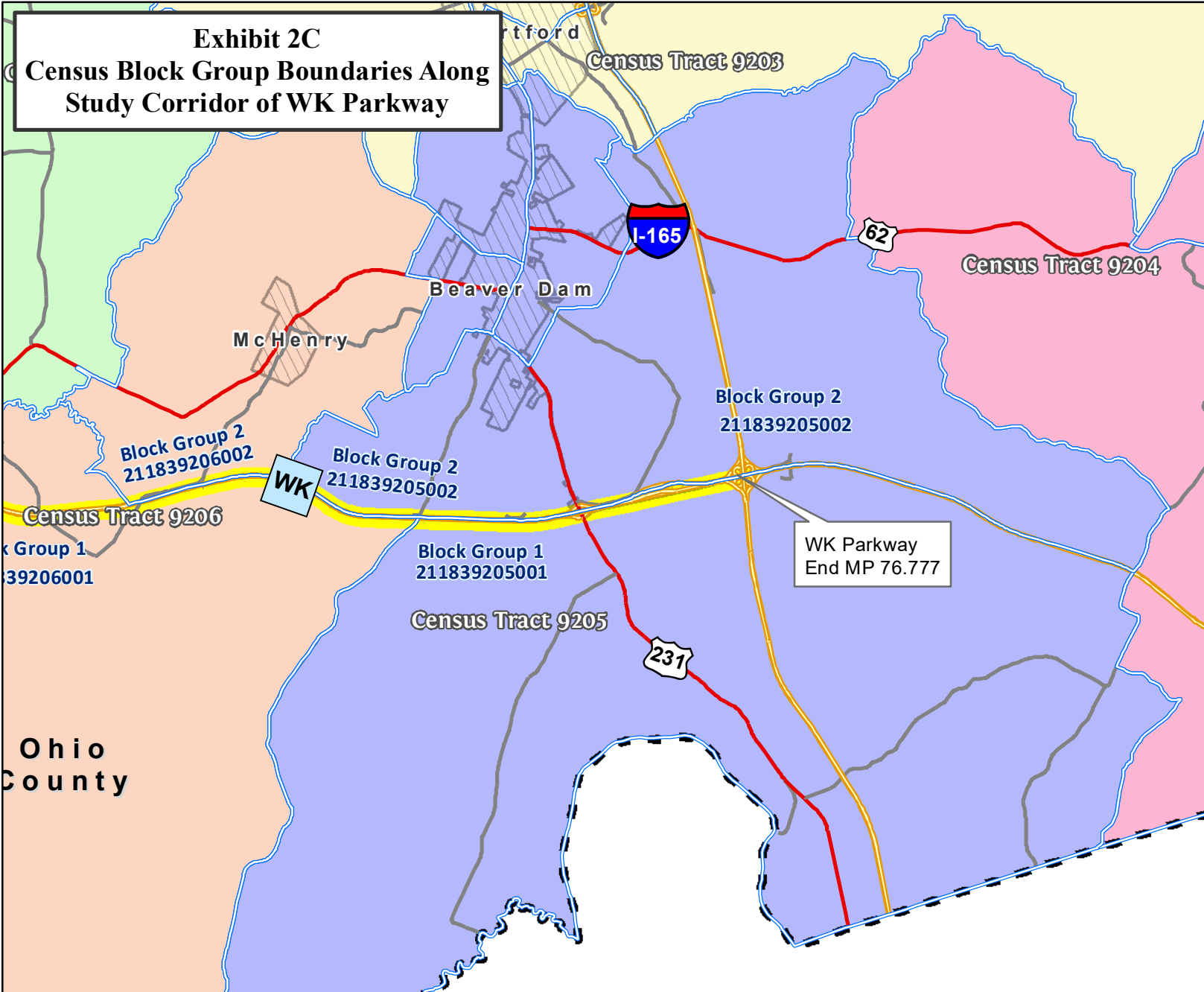
- 920600
- 920700
- 960100
- 960200
- 960300
- 960400
- 960500
- 960600
- 960700



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 Date: January 2020  
 File: WK Parkway - EJ Mapset.mxd



**Exhibit 2C**  
**Census Block Group Boundaries Along**  
**Study Corridor of WK Parkway**

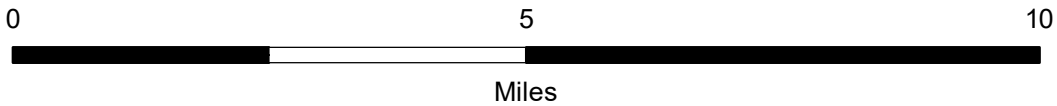


**Legend**

- Block Groups
- Kentucky Cities
- Kentucky Counties
- WK Parkway

**Census Tracts Visible on Page**

- 920300
- 920400
- 920500
- 920600
- 920700



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 Date: January 2020  
 File: WK Parkway - EJ Mapset.mxd

**STUDY FINDINGS: POPULATION BY PERSONS OF MINORITY ORIGIN**

As described in *Table 1, Racial Minority Population*, the minority population percentages for the United States is 26.99 percent, which is significantly higher than Kentucky at 12.70 percent. The Hopkins County minority population is 9.97 percent, Muhlenberg County is 7.41 percent, and Ohio County is 3.74 percent. All three (3) of these counties are significantly lower than both the National and State averages.

As shown in *Table 1, Racial Minority Population*, of the seventeen (17) Block Groups in the Study Area, two (2) have minority populations above the State Average (12.70%), these two (2) Block Groups (BGs) are CT 9602 BG 3 (36.77%) and CT 9602 BG 4 (25.66%) These Block Groups with high minority populations relative to the State threshold are both within Central City, Kentucky. These BGs can be seen on the map in *Exhibit 3B, Racial Minority by Population*.

**Table 1  
Racial Minority Population  
WK Parkway Study Area  
Hopkins, Muhlenberg and Ohio Counties**

	<b>Total Population</b>	<b>Minority Population</b>	<b>Minority Percent of Population</b>
<b>United States</b>	<b>321,004,407</b>	<b>86,634,205</b>	<b>26.99</b>
<b>Kentucky</b>	<b>4,424,376</b>	<b>561,776</b>	<b>12.70</b>
<b>Hopkins Co.</b>	<b>45,985</b>	<b>4,585</b>	<b>9.97</b>
CT 9707 BG 3	1,224	0	0.00
CT 9709 BG 4	1,090	12	1.10
CT 9713 BG 1	853	26	3.05
CT 9713 BG 2	907	48	5.29
CT 9713 BG 3	1,512	117	7.74
<b>Muhlenberg Co</b>	<b>31,153</b>	<b>2308</b>	<b>7.41</b>
CT 9601 BG 1	1,262	31	2.46
CT 9602 BG 3	786	289	36.77
CT 9602 BG 4	1,325	340	25.66
CT 9602 BG 5	993	80	8.06
CT 9604 BG 1	1,051	4	0.38
CT 9604 BG 2	737	14	1.90
CT 9604 BG 3	1,397	15	1.07
CT 9604 BG 5	1,172	4	0.34
<b>Ohio Co.</b>	<b>24,062</b>	<b>900</b>	<b>3.74</b>
CT 9205 BG 1	2,218	151	6.81
CT 9205 BG 2	1,171	89	7.60
CT 9206 BG 1	774	12	1.55
CT 0206 BG 2	1,297	43	3.32



**Exhibit 3A**  
**Racial Minority by Population**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



State Reference  
 Threshold: 12.70%

**Legend**

**Roads**

- US
- Interstate
- Parkway
- State

**Other Symbols**

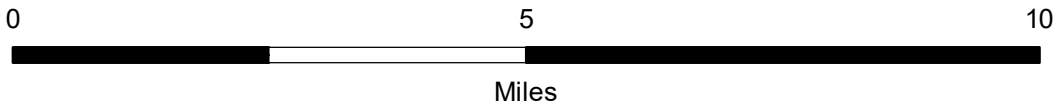
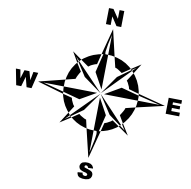
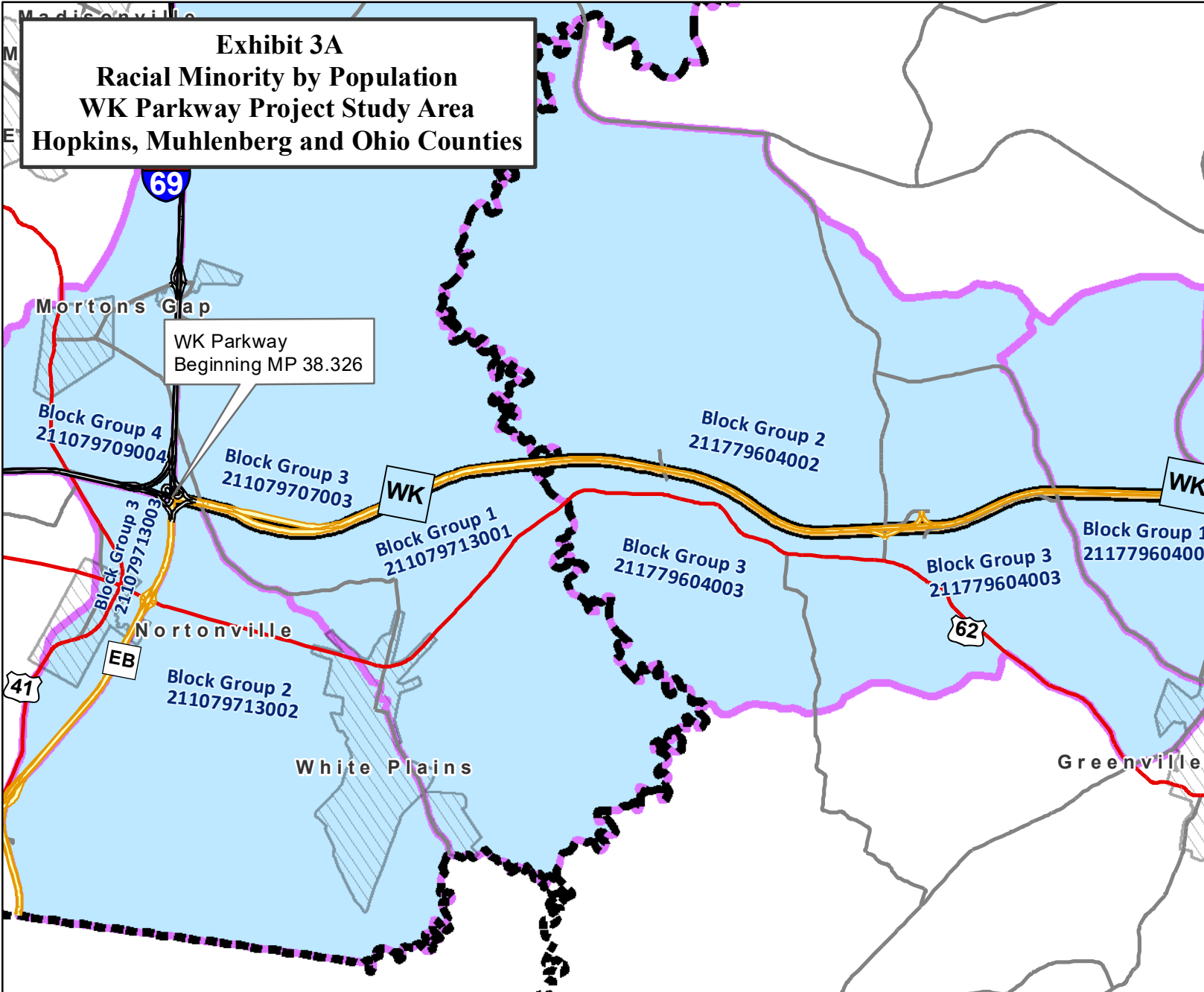
- Kentucky Cities
- Kentucky Counties
- WK Parkway

**Census Block Groups Above State Threshold**

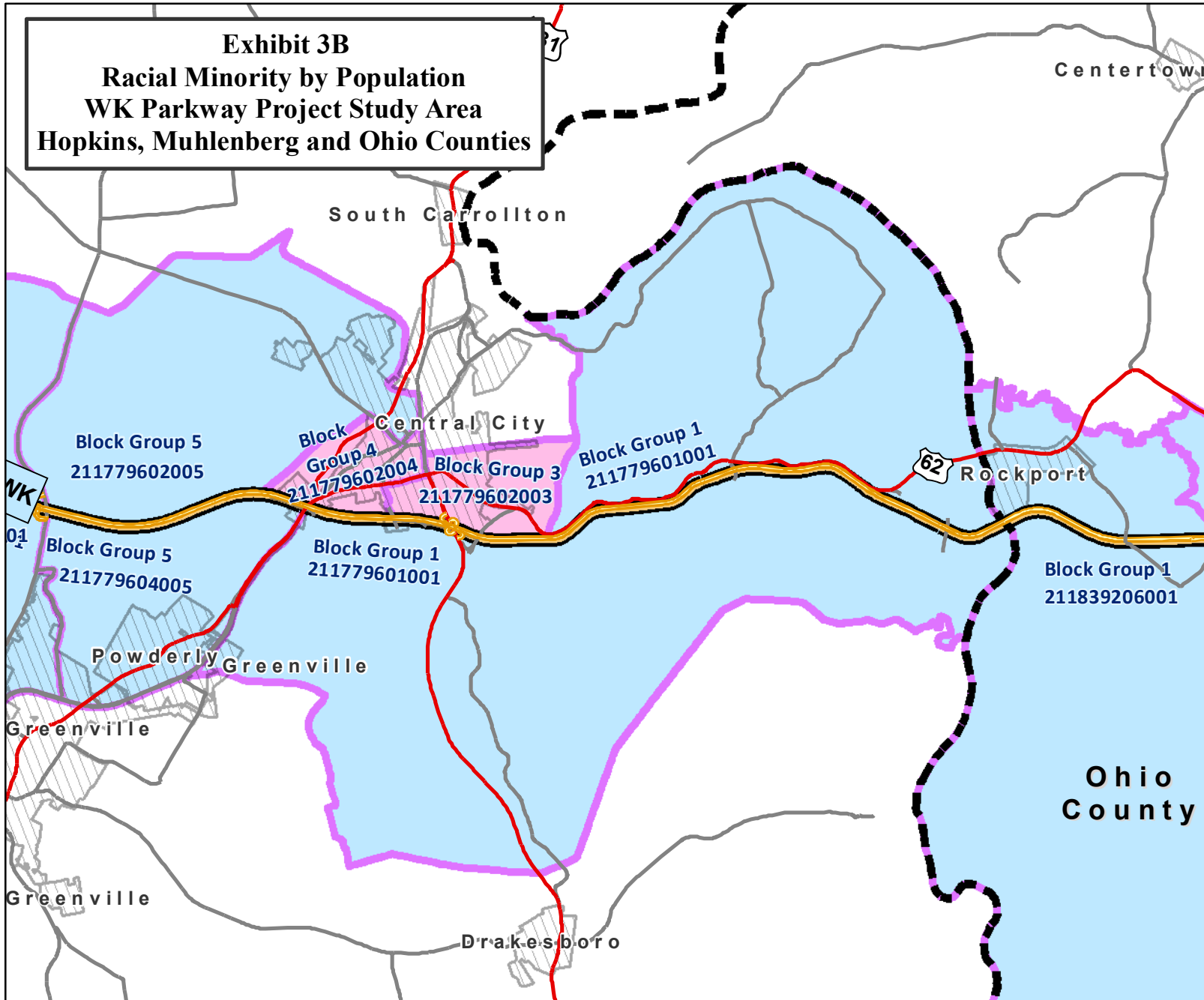
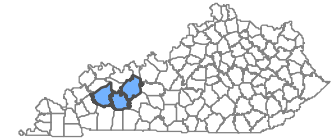
- > 15.88 %
- 12.46% - 15.58%

**Census Block Groups Below State Threshold**

- 12.69 - 9.52%
- <9.51%



**Exhibit 3B**  
**Racial Minority by Population**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



State Reference  
 Threshold: 12.70%

**Legend**

**Roads**

- US
- Parkway
- State

**Kentucky Cities**

- Kentucky Cities

**Kentucky Counties**

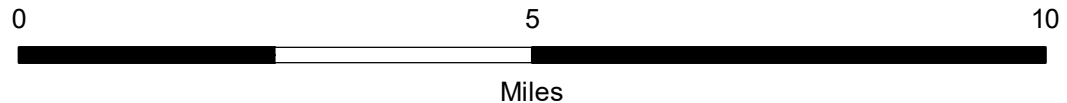
- WK Parkway

**Census Block Groups Above State Threshold**

- > 15.88 %
- 12.46% - 15.58%

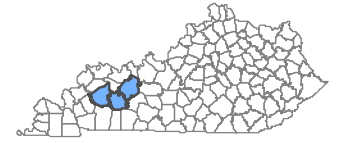
**Census Block Groups Below State Threshold**

- 12.69 - 9.52%
- <9.51%

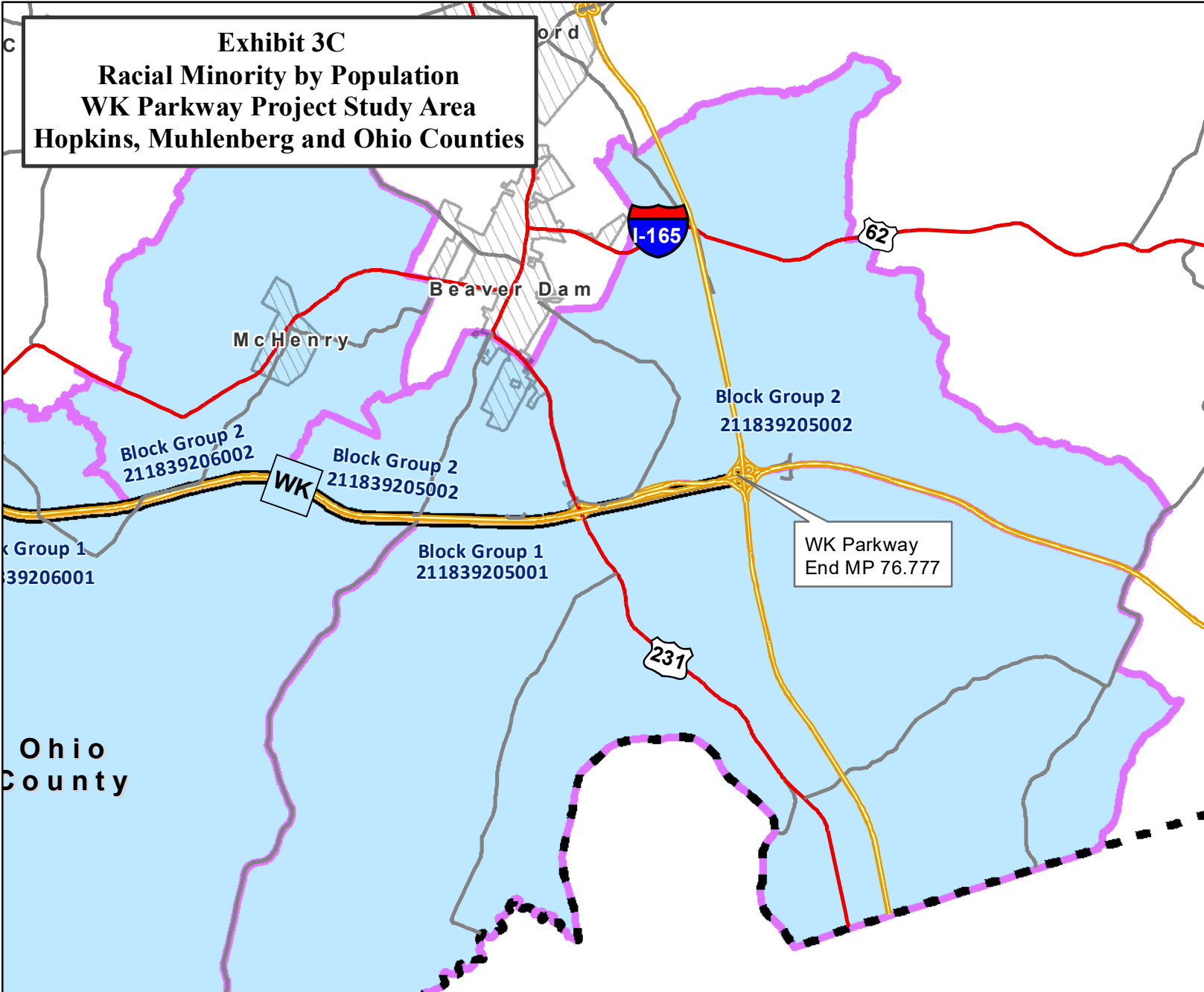




**Exhibit 3C**  
**Racial Minority by Population**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



State Reference  
 Threshold: 12.70%



**Legend**

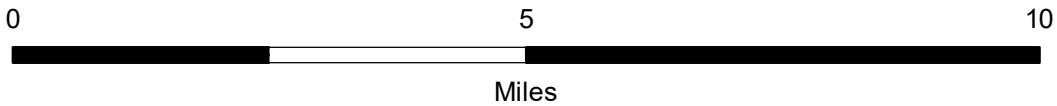
- Kentucky Cities
- Kentucky Counties
- WK Parkway

**Census Block Groups Above State Threshold**

- > 15.88 %
- 12.46% - 15.58%

**Census Block Groups Below State Threshold**

- 12.69 - 9.52%
- <9.51%



**STUDY FINDINGS: POPULATION AGE 65 AND OVER**

As described in *Table 2, Population Age 65 and Over*, the percentage of persons that are 65 years old or older in Kentucky is 15.20 percent, which is higher than the level in the United States (10.90 percent).

As shown in *Table 2, Population Age 65 and Oder*, there are nine (9) Block Groups (BGs) in the study area that have a higher percentage of persons that are 65 years or older, in relation to the State threshold (15.20%). Of these nine (9) Block Groups that are higher than the State Threshold, five (5) have significantly higher percentages based on our Methodology explained in *Appendix B*. The BG with the highest percentage is CT 9604 BG 3 (31.61%). The remaining five (5) BGs with significantly higher percentages are listed in order from highest to lowest: CT 9602 BG 3 (31.04%), CT 9713 BG 2 (25.69%), CT 9709 BG 4 (24.50%), CT 9604 BG 3 (22.48%) and CT 9205 BG 2 (22.46%). The locations of these Block Groups can be seen on the maps in *Exhibit 4A, 4B and 4C, Population Age 65 and Oder*.

**Table 2  
Population Age 65 and Over  
WK Parkway Study Area  
Hopkins, Muhlenberg and Ohio Counties**

	<b>Total Population</b>	<b>Population Age 65 and Older</b>	<b>Age 65 and Over Percent of Population</b>
<b>United States</b>	<b>321,004,407</b>	<b>34,991,753</b>	<b>10.90</b>
<b>Kentucky</b>	<b>4,424,376</b>	<b>672,706</b>	<b>15.20</b>
<b>Hopkins Co.</b>	<b>45,985</b>	<b>7,844</b>	<b>17.06</b>
CT 9707 BG 3	1,224	103	8.42
CT 9709 BG 4	1,090	267	24.50
CT 9713 BG 1	853	137	16.06
CT 9713 BG 2	907	233	25.69
CT 9713 BG 3	1,512	211	13.96
<b>Muhlenberg Co</b>	<b>31,153</b>	<b>5626</b>	<b>18.06</b>
CT 9601 BG 1	1,262	166	13.15
CT 9602 BG 3	786	244	31.04
CT 9602 BG 4	1,325	250	18.87
CT 9602 BG 5	993	169	17.02
CT 9604 BG 1	1,051	130	12.37
CT 9604 BG 2	737	233	31.61
CT 9604 BG 3	1,397	314	22.48
CT 9604 BG 5	1,172	136	11.60
<b>Ohio Co.</b>	<b>24,062</b>	<b>4224</b>	<b>17.55</b>
CT 9205 BG 1	2,218	233	10.50
CT 9205 BG 2	1,171	263	22.46
CT 9206 BG 1	774	140	18.09
CT 0206 BG 2	1,297	124	9.56

**Exhibit 4A**  
**Population Age 65 and Older**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



State Reference  
 Threshold: 15.20%

**Legend**

**Roads**

- US
- Interstate
- Parkway
- State

**Geographic Features**

- Kentucky Cities
- Kentucky Counties
- WK Parkway

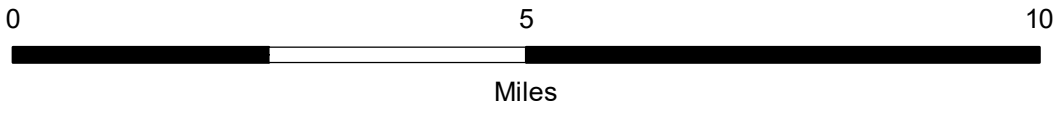
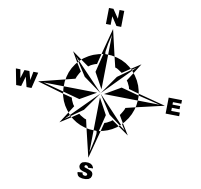
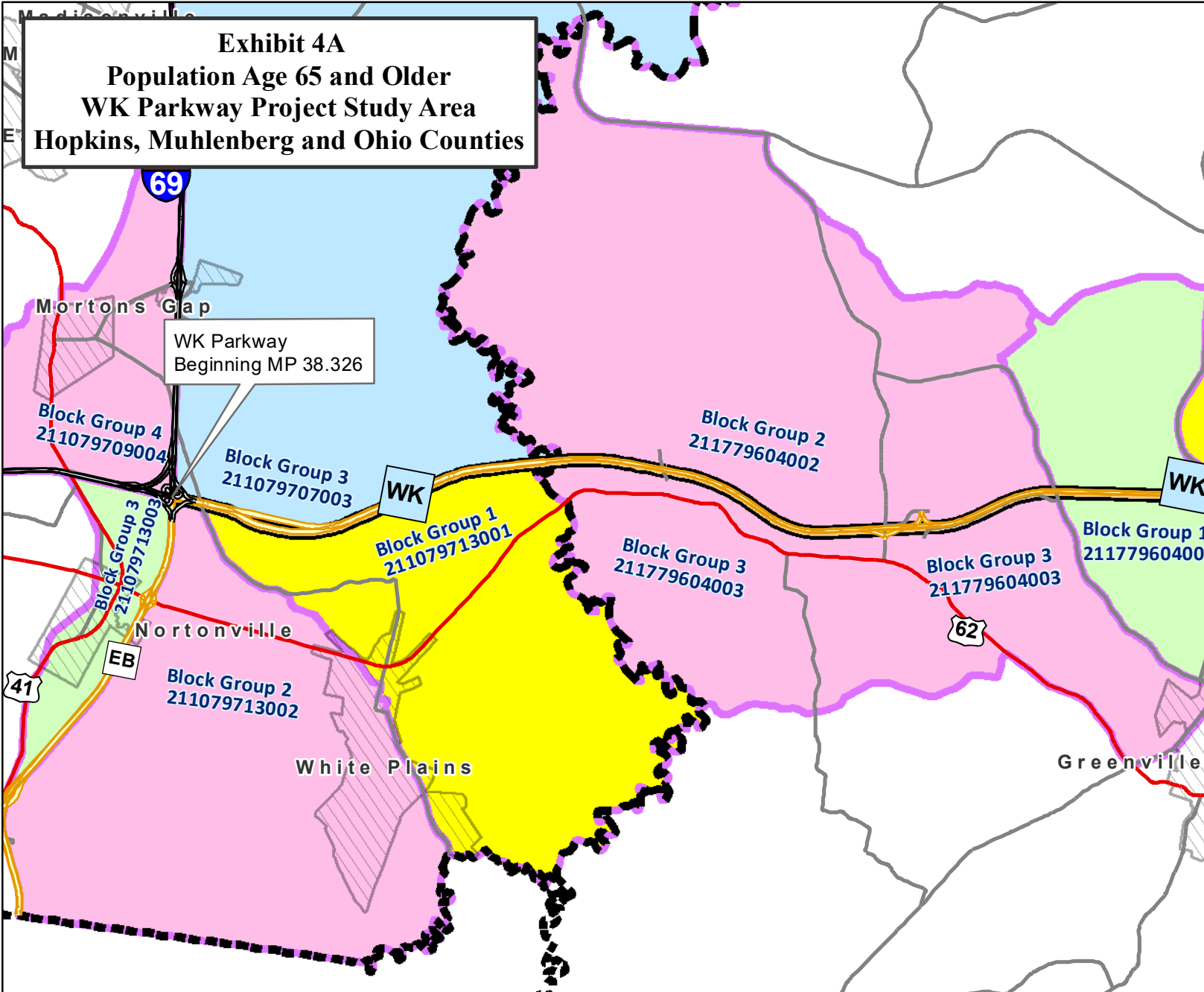
**Census Block Groups**

**Above State Threshold**

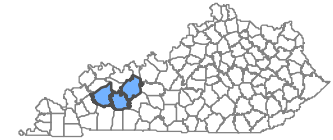
- >19.01%
- 15.21% - 19.00%

**Census Block Groups Below State Threshold**

- 11.40% - 15.19%
- <11.39%



**Exhibit 4B**  
**Population Age 65 and Older**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



State Reference  
 Threshold: 15.20%

**Legend**

**Roads**

- Parkway
- US
- State

**Other Features**

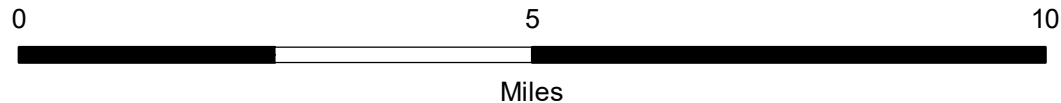
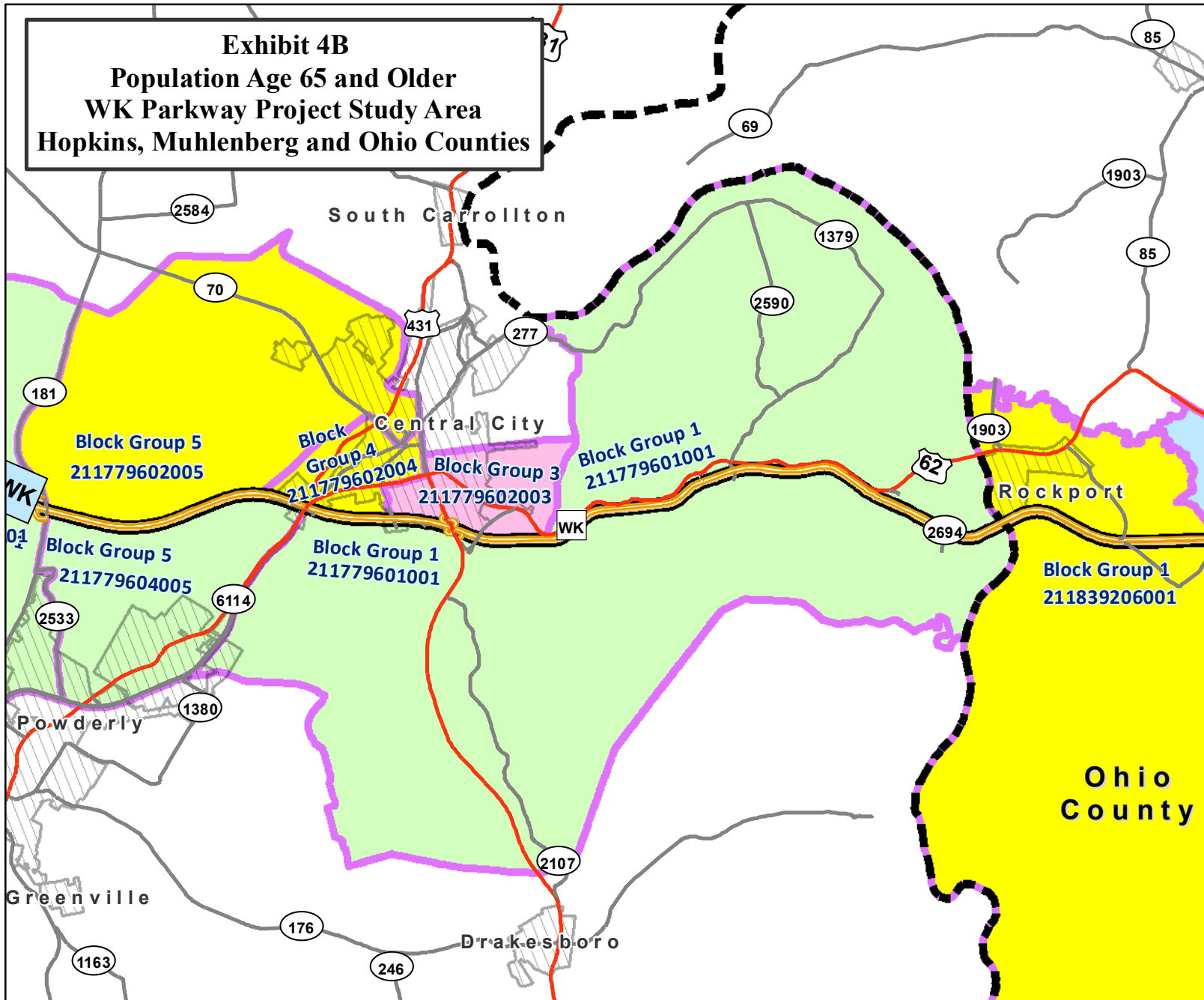
- Kentucky Cities
- Kentucky Counties
- WK Parkway

**Census Block Groups Above State Threshold**

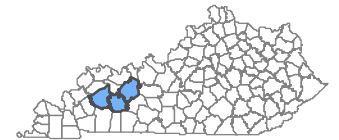
- >19.01%
- 15.21% - 19.00%

**Census Block Groups Below State Threshold**

- 11.40% - 15.19%
- <11.39%



**Exhibit 4C**  
**Population Age 65 and Older**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



State Reference  
 Threshold: 15.20%

**Legend**

**Roads**

- Interstate
- Parkway
- US
- State

**Other Features**

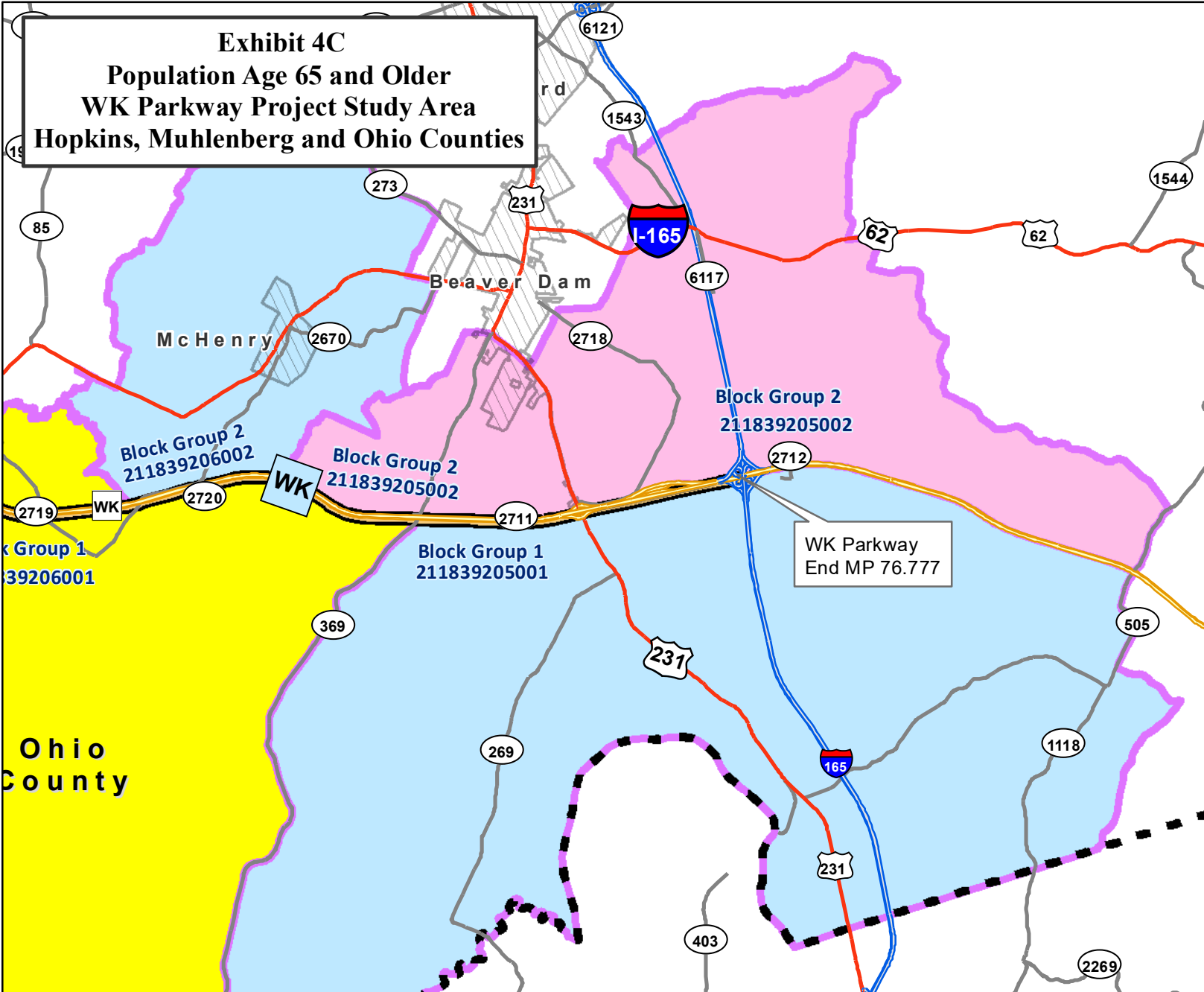
- Kentucky Cities
- Kentucky Counties
- WK Parkway

**Census Block Groups Above State Threshold**

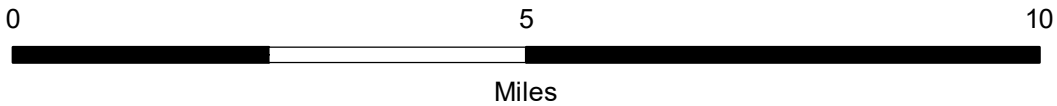
- >19.01%
- 15.21% - 19.00%

**Census Block Groups Below State Threshold**

- 11.40% - 15.19%
- <11.39%



WK Parkway  
 End MP 76.777



**STUDY FINDING: DISABILITIES AGE 5 AND OVER**

As described in *Tables 3, Population by Persons with Disabilities*, the United States had 12.40 percent of its population listed with some type of disability, which was less than the State of Kentucky with 16.99 percent.

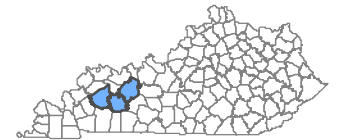
As shown in Table 3, ten (10) of the fifteen (15) Block Groups (BGs) in the study area had a higher percentage of persons with disabilities in relation to the state threshold (16.99%). Of these ten (10) Block Groups that are higher than the State Threshold, nine (9) have significantly higher percentages based on our Methodology explained in Appendix B. The BG with the highest percentage is CT 9604 BG 3 (41.95%). The remaining eight (8) BGs are listed in order from highest to lowest: CT 9604 BG 5 (35.75%), CT 9602 BG 3 (30.79%), CT 9204 BG 2 (29.04%), CT 9602 BG 5 (28.10%), CT 9709 BG 4 (27.80%), CT 9601 BG 1 (27.50%), CT 9205 BG 1 (24.71%), and CT 9713 BG 2 (23.15%). The locations of these BGs are shown on the maps in *Exhibit 5A, 5B and 5C*.

**Table 3**  
**Population by Persons with Disabilities**  
**WK Parkway Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**

	<b>Total Population</b>	<b>Population Disability Status</b>	<b>Disability Status Percent of Population</b>
<b>United States</b>	<b>321,004,407</b>	<b>39,792,082</b>	<b>12.40</b>
<b>Kentucky</b>	<b>4,424,376</b>	<b>751,563</b>	<b>16.99</b>
<b>Hopkins Co.</b>	<b>45,985</b>	<b>8,089</b>	<b>17.59</b>
CT 9707 BG 3	1,224	170	13.89
CT 9709 BG 4	1,090	303	27.80
CT 9713 BG 1	853	140	16.41
CT 9713 BG 2	907	210	23.15
CT 9713 BG 3	1,512	270	17.86
<b>Muhlenberg Co</b>	<b>31,153</b>	<b>7188</b>	<b>23.07</b>
CT 9601 BG 1	1,262	347	27.50
CT 9602 BG 3	786	242	30.79
CT 9602 BG 4	1,325	176	13.28
CT 9602 BG 5	993	279	28.10
CT 9204 BG 1	1,051	97	9.23
CT 9204 BG 2	737	214	29.04
CT 9604 BG 3	1,397	586	41.95
CT 9604 BG 5	1,172	419	35.75
<b>Ohio Co.</b>	<b>24,062</b>	<b>5178</b>	<b>21.52</b>
CT 9205 BG 1	2,218	548	24.71
CT 9205 BG 2	1,171	158	13.49
CT 9206 BG 1	774	161	20.80
CT 0206 BG 2	1,297	253	19.51



**Exhibit 5A**  
**Disability Status of Population**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



State Reference  
 Threshold: 16.99%

**Legend**

**Roads**

- US
- Interstate
- Parkway
- State

Kentucky Cities

Kentucky Counties

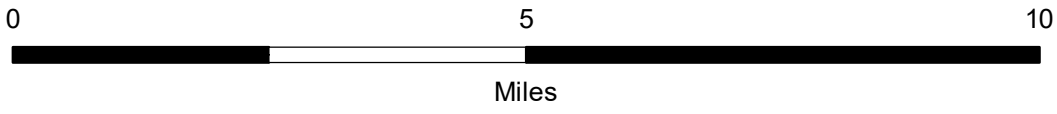
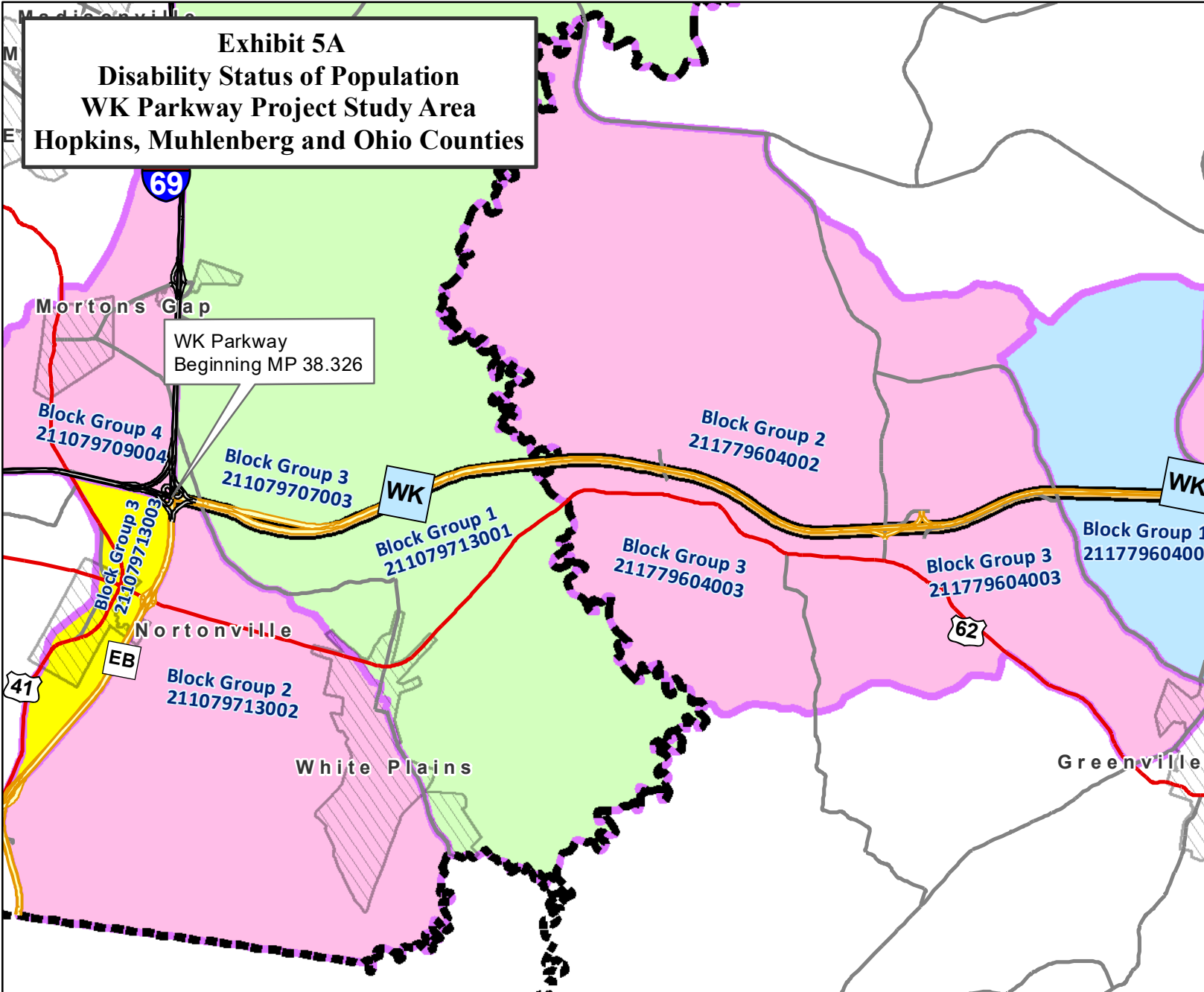
WK Parkway

**Census Block Groups Above State Threshold**

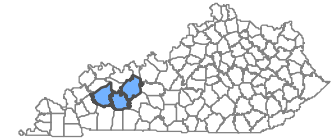
- >21.24%
- 17.00% - 21.23%

**Census Block Groups Below State Threshold**

- 12.75% - 16.98%
- <12.74%



**Exhibit 5B**  
**Disability Status of Population**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



State Reference  
 Threshold: 16.99%

**Legend**

**Roads**

- Parkway
- US
- State

**Other Features**

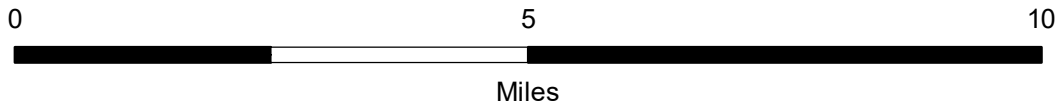
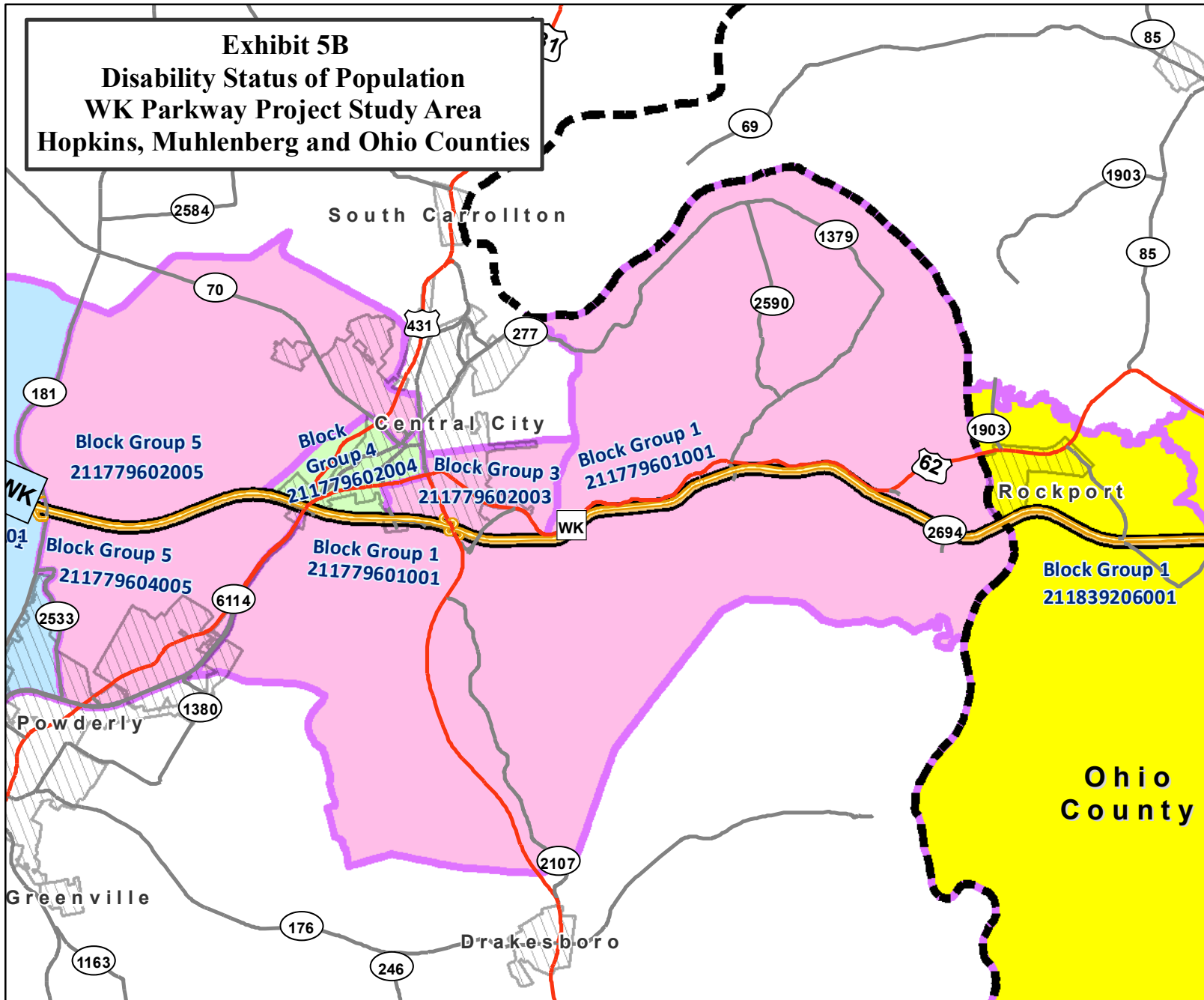
- Kentucky Cities
- Kentucky Counties
- WK Parkway

**Census Block Groups Above State Threshold**

- >21.24%
- 17.00% - 21.23%

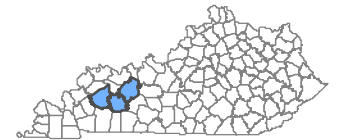
**Census Block Groups Below State Threshold**

- 12.75% - 16.98%
- <12.74%





**Exhibit 5C**  
**Disability Status of Population**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



State Reference  
 Threshold: 16.99%

**Legend**

**Roads**

- Interstate
- Parkway
- US
- State

**Other Features**

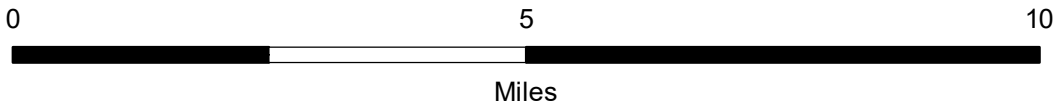
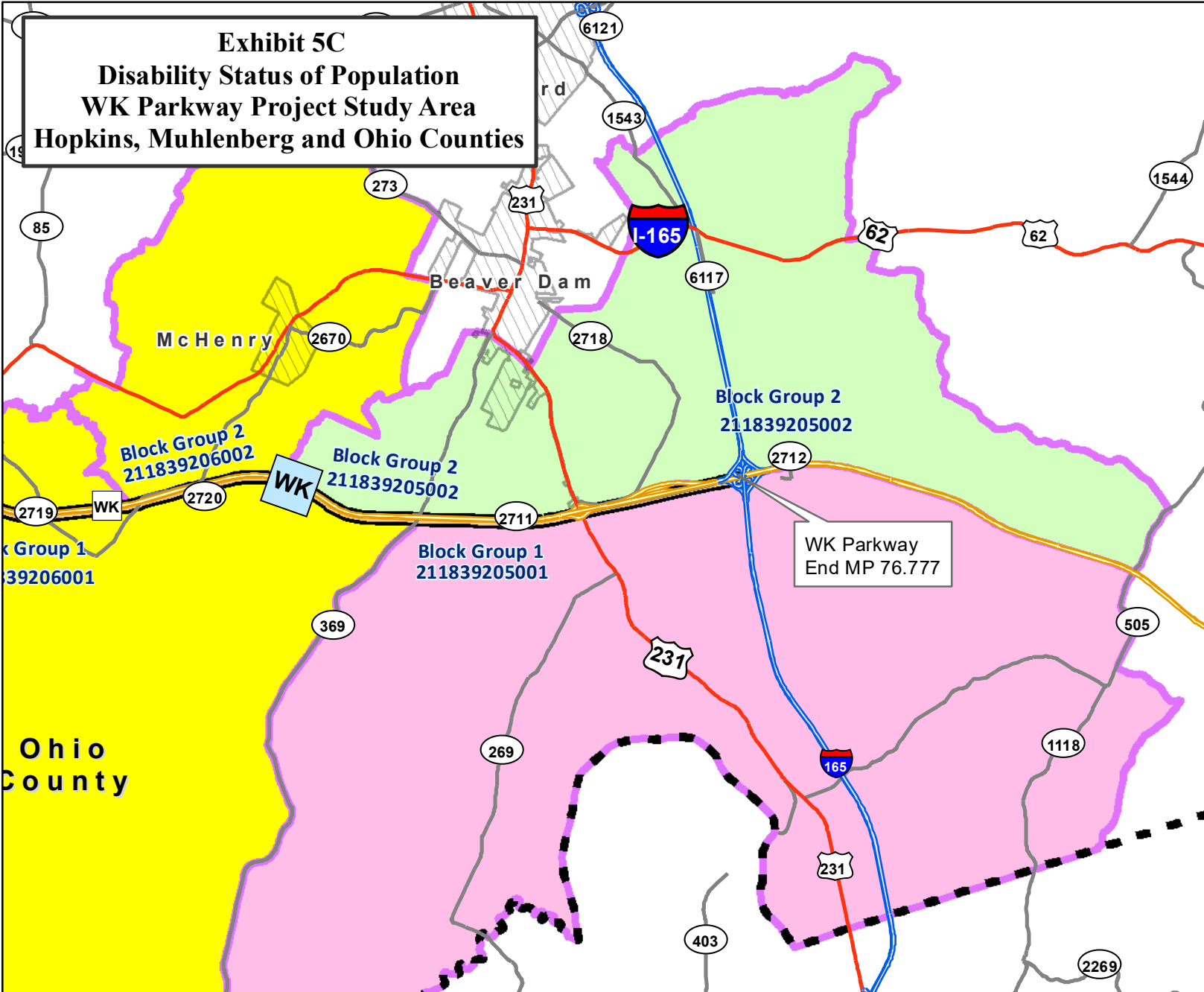
- Kentucky Cities
- Kentucky Counties
- WK Parkway

**Census Block Groups Above State Threshold**

- >21.24%
- 17.00% - 21.23%

**Census Block Groups Below State Threshold**

- 12.75% - 16.98%
- <12.74%



**STUDY FINDING: POPULATION BELOW POVERTY**

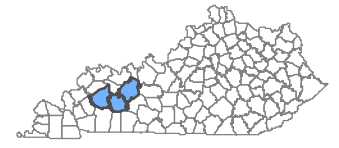
As described in *Table 4, Population Below Poverty*, the United States has a poverty level of 4.60 percent, which is lower than the State of Kentucky with 18.30 percent.

As shown in *Table 4, Population Below Poverty Level*, fifteen (15) of the seventeen (17) BGs in the study area had a higher percentage of persons below the poverty level in relation to the State threshold (18.30%). Of these 15 BGs with higher thresholds, eight (8) had significantly higher thresholds based on our Methodology explained in Appendix B. The BG with the highest percentage is CT 9602 BG3 (59.54%). The remaining seven (7) BGs with significantly higher thresholds are listed in order from highest to lowest: CT 9601 BG 1 (39.22%), CT 9709 BG 4 (34.31%), CT 9206 BG 1 (28.55%), CT 0206 BG 2 (27.60%), CT 9713 BG 2 (26.46%), CT 9713 BG 3 (25.46%), and CT 9205 BG 1 (22.95%). The locations of these BGs are shown in the maps on *Exhibit 6A, 6B and 6C*.

**Table 4**  
**Population Below Poverty**  
**WK Parkway Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**

	<b>Total Population</b>	<b>Population Below Poverty</b>	<b>Below Poverty Percent of Population</b>
<b>United States</b>	<b>321,004,407</b>	<b>14,766,202</b>	<b>4.60</b>
<b>Kentucky</b>	<b>4,424,376</b>	<b>809,660</b>	<b>18.30</b>
<b>Hopkins Co.</b>	<b>45,985</b>	<b>7,909</b>	<b>17.20</b>
CT 9707 BG 3	1,224	189	15.44
CT 9709 BG 4	1,090	374	34.31
CT 9713 BG 1	853	170	19.93
CT 9713 BG 2	907	240	26.46
CT 9713 BG 3	1,512	385	25.46
<b>Muhlenberg Co</b>	<b>31,153</b>	<b>6,386</b>	<b>20.50</b>
CT 9601 BG 1	1,262	495	39.22
CT 9602 BG 3	786	468	59.54
CT 9602 BG 4	1,325	251	18.94
CT 9602 BG 5	993	190	19.13
CT 9204 BG 1	1,051	200	19.03
CT 9204 BG 2	737	160	21.71
CT 9604 BG 3	1,397	89	6.37
CT 9604 BG 5	1,172	195	16.64
<b>Ohio Co.</b>	<b>24,062</b>	<b>5,125</b>	<b>21.30</b>
CT 9205 BG 1	2,218	509	22.95
CT 9205 BG 2	1,171	220	18.79
CT 9206 BG 1	774	221	28.55
CT 0206 BG 2	1,297	358	27.60

**Exhibit 6A**  
**Population Below Poverty Level**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



State Reference  
 Threshold: 18.30%

**Legend**

**Roads**

- US
- Interstate
- Parkway
- State

**Geographic Features**

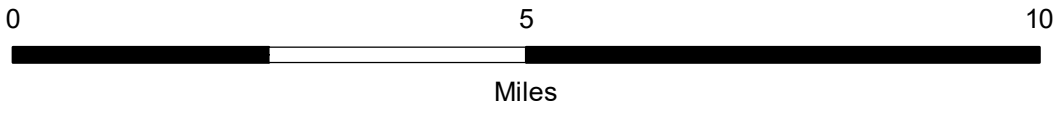
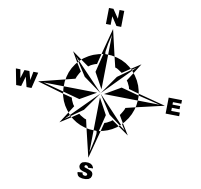
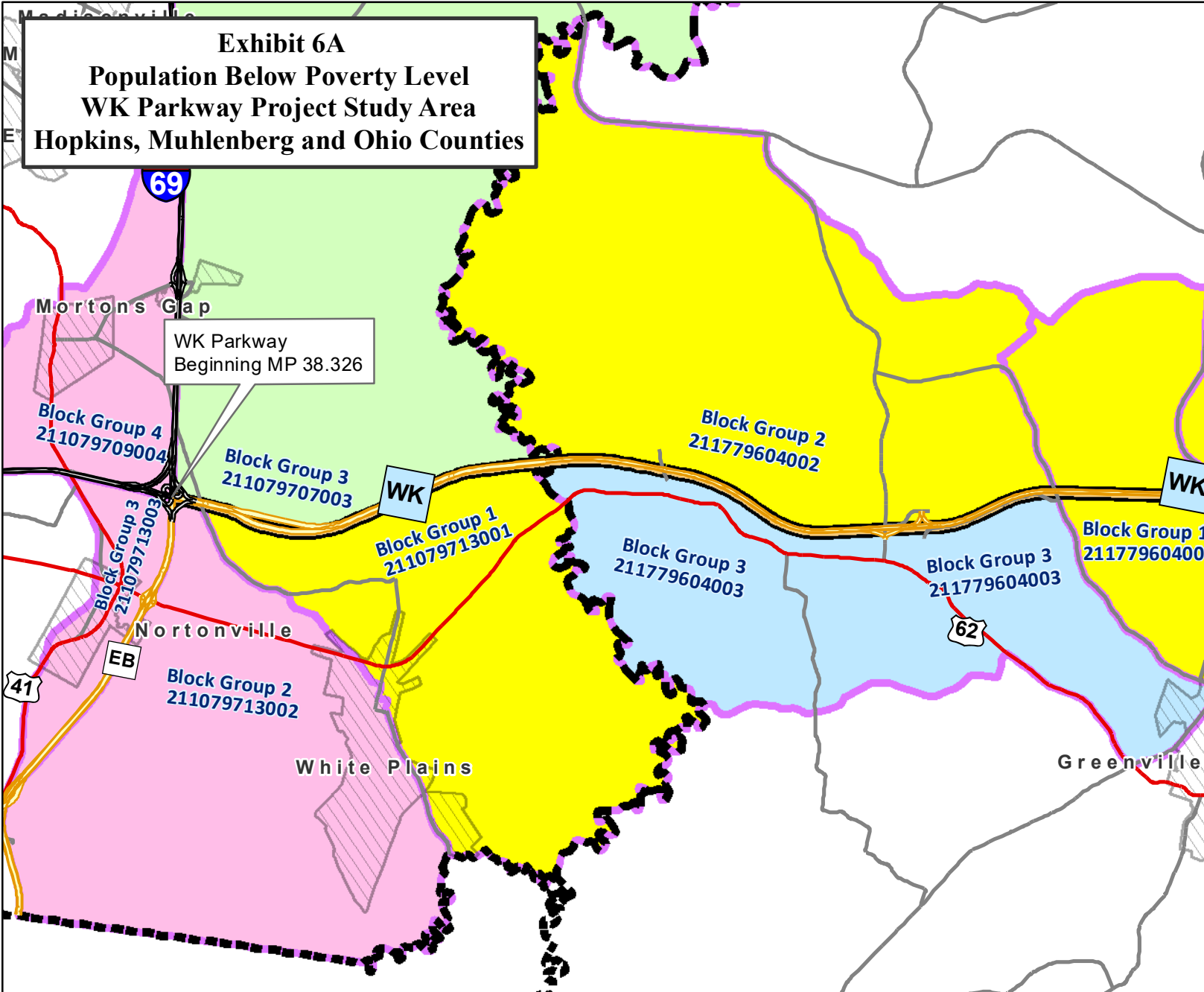
- Kentucky Cities
- Kentucky Counties
- WK Parkway

**Census Block Groups Above State Threshold**

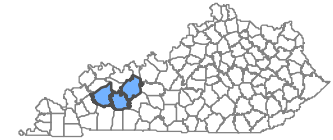
- 22.88%
- 18.31% - 22.87%

**Census Block Groups Below State Threshold**

- 13.73% - 18.39%
- <13.72%



**Exhibit 6B**  
**Population Below Poverty Level**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



State Reference  
 Threshold: 18.30%

**Legend**

**Roads**

- Parkway
- US
- State

**Geographic Features**

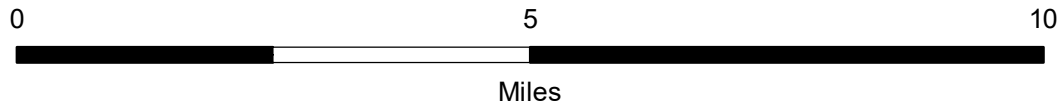
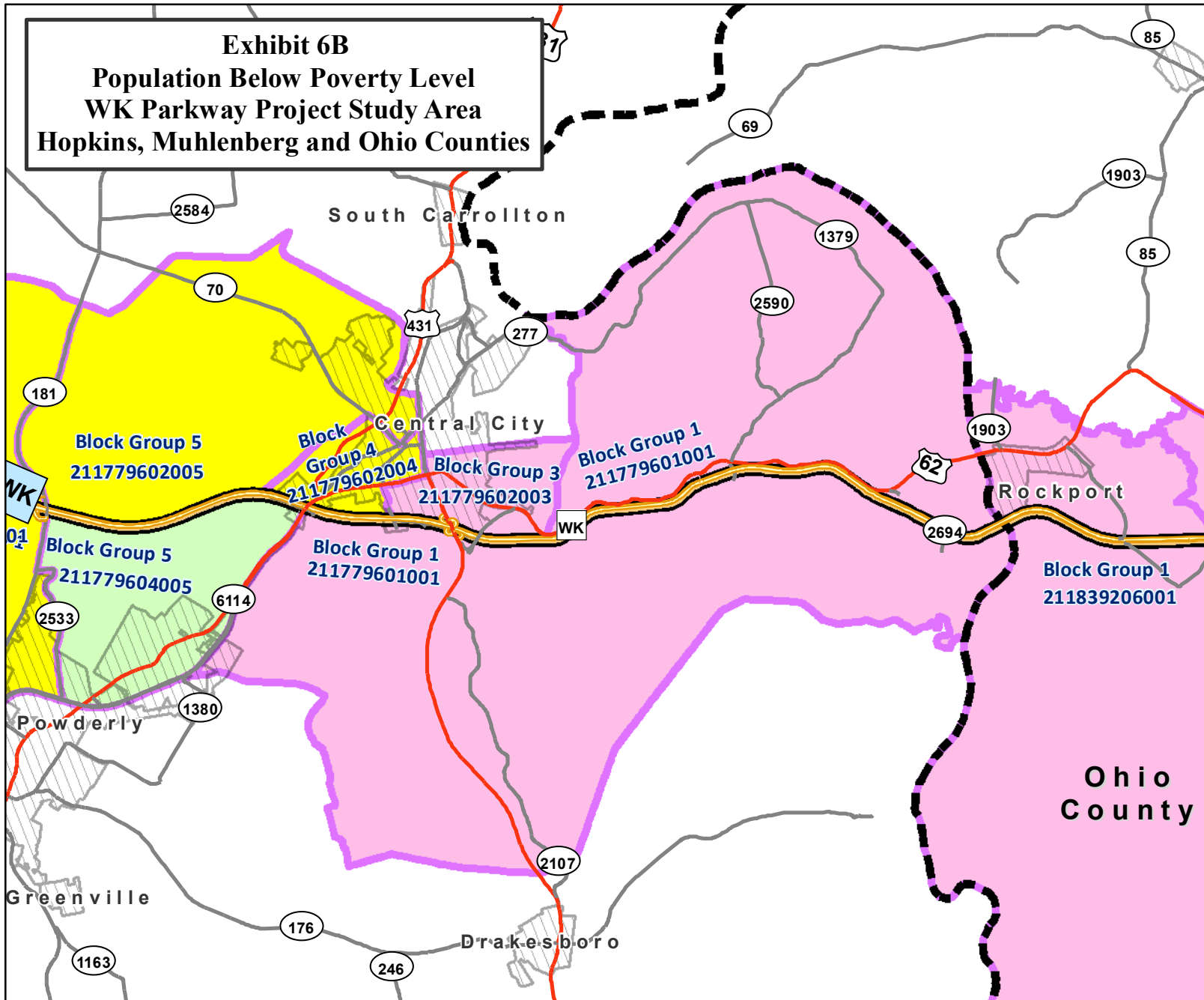
- Kentucky Cities
- Kentucky Counties
- WK Parkway

**Census Block Groups Above State Threshold**

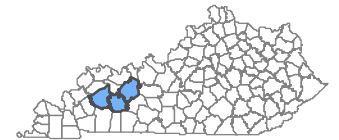
- 22.88%
- 18.31% - 22.87%

**Census Block Groups Below State Threshold**

- 13.73% - 18.39%
- <13.72%



**Exhibit 6C**  
**Population Below Poverty Level**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



State Reference  
 Threshold: 18.30%

**Legend**

**Roads**

- Interstate
- Parkway
- US
- State

**Other Features**

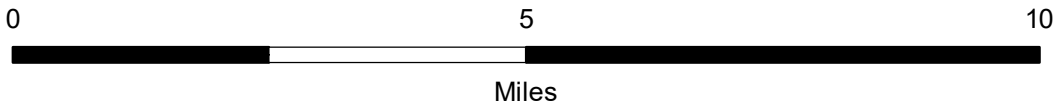
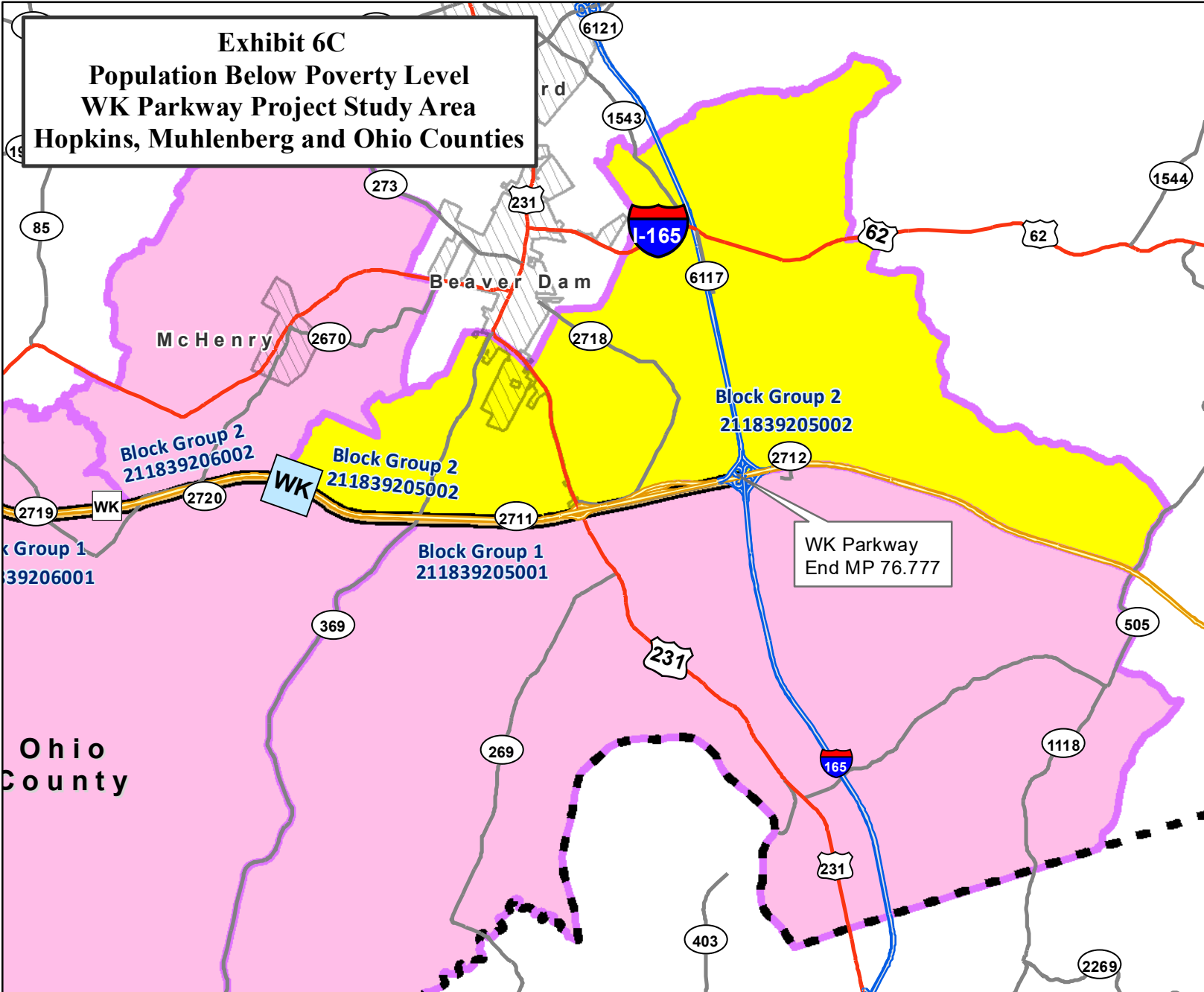
- Kentucky Cities
- Kentucky Counties
- WK Parkway

**Census Block Groups Above State Threshold**

- 22.88%
- 18.31% - 22.87%

**Census Block Groups Below State Threshold**

- 13.73% - 18.39%
- <13.72%



**STUDY FINDING: POPULATION WITH LIMITED ENGLISH PROFICIENCY AGE 5 YEARS AND OLDER SPEAKS ENGLISH LESS THAN “VERY WELL”**

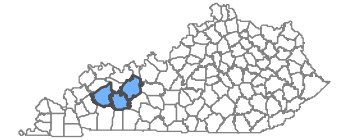
As shown in *Table 5, Population with Limited English Proficiency*, there does not appear to be any populations along the Study Area with significant Limited English Proficiency.

**Table 5**  
**Population with Limited English Proficiency**  
**WK Parkway Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**

	<b>Total Population</b>	<b>Population with Limited English Proficiency</b>	<b>Population with Limited English Proficiency Percent of Population</b>
<b>United States</b>	<b>321,004,407</b>	<b>25,654,421</b>	<b>7.99</b>
<b>Kentucky</b>	<b>4,424,367</b>	<b>91,813</b>	<b>2.08</b>
<b>Hopkins Co.</b>	<b>45,985</b>	<b>75</b>	<b>0.16</b>
CT 9707 BG 3	1,224	0	0.00
CT 9709 BG 4	1,090	0	0.00
CT 9713 BG 1	853	0	0.00
CT 9713 BG 2	907	0	0.00
CT 9713 BG 3	1,512	0	0.00
<b>Muhlenberg Co</b>	<b>31,153</b>	<b>13</b>	<b>0.04</b>
CT 9601 BG 1	1,262	0	0.00
CT 9602 BG 3	786	0	0.00
CT 9602 BG 4	1,325	0	0.00
CT 9602 BG 5	993	0	0.00
CT 9204 BG 1	1,051	0	0.00
CT 9204 BG 2	737	0	0.00
CT 9604 BG 3	1,397	0	0.00
CT 9604 BG 5	1,172	0	0.00
<b>Ohio Co.</b>	<b>24,062</b>	<b>206</b>	<b>0.86</b>
CT 9205 BG 1	2,218	0	0.00
CT 9205 BG 2	1,171	0	0.00
CT 9206 BG 1	774	0	0.00
CT 0206 BG 2	1,297	0	0.00



**Exhibit 7A**  
**Population With Limited English Proficiency**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



Note: All block groups pictured showed no population with limited english proficiency at age 5 or older.

State Reference  
 Threshold: 2.21%

**Legend**

**Roads**

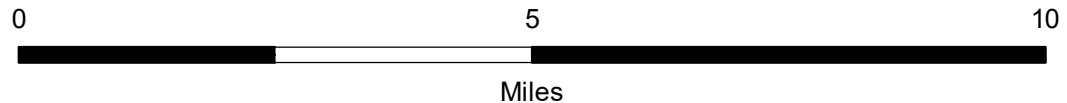
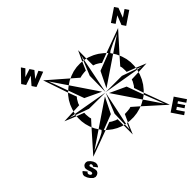
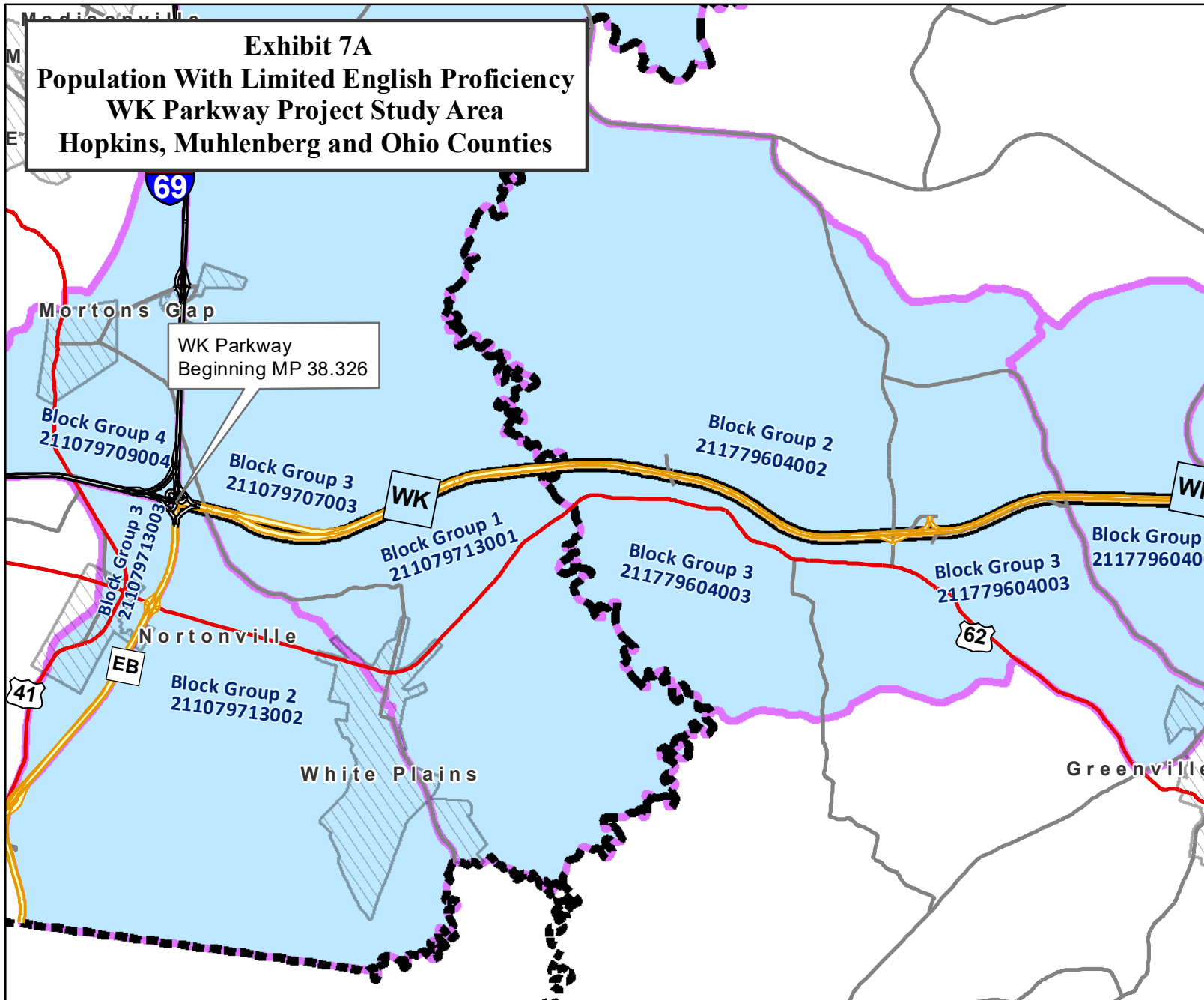
- US
- Interstate
- Parkway
- State
- Kentucky Cities
- Kentucky Counties
- WK Parkway

**Census Block Groups Above State Threshold**

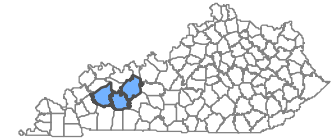
- >2.77
- 2.22% - 2.76%

**Census Block Groups Below State Threshold**

- 2.20% - 1.66%
- >1.65%

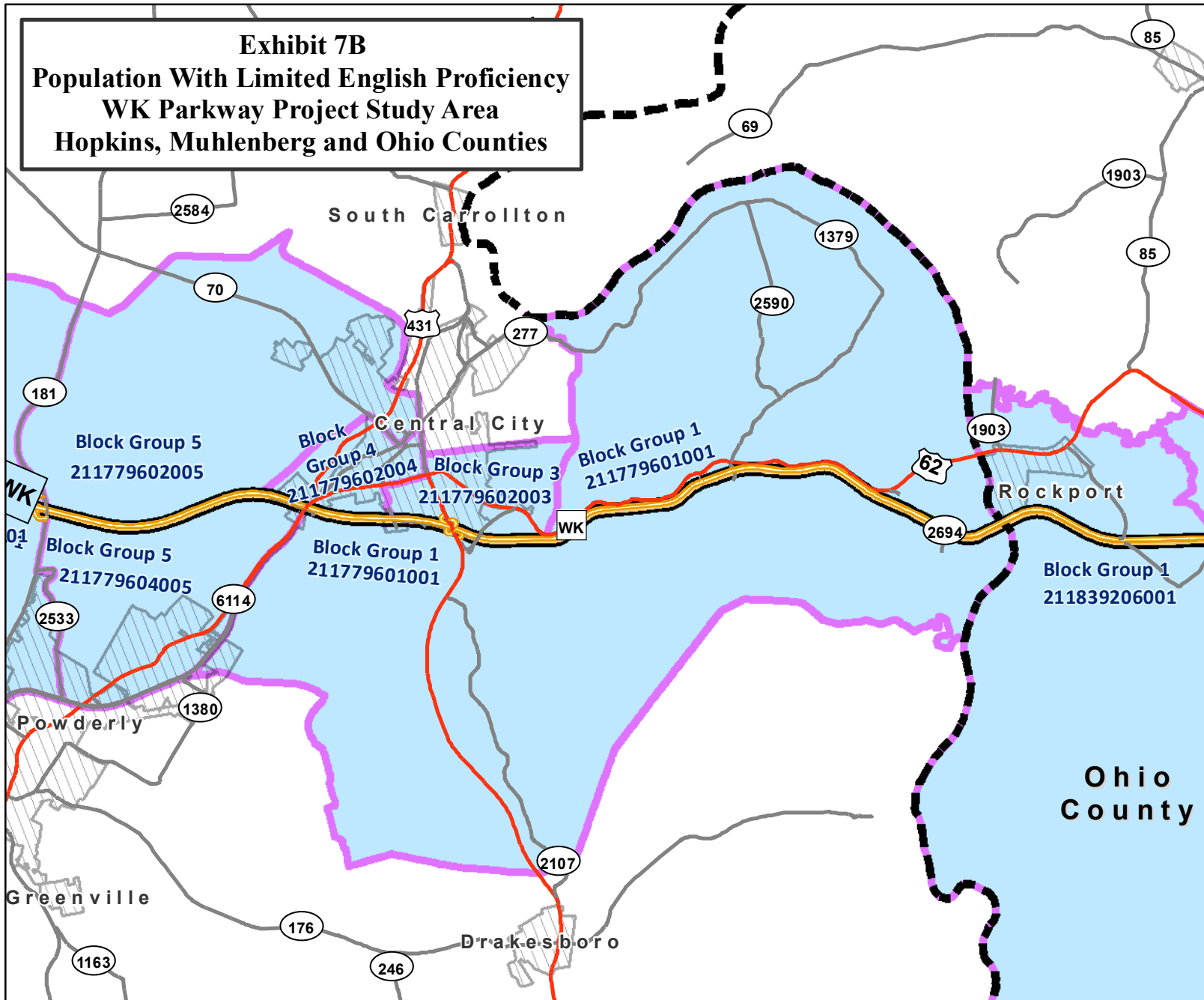


**Exhibit 7B**  
**Population With Limited English Proficiency**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**



Note: All block groups pictured showed no population with limited english proficiency at age 5 or older.

State Reference  
 Threshold: 2.21%



**Legend**

**Roads**

- Parkway
- US
- State

**Other Symbols**

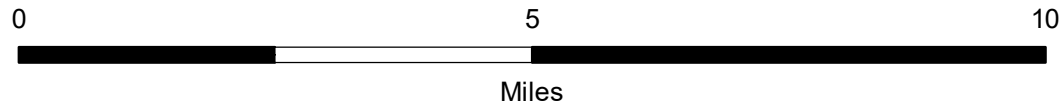
- Kentucky Cities
- Kentucky Counties
- WK Parkway

**Census Block Groups Above State Threshold**

- >2.77
- 2.22% - 2.76%

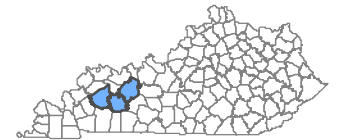
**Census Block Groups Below State Threshold**

- 2.20% - 1.66%
- >1.65%





**Exhibit 7C**  
**Population With Limited English Proficiency**  
**WK Parkway Project Study Area**  
**Hopkins, Muhlenberg and Ohio Counties**

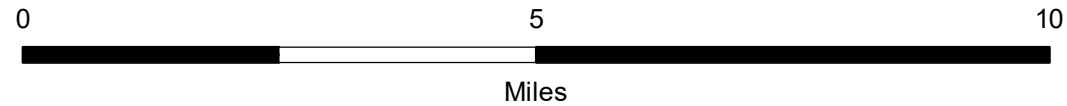
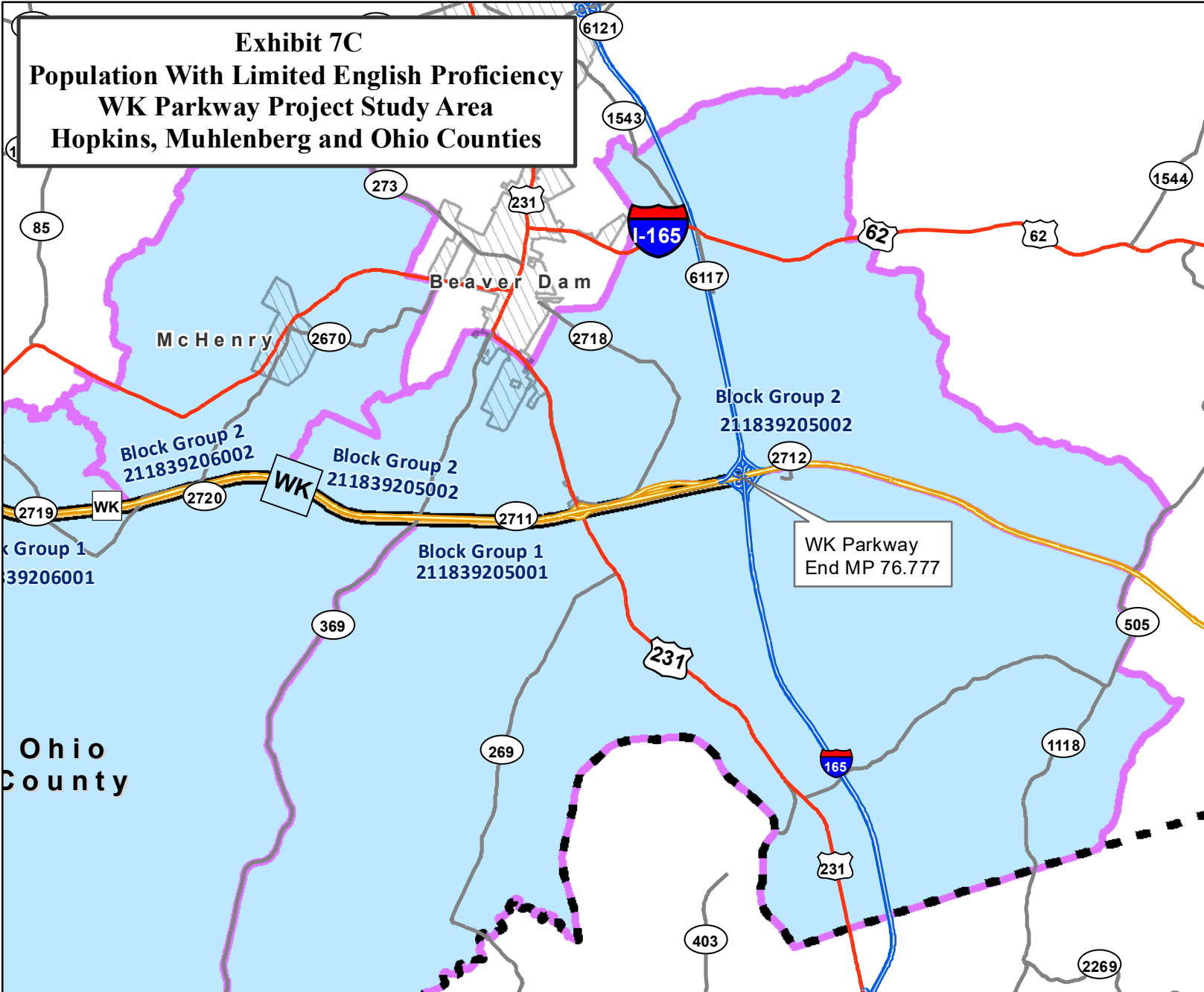


Note: All block groups pictured showed no population with limited english proficiency at age 5 or older.

State Reference  
 Threshold: 2.21%

**Legend**

- Roads**
- Interstate
  - Parkway
  - US
  - State
- Kentucky Cities
- Kentucky Counties
- WK Parkway
- Census Block Groups Above State Threshold**
- >2.77
  - 2.22% - 2.76%
- Census Block Groups Below State Threshold**
- 2.20% - 1.66%
  - >1.65%



## CONCLUSION

After the analysis of the study area, as long as the project stays inside the existing right-of-way, it appears no further evaluation would be required. However, if the project needed additional ROW there are several Block Groups that may require further evaluation depending on the scope of the project. All BGs with higher percentages of the target populations compared to the State thresholds were described in the *Study Findings* section and will not be re-addressed in this Conclusion Section.

**Appendix A**

**Methodology for Assessing  
Potential Environmental Justice Concerns  
for KYTC Planning Studies**

Updated: February 1, 2002

The demographics of the affected area should be defined using U.S. Census data (Census tracts and block groups) and the percentages for minorities, low-income, elderly, or disabled populations should be compared to those for the following:

- Other nearby Census tracts and block groups,
- The county as a whole,
- The entire state, and
- The United States.

Information from PVA offices, social service agencies, local health organizations, local public agencies, and community action agencies can be used to supplement the Census data.

Specifically, we are interested in obtaining the following information:

- Identification of community leaders or other contacts who may be able to represent these population groups and through which coordination efforts can be made.
- Comparison of the Census tracts and block groups encompassing the project area to other nearby Census tracts and block groups, county, state, and United States percentages.
- Locations of specific or identified minority, low-income, elderly, or disabled population groups within or near the project area. This may require some field reviews and/or discussions with knowledgeable persons to identify locations of public housing, minority communities, ethnic communities, etc., to verify Census data or identify changes that may have occurred since the last Census. Examples would be changes due to new residential developments in the area or increases in Asian and/or Hispanic populations.
- Concentrations or communities that share a common religious, cultural, ethnic, or other background, e.g., Amish communities.
- Communities or neighborhoods that exhibit a high degree of community cohesion or interaction and the ability to mobilize community actions at the start of community involvement.
- Concentrations of common employment, religious centers, and/or educational institutions with members within walking distance of facilities.
- Potential effects, both positive and negative, of the project on the affected groups as compared to the non-target groups. This may include, but are not limited to:
  1. Access to services, employment or transportation.
  2. Displacement of persons, businesses, farms, or non-profit organizations.
  3. Disruption of community cohesion or vitality.
  4. Effects to human health and/or safety.
- Possible methods to minimize or avoid impacts on the target population groups.

If percentages of these populations are elevated within the project area, it should be brought to the attention of the Division of Planning immediately so that coordination with affected populations may be conducted to determine the affected population's concerns and comments on the project. Also, with this effort, representatives of minority, elderly, low-income, or disabled populations should be identified so that, together, we can build a partnership for the region that may be incorporated into other projects. Also, we hope to build a Commonwealth-wide database of contacts. We are available to participate in any meetings with these affected populations or with their community leaders or representatives.

In identifying communities, agencies may consider as a community either a group of individuals living in geographic proximity to one another, or a geographically dispersed/transient set of individuals (such as migrant workers or Native Americans), where either type of group experiences common conditions of environmental exposure or effect. The selection of the appropriate unit of analysis may be a governing body's jurisdiction, a neighborhood, census tract, or other similar unit that is to be chosen so as not to artificially dilute or inflate the affected population. A target population also exists if there is (1) more than one minority or other group present and (2) the percentages, as calculated by aggregating all minority persons, exceed that of the general population or other appropriate unit of geographic analysis.

Maps should be included that show the Census tracts and block groups included in the analysis as well as the relation of the project area to those Census tracts and block groups.

# Appendix B

**Analysis Ranges  
Explanation and Methodology**

The Kentucky State percentages are used as a reference threshold in each of the census data categories utilized for this report. Areas that are up to 25% higher than the reference threshold are considered just above the threshold, and areas that are 25% or higher are considered significantly above the threshold.

**PERCENT MINORITY**

<u>Analysis Range</u>	<u>Percent Minority</u>
Significantly Above Threshold	>15.88%
Just Above Threshold	12.71 % -15.87%
<b>REFERENCE THRESHOLD (Kentucky State)</b>	<b>12.70%</b>
Just Below Threshold	12.69 – 9.52%
Significantly Below Threshold	<9.51%

**PERCENT 65 AND OLDER**

<u>Analysis Range</u>	<u>Percent 65 and Older</u>
Significantly Above Threshold	>19.01%
Just Above Threshold	15.21% - 19.00%
<b>REFERENCE THRESHOLD (Kentucky State)</b>	<b>15.20%</b>
Just Below Threshold	11.40% - 15.19%
Significantly Below Threshold	<11.39%

**PERCENT DISABLED**

<u>Analysis Range</u>	<u>Percent Disabled</u>
Significantly Above Threshold	>21.24%
Just Above Threshold	17.00 – 21.23%
<b>REFERENCE THRESHOLD (Kentucky State)</b>	<b>16.99%</b>
Just Below Threshold	12.75% - 16.98%
Significantly Below Threshold	<12.74%

**PERCENT BELOW POVERTY**

<u>Analysis Range</u>	<u>Percent Below Poverty</u>
Significantly Above Threshold	>22.88%
Just Above Threshold	18.31% - 22.87%
<b>REFERENCE THRESHOLD (Kentucky State)</b>	<b>18.30%</b>
Just Below Threshold	13.73% - 18.39%
Significantly Below Threshold	<13.72%

**PERCENT OF POPULATION WITH LIMITED ENGLISH PROFICIENCY  
AGE 5 YEARS AND OLDER**

<u>Analysis Range</u>	<u>Percent with Limited English Proficiency</u>
Significantly Above Threshold	>2.77
Just Above Threshold	2.22% - 2.76%
<b>REFERENCE THRESHOLD (Kentucky State)</b>	<b>2.21%</b>
Just Below Threshold	2.20% - 1.66%
Significantly Below Threshold	<1.65%