




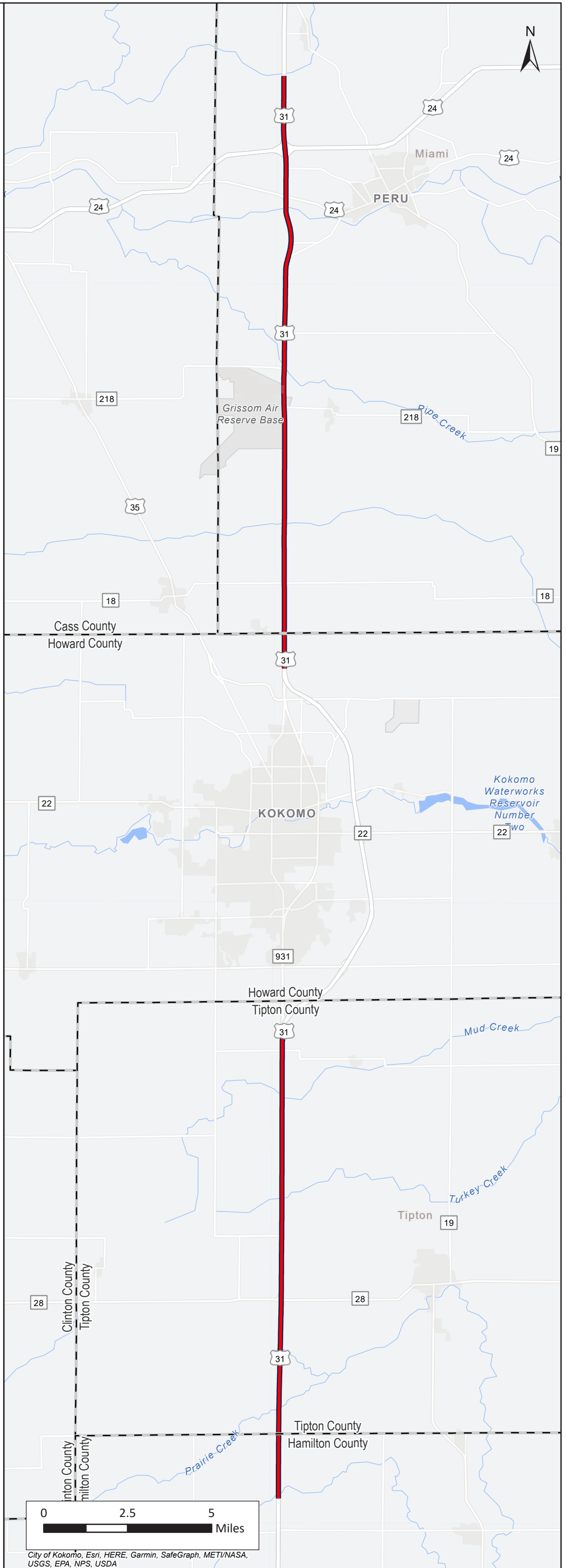




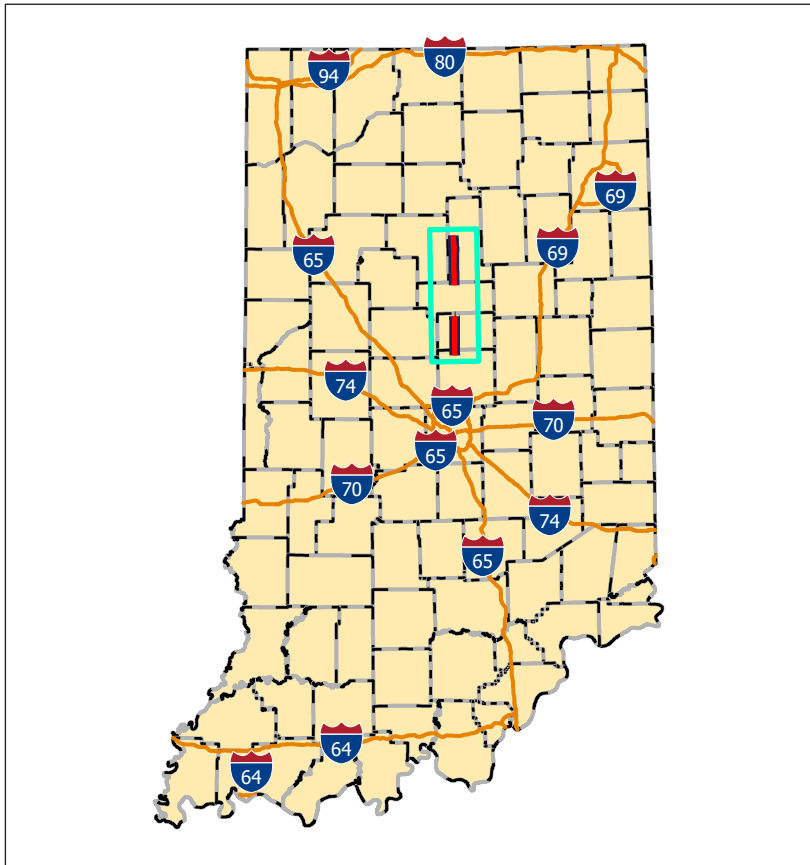
US 31 South

Study Limits

-  US 31 South Study Limits
-  County Boundary
-  Major Highway
-  State of Indiana
-  Current Extent



City of Kokomo, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, EPA, NPS, USDA





US 31 South

Underserved Populations: Environmental Justice

Community of Comparison: Aggregated Townships

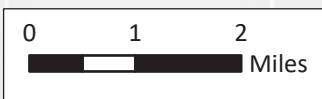
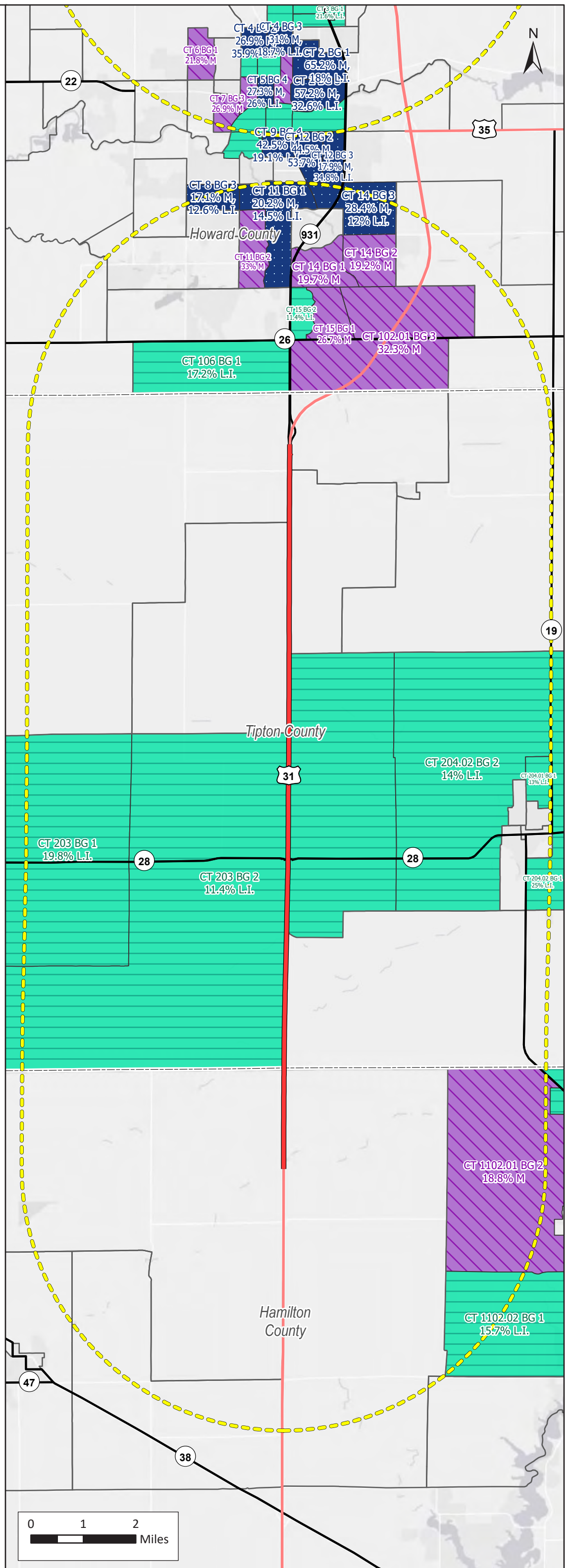
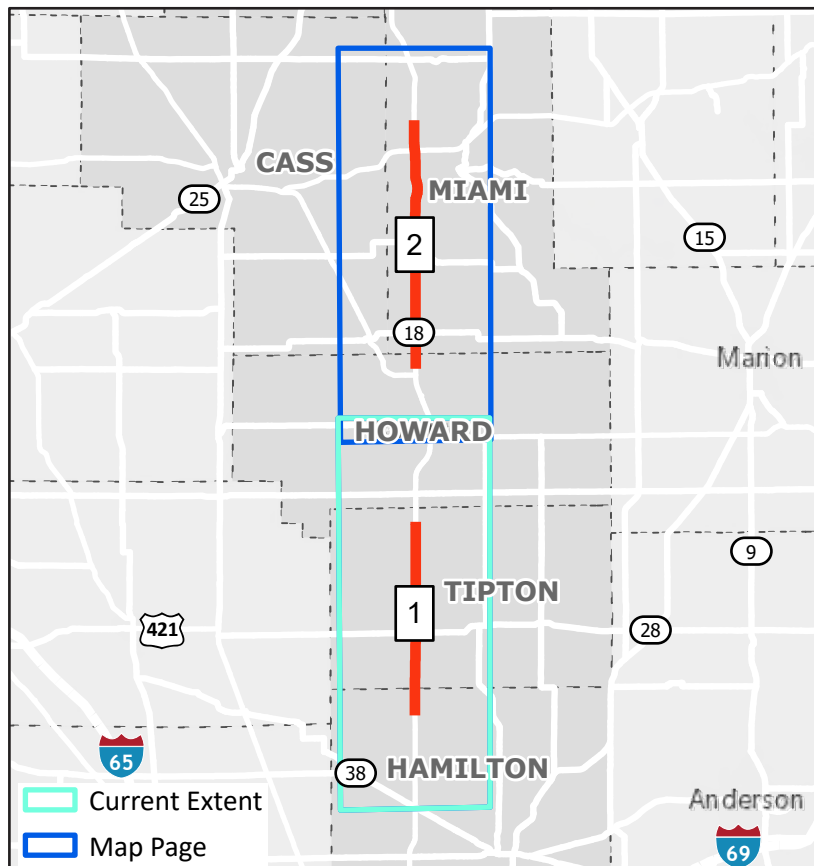
Potential EJ Populations

- Minority
- Low-Income
- Minority & Low-Income
- Block Group Boundary
- 5-Mile Radius
- US 31 South Study Limits
- County Boundary
- State Road
- US Route

| Community of Comparison | 125 % Minority Threshold | 125% Low Income Threshold |
|------------------------------|--------------------------|---------------------------|
| Aggregated Townships - North | 19.4 | 16.6 |
| Aggregated Townships - South | 17.1 | 10.7 |

Data Source: USCB American Community Survey (ACS) 2016-2020 block group and county subdivision data for codes B03002 & B17021

Map 1 of 2





US 31 South

Underserved Populations: Environmental Justice

Community of Comparison: Aggregated Townships

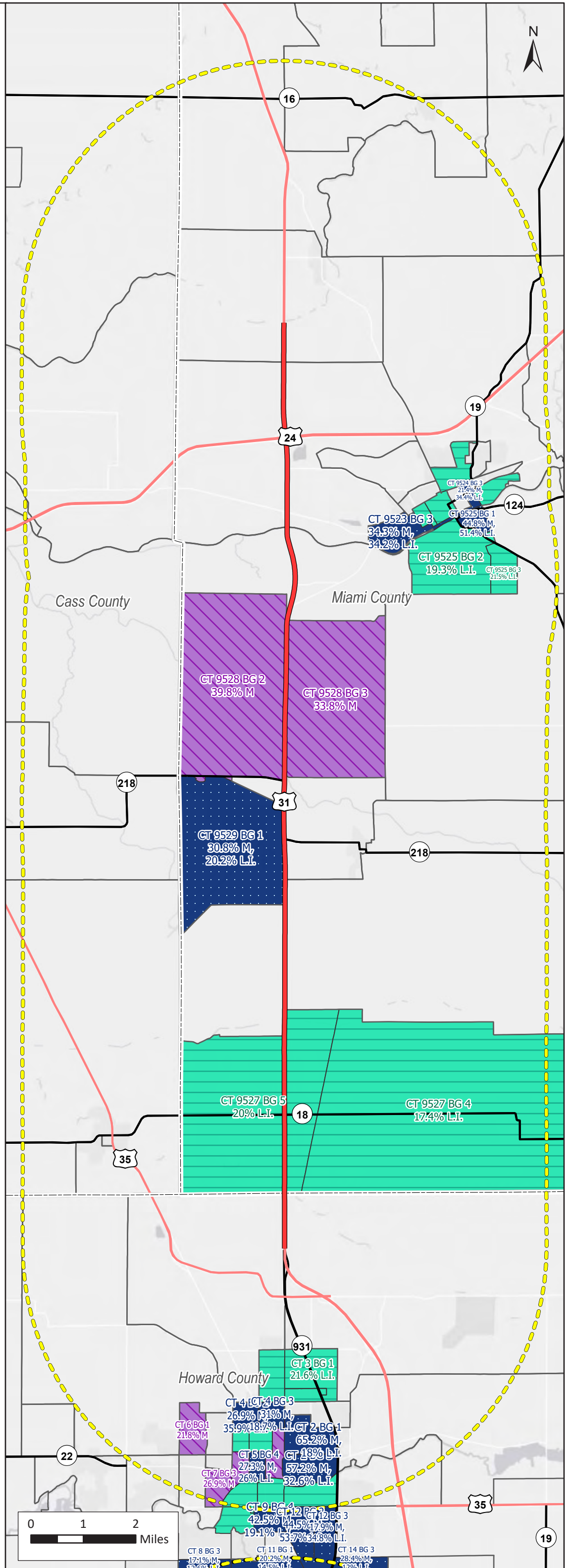
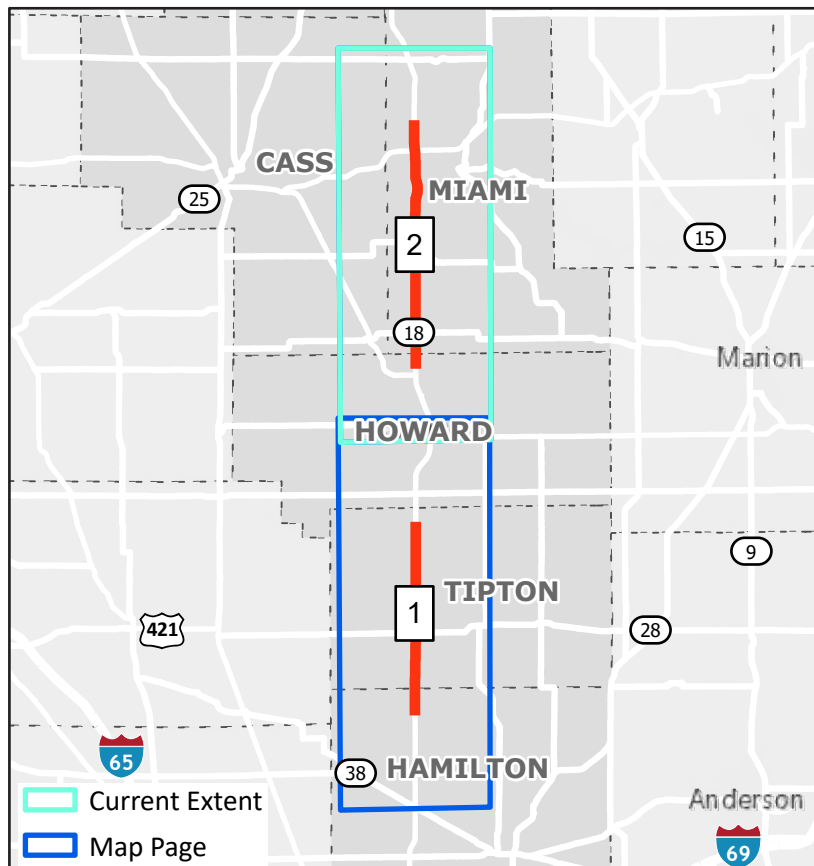
Potential EJ Populations

- Minority
- Low-Income
- Minority & Low-Income
- Block Group Boundary
- 5-Mile Radius
- US 31 South Study Limits
- County Boundary
- State Road
- US Route

| Community of Comparison | 125 % Minority Threshold | 125% Low Income Threshold |
|------------------------------|--------------------------|---------------------------|
| Aggregated Townships - North | 19.4 | 16.6 |
| Aggregated Townships - South | 17.1 | 10.7 |


Data Source: USCB American Community Survey (ACS) 2016-2020 block group and county subdivision data for codes B03002 & B17021

Map 2 of 2




Community of Comparison: Aggregated Townships

| Affected Community (AC) | % Minority Population | % Low-Income Population | 125% COC (Aggregated Townships): Minority | 125% COC (Aggregated Townships): Low-Income | Minority EJ Population? | Low-Income EJ Population? |
|--|------------------------------|--------------------------------|--|--|--------------------------------|--------------------------------------|
| Census Tract 9509, Block Group 1, Adams Township, Cass County | 2.5 | 9.5 | 19.4 | 16.6 | No | No |
| Census Tract 9517, Block Group 1, Miami Township, Cass County | 1.4 | 11.6 | 19.4 | 16.6 | No | No |
| Census Tract 9517, Block Group 2, Miami Township, Cass County | 9.8 | 4.0 | 19.4 | 16.6 | No | No |
| Census Tract 9517, Block Group 3, Tipton Township, Cass County | 6.5 | 7.8 | 19.4 | 16.6 | No | No |
| Census Tract 9518, Block Group 1, Tipton Township, Cass County | 14.9 | 3.2 | 19.4 | 16.6 | No | No |
| Census Tract 9519, Block Group 1, Jackson Township, Cass County | 5.1 | 3.7 | 19.4 | 16.6 | No | No |
| Census Tract 9519, Block Group 2, Jackson Township, Cass County | 5.3 | 3.9 | 19.4 | 16.6 | No | No |
| Census Tract 1102.01, Block Group 1, Jackson Township, Hamilton County | 4.5 | 10.8 | 17.1 | 10.7 | No | Yes |
| Census Tract 1102.01, Block Group 2, Jackson Township, Hamilton County | 18.8 | 8.6 | 17.1 | 10.7 | Yes | No |
| Census Tract 1102.01, Block Group 4, Jackson Township, Hamilton County | 0.4 | 2.1 | 17.1 | 10.7 | No | No |
| Census Tract 1102.02, Block Group 1, Jackson Township, Hamilton County | 7.7 | 15.7 | 17.1 | 10.7 | No | Yes |
| Census Tract 1102.02, Block Group 3, Jackson Township, Hamilton County | 9.3 | 7.9 | 17.1 | 10.7 | No | No |
| Census Tract 1103.03, Block Group 1, Adams Township, Hamilton County | 0.0 | 0.0 | 17.1 | 10.7 | No | No |
| Census Tract 1103.03, Block Group 4, Adams Township, Hamilton County | 0.0 | 1.2 | 17.1 | 10.7 | No | No |
| Census Tract 1103.03, Block Group 5, Adams Township, Hamilton County | 2.8 | 3.7 | 17.1 | 10.7 | No | No |
| Census Tract 2, Block Group 1, Center Township, Howard County | 65.2 | 18.0 | 19.4 | 16.6 | Yes | Yes |
| Census Tract 2, Block Group 2, Center Township, Howard County | 47.8 | 13.3 | 19.4 | 16.6 | Yes | No |
| Census Tract 2, Block Group 3, Center Township, Howard County | 57.2 | 32.6 | 19.4 | 16.6 | Yes | Yes |
| Census Tract 3, Block Group 1, Center Township, Howard County | 17.6 | 21.6 | 19.4 | 16.6 | No | Yes |
| Census Tract 3, Block Group 2, Center Township, Howard County | 10.5 | 29.0 | 19.4 | 16.6 | No | Yes |
| Census Tract 3, Block Group 3, Center Township, Howard County | 5.3 | 7.7 | 19.4 | 16.6 | No | No |
| Census Tract 4, Block Group 1, Center Township, Howard County | 11.7 | 29.7 | 19.4 | 16.6 | No | Yes |
| Census Tract 4, Block Group 2, Center Township, Howard County | 26.9 | 35.9 | 19.4 | 16.6 | Yes | Yes |
| Census Tract 4, Block Group 3, Center Township, Howard County | 31.0 | 18.7 | 19.4 | 16.6 | Yes | Yes |
| Census Tract 5, Block Group 1, Center Township, Howard County | 15.2 | 24.5 | 19.4 | 16.6 | No | Yes |
| Census Tract 5, Block Group 2, Center Township, Howard County | 15.2 | 16.8 | 19.4 | 16.6 | No | Yes |
| Census Tract 5, Block Group 3, Center Township, Howard County | 25.6 | 2.4 | 19.4 | 16.6 | Yes | No |
| Census Tract 5, Block Group 4, Center Township, Howard County | 27.3 | 26.0 | 19.4 | 16.6 | Yes | Yes |
| Census Tract 6, Block Group 1, Center Township, Howard County | 21.8 | 15.3 | 19.4 | 16.6 | Yes | No |
| Census Tract 6, Block Group 2, Center Township, Howard County | 17.7 | 13.3 | 19.4 | 16.6 | No | No |
| Census Tract 7, Block Group 1, Center Township, Howard County | 0.0 | 2.4 | 19.4 | 16.6 | No | No |
| Census Tract 7, Block Group 2, Center Township, Howard County | 17.4 | 14.7 | 19.4 | 16.6 | No | No |
| Census Tract 7, Block Group 3, Center Township, Howard County | 26.9 | 10.2 | 19.4 | 16.6 | Yes | No |
| Census Tract 7, Block Group 4, Center Township, Howard County | 10.4 | 5.7 | 19.4 | 16.6 | No | No |
| Census Tract 8, Block Group 2, Center Township, Howard County | 7.8 | 3.9 | 17.1 | 10.7 | No | No |
| Census Tract 8, Block Group 3, Center Township, Howard County | 17.1 | 12.6 | 17.1 | 10.7 | Yes | Yes |
| Census Tract 8, Block Group 4, Center Township, Howard County | 16.4 | 3.9 | 17.1 | 10.7 | No | No |
| Census Tract 9, Block Group 1, Center Township, Howard County | 5.2 | 24.2 | 19.4 | 16.6 | No | Yes |

 Denotes AC with potential Minority or Low-Income EJ Population

Community of Comparison: Aggregated Townships

| Affected Community (AC) | % Minority Population | % Low-Income Population | 125% COC (Aggregated Townships): Minority | 125% COC (Aggregated Townships): Low-Income | Minority EJ Population? | Low-Income EJ Population? |
|--|------------------------------|--------------------------------|--|--|--------------------------------|--------------------------------------|
| Census Tract 9, Block Group 2, Center Township, Howard County | 5.8 | 18.0 | 19.4 | 16.6 | No | Yes |
| Census Tract 9, Block Group 3, Center Township, Howard County | 13.4 | 24.9 | 19.4 | 16.6 | No | Yes |
| Census Tract 9, Block Group 4, Center Township, Howard County | 42.5 | 19.1 | 19.4 | 16.6 | Yes | Yes |
| Census Tract 10, Block Group 2, Center Township, Howard County | 7.6 | 4.0 | 19.4 | 16.6 | No | No |
| Census Tract 11, Block Group 1, Center Township, Howard County | 20.2 | 14.5 | 17.1 | 10.7 | Yes | Yes |
| Census Tract 11, Block Group 2, Harrison Township, Howard County | 33.0 | 4.4 | 17.1 | 10.7 | Yes | No |
| Census Tract 11, Block Group 3, Center Township, Howard County | 30.5 | 6.0 | 17.1 | 10.7 | Yes | No |
| Census Tract 12, Block Group 1, Center Township, Howard County | 12.6 | 24.1 | 19.4 | 16.6 | No | Yes |
| Census Tract 12, Block Group 2, Center Township, Howard County | 44.5 | 53.7 | 19.4 | 16.6 | Yes | Yes |
| Census Tract 12, Block Group 3, Center Township, Howard County | 17.9 | 34.8 | 17.1 | 10.7 | Yes | Yes |
| Census Tract 13, Block Group 1, Howard Township, Howard County | 3.0 | 11.4 | 19.4 | 16.6 | No | No |
| Census Tract 14, Block Group 1, Taylor Township, Howard County | 19.7 | 1.6 | 17.1 | 10.7 | Yes | No |
| Census Tract 14, Block Group 2, Taylor Township, Howard County | 19.2 | 9.5 | 17.1 | 10.7 | Yes | No |
| Census Tract 14, Block Group 3, Center Township, Howard County | 28.4 | 12.0 | 17.1 | 10.7 | Yes | Yes |
| Census Tract 14, Block Group 4, Center Township, Howard County | 0.5 | 1.7 | 17.1 | 10.7 | No | No |
| Census Tract 15, Block Group 1, Taylor Township, Howard County | 26.7 | 6.3 | 17.1 | 10.7 | Yes | No |
| Census Tract 15, Block Group 2, Taylor Township, Howard County | 9.0 | 11.4 | 17.1 | 10.7 | No | Yes |
| Census Tract 102.01, Block Group 2, Taylor Township, Howard County | 14.2 | 0.0 | 17.1 | 10.7 | No | No |
| Census Tract 102.01, Block Group 3, Taylor Township, Howard County | 32.3 | 9.4 | 17.1 | 10.7 | Yes | No |
| Census Tract 102.02, Block Group 1, Howard Township, Howard County | 1.9 | 7.2 | 19.4 | 16.6 | No | No |
| Census Tract 102.02, Block Group 2, Howard Township, Howard County | 8.4 | 16.4 | 19.4 | 16.6 | No | No |
| Census Tract 103, Block Group 1, Clay Township, Howard County | 1.8 | 0.0 | 19.4 | 16.6 | No | No |
| Census Tract 103, Block Group 2, Clay Township, Howard County | 2.6 | 10.4 | 19.4 | 16.6 | No | No |
| Census Tract 103, Block Group 3, Clay Township, Howard County | 2.7 | 8.3 | 19.4 | 16.6 | No | No |
| Census Tract 104, Block Group 1, Ervin Township, Howard County | 3.1 | 4.5 | 19.4 | 16.6 | No | No |
| Census Tract 105, Block Group 3, Harrison Township, Howard County | 5.3 | 1.0 | 17.1 | 10.7 | No | No |
| Census Tract 106, Block Group 1, Harrison Township, Howard County | 11.8 | 17.2 | 17.1 | 10.7 | No | Yes |
| Census Tract 106, Block Group 2, Harrison Township, Howard County | 11.7 | 7.5 | 17.1 | 10.7 | No | No |
| Census Tract 106, Block Group 3, Harrison Township, Howard County | 1.7 | 2.7 | 17.1 | 10.7 | No | No |
| Census Tract 9520, Block Group 3, Union Township, Miami County | 3.0 | 15.6 | 19.4 | 16.6 | No | No |
| Census Tract 9520, Block Group 4, Union Township, Miami County | 3.8 | 7.8 | 19.4 | 16.6 | No | No |
| Census Tract 9520, Block Group 5, Richland Township, Miami County | 0.0 | 1.5 | 19.4 | 16.6 | No | No |
| Census Tract 9521, Block Group 1, Erie Township, Miami County | 5.5 | 3.3 | 19.4 | 16.6 | No | No |
| Census Tract 9521, Block Group 2, Jefferson Township, Miami County | 8.8 | 4.5 | 19.4 | 16.6 | No | No |
| Census Tract 9521, Block Group 3, Jefferson Township, Miami County | 7.8 | 3.9 | 19.4 | 16.6 | No | No |
| Census Tract 9521, Block Group 4, Peru Township, Miami County | 13.6 | 6.5 | 19.4 | 16.6 | No | No |
| Census Tract 9522, Block Group 1, Peru Township, Miami County | 14.8 | 12.4 | 19.4 | 16.6 | No | No |
| Census Tract 9522, Block Group 2, Peru Township, Miami County | 9.9 | 30.4 | 19.4 | 16.6 | No | Yes |

 Denotes AC with potential Minority or Low-Income EJ Population

Community of Comparison: Aggregated Townships

| Affected Community (AC) | % Minority Population | % Low-Income Population | 125% COC (Aggregated Townships): Minority | 125% COC (Aggregated Townships): Low-Income | Minority EJ Population? | Low-Income EJ Population? |
|---|-----------------------|-------------------------|--|--|-------------------------|---------------------------|
| Census Tract 9522, Block Group 3, Peru Township, Miami County | 1.5 | 3.1 | 19.4 | 16.6 | No | No |
| Census Tract 9522, Block Group 4, Peru Township, Miami County | 9.8 | 6.1 | 19.4 | 16.6 | No | No |
| Census Tract 9523, Block Group 1, Peru Township, Miami County | 4.1 | 34.3 | 19.4 | 16.6 | No | Yes |
| Census Tract 9523, Block Group 2, Peru Township, Miami County | 0.8 | 49.1 | 19.4 | 16.6 | No | Yes |
| Census Tract 9523, Block Group 3, Peru Township, Miami County | 34.3 | 34.2 | 19.4 | 16.6 | Yes | Yes |
| Census Tract 9524, Block Group 1, Peru Township, Miami County | 3.1 | 7.4 | 19.4 | 16.6 | No | No |
| Census Tract 9524, Block Group 2, Peru Township, Miami County | 5.6 | 23.3 | 19.4 | 16.6 | No | Yes |
| Census Tract 9524, Block Group 3, Peru Township, Miami County | 21.4 | 34.4 | 19.4 | 16.6 | Yes | Yes |
| Census Tract 9524, Block Group 4, Peru Township, Miami County | 9.4 | 10.8 | 19.4 | 16.6 | No | No |
| Census Tract 9525, Block Group 1, Washington Township, Miami County | 44.8 | 51.4 | 19.4 | 16.6 | Yes | Yes |
| Census Tract 9525, Block Group 2, Washington Township, Miami County | 8.7 | 19.3 | 19.4 | 16.6 | No | Yes |
| Census Tract 9525, Block Group 3, Washington Township, Miami County | 11.5 | 21.5 | 19.4 | 16.6 | No | Yes |
| Census Tract 9527, Block Group 1, Washington Township, Miami County | 2.7 | 2.9 | 19.4 | 16.6 | No | No |
| Census Tract 9527, Block Group 2, Pipe Creek Township, Miami County | 1.3 | 10.5 | 19.4 | 16.6 | No | No |
| Census Tract 9527, Block Group 3, Clay Township, Miami County | 1.0 | 9.9 | 19.4 | 16.6 | No | No |
| Census Tract 9527, Block Group 4, Clay Township, Miami County | 9.3 | 17.4 | 19.4 | 16.6 | No | Yes |
| Census Tract 9527, Block Group 5, Deer Creek Township, Miami County | 4.6 | 20.0 | 19.4 | 16.6 | No | Yes |
| Census Tract 9528, Block Group 1, Pipe Creek Township, Miami County | 7.8 | 12.3 | 19.4 | 16.6 | No | No |
| Census Tract 9528, Block Group 2, Pipe Creek Township, Miami County | 39.8 | 6.9 | 19.4 | 16.6 | Yes | No |
| Census Tract 9528, Block Group 3, Pipe Creek Township, Miami County | 33.8 | 9.3 | 19.4 | 16.6 | Yes | No |
| Census Tract 9529, Block Group 1, Pipe Creek Township, Miami County | 30.8 | 20.2 | 19.4 | 16.6 | Yes | Yes |
| Census Tract 202, Block Group 1, Liberty Township, Tipton County | 3.9 | 8.0 | 17.1 | 10.7 | No | No |
| Census Tract 202, Block Group 2, Liberty Township, Tipton County | 3.6 | 9.7 | 17.1 | 10.7 | No | No |
| Census Tract 202, Block Group 3, Prairie Township, Tipton County | 0.0 | 1.2 | 17.1 | 10.7 | No | No |
| Census Tract 202, Block Group 4, Prairie Township, Tipton County | 4.1 | 10.1 | 17.1 | 10.7 | No | No |
| Census Tract 203, Block Group 1, Jefferson Township, Tipton County | 8.7 | 19.8 | 17.1 | 10.7 | No | Yes |
| Census Tract 203, Block Group 2, Jefferson Township, Tipton County | 10.3 | 11.4 | 17.1 | 10.7 | No | Yes |
| Census Tract 203, Block Group 3, Cicero Township, Tipton County | 1.5 | 4.6 | 17.1 | 10.7 | No | No |
| Census Tract 204.01, Block Group 1, Cicero Township, Tipton County | 3.6 | 13.0 | 17.1 | 10.7 | No | Yes |
| Census Tract 204.01, Block Group 2, Cicero Township, Tipton County | 5.9 | 0.0 | 17.1 | 10.7 | No | No |
| Census Tract 204.01, Block Group 3, Cicero Township, Tipton County | 2.7 | 6.5 | 17.1 | 10.7 | No | No |
| Census Tract 204.01, Block Group 4, Cicero Township, Tipton County | 9.6 | 4.0 | 17.1 | 10.7 | No | No |
| Census Tract 204.01, Block Group 5, Cicero Township, Tipton County | 0.0 | 0.0 | 17.1 | 10.7 | No | No |
| Census Tract 204.02, Block Group 1, Cicero Township, Tipton County | 16.6 | 25.0 | 17.1 | 10.7 | No | Yes |
| Census Tract 204.02, Block Group 2, Cicero Township, Tipton County | 1.9 | 14.0 | 17.1 | 10.7 | No | Yes |

 Denotes AC with potential Minority or Low-Income EJ Population



US 31 South

Underserved Populations: Environmental Justice

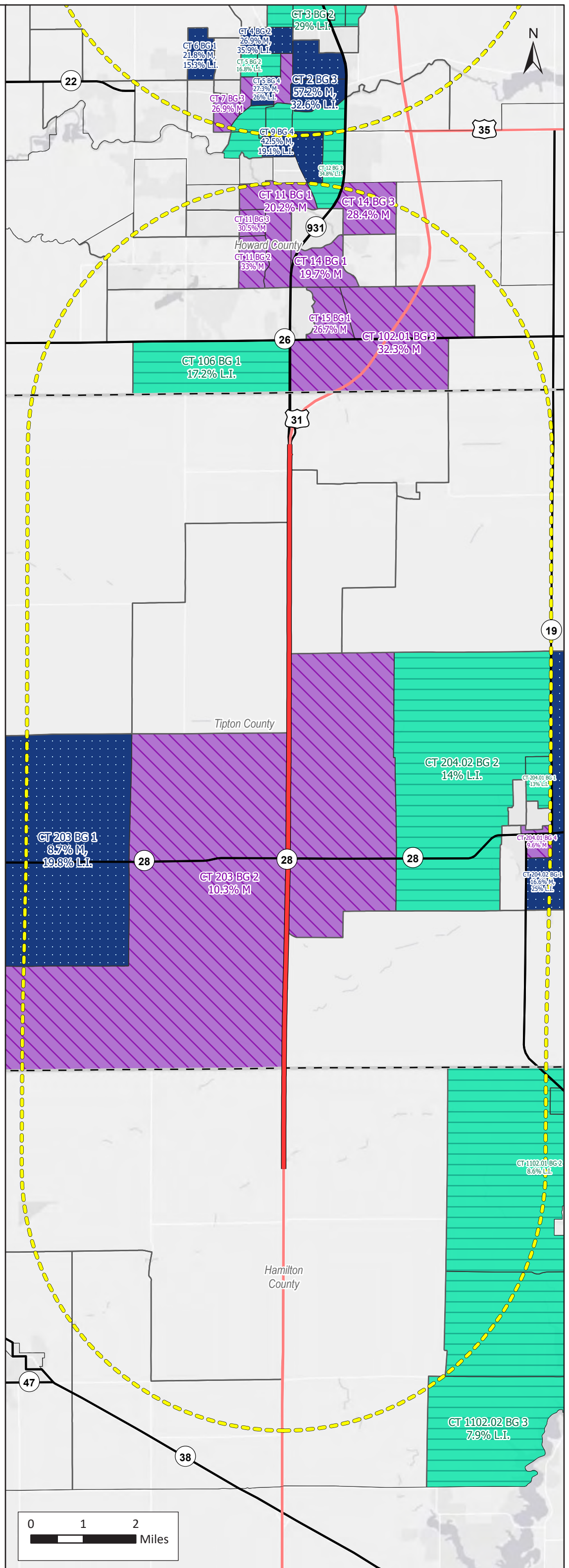
Community of Comparison: County

Potential EJ Populations

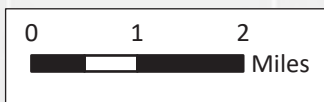
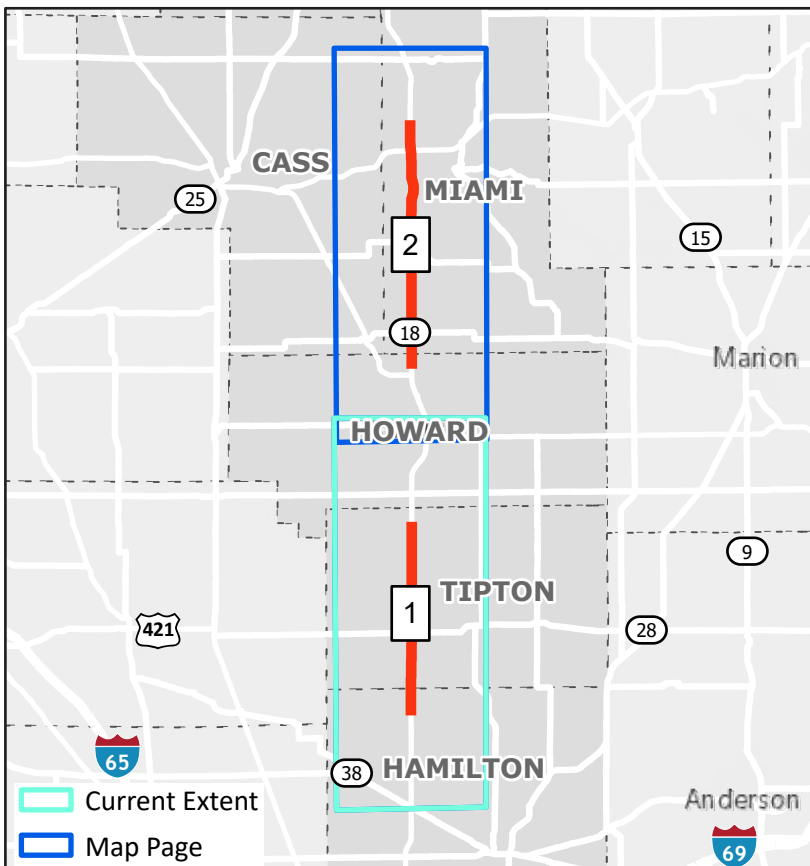
- Minority
- Low-Income
- Minority & Low-Income
- Block Group Boundary
- US 31 South Study Limits
- 5-Mile Radius
- County Boundary
- State Road
- US Route

| Community of Comparison | % Low-Income | 125 % Low-Income | % Minority | 125% Minority |
|-------------------------|--------------|------------------|------------|---------------|
| Hamilton County | 4.4 | 5.5 | 17 | 21.2 |
| Tipton County | 9.4 | 11.8 | 5.4 | 6.8 |
| Howard County | 12 | 15 | 15.5 | 19.4 |

Data Source: USCB American Community Survey (ACS) 2016-2020 block group and county subdivision data for codes B03002 & B17021



Map 1 of 2





US 31 South

Underserved Populations: Environmental Justice

Community of Comparison: County

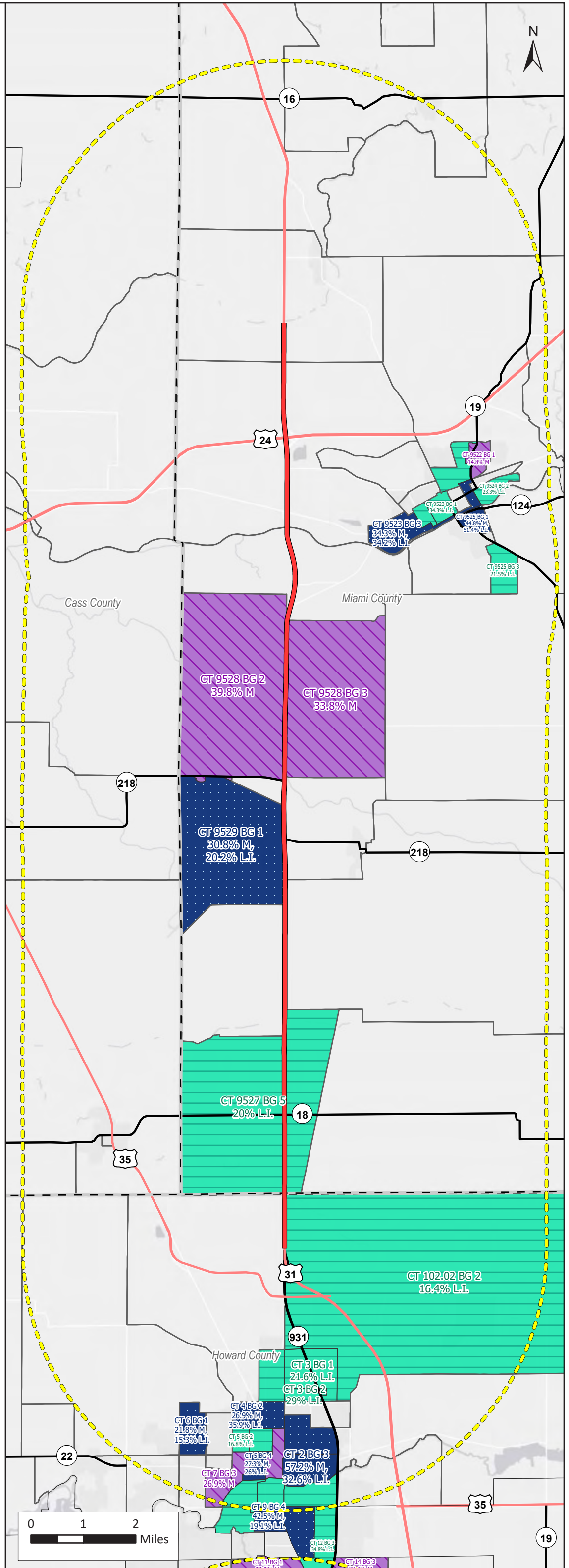
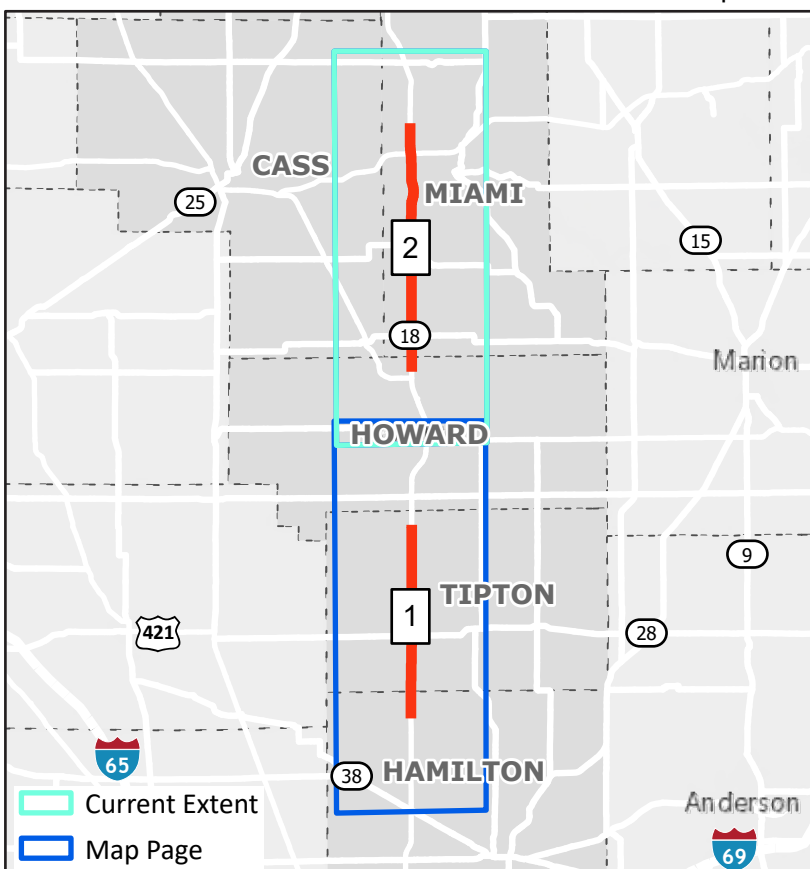
Potential EJ Populations

- Minority
- Low-Income
- Minority & Low-Income
- Block Group Boundary
- US 31 South Study Limits
- 5-Mile Radius
- County Boundary
- State Road
- US Route

| Community of Comparison | % Low-Income | 125 % Low-Income | % Minority | 125% Minority |
|-------------------------|--------------|------------------|------------|---------------|
| Cass County | 13 | 16.3 | 21 | 26.2 |
| Howard County | 12 | 15 | 15.5 | 19.4 |
| Miami County | 15.6 | 19.5 | 11.6 | 14.5 |

Data Source: USCB American Community Survey (ACS) 2016-2020 block group and county subdivision data for codes B03002 & B17021

Map 2 of 2



Community of Comparison: County

| Affected Community (AC) | % Minority Population | % Low-Income Population | 125% COC (County): Minority | 125% COC (County): Low-Income | Minority EJ Population? | Low-Income EJ Population? |
|--|------------------------------|--------------------------------|--|--|------------------------------------|--------------------------------------|
| Census Tract 9509, Block Group 1, Adams Township, Cass County | 2.5 | 9.5 | 26.2 | 16.3 | No | No |
| Census Tract 9517, Block Group 1, Miami Township, Cass County | 1.4 | 11.6 | 26.2 | 16.3 | No | No |
| Census Tract 9517, Block Group 2, Miami Township, Cass County | 9.8 | 4.0 | 26.2 | 16.3 | No | No |
| Census Tract 9517, Block Group 3, Tipton Township, Cass County | 6.5 | 7.8 | 26.2 | 16.3 | No | No |
| Census Tract 9518, Block Group 1, Tipton Township, Cass County | 14.9 | 3.2 | 26.2 | 16.3 | No | No |
| Census Tract 9519, Block Group 1, Jackson Township, Cass County | 5.1 | 3.7 | 26.2 | 16.3 | No | No |
| Census Tract 9519, Block Group 2, Jackson Township, Cass County | 5.3 | 3.9 | 26.2 | 16.3 | No | No |
| Census Tract 1102.01, Block Group 1, Jackson Township, Hamilton County | 4.5 | 10.8 | 21.2 | 5.5 | No | Yes |
| Census Tract 1102.01, Block Group 2, Jackson Township, Hamilton County | 18.8 | 8.6 | 21.2 | 5.5 | No | Yes |
| Census Tract 1102.01, Block Group 4, Jackson Township, Hamilton County | 0.4 | 2.1 | 21.2 | 5.5 | No | No |
| Census Tract 1102.02, Block Group 1, Jackson Township, Hamilton County | 7.7 | 15.7 | 21.2 | 5.5 | No | Yes |
| Census Tract 1102.02, Block Group 3, Jackson Township, Hamilton County | 9.3 | 7.9 | 21.2 | 5.5 | No | Yes |
| Census Tract 1103.03, Block Group 1, Adams Township, Hamilton County | 0.0 | 0.0 | 21.2 | 5.5 | No | No |
| Census Tract 1103.03, Block Group 4, Adams Township, Hamilton County | 0.0 | 1.2 | 21.2 | 5.5 | No | No |
| Census Tract 1103.03, Block Group 5, Adams Township, Hamilton County | 2.8 | 3.7 | 21.2 | 5.5 | No | No |
| Census Tract 2, Block Group 1, Center Township, Howard County | 65.2 | 18.0 | 19.4 | 15.0 | Yes | Yes |
| Census Tract 2, Block Group 2, Center Township, Howard County | 47.8 | 13.3 | 19.4 | 15.0 | Yes | No |
| Census Tract 2, Block Group 3, Center Township, Howard County | 57.2 | 32.6 | 19.4 | 15.0 | Yes | Yes |
| Census Tract 3, Block Group 1, Center Township, Howard County | 17.6 | 21.6 | 19.4 | 15.0 | No | Yes |
| Census Tract 3, Block Group 2, Center Township, Howard County | 10.5 | 29.0 | 19.4 | 15.0 | No | Yes |
| Census Tract 3, Block Group 3, Center Township, Howard County | 5.3 | 7.7 | 19.4 | 15.0 | No | No |
| Census Tract 4, Block Group 1, Center Township, Howard County | 11.7 | 29.7 | 19.4 | 15.0 | No | Yes |
| Census Tract 4, Block Group 2, Center Township, Howard County | 26.9 | 35.9 | 19.4 | 15.0 | Yes | Yes |
| Census Tract 4, Block Group 3, Center Township, Howard County | 31.0 | 18.7 | 19.4 | 15.0 | Yes | Yes |
| Census Tract 5, Block Group 1, Center Township, Howard County | 15.2 | 24.5 | 19.4 | 15.0 | No | Yes |
| Census Tract 5, Block Group 2, Center Township, Howard County | 15.2 | 16.8 | 19.4 | 15.0 | No | Yes |
| Census Tract 5, Block Group 3, Center Township, Howard County | 25.6 | 2.4 | 19.4 | 15.0 | Yes | No |
| Census Tract 5, Block Group 4, Center Township, Howard County | 27.3 | 26.0 | 19.4 | 15.0 | Yes | Yes |
| Census Tract 6, Block Group 1, Center Township, Howard County | 21.8 | 15.3 | 19.4 | 15.0 | Yes | Yes |
| Census Tract 6, Block Group 2, Center Township, Howard County | 17.7 | 13.3 | 19.4 | 15.0 | No | No |
| Census Tract 7, Block Group 1, Center Township, Howard County | 0.0 | 2.4 | 19.4 | 15.0 | No | No |
| Census Tract 7, Block Group 2, Center Township, Howard County | 17.4 | 14.7 | 19.4 | 15.0 | No | No |
| Census Tract 7, Block Group 3, Center Township, Howard County | 26.9 | 10.2 | 19.4 | 15.0 | Yes | No |

Denotes AC with potential Minority or Low-Income EJ Population

Community of Comparison: County

| Affected Community (AC) | % Minority Population | % Low-Income Population | 125% COC (County): Minority | 125% COC (County): Low-Income | Minority EJ Population? | Low-Income EJ Population? |
|--|------------------------------|--------------------------------|--|--|------------------------------------|--------------------------------------|
| Census Tract 7, Block Group 4, Center Township, Howard County | 10.4 | 5.7 | 19.4 | 15.0 | No | No |
| Census Tract 8, Block Group 2, Center Township, Howard County | 7.8 | 3.9 | 19.4 | 15.0 | No | No |
| Census Tract 8, Block Group 3, Center Township, Howard County | 17.1 | 12.6 | 19.4 | 15.0 | No | No |
| Census Tract 8, Block Group 4, Center Township, Howard County | 16.4 | 3.9 | 19.4 | 15.0 | No | No |
| Census Tract 9, Block Group 1, Center Township, Howard County | 5.2 | 24.2 | 19.4 | 15.0 | No | Yes |
| Census Tract 9, Block Group 2, Center Township, Howard County | 5.8 | 18.0 | 19.4 | 15.0 | No | Yes |
| Census Tract 9, Block Group 3, Center Township, Howard County | 13.4 | 24.9 | 19.4 | 15.0 | No | Yes |
| Census Tract 9, Block Group 4, Center Township, Howard County | 42.5 | 19.1 | 19.4 | 15.0 | Yes | Yes |
| Census Tract 10, Block Group 2, Center Township, Howard County | 7.6 | 4.0 | 19.4 | 15.0 | No | No |
| Census Tract 11, Block Group 1, Center Township, Howard County | 20.2 | 14.5 | 19.4 | 15.0 | Yes | No |
| Census Tract 11, Block Group 2, Harrison Township, Howard County | 33.0 | 4.4 | 19.4 | 15.0 | Yes | No |
| Census Tract 11, Block Group 3, Center Township, Howard County | 30.5 | 6.0 | 19.4 | 15.0 | Yes | No |
| Census Tract 12, Block Group 1, Center Township, Howard County | 12.6 | 24.1 | 19.4 | 15.0 | No | Yes |
| Census Tract 12, Block Group 2, Center Township, Howard County | 44.5 | 53.7 | 19.4 | 15.0 | Yes | Yes |
| Census Tract 12, Block Group 3, Center Township, Howard County | 17.9 | 34.8 | 19.4 | 15.0 | No | Yes |
| Census Tract 13, Block Group 1, Howard Township, Howard County | 3.0 | 11.4 | 19.4 | 15.0 | No | No |
| Census Tract 14, Block Group 1, Taylor Township, Howard County | 19.7 | 1.6 | 19.4 | 15.0 | Yes | No |
| Census Tract 14, Block Group 2, Taylor Township, Howard County | 19.2 | 9.5 | 19.4 | 15.0 | No | No |
| Census Tract 14, Block Group 3, Center Township, Howard County | 28.4 | 12.0 | 19.4 | 15.0 | Yes | No |
| Census Tract 14, Block Group 4, Center Township, Howard County | 0.5 | 1.7 | 19.4 | 15.0 | No | No |
| Census Tract 15, Block Group 1, Taylor Township, Howard County | 26.7 | 6.3 | 19.4 | 15.0 | Yes | No |
| Census Tract 15, Block Group 2, Taylor Township, Howard County | 9.0 | 11.4 | 19.4 | 15.0 | No | No |
| Census Tract 102.01, Block Group 2, Taylor Township, Howard County | 14.2 | 0.0 | 19.4 | 15.0 | No | No |
| Census Tract 102.01, Block Group 3, Taylor Township, Howard County | 32.3 | 9.4 | 19.4 | 15.0 | Yes | No |
| Census Tract 102.02, Block Group 1, Howard Township, Howard County | 1.9 | 7.2 | 19.4 | 15.0 | No | No |
| Census Tract 102.02, Block Group 2, Howard Township, Howard County | 8.4 | 16.4 | 19.4 | 15.0 | No | Yes |
| Census Tract 103, Block Group 1, Clay Township, Howard County | 1.8 | 0.0 | 19.4 | 15.0 | No | No |
| Census Tract 103, Block Group 2, Clay Township, Howard County | 2.6 | 10.4 | 19.4 | 15.0 | No | No |
| Census Tract 103, Block Group 3, Clay Township, Howard County | 2.7 | 8.3 | 19.4 | 15.0 | No | No |
| Census Tract 104, Block Group 1, Ervin Township, Howard County | 3.1 | 4.5 | 19.4 | 15.0 | No | No |
| Census Tract 105, Block Group 3, Harrison Township, Howard County | 5.3 | 1.0 | 19.4 | 15.0 | No | No |
| Census Tract 106, Block Group 1, Harrison Township, Howard County | 11.8 | 17.2 | 19.4 | 15.0 | No | Yes |
| Census Tract 106, Block Group 2, Harrison Township, Howard County | 11.7 | 7.5 | 19.4 | 15.0 | No | No |

Denotes AC with potential Minority or Low-Income EJ Population


Community of Comparison: County

| Affected Community (AC) | % Minority Population | % Low-Income Population | 125% COC (County): Minority | 125% COC (County): Low-Income | Minority EJ Population? | Low-Income EJ Population? |
|---|------------------------------|--------------------------------|--|--|------------------------------------|--------------------------------------|
| Census Tract 106, Block Group 3, Harrison Township, Howard County | 1.7 | 2.7 | 19.4 | 15.0 | No | No |
| Census Tract 9520, Block Group 3, Union Township, Miami County | 3.0 | 15.6 | 14.5 | 19.5 | No | No |
| Census Tract 9520, Block Group 4, Union Township, Miami County | 3.8 | 7.8 | 14.5 | 19.5 | No | No |
| Census Tract 9520, Block Group 5, Richland Township, Miami County | 0.0 | 1.5 | 14.5 | 19.5 | No | No |
| Census Tract 9521, Block Group 1, Erie Township, Miami County | 5.5 | 3.3 | 14.5 | 19.5 | No | No |
| Census Tract 9521, Block Group 2, Jefferson Township, Miami County | 8.8 | 4.5 | 14.5 | 19.5 | No | No |
| Census Tract 9521, Block Group 3, Jefferson Township, Miami County | 7.8 | 3.9 | 14.5 | 19.5 | No | No |
| Census Tract 9521, Block Group 4, Peru Township, Miami County | 13.6 | 6.5 | 14.5 | 19.5 | No | No |
| Census Tract 9522, Block Group 1, Peru Township, Miami County | 14.8 | 12.4 | 14.5 | 19.5 | Yes | No |
| Census Tract 9522, Block Group 2, Peru Township, Miami County | 9.9 | 30.4 | 14.5 | 19.5 | No | Yes |
| Census Tract 9522, Block Group 3, Peru Township, Miami County | 1.5 | 3.1 | 14.5 | 19.5 | No | No |
| Census Tract 9522, Block Group 4, Peru Township, Miami County | 9.8 | 6.1 | 14.5 | 19.5 | No | No |
| Census Tract 9523, Block Group 1, Peru Township, Miami County | 4.1 | 34.3 | 14.5 | 19.5 | No | Yes |
| Census Tract 9523, Block Group 2, Peru Township, Miami County | 0.8 | 49.1 | 14.5 | 19.5 | No | Yes |
| Census Tract 9523, Block Group 3, Peru Township, Miami County | 34.3 | 34.2 | 14.5 | 19.5 | Yes | Yes |
| Census Tract 9524, Block Group 1, Peru Township, Miami County | 3.1 | 7.4 | 14.5 | 19.5 | No | No |
| Census Tract 9524, Block Group 2, Peru Township, Miami County | 5.6 | 23.3 | 14.5 | 19.5 | No | Yes |
| Census Tract 9524, Block Group 3, Peru Township, Miami County | 21.4 | 34.4 | 14.5 | 19.5 | Yes | Yes |
| Census Tract 9524, Block Group 4, Peru Township, Miami County | 9.4 | 10.8 | 14.5 | 19.5 | No | No |
| Census Tract 9525, Block Group 1, Washington Township, Miami County | 44.8 | 51.4 | 14.5 | 19.5 | Yes | Yes |
| Census Tract 9525, Block Group 2, Washington Township, Miami County | 8.7 | 19.3 | 14.5 | 19.5 | No | No |
| Census Tract 9525, Block Group 3, Washington Township, Miami County | 11.5 | 21.5 | 14.5 | 19.5 | No | Yes |
| Census Tract 9527, Block Group 1, Washington Township, Miami County | 2.7 | 2.9 | 14.5 | 19.5 | No | No |
| Census Tract 9527, Block Group 2, Pipe Creek Township, Miami County | 1.3 | 10.5 | 14.5 | 19.5 | No | No |
| Census Tract 9527, Block Group 3, Clay Township, Miami County | 1.0 | 9.9 | 14.5 | 19.5 | No | No |
| Census Tract 9527, Block Group 4, Clay Township, Miami County | 9.3 | 17.4 | 14.5 | 19.5 | No | No |
| Census Tract 9527, Block Group 5, Deer Creek Township, Miami County | 4.6 | 20.0 | 14.5 | 19.5 | No | Yes |
| Census Tract 9528, Block Group 1, Pipe Creek Township, Miami County | 7.8 | 12.3 | 14.5 | 19.5 | No | No |
| Census Tract 9528, Block Group 2, Pipe Creek Township, Miami County | 39.8 | 6.9 | 14.5 | 19.5 | Yes | No |
| Census Tract 9528, Block Group 3, Pipe Creek Township, Miami County | 33.8 | 9.3 | 14.5 | 19.5 | Yes | No |
| Census Tract 9529, Block Group 1, Pipe Creek Township, Miami County | 30.8 | 20.2 | 14.5 | 19.5 | Yes | Yes |
| Census Tract 202, Block Group 1, Liberty Township, Tipton County | 3.9 | 8.0 | 6.8 | 11.8 | No | No |
| Census Tract 202, Block Group 2, Liberty Township, Tipton County | 3.6 | 9.7 | 6.8 | 11.8 | No | No |

Denotes AC with potential Minority or Low-Income EJ Population

Community of Comparison: County

| Affected Community (AC) | % Minority Population | % Low-Income Population | 125% COC (County): Minority | 125% COC (County): Low-Income | Minority EJ Population? | Low-Income EJ Population? |
|--|-----------------------|-------------------------|--------------------------------|----------------------------------|----------------------------|------------------------------|
| Census Tract 202, Block Group 3, Prairie Township, Tipton County | 0.0 | 1.2 | 6.8 | 11.8 | No | No |
| Census Tract 202, Block Group 4, Prairie Township, Tipton County | 4.1 | 10.1 | 6.8 | 11.8 | No | No |
| Census Tract 203, Block Group 1, Jefferson Township, Tipton County | 8.7 | 19.8 | 6.8 | 11.8 | Yes | Yes |
| Census Tract 203, Block Group 2, Jefferson Township, Tipton County | 10.3 | 11.4 | 6.8 | 11.8 | Yes | No |
| Census Tract 203, Block Group 3, Cicero Township, Tipton County | 1.5 | 4.6 | 6.8 | 11.8 | No | No |
| Census Tract 204.01, Block Group 1, Cicero Township, Tipton County | 3.6 | 13.0 | 6.8 | 11.8 | No | Yes |
| Census Tract 204.01, Block Group 2, Cicero Township, Tipton County | 5.9 | 0.0 | 6.8 | 11.8 | No | No |
| Census Tract 204.01, Block Group 3, Cicero Township, Tipton County | 2.7 | 6.5 | 6.8 | 11.8 | No | No |
| Census Tract 204.01, Block Group 4, Cicero Township, Tipton County | 9.6 | 4.0 | 6.8 | 11.8 | Yes | No |
| Census Tract 204.01, Block Group 5, Cicero Township, Tipton County | 0.0 | 0.0 | 6.8 | 11.8 | No | No |
| Census Tract 204.02, Block Group 1, Cicero Township, Tipton County | 16.6 | 25.0 | 6.8 | 11.8 | Yes | Yes |
| Census Tract 204.02, Block Group 2, Cicero Township, Tipton County | 1.9 | 14.0 | 6.8 | 11.8 | No | Yes |

 Denotes AC with potential Minority or Low-Income EJ Population



US 31 South

Underserved Populations: Environmental Justice

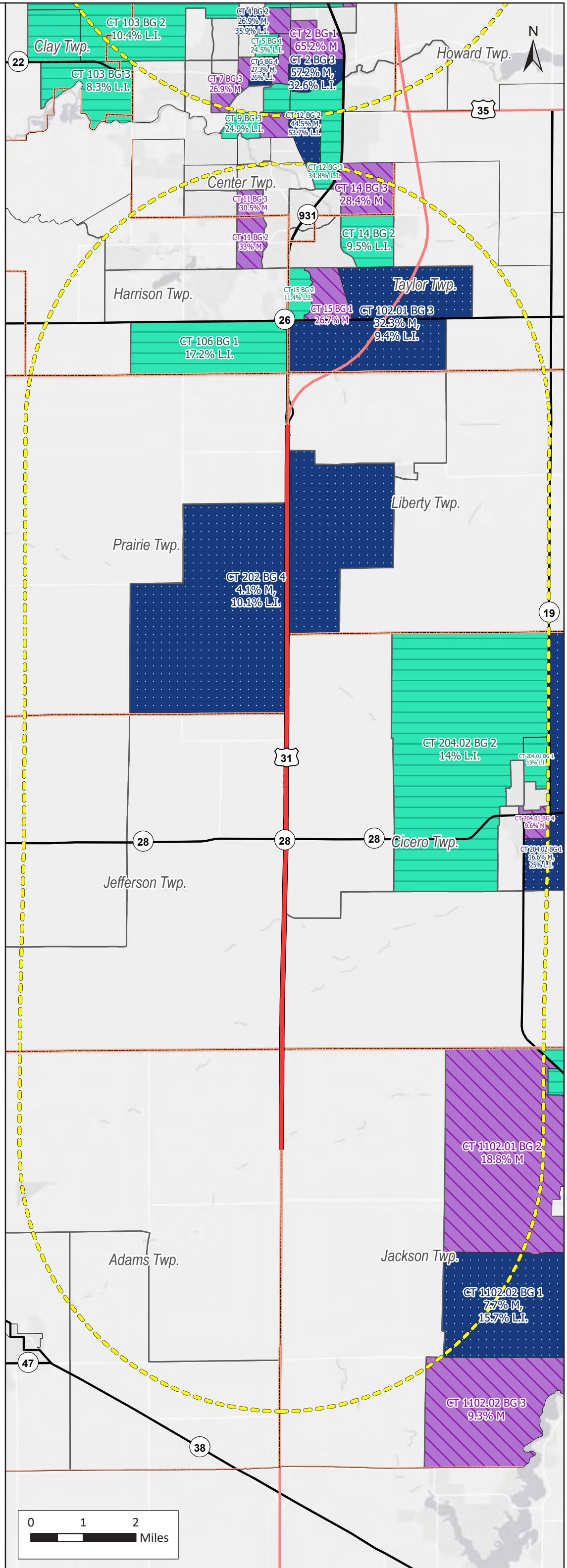
Community of Comparison: County Subdivision (Township)

Potential EJ Populations

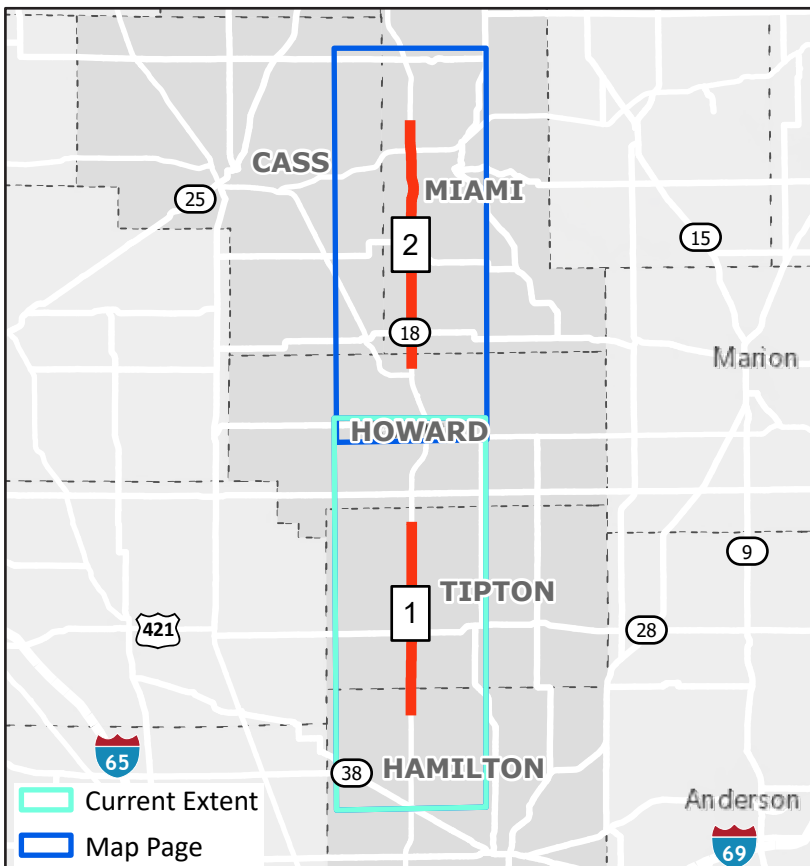
- Minority
- Low-Income
- Minority & Low-Income
- Block Group Boundary
- US 31 South Study Limits
- 5-Mile Radius
- Township Boundary
- County Boundary
- State Road
- US Route

| Community of Comparison | % Low-Income | 125% Low-Income | % Minority | 125% Minority |
|-------------------------|--------------|-----------------|------------|---------------|
| Cicero Twp | 9.3 | 11.6 | 5.8 | 7.2 |
| Liberty Twp | 10 | 12.5 | 4.1 | 5.1 |
| Jackson Twp | 8.4 | 10.5 | 5.1 | 6.4 |
| Taylor Twp | 5.8 | 7.2 | 16.7 | 20.9 |

Data Source: USCB American Community Survey (ACS) 2016-2020 block group and county subdivision data for codes B03002 & B17021



Map 1 of 2





US 31 South

Underserved Populations: Environmental Justice

Community of Comparison: County Subdivision (Township)

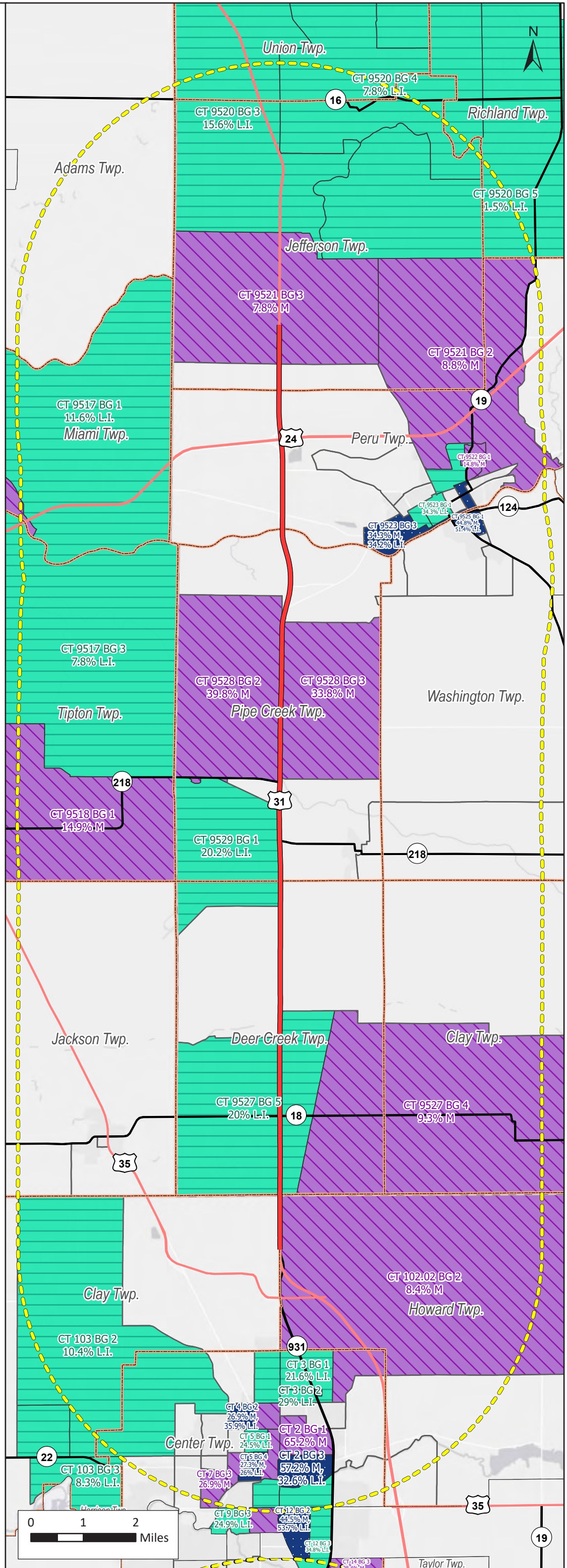
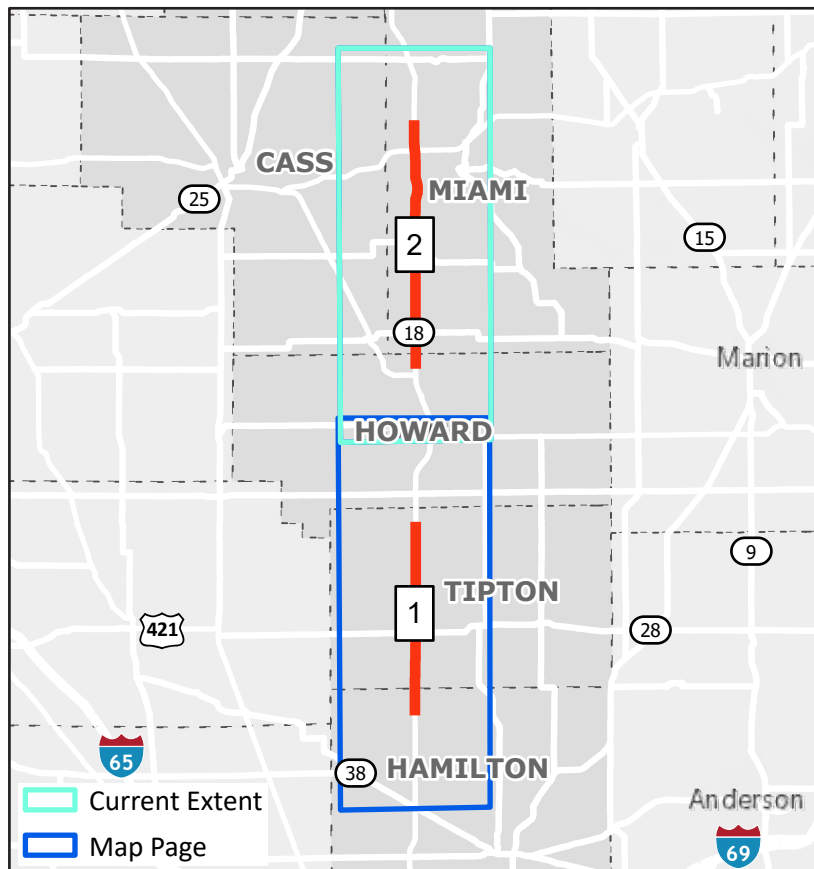
Potential EJ Populations

- Minority
- Low-Income
- Minority & Low-Income
- Block Group Boundary
- US 31 South Study Limits
- 5-Mile Radius
- Township Boundary
- County Boundary
- State Road
- US Route

| Community of Comparison | % Low-Income | 125% Low-Income | % Minority | 125% Minority |
|-------------------------|--------------|-----------------|------------|---------------|
| Richland Twp | 0 | 0 | 2.5 | 3.1 |
| Washington Twp | 19.5 | 24.4 | 13 | 16.2 |
| Howard Twp | 14.9 | 18.6 | 4.7 | 5.9 |
| Clay Twp | 25.2 | 31.5 | 3.3 | 4.1 |
| Erie Twp | 5.2 | 6.5 | 5.2 | 6.5 |
| Peru Twp | 21 | 26.2 | 11.5 | 14.4 |

Data Source: USCB American Community Survey (ACS) 2016-2020 block group and county subdivision data for codes B03002 & B17021

Map 2 of 2



Community of Comparison: Township

| Affected Community (AC) | % Minority Population | % Low-Income Population | 125% COC (Township): Minority | 125% COC (Township): Low-Income | Minority EJ Population? | Low-Income EJ Population? |
|--|------------------------------|--------------------------------|--|--|--------------------------------|--------------------------------------|
| Census Tract 9509, Block Group 1, Adams Township, Cass County | 2.5 | 9.5 | 2.7 | 10.9 | No | No |
| Census Tract 9517, Block Group 1, Miami Township, Cass County | 1.4 | 11.6 | 8.2 | 9.6 | No | Yes |
| Census Tract 9517, Block Group 2, Miami Township, Cass County | 9.8 | 4.0 | 8.2 | 9.6 | Yes | No |
| Census Tract 9517, Block Group 3, Tipton Township, Cass County | 6.5 | 7.8 | 13.7 | 6.5 | No | Yes |
| Census Tract 9518, Block Group 1, Tipton Township, Cass County | 14.9 | 3.2 | 13.7 | 6.5 | Yes | No |
| Census Tract 9519, Block Group 1, Jackson Township, Cass County | 5.1 | 3.7 | 6.5 | 4.8 | No | No |
| Census Tract 9519, Block Group 2, Jackson Township, Cass County | 5.3 | 3.9 | 6.5 | 4.8 | No | No |
| Census Tract 1102.01, Block Group 1, Jackson Township, Hamilton County | 4.5 | 10.8 | 6.3 | 10.5 | No | Yes |
| Census Tract 1102.01, Block Group 2, Jackson Township, Hamilton County | 18.8 | 8.6 | 6.3 | 10.5 | Yes | No |
| Census Tract 1102.01, Block Group 4, Jackson Township, Hamilton County | 0.4 | 2.1 | 6.3 | 10.5 | No | No |
| Census Tract 1102.02, Block Group 1, Jackson Township, Hamilton County | 7.7 | 15.7 | 6.3 | 10.5 | Yes | Yes |
| Census Tract 1102.02, Block Group 3, Jackson Township, Hamilton County | 9.3 | 7.9 | 6.3 | 10.5 | Yes | No |
| Census Tract 1103.03, Block Group 1, Adams Township, Hamilton County | 0.0 | 0.0 | 4.6 | 9.1 | No | No |
| Census Tract 1103.03, Block Group 4, Adams Township, Hamilton County | 0.0 | 1.2 | 4.6 | 9.1 | No | No |
| Census Tract 1103.03, Block Group 5, Adams Township, Hamilton County | 2.8 | 3.7 | 4.6 | 9.1 | No | No |
| Census Tract 104, Block Group 1, Ervin Township, Howard | 3.1 | 4.5 | 10.8 | 5.1 | No | No |
| Census Tract 2, Block Group 1, Center Township, Howard County | 65.2 | 18.0 | 25.3 | 20.8 | Yes | No |
| Census Tract 2, Block Group 2, Center Township, Howard County | 47.8 | 13.3 | 25.3 | 20.8 | Yes | No |
| Census Tract 2, Block Group 3, Center Township, Howard County | 57.2 | 32.6 | 25.3 | 20.8 | Yes | Yes |
| Census Tract 3, Block Group 1, Center Township, Howard County | 17.6 | 21.6 | 25.3 | 20.8 | No | Yes |
| Census Tract 3, Block Group 2, Center Township, Howard County | 10.5 | 29.0 | 25.3 | 20.8 | No | Yes |
| Census Tract 3, Block Group 3, Center Township, Howard County | 5.3 | 7.7 | 25.3 | 20.8 | No | No |
| Census Tract 4, Block Group 1, Center Township, Howard County | 11.7 | 29.7 | 25.3 | 20.8 | No | Yes |
| Census Tract 4, Block Group 2, Center Township, Howard County | 26.9 | 35.9 | 25.3 | 20.8 | Yes | Yes |
| Census Tract 4, Block Group 3, Center Township, Howard County | 31.0 | 18.7 | 25.3 | 20.8 | Yes | No |
| Census Tract 5, Block Group 1, Center Township, Howard County | 15.2 | 24.5 | 25.3 | 20.8 | No | Yes |
| Census Tract 5, Block Group 2, Center Township, Howard County | 15.2 | 16.8 | 25.3 | 20.8 | No | No |
| Census Tract 5, Block Group 3, Center Township, Howard County | 25.6 | 2.4 | 25.3 | 20.8 | Yes | No |
| Census Tract 5, Block Group 4, Center Township, Howard County | 27.3 | 26.0 | 25.3 | 20.8 | Yes | Yes |
| Census Tract 6, Block Group 1, Center Township, Howard County | 21.8 | 15.3 | 25.3 | 20.8 | No | No |
| Census Tract 6, Block Group 2, Center Township, Howard County | 17.7 | 13.3 | 25.3 | 20.8 | No | No |
| Census Tract 7, Block Group 1, Center Township, Howard County | 0.0 | 2.4 | 25.3 | 20.8 | No | No |
| Census Tract 7, Block Group 2, Center Township, Howard County | 17.4 | 14.7 | 25.3 | 20.8 | No | No |
| Census Tract 7, Block Group 3, Center Township, Howard County | 26.9 | 10.2 | 25.3 | 20.8 | Yes | No |

Denotes AC with potential Minority or Low-Income EJ Population

Community of Comparison: Township

| Affected Community (AC) | % Minority Population | % Low-Income Population | 125% COC (Township): Minority | 125% COC (Township): Low-Income | Minority EJ Population? | Low-Income EJ Population? |
|--|------------------------------|--------------------------------|--|--|--------------------------------|--------------------------------------|
| Census Tract 7, Block Group 4, Center Township, Howard County | 10.4 | 5.7 | 25.3 | 20.8 | No | No |
| Census Tract 8, Block Group 2, Center Township, Howard County | 7.8 | 3.9 | 25.3 | 20.8 | No | No |
| Census Tract 8, Block Group 3, Center Township, Howard County | 17.1 | 12.6 | 25.3 | 20.8 | No | No |
| Census Tract 8, Block Group 4, Center Township, Howard County | 16.4 | 3.9 | 25.3 | 20.8 | No | No |
| Census Tract 9, Block Group 1, Center Township, Howard County | 5.2 | 24.2 | 25.3 | 20.8 | No | Yes |
| Census Tract 9, Block Group 2, Center Township, Howard County | 5.8 | 18.0 | 25.3 | 20.8 | No | No |
| Census Tract 9, Block Group 3, Center Township, Howard County | 13.4 | 24.9 | 25.3 | 20.8 | No | Yes |
| Census Tract 9, Block Group 4, Center Township, Howard County | 42.5 | 19.1 | 25.3 | 20.8 | Yes | No |
| Census Tract 10, Block Group 2, Center Township, Howard County | 7.6 | 4.0 | 25.3 | 20.8 | No | No |
| Census Tract 11, Block Group 1, Center Township, Howard County | 20.2 | 14.5 | 25.3 | 20.8 | No | No |
| Census Tract 11, Block Group 2, Harrison Township, Howard County | 33.0 | 4.4 | 17.9 | 9.9 | Yes | No |
| Census Tract 11, Block Group 3, Center Township, Howard County | 30.5 | 6.0 | 25.3 | 20.8 | Yes | No |
| Census Tract 12, Block Group 1, Center Township, Howard County | 12.6 | 24.1 | 25.3 | 20.8 | No | Yes |
| Census Tract 12, Block Group 2, Center Township, Howard County | 44.5 | 53.7 | 25.3 | 20.8 | Yes | Yes |
| Census Tract 12, Block Group 3, Center Township, Howard County | 17.9 | 34.8 | 25.3 | 20.8 | No | Yes |
| Census Tract 13, Block Group 1, Howard Township, Howard County | 3.0 | 11.4 | 5.9 | 18.6 | No | No |
| Census Tract 14, Block Group 1, Taylor Township, Howard County | 19.7 | 1.6 | 20.9 | 7.2 | No | No |
| Census Tract 14, Block Group 2, Taylor Township, Howard County | 19.2 | 9.5 | 20.9 | 7.2 | No | Yes |
| Census Tract 14, Block Group 3, Center Township, Howard County | 28.4 | 12.0 | 25.3 | 20.8 | Yes | No |
| Census Tract 14, Block Group 4, Center Township, Howard County | 0.5 | 1.7 | 25.3 | 20.8 | No | No |
| Census Tract 15, Block Group 1, Taylor Township, Howard County | 26.7 | 6.3 | 20.9 | 7.2 | Yes | No |
| Census Tract 15, Block Group 2, Taylor Township, Howard County | 9.0 | 11.4 | 20.9 | 7.2 | No | Yes |
| Census Tract 102.01, Block Group 2, Taylor Township, Howard County | 14.2 | 0.0 | 20.9 | 7.2 | No | No |
| Census Tract 102.01, Block Group 3, Taylor Township, Howard County | 32.3 | 9.4 | 20.9 | 7.2 | Yes | Yes |
| Census Tract 102.02, Block Group 1, Howard Township, Howard County | 1.9 | 7.2 | 5.9 | 18.6 | No | No |
| Census Tract 102.02, Block Group 2, Howard Township, Howard County | 8.4 | 16.4 | 5.9 | 18.6 | Yes | No |
| Census Tract 103, Block Group 1, Clay Township, Howard County | 1.8 | 0.0 | 3.2 | 6.9 | No | No |
| Census Tract 103, Block Group 2, Clay Township, Howard County | 2.6 | 10.4 | 3.2 | 6.9 | No | Yes |
| Census Tract 103, Block Group 3, Clay Township, Howard County | 2.7 | 8.3 | 3.2 | 6.9 | No | Yes |
| Census Tract 105, Block Group 3, Harrison Township, Howard County | 5.3 | 1.0 | 17.9 | 9.9 | No | No |
| Census Tract 106, Block Group 1, Harrison Township, Howard County | 11.8 | 17.2 | 17.9 | 9.9 | No | Yes |
| Census Tract 106, Block Group 2, Harrison Township, Howard County | 11.7 | 7.5 | 17.9 | 9.9 | No | No |
| Census Tract 106, Block Group 3, Harrison Township, Howard County | 1.7 | 2.7 | 17.9 | 9.9 | No | No |
| Census Tract 9521, Block Group 1, Erie Township, Miami | 5.5 | 3.3 | 6.5 | 6.5 | No | No |

 Denotes AC with potential Minority or Low-Income EJ Population

Community of Comparison: Township

| Affected Community (AC) | % Minority Population | % Low-Income Population | 125% COC (Township): Minority | 125% COC (Township): Low-Income | Minority EJ Population? | Low-Income EJ Population? |
|---|------------------------------|--------------------------------|--|--|--------------------------------|--------------------------------------|
| Census Tract 9520, Block Group 3, Union Township, Miami County | 3.0 | 15.6 | 5.8 | 7.5 | No | Yes |
| Census Tract 9520, Block Group 4, Union Township, Miami County | 3.8 | 7.8 | 5.8 | 7.5 | No | Yes |
| Census Tract 9520, Block Group 5, Richland Township, Miami County | 0.0 | 1.5 | 3.1 | 0.0 | No | Yes |
| Census Tract 9521, Block Group 2, Jefferson Township, Miami County | 8.8 | 4.5 | 6.0 | 11.2 | Yes | No |
| Census Tract 9521, Block Group 3, Jefferson Township, Miami County | 7.8 | 3.9 | 6.0 | 11.2 | Yes | No |
| Census Tract 9521, Block Group 4, Peru Township, Miami County | 13.6 | 6.5 | 14.3 | 26.2 | No | No |
| Census Tract 9522, Block Group 1, Peru Township, Miami County | 14.8 | 12.4 | 14.3 | 26.2 | Yes | No |
| Census Tract 9522, Block Group 2, Peru Township, Miami County | 9.9 | 30.4 | 14.3 | 26.2 | No | Yes |
| Census Tract 9522, Block Group 3, Peru Township, Miami County | 1.5 | 3.1 | 14.3 | 26.2 | No | No |
| Census Tract 9522, Block Group 4, Peru Township, Miami County | 9.8 | 6.1 | 14.3 | 26.2 | No | No |
| Census Tract 9523, Block Group 1, Peru Township, Miami County | 4.1 | 34.3 | 14.3 | 26.2 | No | Yes |
| Census Tract 9523, Block Group 2, Peru Township, Miami County | 0.8 | 49.1 | 14.3 | 26.2 | No | Yes |
| Census Tract 9523, Block Group 3, Peru Township, Miami County | 34.3 | 34.2 | 14.3 | 26.2 | Yes | Yes |
| Census Tract 9524, Block Group 1, Peru Township, Miami County | 3.1 | 7.4 | 14.3 | 26.2 | No | No |
| Census Tract 9524, Block Group 2, Peru Township, Miami County | 5.6 | 23.3 | 14.3 | 26.2 | No | No |
| Census Tract 9524, Block Group 3, Peru Township, Miami County | 21.4 | 34.4 | 14.3 | 26.2 | Yes | Yes |
| Census Tract 9524, Block Group 4, Peru Township, Miami County | 9.4 | 10.8 | 14.3 | 26.2 | No | No |
| Census Tract 9525, Block Group 1, Washington Township, Miami County | 44.8 | 51.4 | 16.2 | 24.4 | Yes | Yes |
| Census Tract 9525, Block Group 2, Washington Township, Miami County | 8.7 | 19.3 | 16.2 | 24.4 | No | No |
| Census Tract 9525, Block Group 3, Washington Township, Miami County | 11.5 | 21.5 | 16.2 | 24.4 | No | No |
| Census Tract 9527, Block Group 1, Washington Township, Miami County | 2.7 | 2.9 | 16.2 | 24.4 | No | No |
| Census Tract 9527, Block Group 2, Pipe Creek Township, Miami County | 1.3 | 10.5 | 32.1 | 19.5 | No | No |
| Census Tract 9527, Block Group 3, Clay Township, Miami County | 1.0 | 9.9 | 4.1 | 31.6 | No | No |
| Census Tract 9527, Block Group 4, Clay Township, Miami County | 9.3 | 17.4 | 4.1 | 31.6 | Yes | No |
| Census Tract 9527, Block Group 5, Deer Creek Township, Miami County | 4.6 | 20.0 | 11.4 | 18.7 | No | Yes |
| Census Tract 9528, Block Group 1, Pipe Creek Township, Miami County | 7.8 | 12.3 | 32.1 | 19.5 | No | No |
| Census Tract 9528, Block Group 2, Pipe Creek Township, Miami County | 39.8 | 6.9 | 32.1 | 19.5 | Yes | No |
| Census Tract 9528, Block Group 3, Pipe Creek Township, Miami County | 33.8 | 9.3 | 32.1 | 19.5 | Yes | No |
| Census Tract 9529, Block Group 1, Pipe Creek Township, Miami County | 30.8 | 20.2 | 32.1 | 19.5 | No | Yes |
| Census Tract 202, Block Group 1, Liberty Township, Tipton County | 3.9 | 8.0 | 5.1 | 12.5 | No | No |
| Census Tract 202, Block Group 2, Liberty Township, Tipton County | 3.6 | 9.7 | 5.1 | 12.5 | No | No |
| Census Tract 202, Block Group 3, Prairie Township, Tipton County | 0.0 | 1.2 | 0.0 | 1.2 | No | No |
| Census Tract 202, Block Group 4, Prairie Township, Tipton County | 4.1 | 10.1 | 0.0 | 1.2 | Yes | Yes |
| Census Tract 203, Block Group 1, Jefferson Township, Tipton County | 8.7 | 19.8 | 13.3 | 20.8 | No | No |

 Denotes AC with potential Minority or Low-Income EJ Population

Community of Comparison: Township

| Affected Community (AC) | % Minority Population | % Low-Income Population | 125% COC (Township): Minority | 125% COC (Township): Low-Income | Minority EJ Population? | Low-Income EJ Population? |
|--|-----------------------|-------------------------|----------------------------------|------------------------------------|-------------------------|------------------------------|
| Census Tract 203, Block Group 2, Jefferson Township, Tipton County | 10.3 | 11.4 | 13.3 | 20.8 | No | No |
| Census Tract 203, Block Group 3, Cicero Township, Tipton County | 1.5 | 4.6 | 7.2 | 11.6 | No | No |
| Census Tract 204.01, Block Group 1, Cicero Township, Tipton County | 3.6 | 13.0 | 7.2 | 11.6 | No | Yes |
| Census Tract 204.01, Block Group 2, Cicero Township, Tipton County | 5.9 | 0.0 | 7.2 | 11.6 | No | No |
| Census Tract 204.01, Block Group 3, Cicero Township, Tipton County | 2.7 | 6.5 | 7.2 | 11.6 | No | No |
| Census Tract 204.01, Block Group 4, Cicero Township, Tipton County | 9.6 | 4.0 | 7.2 | 11.6 | Yes | No |
| Census Tract 204.01, Block Group 5, Cicero Township, Tipton County | 0.0 | 0.0 | 7.2 | 11.6 | No | No |
| Census Tract 204.02, Block Group 1, Cicero Township, Tipton County | 16.6 | 25.0 | 7.2 | 11.6 | Yes | Yes |
| Census Tract 204.02, Block Group 2, Cicero Township, Tipton County | 1.9 | 14.0 | 7.2 | 11.6 | No | Yes |

 Denotes AC with potential Minority or Low-Income EJ Population



US 31 South

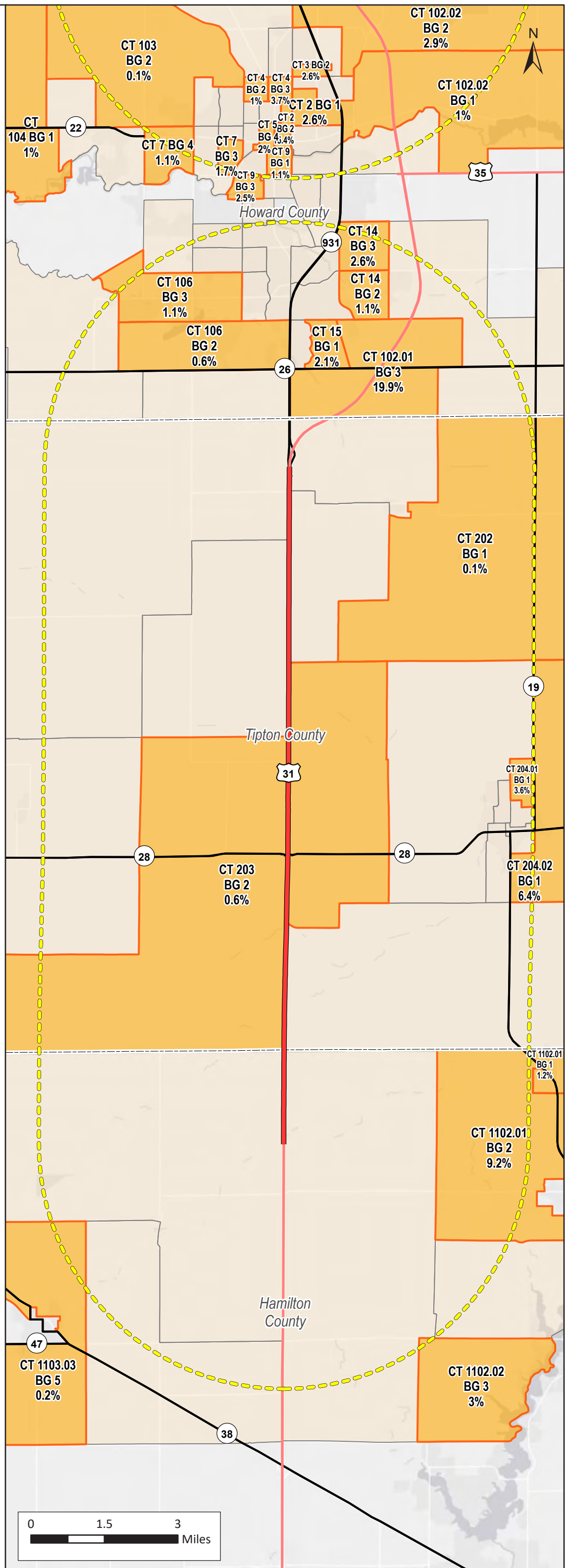
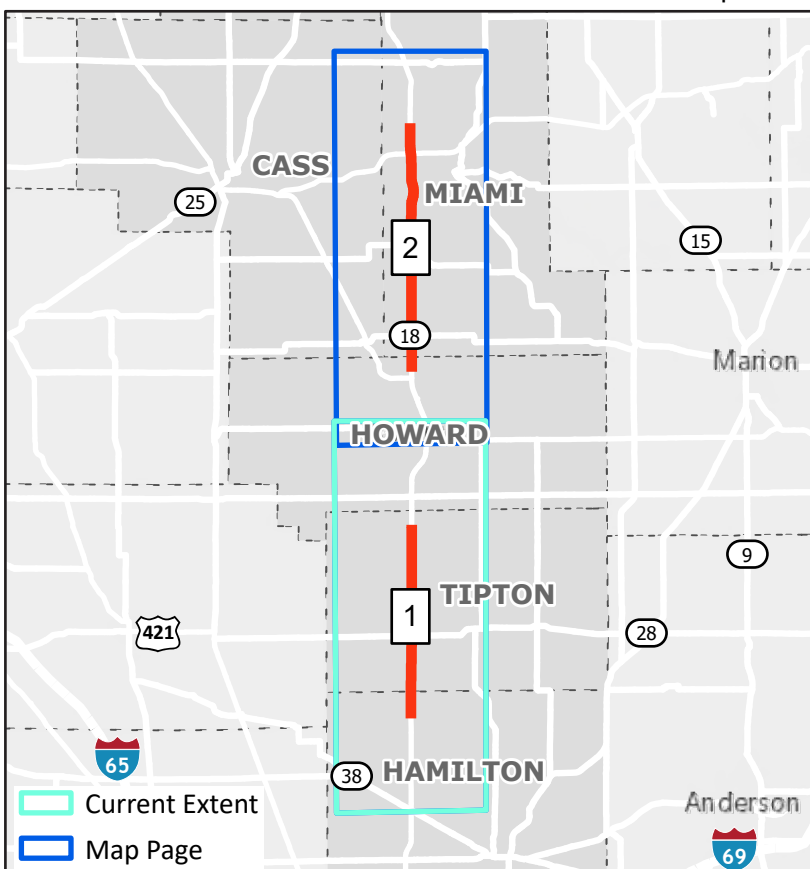
Underserved Population: Limited English Population

Study Area Block Groups

- No LEP population
- LEP Population
- 5-Mile Radius
- US 31 South Study Limits
- County Boundary
- State Road
- US Route

Data Source: USCB American Community Survey (ACS) 2016-2020 block group and county subdivision data for code B16004

Map 1 of 2





US 31 South

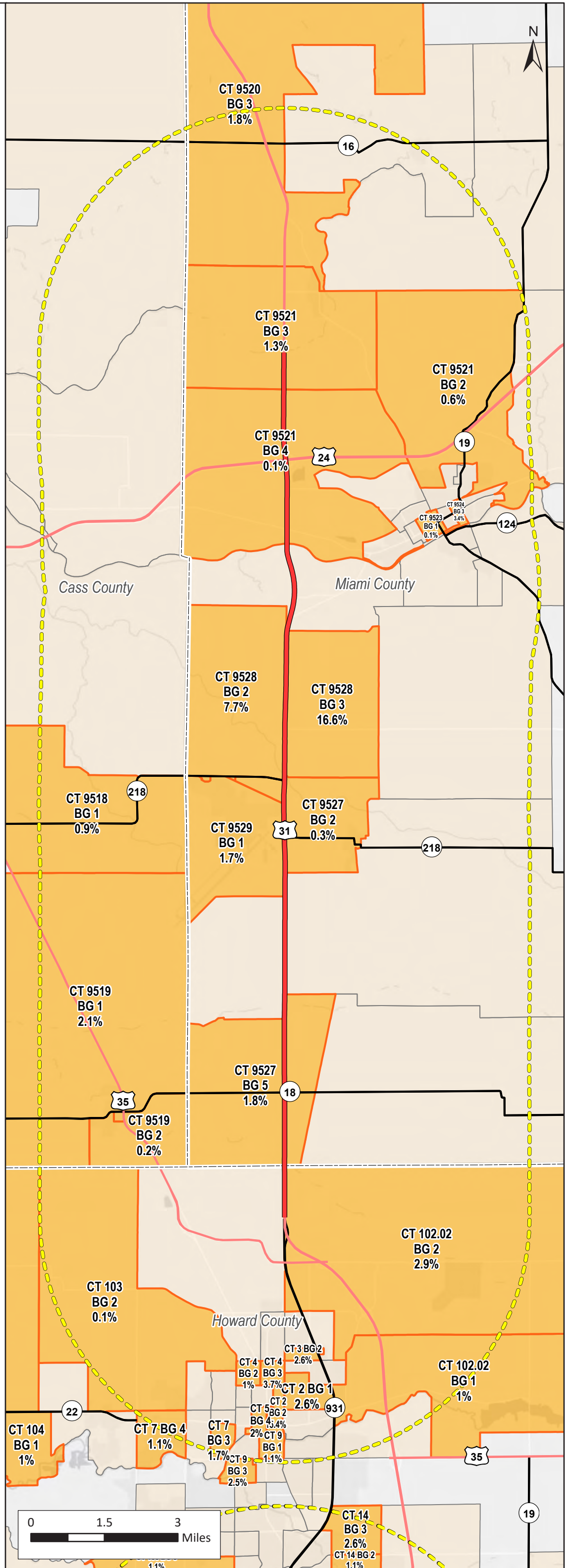
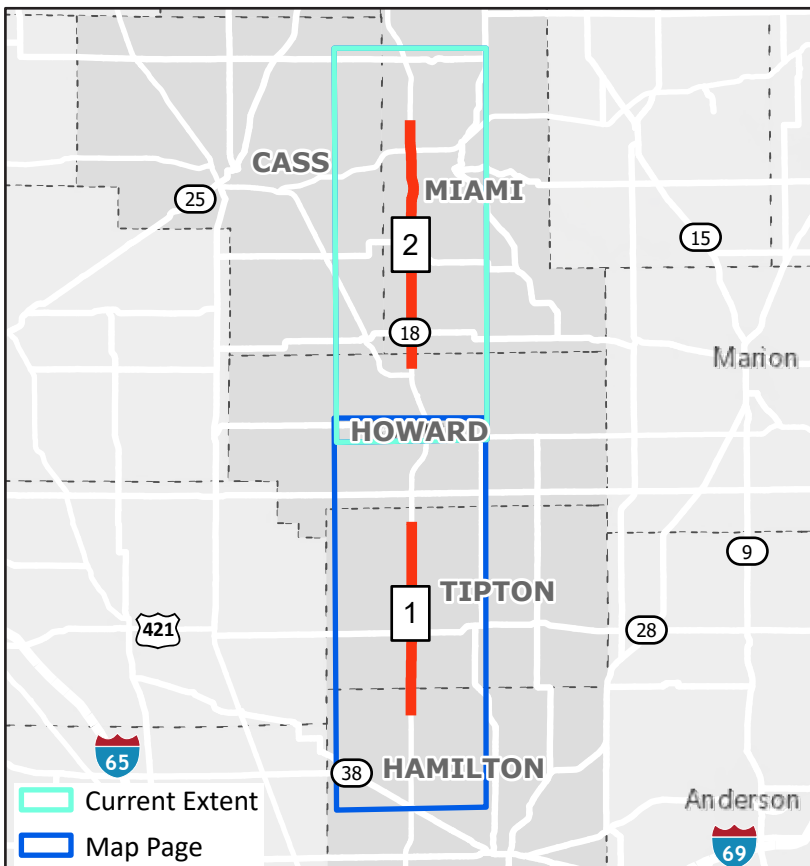
Underserved Population: Limited English Population

Study Area Block Groups

- No LEP population
- LEP Population
- 5-Mile Radius
- US 31 South Study Limits
- County Boundary
- State Road
- US Route

Data Source: USCB American Community Survey (ACS) 2016-2020 block group and county subdivision data for code B16004

Map 2 of 2



| Affected Community (AC) | % Limited English Population | Limited English Population Present? |
|--|------------------------------|-------------------------------------|
| Census Tract 9509, Block Group 1, Adams Township, Cass County | 0.0 | No |
| Census Tract 9517, Block Group 1, Miami Township, Cass County | 0.0 | No |
| Census Tract 9517, Block Group 2, Miami Township, Cass County | 0.0 | No |
| Census Tract 9517, Block Group 3, Tipton Township, Cass County | 0.0 | No |
| Census Tract 9518, Block Group 1, Tipton Township, Cass County | 0.9 | Yes |
| Census Tract 9519, Block Group 1, Jackson Township, Cass County | 2.1 | Yes |
| Census Tract 9519, Block Group 2, Jackson Township, Cass County | 0.2 | Yes |
| Census Tract 1102.01, Block Group 1, Jackson Township, Hamilton County | 1.2 | Yes |
| Census Tract 1102.01, Block Group 2, Jackson Township, Hamilton County | 9.2 | Yes |
| Census Tract 1102.01, Block Group 4, Jackson Township, Hamilton County | 0.0 | No |
| Census Tract 1102.02, Block Group 1, Jackson Township, Hamilton County | 0.0 | No |
| Census Tract 1102.02, Block Group 3, Jackson Township, Hamilton County | 3.0 | Yes |
| Census Tract 1103.03, Block Group 1, Adams Township, Hamilton County | 0.0 | No |
| Census Tract 1103.03, Block Group 4, Adams Township, Hamilton County | 0.0 | No |
| Census Tract 1103.03, Block Group 5, Adams Township, Hamilton County | 0.2 | Yes |
| Census Tract 2, Block Group 1, Center Township, Howard County | 2.6 | Yes |
| Census Tract 2, Block Group 2, Center Township, Howard County | 15.4 | Yes |
| Census Tract 2, Block Group 3, Center Township, Howard County | 0.0 | No |
| Census Tract 3, Block Group 1, Center Township, Howard County | 0.0 | No |
| Census Tract 3, Block Group 2, Center Township, Howard County | 2.6 | Yes |
| Census Tract 3, Block Group 3, Center Township, Howard County | 0.0 | No |
| Census Tract 4, Block Group 1, Center Township, Howard County | 0.0 | No |
| Census Tract 4, Block Group 2, Center Township, Howard County | 1.0 | Yes |
| Census Tract 4, Block Group 3, Center Township, Howard County | 3.7 | Yes |
| Census Tract 5, Block Group 1, Center Township, Howard County | 0.0 | No |
| Census Tract 5, Block Group 2, Center Township, Howard County | 0.0 | No |
| Census Tract 5, Block Group 3, Center Township, Howard County | 0.0 | No |
| Census Tract 5, Block Group 4, Center Township, Howard County | 2.0 | Yes |
| Census Tract 6, Block Group 1, Center Township, Howard County | 0.0 | No |
| Census Tract 6, Block Group 2, Center Township, Howard County | 0.0 | No |
| Census Tract 7, Block Group 1, Center Township, Howard County | 0.0 | No |
| Census Tract 7, Block Group 2, Center Township, Howard County | 0.0 | No |
| Census Tract 7, Block Group 3, Center Township, Howard County | 1.7 | Yes |
| Census Tract 7, Block Group 4, Center Township, Howard County | 1.1 | Yes |
| Census Tract 8, Block Group 2, Center Township, Howard County | 0.0 | No |
| Census Tract 8, Block Group 3, Center Township, Howard County | 0.0 | No |
| Census Tract 8, Block Group 4, Center Township, Howard County | 0.0 | No |
| Census Tract 9, Block Group 1, Center Township, Howard County | 1.1 | Yes |
| Census Tract 9, Block Group 2, Center Township, Howard County | 0.0 | No |
| Census Tract 9, Block Group 3, Center Township, Howard County | 2.5 | Yes |
| Census Tract 9, Block Group 4, Center Township, Howard County | 0.0 | No |
| Census Tract 10, Block Group 2, Center Township, Howard County | 0.0 | No |
| Census Tract 11, Block Group 1, Center Township, Howard County | 0.0 | No |
| Census Tract 11, Block Group 2, Harrison Township, Howard County | 0.0 | No |
| Census Tract 11, Block Group 3, Center Township, Howard County | 0.0 | No |
| Census Tract 12, Block Group 1, Center Township, Howard County | 0.0 | No |
| Census Tract 12, Block Group 2, Center Township, Howard County | 0.0 | No |
| Census Tract 12, Block Group 3, Center Township, Howard County | 0.0 | No |
| Census Tract 13, Block Group 1, Howard Township, Howard County | 0.0 | No |
| Census Tract 14, Block Group 1, Taylor Township, Howard County | 0.0 | No |
| Census Tract 14, Block Group 2, Taylor Township, Howard County | 1.1 | Yes |
| Census Tract 14, Block Group 3, Center Township, Howard County | 2.6 | Yes |
| Census Tract 14, Block Group 4, Center Township, Howard County | 0.0 | No |
| Census Tract 15, Block Group 1, Taylor Township, Howard County | 2.1 | Yes |
| Census Tract 15, Block Group 2, Taylor Township, Howard County | 0.0 | No |

| Affected Community (AC) | % Limited English Population | Limited English Population Present? |
|---|------------------------------|-------------------------------------|
| Census Tract 102.01, Block Group 2, Taylor Township, Howard County | 0.0 | No |
| Census Tract 102.01, Block Group 3, Taylor Township, Howard County | 19.9 | Yes |
| Census Tract 102.02, Block Group 1, Howard Township, Howard County | 1.0 | Yes |
| Census Tract 102.02, Block Group 2, Howard Township, Howard County | 2.9 | Yes |
| Census Tract 103, Block Group 1, Clay Township, Howard County | 0.0 | No |
| Census Tract 103, Block Group 2, Clay Township, Howard County | 0.1 | Yes |
| Census Tract 103, Block Group 3, Clay Township, Howard County | 0.0 | No |
| Census Tract 104, Block Group 1, Ervin Township, Howard County | 1.0 | Yes |
| Census Tract 105, Block Group 3, Harrison Township, Howard County | 0.0 | No |
| Census Tract 106, Block Group 1, Harrison Township, Howard County | 0.0 | No |
| Census Tract 106, Block Group 2, Harrison Township, Howard County | 0.6 | Yes |
| Census Tract 106, Block Group 3, Harrison Township, Howard County | 1.1 | Yes |
| Census Tract 9520, Block Group 3, Union Township, Miami County | 1.8 | Yes |
| Census Tract 9520, Block Group 4, Union Township, Miami County | 0.0 | No |
| Census Tract 9520, Block Group 5, Richland Township, Miami County | 0.0 | No |
| Census Tract 9521, Block Group 1, Erie Township, Miami County | 0.0 | No |
| Census Tract 9521, Block Group 2, Jefferson Township, Miami County | 0.6 | Yes |
| Census Tract 9521, Block Group 3, Jefferson Township, Miami County | 1.3 | Yes |
| Census Tract 9521, Block Group 4, Peru Township, Miami County | 0.1 | Yes |
| Census Tract 9522, Block Group 1, Peru Township, Miami County | 0.0 | No |
| Census Tract 9522, Block Group 2, Peru Township, Miami County | 0.0 | No |
| Census Tract 9522, Block Group 3, Peru Township, Miami County | 0.0 | No |
| Census Tract 9522, Block Group 4, Peru Township, Miami County | 0.0 | No |
| Census Tract 9523, Block Group 1, Peru Township, Miami County | 0.1 | Yes |
| Census Tract 9523, Block Group 2, Peru Township, Miami County | 0.0 | No |
| Census Tract 9523, Block Group 3, Peru Township, Miami County | 0.0 | No |
| Census Tract 9524, Block Group 1, Peru Township, Miami County | 0.0 | No |
| Census Tract 9524, Block Group 2, Peru Township, Miami County | 0.0 | No |
| Census Tract 9524, Block Group 3, Peru Township, Miami County | 3.4 | Yes |
| Census Tract 9524, Block Group 4, Peru Township, Miami County | 0.0 | No |
| Census Tract 9525, Block Group 1, Washington Township, Miami County | 0.0 | No |
| Census Tract 9525, Block Group 2, Washington Township, Miami County | 0.0 | No |
| Census Tract 9525, Block Group 3, Washington Township, Miami County | 0.0 | No |
| Census Tract 9527, Block Group 1, Washington Township, Miami County | 0.0 | No |
| Census Tract 9527, Block Group 2, Pipe Creek Township, Miami County | 0.3 | Yes |
| Census Tract 9527, Block Group 3, Clay Township, Miami County | 0.0 | No |
| Census Tract 9527, Block Group 4, Clay Township, Miami County | 0.0 | No |
| Census Tract 9527, Block Group 5, Deer Creek Township, Miami County | 1.8 | Yes |
| Census Tract 9528, Block Group 1, Pipe Creek Township, Miami County | 0.0 | No |
| Census Tract 9528, Block Group 2, Pipe Creek Township, Miami County | 7.7 | Yes |
| Census Tract 9528, Block Group 3, Pipe Creek Township, Miami County | 16.6 | Yes |
| Census Tract 9529, Block Group 1, Pipe Creek Township, Miami County | 1.7 | Yes |
| Census Tract 202, Block Group 1, Liberty Township, Tipton County | 0.1 | Yes |
| Census Tract 202, Block Group 2, Liberty Township, Tipton County | 0.0 | No |
| Census Tract 202, Block Group 3, Prairie Township, Tipton County | 0.0 | No |
| Census Tract 202, Block Group 4, Prairie Township, Tipton County | 0.0 | No |
| Census Tract 203, Block Group 1, Jefferson Township, Tipton County | 0.0 | No |
| Census Tract 203, Block Group 2, Jefferson Township, Tipton County | 0.6 | Yes |
| Census Tract 203, Block Group 3, Cicero Township, Tipton County | 0.0 | No |
| Census Tract 204.01, Block Group 1, Cicero Township, Tipton County | 3.6 | Yes |
| Census Tract 204.01, Block Group 2, Cicero Township, Tipton County | 0.0 | No |
| Census Tract 204.01, Block Group 3, Cicero Township, Tipton County | 0.0 | No |
| Census Tract 204.01, Block Group 4, Cicero Township, Tipton County | 0.0 | No |
| Census Tract 204.01, Block Group 5, Cicero Township, Tipton County | 0.0 | No |
| Census Tract 204.02, Block Group 1, Cicero Township, Tipton County | 6.4 | Yes |
| Census Tract 204.02, Block Group 2, Cicero Township, Tipton County | 0.0 | No |



US 31 South

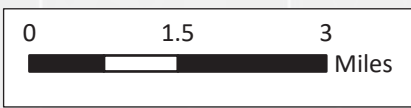
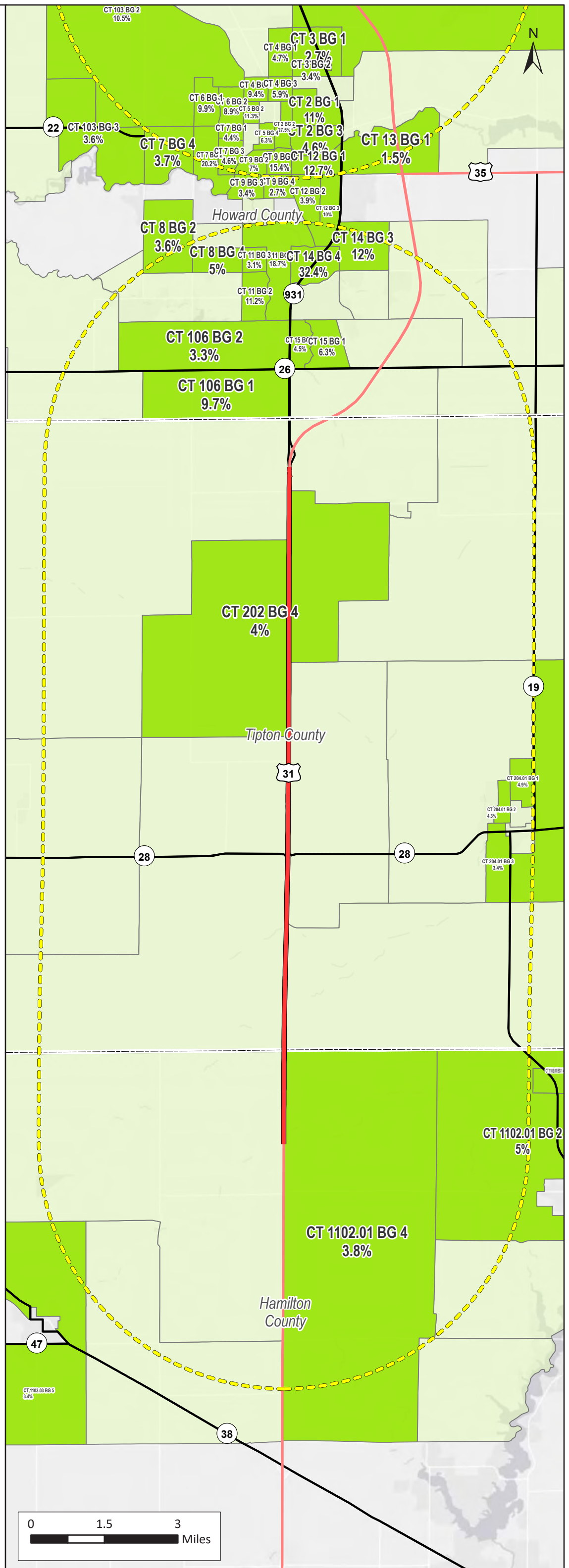
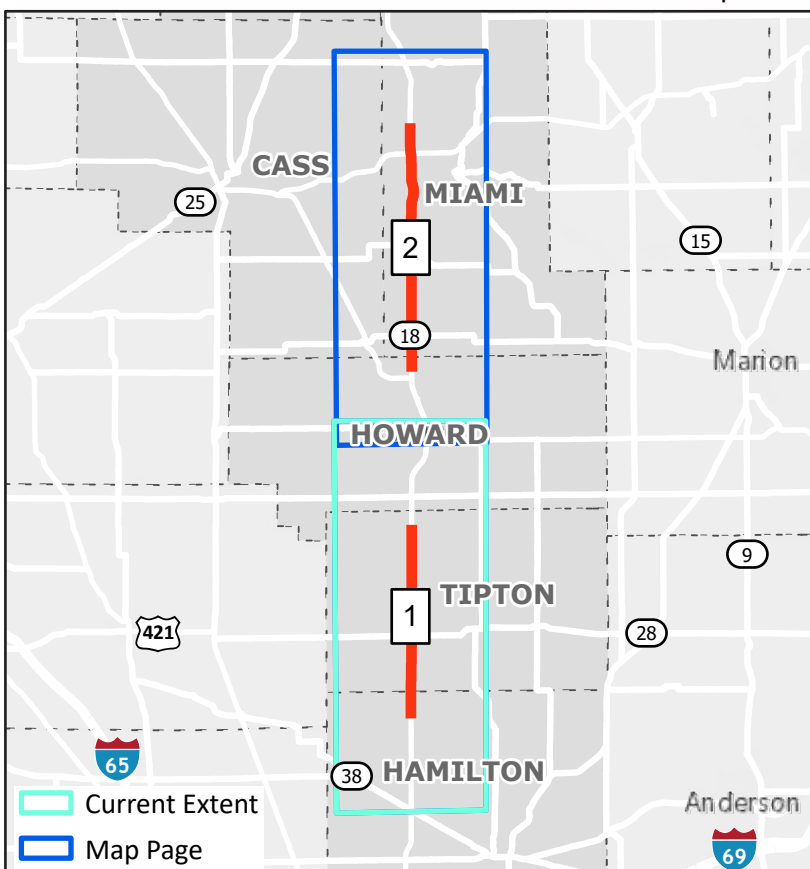
Underserved Population: Limited Vehicle Access Population

Study Area Block Groups

- No Limited Vehicle Access Households
- Limited Vehicle Access Population
- 5-Mile Radius
- US 31 South Study Limits
- County Boundary
- State Road
- US Route

Data Source: USCB American Community Survey (ACS) 2016-2020 block group and county subdivision data for code B25044

Map 1 of 2



| Affected Community (AC) | % Households with No Vehicle | Limited Vehicle Access Population? |
|--|-------------------------------------|---|
| Census Tract 9509, Block Group 1, Adams Township, Cass County | 0.0 | No |
| Census Tract 9517, Block Group 1, Miami Township, Cass County | 0.0 | No |
| Census Tract 9517, Block Group 2, Miami Township, Cass County | 0.0 | No |
| Census Tract 9517, Block Group 3, Tipton Township, Cass County | 12.9 | Yes |
| Census Tract 9518, Block Group 1, Tipton Township, Cass County | 2.0 | Yes |
| Census Tract 9519, Block Group 1, Jackson Township, Cass County | 6.0 | Yes |
| Census Tract 9519, Block Group 2, Jackson Township, Cass County | 3.2 | Yes |
| Census Tract 1102.01, Block Group 1, Jackson Township, Hamilton County | 4.3 | Yes |
| Census Tract 1102.01, Block Group 2, Jackson Township, Hamilton County | 5.0 | Yes |
| Census Tract 1102.01, Block Group 4, Jackson Township, Hamilton County | 3.8 | Yes |
| Census Tract 1102.02, Block Group 1, Jackson Township, Hamilton County | 0.0 | No |
| Census Tract 1102.02, Block Group 3, Jackson Township, Hamilton County | 0.0 | No |
| Census Tract 1103.03, Block Group 1, Adams Township, Hamilton County | 0.0 | No |
| Census Tract 1103.03, Block Group 4, Adams Township, Hamilton County | 0.0 | No |
| Census Tract 1103.03, Block Group 5, Adams Township, Hamilton County | 3.4 | Yes |
| Census Tract 2, Block Group 1, Center Township, Howard County | 11.0 | Yes |
| Census Tract 2, Block Group 2, Center Township, Howard County | 27.5 | Yes |
| Census Tract 2, Block Group 3, Center Township, Howard County | 4.6 | Yes |
| Census Tract 3, Block Group 1, Center Township, Howard County | 2.7 | Yes |
| Census Tract 3, Block Group 2, Center Township, Howard County | 3.4 | Yes |
| Census Tract 3, Block Group 3, Center Township, Howard County | 0.0 | No |
| Census Tract 4, Block Group 1, Center Township, Howard County | 4.7 | Yes |
| Census Tract 4, Block Group 2, Center Township, Howard County | 9.4 | Yes |
| Census Tract 4, Block Group 3, Center Township, Howard County | 5.9 | Yes |
| Census Tract 5, Block Group 1, Center Township, Howard County | 0.0 | No |
| Census Tract 5, Block Group 2, Center Township, Howard County | 11.3 | Yes |
| Census Tract 5, Block Group 3, Center Township, Howard County | 0.0 | No |
| Census Tract 5, Block Group 4, Center Township, Howard County | 6.3 | Yes |
| Census Tract 6, Block Group 1, Center Township, Howard County | 9.9 | Yes |
| Census Tract 6, Block Group 2, Center Township, Howard County | 8.9 | Yes |
| Census Tract 7, Block Group 1, Center Township, Howard County | 4.4 | Yes |
| Census Tract 7, Block Group 2, Center Township, Howard County | 20.2 | Yes |
| Census Tract 7, Block Group 3, Center Township, Howard County | 4.6 | Yes |
| Census Tract 7, Block Group 4, Center Township, Howard County | 3.7 | Yes |
| Census Tract 8, Block Group 2, Center Township, Howard County | 3.6 | Yes |
| Census Tract 8, Block Group 3, Center Township, Howard County | 0.0 | No |
| Census Tract 8, Block Group 4, Center Township, Howard County | 5.0 | Yes |
| Census Tract 9, Block Group 1, Center Township, Howard County | 15.4 | Yes |
| Census Tract 9, Block Group 2, Center Township, Howard County | 7.0 | Yes |
| Census Tract 9, Block Group 3, Center Township, Howard County | 3.4 | Yes |
| Census Tract 9, Block Group 4, Center Township, Howard County | 2.7 | Yes |
| Census Tract 10, Block Group 2, Center Township, Howard County | 0.0 | No |
| Census Tract 11, Block Group 1, Center Township, Howard County | 18.7 | Yes |
| Census Tract 11, Block Group 2, Harrison Township, Howard County | 11.2 | Yes |
| Census Tract 11, Block Group 3, Center Township, Howard County | 3.1 | Yes |
| Census Tract 12, Block Group 1, Center Township, Howard County | 12.7 | Yes |
| Census Tract 12, Block Group 2, Center Township, Howard County | 3.9 | Yes |
| Census Tract 12, Block Group 3, Center Township, Howard County | 10.0 | Yes |
| Census Tract 13, Block Group 1, Howard Township, Howard County | 1.5 | Yes |
| Census Tract 14, Block Group 1, Taylor Township, Howard County | 0.0 | No |
| Census Tract 14, Block Group 2, Taylor Township, Howard County | 0.0 | No |
| Census Tract 14, Block Group 3, Center Township, Howard County | 12.0 | Yes |
| Census Tract 14, Block Group 4, Center Township, Howard County | 32.4 | Yes |
| Census Tract 15, Block Group 1, Taylor Township, Howard County | 6.3 | Yes |
| Census Tract 15, Block Group 2, Taylor Township, Howard County | 4.5 | Yes |
| Census Tract 102.01, Block Group 2, Taylor Township, Howard County | 0.0 | No |

| Affected Community (AC) | % Households with No Vehicle | Limited Vehicle Access Population? |
|---|-------------------------------------|---|
| Census Tract 102.01, Block Group 3, Taylor Township, Howard County | 0.0 | No |
| Census Tract 102.02, Block Group 1, Howard Township, Howard County | 0.0 | No |
| Census Tract 102.02, Block Group 2, Howard Township, Howard County | 7.9 | Yes |
| Census Tract 103, Block Group 1, Clay Township, Howard County | 0.0 | No |
| Census Tract 103, Block Group 2, Clay Township, Howard County | 10.5 | Yes |
| Census Tract 103, Block Group 3, Clay Township, Howard County | 3.6 | Yes |
| Census Tract 104, Block Group 1, Ervin Township, Howard County | 0.0 | No |
| Census Tract 105, Block Group 3, Harrison Township, Howard County | 0.0 | No |
| Census Tract 106, Block Group 1, Harrison Township, Howard County | 9.7 | Yes |
| Census Tract 106, Block Group 2, Harrison Township, Howard County | 3.3 | Yes |
| Census Tract 106, Block Group 3, Harrison Township, Howard County | 0.0 | No |
| Census Tract 9520, Block Group 3, Union Township, Miami County | 0.0 | No |
| Census Tract 9520, Block Group 4, Union Township, Miami County | 0.9 | Yes |
| Census Tract 9520, Block Group 5, Richland Township, Miami County | 0.0 | No |
| Census Tract 9521, Block Group 1, Erie Township, Miami County | 2.5 | Yes |
| Census Tract 9521, Block Group 2, Jefferson Township, Miami County | 10.3 | Yes |
| Census Tract 9521, Block Group 3, Jefferson Township, Miami County | 0.0 | No |
| Census Tract 9521, Block Group 4, Peru Township, Miami County | 5.1 | Yes |
| Census Tract 9522, Block Group 1, Peru Township, Miami County | 7.1 | Yes |
| Census Tract 9522, Block Group 2, Peru Township, Miami County | 10.9 | Yes |
| Census Tract 9522, Block Group 3, Peru Township, Miami County | 0.0 | No |
| Census Tract 9522, Block Group 4, Peru Township, Miami County | 0.0 | No |
| Census Tract 9523, Block Group 1, Peru Township, Miami County | 8.3 | Yes |
| Census Tract 9523, Block Group 2, Peru Township, Miami County | 38.8 | Yes |
| Census Tract 9523, Block Group 3, Peru Township, Miami County | 8.0 | Yes |
| Census Tract 9524, Block Group 1, Peru Township, Miami County | 3.8 | Yes |
| Census Tract 9524, Block Group 2, Peru Township, Miami County | 15.2 | Yes |
| Census Tract 9524, Block Group 3, Peru Township, Miami County | 19.2 | Yes |
| Census Tract 9524, Block Group 4, Peru Township, Miami County | 12.1 | Yes |
| Census Tract 9525, Block Group 1, Washington Township, Miami County | 0.0 | No |
| Census Tract 9525, Block Group 2, Washington Township, Miami County | 3.6 | Yes |
| Census Tract 9525, Block Group 3, Washington Township, Miami County | 10.1 | Yes |
| Census Tract 9527, Block Group 1, Washington Township, Miami County | 2.2 | Yes |
| Census Tract 9527, Block Group 2, Pipe Creek Township, Miami County | 10.0 | Yes |
| Census Tract 9527, Block Group 3, Clay Township, Miami County | 0.5 | Yes |
| Census Tract 9527, Block Group 4, Clay Township, Miami County | 7.0 | Yes |
| Census Tract 9527, Block Group 5, Deer Creek Township, Miami County | 0.9 | Yes |
| Census Tract 9528, Block Group 1, Pipe Creek Township, Miami County | 0.0 | No |
| Census Tract 9528, Block Group 2, Pipe Creek Township, Miami County | 0.0 | No |
| Census Tract 9528, Block Group 3, Pipe Creek Township, Miami County | 0.0 | No |
| Census Tract 9529, Block Group 1, Pipe Creek Township, Miami County | 3.9 | Yes |
| Census Tract 202, Block Group 1, Liberty Township, Tipton County | 0.0 | No |
| Census Tract 202, Block Group 2, Liberty Township, Tipton County | 0.0 | No |
| Census Tract 202, Block Group 3, Prairie Township, Tipton County | 0.0 | No |
| Census Tract 202, Block Group 4, Prairie Township, Tipton County | 4.0 | Yes |
| Census Tract 203, Block Group 1, Jefferson Township, Tipton County | 0.0 | No |
| Census Tract 203, Block Group 2, Jefferson Township, Tipton County | 0.0 | No |
| Census Tract 203, Block Group 3, Cicero Township, Tipton County | 0.0 | No |
| Census Tract 204.01, Block Group 1, Cicero Township, Tipton County | 4.9 | Yes |
| Census Tract 204.01, Block Group 2, Cicero Township, Tipton County | 4.3 | Yes |
| Census Tract 204.01, Block Group 3, Cicero Township, Tipton County | 3.4 | Yes |
| Census Tract 204.01, Block Group 4, Cicero Township, Tipton County | 0.0 | No |
| Census Tract 204.01, Block Group 5, Cicero Township, Tipton County | 0.0 | No |
| Census Tract 204.02, Block Group 1, Cicero Township, Tipton County | 5.8 | Yes |
| Census Tract 204.02, Block Group 2, Cicero Township, Tipton County | 0.0 | No |



US 31 South

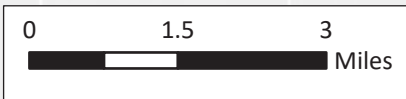
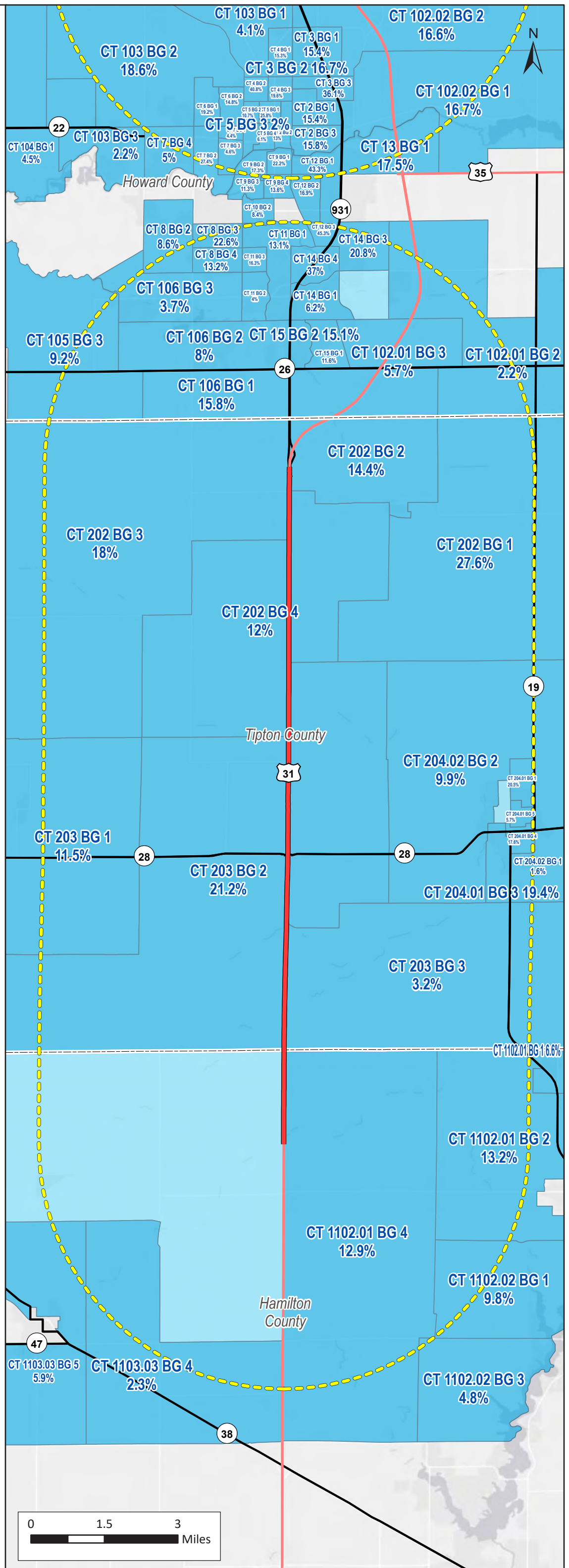
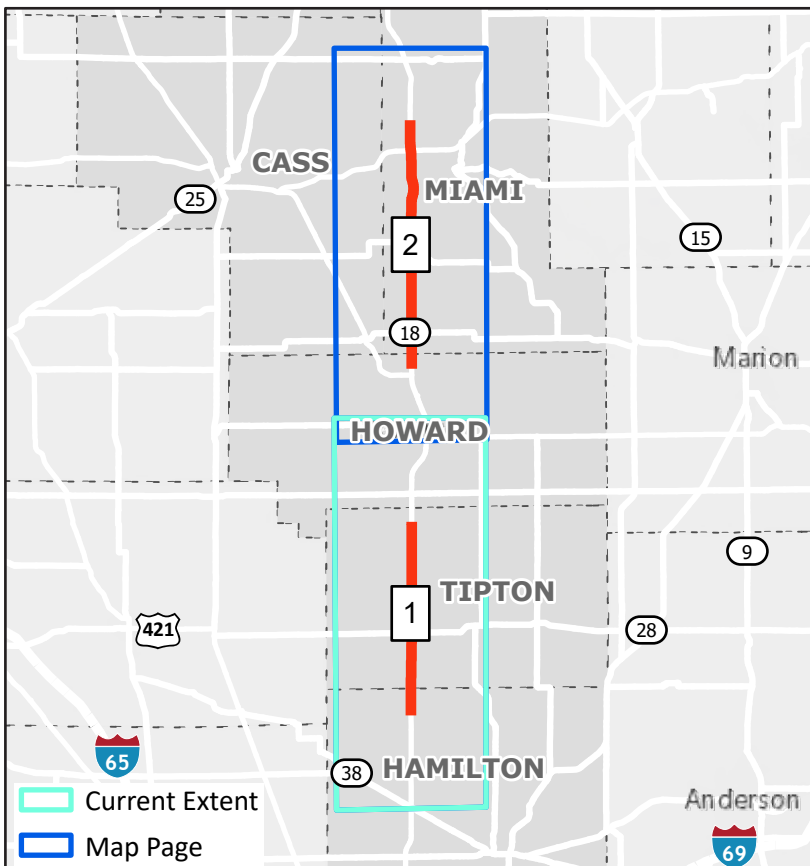
Underserved Population: Limited Internet Access Population

Study Area Block Groups

- No Limited Internet Access Households
- Limited Internet Access Population
- 5-Mile Radius
- US 31 South Study Limits
- County Boundary
- State Road
- US Route

Data Source: USCB American Community Survey (ACS) 2016-2020 block group and county subdivision data for code B28002

Map 1 of 2





US 31 South

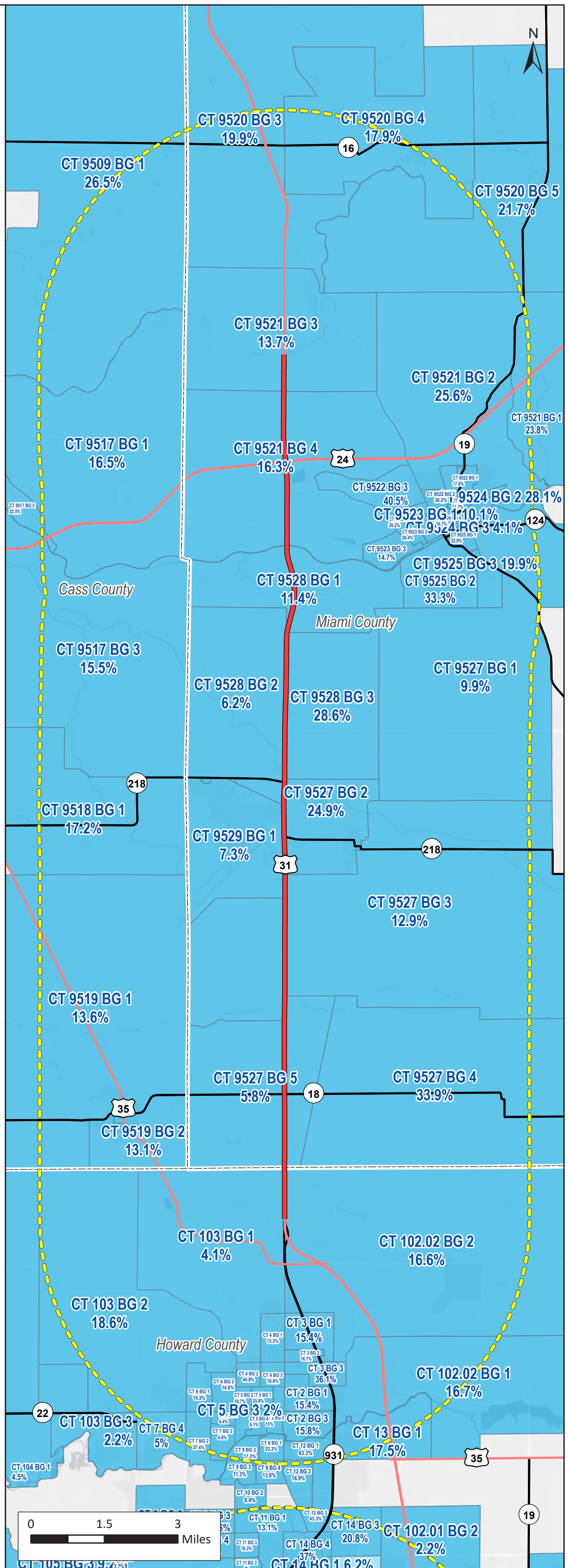
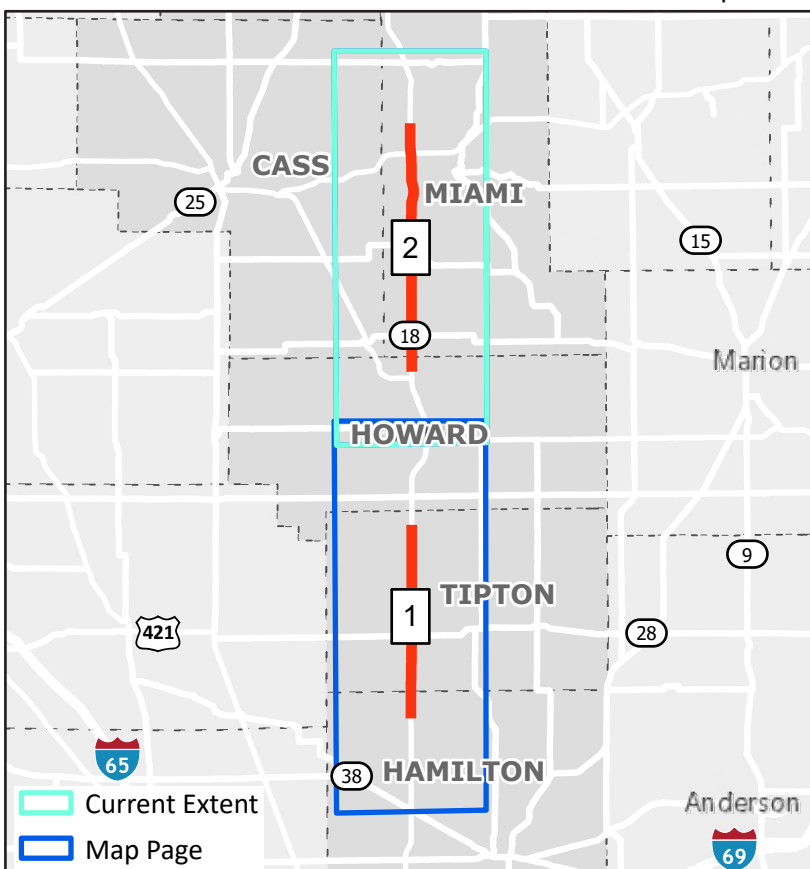
Underserved Population: Limited Internet Access Population

Study Area Block Groups

- No Limited Internet Access Households
- Limited Internet Access Population
- 5-Mile Radius
- US 31 South Study Limits
- County Boundary
- State Road
- US Route

Data Source: USCB American Community Survey (ACS) 2016-2020 block group and county subdivision data for code B28002

Map 2 of 2



| Affected Community (AC) | % Households with No Internet | Limited Internet Access Population? |
|--|-------------------------------|-------------------------------------|
| Census Tract 9509, Block Group 1, Adams Township, Cass County | 26.5 | Yes |
| Census Tract 9517, Block Group 1, Miami Township, Cass County | 16.5 | Yes |
| Census Tract 9517, Block Group 2, Miami Township, Cass County | 22.5 | Yes |
| Census Tract 9517, Block Group 3, Tipton Township, Cass County | 15.5 | Yes |
| Census Tract 9518, Block Group 1, Tipton Township, Cass County | 17.2 | Yes |
| Census Tract 9519, Block Group 1, Jackson Township, Cass County | 13.6 | Yes |
| Census Tract 9519, Block Group 2, Jackson Township, Cass County | 13.1 | Yes |
| Census Tract 1102.01, Block Group 1, Jackson Township, Hamilton County | 6.6 | Yes |
| Census Tract 1102.01, Block Group 2, Jackson Township, Hamilton County | 13.2 | Yes |
| Census Tract 1102.01, Block Group 4, Jackson Township, Hamilton County | 12.9 | Yes |
| Census Tract 1102.02, Block Group 1, Jackson Township, Hamilton County | 9.8 | Yes |
| Census Tract 1102.02, Block Group 3, Jackson Township, Hamilton County | 4.8 | Yes |
| Census Tract 1103.03, Block Group 1, Adams Township, Hamilton County | 0.0 | No |
| Census Tract 1103.03, Block Group 4, Adams Township, Hamilton County | 2.3 | Yes |
| Census Tract 1103.03, Block Group 5, Adams Township, Hamilton County | 5.9 | Yes |
| Census Tract 2, Block Group 1, Center Township, Howard County | 15.4 | Yes |
| Census Tract 2, Block Group 2, Center Township, Howard County | 13.0 | Yes |
| Census Tract 2, Block Group 3, Center Township, Howard County | 15.8 | Yes |
| Census Tract 3, Block Group 1, Center Township, Howard County | 15.4 | Yes |
| Census Tract 3, Block Group 2, Center Township, Howard County | 16.7 | Yes |
| Census Tract 3, Block Group 3, Center Township, Howard County | 36.1 | Yes |
| Census Tract 4, Block Group 1, Center Township, Howard County | 15.3 | Yes |
| Census Tract 4, Block Group 2, Center Township, Howard County | 40.8 | Yes |
| Census Tract 4, Block Group 3, Center Township, Howard County | 19.6 | Yes |
| Census Tract 5, Block Group 1, Center Township, Howard County | 25.8 | Yes |
| Census Tract 5, Block Group 2, Center Township, Howard County | 10.7 | Yes |
| Census Tract 5, Block Group 3, Center Township, Howard County | 2.0 | Yes |
| Census Tract 5, Block Group 4, Center Township, Howard County | 6.1 | Yes |
| Census Tract 6, Block Group 1, Center Township, Howard County | 19.2 | Yes |
| Census Tract 6, Block Group 2, Center Township, Howard County | 14.8 | Yes |
| Census Tract 7, Block Group 1, Center Township, Howard County | 4.4 | Yes |
| Census Tract 7, Block Group 2, Center Township, Howard County | 27.4 | Yes |
| Census Tract 7, Block Group 3, Center Township, Howard County | 4.6 | Yes |
| Census Tract 7, Block Group 4, Center Township, Howard County | 5.0 | Yes |
| Census Tract 8, Block Group 2, Center Township, Howard County | 8.6 | Yes |
| Census Tract 8, Block Group 3, Center Township, Howard County | 22.6 | Yes |
| Census Tract 8, Block Group 4, Center Township, Howard County | 13.2 | Yes |
| Census Tract 9, Block Group 1, Center Township, Howard County | 22.2 | Yes |
| Census Tract 9, Block Group 2, Center Township, Howard County | 17.3 | Yes |
| Census Tract 9, Block Group 3, Center Township, Howard County | 11.3 | Yes |
| Census Tract 9, Block Group 4, Center Township, Howard County | 13.6 | Yes |
| Census Tract 10, Block Group 2, Center Township, Howard County | 8.4 | Yes |
| Census Tract 11, Block Group 1, Center Township, Howard County | 13.1 | Yes |
| Census Tract 11, Block Group 2, Harrison Township, Howard County | 4.0 | Yes |
| Census Tract 11, Block Group 3, Center Township, Howard County | 16.3 | Yes |
| Census Tract 12, Block Group 1, Center Township, Howard County | 43.3 | Yes |
| Census Tract 12, Block Group 2, Center Township, Howard County | 16.9 | Yes |
| Census Tract 12, Block Group 3, Center Township, Howard County | 45.3 | Yes |
| Census Tract 13, Block Group 1, Howard Township, Howard County | 17.5 | Yes |
| Census Tract 14, Block Group 1, Taylor Township, Howard County | 6.2 | Yes |
| Census Tract 14, Block Group 2, Taylor Township, Howard County | 0.0 | No |
| Census Tract 14, Block Group 3, Center Township, Howard County | 20.8 | Yes |
| Census Tract 14, Block Group 4, Center Township, Howard County | 37.0 | Yes |
| Census Tract 15, Block Group 1, Taylor Township, Howard County | 11.6 | Yes |
| Census Tract 15, Block Group 2, Taylor Township, Howard County | 15.1 | Yes |
| Census Tract 102.01, Block Group 2, Taylor Township, Howard County | 2.2 | Yes |

| Affected Community (AC) | % Households with No Internet | Limited Internet Access Population? |
|---|-------------------------------|-------------------------------------|
| Census Tract 102.01, Block Group 3, Taylor Township, Howard County | 5.7 | Yes |
| Census Tract 102.02, Block Group 1, Howard Township, Howard County | 16.7 | Yes |
| Census Tract 102.02, Block Group 2, Howard Township, Howard County | 16.6 | Yes |
| Census Tract 103, Block Group 1, Clay Township, Howard County | 4.1 | Yes |
| Census Tract 103, Block Group 2, Clay Township, Howard County | 18.6 | Yes |
| Census Tract 103, Block Group 3, Clay Township, Howard County | 2.2 | Yes |
| Census Tract 104, Block Group 1, Ervin Township, Howard County | 4.5 | Yes |
| Census Tract 105, Block Group 3, Harrison Township, Howard County | 9.2 | Yes |
| Census Tract 106, Block Group 1, Harrison Township, Howard County | 15.8 | Yes |
| Census Tract 106, Block Group 2, Harrison Township, Howard County | 8.0 | Yes |
| Census Tract 106, Block Group 3, Harrison Township, Howard County | 3.7 | Yes |
| Census Tract 9520, Block Group 3, Union Township, Miami County | 19.9 | Yes |
| Census Tract 9520, Block Group 4, Union Township, Miami County | 17.9 | Yes |
| Census Tract 9520, Block Group 5, Richland Township, Miami County | 21.7 | Yes |
| Census Tract 9521, Block Group 1, Erie Township, Miami County | 23.8 | Yes |
| Census Tract 9521, Block Group 2, Jefferson Township, Miami County | 25.6 | Yes |
| Census Tract 9521, Block Group 3, Jefferson Township, Miami County | 13.7 | Yes |
| Census Tract 9521, Block Group 4, Peru Township, Miami County | 16.3 | Yes |
| Census Tract 9522, Block Group 1, Peru Township, Miami County | 17.6 | Yes |
| Census Tract 9522, Block Group 2, Peru Township, Miami County | 20.2 | Yes |
| Census Tract 9522, Block Group 3, Peru Township, Miami County | 40.5 | Yes |
| Census Tract 9522, Block Group 4, Peru Township, Miami County | 26.2 | Yes |
| Census Tract 9523, Block Group 1, Peru Township, Miami County | 10.1 | Yes |
| Census Tract 9523, Block Group 2, Peru Township, Miami County | 20.4 | Yes |
| Census Tract 9523, Block Group 3, Peru Township, Miami County | 14.7 | Yes |
| Census Tract 9524, Block Group 1, Peru Township, Miami County | 14.7 | Yes |
| Census Tract 9524, Block Group 2, Peru Township, Miami County | 28.1 | Yes |
| Census Tract 9524, Block Group 3, Peru Township, Miami County | 4.1 | Yes |
| Census Tract 9524, Block Group 4, Peru Township, Miami County | 10.7 | Yes |
| Census Tract 9525, Block Group 1, Washington Township, Miami County | 22.9 | Yes |
| Census Tract 9525, Block Group 2, Washington Township, Miami County | 33.3 | Yes |
| Census Tract 9525, Block Group 3, Washington Township, Miami County | 19.9 | Yes |
| Census Tract 9527, Block Group 1, Washington Township, Miami County | 9.9 | Yes |
| Census Tract 9527, Block Group 2, Pipe Creek Township, Miami County | 24.9 | Yes |
| Census Tract 9527, Block Group 3, Clay Township, Miami County | 12.9 | Yes |
| Census Tract 9527, Block Group 4, Clay Township, Miami County | 33.9 | Yes |
| Census Tract 9527, Block Group 5, Deer Creek Township, Miami County | 5.8 | Yes |
| Census Tract 9528, Block Group 1, Pipe Creek Township, Miami County | 11.4 | Yes |
| Census Tract 9528, Block Group 2, Pipe Creek Township, Miami County | 6.2 | Yes |
| Census Tract 9528, Block Group 3, Pipe Creek Township, Miami County | 28.6 | Yes |
| Census Tract 9529, Block Group 1, Pipe Creek Township, Miami County | 7.3 | Yes |
| Census Tract 202, Block Group 1, Liberty Township, Tipton County | 27.6 | Yes |
| Census Tract 202, Block Group 2, Liberty Township, Tipton County | 14.4 | Yes |
| Census Tract 202, Block Group 3, Prairie Township, Tipton County | 18.0 | Yes |
| Census Tract 202, Block Group 4, Prairie Township, Tipton County | 12.0 | Yes |
| Census Tract 203, Block Group 1, Jefferson Township, Tipton County | 11.5 | Yes |
| Census Tract 203, Block Group 2, Jefferson Township, Tipton County | 21.2 | Yes |
| Census Tract 203, Block Group 3, Cicero Township, Tipton County | 3.2 | Yes |
| Census Tract 204.01, Block Group 1, Cicero Township, Tipton County | 20.5 | Yes |
| Census Tract 204.01, Block Group 2, Cicero Township, Tipton County | 0.0 | No |
| Census Tract 204.01, Block Group 3, Cicero Township, Tipton County | 19.4 | Yes |
| Census Tract 204.01, Block Group 4, Cicero Township, Tipton County | 17.6 | Yes |
| Census Tract 204.01, Block Group 5, Cicero Township, Tipton County | 5.7 | Yes |
| Census Tract 204.02, Block Group 1, Cicero Township, Tipton County | 1.6 | Yes |
| Census Tract 204.02, Block Group 2, Cicero Township, Tipton County | 9.9 | Yes |



US 31 South

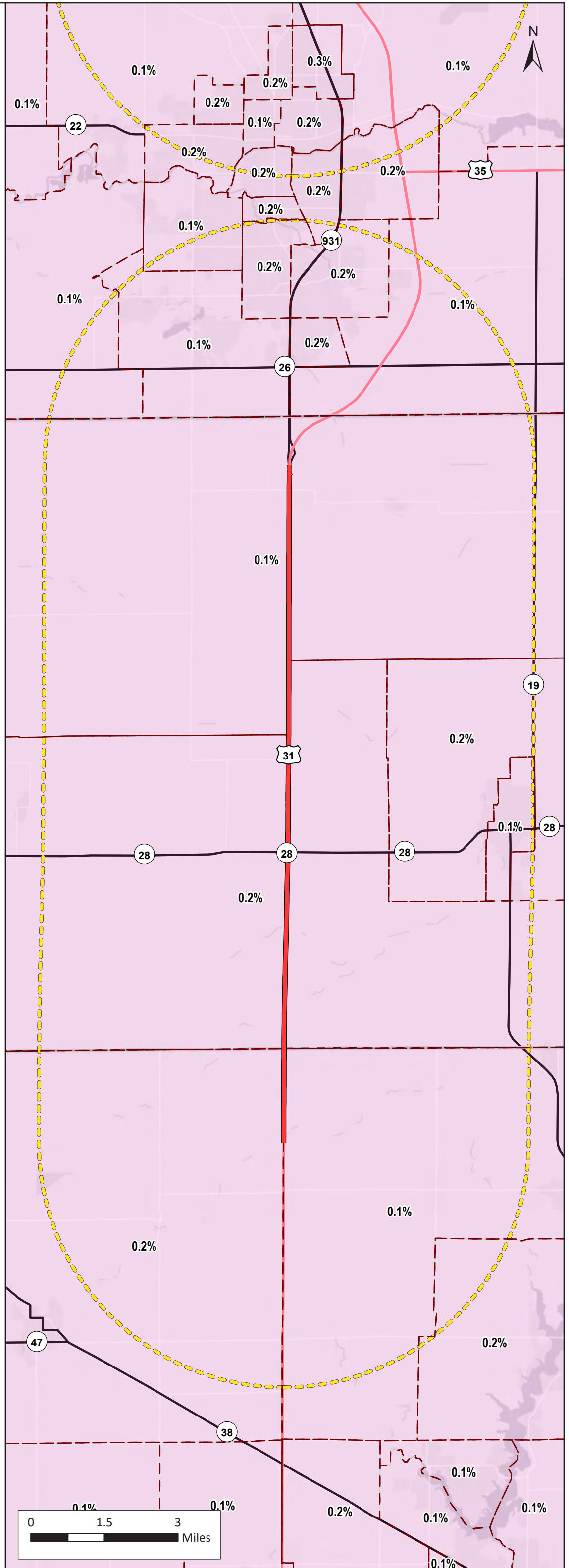
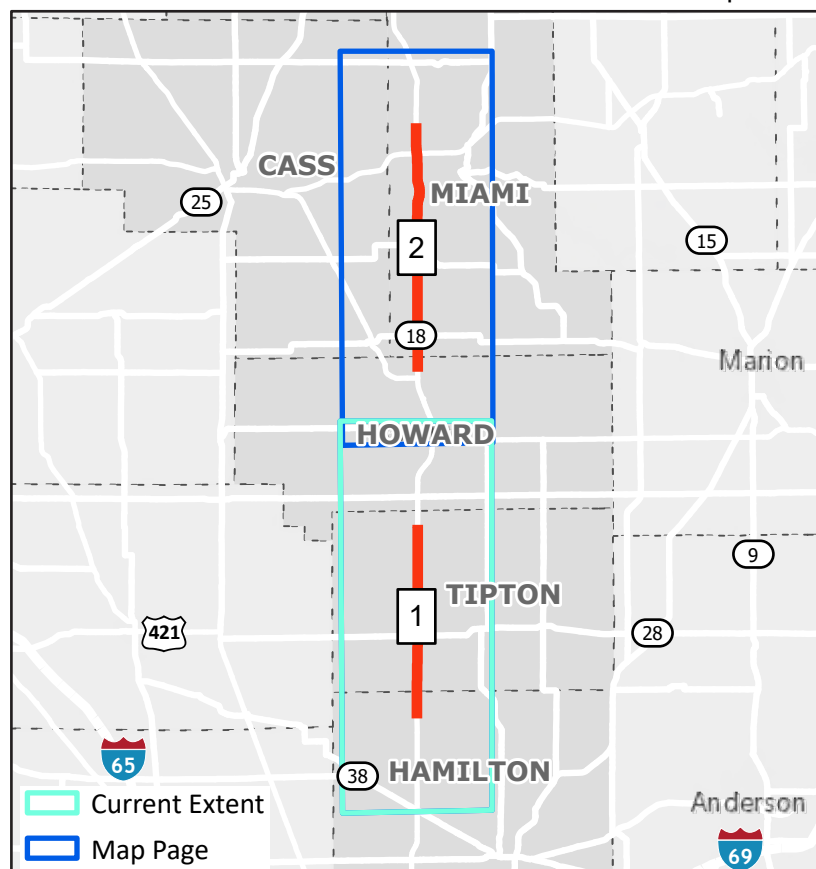
Underserved Population: Population with a Disability

Study Area Census Tracts

- Population with a Disability
- US 31 South Study Limits
- 2020 Census Tract Boundary
- 5-Mile Radius
- County Boundary
- State Road
- US Route
- Map Page

Data Source: USCB American Community Survey (ACS) 2016-2020 census tract data for code B18101

Map 1 of 2





US 31 South

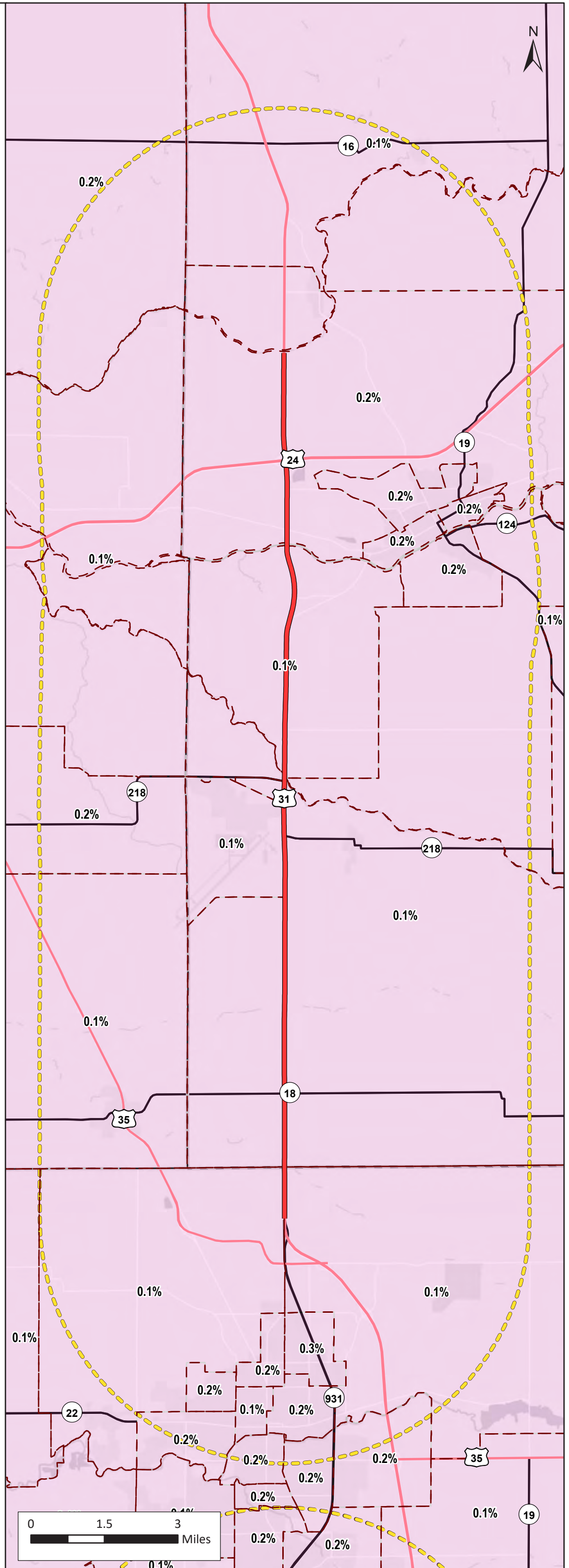
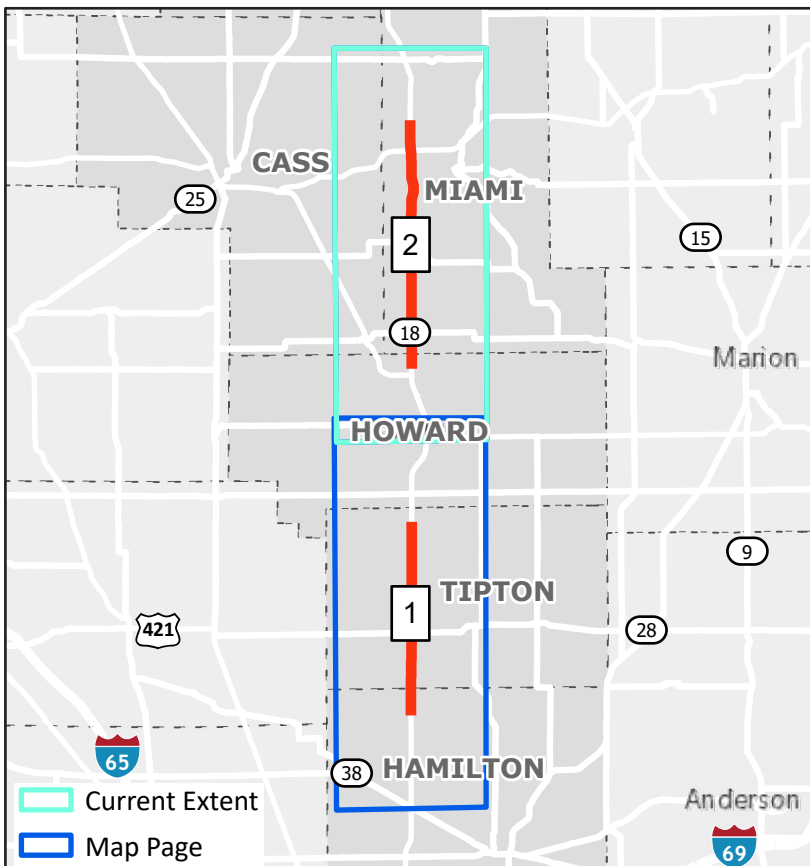
Underserved Population: Population with a Disability

Study Area Census Tracts

- Population with a Disability
- US 31 South Study Limits
- 2020 Census Tract Boundary
- 5-Mile Radius
- County Boundary
- State Road
- US Route
- Map Page

Data Source: USCB American Community Survey (ACS) 2016-2020 census tract data for code B18101

Map 2 of 2



| Census Tract | % NonInstitutionalized Population with a Disability |
|---------------------------------------|--|
| Census Tract 9509, Cass County | 0.16 |
| Census Tract 9517, Cass County | 0.07 |
| Census Tract 9518, Cass County | 0.18 |
| Census Tract 9519, Cass County | 0.14 |
| Census Tract 1102.01, Hamilton County | 0.13 |
| Census Tract 1102.02, Hamilton County | 0.17 |
| Census Tract 1103.03, Hamilton County | 0.15 |
| Census Tract 2, Howard County | 0.18 |
| Census Tract 3, Howard County | 0.31 |
| Census Tract 4, Howard County | 0.21 |
| Census Tract 5, Howard County | 0.15 |
| Census Tract 6, Howard County | 0.23 |
| Census Tract 7, Howard County | 0.23 |
| Census Tract 8, Howard County | 0.15 |
| Census Tract 9, Howard County | 0.20 |
| Census Tract 10, Howard County | 0.19 |
| Census Tract 11, Howard County | 0.19 |
| Census Tract 12, Howard County | 0.24 |
| Census Tract 13, Howard County | 0.17 |
| Census Tract 14, Howard County | 0.18 |
| Census Tract 15, Howard County | 0.16 |
| Census Tract 102.01, Howard County | 0.10 |
| Census Tract 102.02, Howard County | 0.13 |
| Census Tract 103, Howard County | 0.12 |
| Census Tract 104, Howard County | 0.10 |
| Census Tract 105, Howard County | 0.13 |
| Census Tract 106, Howard County | 0.12 |
| Census Tract 9520, Miami County | 0.14 |
| Census Tract 9521, Miami County | 0.17 |
| Census Tract 9522, Miami County | 0.18 |
| Census Tract 9523, Miami County | 0.18 |
| Census Tract 9524, Miami County | 0.22 |
| Census Tract 9525, Miami County | 0.17 |
| Census Tract 9527, Miami County | 0.13 |
| Census Tract 9528, Miami County | 0.13 |
| Census Tract 9529, Miami County | 0.12 |
| Census Tract 202, Tipton County | 0.13 |
| Census Tract 203, Tipton County | 0.15 |
| Census Tract 204.01, Tipton County | 0.13 |
| Census Tract 204.02, Tipton County | 0.25 |

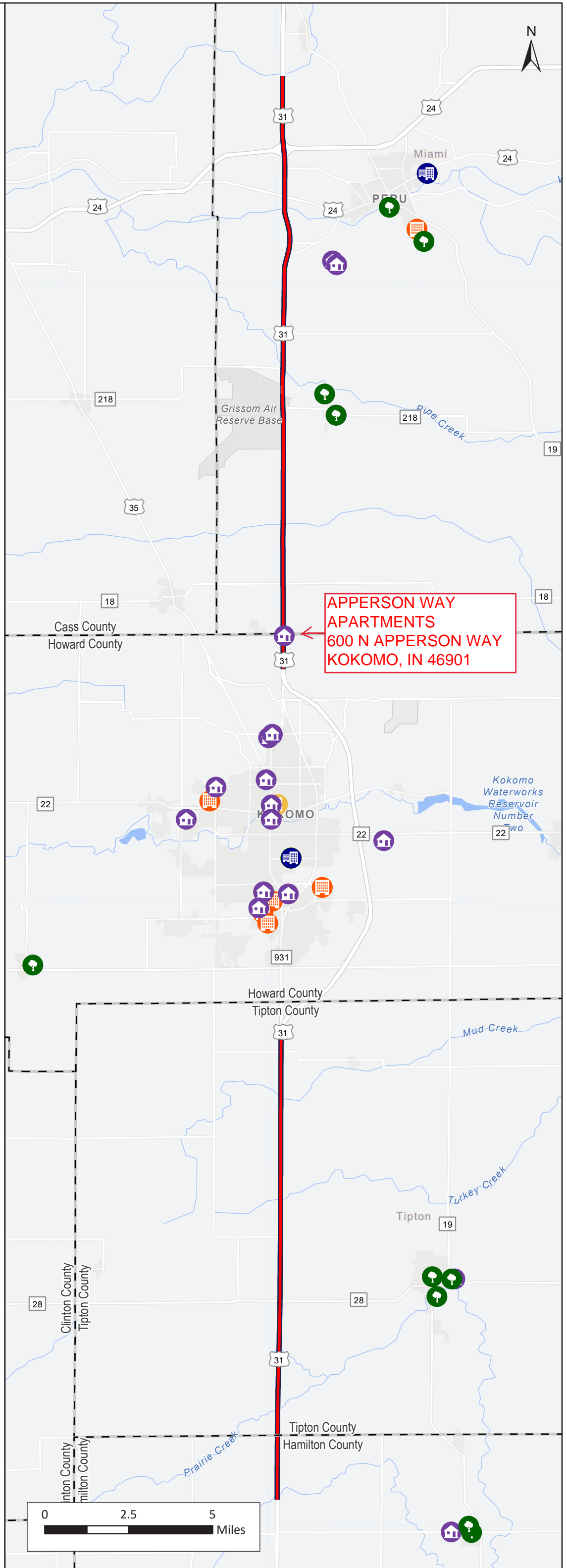
Data Source: USCB American Community Survey (ACS) 2016-2020 census tract data for code B18101



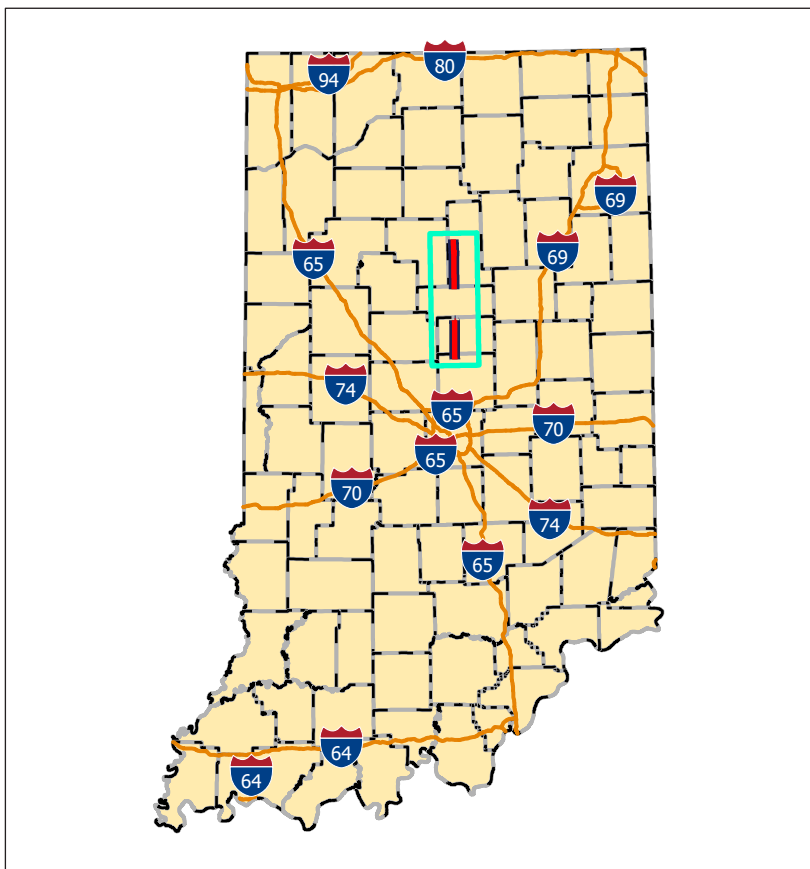
US 31 South

HUD Resource Data

- Public Housing Developments
- Public Housing Buildings
- USDA Rural Housing
- Low Income Housing Tax Credit Properties
- Multifamily Properties - Assisted
- Public Housing Authorities
- US 31 South Study Limits
- County Boundary
- Major Highway
- State of Indiana
- Current Extent



APPERSON WAY APARTMENTS
600 N APPERSON WAY
KOKOMO, IN 46901





US 31 South

Disadvantaged Communities: Climate and Economic Justice Screening Tool

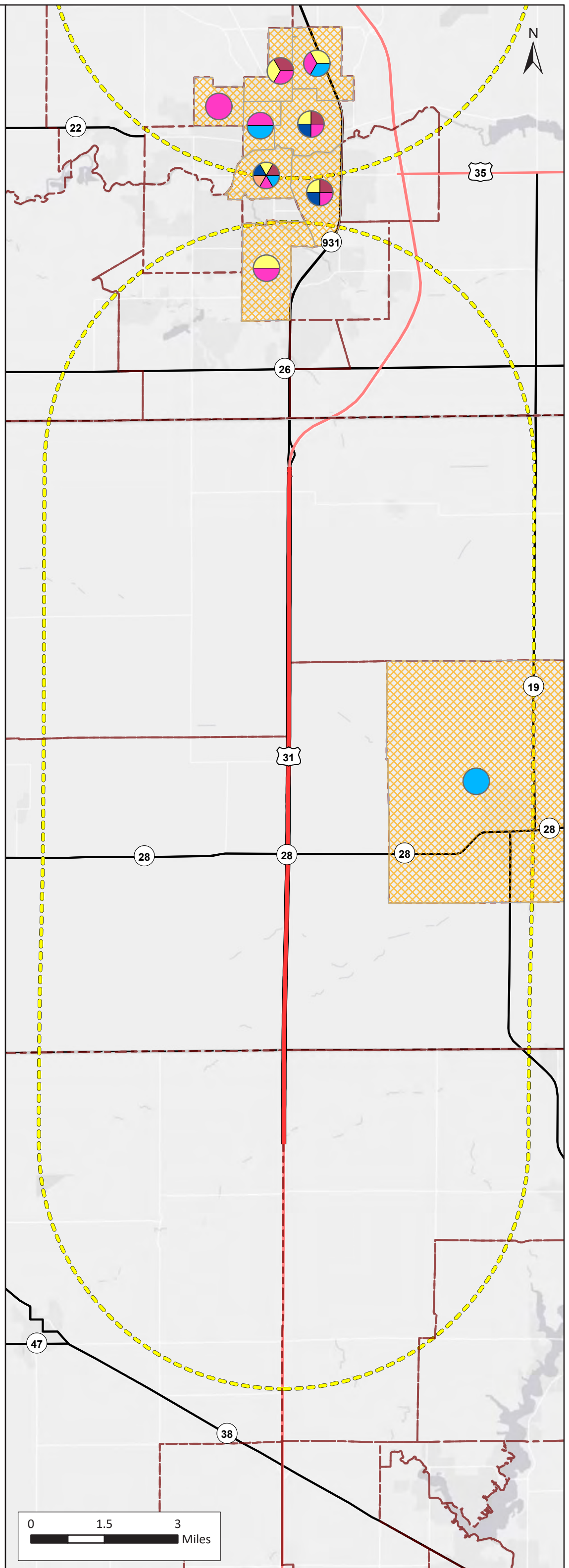
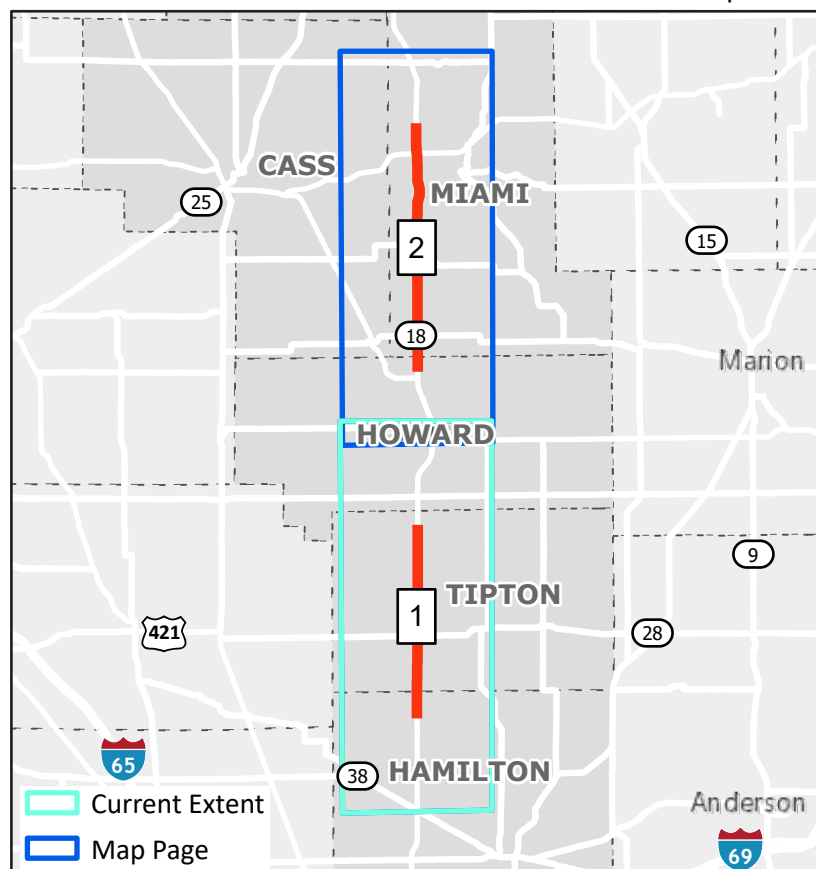
- Census Tract Boundary (2010)
- Disadvantaged Community
- US 31 South Study Limits
- 5-Mile Radius
- County Boundary
- State Road
- US Route

Disadvantaged Community Category

- Training & workforce development
- Health Burdens
- Critical clean water & wastewater infrastructure
- Climate Change
- Remediation & reduction of legacy pollution
- Affordable & sustainable housing
- Clean Transit
- Clean energy & energy efficiency

Data Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool data as of 22 Nov 2022.

Map 1 of 2





US 31 South

Disadvantaged Communities: Climate and Economic Justice Screening Tool

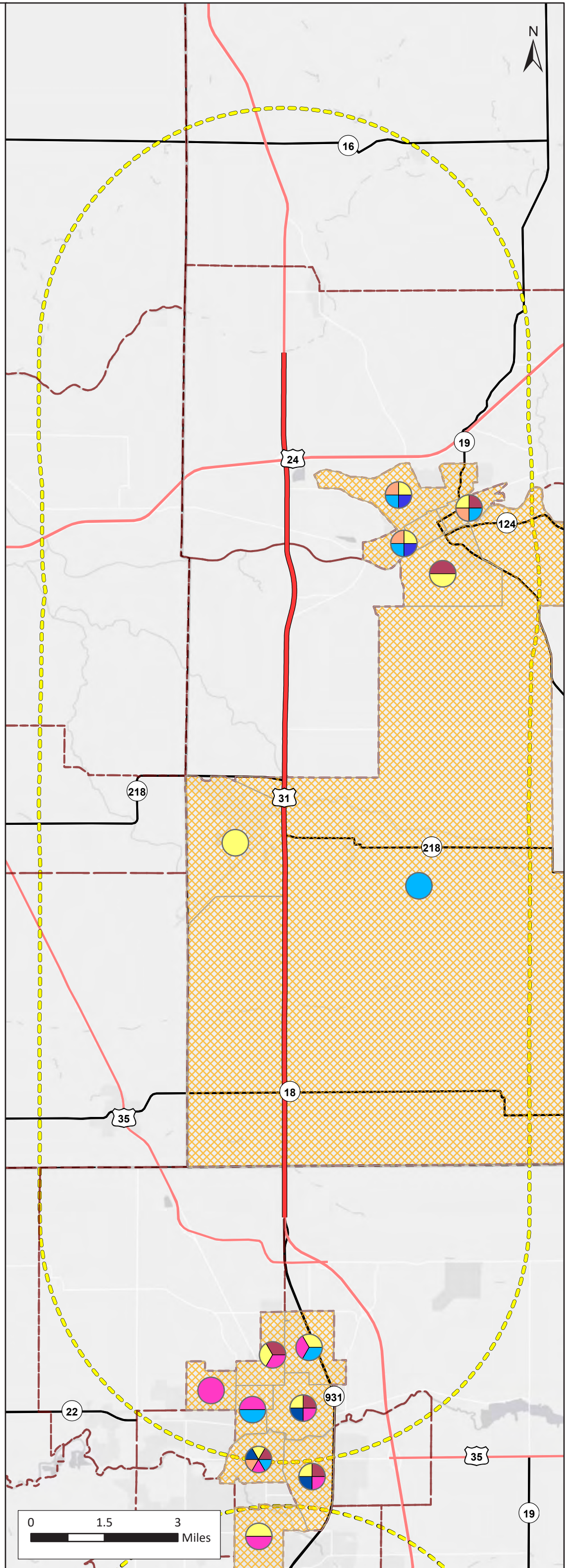
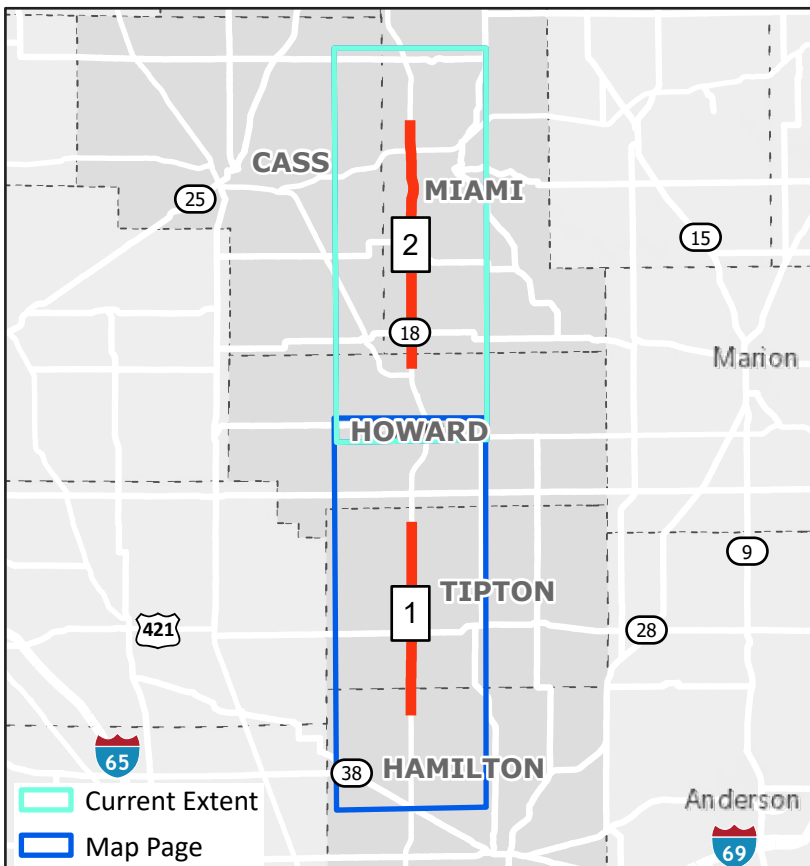
- Census Tract Boundary (2010)
- Disadvantaged Community
- US 31 South Study Limits
- 5-Mile Radius
- County Boundary
- State Road
- US Route

Disadvantaged Community Category

- Training & workforce development
- Health Burdens
- Critical clean water & wastewater infrastructure
- Climate Change
- Remediation & reduction of legacy pollution
- Affordable & sustainable housing
- Clean Transit
- Clean energy & energy efficiency












Data Source: Council on Environmental Quality (CEQ) Climate and Economic Justice Screening Tool data as of 22 Nov 2022.

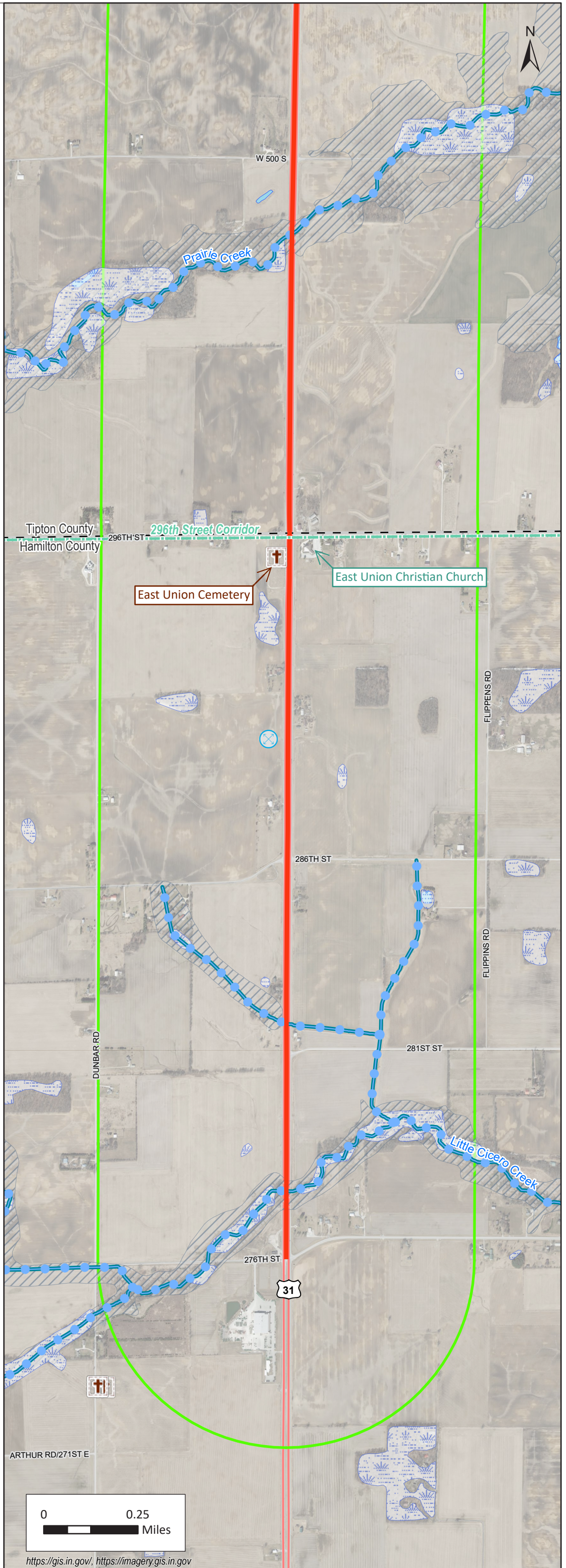
Map 2 of 2



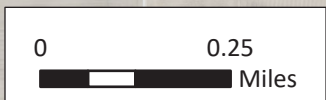
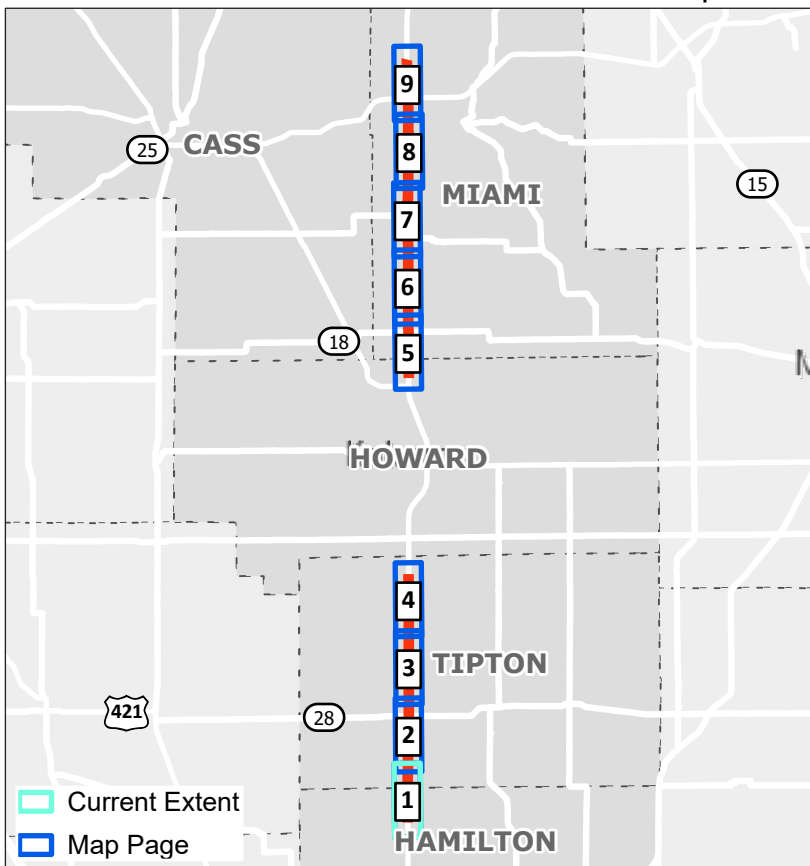
US 31 South

Environmental Constraints

-  US 31 South Study Limits
-  0.5 Mile Radius
-  County Boundary
-  Cemetery
-  Trail
-  Oil/Gas Well
-  Impaired Stream
-  River/Stream
-  Wetland
-  Lake
-  Floodplain - DFIRM














Map 1 of 9

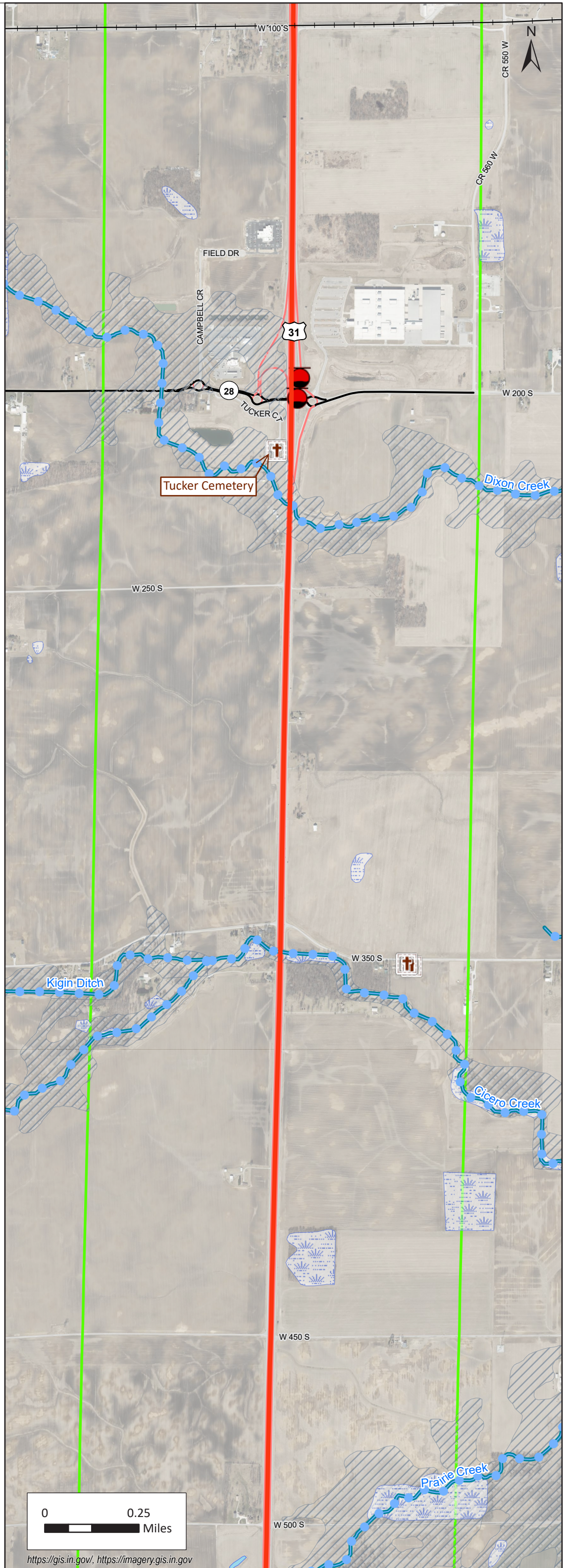


<https://gis.in.gov/>, <https://imagery.gis.in.gov>

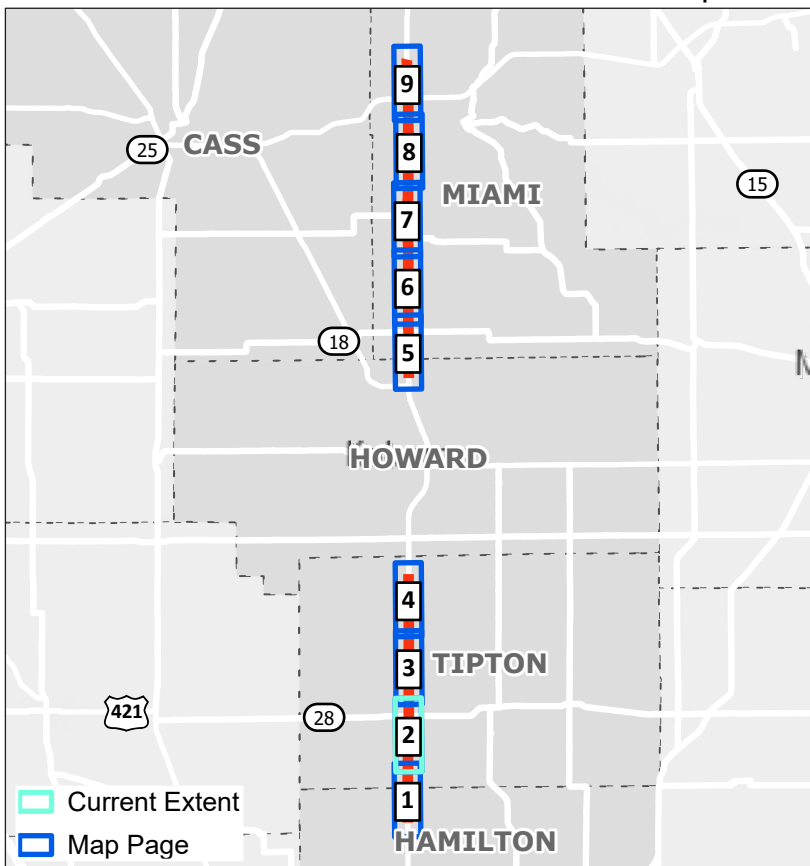
US 31 South

Environmental Constraints

-  US 31 South Study Limits
-  0.5 Mile Radius
-  County Boundary
-  Cemetery
-  Active Railroad
-  Leaking Underground Storage Tank
-  Impaired Stream
-  River/Stream
-  Wetland
-  Lake
-  Floodplain - DFIRM



Map 2 of 9

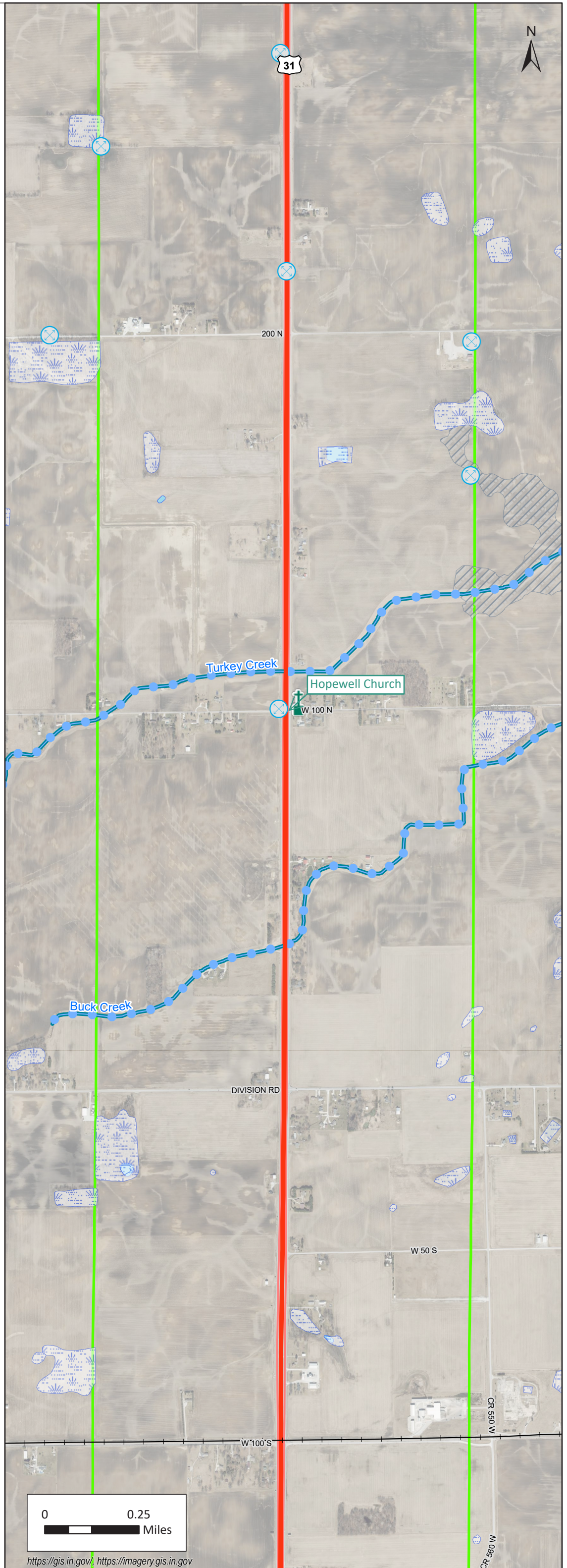




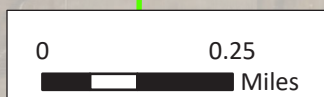
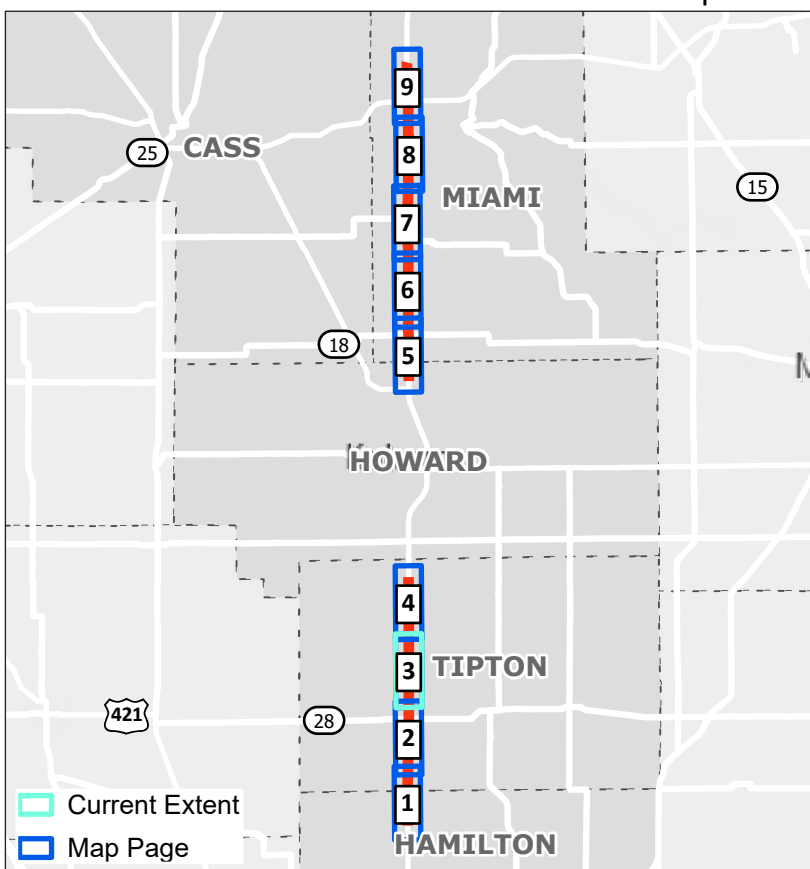
US 31 South

Environmental Constraints

- US 31 South Study Limits
- 0.5 Mile Radius
- County Boundary
- Religious Facility
- Active Railroad
- Oil/Gas Well
- Impaired Stream
- River/Stream
- Wetland
- Lake
- Floodplain - DFIRM















Map 3 of 9

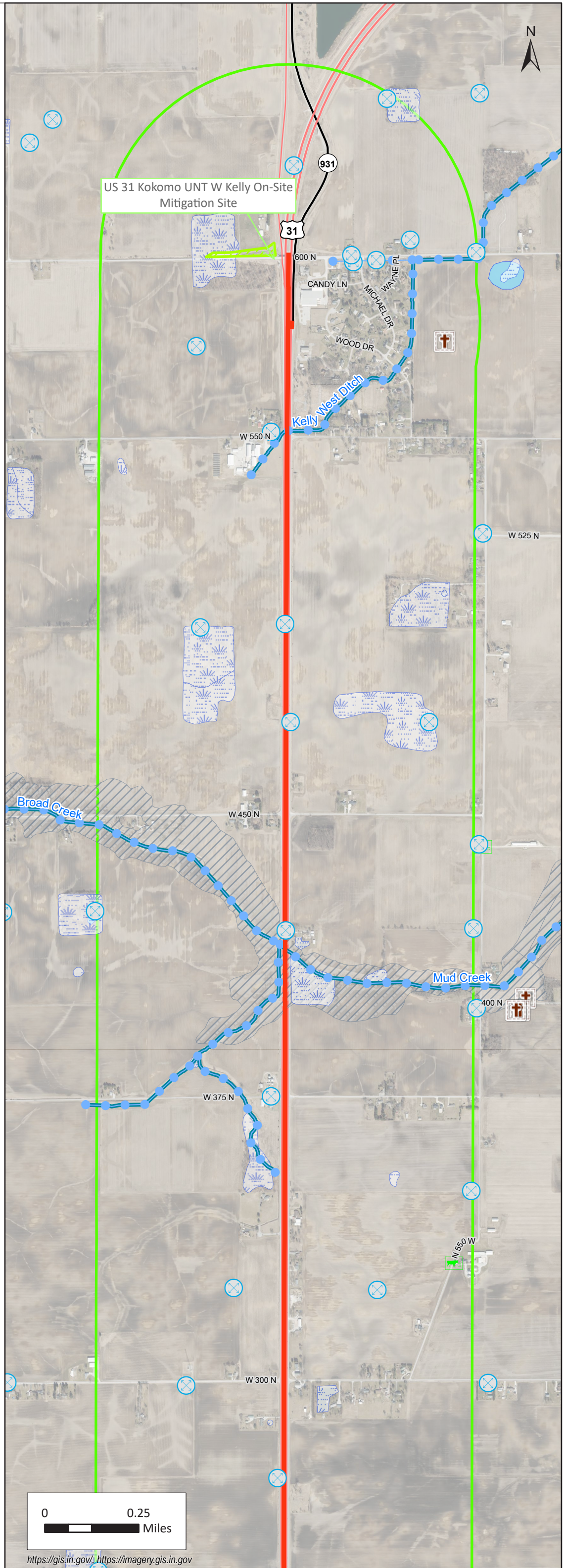


<https://gis.in.gov/>, <https://imagery.gis.in.gov>

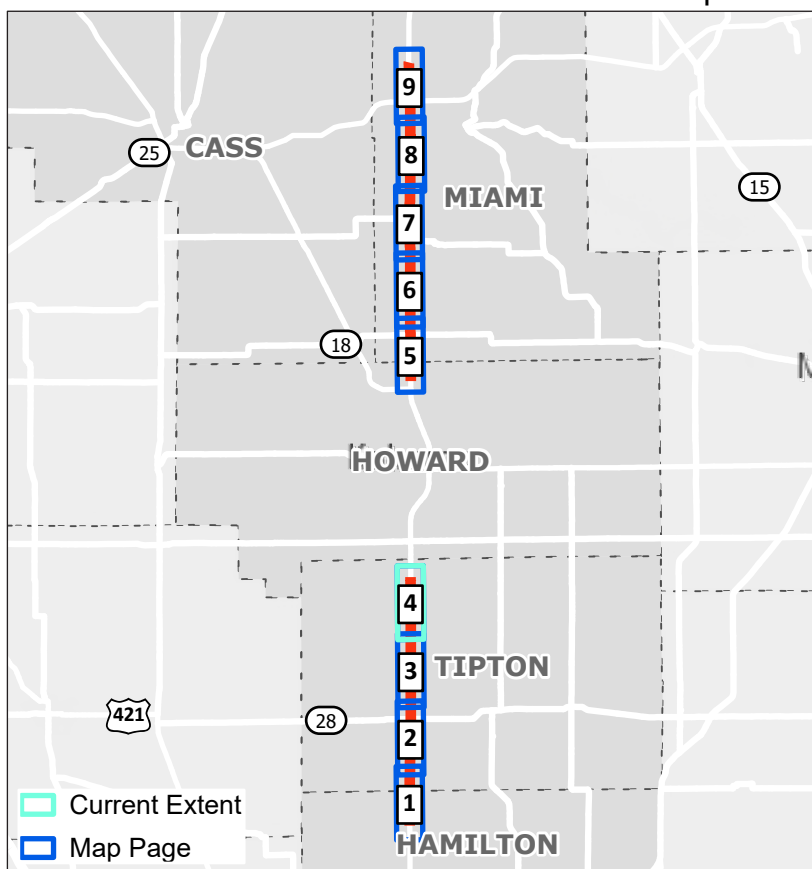
US 31 South

Environmental Constraints

-  US 31 South Study Limits
-  0.5 Mile Radius
-  County Boundary
-  Environmental Mitigation Site
-  Cemetery
-  Oil/Gas Well
-  Confined Feeding Operation
-  Impaired Stream
-  River/Stream
-  Wetland
-  Lake
-  Floodplain - DFIRM




















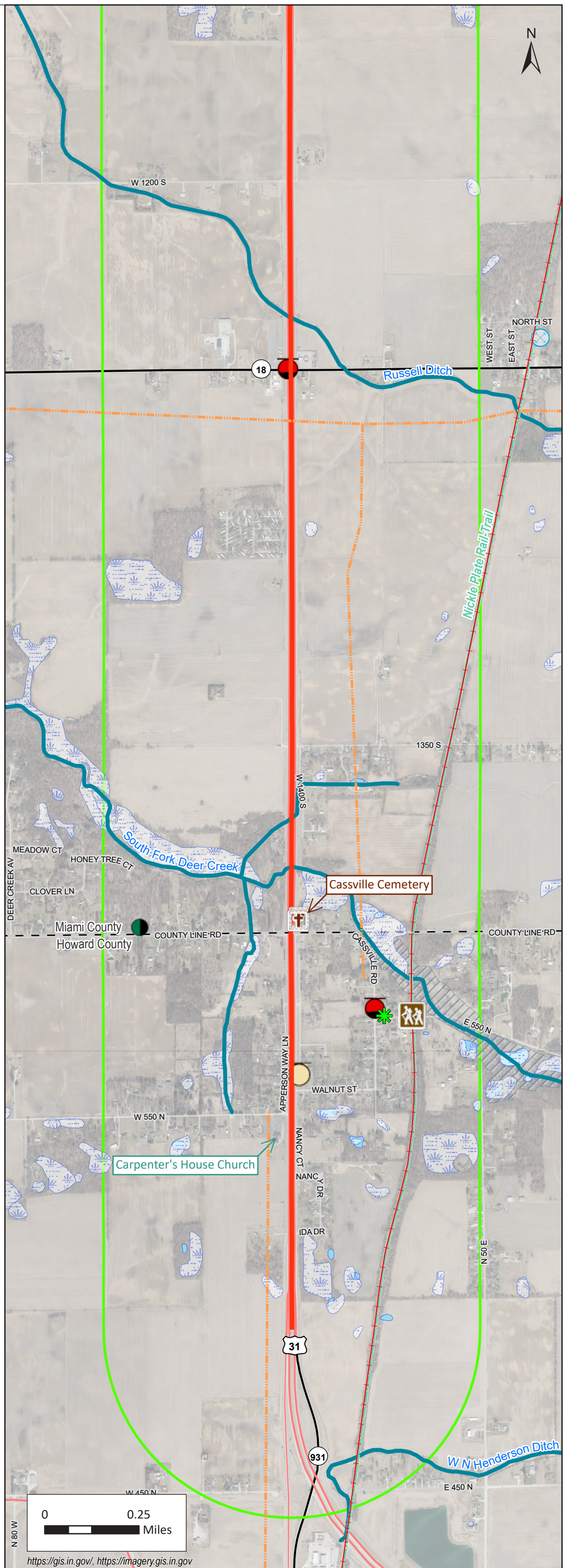
Map 4 of 9



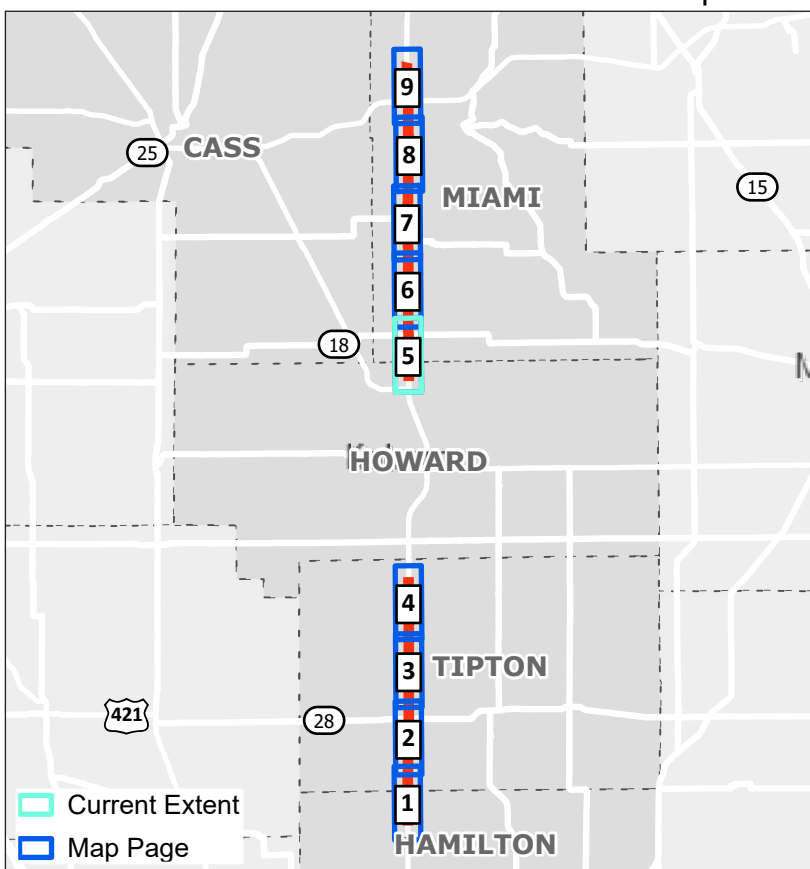
US 31 South

Environmental Constraints

-  US 31 South Study Limits
-  0.5 Mile Radius
-  County Boundary
-  Cemetery
-  Recreation Facility
-  Pipeline
-  Abandoned Railroad
-  Trail
-  Oil/Gas Well
-  Brownfield Site
-  Underground Storage Tank
-  Leaking Underground Storage Tank
-  Open Dump Waste Site
-  River/Stream
-  Wetland
-  Lake
-  Floodplain - DFIRM












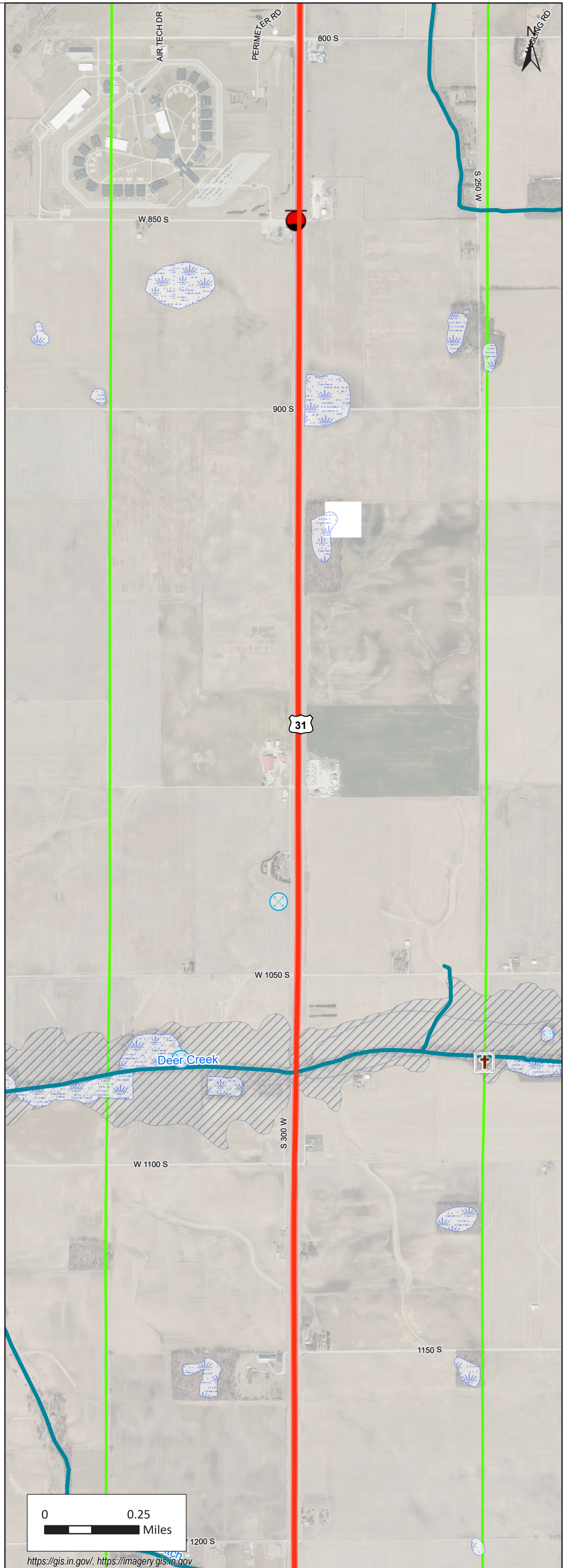
Map 5 of 9



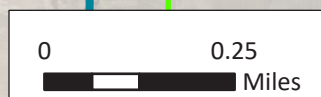
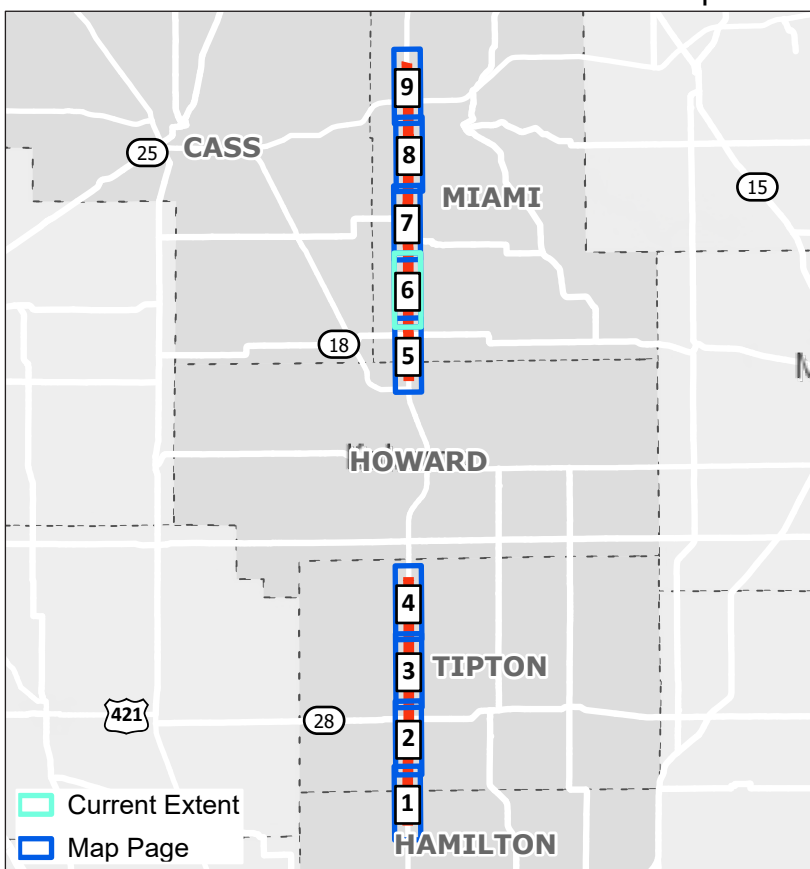
US 31 South

Environmental Constraints

-  US 31 South Study Limits
-  0.5 Mile Radius
-  County Boundary
-  Oil/Gas Well
-  Leaking Underground Storage Tank
-  River/Stream
-  Wetland
-  Lake
-  Floodplain - DFIRM




Map 6 of 9

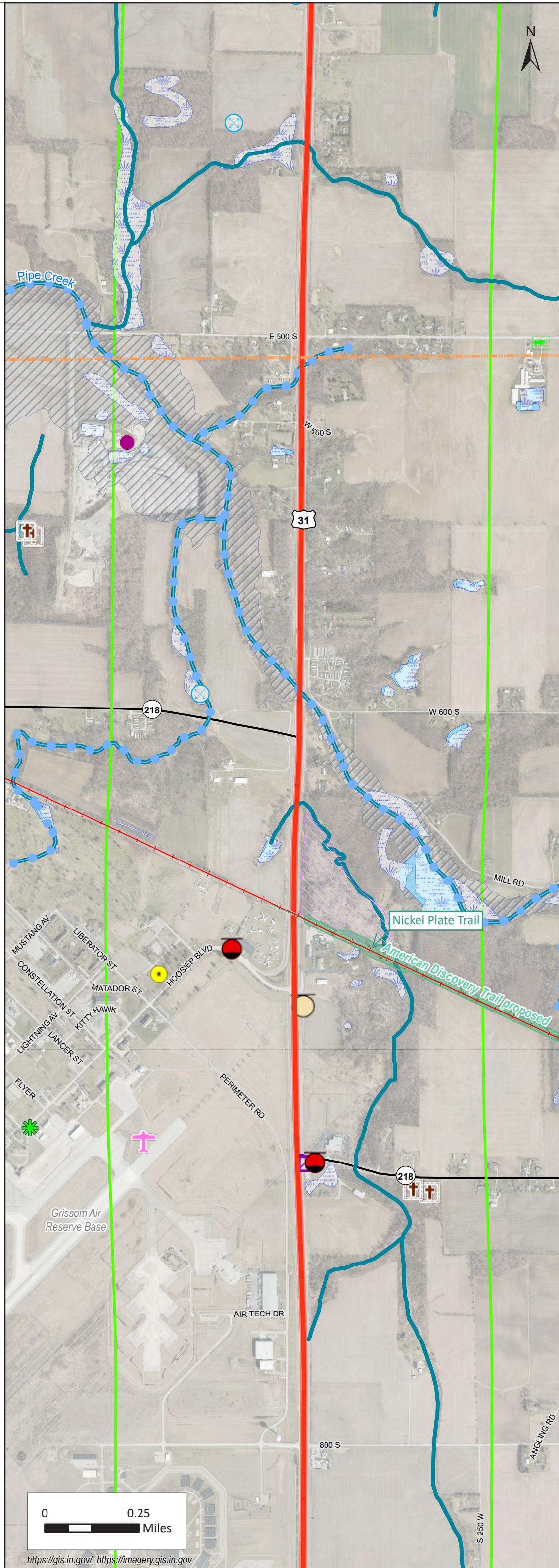


<https://gis.in.gov/>, <https://imagery.gis.in.gov>

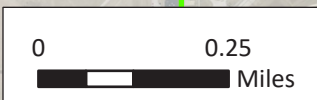
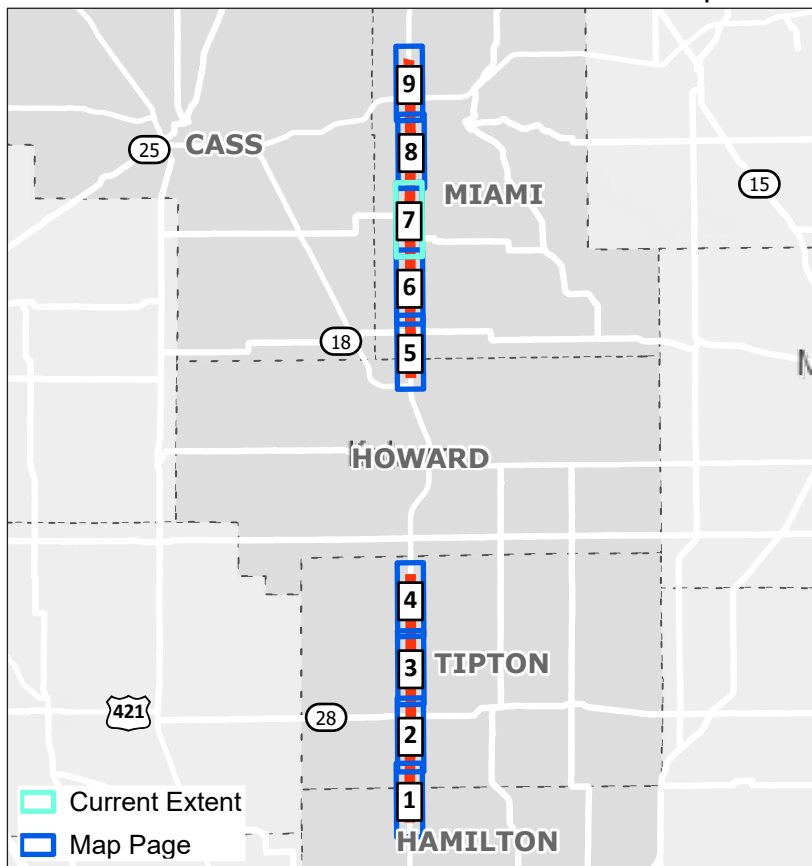
US 31 South

Environmental Constraints

-  US 31 South Study Limits
-  0.5 Mile Radius
-  County Boundary
-  Airport
-  Cemetery
-  Pipeline
-  Abandoned Railroad
-  Trail
-  Managed Lands
-  Oil/Gas Well
-  Mineral Resources
-  Confined Feeding Operation
-  Institutional Control Site
-  Brownfield Site
-  Superfund Site
-  Underground Storage Tank
-  Leaking Underground Storage Tank
-  Landfill Boundaries
-  Impaired Stream
-  River/Stream
-  Wetland
-  Lake
-  Floodplain - DFIRM



Map 7 of 9



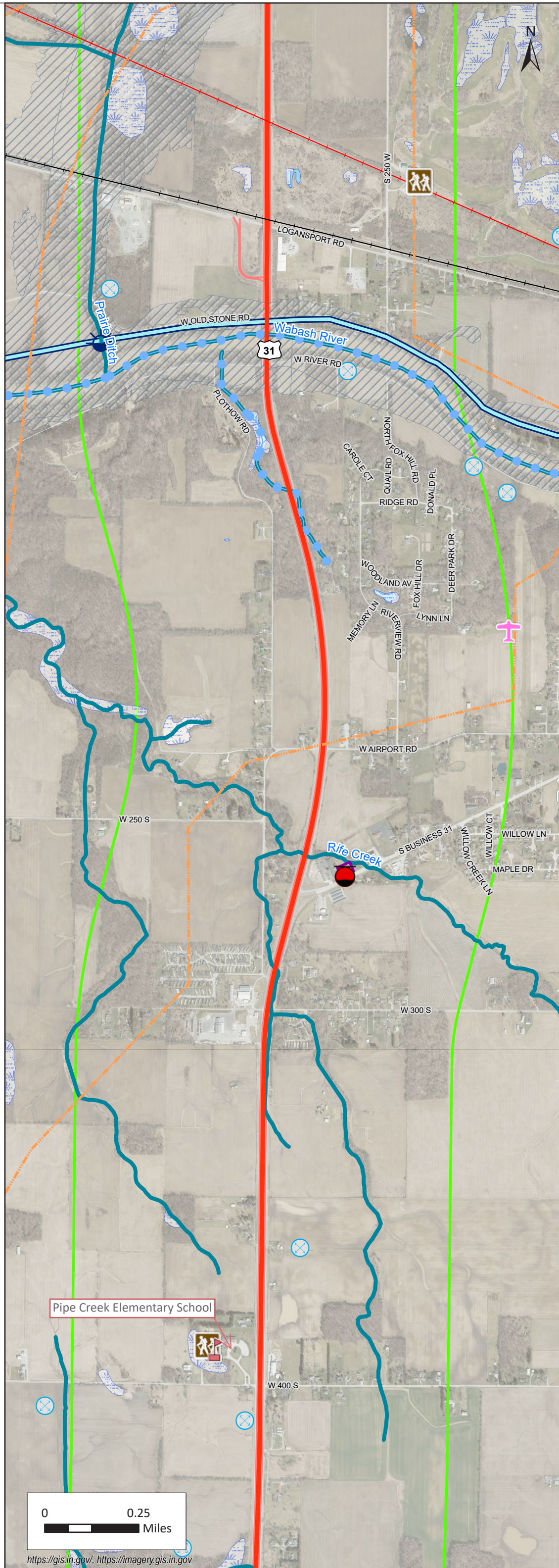
<https://gis.in.gov/>, <https://imagery.gis.in.gov>



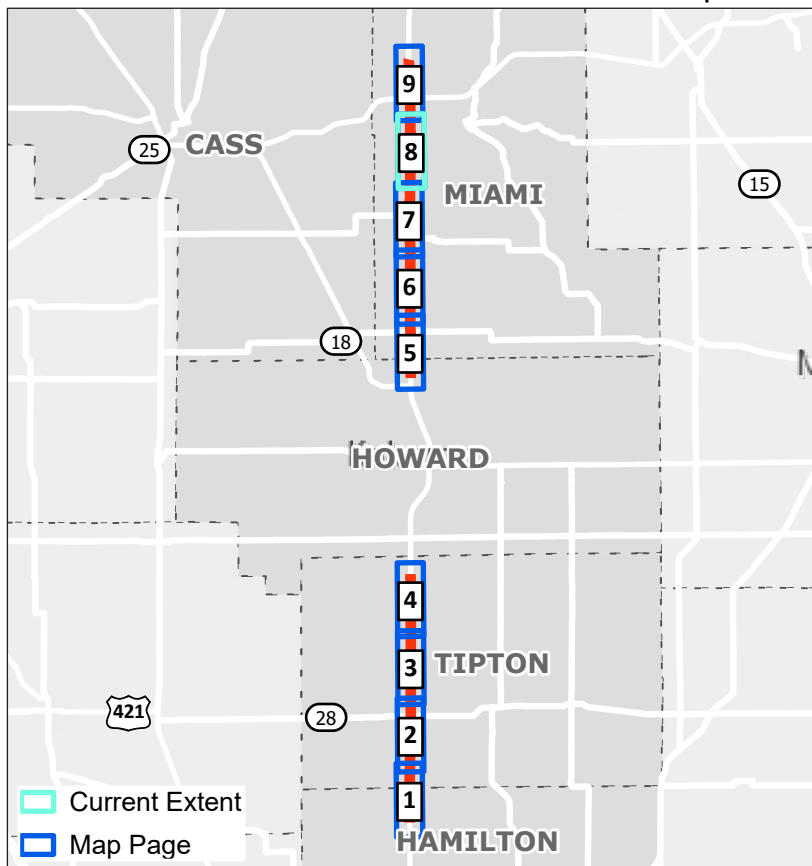
US 31 South

Environmental Constraints

- US 31 South Study Limits
- 0.5 Mile Radius
- County Boundary
- Airport
- Religious Facility
- School
- Recreation Facility
- Pipeline
- Active Railroad
- Abandoned Railroad
- Oil/Gas Well
- Institutional Control Site
- Leaking Underground Storage Tank
- Canal Structure - Historic
- Impaired Stream
- River/Stream
- Canal Route - Historic
- Wetland
- Lake
- Floodplain - DFIRM



Map 8 of 9

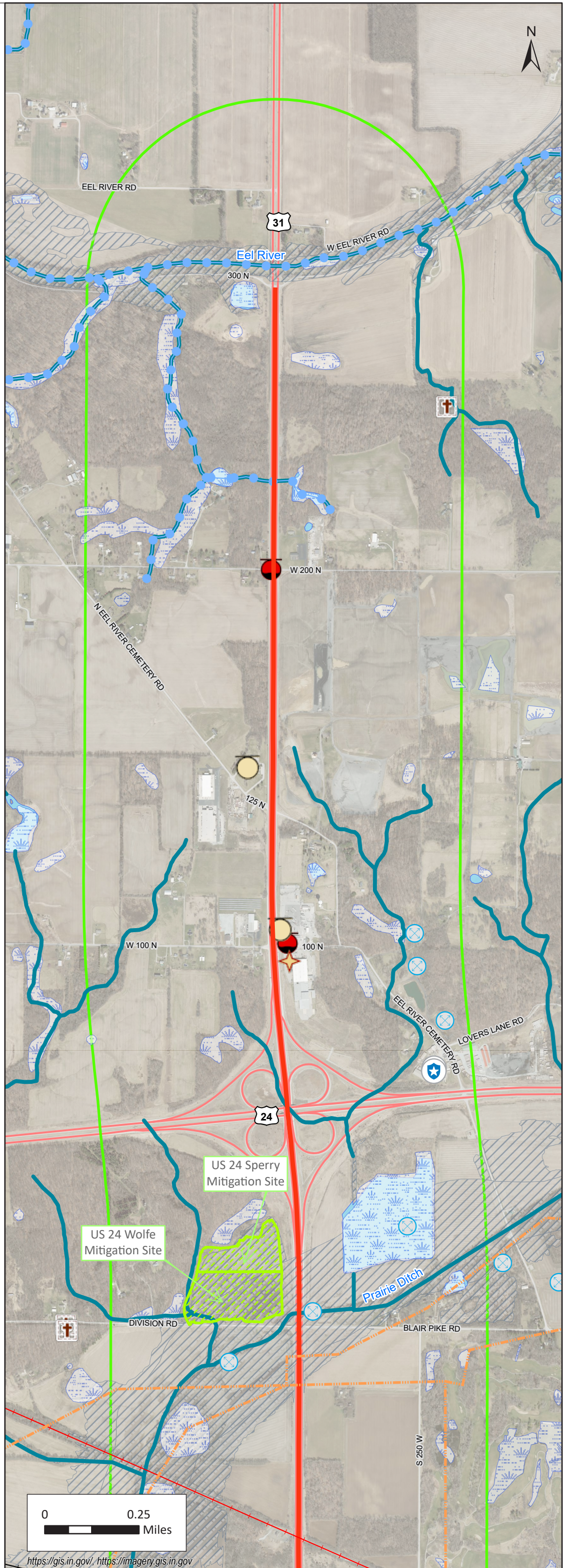




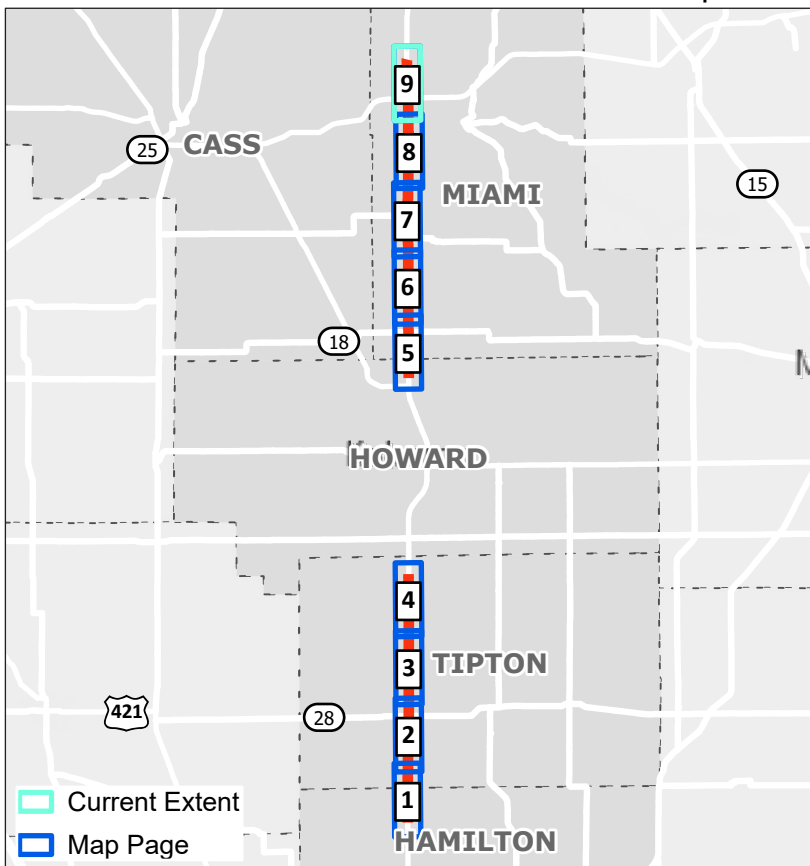
US 31 South

Environmental Constraints

- US 31 South Study Limits
- 0.5 Mile Radius
- County Boundary
- Environmental Mitigation Site
- Cemetery
- Pipeline
- Active Railroad
- Abandoned Railroad
- Oil/Gas Well
- Police Station
- RCRA Generator/TSD
- Underground Storage Tank
- Leaking Underground Storage Tank
- Impaired Stream
- River/Stream
- Wetland
- Lake
- Floodplain - DFIRM



Map 9 of 9

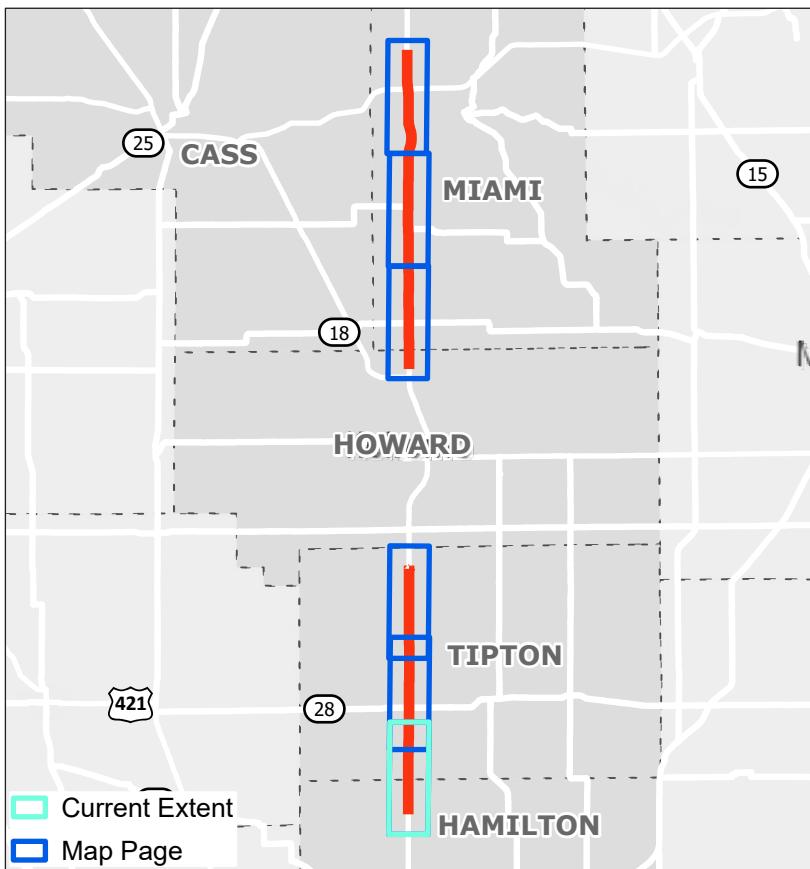
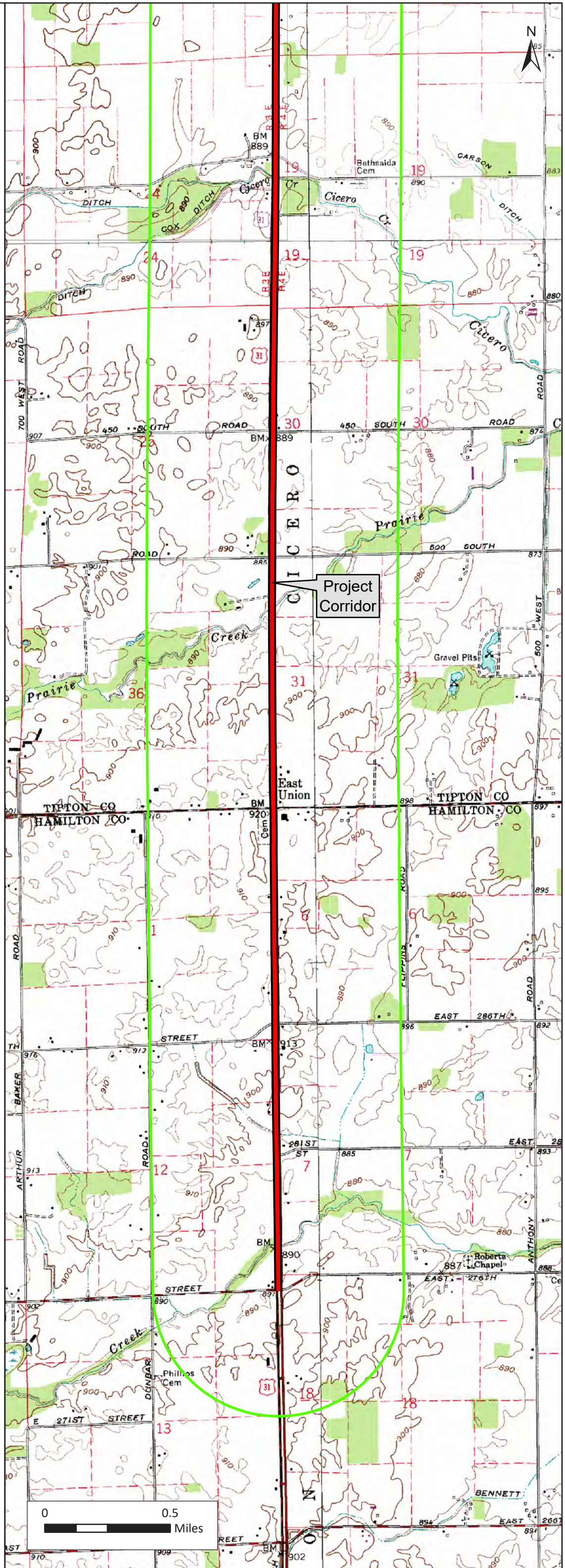




US 31 South

USGS (1:24,000)
Topographic Map

- 0.5 Mile Radius
- US 31 South Study Limits



- Current Extent
- Map Page

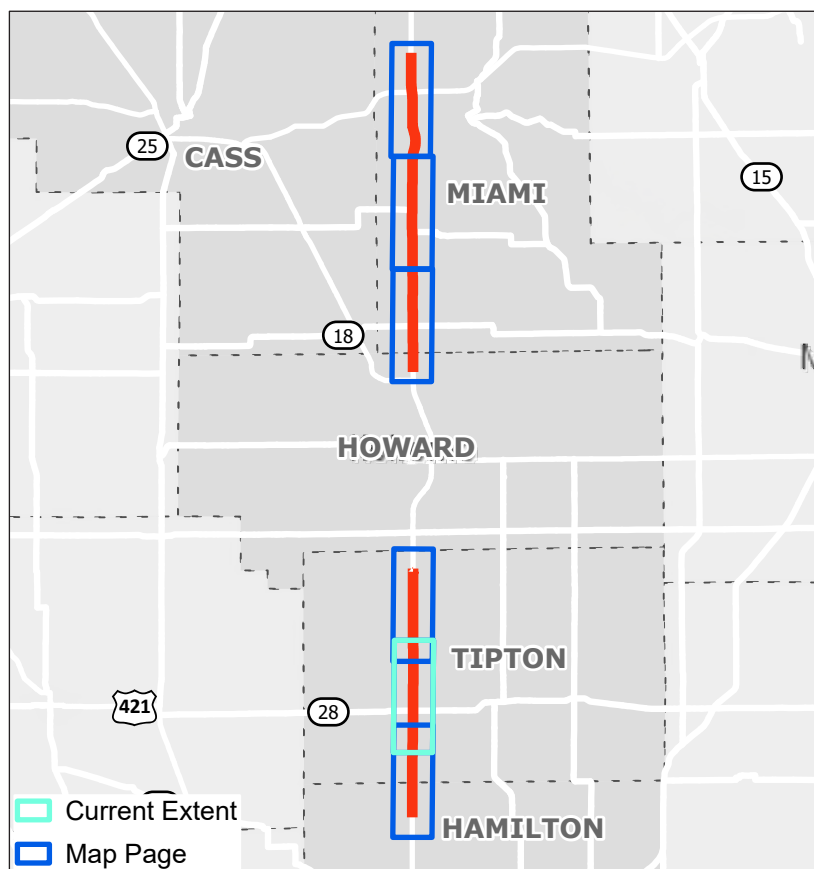
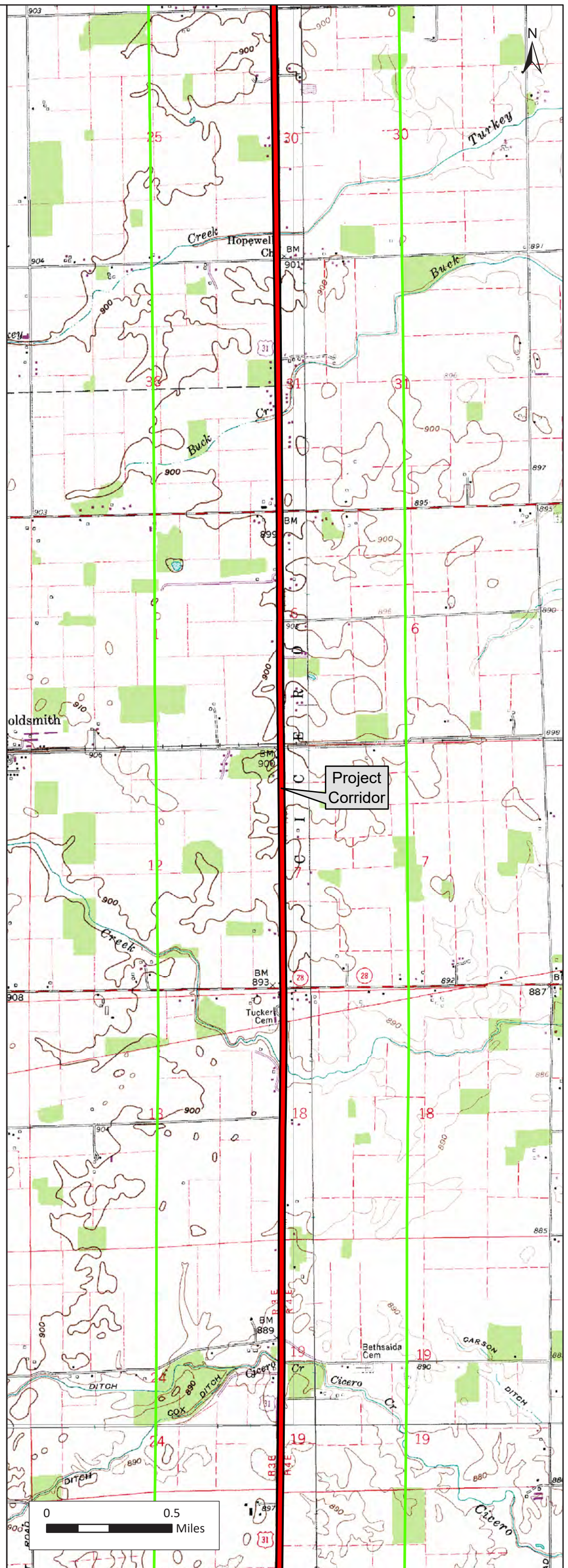




US 31 South

USGS (1:24,000)
Topographic Map

- 0.5 Mile Radius
- US 31 South Study Limits

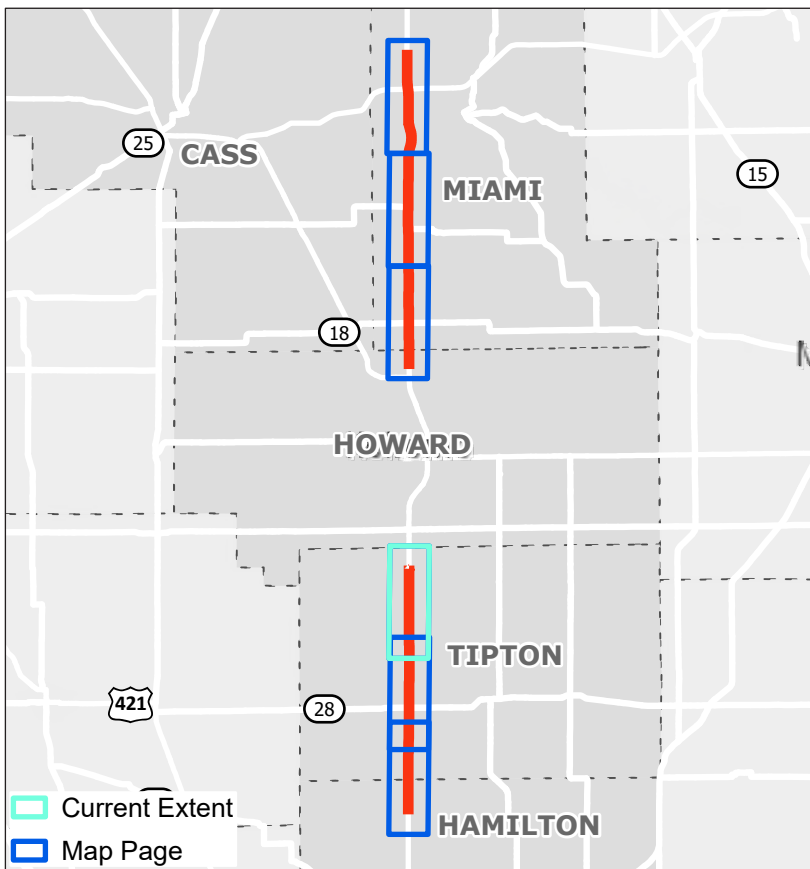
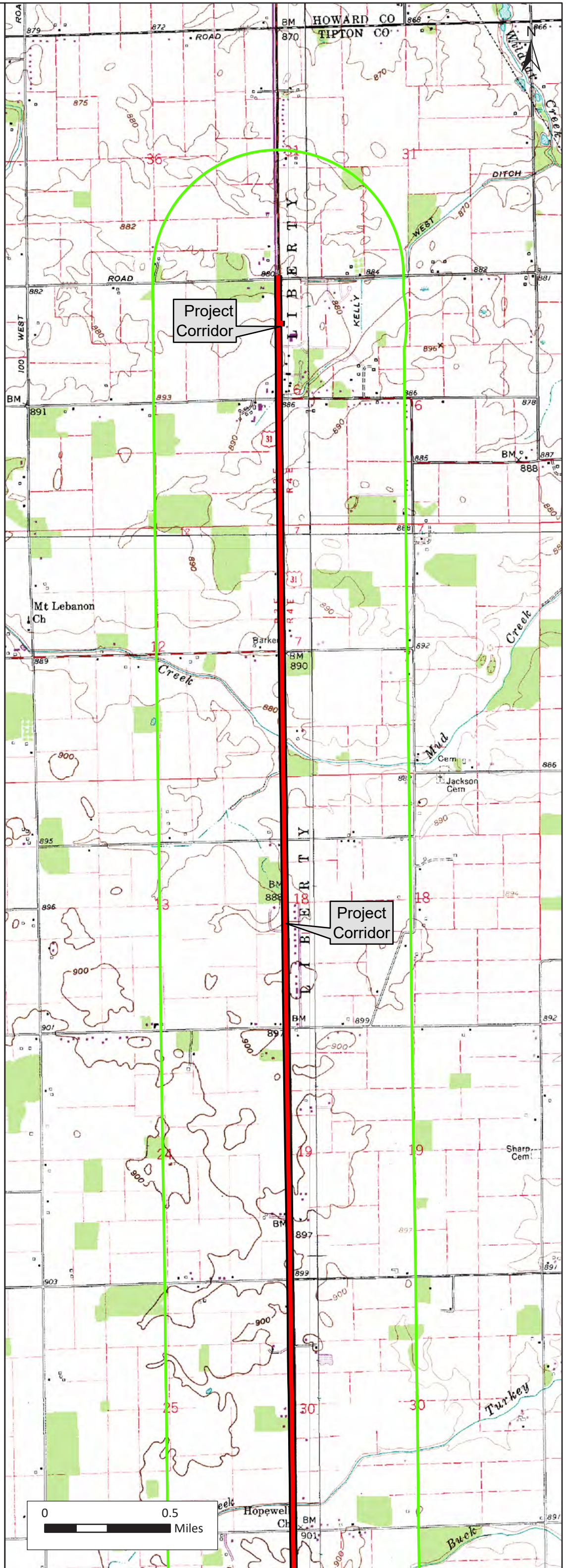




US 31 South

USGS (1:24,000)
Topographic Map

- ▭ 0.5 Mile Radius
- ▭ US 31 South Study Limits

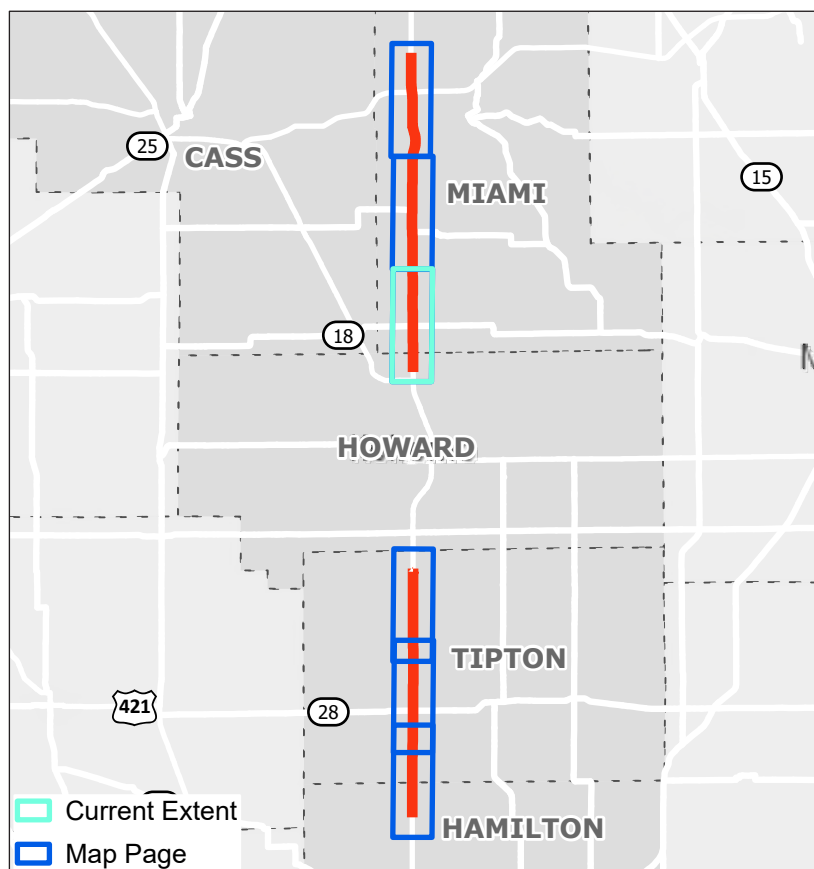
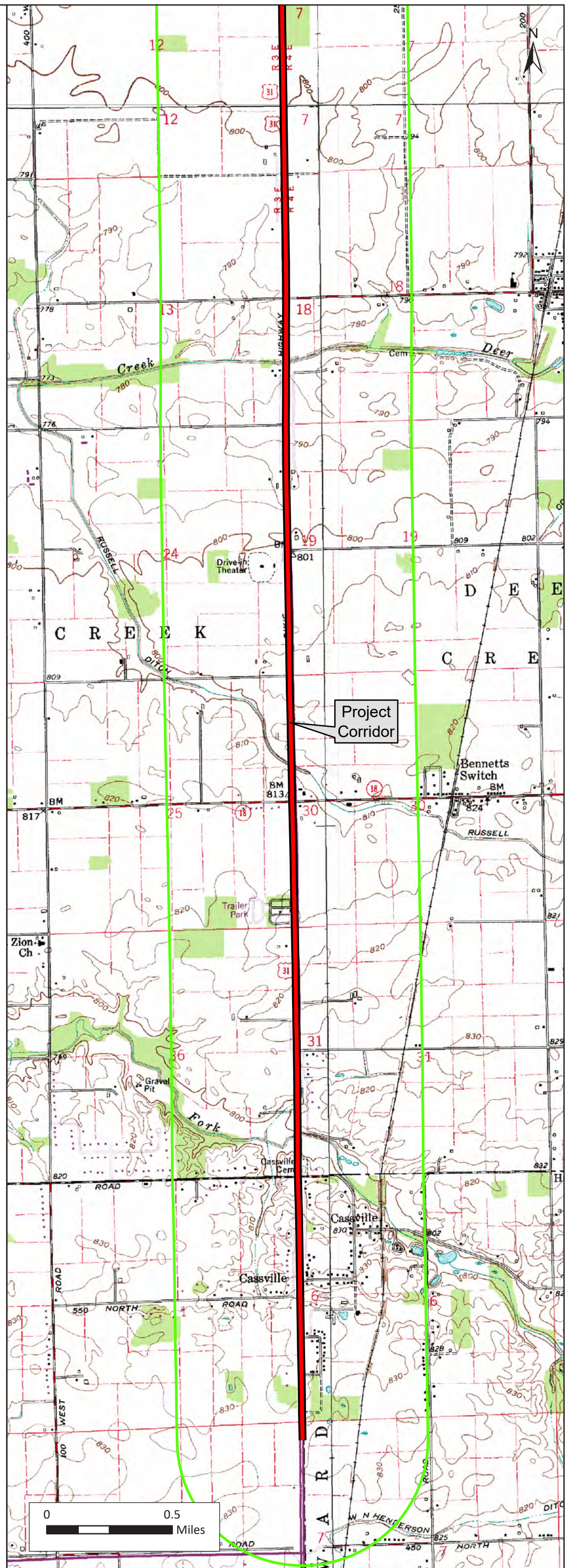




US 31 South

USGS (1:24,000)
Topographic Map

- 0.5 Mile Radius
- US 31 South Study Limits

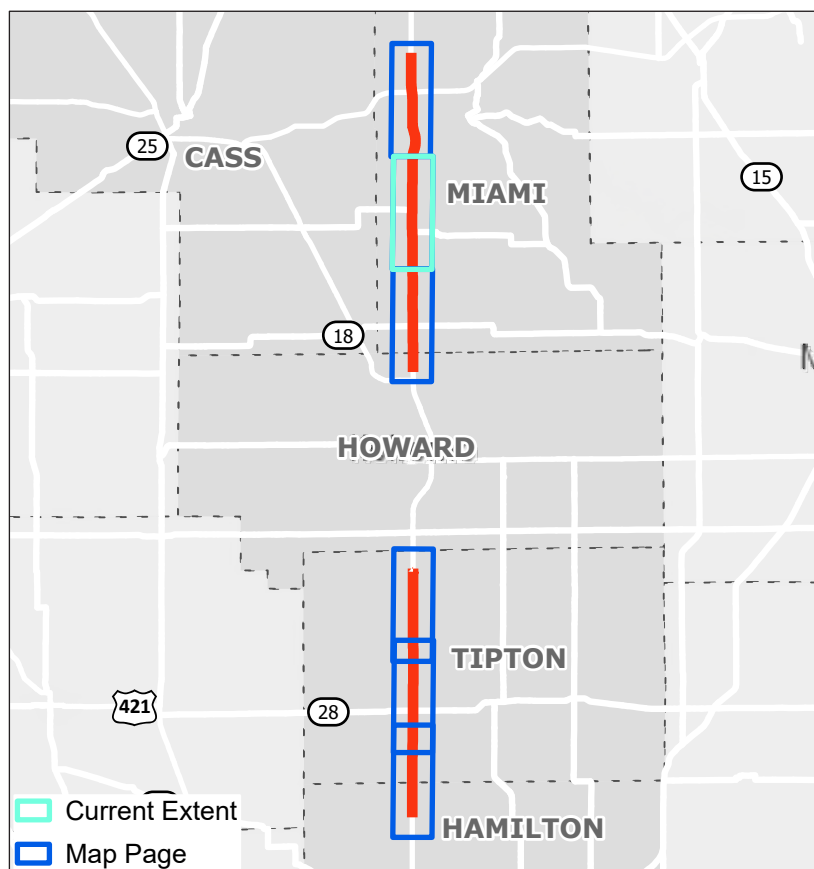
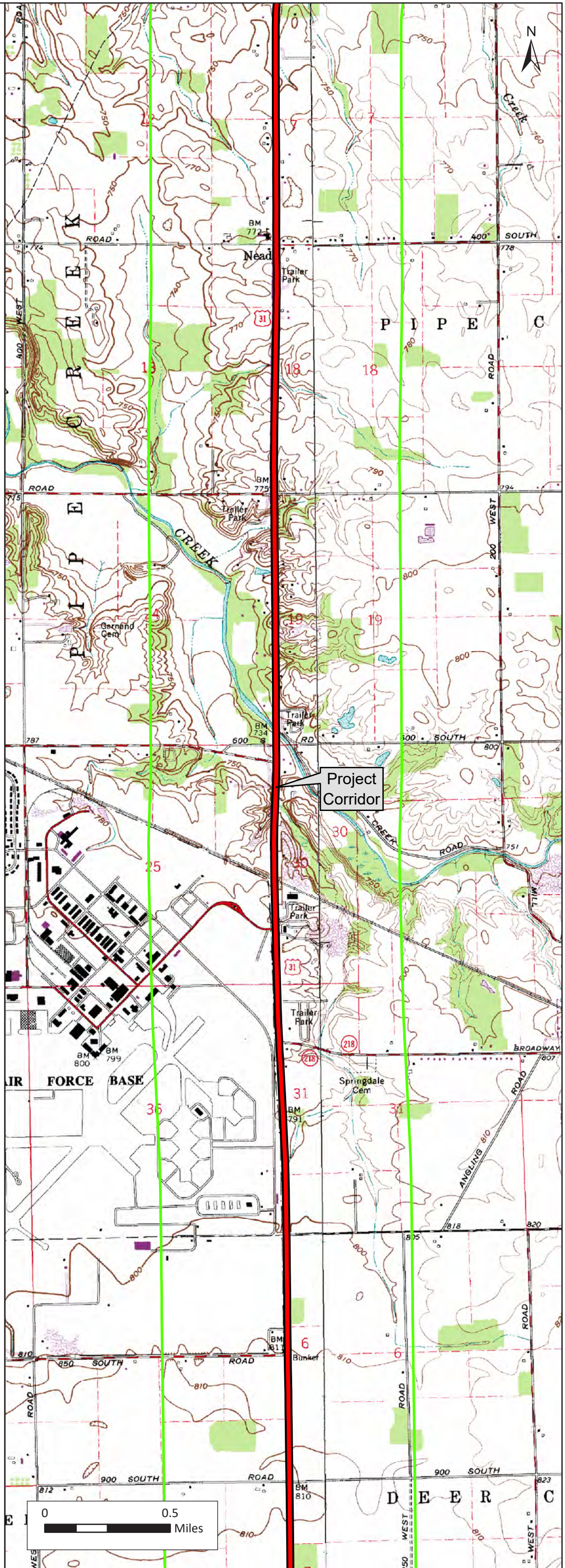




US 31 South

USGS (1:24,000)
Topographic Map

- 0.5 Mile Radius
- US 31 South Study Limits

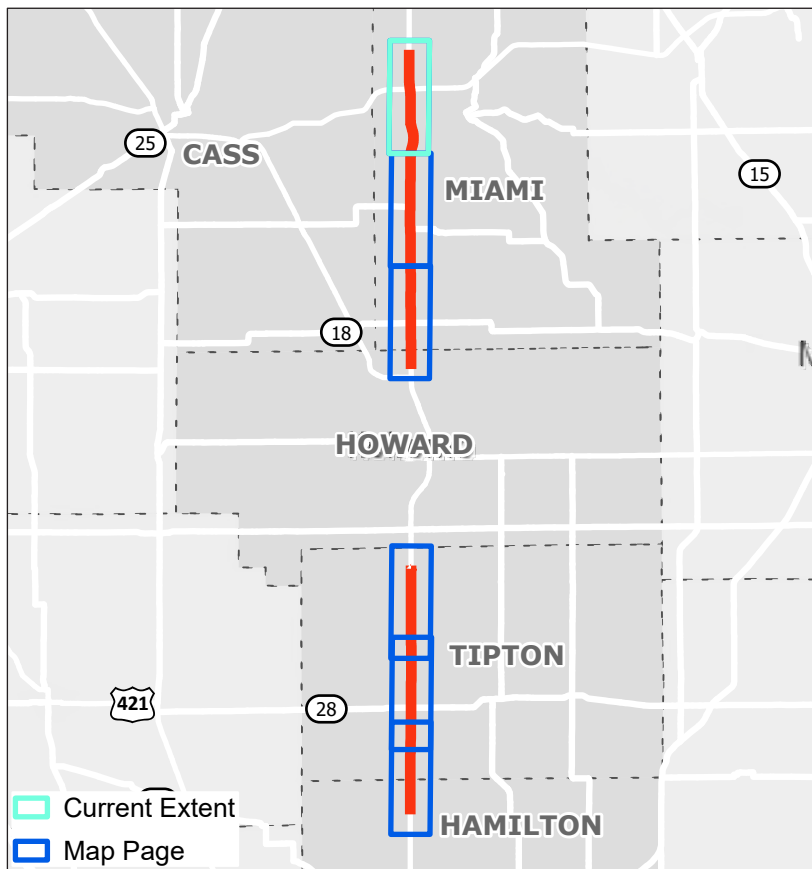
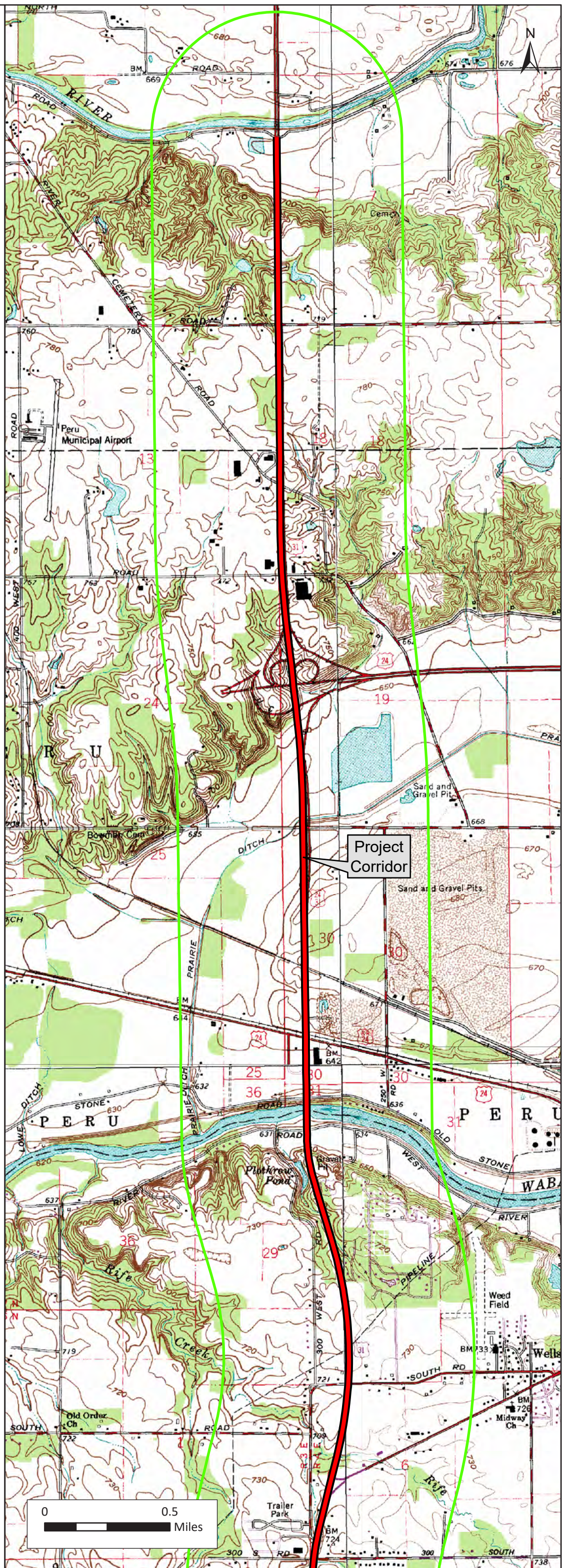




US 31 South

USGS (1:24,000)
Topographic Map

- ▭ 0.5 Mile Radius
- ▭ US 31 South Study Limits



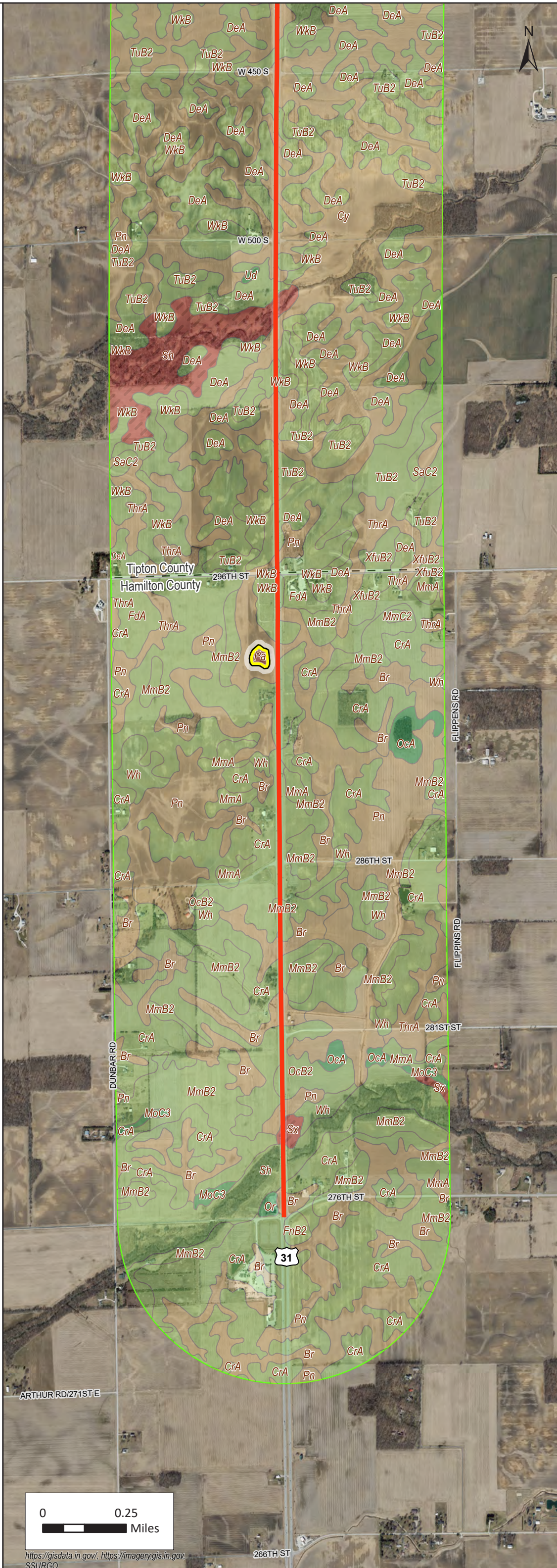


US 31 South

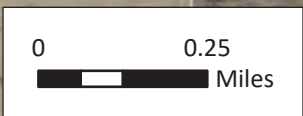
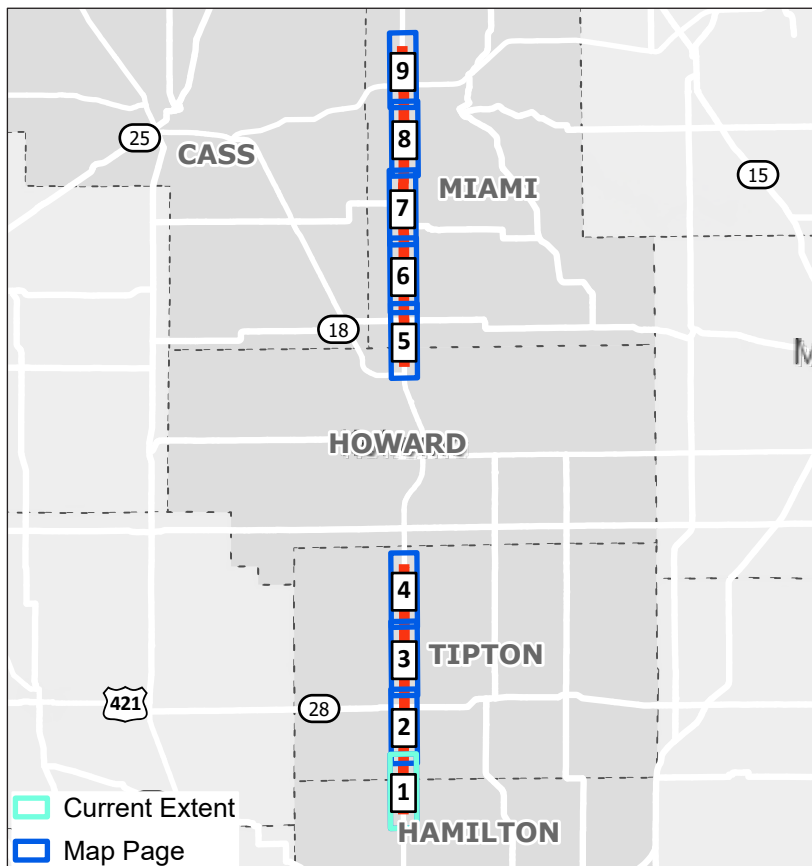
Soils

Hydric Soil Classification

- Nonhydric
- Predominantly Non-hydric
- Predominantly Hydric
- Hydric
- Muck Soils
- 0.5 Mile Radius
- US 31 South Study Limits



Map 1 of 9



<https://gisdata.in.gov/>, <https://imagery.gis.in.gov/>
SSURGO

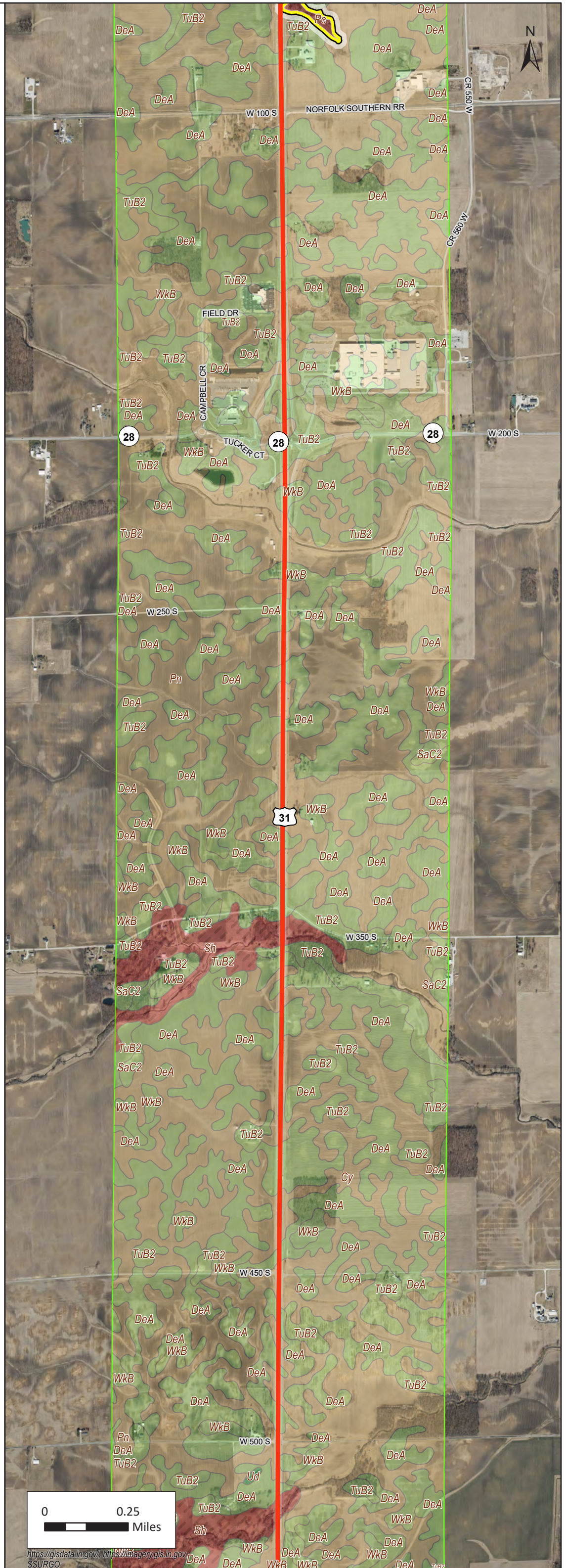


US 31 South

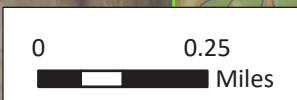
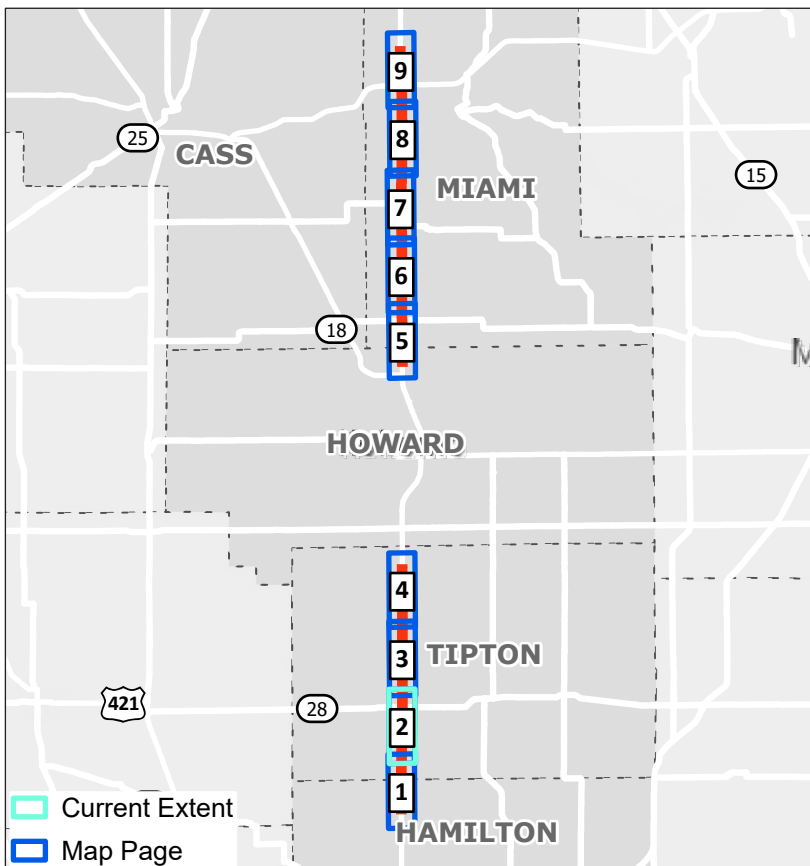
Soils

Hydric Soil Classification

- Nonhydric
- Predominantly Non-hydric
- Predominantly Hydric
- Hydric
- 0.5 Mile Radius
- US 31 South Study Limits



Map 2 of 9



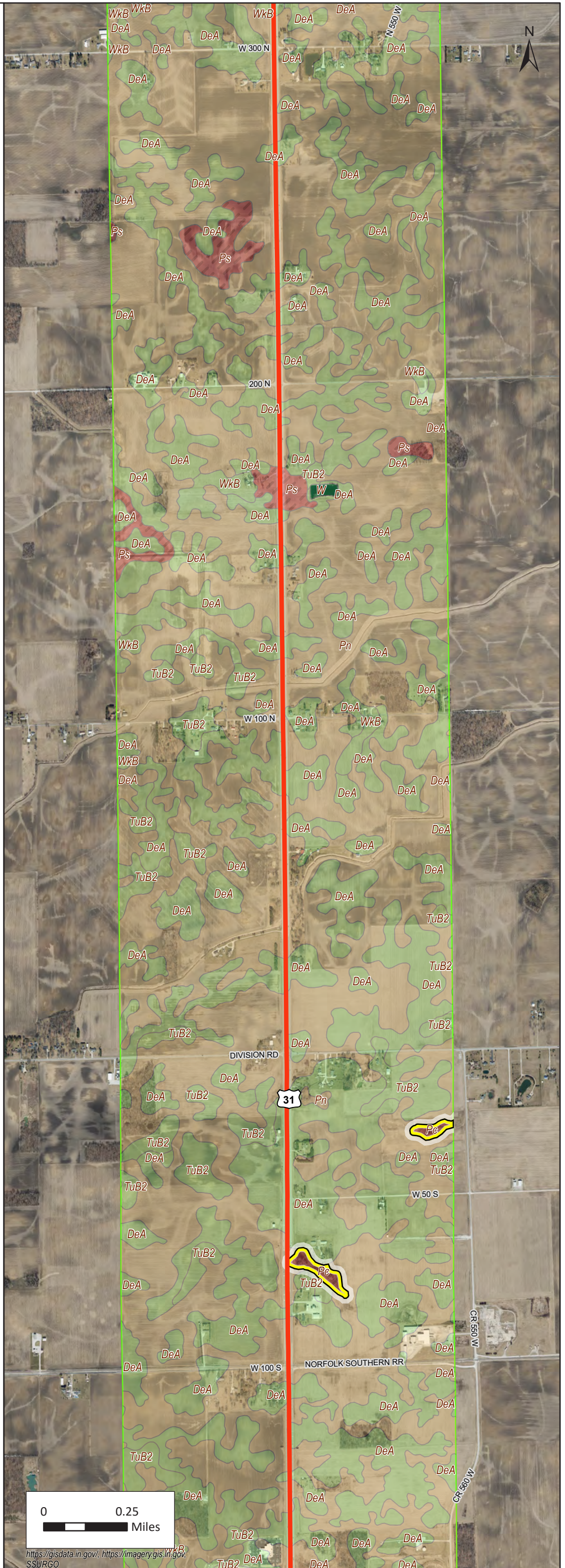


US 31 South

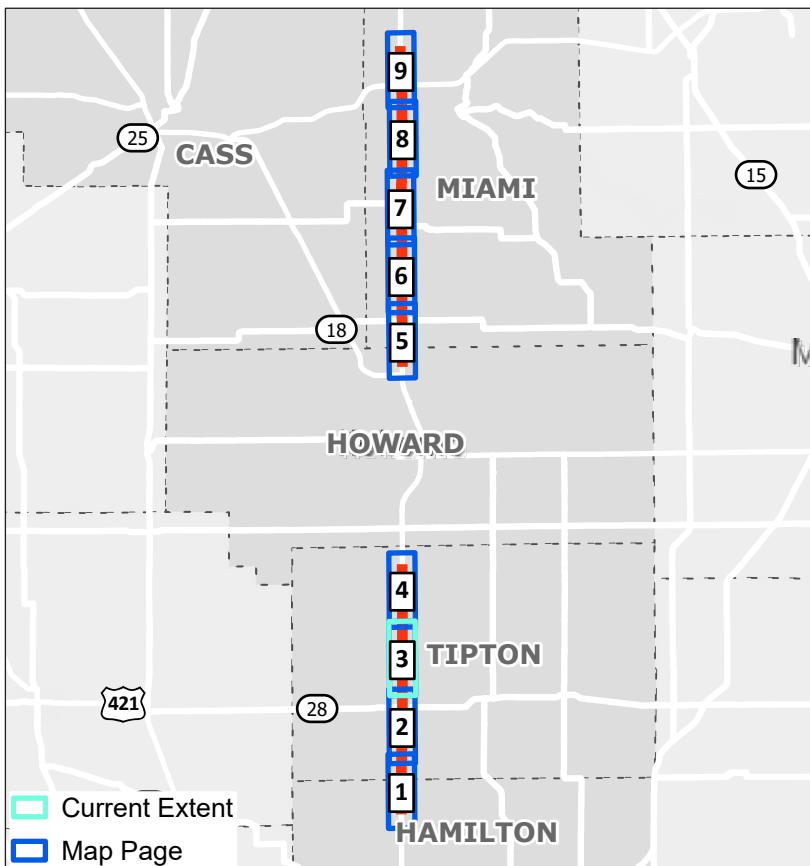
Soils

Hydric Soil Classification

- Nonhydric
- Predominantly Non-hydric
- Predominantly Hydric
- Hydric
- Muck Soils
- 0.5 Mile Radius
- US 31 South Study Limits



Map 3 of 9



<https://gisdata.in.gov/>, <https://imagery.gis.in.gov/>
SSURGO

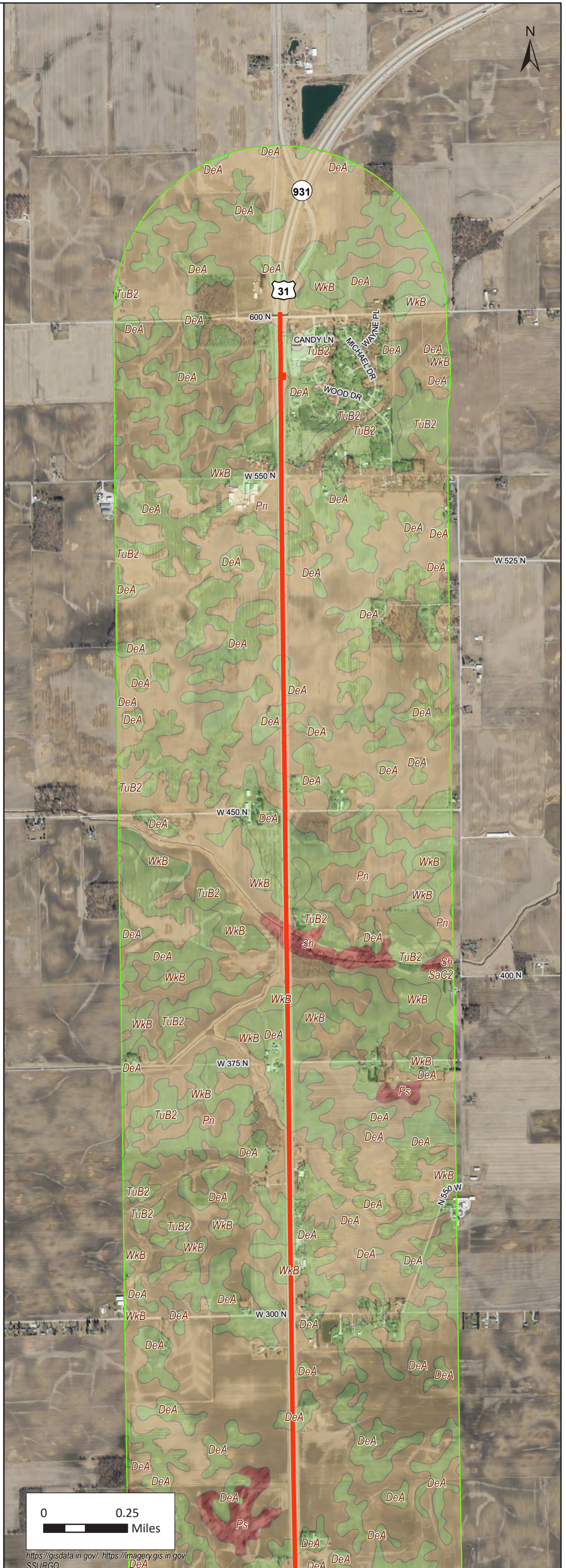


US 31 South

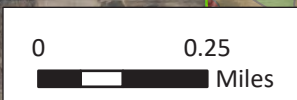
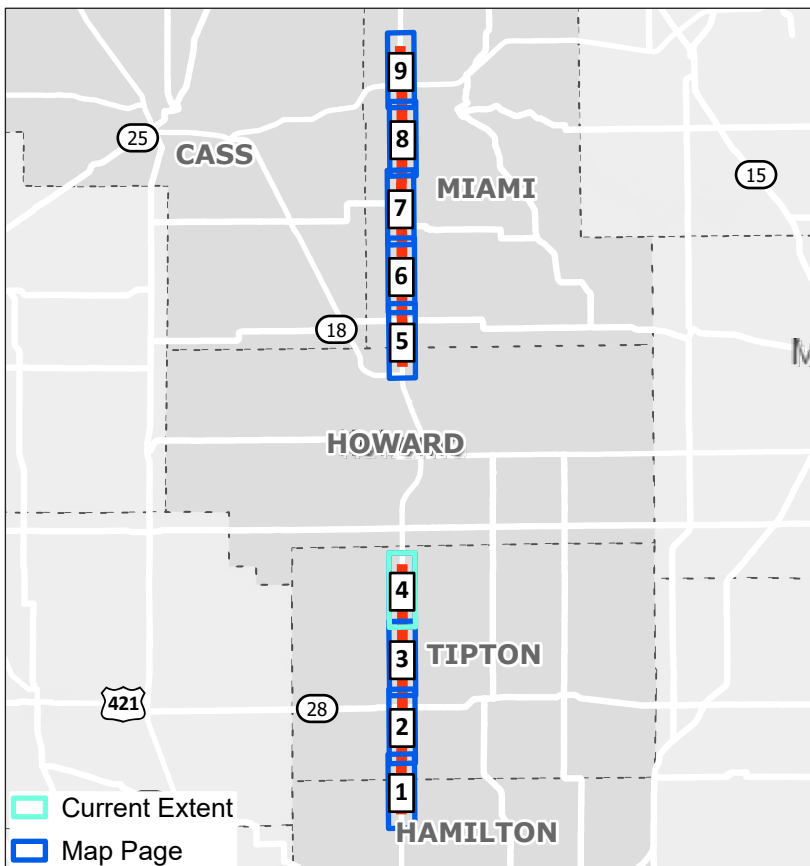
Soils

Hydric Soil Classification

- Predominantly Non-hydric
- Predominantly Hydric
- Hydric
- 0.5 Mile Radius
- US 31 South Study Limits



Map 4 of 9



<https://gisdata.in.gov/>, <https://imagery.gis.in.gov/>
SSURGO

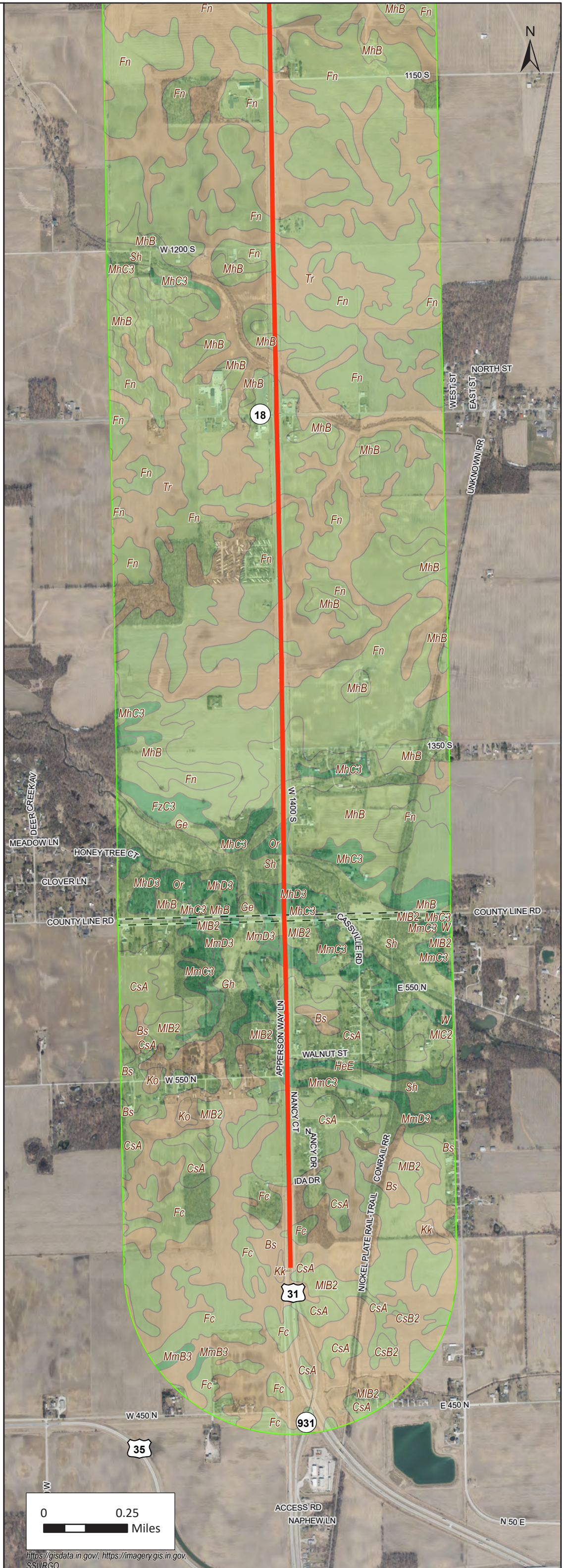


US 31 South

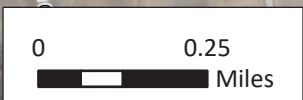
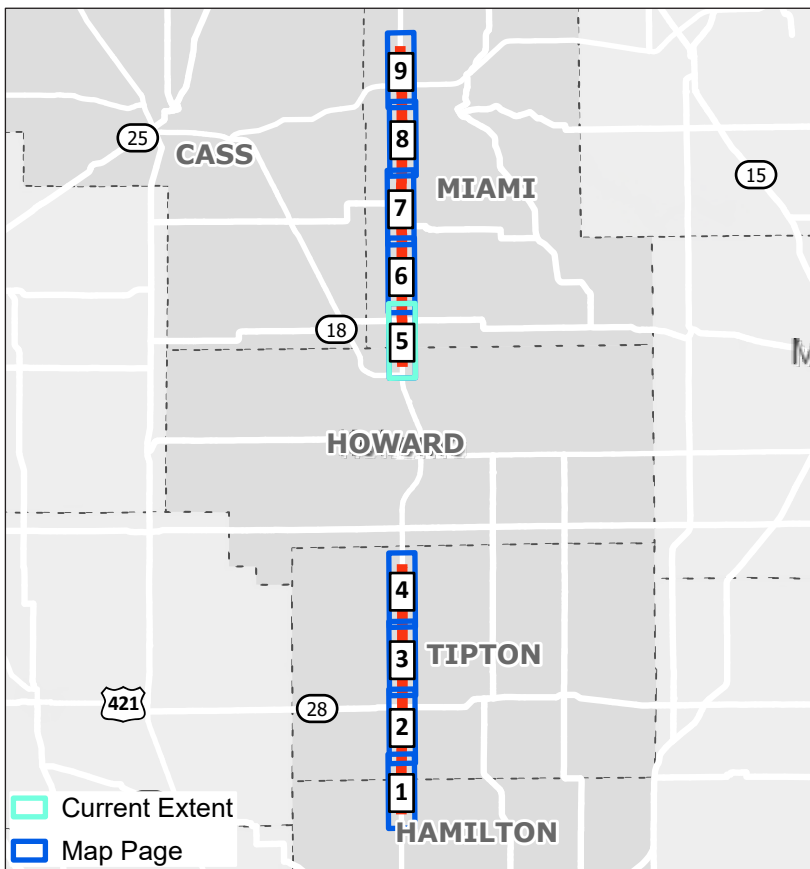
Soils

Hydric Soil Classification

- Nonhydric
- Predominantly Non-hydric
- Predominantly Hydric
- 0.5 Mile Radius
- US 31 South Study Limits



Map 5 of 9



<https://gisdata.in.gov/>, <https://imagery.gis.in.gov/>, SSURGO

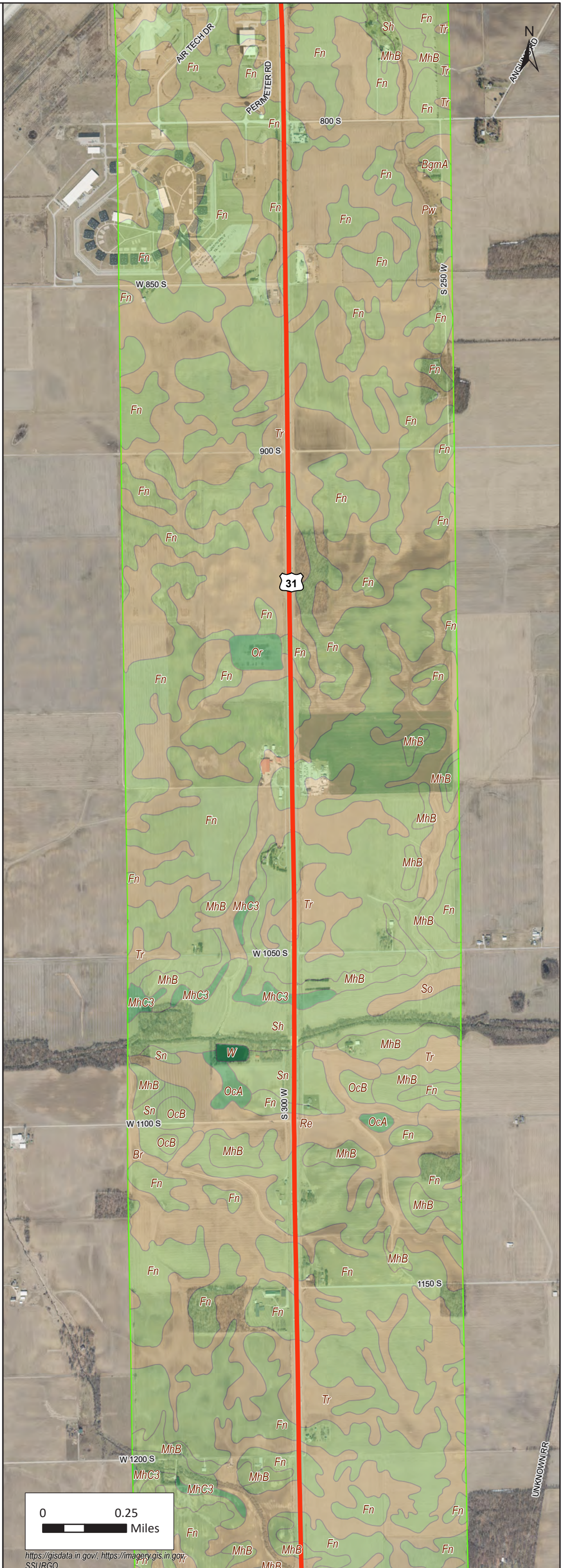


US 31 South

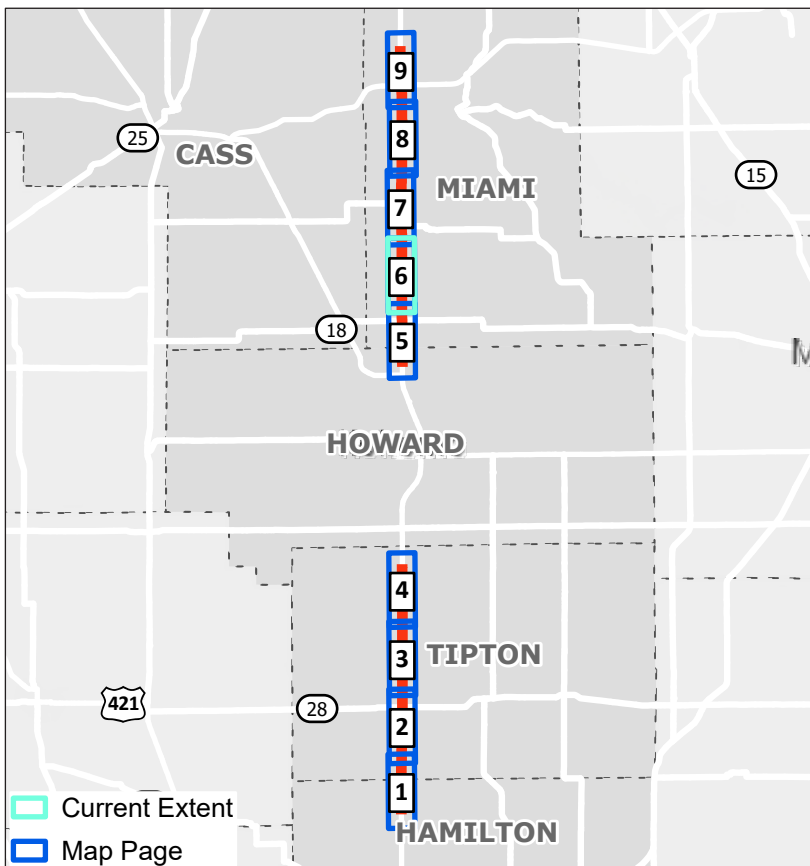
Soils

Hydric Soil Classification

- Nonhydric
- Predominantly Non-hydric
- Predominantly Hydric
- 0.5 Mile Radius
- US 31 South Study Limits



Map 6 of 9





US 31 South

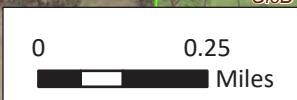
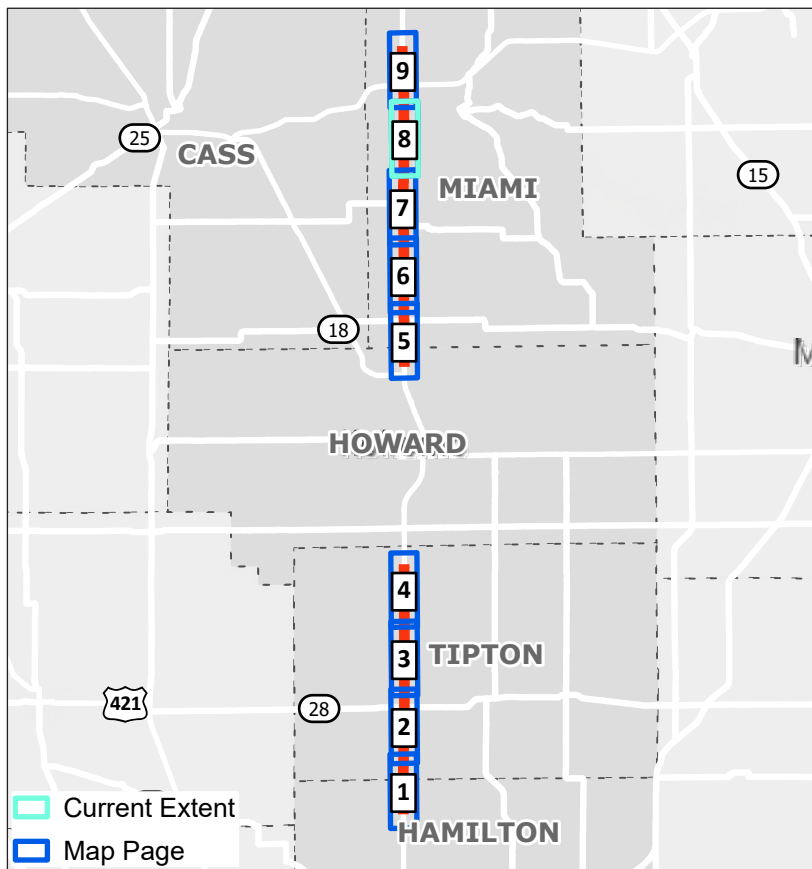
Soils

Hydric Soil Classification

- Nonhydric
- Predominantly Non-hydric
- Predominantly Hydric
- Hydric
- Muck Soils
- 0.5 Mile Radius
- US 31 South Study Limits



Map 8 of 9



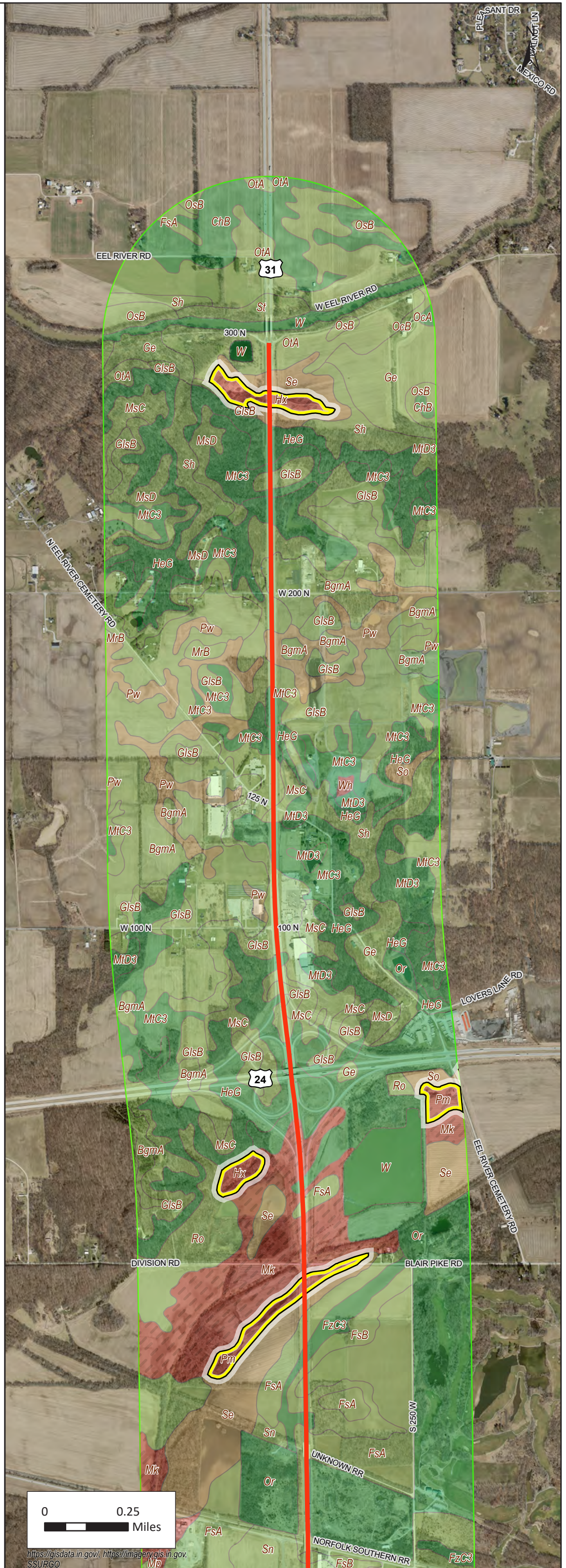
<https://gisdata.in.gov/> <https://imagery.gis.in.gov/>
SSURGO

US 31 South

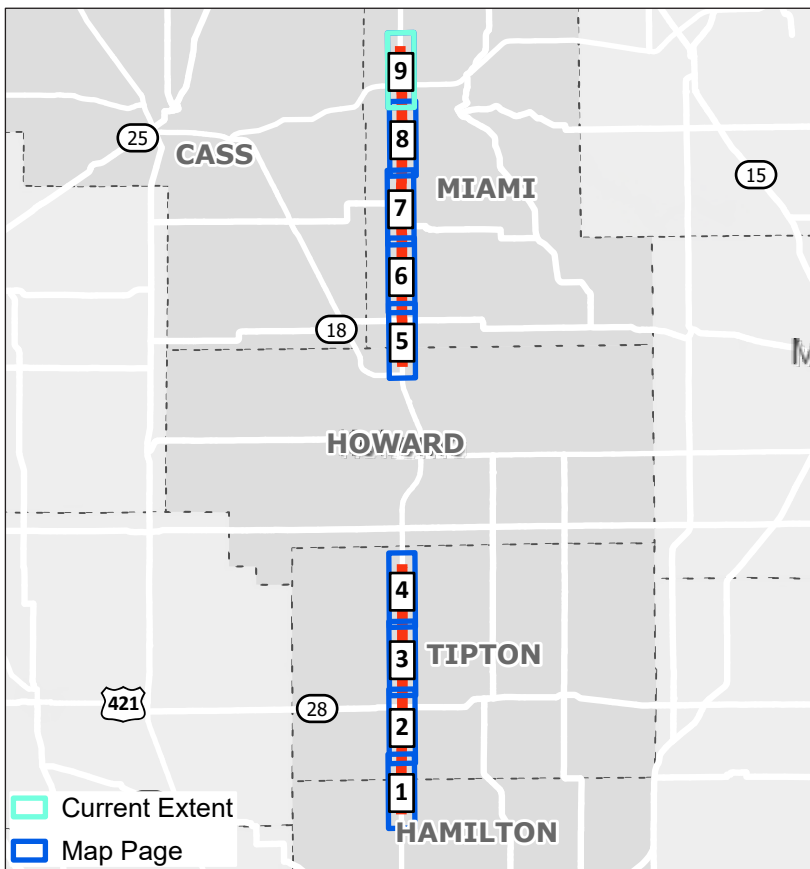
Soils

Hydric Soil Classification

- Nonhydric
- Predominantly Non-hydric
- Predominantly Hydric
- Hydric
- Muck Soils
- 0.5 Mile Radius
- US 31 South Study Limits



Map 9 of 9



Mackenzie Knotts

From: Weston, Delaney <DWeston@indot.IN.gov>
Sent: Thursday, September 22, 2022 10:20 AM
To: Mackenzie Knotts
Cc: Bales, Ronald
Subject: RE: Bat Check: US 31 South PEL

Mackenzie,

A review of the USFWS GIS database for Indiana bat and Northern long-eared bat roosting, hibernacula and capture site was conducted for the US 31 South PEL in the Greenfield District on September 22, 2022 . There are no documented sites within a half mile the project area. The USFWS Information for Planning and Conservation (IPaC) website must be consulted and a new project created to obtain an official species list and complete the questionnaire for the project to determine the applicability of the programmatic consultation. If needed, the IPaC generated documents must be forwarded to the USFWS for verification.

Thank you,

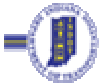
Delaney Weston

Environmental Manager II

Indiana Department of Transportation
32 South Broadway
Greenfield, IN 46140

Email: dweston@indot.IN.gov

Office: (317)-467-3901



From: Weston, Delaney
Sent: Thursday, September 22, 2022 10:10 AM
To: Mackenzie Knotts <mknotts@HNTB.com>
Subject: RE: Bat Check: US 31 South PEL

That works!

Thanks,

Delaney Weston

Environmental Manager II

Indiana Department of Transportation
32 South Broadway
Greenfield, IN 46140

Email: dweston@indot.IN.gov

Office: (317)-467-3901



Mackenzie Knotts

From: Gill, Arianna <AGill@indot.IN.gov>
Sent: Thursday, September 22, 2022 10:50 AM
To: Mackenzie Knotts
Cc: Daniel Miller; Kia Gillette
Subject: RE: Bat Check: US 31 South PEL

Hello,

A review of the USFWS database did not indicate the presence of endangered bat species in or within 0.5 mile of the project area(s). The range-wide programmatic consultation for the Indiana Bat and Northern Long-eared Bat shall be completed according to the most recent "Using the USFWS's IPaC System for Listed Bat Consultation for INDOT Projects".

Thanks,

Arianna Gill
Sr Environmental Mngr Supervisor
Fort Wayne District
5333 Hatfield Road
Fort Wayne, IN 46808
Phone: (260) 969-8262
Email: AGill@indot.in.gov



From: Mackenzie Knotts <mknotts@HNTB.com>
Sent: Thursday, September 22, 2022 10:29 AM
To: Gill, Arianna <AGill@indot.IN.gov>
Cc: Daniel Miller <danmiller@HNTB.com>; Kia Gillette <kgillette@HNTB.com>
Subject: RE: Bat Check: US 31 South PEL

****** This is an EXTERNAL email. Exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email. ******

Good morning Arianna,

Sorry about the files not opening. The DES is 2100113. I have also attached a map of the project location. Please let me know if you need more.

Thanks,

Mackenzie Knotts
Environmental Planner
Environmental Planning

Tel (317) 636-4682 Cell (317) 554-7815 Dir (463) 777-3682 Email mknotts@hntb.com

HNTB CORPORATION
111 Monument Circle, Suite 1200 | Indianapolis, IN 46204 | hntb.com



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Indiana Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

In Reply Refer To:
Project Code: 2023-0027322
Project Name: ProPEL US 31 South

December 12, 2023

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

Please use the species list provided and visit the U.S. Fish and Wildlife Service's Region 3 Section 7 Technical Assistance website at - <http://www.fws.gov/midwest/endangered/section7/s7process/index.html>. This website contains step-by-step instructions which will help you

determine if your project will have an adverse effect on listed species and will help lead you through the Section 7 process. For all **wind energy projects** and **projects that include installing towers that use guy wires or are over 200 feet in height**, please contact this field office directly for assistance, even if no federally listed plants, animals or critical habitat are present within your proposed project or may be affected by your proposed project.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<https://www.fws.gov/sites/default/files/documents/endangered-species-consultation-handbook.pdf>

Migratory Birds: In addition to responsibilities to protect threatened and endangered species under the Endangered Species Act (ESA), there are additional responsibilities under the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA) to protect native birds from project-related impacts. Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). For more information regarding these Acts, see <https://www.fws.gov/program/migratory-bird-permit/what-we-do>.

The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. It is the responsibility of the project proponent to comply with these Acts by identifying potential impacts to migratory birds and eagles within applicable NEPA documents (when there is a federal nexus) or a Bird/Eagle Conservation Plan (when there is no federal nexus). Proponents should implement conservation measures to avoid or minimize the production of project-related stressors or minimize the exposure of birds and their resources to the project-related stressors. For more information on avian stressors and recommended conservation measures, see <https://www.fws.gov/library/collections/threats-birds>.

In addition to MBTA and BGEPA, Executive Order 13186: *Responsibilities of Federal Agencies to Protect Migratory Birds*, obligates all Federal agencies that engage in or authorize activities that might affect migratory birds, to minimize those effects and encourage conservation measures that will improve bird populations. Executive Order 13186 provides for the protection of both migratory birds and migratory bird habitat. For information regarding the implementation of

Executive Order 13186, please visit <https://www.fws.gov/partner/council-conservation-migratory-birds>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. **Please include the Consultation Code in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.**

Attachment(s):

- Official Species List
- Bald & Golden Eagles
- Migratory Birds
- Wetlands

OFFICIAL SPECIES LIST

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Indiana Ecological Services Field Office

620 South Walker Street
Bloomington, IN 47403-2121
(812) 334-4261

PROJECT SUMMARY

Project Code: 2023-0027322

Project Name: ProPEL US 31 South

Project Type: Road Repair

Project Description: The Indiana Department of Transportation (INDOT) is conducting Planning and Environmental Linkage (PEL) studies on the US 31 corridors. ProPEL US 31 South includes US 31 from approximately 276th Street in Hamilton County north to the State Route (SR) 931 south junction in Tipton County, and from the SR 931 north junction in Howard County north to County Road (CR) West 300 North in Miami County. The US 31 Kokomo bypass is excluded from the ProPEL US 31 South study.

Project Location:

The approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/@40.6759117,-86.1281201922407,14z>



Counties: Indiana

ENDANGERED SPECIES ACT SPECIES

There is a total of 8 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

MAMMALS

| NAME | STATUS |
|--|------------------------|
| Indiana Bat <i>Myotis sodalis</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5949 | Endangered |
| Northern Long-eared Bat <i>Myotis septentrionalis</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045 | Endangered |
| Tricolored Bat <i>Perimyotis subflavus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/10515 | Proposed Endangered |

BIRDS

| NAME | STATUS |
|--|--|
| Whooping Crane <i>Grus americana</i> Population: U.S.A. (AL, AR, CO, FL, GA, ID, IL, IN, IA, KY, LA, MI, MN, MS, MO, NC, NM, OH, SC, TN, UT, VA, WI, WV, western half of WY) No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/758 | Experimental Population, Non- Essential |

CLAMS

| NAME | STATUS |
|--|------------------------|
| Rabbitsfoot <i>Quadrula cylindrica cylindrica</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/5165 | Threatened |
| Round Hickorynut <i>Obovaria subrotunda</i> There is final critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/9879 | Threatened |
| Salamander Mussel <i>Simpsonias ambigua</i> There is proposed critical habitat for this species. Your location does not overlap the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/6208 | Proposed Endangered |

INSECTS

| NAME | STATUS |
|--|-----------|
| Monarch Butterfly <i>Danaus plexippus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9743 | Candidate |

CRITICAL HABITATS

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

YOU ARE STILL REQUIRED TO DETERMINE IF YOUR PROJECT(S) MAY HAVE EFFECTS ON ALL ABOVE LISTED SPECIES.

BALD & GOLDEN EAGLES

Bald and golden eagles are protected under the Bald and Golden Eagle Protection Act¹ and the Migratory Bird Treaty Act².

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats³, should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
1. The [Bald and Golden Eagle Protection Act](#) of 1940.
 2. The [Migratory Birds Treaty Act](#) of 1918.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

There are bald and/or golden eagles in your project area.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|---|-------------------------|
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626 | Breeds Oct 15 to Aug 31 |

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

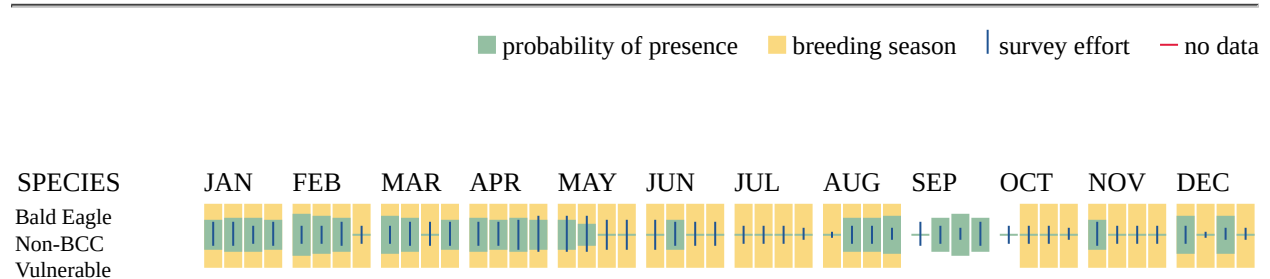
Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (-)

A week is marked as having no data if there were no survey events for that week.



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

MIGRATORY BIRDS

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats³ should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "[Supplemental Information on Migratory Birds and Eagles](#)".

-
1. The [Migratory Birds Treaty Act](#) of 1918.
 2. The [Bald and Golden Eagle Protection Act](#) of 1940.
 3. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, see the PROBABILITY OF PRESENCE SUMMARY below to see when these birds are most likely to be present and breeding in your project area.

| NAME | BREEDING SEASON |
|--|-------------------------|
| American Golden-plover <i>Pluvialis dominica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/10561 | Breeds elsewhere |
| Bald Eagle <i>Haliaeetus leucocephalus</i> This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626 | Breeds Oct 15 to Aug 31 |

| NAME | BREEDING SEASON |
|--|-------------------------|
| <p>Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399</p> | Breeds May 15 to Oct 10 |
| <p>Bobolink <i>Dolichonyx oryzivorus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9454</p> | Breeds May 20 to Jul 31 |
| <p>Cerulean Warbler <i>Dendroica cerulea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/2974</p> | Breeds Apr 21 to Jul 20 |
| <p>Chimney Swift <i>Chaetura pelagica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9406</p> | Breeds Mar 15 to Aug 25 |
| <p>Henslow's Sparrow <i>Ammodramus henslowii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3941</p> | Breeds May 1 to Aug 31 |
| <p>Lesser Yellowlegs <i>Tringa flavipes</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9679</p> | Breeds elsewhere |
| <p>Pectoral Sandpiper <i>Calidris melanotos</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9561</p> | Breeds elsewhere |
| <p>Prothonotary Warbler <i>Protonotaria citrea</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9439</p> | Breeds Apr 1 to Jul 31 |
| <p>Red-headed Woodpecker <i>Melanerpes erythrocephalus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9398</p> | Breeds May 10 to Sep 10 |
| <p>Rusty Blackbird <i>Euphagus carolinus</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9478</p> | Breeds elsewhere |

| NAME | BREEDING SEASON |
|--|-------------------------|
| Short-billed Dowitcher <i>Limnodromus griseus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9480 | Breeds elsewhere |
| Upland Sandpiper <i>Bartramia longicauda</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9294 | Breeds May 1 to Aug 31 |
| Wood Thrush <i>Hylocichla mustelina</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9431 | Breeds May 10 to Aug 31 |

PROBABILITY OF PRESENCE SUMMARY

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read "[Supplemental Information on Migratory Birds and Eagles](#)", specifically the FAQ section titled "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Green bars; the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during that week of the year.

Breeding Season (■)

Yellow bars; liberal estimate of the timeframe inside which the bird breeds across its entire range.

Survey Effort (|)

Vertical black lines; the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps.

No Data (—)

A week is marked as having no data if there were no survey events for that week.

■ probability of presence ■ breeding season | survey effort — no data

SPECIES JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC



Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>
- Supplemental Information for Migratory Birds and Eagles in IPaC <https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action>

WETLANDS

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

RIVERINE

- R5UBFx
- R4SBC
- R2UBH
- R5UBH
- R2UBHx

IPAC USER CONTACT INFORMATION

Agency: Federal Highway Administration
Name: Mackenzie Knotts
Address: 111 Monument Circle
Address Line 2: Suite 1200
City: Indianapolis
State: IN
Zip: 46204
Email: mknotts@hntb.com
Phone: 4637773682

LEAD AGENCY CONTACT INFORMATION

Lead Agency: Federal Highway Administration

IPaC User Contact Information

Agency: Indiana Department of Transportation
Name: HNTB Indianapolis Environmental
Address: 111 Monument Circle
Address Line 2: Suite 1200
City: Indianapolis
State: IN
Zip: 46204
Email: hntbindenv@hntb.com
Phone: 3176364682

Lead Agency Contact Information

Lead Agency: Federal Highway Administration



US 31 South

Above-Ground Cultural Resources Identification

Memorandum

March 23, 2023

Prepared By

Gray & Pape Heritage Management

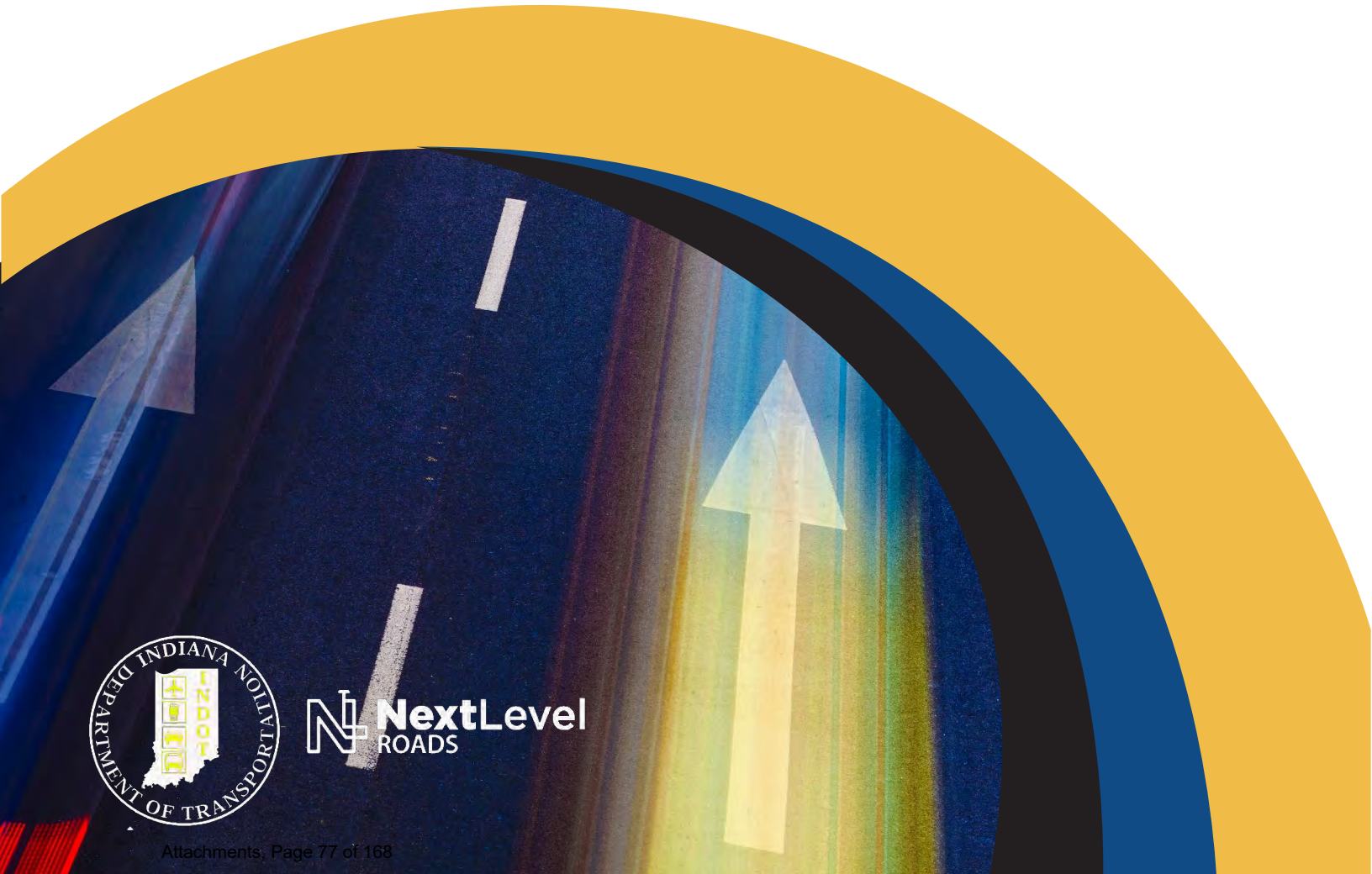


TABLE OF CONTENTS

| | |
|--|---|
| 1. Introduction..... | 1 |
| 1.1. Purpose of this Memorandum..... | 1 |
| 1.2. Study Description..... | 1 |
| 1.3. US 31 South Study Corridor Overview | 1 |
| 2. Cultural Resources Identification..... | 3 |
| 2.1. Methodology | 3 |
| 2.2. Caveats..... | 4 |
| 3. Conclusion | 5 |
| 4. References..... | 6 |
| Appendix A: Cultural Resources-Maps | 7 |
| Appendix B: Cultural Resources-Tables | 8 |

LIST OF FIGURES

| | |
|------------------------------------|---|
| Figure 1. Study Location Map | 2 |
|------------------------------------|---|

LIST OF APPENDICES

Appendix A: Cultural Resources-Maps

Appendix B: Cultural Resources-Tables

1. INTRODUCTION

1.1. PURPOSE OF THIS MEMORANDUM

The Indiana Department of Transportation (INDOT) is conducting Planning and Environment Linkages (PEL) studies on the US 30 and US 31 corridors. This Above-Ground Cultural Resources Identification Memorandum was prepared for the ProPEL US 31 South study.

As part of the data-gathering phase of these studies, the Memorandum's purpose is to collect information on previously identified above-ground cultural resources that are listed in or eligible for listing in the National Register of Historic Places (NRHP) or may be potentially eligible for listing in the NRHP. For the purposes of this identification, an above-ground cultural resource may be any structure, building, object, bridge or cemetery that is, in simple terms, above the ground as opposed to archaeological resources that are generally below the ground.

This identification is a planning tool to help inform INDOT, the public and stakeholders of cultural resources along the US 31 South corridor. Specifically, any improvement projects that develop with federal involvement as a result of these PEL studies must comply with Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations under 36 CFR Part 800. Under Section 106, federal agencies must identify and assess their actions on those cultural resources that are listed in or eligible for listing on the NRHP and seek ways to avoid, minimize and/or mitigate adverse effects. The data collected for the ProPEL studies will help identify any properties currently listed in the NRHP and those that have the potential to be eligible for listing on the NRHP based on previous surveys. Formal determinations of NRHP eligibility will occur in the future in the Section 106 process for any federally funded or approved project programmed from the ProPEL studies.

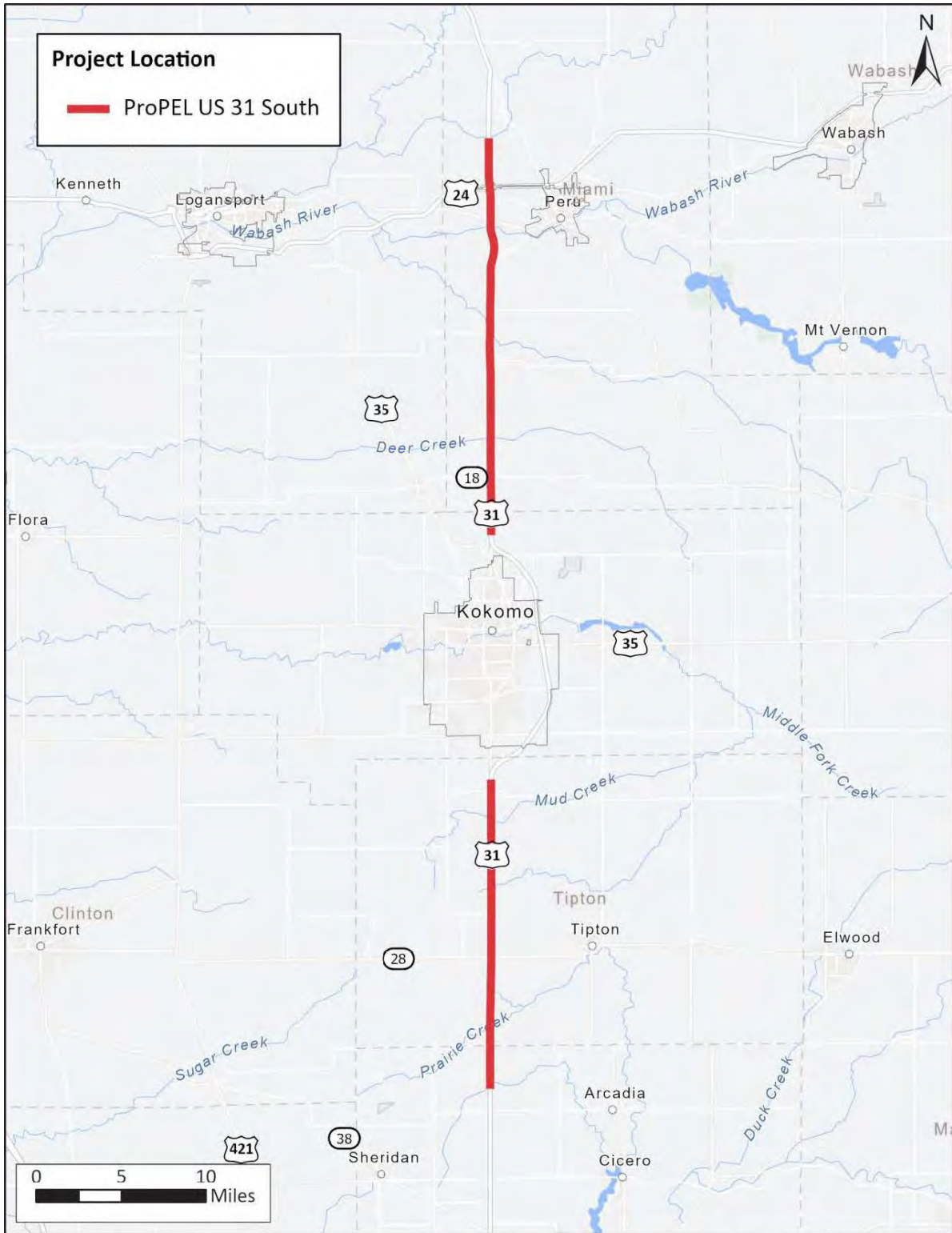
1.2. STUDY DESCRIPTION

ProPEL US 31 South includes US 31 from approximately 276th Street in Hamilton County north to the State Route (SR) 931 south junction in Tipton County, and from the SR 931 north junction in Howard County north to County Road (CR) West 300 North in Miami County. The US 31 Kokomo bypass is excluded from the ProPEL US 31 South study.

1.3. US 31 SOUTH STUDY CORRIDOR OVERVIEW

The US 31 South corridor is a four-lane Principal Arterial roadway, connecting the Indianapolis metropolitan area at the southern terminus in Hamilton County to more rural areas to the north as it extends through Tipton, Howard and Miami Counties. US 31 in the study area is primarily direct access with at-grade intersections. The primary exception is the portion of US 31 that bypasses Kokomo, which currently serves as a limited-access interstate-type highway. This section of US 31 has been excluded from the study. The built environment along the US 31 corridor is primarily agricultural and residential with commercial properties scattered throughout the corridor.

Figure 1: Study Location Map



City of kokomo, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS

2. CULTURAL RESOURCES IDENTIFICATION

2.1. METHODOLOGY

For the purposes of this PEL study, a boundary of 0.50 mile from each side of the US 31 centerline was delineated. Within this boundary, a desktop survey and literature review of previously identified cultural resources were conducted.

The primary resource referenced for this study was the State Historic Architectural and Archaeological Research Database (SHAARD) and the associated Indiana Historic Buildings, Bridges and Cemeteries Map (IHBBM). SHAARD is a collection of surveyed resources in the state maintained by the Indiana Department of Natural Resources–Division of Historic Preservation and Archaeology (IDNR-DHPA).

For the purposes of the PEL study, the resources mapped and recorded via SHAARD include the following:

- Individual properties or districts listed in the NRHP.

Properties listed in the NRHP are presumed to maintain that designation unless there has been a known significant alteration of the property. Three listed properties in the study area have been demolished and noted as such.
- Properties assigned a rating of “Notable” or “Outstanding” in the Indiana Historic Sites and Structures Inventory (IHSSI).

Properties rated “Notable” or “Outstanding” are not automatically considered eligible for the NRHP. These properties were deemed to exhibit characteristics or have known historic associations that indicate they may have significance. They are usually considered to have greater potential to be eligible for listing in the NRHP. Properties rated “Contributing” were not included as they are generally not considered NRHP eligible, although exceptions do occur as explained below.

Other sources referenced for this study included:

- Indiana Historic Bridge Inventory

Although the IHSSI did survey bridges and assign ratings similar to other structures, the definitive source for bridge eligibility in Indiana is the Historic Bridge Inventory (HBI) maintained by INDOT.
- Previous Section 106 reports and documentation via the INDOT Cultural Resources Office Public Map and IN SCOPE, INDOT’s online portal for Section 106 documents.

Section 106 was completed for several projects along the US 31 study corridor. Not all of these projects have proceeded to construction, but the identification and evaluation of historic resources has occurred for much of the study corridor. Where projects made formal NRHP eligibility evaluations for surveyed properties in the study area, these were mapped and recorded. Some properties rated “Contributing” were determined to be eligible. In these cases, these properties were recorded for this study.

- INDOT, non-federal-aid, projects

INDOT has acquired properties along the US 31 corridor, with state-funds, as a safety project to remove direct access points to the roadway. These acquisitions have resulted in some property demolitions

along the corridor. For properties potentially NRHP eligible, INDOT consulted with IDNR-DHPA and followed Indiana state laws and procedures as appropriate. For some of these acquisitions, INDOT consulted with the IDNR-DHPA and completed NRHP evaluations. Where a formal eligibility determination was made, those results were included in the study. In addition, any updates to properties, resulting from these acquisitions were noted.

- Street-level imagery and aerial photography

A desktop survey of the identified resources was undertaken to verify whether the NRHP-listed properties or those rated “Notable” or “Outstanding” were extant or had undergone major alterations-if visible. Updates were noted as appropriate.

- Property Parcel Records

The 2021 GIS Data Harvest Program was accessed to include parcel information and approximate property ages in part to help aid in the identification of post-World War II properties and subdivisions that may not have been previously surveyed.

2.2. CAVEATS

Several factors should be considered in interpreting the data presented as part of the ProPEL US 31 South study:

- No fieldwork or windshield reconnaissance was conducted. The resources identified were done through a desktop survey and data obtained from the sources cited above.
- The IHSSI ratings are indicators of *potential* NRHP eligibility. However, formal NRHP evaluations that would occur with Section 106 projects include research, analysis, and contextual comparison not provided in this study. Properties rated “Contributing” or not previously surveyed could later be found to be NRHP eligible and conversely those rated “Notable” or “Outstanding” may be determined not eligible.
- Properties built after World War II were likely not identified in IHSSI surveys. Therefore, there are likely post-WWII resources that have not been surveyed in a meaningful way along the corridor.

3. CONCLUSION

For the ProPEL US 31 South study, INDOT identified above-ground resources that are currently listed in the NRHP and those that have potential to be eligible for listing based on previous surveys. This identification is intended as a planning tool and is not a final determination of NRHP eligibility. Any project federally funded or approved, that is programmed as a result of the PEL study will follow the Section 106 process where cultural resources will be formally evaluated for NRHP eligibility.

In summary, two (2) NRHP listed properties were identified, both in Miami County. One of these, the Terrell Jacobs Circus Winter Quarters has been demolished. Two (2) NRHP-listed bridges were also identified but have been demolished. A total of fifteen (15) above-ground properties were identified as either “Outstanding” or “Notable”. Of these, one (1) “Notable” property is located in Howard County. A total of seven (7) properties; two (2) “Outstanding” and five (5) “Notable” are located in Tipton County. A total of seven (7) properties; three (3) “Outstanding” and four (4) “Notable” are located in Miami County. One of the “Outstanding” rated properties in Miami County is also NRHP-listed (B-17G Flying Fortress-NR-1111). Two (2) additional properties rated “Contributing” were included in this study memo, one in Miami County and the other in Tipton County, because as described in the Methodology, these properties were recently determined NRHP eligible in previous projects. Additionally, eight (8) cemeteries were identified, one (1) in Hamilton County, three (3) in Tipton County, and four (4) in Miami County.

The results of the ProPEL US 31 South study above-ground resources identification are shown in the included maps (Appendix A) and property tables (Appendix B).

4. REFERENCES

- Biggio, Elizabet. "Historic Property Report: US 31 Limited Access Study State Road 38, Hamilton Co. to State Road 913, Tipton Co., IN Des. Nos. 1900096 and 1900097." June 2020. Available online: <https://erms.indot.in.gov/Section106Documents/>, accessed October 11, 2022.
- Hudziak, Candace. "Historic Property Short Report for: New Bridge/Grade Separation Project on US 31 Jefferson and Cicero Townships, Tipton County, Indiana Des No. 1592421." April 2019. Available online: <https://erms.indot.in.gov/Section106Documents/>, accessed October 10, 2022.
- Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology.
Indiana Historic Buildings, Bridges, and Cemeteries Map. Electronic document, <https://indnr.maps.arcgis.com/home/item.html?id=1593429c17c34942a0d1d3fac03c4a80>, accessed October 14, 2022.
- Indiana Department of Natural Resources-Division of Historic Preservation and Archaeology.
State Historic Architectural and Archaeological Research Database (SHAARD), <https://www.in.gov/dnr/historic/4505.htm>, accessed October 14, 2022.
- Indiana Department of Transportation-Cultural Resources Office.
CRO-Public Web Map App, [CRO-Public Web Map App \(arcgis.com\)](https://arcgis.com), accessed November 28, 2022.
- Indiana Geographic Information Office.
GIS Data Harvest Program, [Indiana Data Harvest \(2021\) \(arcgis.com\)](https://arcgis.com), accessed October 14, 2022
- Kumar, Anuradha. "Historic Property Report: Des. No. 1382317 New US 31 Interchange at SR 28, Jefferson and Cicero Townships, Tipton County, Indiana". 2014. Available online: <https://erms.indot.in.gov/Section106Documents/>, accessed October 10, 2022.
- Natali, Bethany and Kelly Lally Malloy. "History Property Report: US 31 New Interchange Project, Adams & Jackson Townships, Hamilton County, Indiana, Des. No. 1702149." April 2019. Available online: <https://erms.indot.in.gov/Section106Documents/>, accessed October 10, 2022.

APPENDIX A: CULTURAL RESOURCES-MAPS



US 31 South

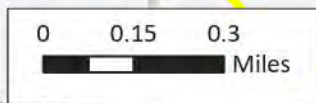
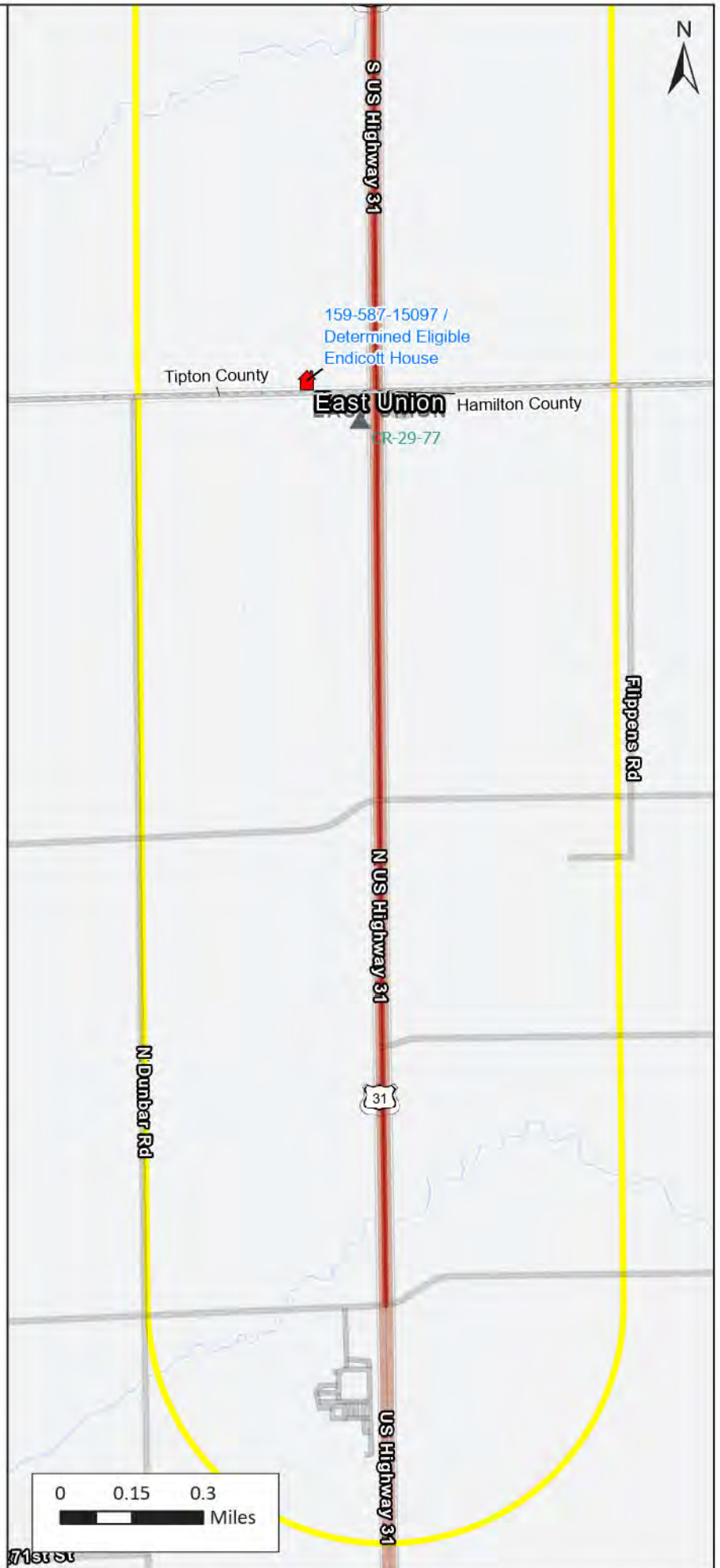
Aboveground Potentially Eligible, Eligible, and NRHP-listed Resources, Hamilton & Tipton Counties

Legend

- ProPEL US 31 South
- 0.5 Mile Study Buffer
- ▲ Cemeteries
- Bridges
- 🏠 National Register Listed Properties
- 🏠 Notable
- 🏠 Outstanding
- National Register Listed Properties
- County Line

Note: IHSSI 159-587-15097 (Endicott House) was Previously Determined Eligible-Per US 31 Limited Access Study Project-Des.No 1900096

Page 1 of 11





US 31 South

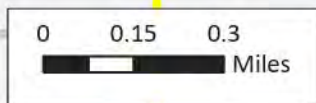
Aboveground Potentially Eligible, Eligible, and NRHP-listed Resources, Tipton County

Legend

- ProPEL US 31 South
- 0.5 Mile Study Buffer
- ▲ Cemeteries
- Bridges
- 🏠 National Register Listed Properties
- 🏠 Notable
- 🏠 Outstanding
- National Register Listed Properties
- County Line

Note: IHSSI 159-630-20048 (James Innes house) was Previously Determined Not Eligible-Per US 31 Limited Access Study Project-Des.No.1900096

Page 2 of 11





US 31 South

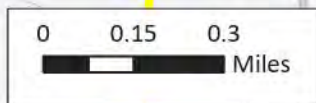
Aboveground Potentially Eligible, Eligible, and NRHP-listed Resources, Tipton County

Legend

- ProPEL US 31 South
- 0.5 Mile Study Buffer
- ▲ Cemeteries
- Bridges
- 🏠 National Register Listed Properties
- 🏠 Notable
- 🏠 Outstanding
- National Register Listed Properties
- County Line

Note: IHSSI 159-309-20021 (Hopewell Methodist Church) was Previously Determined Eligible-Per US 31 Limited Access Study Project-Des.No.1900096

Page 3 of 11





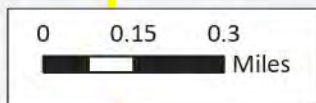
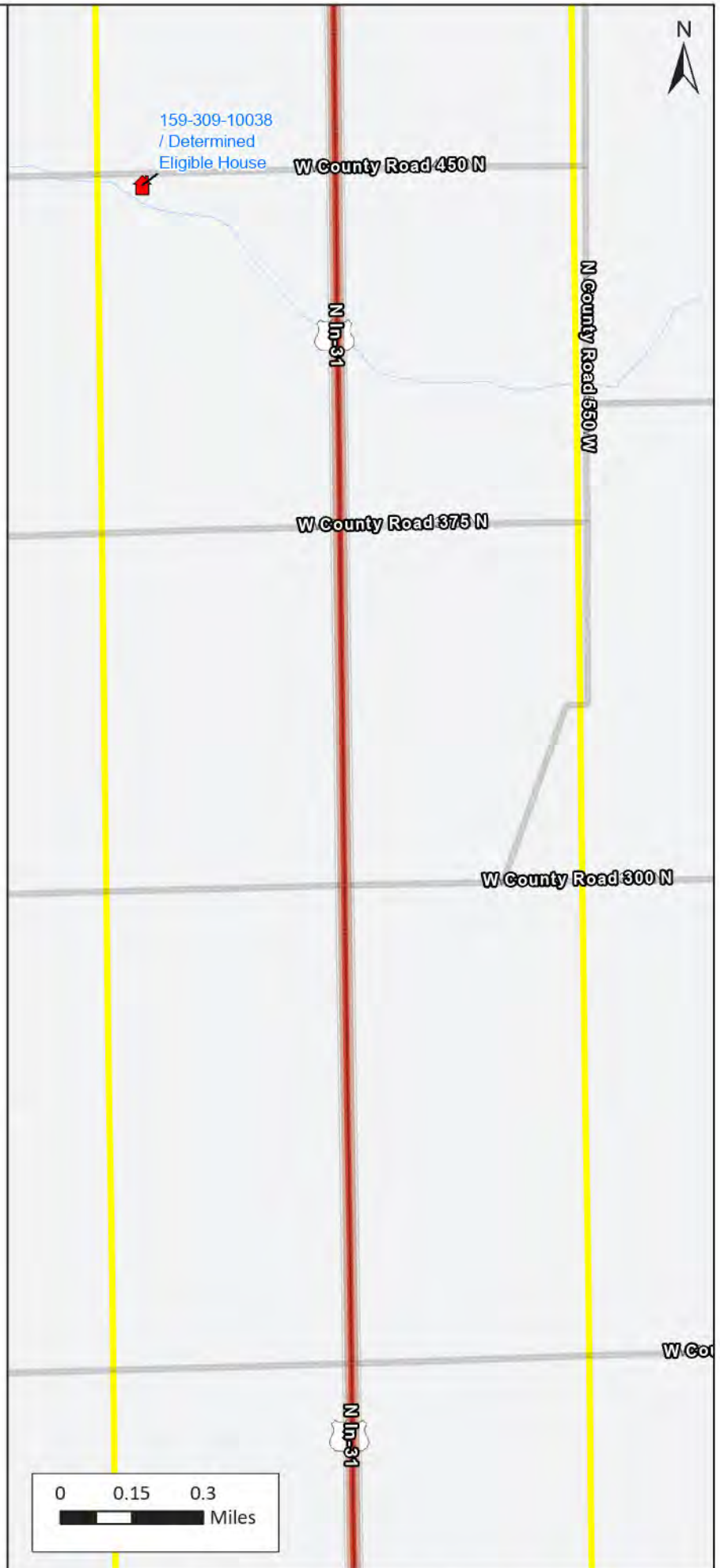
US 31 South

Aboveground Potentially Eligible, Eligible, and NRHP-listed Resources, Tipton County

Legend

- ProPEL US 31 South
- 0.5 Mile Study Buffer
- ▲ Cemeteries
- Bridges
- 🏠 National Register Listed Properties
- 🏠 Notable
- 🏠 Outstanding
- National Register Listed Properties
- County Line

Page 4 of 11





US 31 South
Aboveground Potentially Eligible, Eligible, and NRHP-listed Resources, Tipton County

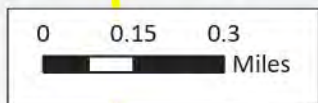
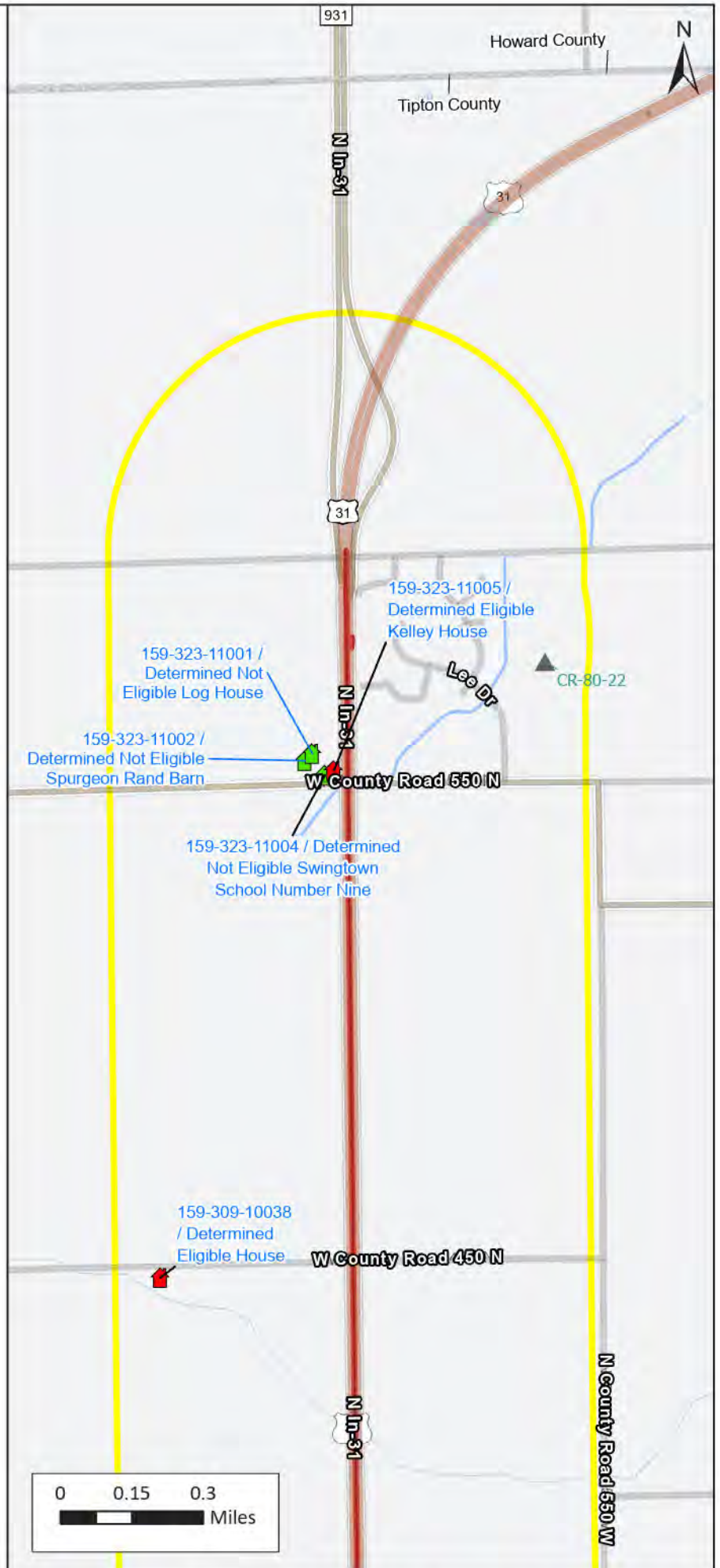
Legend

- ProPEL US 31 South
- 0.5 Mile Study Buffer
- ▲ Cemeteries
- Bridges
- ▤ National Register Listed Properties
- ▤ Notable
- ▤ Outstanding
- National Register Listed Properties
- County Line

Note: IHSSI 159-323-11001 (Log House), 150-323-11002 (Spurgeon Rand Barn), and 159-323-11004 (Springtown School Number Nine) were Previously Determined Not Eligible-Per US 31 Limited Access Study Project-Des.No. 1900096

Note: IHSSI 159-323-11005 (Kelly House) Previously Determined Eligible-Per US 31 Limited Access Study Project-Des.No. 1900096

Page 5 of 11





US 31 South

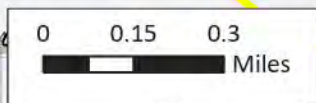
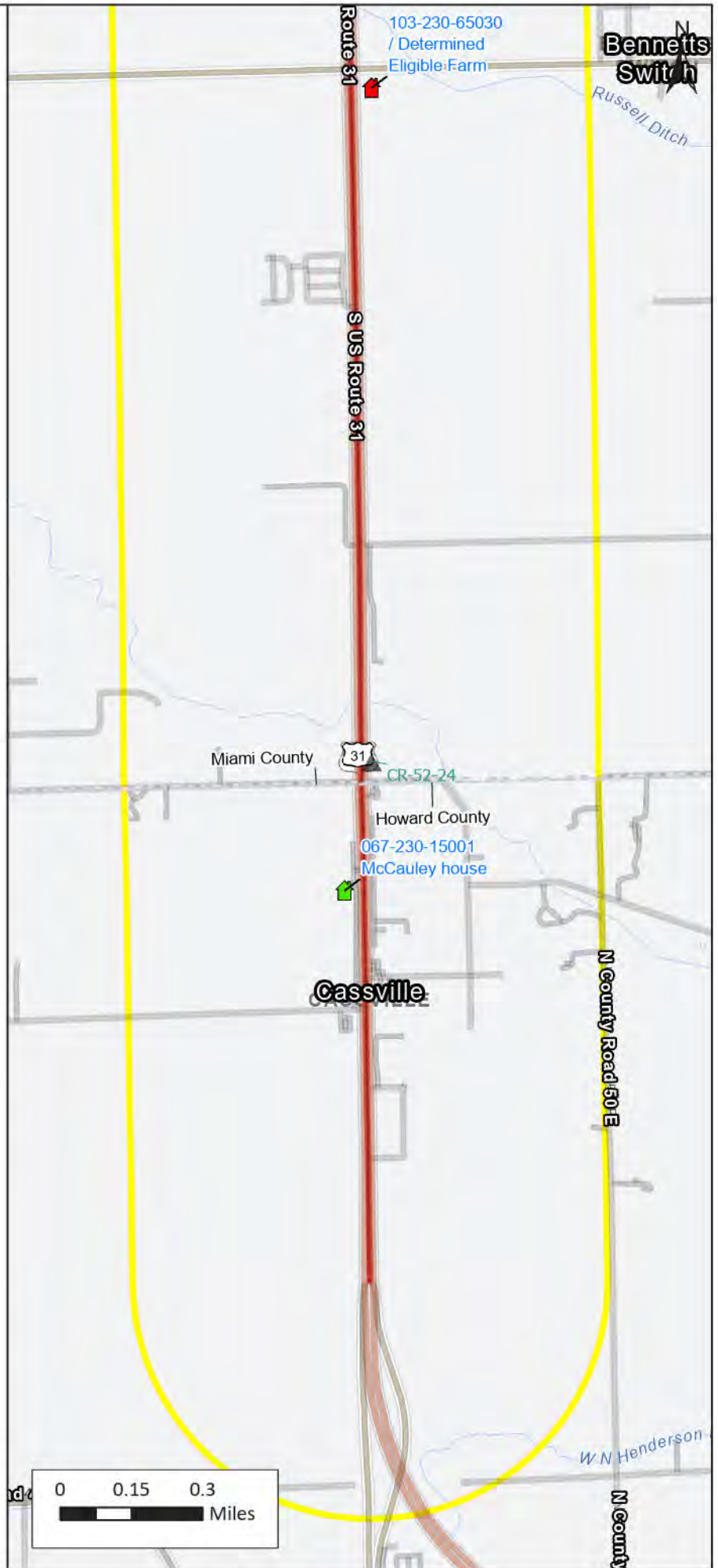
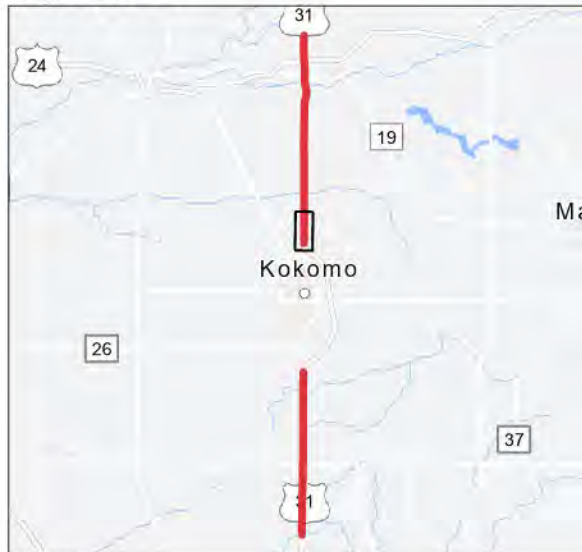
Aboveground Potentially Eligible, Eligible, and NRHP-listed Resources, Howard & Miami Counties

Legend

- ProPEL US 31 South
- 0.5 Mile Study Buffer
- ▲ Cemeteries
- Bridges
- National Register Listed Properties
- Notable
- Outstanding
- National Register Listed Properties
- County Line

Note: IHSSI 103-230-65030 (Cotterman House and Farmstead) was Previously Determined Eligible-Per US 31 and SR 18 Project-Des.No 1383239

Page 6 of 11





US 31 South

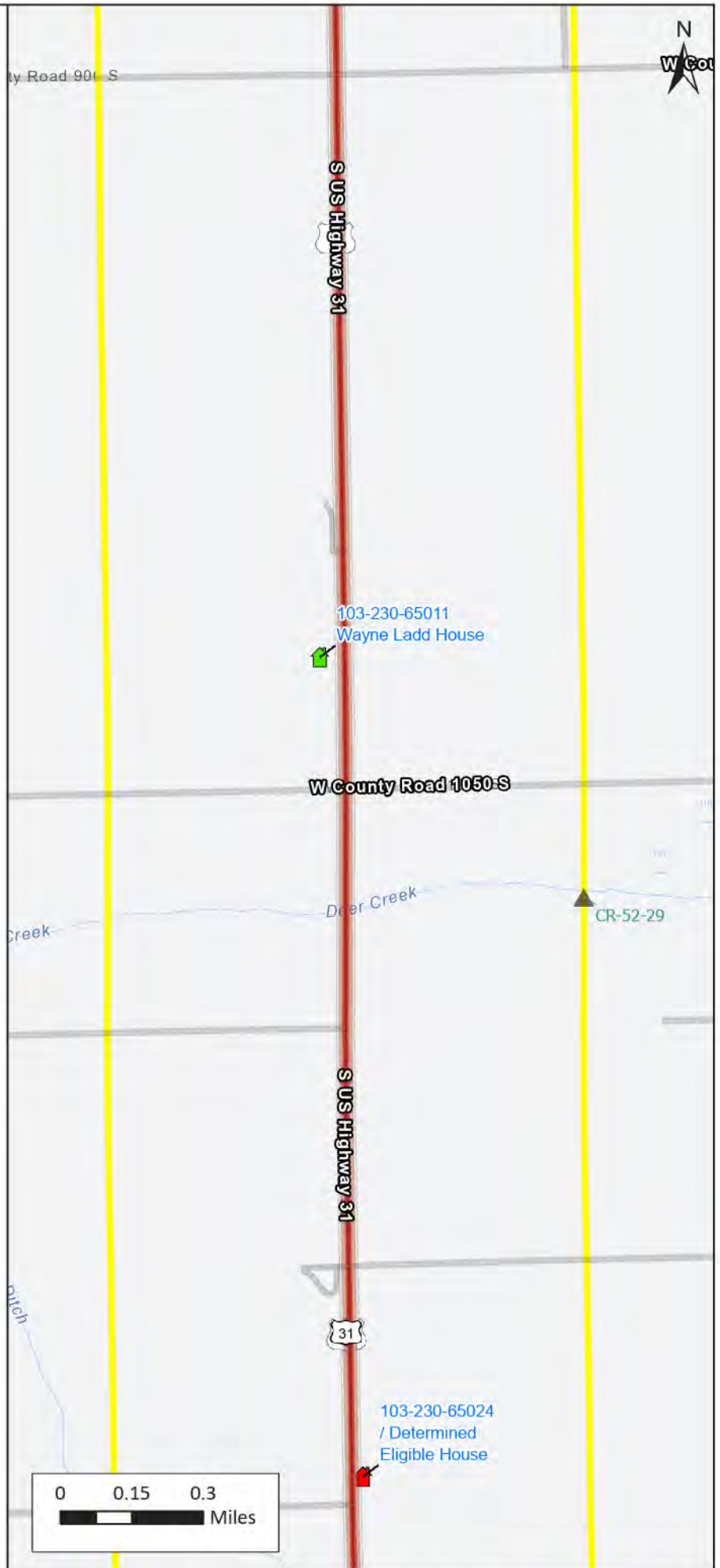
Aboveground Potentially Eligible, Eligible, and NRHP-listed Resources, Miami County

Legend

- ProPEL US 31 South
- 0.5 Mile Study Buffer
- ▲ Cemeteries
- Bridges
- National Register Listed Properties
- Notable
- Outstanding
- National Register Listed Properties
- County Line

Note: IHSSI 103-230-65024 was Previously Determined Eligible-Per INDOT inquiry for potential acquisition

Page 7 of 11





US 31 South

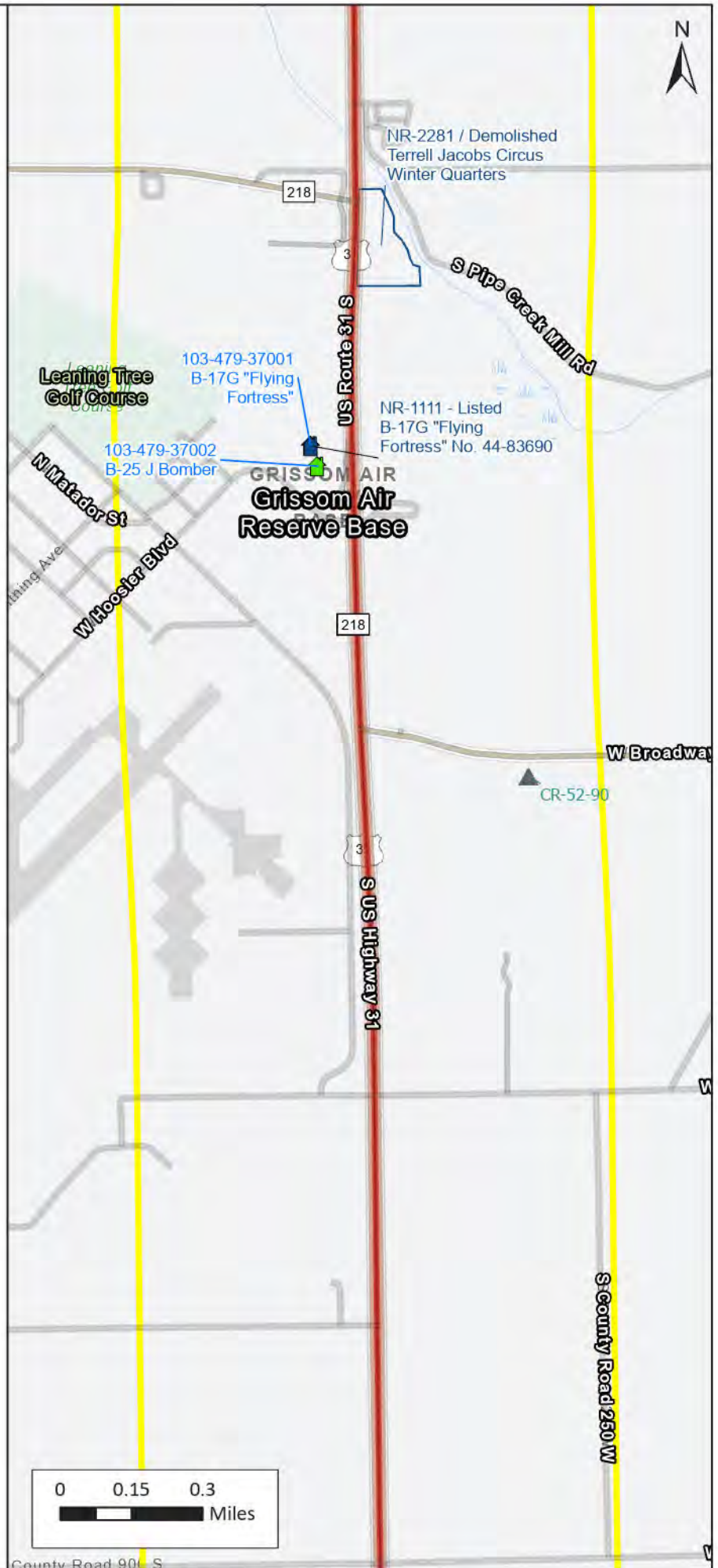
Aboveground Potentially Eligible, Eligible, and NRHP-listed Resources, Miami County

Legend

- ProPEL US 31 South
- 0.5 Mile Study Buffer
- ▲ Cemeteries
- Bridges
- National Register Listed Properties
- Notable
- Outstanding
- National Register Listed Properties
- County Line

Note: IHSSI NR-2811 (Terrell Jacobs Circus Winter Quarters) was demolished by INDOT as part of a state funded project

Page 8 of 11



City of Kokomo, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, Esri, CGIAR, USGS, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS



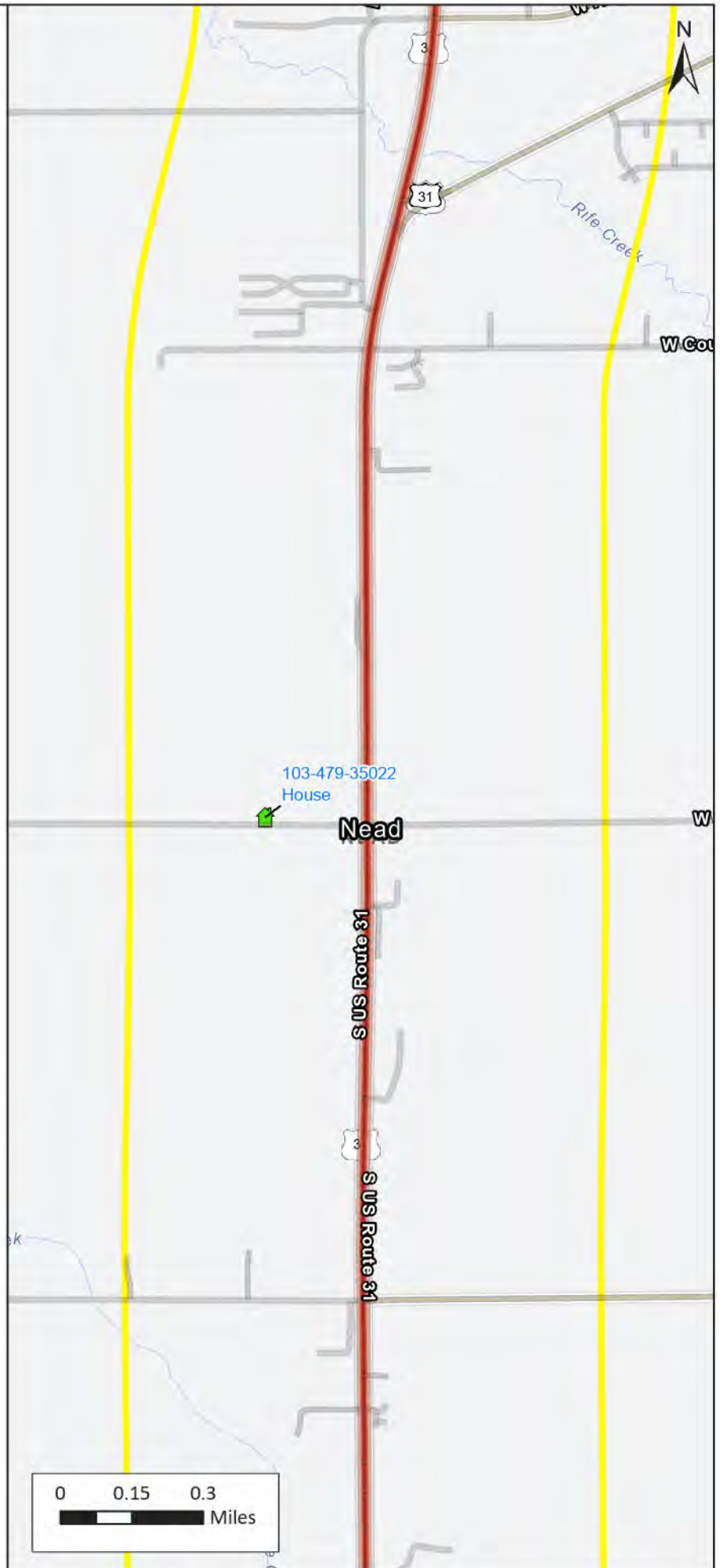
US 31 South

Aboveground Potentially Eligible, Eligible, and NRHP-listed Resources, Miami County

Legend

- ProPEL US 31 South
- 0.5 Mile Study Buffer
- ▲ Cemeteries
- Bridges
- 🏠 National Register Listed Properties
- 🏠 Notable
- 🏠 Outstanding
- National Register Listed Properties
- County Line

Page 9 of 11





US 31 South

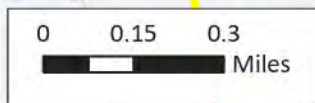
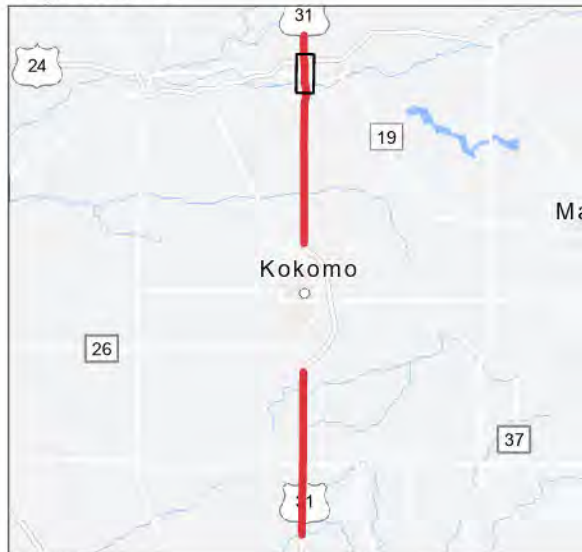
Aboveground Potentially Eligible, Eligible, and NRHP-listed Resources, Miami County

Legend

- ProPEL US 31 South
- 0.5 Mile Study Buffer
- ▲ Cemeteries
- Bridges
- National Register Listed Properties
- Notable
- Outstanding
- National Register Listed Properties
- County Line



Page 10 of 11












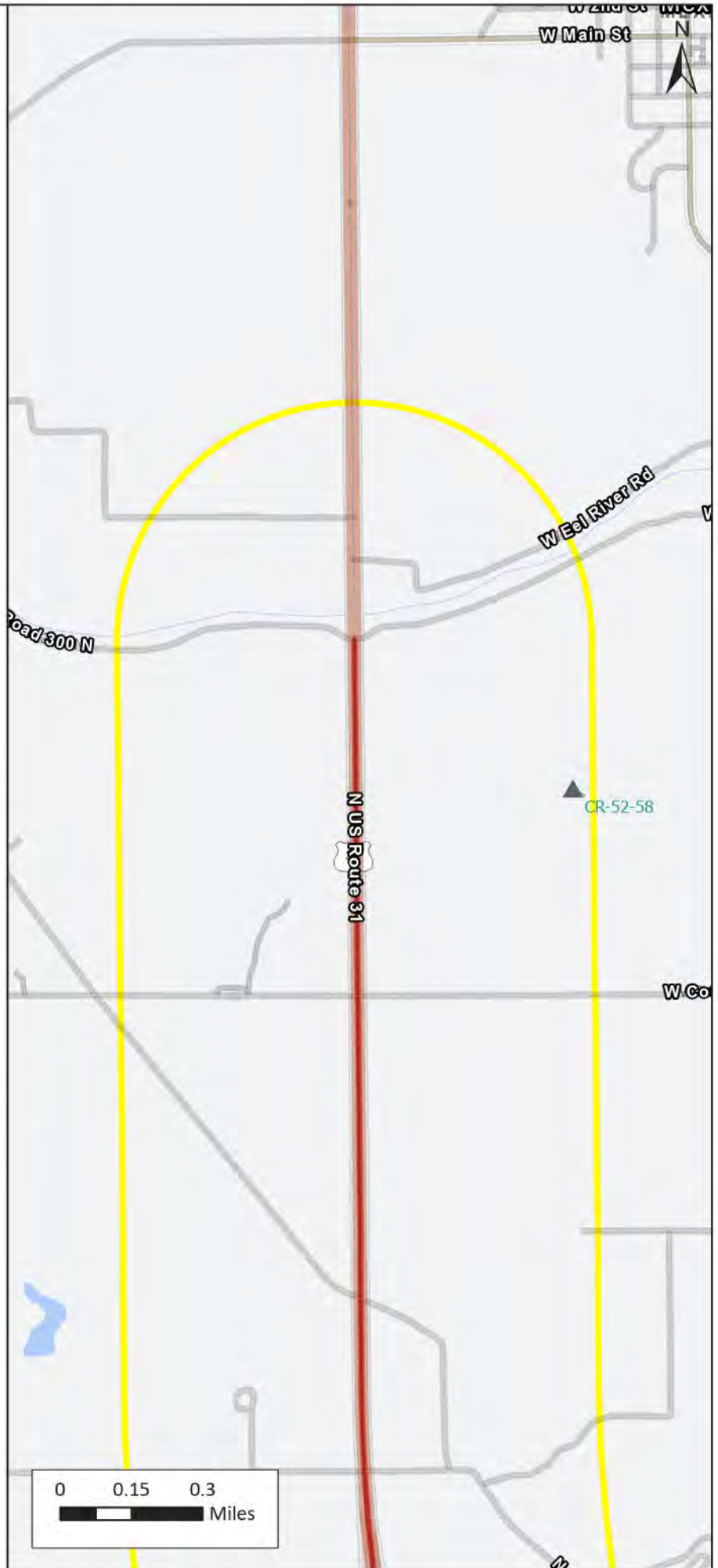


US 31 South

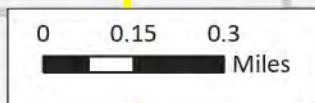
Aboveground Potentially Eligible, Eligible, and NRHP-listed Resources, Miami County

Legend

-  ProPEL US 31 South
-  0.5 Mile Study Buffer
-  Cemeteries
-  Bridges
-  National Register Listed Properties
-  Notable
-  Outstanding
-  National Register Listed Properties
-  County Line



Page 11 of 11










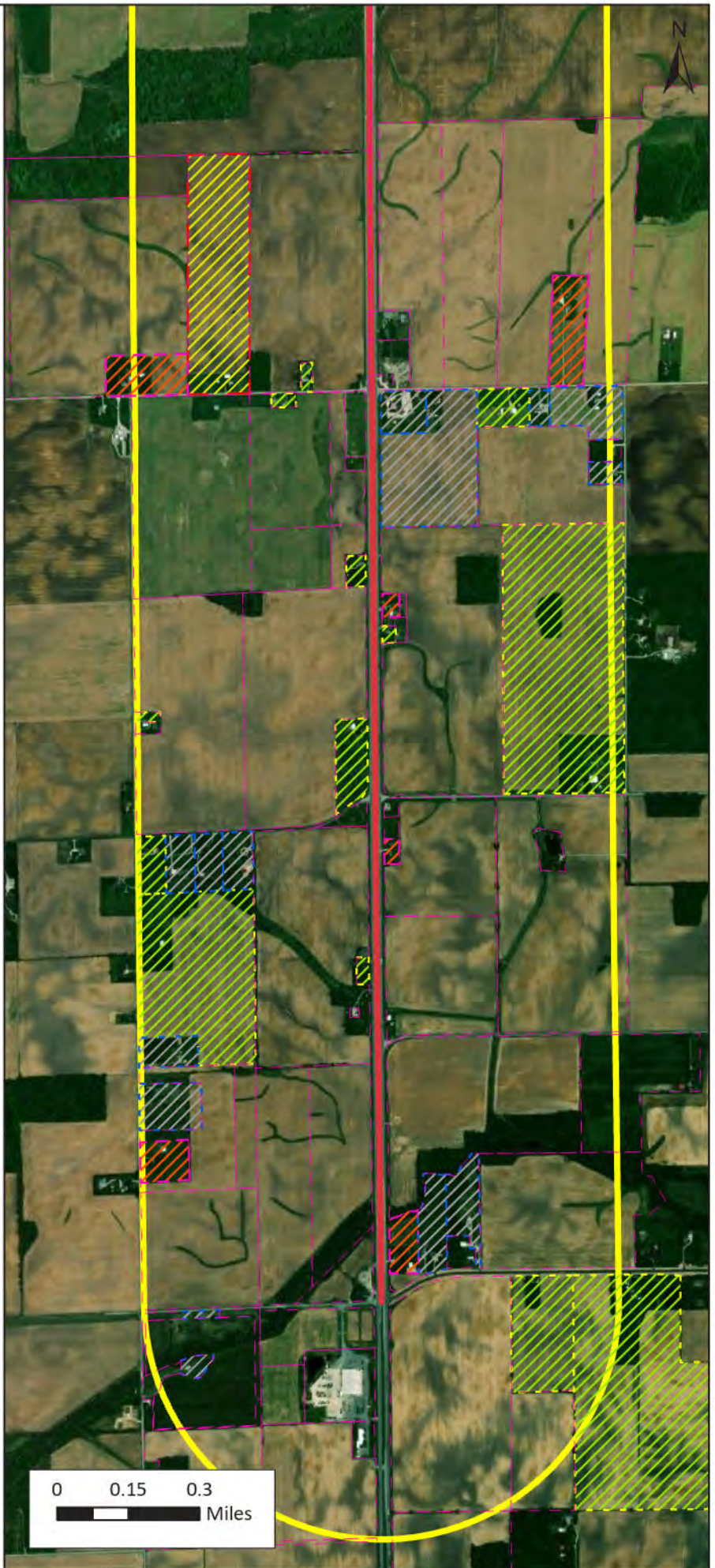


US 31 South

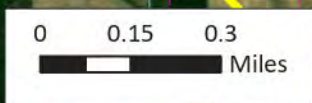
Structure Construction Date Ranges by Tax Parcel

Legend

-  01 - Pre-1880
-  02 - 1880-1939
-  03 - 1940-1976
-  04 - Post-1976
-  No Structures on Parcel
-  ProPEL US 31 South
-  0.5 Mile Study Buffer



Page 1 of 11










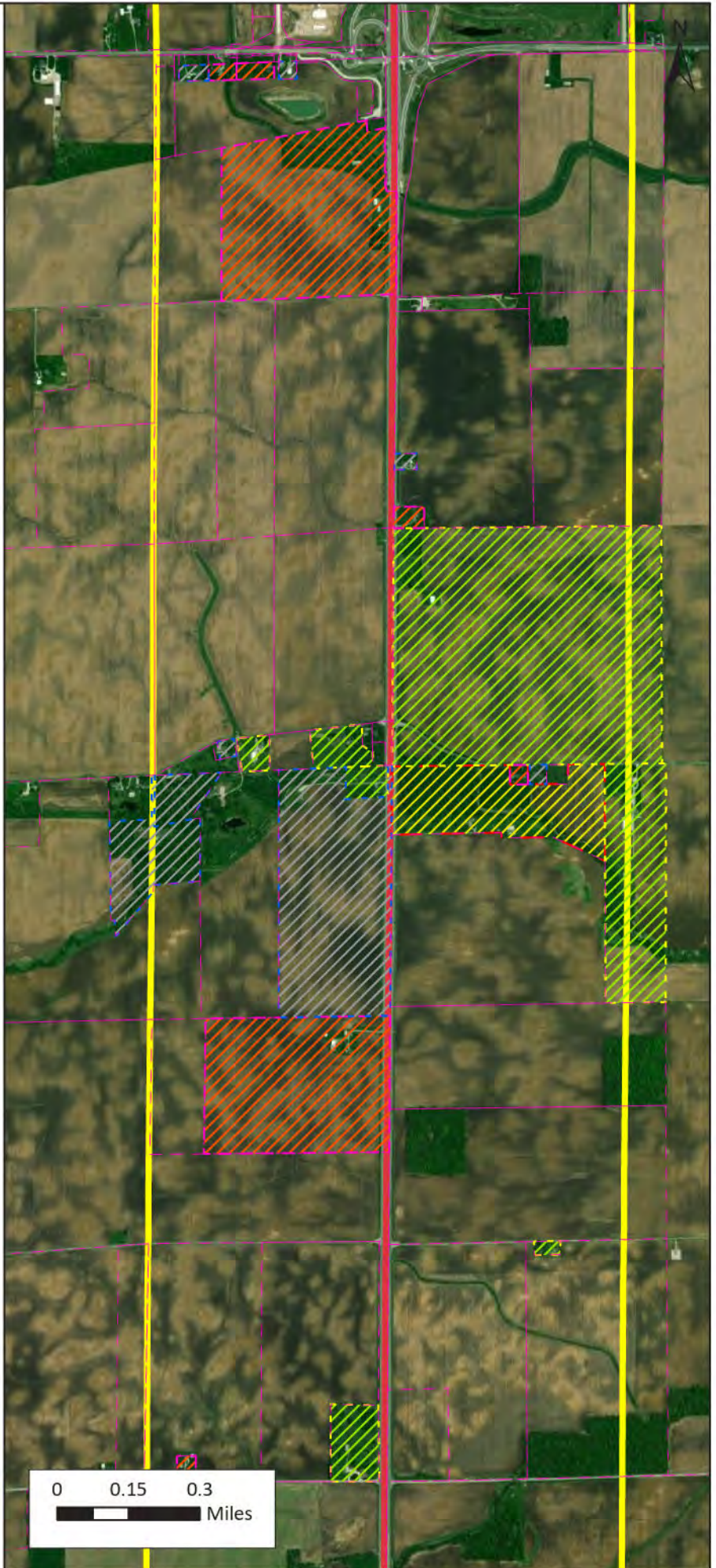


US 31 South

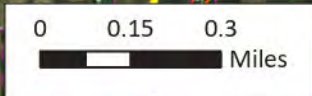
Structure Construction Date Ranges by Tax Parcel

Legend

-  01 - Pre-1880
-  02 - 1880-1939
-  03 - 1940-1976
-  04 - Post-1976
-  No Structures on Parcel
-  ProPEL US 31 South
-  0.5 Mile Study Buffer



Page 2 of 11










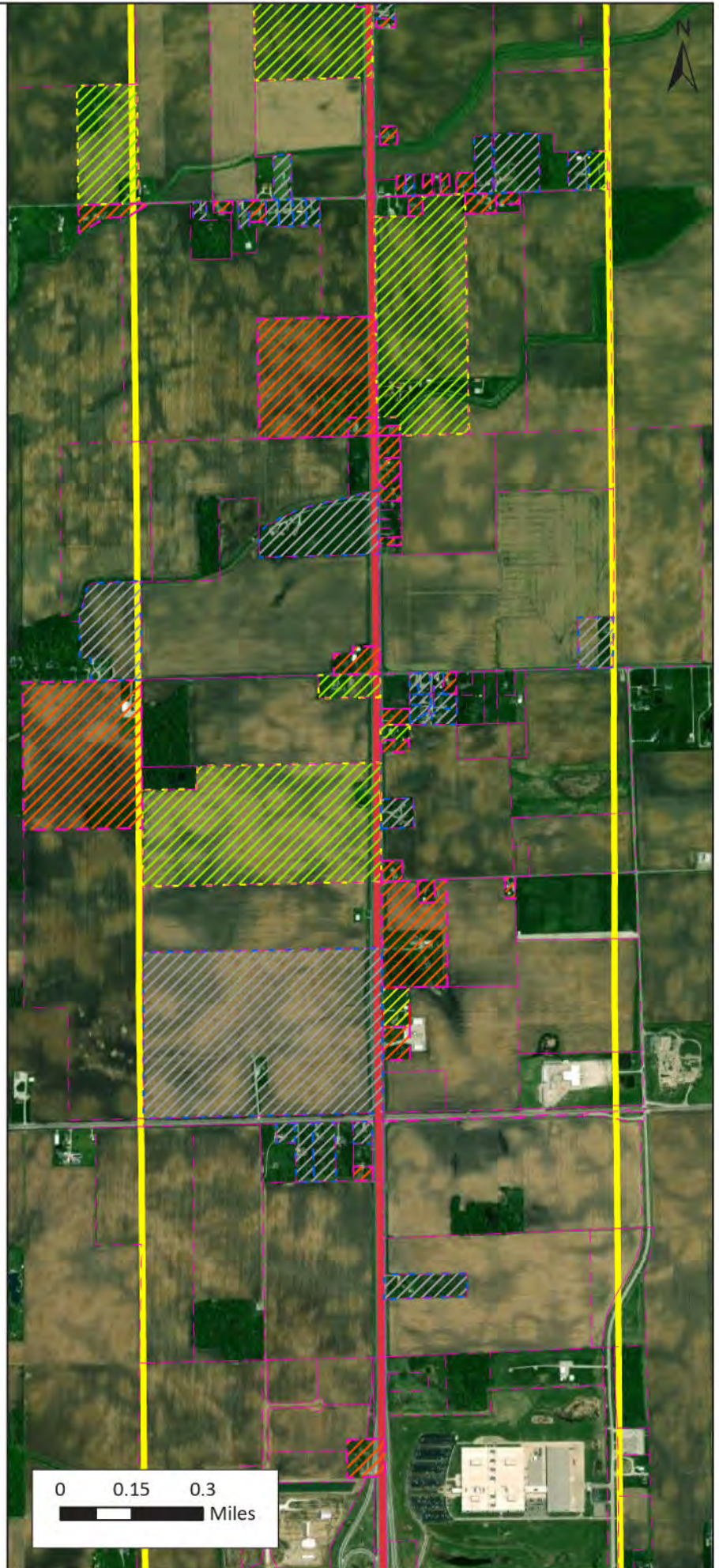


US 31 South

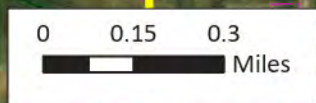
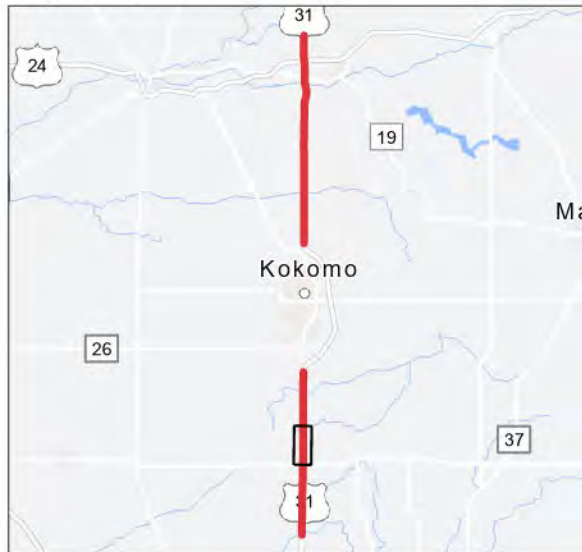
Structure Construction Date Ranges by Tax Parcel

Legend

-  01 - Pre-1880
-  02 - 1880-1939
-  03 - 1940-1976
-  04 - Post-1976
-  No Structures on Parcel
-  ProPEL US 31 South
-  0.5 Mile Study Buffer



Page 3 of 11










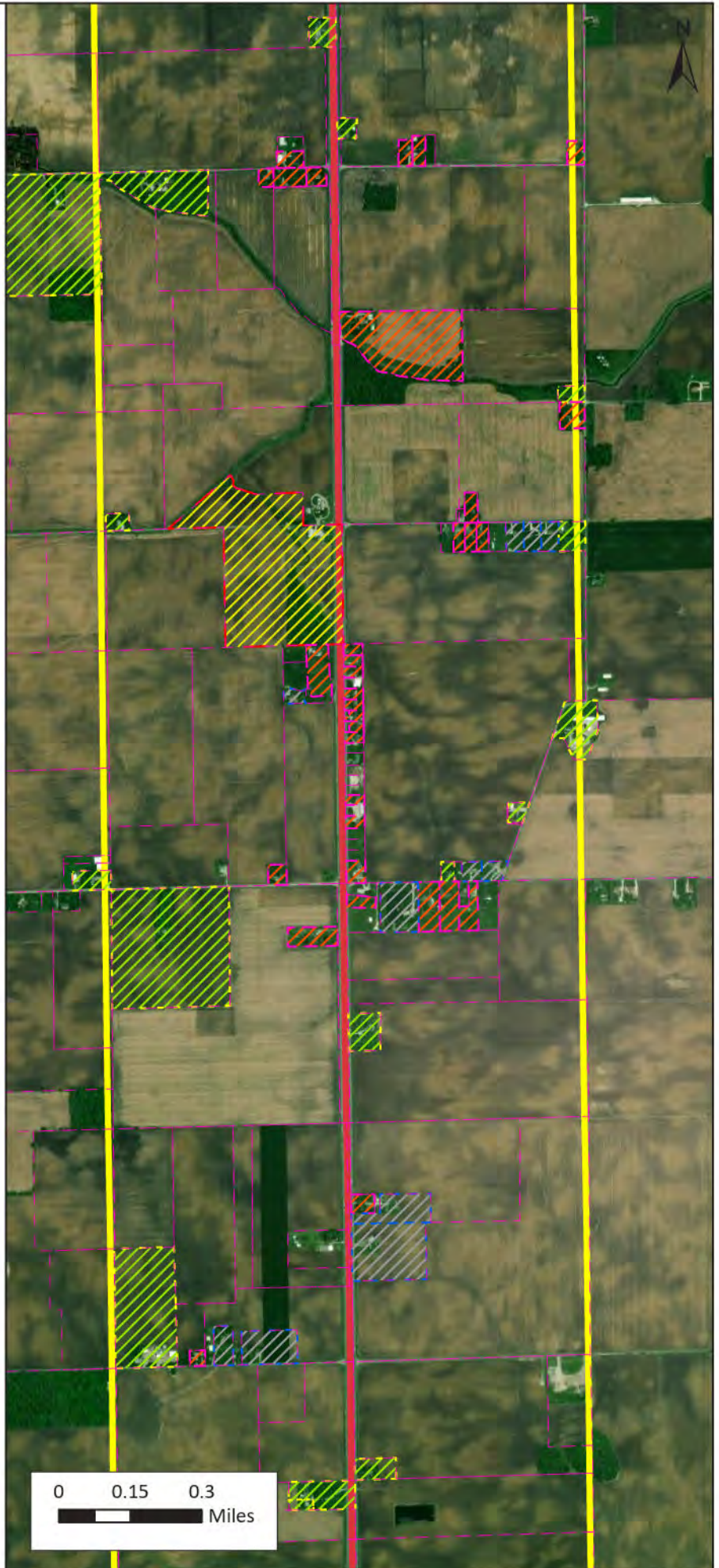


US 31 South

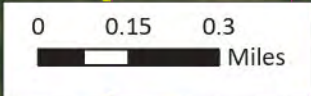
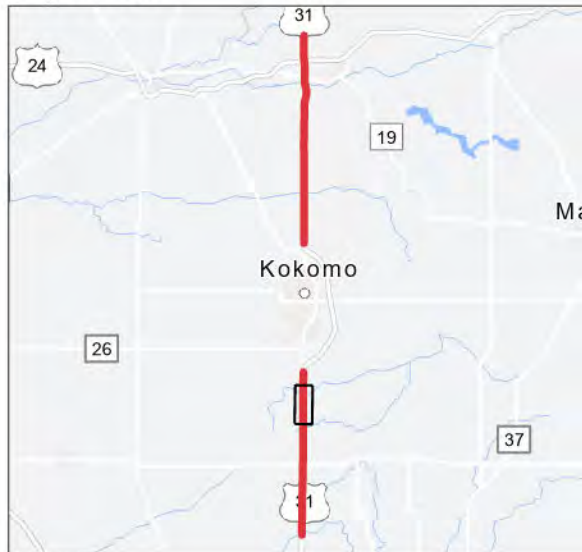
Structure Construction Date Ranges by Tax Parcel

Legend

-  01 - Pre-1880
-  02 - 1880-1939
-  03 - 1940-1976
-  04 - Post-1976
-  No Structures on Parcel
-  ProPEL US 31 South
-  0.5 Mile Study Buffer



Page 4 of 11










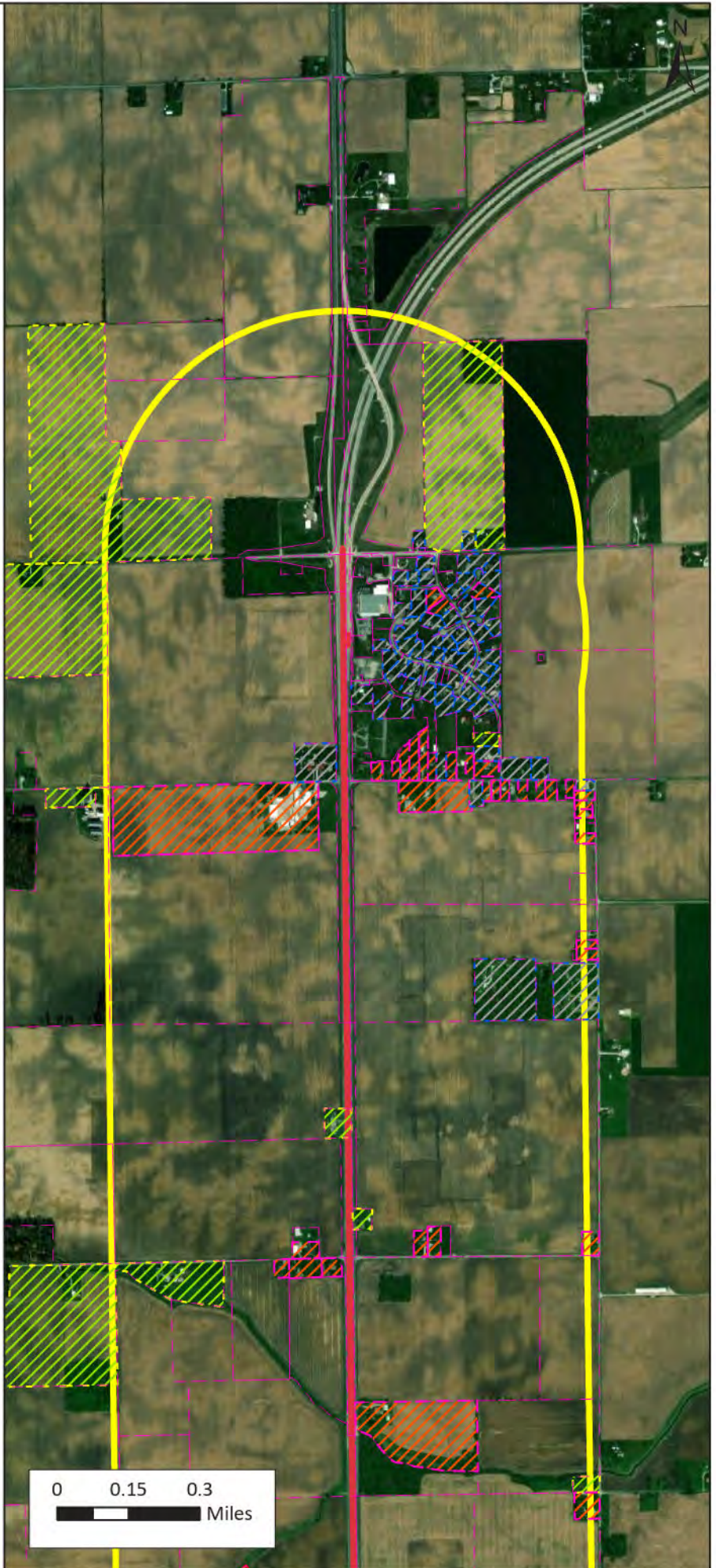


US 31 South

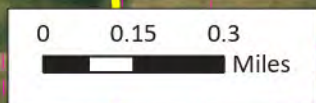
Structure Construction Date Ranges by Tax Parcel

Legend

-  01 - Pre-1880
-  02 - 1880-1939
-  03 - 1940-1976
-  04 - Post-1976
-  No Structures on Parcel
-  ProPEL US 31 South
-  0.5 Mile Study Buffer



Page 5 of 11










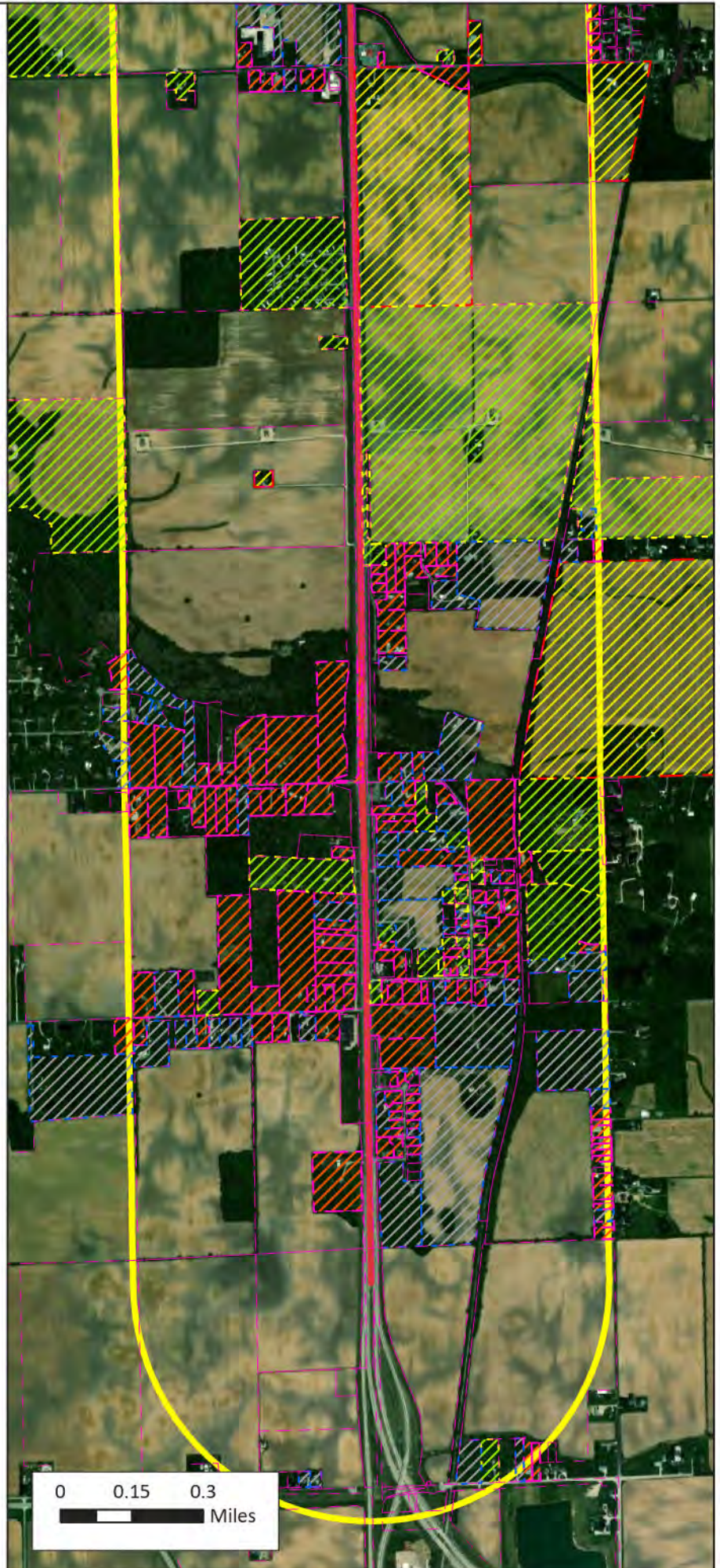


US 31 South

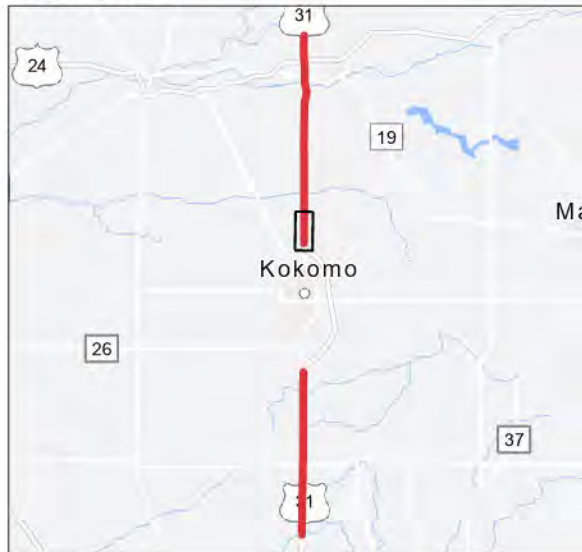
Structure Construction Date Ranges by Tax Parcel

Legend

-  01 - Pre-1880
-  02 - 1880-1939
-  03 - 1940-1976
-  04 - Post-1976
-  No Structures on Parcel
-  ProPEL US 31 South
-  0.5 Mile Study Buffer



Page 6 of 11










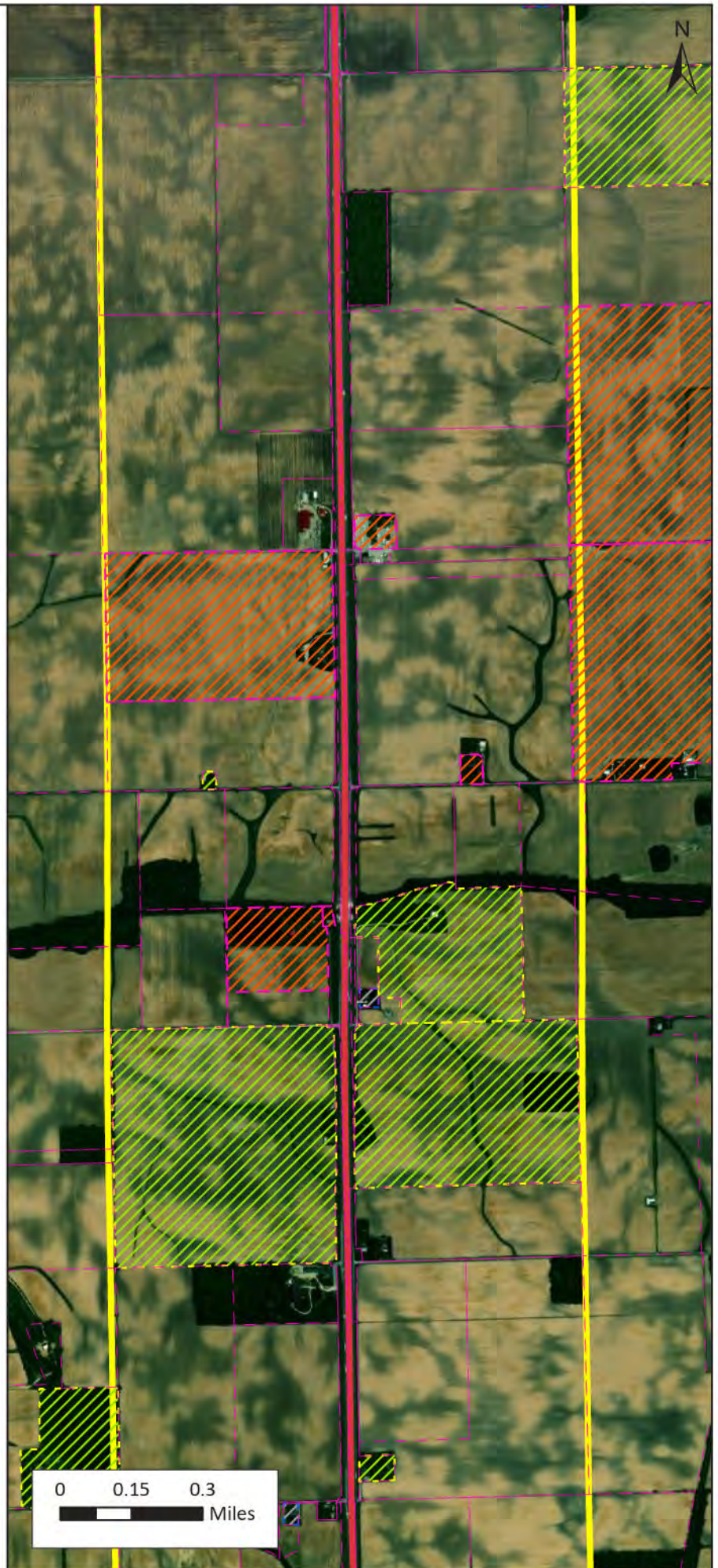


US 31 South

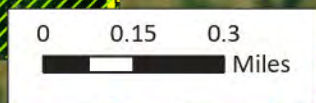
Structure Construction Date Ranges by Tax Parcel

Legend

-  01 - Pre-1880
-  02 - 1880-1939
-  03 - 1940-1976
-  04 - Post-1976
-  No Structures on Parcel
-  ProPEL US 31 South
-  0.5 Mile Study Buffer



Page 7 of 11










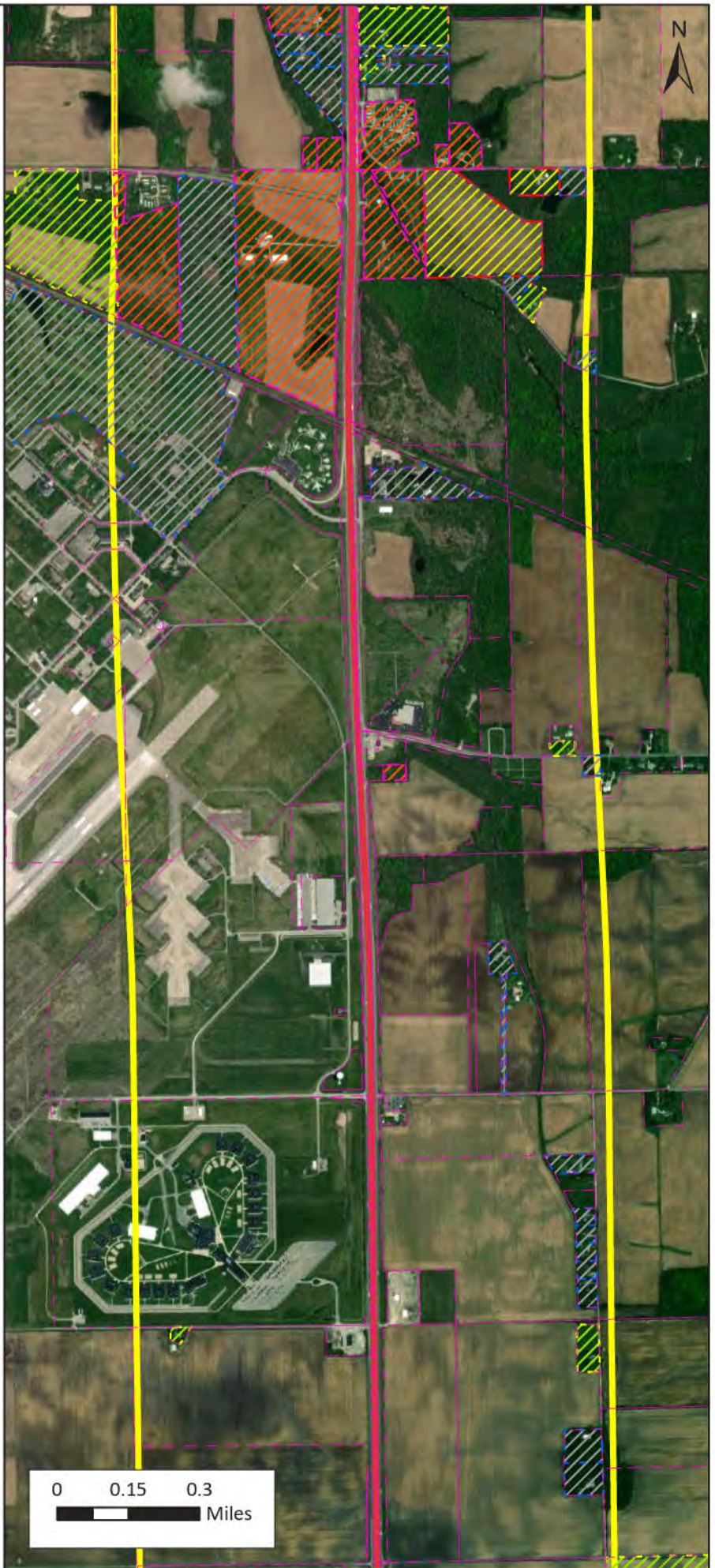


US 31 South

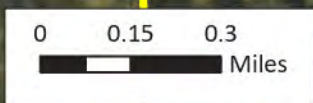
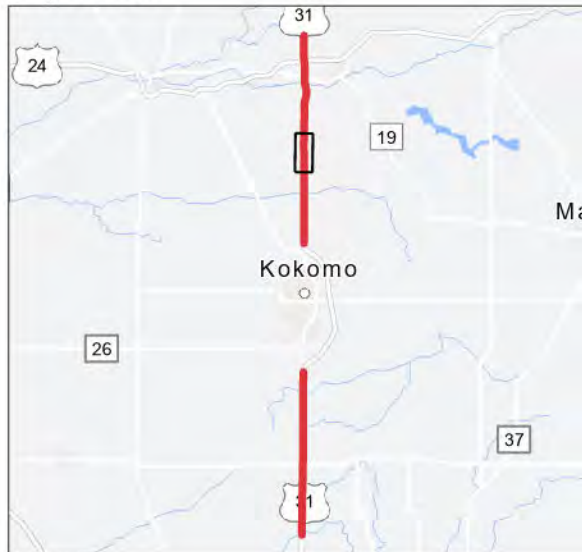
Structure Construction Date Ranges by Tax Parcel

Legend

-  01 - Pre-1880
-  02 - 1880-1939
-  03 - 1940-1976
-  04 - Post-1976
-  No Structures on Parcel
-  ProPEL US 31 South
-  0.5 Mile Study Buffer



Page 8 of 11










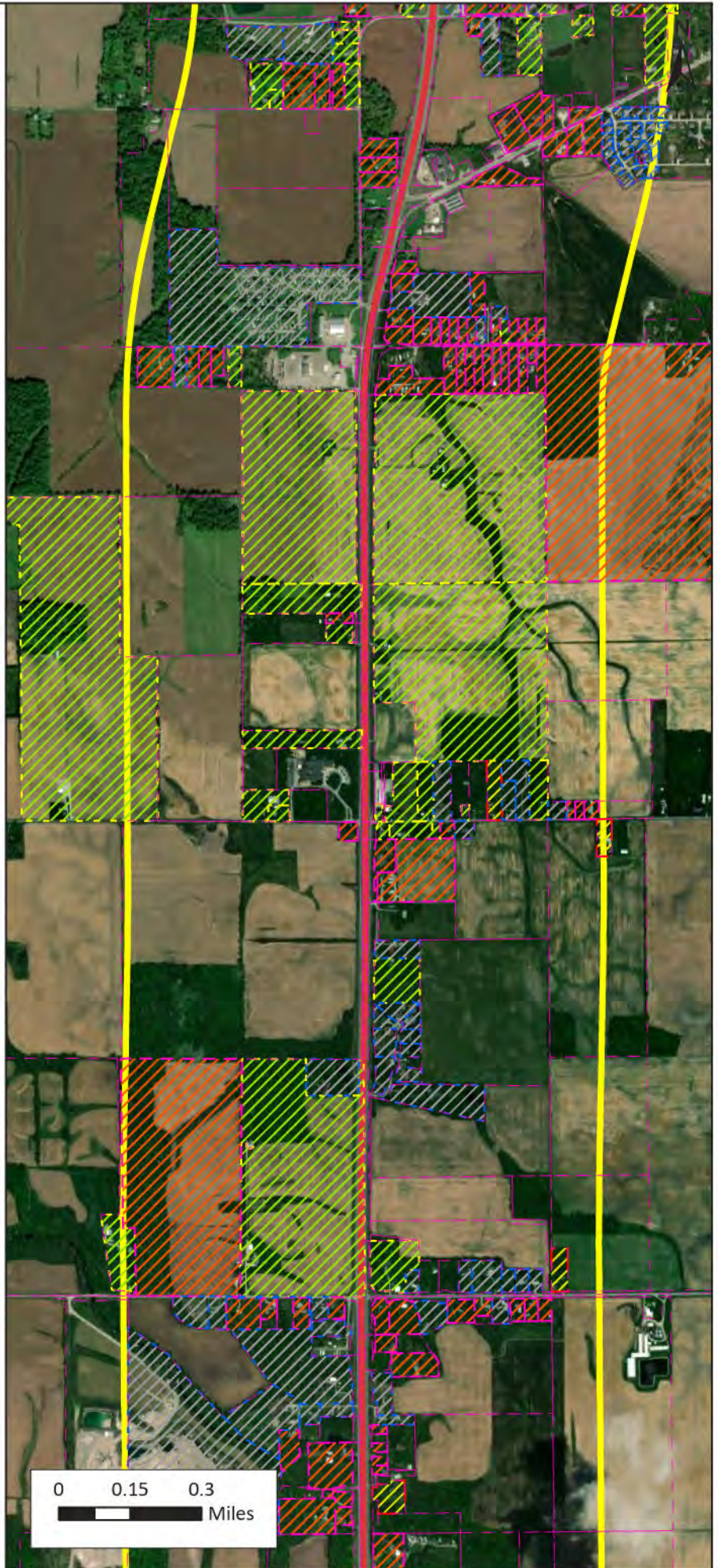


US 31 South

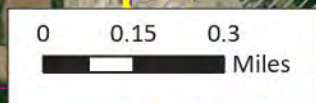
Structure Construction Date Ranges by Tax Parcel

Legend

-  01 - Pre-1880
-  02 - 1880-1939
-  03 - 1940-1976
-  04 - Post-1976
-  No Structures on Parcel
-  ProPEL US 31 South
-  0.5 Mile Study Buffer



Page 9 of 11










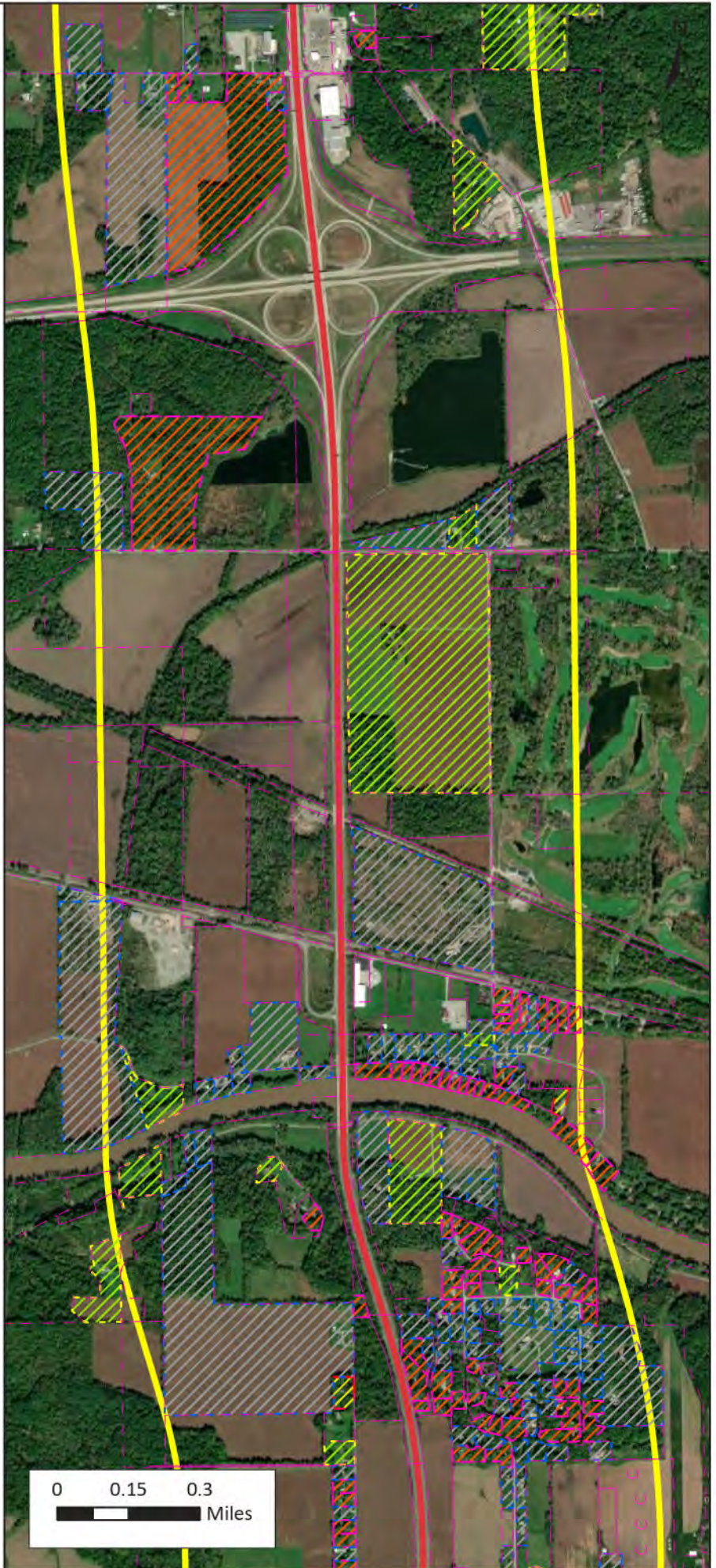


US 31 South

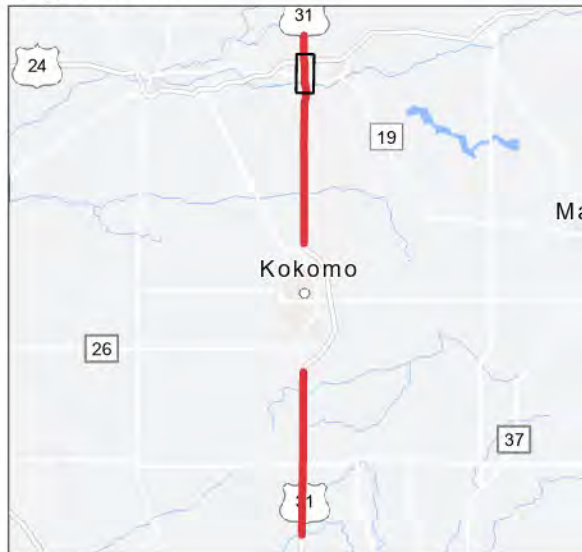
Structure Construction Date Ranges by Tax Parcel

Legend

-  01 - Pre-1880
-  02 - 1880-1939
-  03 - 1940-1976
-  04 - Post-1976
-  No Structures on Parcel
-  ProPEL US 31 South
-  0.5 Mile Study Buffer



Page 10 of 11










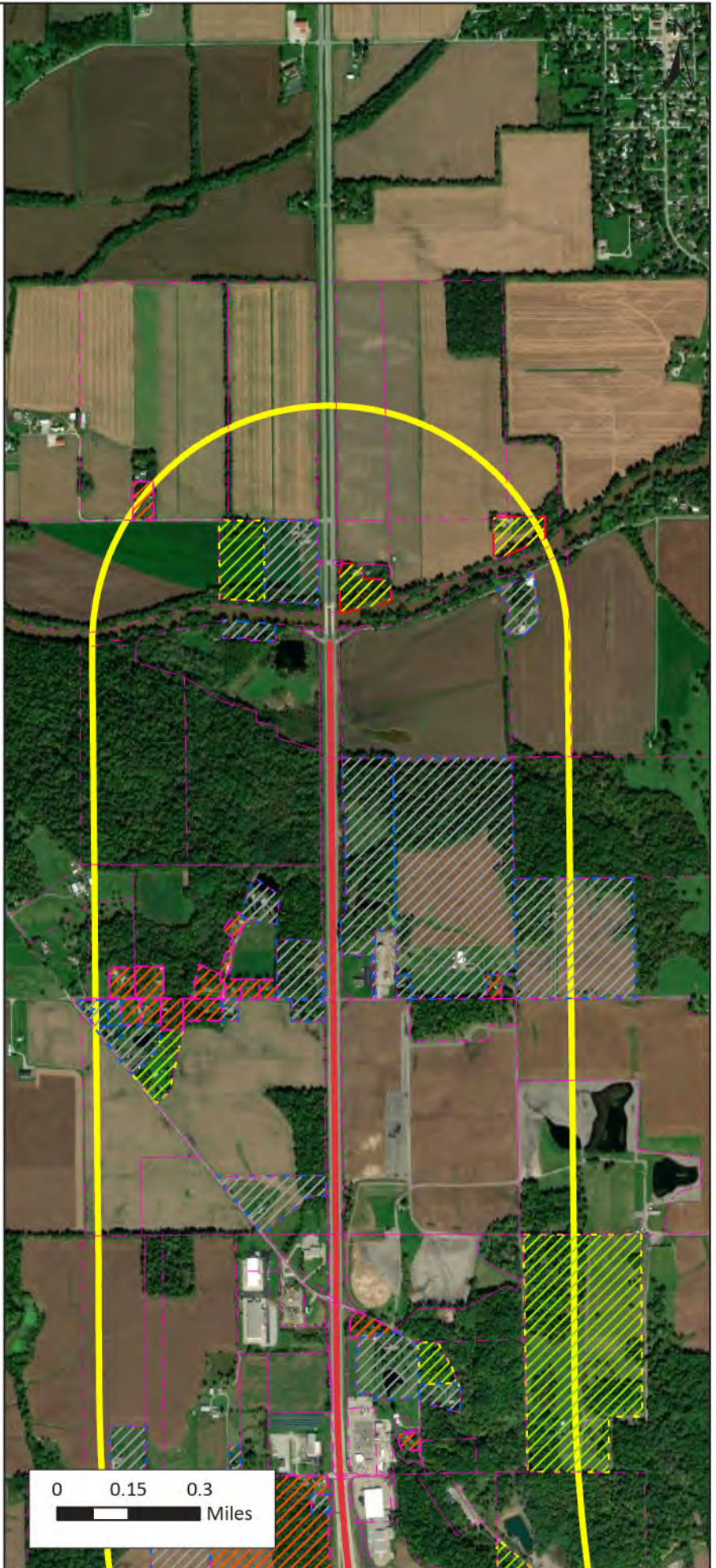


US 31 South

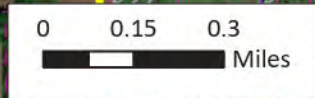
Structure Construction Date Ranges by Tax Parcel

Legend

-  01 - Pre-1880
-  02 - 1880-1939
-  03 - 1940-1976
-  04 - Post-1976
-  No Structures on Parcel
-  ProPEL US 31 South
-  0.5 Mile Study Buffer



Page 11 of 11



APPENDIX B: CULTURAL RESOURCES-TABLES

Notable and Outstanding Above-Ground Resource Descriptions

| County | IHSSI Number | Name | Rating | Notes |
|--------|---------------|-------------------------------|--------------|---|
| Howard | 067-230-15001 | McCauley House | Notable | |
| Miami | 103-479-35022 | House | Notable | |
| Miami | 103-479-37001 | B-17G "Flying Fortress" | Outstanding | Listed, B-17G "Flying Fortress" No. 44-83690 |
| Miami | 103-230-65030 | Cotterman House and Farmstead | Outstanding | Previously Determined Eligible-Per US 31 and SR 18 Project-Des.No. 1383239 |
| Miami | 103-230-65011 | Wayne Ladd House | Notable | |
| Miami | 103-479-37002 | B-25 J Bomber | Notable | |
| Miami | 103-230-65024 | House | Contributing | Previously Determined Eligible-Per INDOT inquiry for potential acquisition. |
| Tipton | 159-309-10038 | House (Western Bungalow) | Contributing | Previously Determined Eligible-Western Bungalow-Per US 31 Limited Access Study Project-Des.No.1900096 |
| Tipton | 159-323-11004 | Swingtown School Number Nine | Notable | Previously Determined Not Eligible-Per US 31 Limited Access Study Project-Des.No.1900096 |
| Tipton | 159-323-11005 | Kelley House | Outstanding | Previously Determined Eligible-Per US 31 Limited Access Study Project-Des.No.1900096 |
| Tipton | 159-309-20021 | Hopewell Methodist Church | Outstanding | Previously Determined Eligible-Per US 31 Limited Access Study Project-Des.No.1900096 |
| Tipton | 159-323-11002 | Spurgeon Rand Barn | Notable | Previously Determined Not Eligible-Per US 31 Limited Access Study Project-Des.No.1900096 |
| Tipton | 159-630-20048 | James Innes House | Notable | Previously Determined Not Eligible-Per US 31 Limited Access Study Project-Des.No.1900096 |
| Miami | 103-507-30019 | Farm | Outstanding | |
| Miami | 103-479-35006 | Spangler Farm | Notable | |
| Tipton | 159-323-11001 | Log House | Notable | Previously Determined Not Eligible-Per US 31 Limited Access Study Project-Des.No.1900096 |
| Tipton | 159-587-15097 | Endicott House | Notable | Previously Determined Eligible-Per US US 31 Limited Access Study Project-Des.No.1900096 |

Listed National Register of Historic Places Properties

| County | SHAARD Number | Name | Status | Notes |
|--------|---------------|---------------------------------------|--------|------------|
| Miami | NR-1111 | B-17G "Flying Fortress" No. 44-83690 | Listed | |
| Miami | NR-2281 | Terrell Jacobs Circus Winter Quarters | Listed | Demolished |

Listed National Register of Historic Places Bridges

| County | SHAARD Number | Name | Status | Notes |
|--------|---------------|---|------------|-------|
| Miami | HB-1120 | Miami County Bridge Number 76 | Demolished | |
| Miami | HB-3070 | Indiana State Highway Bridge Number 18-52-1434A | Demolished | |

Identified Cemeteries

| County | SHAARD Number | Name | Notes |
|----------|---------------|--------------|-------|
| Hamilton | CR-29-77 | East Union | |
| Miami | CR-52-24 | Cassville | |
| Miami | CR-52-29 | Reed | |
| Miami | CR-52-58 | Moss | |
| Miami | CR-52-90 | Springdale | |
| Tipton | CR-80-1 | Bethsaida | |
| Tipton | CR-80-13 | Center Grove | |
| Tipton | CR-80-22 | Richardson | |

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated March 2022)

| ProjectNumber | SubProjectCode | County | Property |
|---------------|----------------|----------|--|
| 1800017 | 1800017 | Hamilton | Forest Park & Trail, White River Access Site |
| 1800058 | 1800058 | Hamilton | Forest Park & Trail, White River Access Site |
| 1800128 | 1800128 | Hamilton | Morse Park & Beach |
| 1800198 | 1800198 | Hamilton | Cicero Community Park |
| 1800236 | 1800236 | Hamilton | Forest Park & Trail, White River Access Site |
| 1800493 | 1800493 | Hamilton | Flowing Well Park |
| 1800502 | 1800502 | Hamilton | Cool Creek County Park |
| 1800519 | 1800519 | Hamilton | Taylor Property |
| 1800551 | 1800551 | Hamilton | MacGregor Park |
| 1800581 | 1800581 | Hamilton | MacGregor Park |

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated March 2022)

| ProjectNumber | SubProjectCode | County | Property |
|---------------|----------------|--------|--------------------|
| 1800023 | 1800023 | Tipton | Tipton City Park |
| 1800249 | 1800249 | Tipton | Kemp Memorial Park |

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated March 2022)

| ProjectNumber | SubProjectCode | County | Property |
|---------------|----------------|--------|-----------------------------|
| 1800045 | 1800045 | Howard | Northwest Park, Wilson Park |
| 1800318 | 1800318 | Howard | Darrough Chapel Park |
| 1800367 | 1800367 | Howard | Darrough Chapel Park |
| 1800437 | 1800437 | Howard | Jackson Morrow Park |
| 1800530 | 1800530 | Howard | Jackson Morrow Park |

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.

Land and Water Conservation Fund (LWCF) County Property List for Indiana (Last Updated March 2022)

| ProjectNumber | SubProjectCode | County | Property |
|---------------|----------------|--------|---|
| 1800069 | 1800069B | Miami | Miami State Recreation Area |
| 1800171 | 1800171Y | Miami | Mississinewa Reservoir |
| 1800375 | 1800375D | Miami | Mississinewa Reservoir |
| 1800413 | 1800413H | Miami | Miami State Recreation Area, Mississinewa Reservoir |
| 1800449 | 1800449A | Miami | Miami State Recreation Area, Mississinewa Reservoir |
| 1800563 | 1800563 | Miami | Mississinewa Reservoir - Miami SRA |
| 1800594 | 1800594B | Miami | Miami SRA |

*Park names may have changed. If acquisition of publically owned land or impacts to publically owned land is anticipated, coordination with IDNR, Division of Outdoor Recreation, should occur.



US 31 South
Noise-Sensitive Areas Identification
Memorandum

April 14, 2023

Prepared By

HNTB



TABLE OF CONTENTS

| | | |
|------|---|-----|
| 1. | Introduction | 1 |
| 1.1. | Purpose of This Memorandum | 1 |
| 1.2. | Study Description | 1 |
| 2. | Legislation and Noise Fundamentals | 3 |
| 2.1. | Regulatory Requirements | 3 |
| 2.2. | Traffic Noise | 3 |
| 3. | Noise Study Methodology | 6 |
| 3.1. | PEL Noise Methodology | 6 |
| 3.2. | Identification of Land Uses | 7 |
| 3.3. | Common Noise Environments | 7 |
| 4. | Areas for Further Investigation | 11 |
| 5. | Conclusion | 13 |
| 6. | References | 14 |
| 7. | Appendix A: Noise-Sensitive Area Maps | A-1 |

LIST OF FIGURES

| | | |
|-----------|---|---|
| Figure 1. | Study Location Map | 2 |
| Figure 2. | Sound Levels of Typical Noise Sources | 5 |

LIST OF TABLES

| | | |
|----------|--|----|
| Table 1. | FHWA Noise Abatement Criteria | 6 |
| Table 2. | Identified CNEs, Receptors and Areas for Further Investigation | 12 |

1. INTRODUCTION

1.1. PURPOSE OF THIS MEMORANDUM

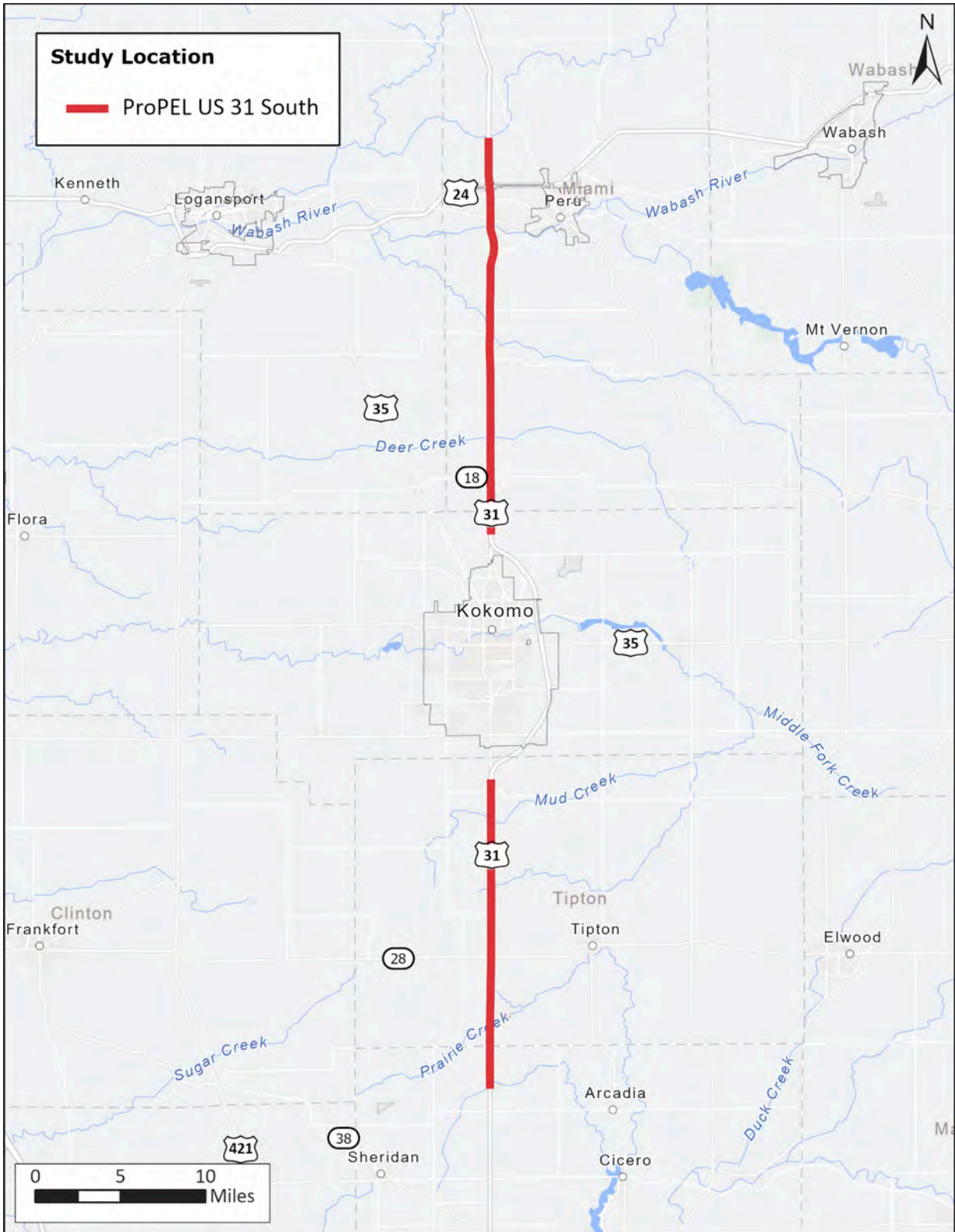
The Indiana Department of Transportation (INDOT) is conducting Planning and Environmental Linkages (PEL) studies on the US 30 and US 31 corridors in central and northern Indiana. This Noise-Sensitive Areas Identification Memorandum has been prepared for the ProPEL US 31 South study.

The purpose of this memorandum is to identify noise-sensitive areas along the US 31 South corridor, including those with sufficient density such that noise abatement could potentially be determined reasonable and feasible in future studies per INDOT's 2022 *Traffic Noise Analysis Procedure* (Noise Policy). These potentially noise-sensitive areas are identified to evaluate how they may influence future projects for this corridor. Formal noise analysis will not be completed during the ProPEL US 31 study, but will occur, if required, during subsequent National Environmental Policy Act (NEPA) analysis.

1.2. STUDY DESCRIPTION

The ProPEL US 31 South study area includes US 31 from approximately 276th Street in Hamilton County north to the State Route (SR) 931 south junction in Tipton County, and from the SR 931 north junction in Howard County north to County Road (CR) West 300 North in Miami County. The US 31 Kokomo bypass is excluded from the ProPEL US 31 South study. The study location map is shown in **Figure 1**.

Figure 1. Study Location Map



City of Kokomo, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, EPA, NPS, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, NPS

2. LEGISLATION AND NOISE FUNDAMENTALS

2.1. REGULATORY REQUIREMENTS

INDOT is conducting the ProPEL US 31 South study in coordination with the Federal Highway Administration (FHWA). FHWA regulations for highway traffic noise for federal-aid highway projects are contained in the Code of Federal Regulations, Title 23 Part 772 (23 CFR 772). The INDOT *Traffic Noise Analysis Procedure* (Noise Policy) sets forth INDOT's procedures to comply with the requirements of 23 CFR 772.

Compliance with 23 CFR 772 is typically achieved during the NEPA review process. PEL studies are planning (i.e., pre-NEPA) activities. However, as part of the ProPEL US 31 South study, INDOT plans to evaluate baseline environmental conditions, such as potential noise-sensitive areas, to help inform activities such as alternatives development and analysis.

To accomplish this objective, INDOT identified a two-step process to consider traffic noise during the ProPEL US 31 South study:

1. Identify noise-sensitive areas using Common Noise Environments (CNEs)
2. Identify areas with potentially sufficient density for further investigation

This two-step process is documented in this memorandum.

It is important to note that the analysis completed during the PEL study is not intended to meet the requirements of 23 CFR 772. For any Type I projects identified during the ProPEL US 31 South study, a traffic noise analysis will be completed during the NEPA process in accordance with the most current version of the INDOT Noise Policy.

For the purposes of this PEL study, noise-sensitive land uses and potential noise receptors have been identified along the US 31 corridor within the study area. Where sufficient density exists such that noise abatement could potentially be determined reasonable and feasible in future studies, those areas have been identified as **Areas for Further Investigation**.

The analysis conducted as part of the PEL study will not be used to determine noise impacts or noise abatement locations in accordance with 23 CFR 772. Those activities would occur as part of the NEPA analysis associated with any future Type 1 projects in the ProPEL US 31 South study area.

2.2. TRAFFIC NOISE

Noise is generally defined as unwanted sound. Airborne sound is what we hear when there are rapid fluctuations (or variations) in air pressure above and below atmospheric pressure. The ear is sensitive to these pressure variations and perceives them as sound. The intensity of these pressure variations causes the ear to discern different levels of loudness.

Sound pressure levels are measured and expressed in decibels (dB). The dB scale is logarithmic and expresses the ratio of the sound pressure level being measured to a standard reference level.

Most sounds occurring in the environment do not consist of a single frequency, but rather a broadband of differing frequencies. Because the human ear does not respond to all frequencies equally, weighting scales are used to define the relative loudness of different frequencies. The "A" weighting scale is widely used in

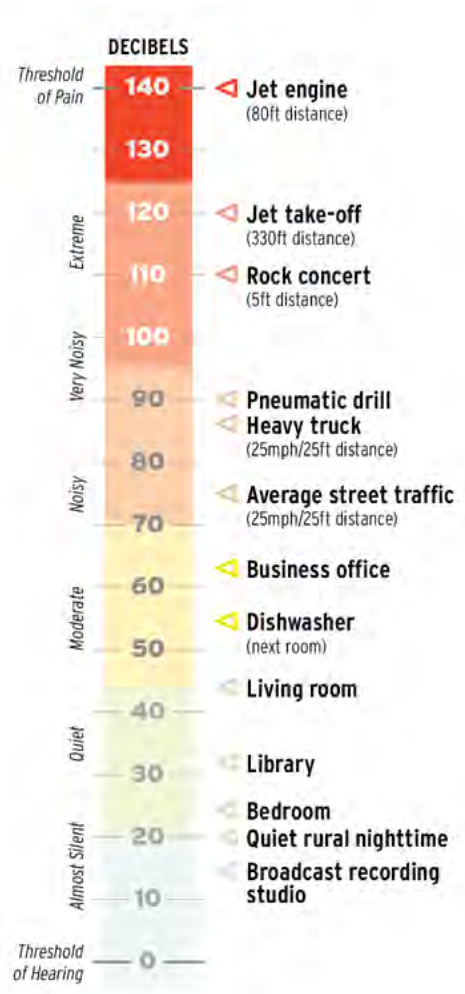
environmental work because it closely resembles the non-linearity of human hearing. The A-weighted sound level in decibels is identified as dB(A).

A noise receptor is a discrete or representative location placed at a noise sensitive area for any of the land uses listed in the NAC found in 23 CFR 772, which generally include areas of active human use, to determine traffic-generated noise levels. Traffic noise at a receptor is influenced by the following major factors:

- Distance from the traffic to the receptor,
- Volume of traffic,
- Speed of traffic,
- Vehicle mix, and
- Acoustical shielding.

Tire sound levels increase with vehicle speed but also depend upon road surface, vehicle weight, tread design, and wear. Change in any of these factors can vary noise levels. At lower speeds, especially in trucks and buses, the dominant noise source is the engine and related accessories. **Figure 2** provides sound levels of typical noise sources.

Figure 2. Sound Levels of Typical Noise Sources



3. NOISE STUDY METHODOLOGY

3.1. PEL STUDY NOISE METHODOLOGY

As part of the PEL study, INDOT is evaluating potential baseline environmental conditions that could inform alternatives development and analysis. For the ProPEL US 31 South study, noise-sensitive land uses have been identified along the US 31 South corridor. Land uses along the US 31 South corridor have been categorized using the typologies contained in the NAC found in 23 CFR 772 (shown in **Table 1**). Noise-sensitive areas for further investigation have been identified based on the presence of noise-sensitive land uses, as well as the density of receptors (determined by professional judgement). These areas have been identified as **Areas for Further Investigation** on the noise maps in **Appendix A**.

Table 1. FHWA Noise Abatement Criteria

| Hourly A-Weighted Sound Level – Decibels (dB(A)) | | | |
|---|---|---------------------|---|
| Activity Category | Criteria ¹ L _{eq(h)} | Evaluation Location | Activity Description |
| A | 57 | Exterior | Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. |
| B ² | 67 | Exterior | Residential. |
| C ² | 67 | Exterior | Active sports areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails and trail crossings. |
| D | 52 | Interior | Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios. |
| E ² | 72 | Exterior | Hotels, motels, offices, restaurants/bars, and other developed lands, properties or activities not included in A-D or F. |
| F | - | - | Agriculture, airports, bus yards, emergency services, industrial, logging, maintenance facilities, manufacturing, mining, rail yards, retail facilities, shipyards, utilities (water resources, water treatment, electrical), and warehousing. |
| G | - | - | Undeveloped lands that are not permitted. |
| ¹ L _{eq(h)} Activity Criteria are only for impact determination and are not design standards for noise abatement measures. ² Includes undeveloped lands permitted for this activity category. Source: Federal Highway Administration (23 CFR Part 772, Table 1). | | | |

3.2. IDENTIFICATION OF LAND USES

The noise study area is shown on the maps in **Appendix A** and includes the area within approximately 500 feet of the US 31 South corridor (edge of outside travel lane and study termini).

Available aerial imagery was used to identify noise-sensitive land uses in the study area, which consists primarily of single-family and multi-family residences (NAC B), institutional or recreational outdoor use at East Union Cemetery and Christian Church, Tucker Cemetery, Kelley Agricultural Historical Museum and Spurgeon Round Barn, Cassville Cemetery, Carpenter's House Church, a neighborhood playground at Maple Lawn Village Manufactured Home Community, the Nickel Plate Trail, the Grissom Air Museum, Oak Haven Stables, the Big Rocking Chair tourist attraction, the planned Silo Concert Center, the Indiana State Police Station, and Calvary Church (NAC C), interior use at Pipe Creek Elementary School and Summit Theological Seminary (NAC D), and ten locations with outdoor use at restaurant, hotel or business properties (NAC E).

The noise study area also includes non-sensitive industrial and commercial land uses (NAC F) and vacant, undeveloped land (NAC G). The NAC D interior use receptors were identified because, per 23 CFR 772, for Activity Category C land uses that do not have an exterior area of frequent human use or have exterior use that is far from or physically shielded from the roadway, noise studies shall use Activity Category D as the basis for determining noise impact.

Receptors may represent multiple receptors or units. Under most situations, a single structure is considered a single receptor. Structures that contain multiple residential units (e.g., apartments) are considered to have one receptor per residential unit. For certain land uses (e.g., parks, trails), a separate algorithm is used to translate usage data into an appropriate number of receptor units, based on converting total usage to equivalent residential units. For the purposes of the PEL study, equivalent residential units have not yet been assigned to non-residential receptors. Instead, either one receptor or an estimate of several receptors, based on number of uses or area of the property, have been assigned based on professional judgement.

Per INDOT Noise Policy, coordination with local governments is necessary to determine if there are any new permitted land uses within the study area for inclusion in the noise analysis. HNTB initiated a request to the counties of Miami, Howard, Tipton and Hamilton, as well as the towns of Peru and Cicero, and Grissom Air Reserve Base, to obtain proposed or permitted development plans within the study area. Upon review of documents obtained, the only planned or permitted noise-sensitive property within the study area limits that was identified is the planned Silo Concert Center in Miami County, north of N Eel River Cemetery Road.

3.3. COMMON NOISE ENVIRONMENTS

Based on a combination of land use, location of cross streets and residential density, land uses in the study area have been grouped into a series of numbered Common Noise Environments (CNE) that are identified on the maps in **Appendix A**. Thirty-six (36) CNEs were identified. The CNE boundaries and land use within each are described below.

South Segment: Approximately 276th Street in Hamilton County north to the SR 931 south junction in Tipton County

CNE 1 is located on the east side of US 31 from approximately 500 feet south of E 276th Street to E 296th Street/CR W 600 S. This area consists of single-family residences (NAC B) and outdoor use at East Union Christian Church (NAC C). **This CNE contains an Area for Further Investigation.**

CNE 2 is located on the west side of US 31 from approximately 500 feet south of E 276th Street to E 296th Street/CR W 600 S. This area consists of single-family residences (NAC B) and outdoor use at East Union Cemetery (NAC C). **This CNE contains an Area for Further Investigation.**

CNE 3 is located on the east side of US 31 from approximately E 296th Street/CR W 600 S to CR W 350 S. This area consists of one single-family residence (NAC B) and outdoor use at Lisa's Pie Shop (NAC E).

CNE 4 is located on the west side of US 31 from approximately E 296th Street/CR W 600 S to CR W 350 S. This area consists of single-family residences (NAC B).

CNE 5 is located on the east side of US 31 from approximately CR W 350 S to the US 31 and US 28 interchange. This area consists of single-family residences (NAC B).

CNE 6 is located on the west side of US 31 from approximately CR W 350 S to the US 31 and US 28 interchange. This area consists of one single-family residence (NAC B) and outdoor use at Tucker Cemetery (NAC C).

CNE 7 is located on the east side of US 31 from approximately the US 31 and US 28 interchange to W Division Road. This area consists of single-family residences (NAC B).

CNE 8 is located on the west side of US 31 from approximately the US 31 and US 28 interchange to W Division Road. This area consists of single-family residences (NAC B).

CNE 9 is located on the east side of US 31 from approximately W Division Road to CR W 200 N. This area consists of single-family residences (NAC B).

CNE 10 is located on the west side of US 31 from approximately W Division Road to CR W 200 N. This area consists of single-family residences (NAC B).

CNE 11 is located on the east side of US 31 from approximately CR W 200 N to 500 feet north of CR W 375 N. This area consists of single-family residences (NAC B).

CNE 12 is located on the west side of US 31 from approximately CR W 200 N to 500 feet north of CR W 375 N. This area consists of single-family residences (NAC B).

CNE 13 is located on the east side of US 31 from approximately 500 feet north of W 375 N to CR W 600 N. This area consists of single-family residences (NAC B).

CNE 14 is located on the west side of US 31 from approximately 500 feet north of W 375 N to CR W 600 N. This area consists of single-family residences (NAC B) and outdoor use at Kelley Agricultural Historical Museum and Spurgeon Round Barn (NAC C). **This CNE contains an Area for Further Investigation.**

North Segment: Approximately the SR 931 north junction in Howard County north to CR W 300 N in Miami County

CNE 15 is located on the east side of US 31 from approximately 2,000 feet south of Ida Drive to CR W 1350 S. This area consists of single-family and multi-family residences (NAC B) and outdoor use at Cassville Cemetery (NAC C). **This CNE contains an Area for Further Investigation.**

CNE 16 is located on the west side of US 31 from approximately 2,000 feet south of Ida Drive to CR W 1350 S. This area consists of single-family residences (NAC B) and outdoor use at Carpenter's House Church (NAC C) and Edge of Insanity Haunted Attraction (NAC E). **This CNE contains an Area for Further Investigation.**

CNE 17 is located on the east side of US 31 from approximately CR W 1350 S to CR W 1200 S. This area consists of single-family residences (NAC B).

CNE 18 is located on the west side of US 31 from approximately CR W 1350 S to CR W 1200 S. This area consists of single-family residences including Maple Lawn Village Manufactured Home Community (NAC B), as well as a neighborhood playground at Maple Lawn Village Manufactured Home Community (NAC C). **This CNE contains an Area for Further Investigation.**

CNE 19 is located on the east side of US 31 from approximately CR W 1200 S to CR W 1050 S. This area consists of single-family residences (NAC B).

CNE 20 is located on the west side of US 31 from approximately CR W 1050 S to CR W 1200 S. This area consists of single-family residences (NAC B) and a residence and outdoor use at the Flea Market (NAC B and E).

CNE 21 is located on the east side of US 31 from approximately CR W 1050 S to CR W 800 S. This area consists of outdoor seating at Los Primos Grill and Bar (NAC E).

CNE 22 is located on the west side of US 31 from approximately CR W 1050 S to CR W 800 S. This area consists of one single-family residence (NAC B) and outdoor seating at Subway restaurant (NAC E).

CNE 23 is located on the east side of US 31 from approximately CR W 800 S to the Nickel Plate Trail. This area consists of one single-family residence (NAC B), the Nickel Plate Trail (NAC C), and outdoor seating at Dutch Cafe (NAC E). **This CNE contains an Area for Further Investigation.**

CNE 24 is located on the west side of US 31 from approximately CR W 800 S to the Nickel Plate Trail. This area consists of outdoor use at Grissom Air Museum and the Nickel Plate Trail (NAC C). **This CNE contains an Area for Further Investigation.**

CNE 25 is located on the east side of US 31 from approximately the Nickel Plate Trail to CR W 500 S. This area consists of single-family residences including Cedar Creek Mobile Home Park (NAC B). **This CNE contains an Area for Further Investigation.**

CNE 26 is located on the west side of US 31 from approximately the Nickel Plate Trail to CR W 500 S. This area consists of single-family residences (NAC B) and a residence as well as outdoor use at the Oak Haven Stables (NAC B and C). **This CNE contains an Area for Further Investigation.**

CNE 27 is located on the east side of US 31 from approximately CR W 500 S to 1,000 feet south of Mh Court. This area consists of single-family and duplex residences (NAC B) and the Big Rocking Chair outdoor tourist attraction (NAC C). **This CNE contains two Areas for Further Investigation.**

CNE 28 is located on the west side of US 31 from approximately CR W 500 S to 1,000 feet south of Mh Court. This area consists of single-family residences (NAC B) and interior use at Pipe Creek Elementary School (NAC

D). Note that exterior use at Pipe Creek Elementary School, such as playgrounds (NAC C), may be examined in a formal noise analysis during the NEPA process. **This CNE contains an Area for Further Investigation.**

CNE 29 is located on the east side of US 31 from approximately 1,000 feet south of Mh Court to S Business 31. This area consists of single-family residences (NAC B) and outdoor use at Knights Inn Peru (NAC E). **This CNE contains an Area for Further Investigation.**

CNE 30 is located on the west side of US 31 from 1,000 feet south of Mh Court to S Business 31. This area consists of single-family residences including Woodland Hills Mobile Home Park (NAC B). **This CNE contains an Area for Further Investigation.**

CNE 31 is located on the east side of US 31 from approximately S Business 31 to W River Road. This area consists of single-family residences (NAC B), boarding and interior use at Summit Theological Seminary (NAC B and D), and outdoor use at Best Western Circus City Inn (NAC E). **This CNE contains an Area for Further Investigation.**

CNE 32 is located on the west side of US 31 from approximately S Business 31 to W River Road. This area consists of single-family residences (NAC B).

CNE 33 is located on the east side of US 31 from approximately W River Road to the US 31 and US 24 interchange. This area consists of single-family residences (NAC B).

CNE 34 is located on the west side of US 31 from approximately W River Road to the US 31 and US 24 interchange. This area consists of single-family residences (NAC B).

CNE 35 is located on the east side of US 31 from approximately the US 31 and US 24 interchange to CR W 300 N. This area consists of single-family residences (NAC B), Calvary Church and the planned Silo Concert Center (NAC C), and outdoor use at JJ's Travel Plaza restaurants and Co-Tronics, Inc. office building (NAC E). **This CNE contains an Area for Further Investigation.**

CNE 36 is located on the west side of US 31 from approximately the US 31 and US 24 interchange to CR W 300 N. This area consists of single-family residences (NAC B) and outdoor use at Indiana Police Station (NAC C).

4. AREAS FOR FURTHER INVESTIGATION

Areas for Further Investigation have been identified in CNEs 1 and 2 in Hamilton County, CNE 14 in Tipton County, CNEs 15 and 16 in Howard County, and CNEs 18, 23 through 31, and 35 in Miami County. These areas include NAC C land use at East Union Christian Church (CNE 1), East Union Cemetery (CNE 2), Kelley Agricultural Historical Museum and Spurgeon Round Barn (CNE 14), Cassville Cemetery (CNE 15), Carpenter's House Church (CNE 16), a neighborhood playground at Maple Lawn Village Manufactured Home Community (CNE 18), Grissom Air Museum and the Nickel Plate Trail (CNE 23 and 24), and the planned Silo Concert Center (CNE 35). These areas also include NAC D land use at Pipe Creek Elementary School (CNE 28) and Summit Theological Seminary (CNE 31), NAC E land use at Edge of Insanity Haunted Attraction (CNE 16), Dutch Café (CNE 23) and Knights Inn Peru (CNE 29), as well as mostly residential land use.

Table 2 below includes a list of the identified CNEs, the potential number of receptors within each, and whether the CNE contains an **Area for Further Investigation**. Note that as described above, some receptors on the figures in **Appendix A** may represent multiple receptors or units, such as those for mobile homes in CNEs 18, 25, and 30. As such, the potential number of receptors identified in **Table 2** may be greater than the number of receptor locations shown on the figures.

While various methods to mitigate noise impacts are discussed in 23 CFR 772 and the INDOT Noise Policy, installation of noise barriers (a wall located between the highway and receptors) is the most common form of abatement that is investigated.

Table 2. Identified CNEs, Receptors and Areas for Further Investigation

| CNE | Potential # of Receptors ¹ | Area for Further Investigation? | CNE | Potential # of Receptors ¹ | Area for Further Investigation? |
|-----|---------------------------------------|---------------------------------|-----|---------------------------------------|---------------------------------|
| 1 | 7 | Yes | 19 | 4 | No |
| 2 | 9 | Yes | 20 | 5 | No |
| 3 | 2 | No | 21 | 1 | No |
| 4 | 6 | No | 22 | 2 | No |
| 5 | 3 | No | 23 | 5 | Yes |
| 6 | 2 | No | 24 | 8 | Yes |
| 7 | 16 | No | 25 | 59 | Yes |
| 8 | 6 | No | 26 | 26 | Yes |
| 9 | 12 | No | 27 | 31 | Yes |
| 10 | 5 | No | 28 | 7 | Yes |
| 11 | 13 | No | 29 | 26 | Yes |
| 12 | 4 | No | 30 | 27 | Yes |
| 13 | 8 | No | 31 | 17 | Yes |
| 14 | 8 | Yes | 32 | 5 | No |
| 15 | 61 | Yes | 33 | 4 | No |
| 16 | 20 | Yes | 34 | 2 | No |
| 17 | 2 | No | 35 | 7 | Yes |
| 18 | 58 | Yes | 36 | 5 | No |

¹Potential number of receptors are based on the information available at the time of this study and are subject to change.

5. CONCLUSION

For the ProPEL US 31 South study, INDOT identified noise-sensitive land uses along the US 31 South corridor. Thirty-six (36) CNEs were identified, with sixteen (16) of those including **Areas for Further Investigation**. Note that there are seventeen (17) total **Areas for Further Investigation** that have been identified, as one of the CNEs (CNE 27) contains two of these areas. To help inform activities such as alternatives development and analysis, these areas have been identified where sufficient density exists such that noise abatement could potentially be determined reasonable and feasible in future studies.

The analysis conducted as part of the PEL study will not be used to determine noise impact or noise abatement locations in accordance with 23 CFR 772. Those activities would occur as part of the NEPA analysis associated with any future Type I projects in the ProPEL US 31 South study area.

6. REFERENCES

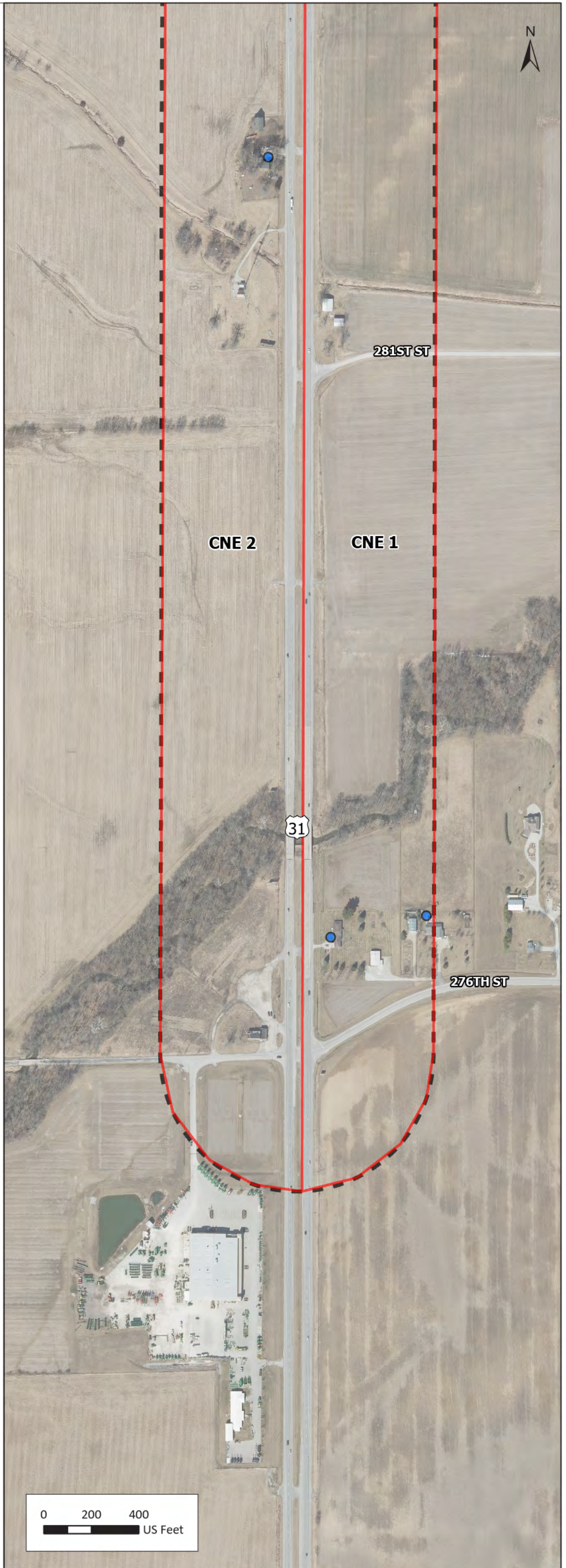
- FHWA, “Highway Traffic Noise: Analysis and Abatement Guidance”, FHWA-HEP-10-025, https://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/analysis_and_abatement_guidance/revguidance.pdf, December 2011.
- FHWA, Noise Policy FAQs – Frequently Asked Questions, https://www.fhwa.dot.gov/environment/noise/regulations_and_guidance/faq_nois.cfm#D4e.
- FHWA, “Procedures for Abatement of Highway Traffic Noise and Construction Noise”, Code of Federal Regulations, Title 23 Part 772 (23 CFR 722), July 13, 2010.
- INDOT, “Traffic Noise Analysis Procedure”, <https://www.in.gov/indot/engineering/files/2022-INDOT-Noise-Policy-Signed-Final-101222.pdf>, October 12, 2022.

7. APPENDIX A: NOISE-SENSITIVE AREA MAPS

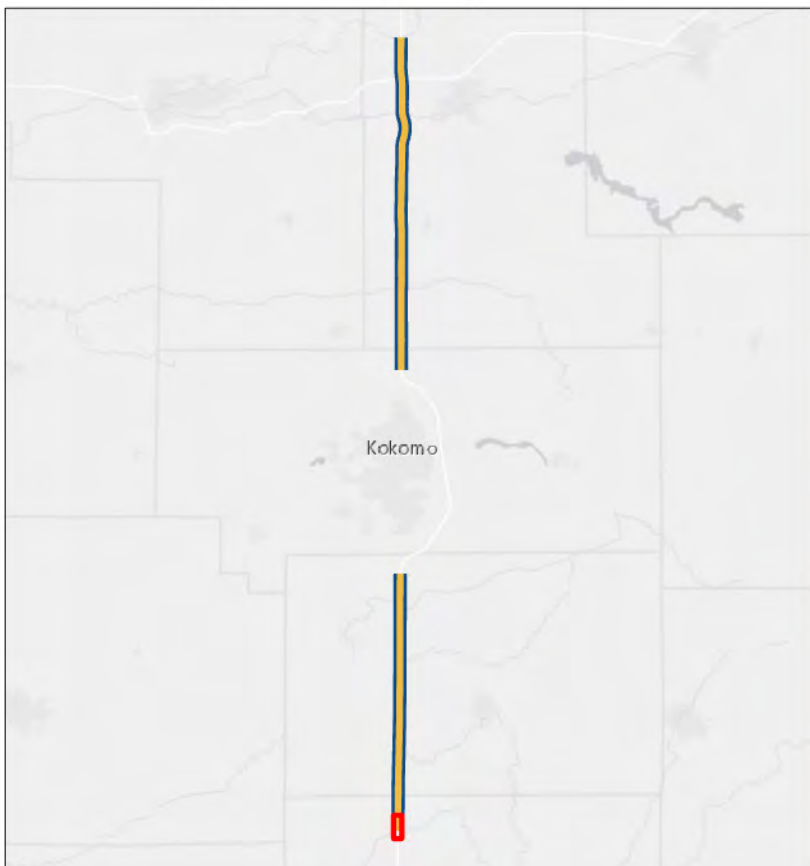
US 31 South South Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
 - Common Noise Environment (CNE)
 - Area for Further Investigation
- FHWA Noise Abatement Category
- B
 - C
 - D
 - E



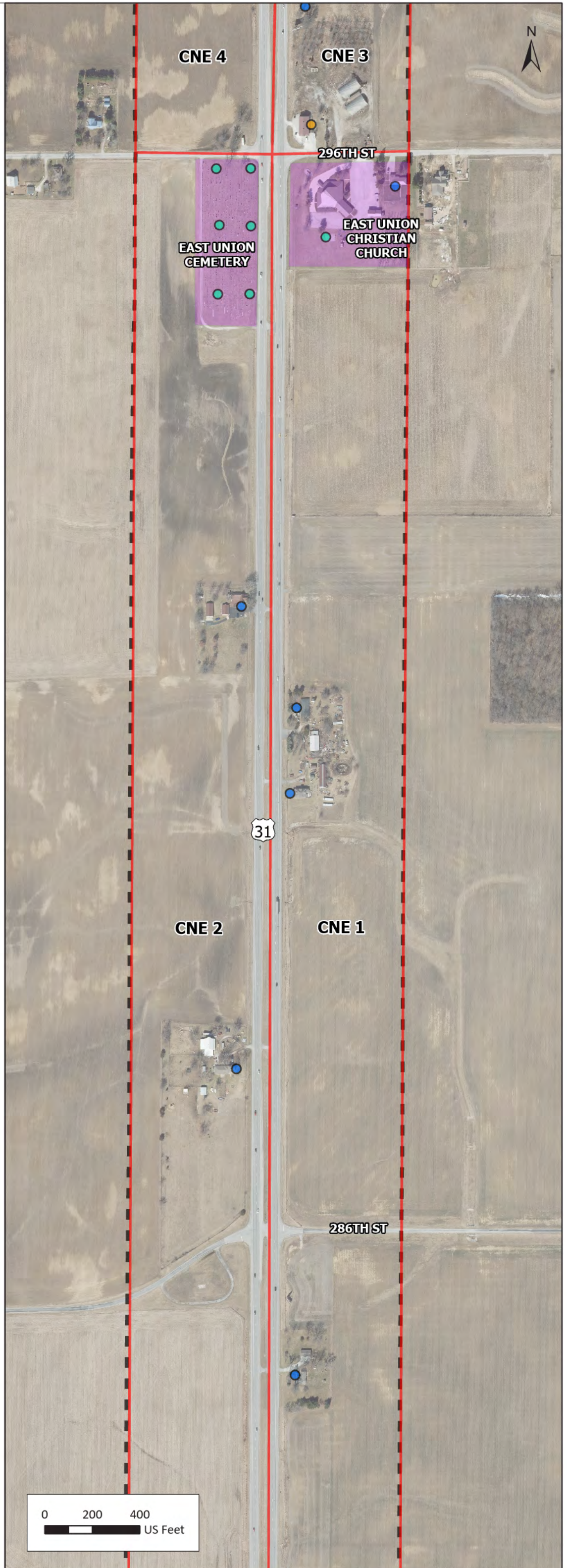
Appendix A, Page 1 of 27



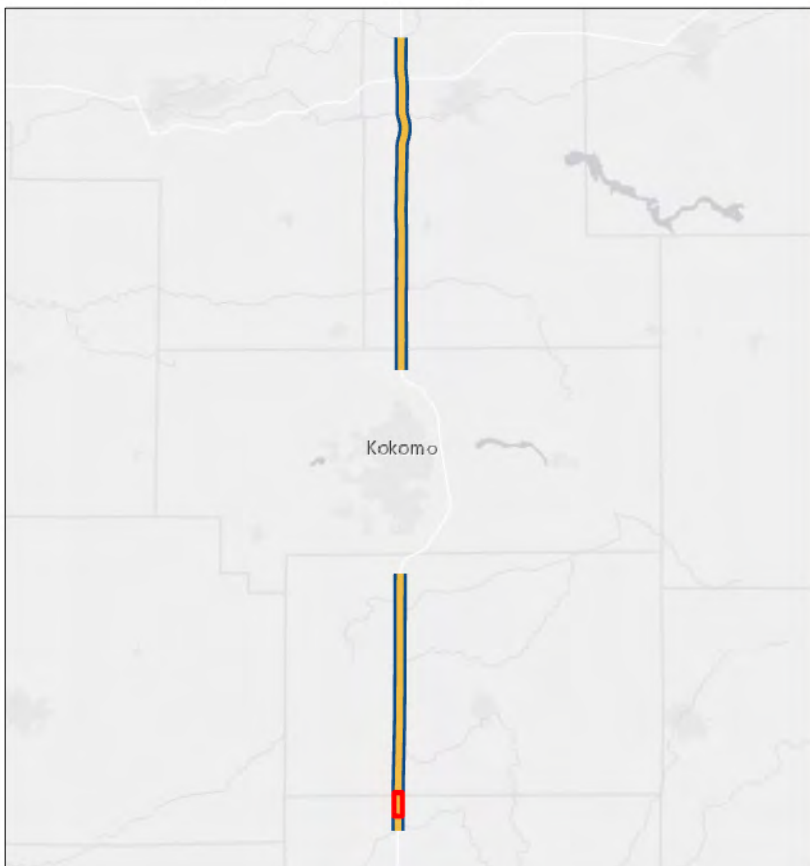
US 31 South South Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
 - Common Noise Environment (CNE)
 - Area for Further Investigation
- FHWA Noise Abatement Category
- B
 - C
 - D
 - E










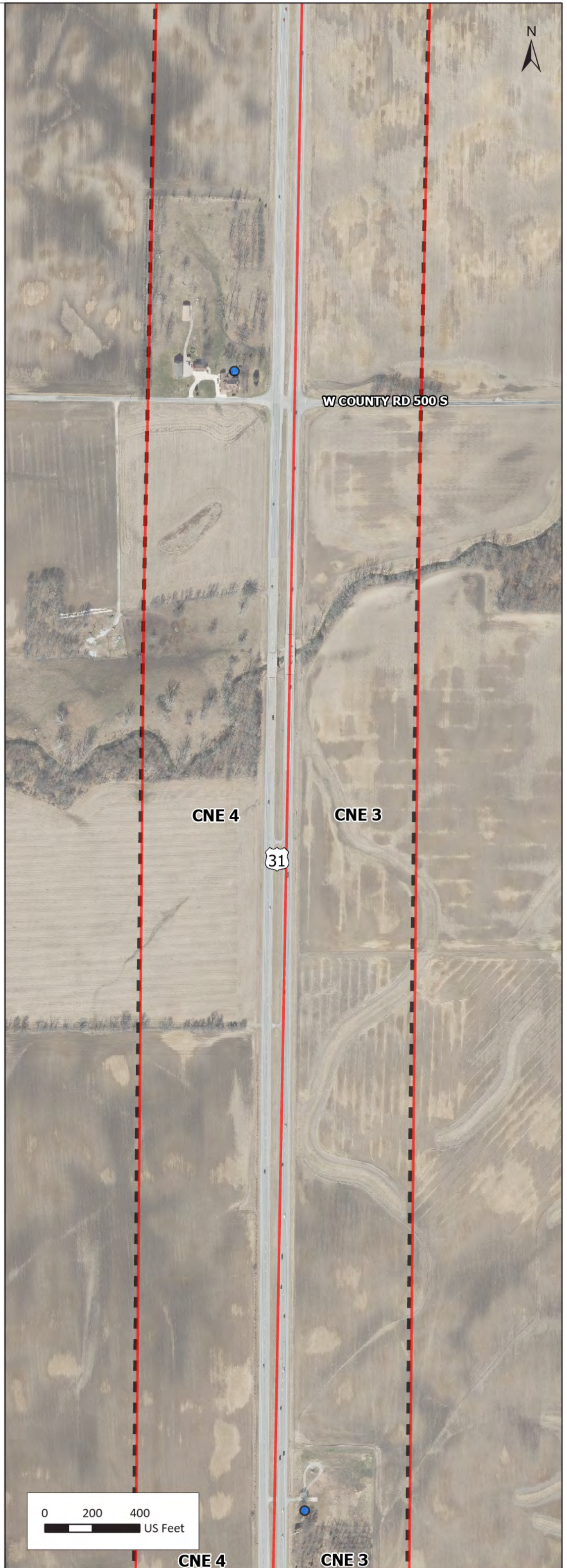
Appendix A, Page 2 of 27



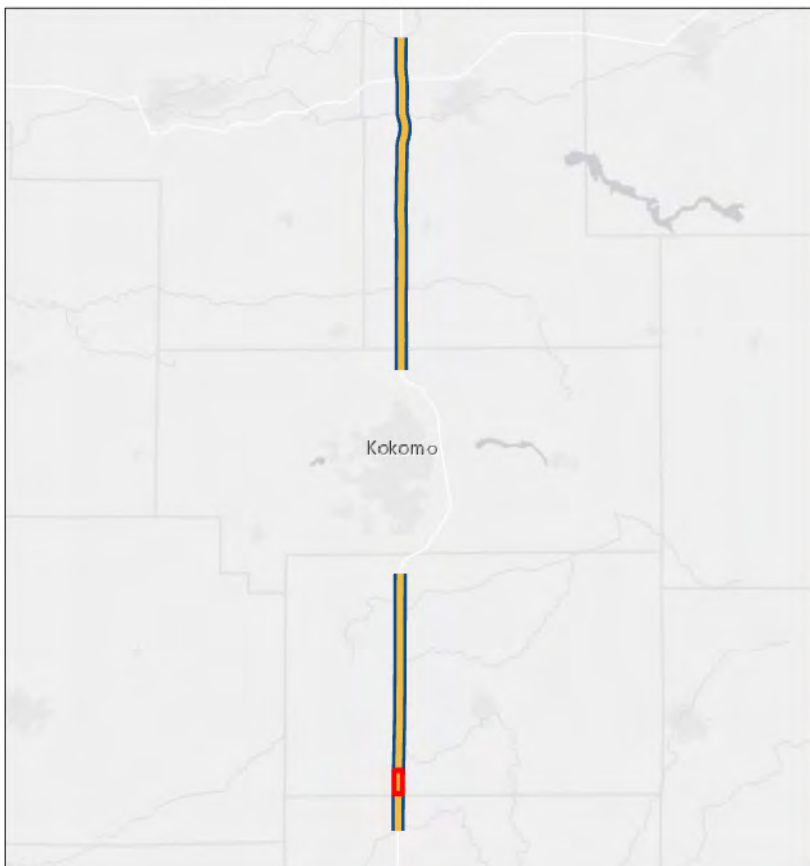
US 31 South South Segment Noise-Sensitive Areas

Legend

-  500-Foot Noise Study Area
 -  Common Noise Environment (CNE)
 -  Area for Further Investigation
- FHWA Noise Abatement Category
-  B
 -  C
 -  D
 -  E



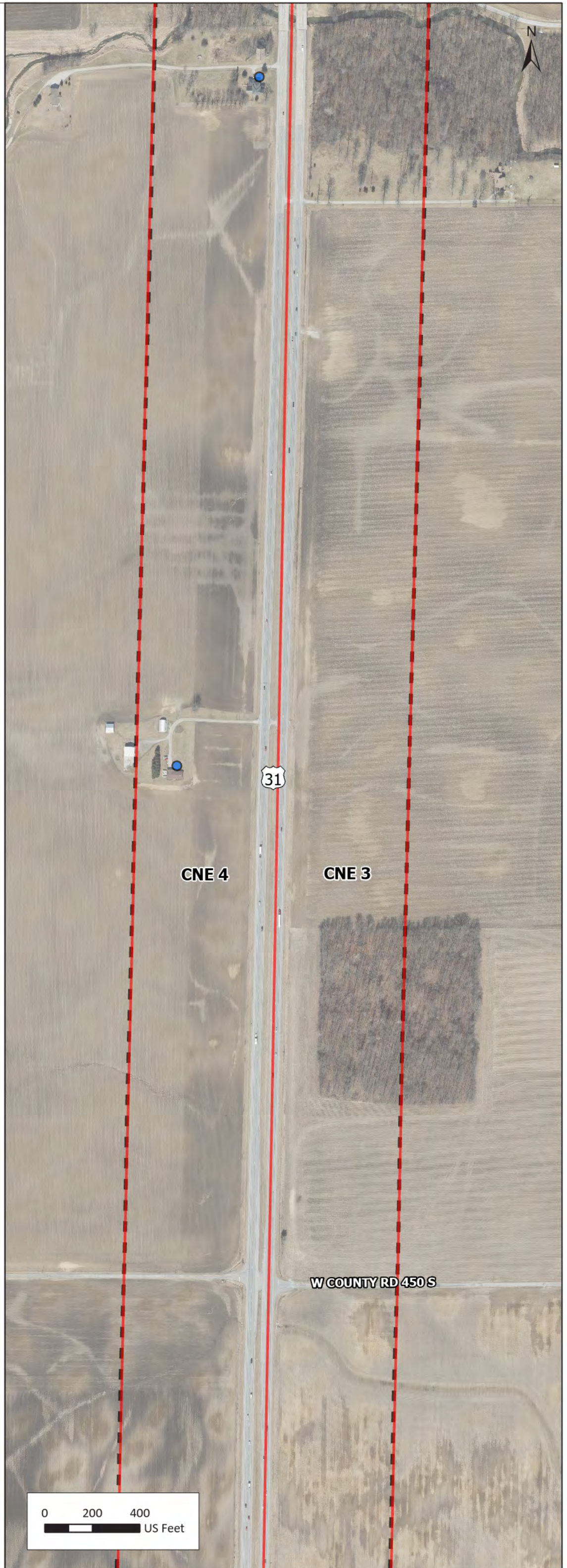
Appendix A, Page 3 of 27



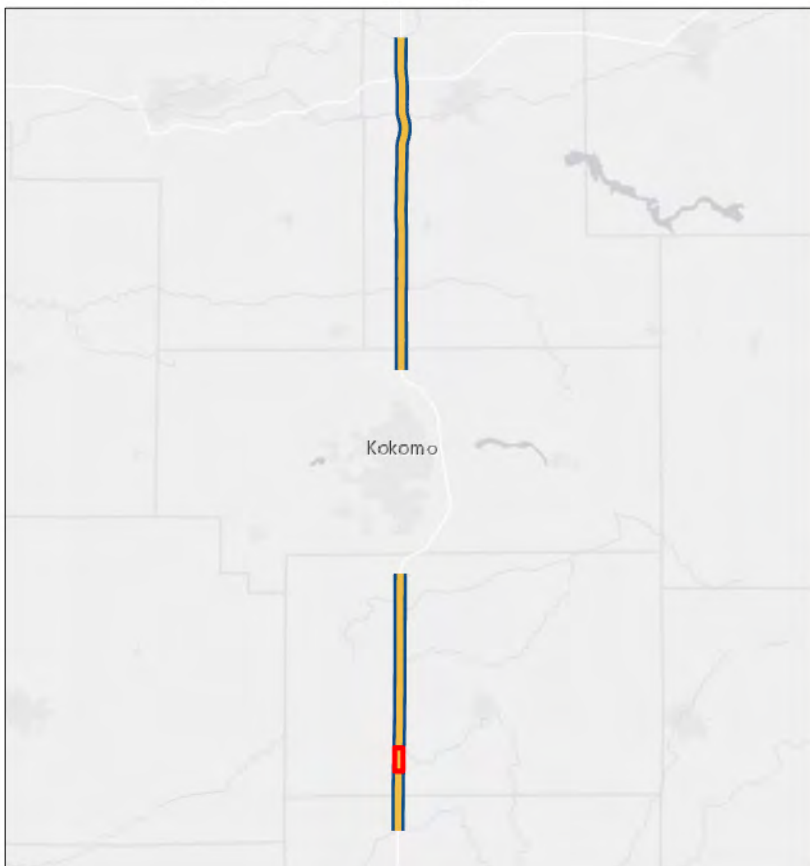
US 31 South South Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
- Common Noise Environment (CNE)
- Area for Further Investigation
- FHWA Noise Abatement Category**
- B
- C
- D
- E










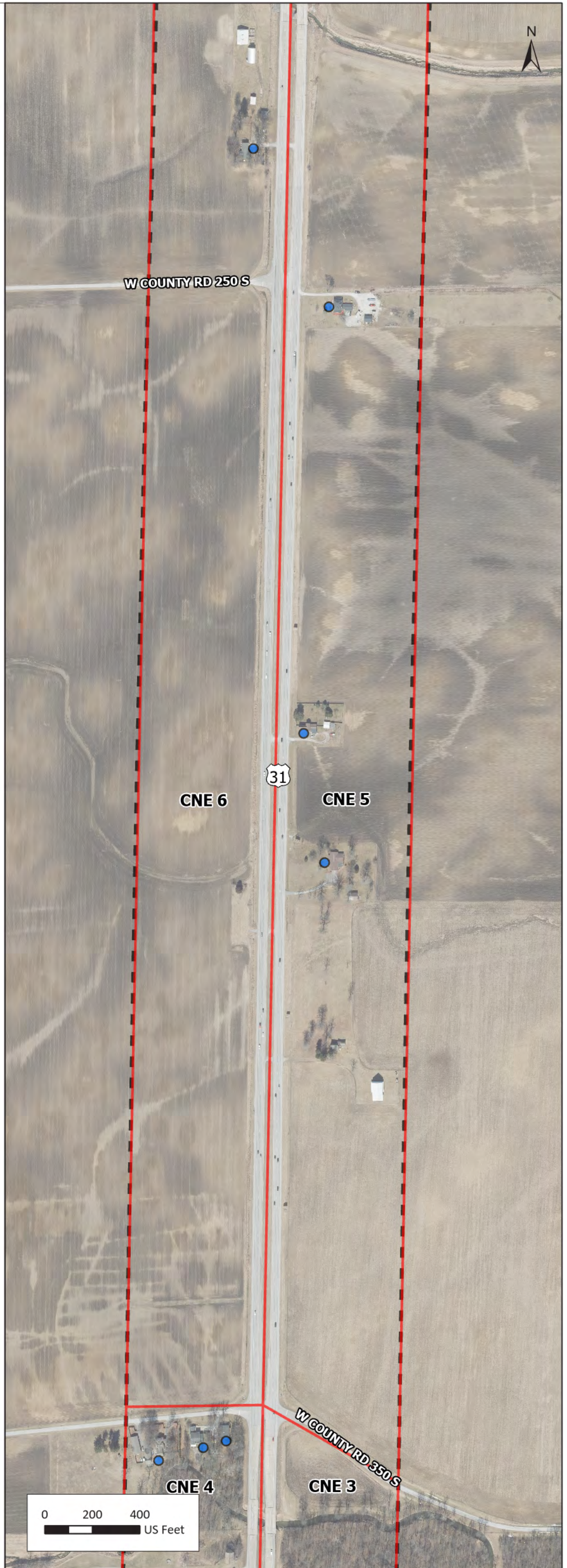
Appendix A, Page 4 of 27



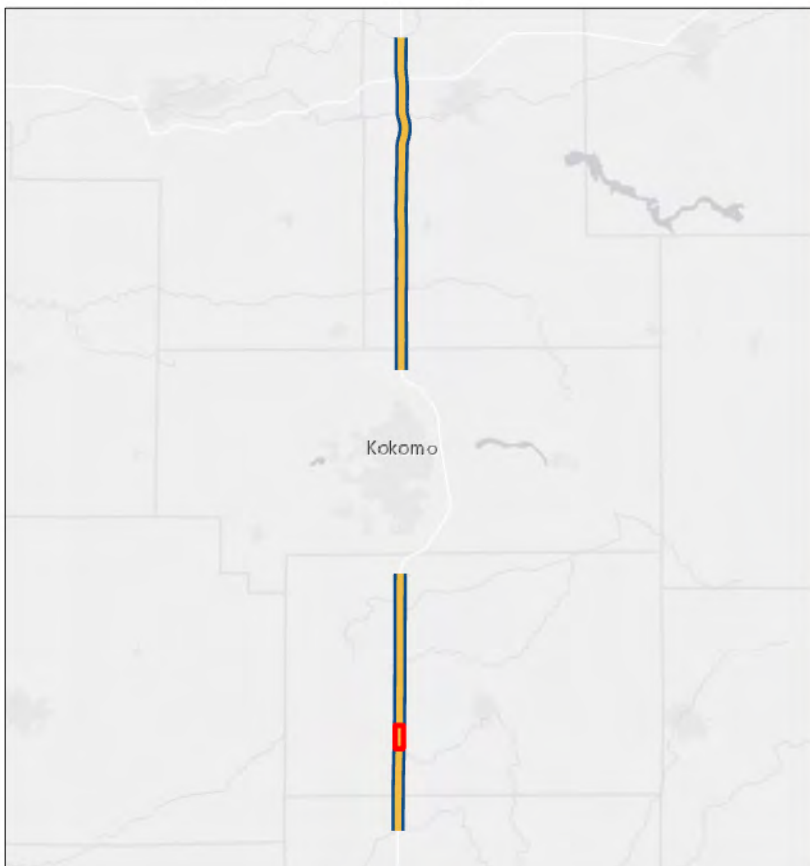
US 31 South South Segment Noise-Sensitive Areas

Legend

-  500-Foot Noise Study Area
-  Common Noise Environment (CNE)
-  Area for Further Investigation
- FHWA Noise Abatement Category**
-  B
-  C
-  D
-  E



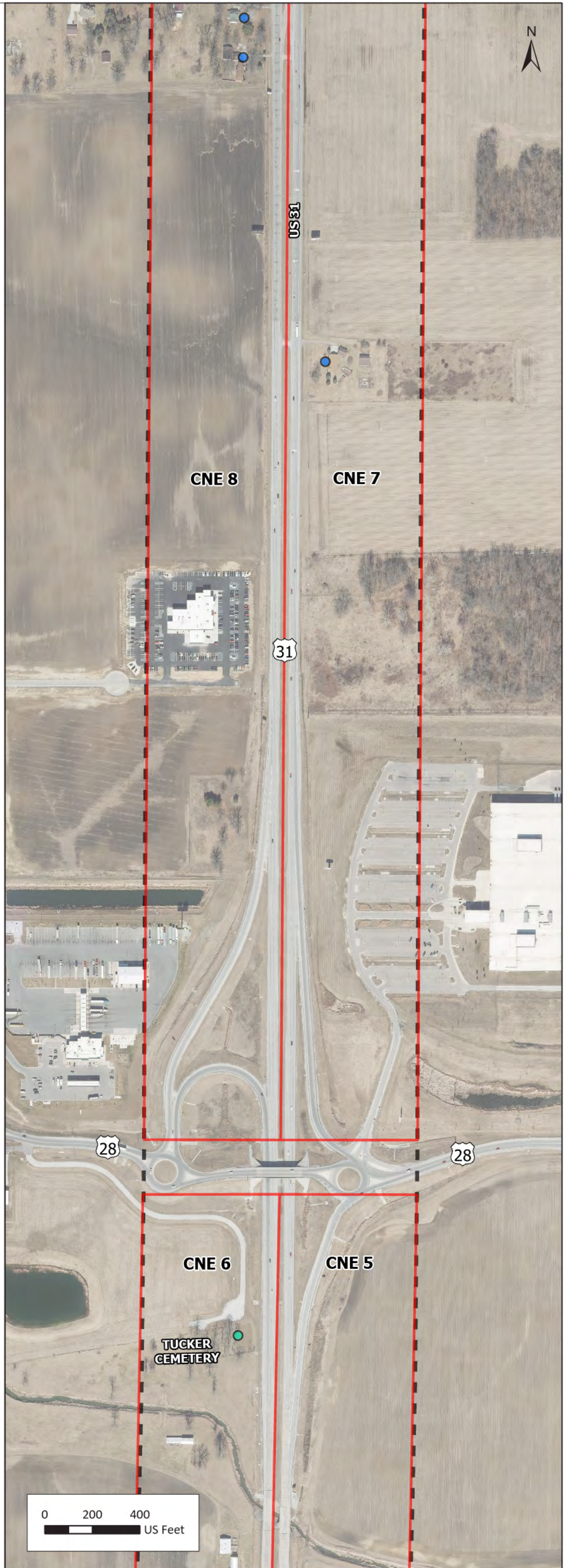
Appendix A, Page 5 of 27



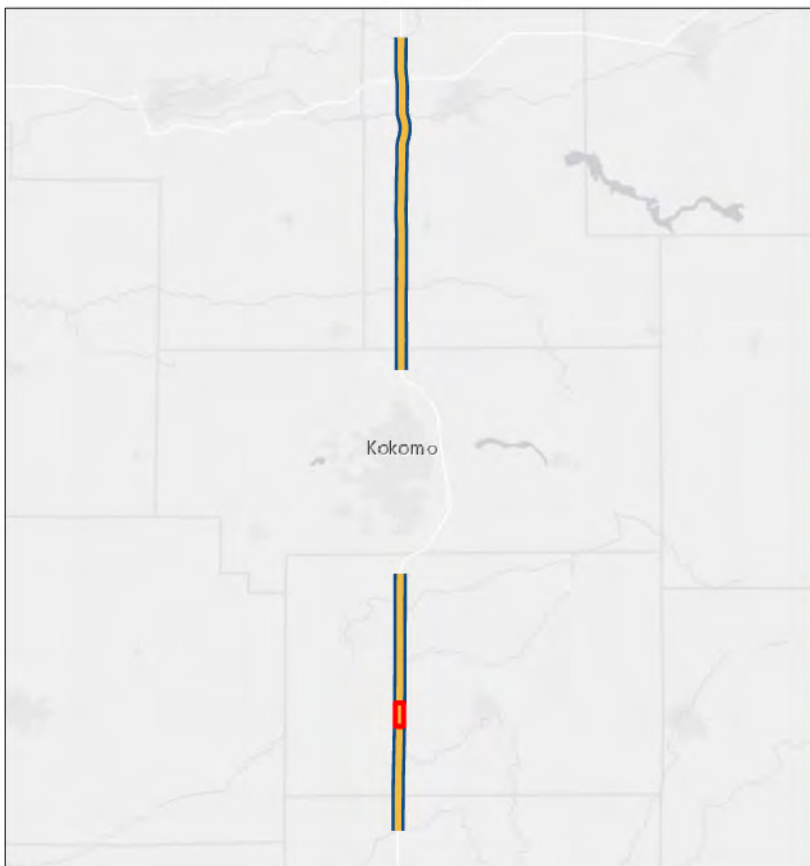
US 31 South South Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
 - Common Noise Environment (CNE)
 - Area for Further Investigation
- FHWA Noise Abatement Category
- B
 - C
 - D
 - E



Appendix A, Page 6 of 27



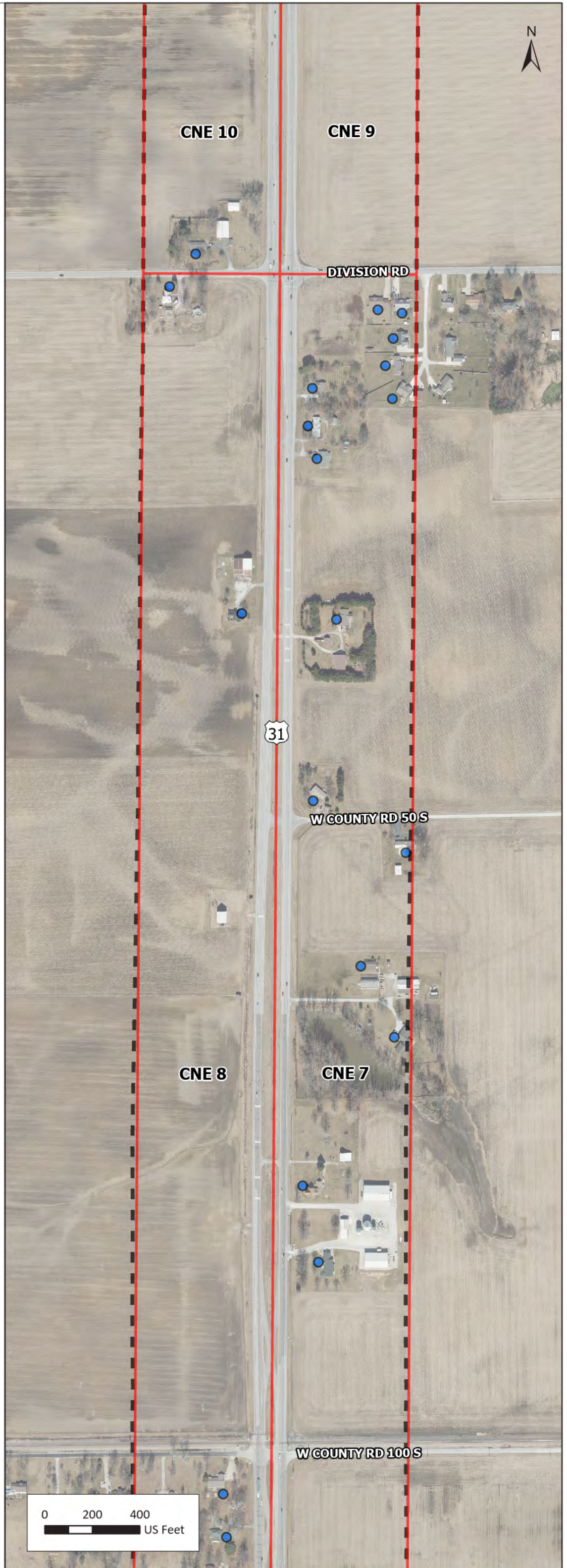
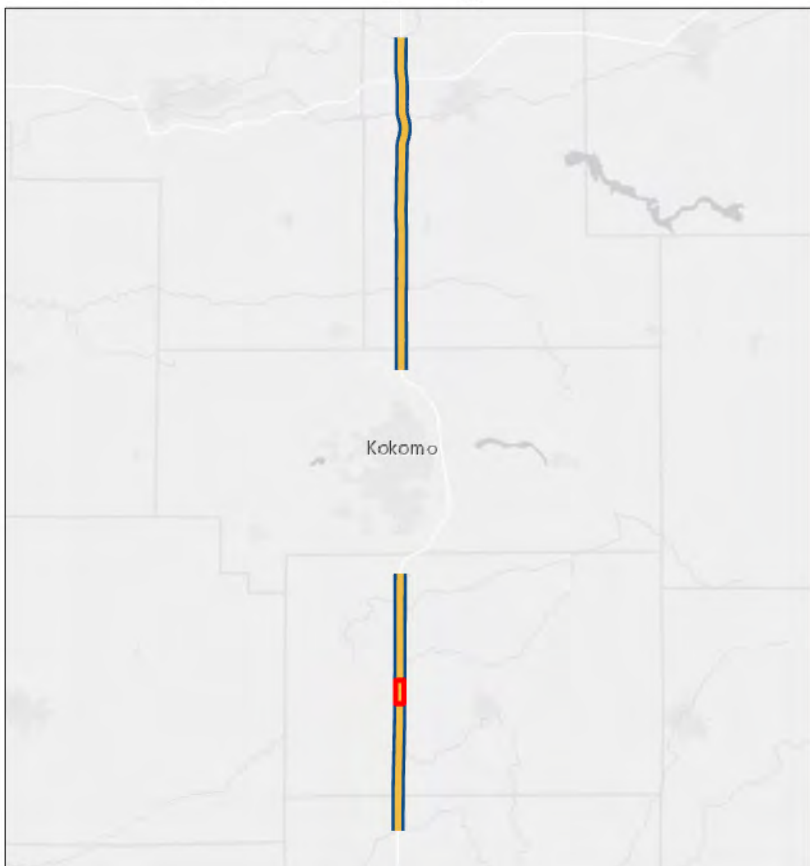


US 31 South South Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
 - Common Noise Environment (CNE)
 - Area for Further Investigation
- FHWA Noise Abatement Category
- B
 - C
 - D
 - E

Appendix A, Page 7 of 27

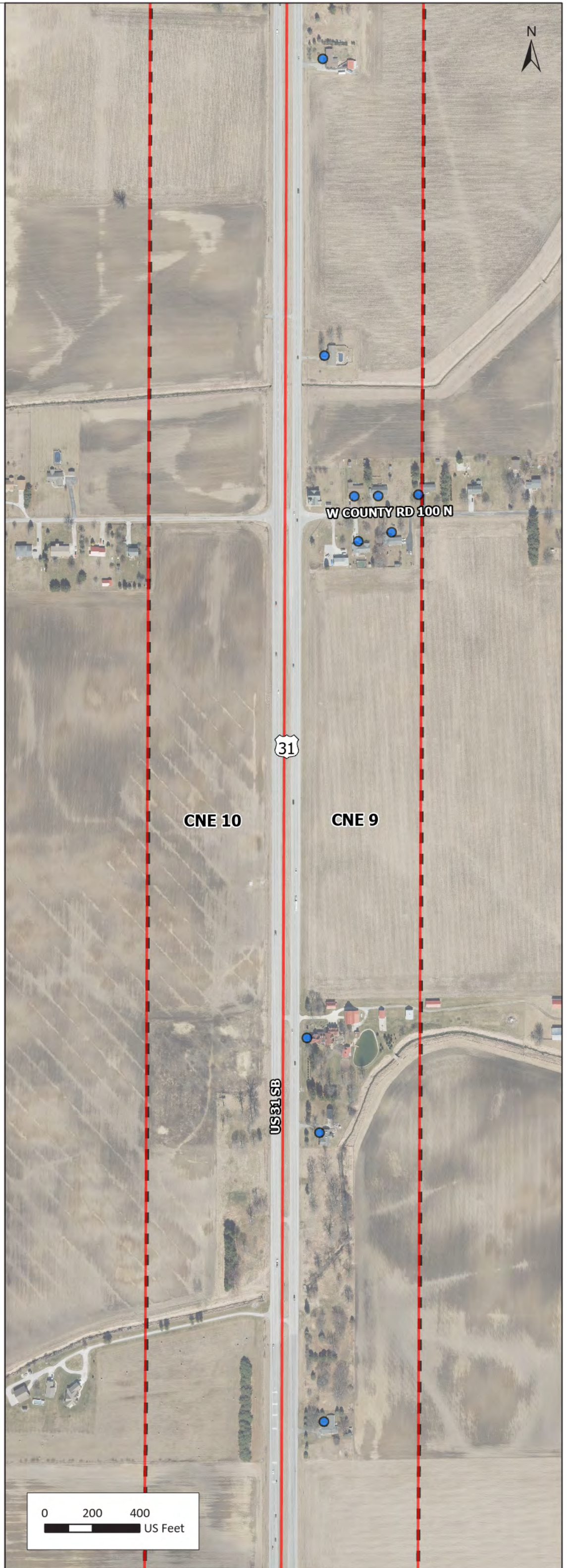
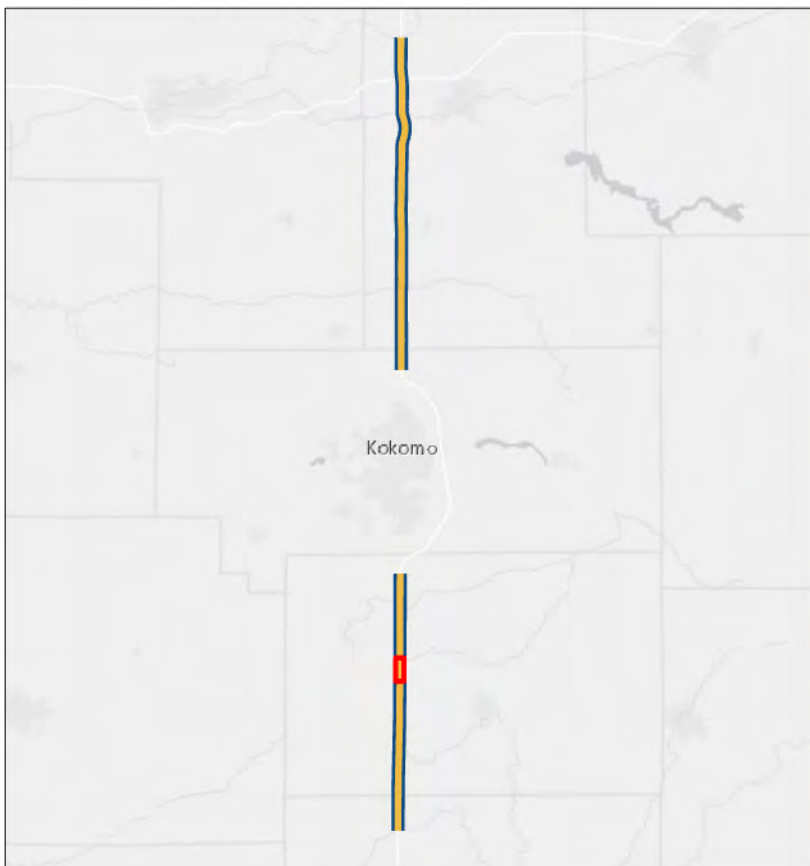


US 31 South South Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
- Common Noise Environment (CNE)
- Area for Further Investigation
- FHWA Noise Abatement Category**
- B
- C
- D
- E

Appendix A, Page 8 of 27

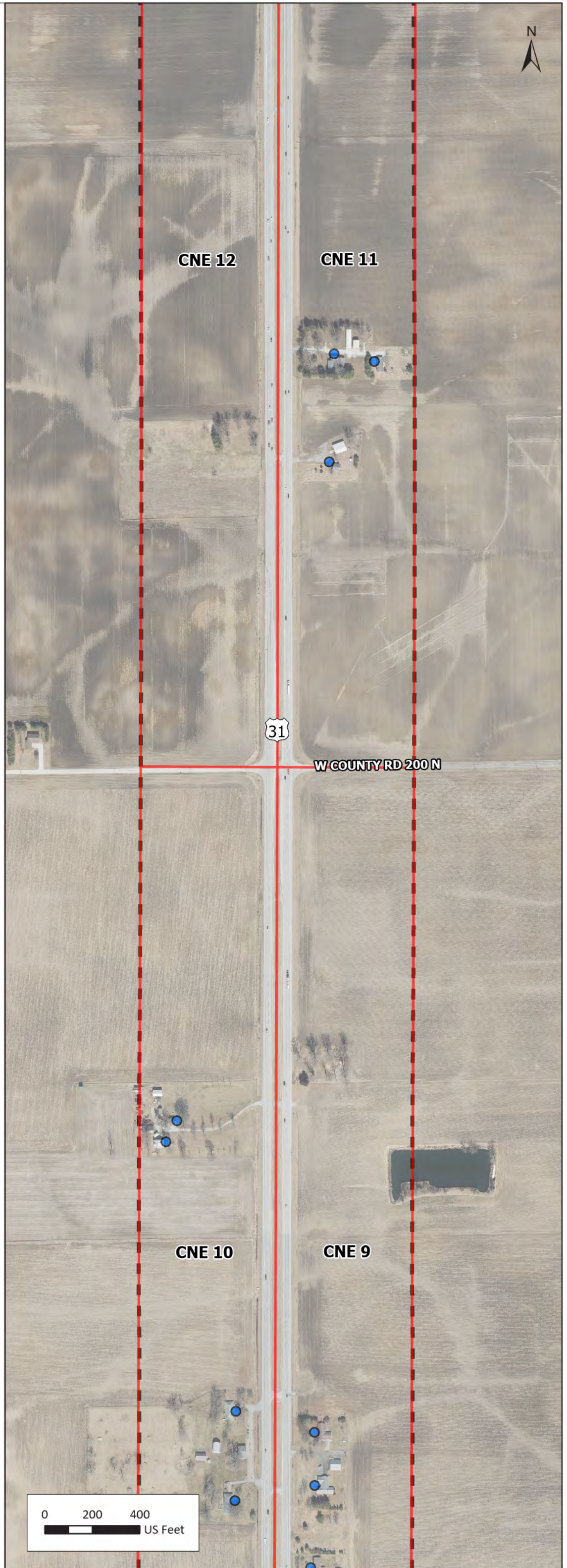




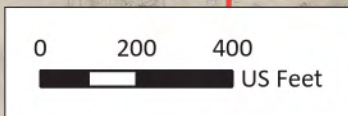
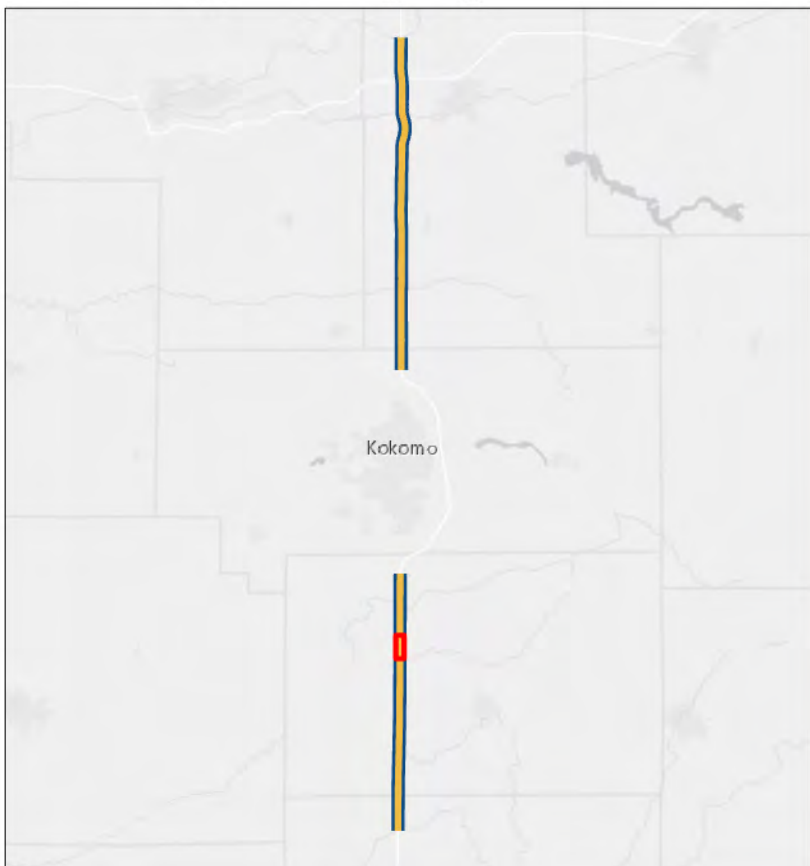
US 31 South South Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
- Common Noise Environment (CNE)
- Area for Further Investigation
- FHWA Noise Abatement Category**
- B
- C
- D
- E



Appendix A, Page 9 of 27

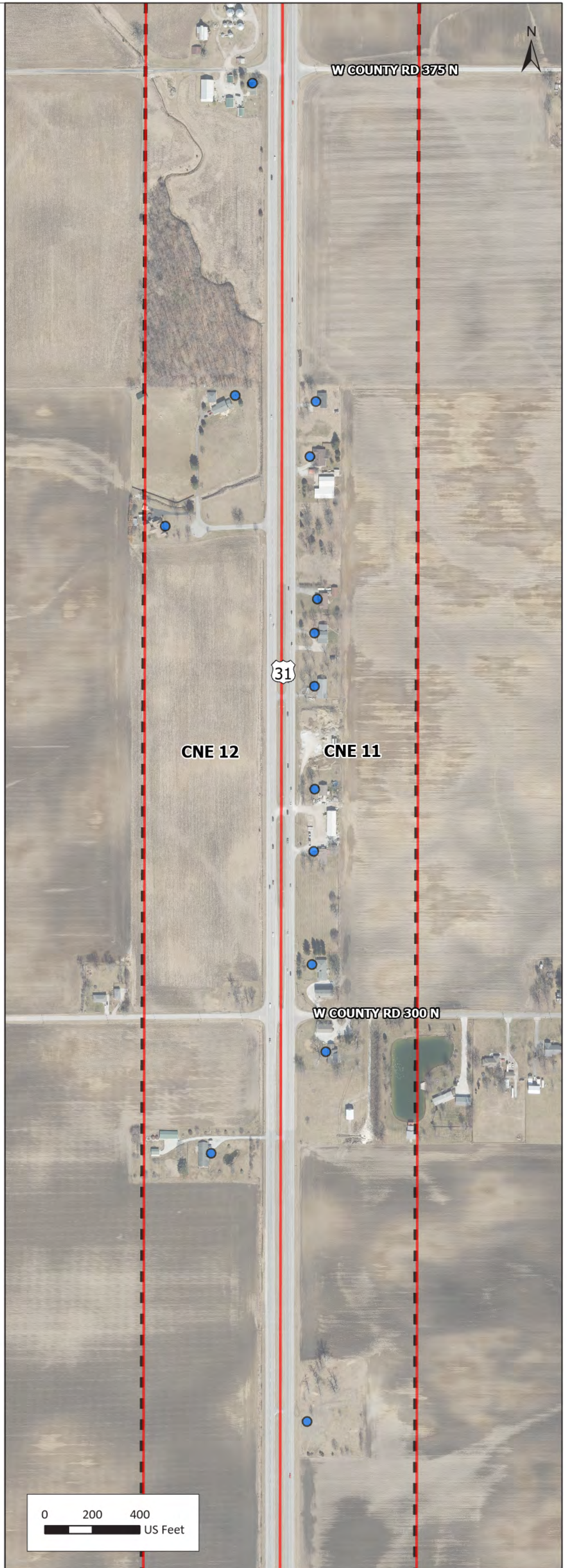




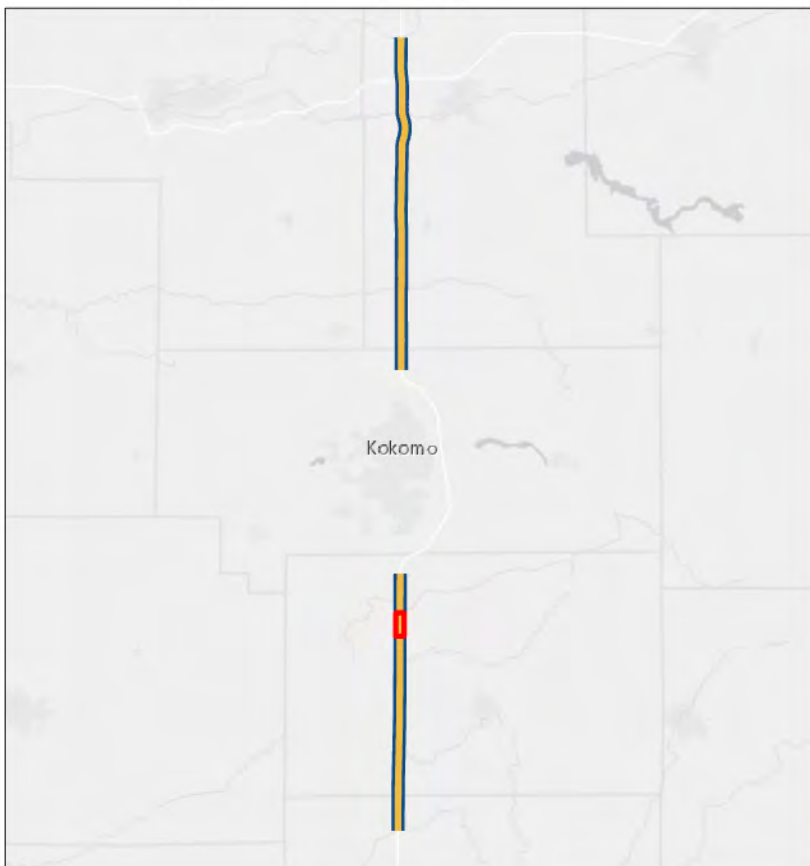
US 31 South South Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
- Common Noise Environment (CNE)
- Area for Further Investigation
- FHWA Noise Abatement Category**
- B
- C
- D
- E



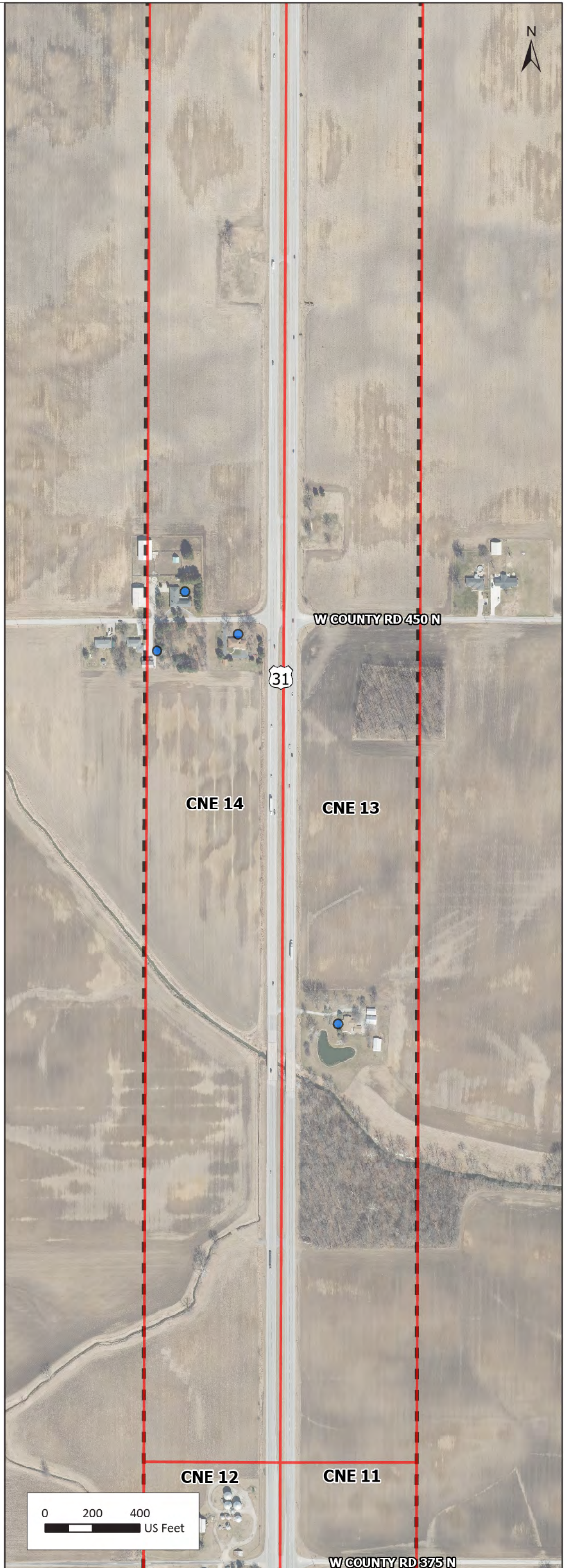
Appendix A, Page 10 of 27



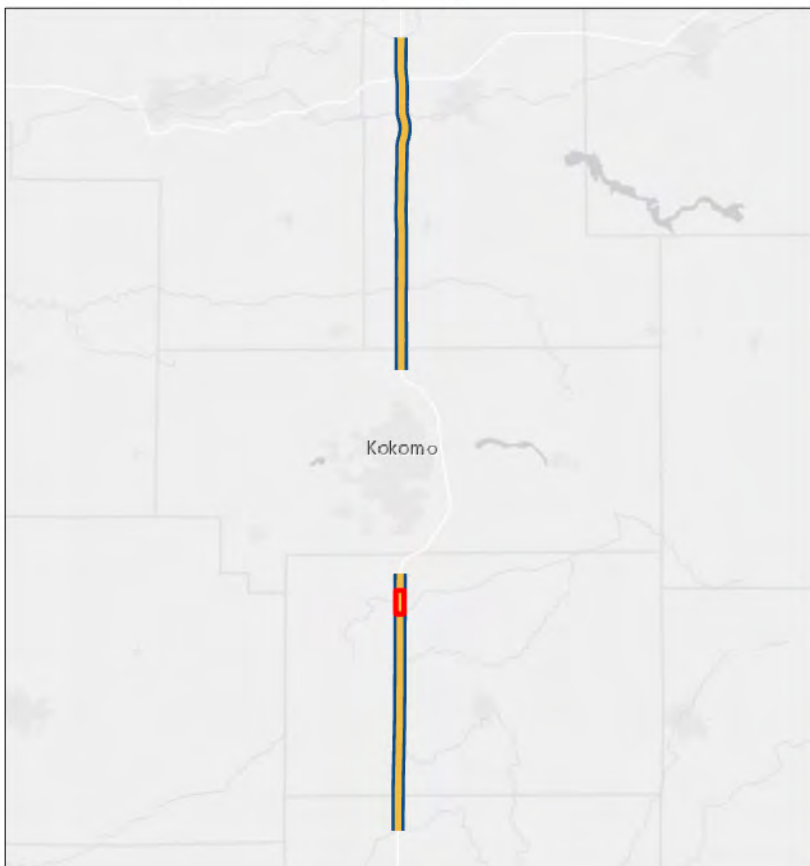
US 31 South South Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
 - Common Noise Environment (CNE)
 - Area for Further Investigation
- FHWA Noise Abatement Category
- B
 - C
 - D
 - E










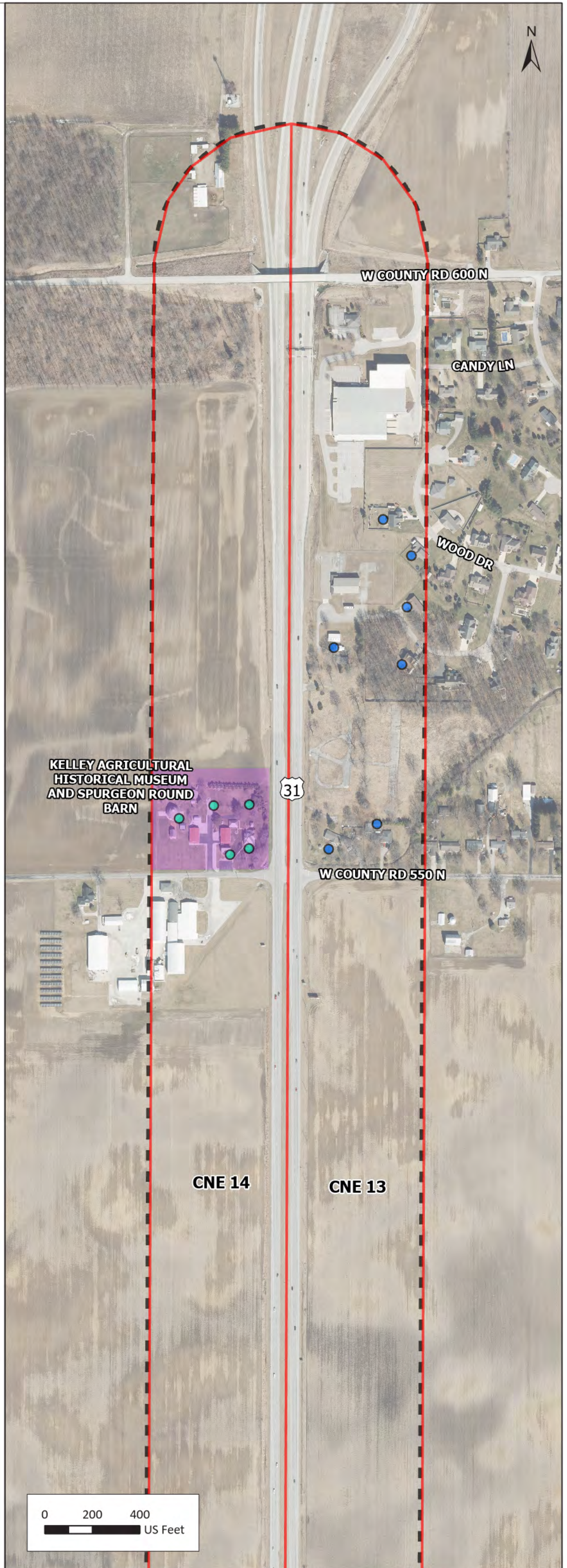
Appendix A, Page 11 of 27



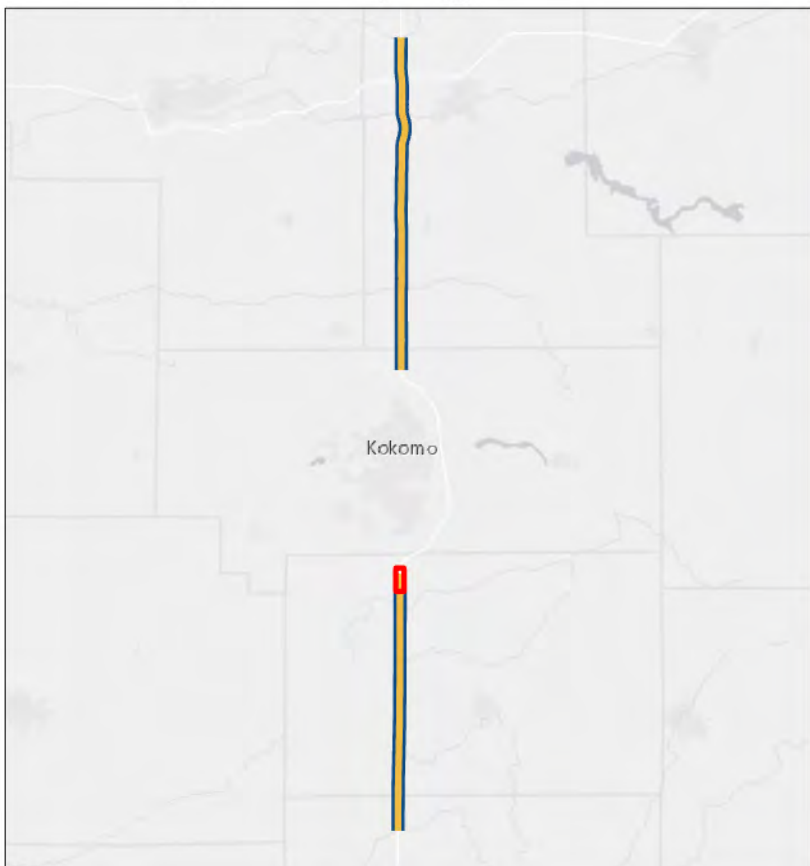
US 31 South South Segment Noise-Sensitive Areas

Legend

-  500-Foot Noise Study Area
 -  Common Noise Environment (CNE)
 -  Area for Further Investigation
- FHWA Noise Abatement Category
-  B
 -  C
 -  D
 -  E










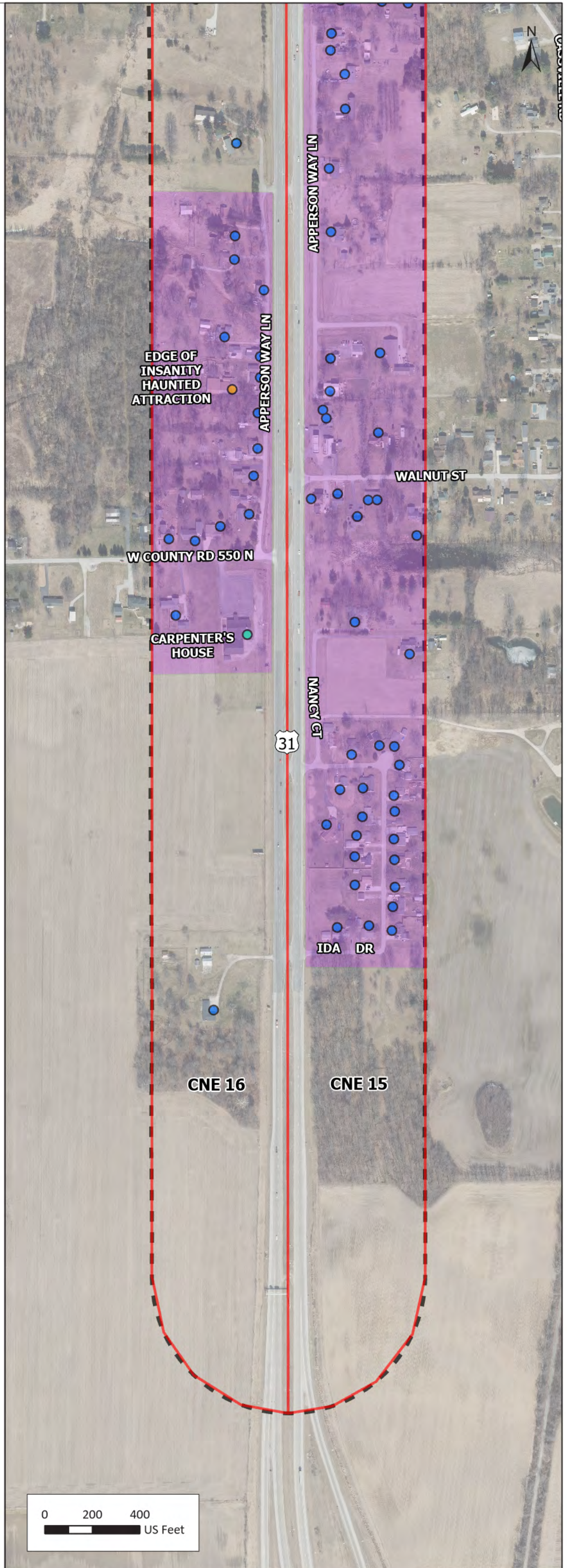
Appendix A, Page 12 of 27



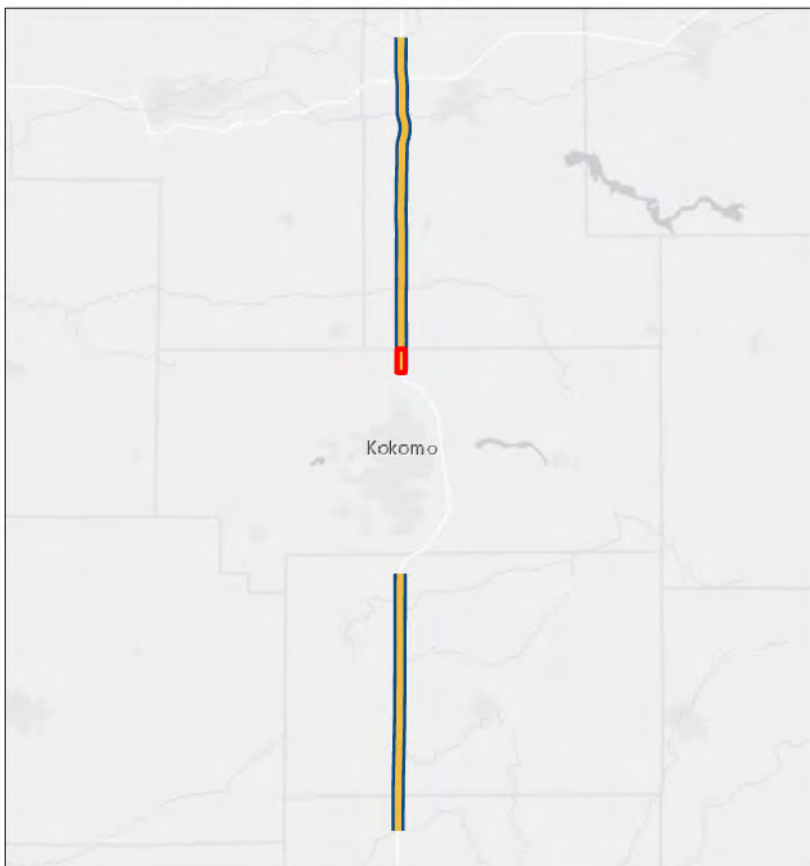
US 31 South North Segment Noise-Sensitive Areas

Legend

-  500-Foot Noise Study Area
 -  Common Noise Environment (CNE)
 -  Area for Further Investigation
- FHWA Noise Abatement Category
-  B
 -  C
 -  D
 -  E



Appendix A, Page 13 of 27

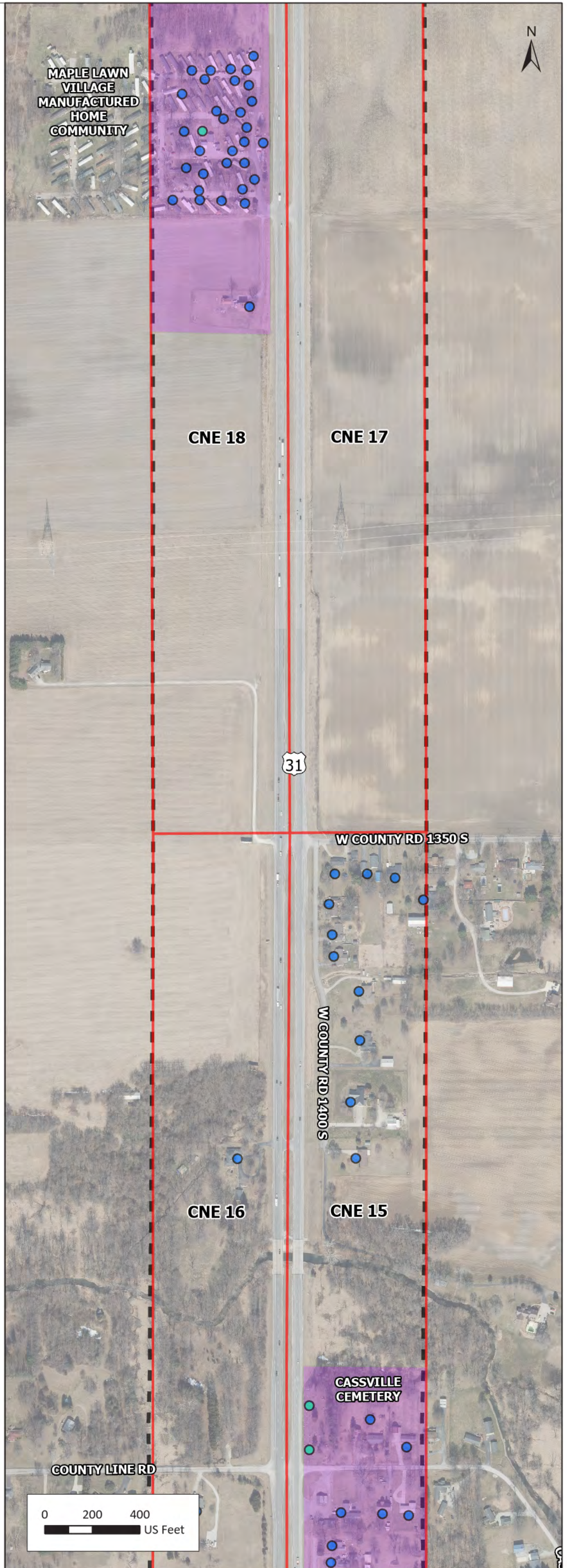
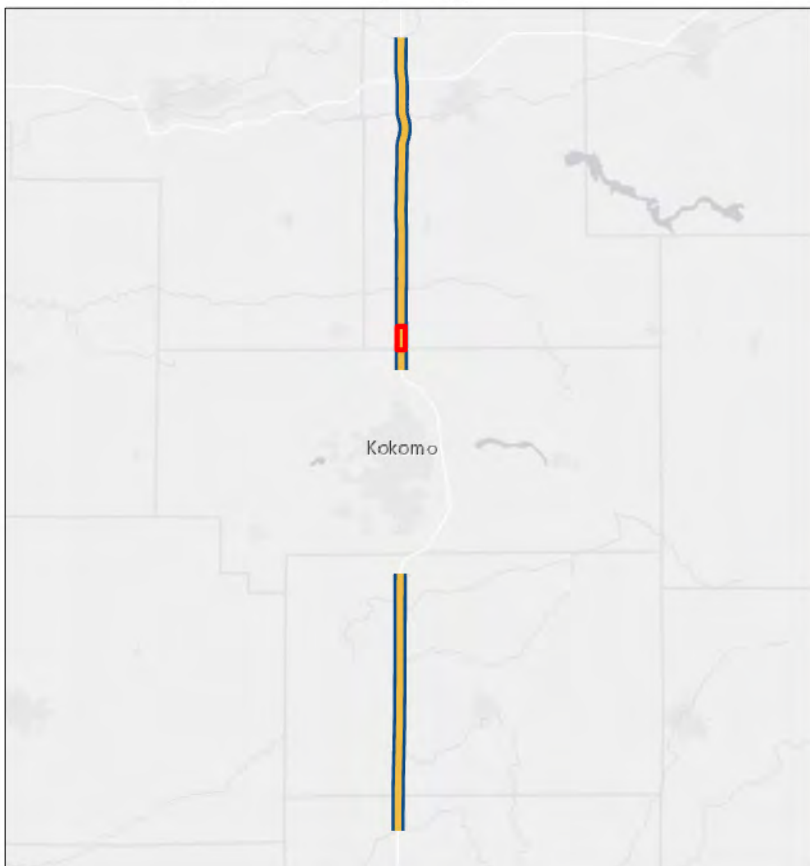


US 31 South North Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
 - Common Noise Environment (CNE)
 - Area for Further Investigation
- FHWA Noise Abatement Category
- B
 - C
 - D
 - E

Appendix A, Page 14 of 27



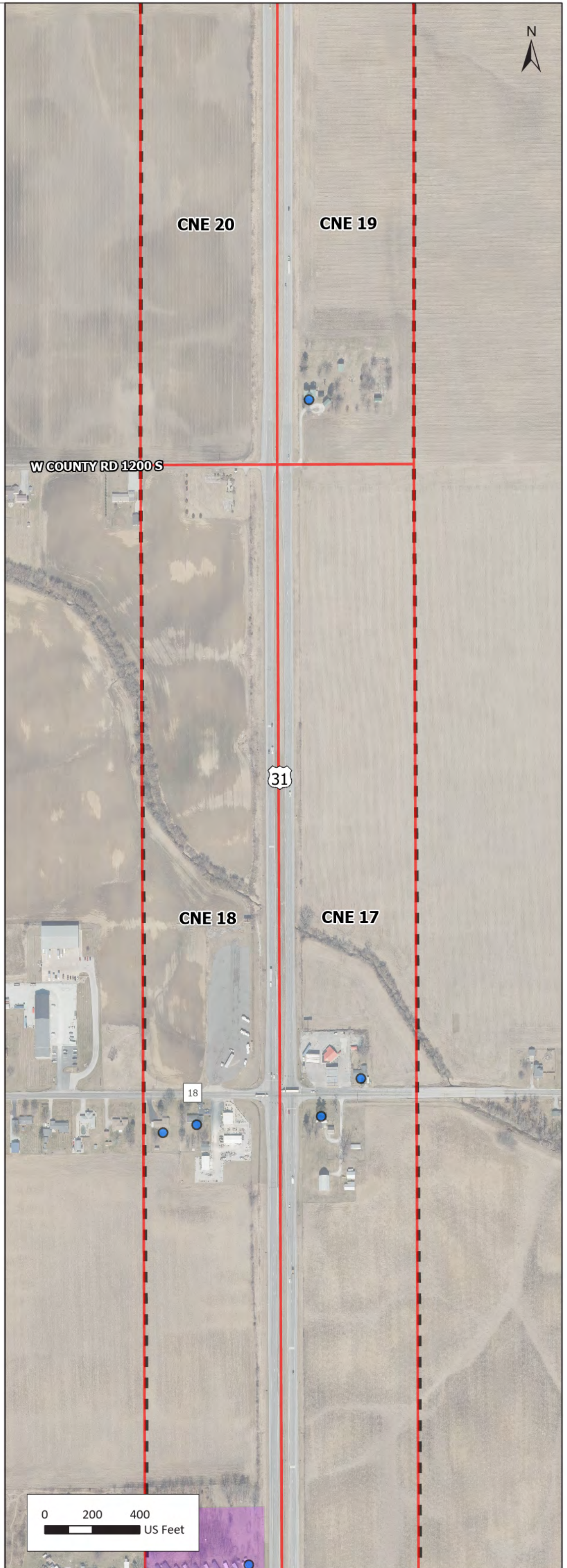
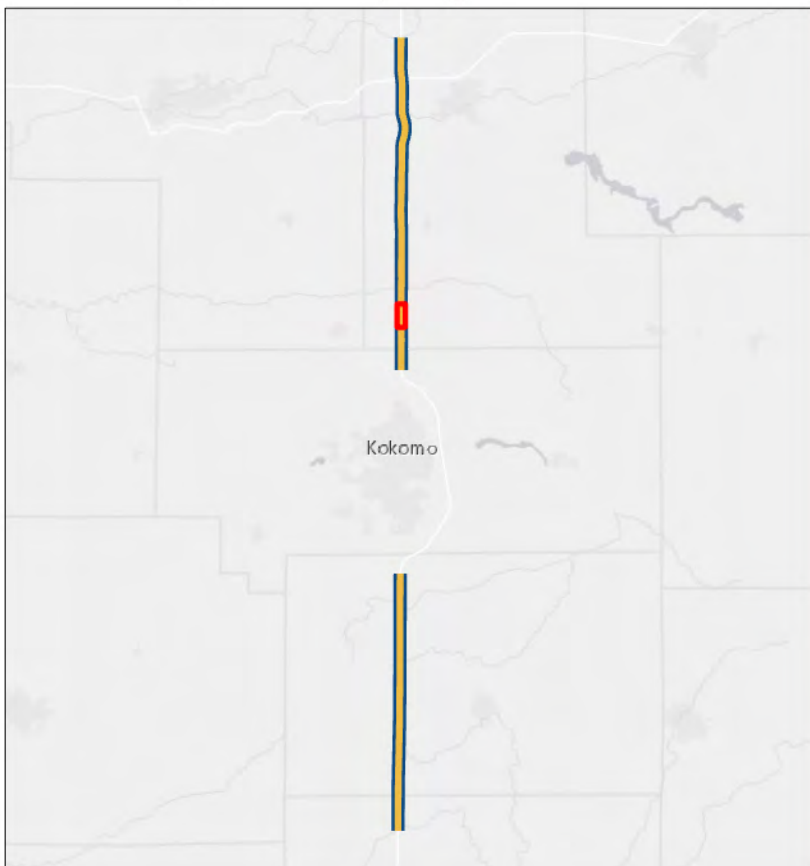


US 31 South North Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
- Common Noise Environment (CNE)
- Area for Further Investigation
- FHWA Noise Abatement Category**
- B
- C
- D
- E

Appendix A, Page 15 of 27



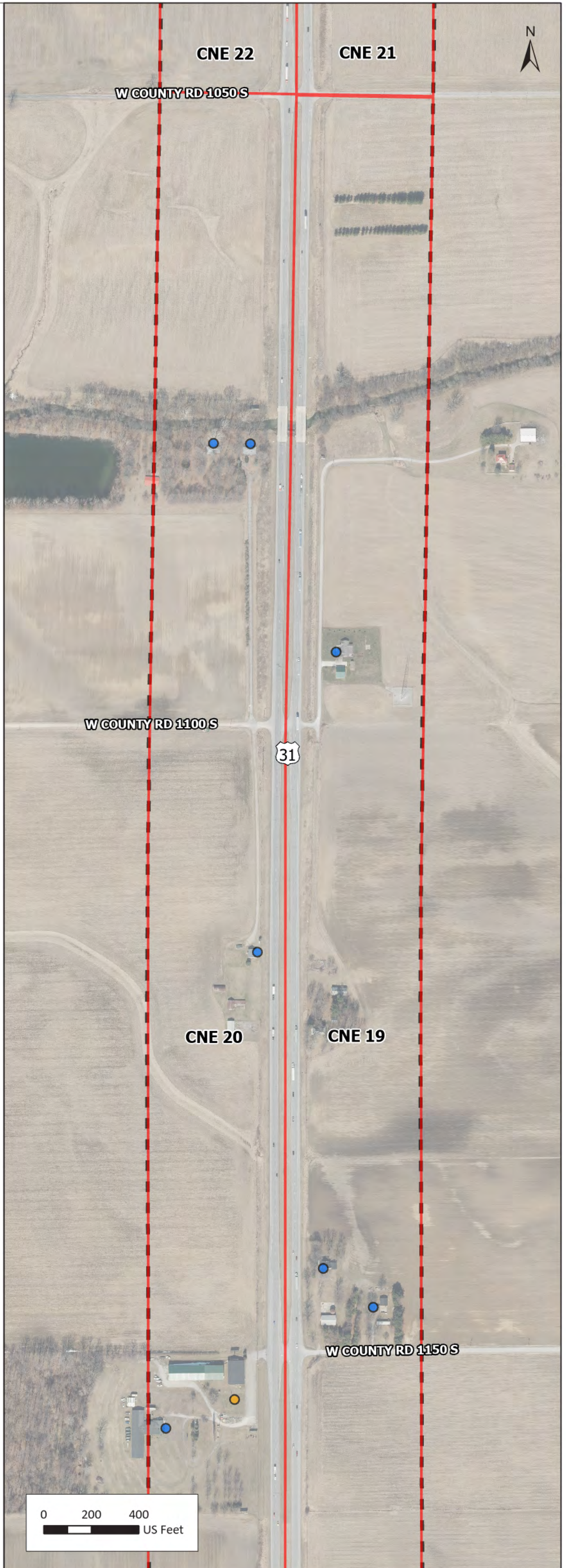
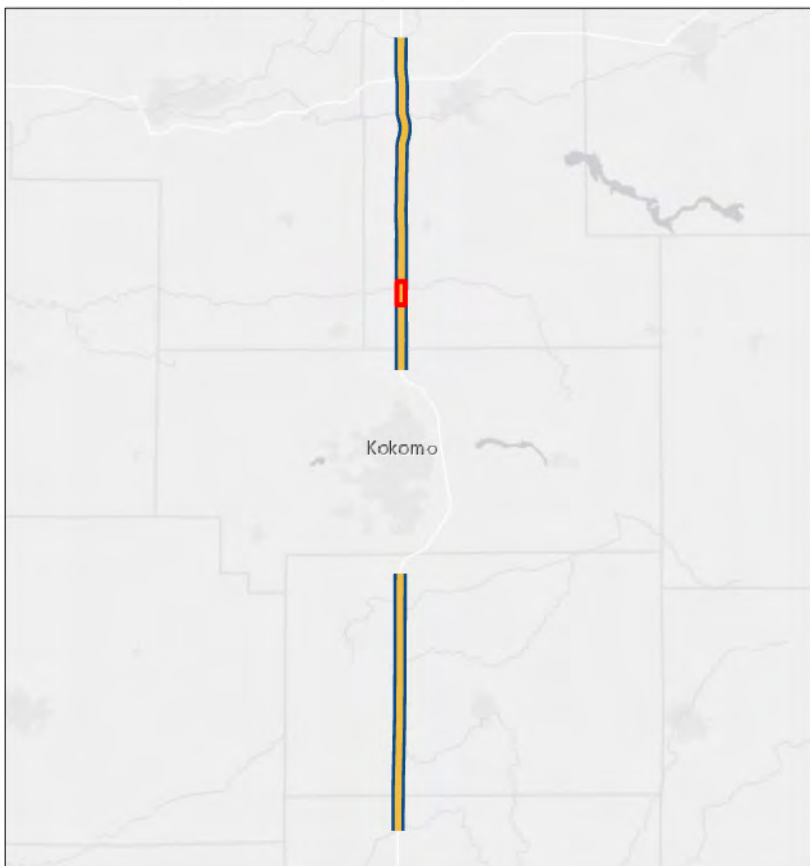


US 31 South North Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
- Common Noise Environment (CNE)
- Area for Further Investigation
- FHWA Noise Abatement Category**
- B
- C
- D
- E

Appendix A, Page 16 of 27

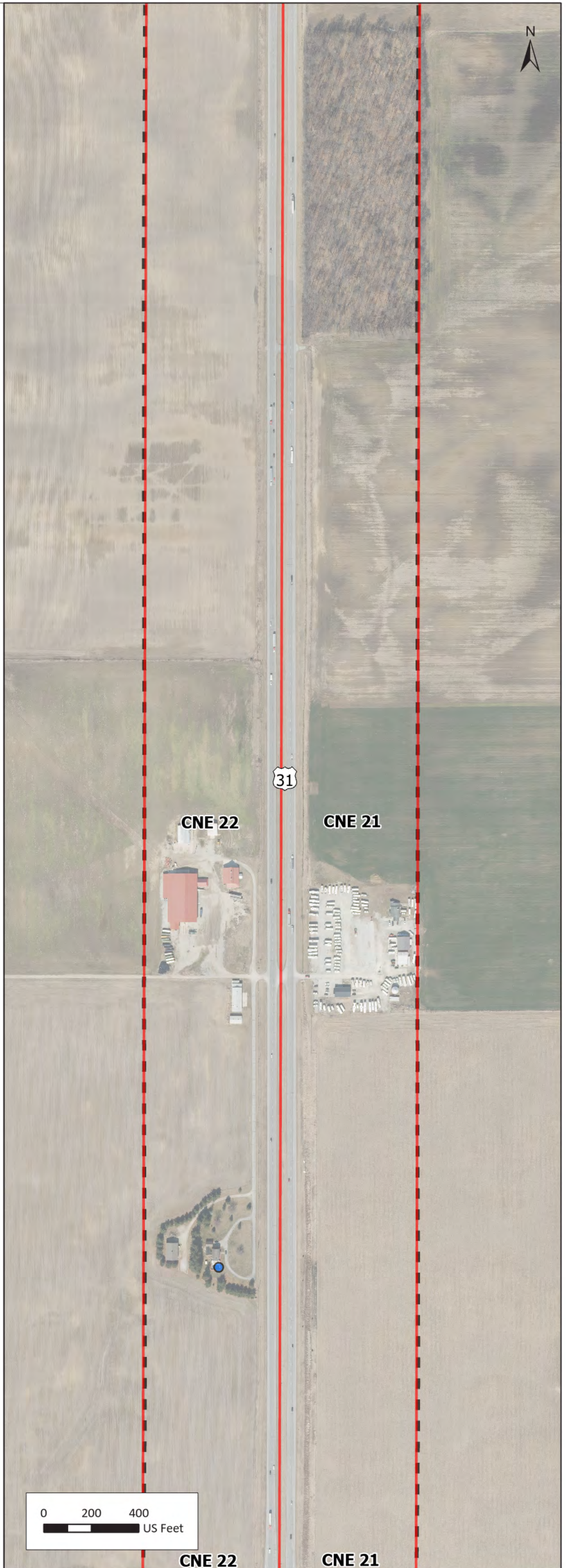




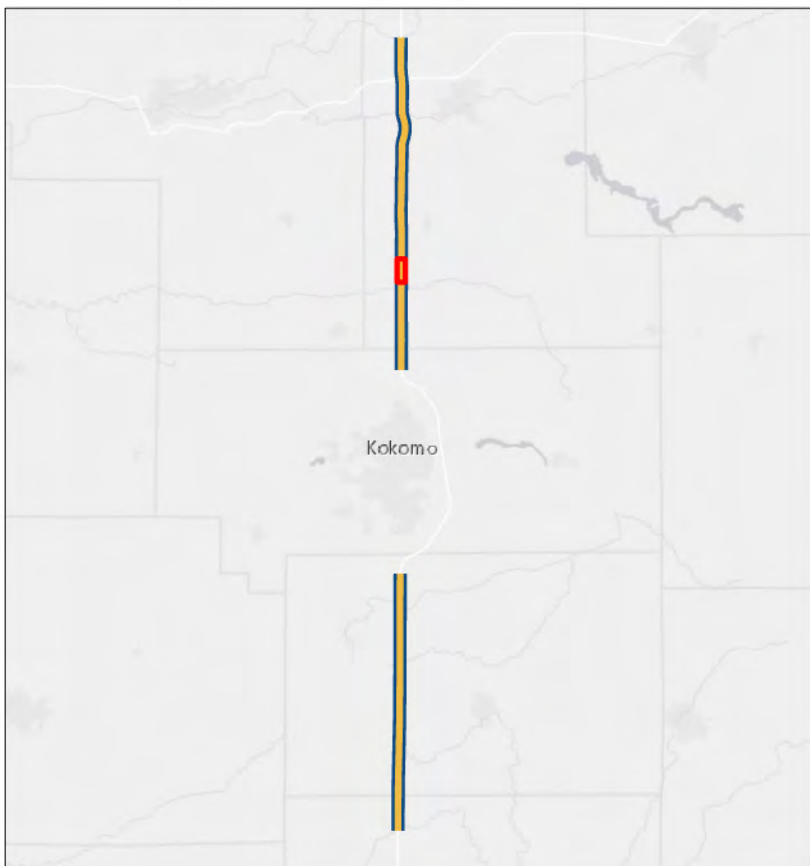
US 31 South North Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
 - Common Noise Environment (CNE)
 - Area for Further Investigation
- FHWA Noise Abatement Category
- B
 - C
 - D
 - E



Appendix A, Page 17 of 27

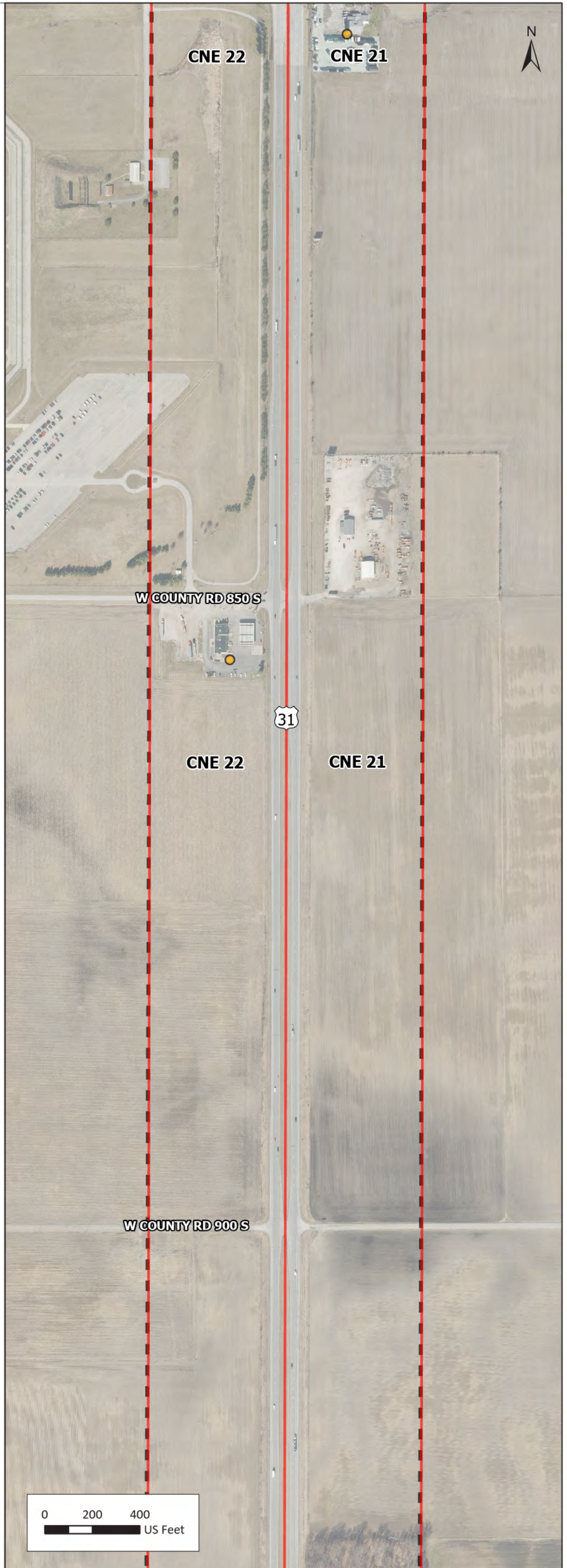




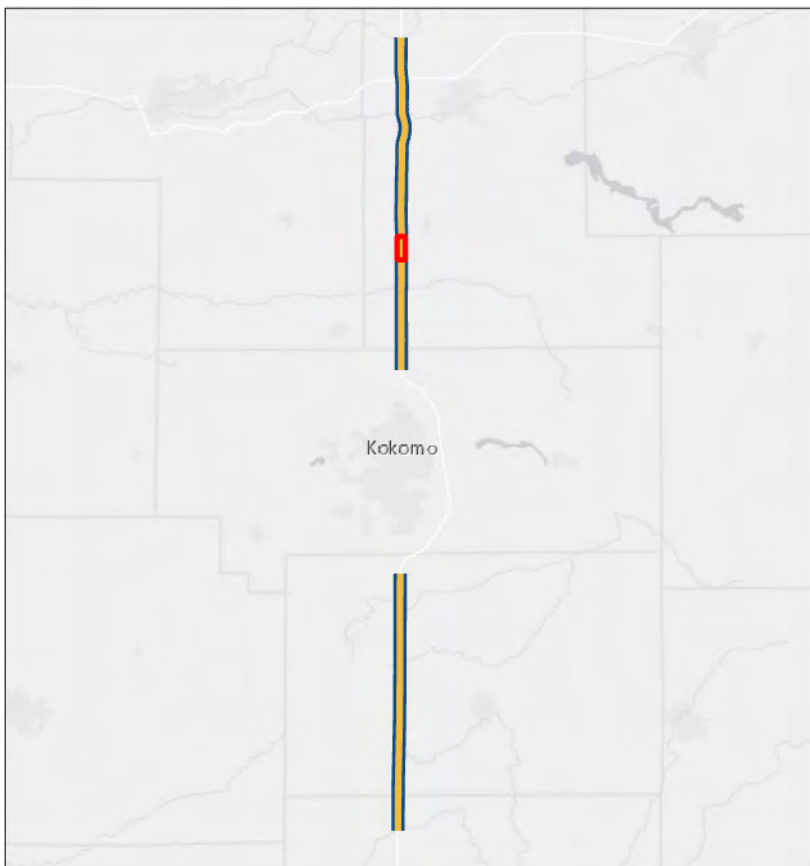
US 31 South North Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
- Common Noise Environment (CNE)
- Area for Further Investigation
- FHWA Noise Abatement Category**
- B
- C
- D
- E



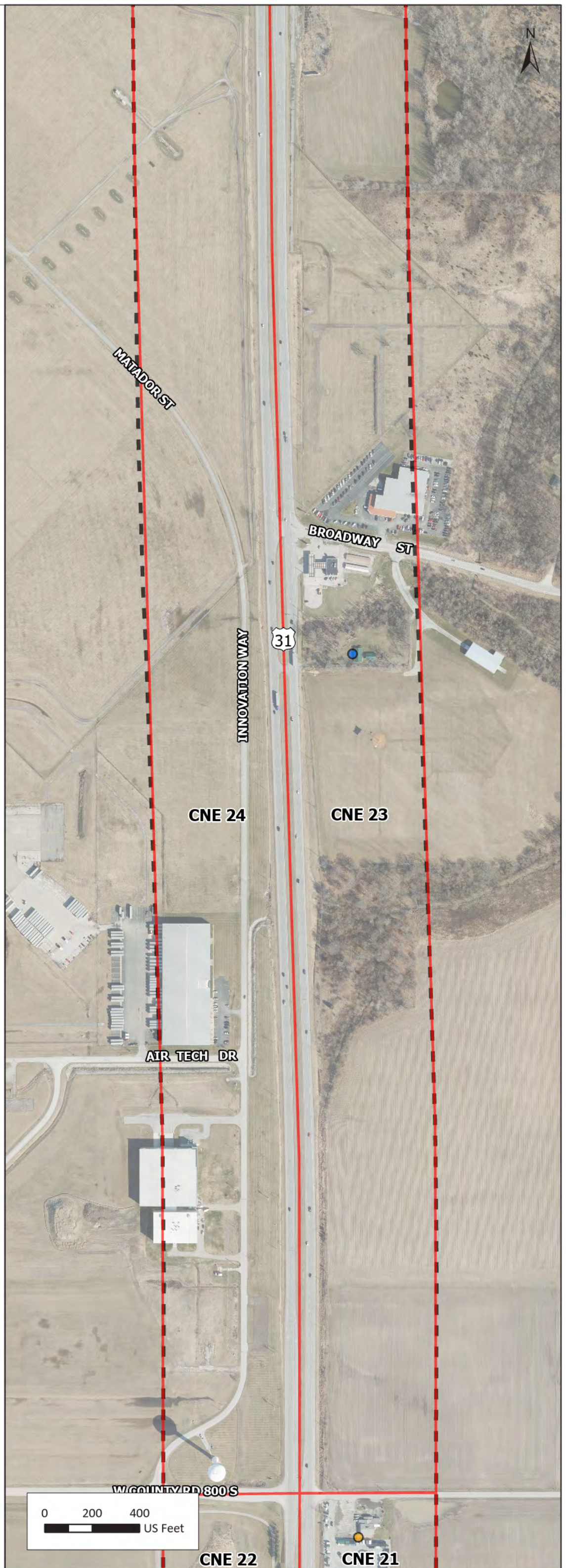
Appendix A, Page 18 of 27



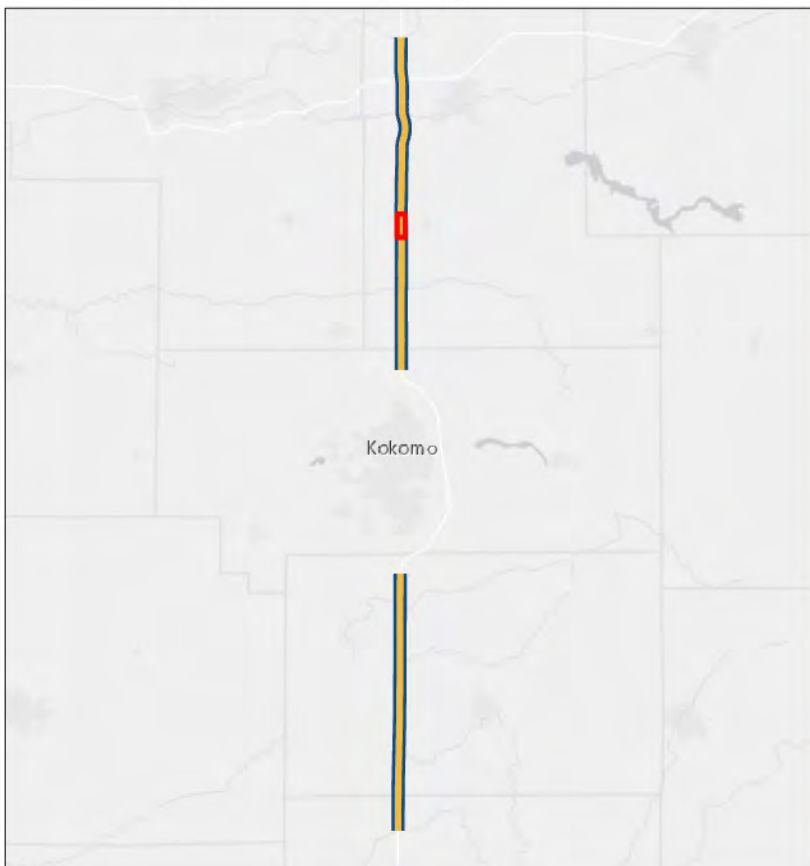
US 31 South North Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
- Common Noise Environment (CNE)
- Area for Further Investigation
- FHWA Noise Abatement Category**
- B
- C
- D
- E










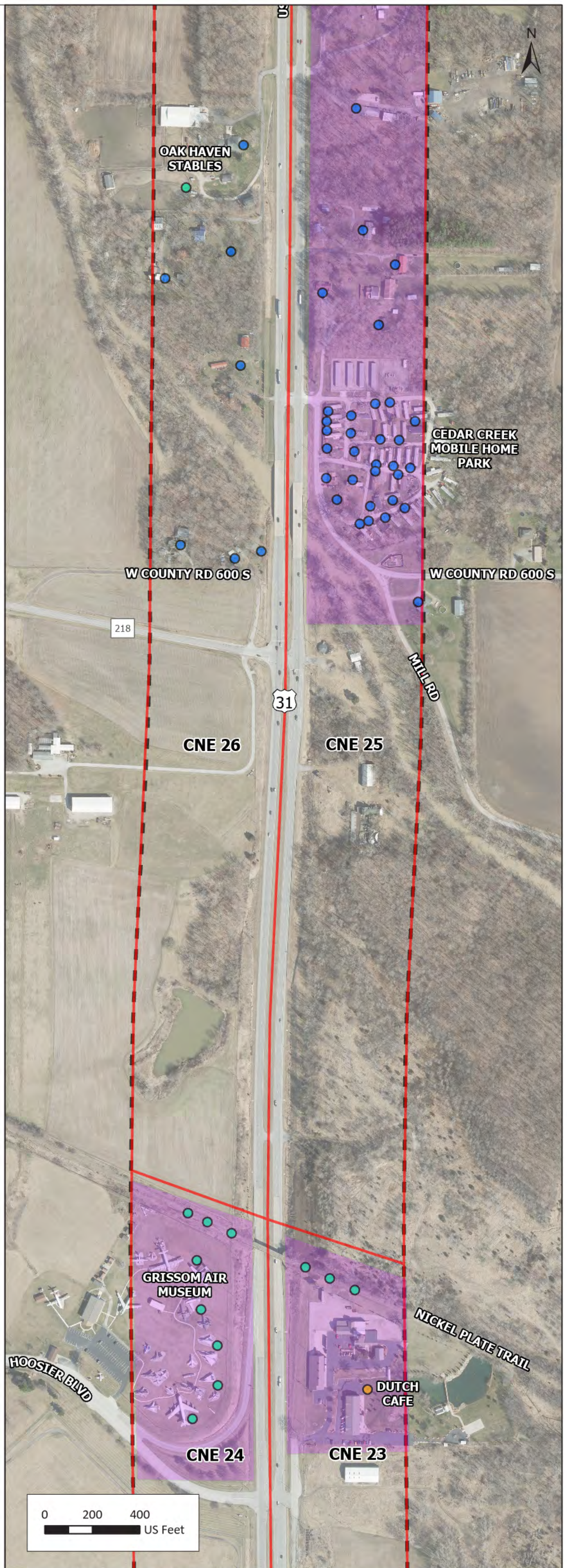
Appendix A, Page 19 of 27



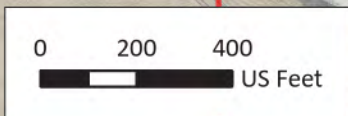
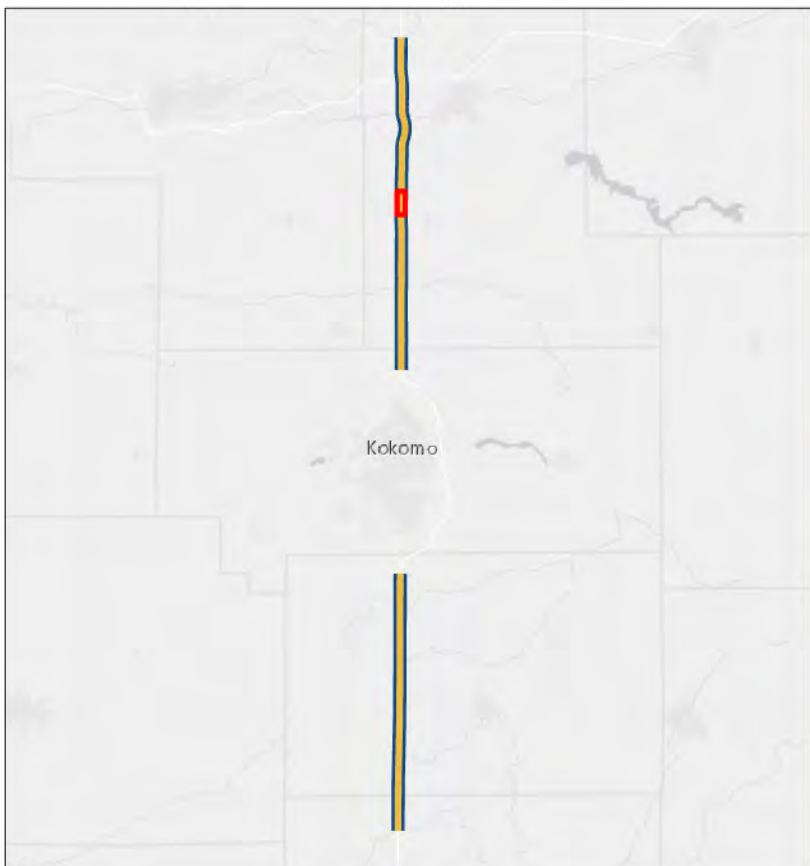
US 31 South North Segment Noise-Sensitive Areas

Legend

-  500-Foot Noise Study Area
 -  Common Noise Environment (CNE)
 -  Area for Further Investigation
- FHWA Noise Abatement Category
-  B
 -  C
 -  D
 -  E










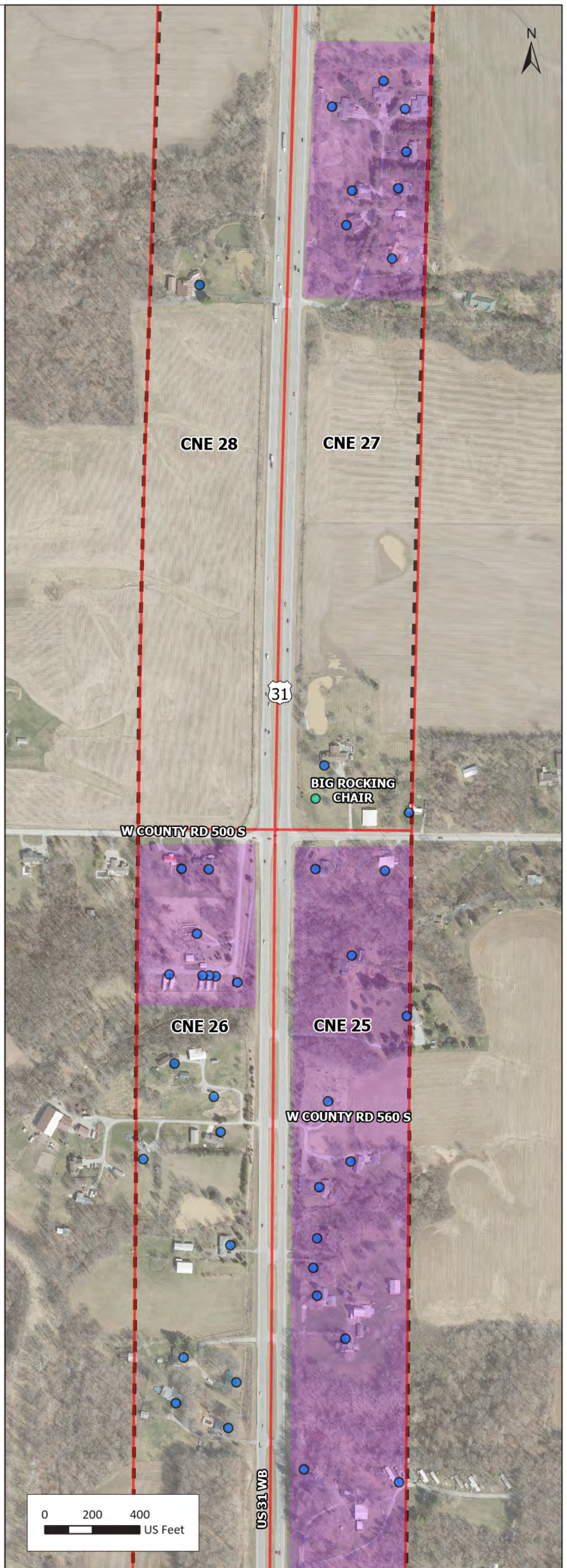
Appendix A, Page 20 of 27



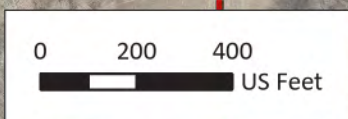
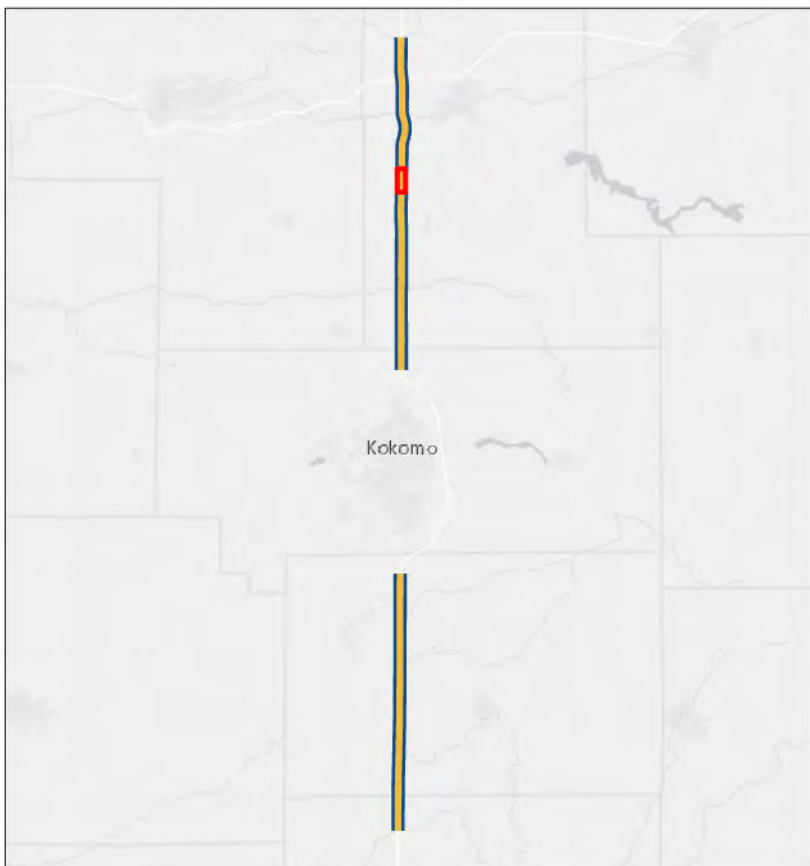
US 31 South North Segment Noise-Sensitive Areas

Legend

-  500-Foot Noise Study Area
 -  Common Noise Environment (CNE)
 -  Area for Further Investigation
- FHWA Noise Abatement Category
-  B
 -  C
 -  D
 -  E



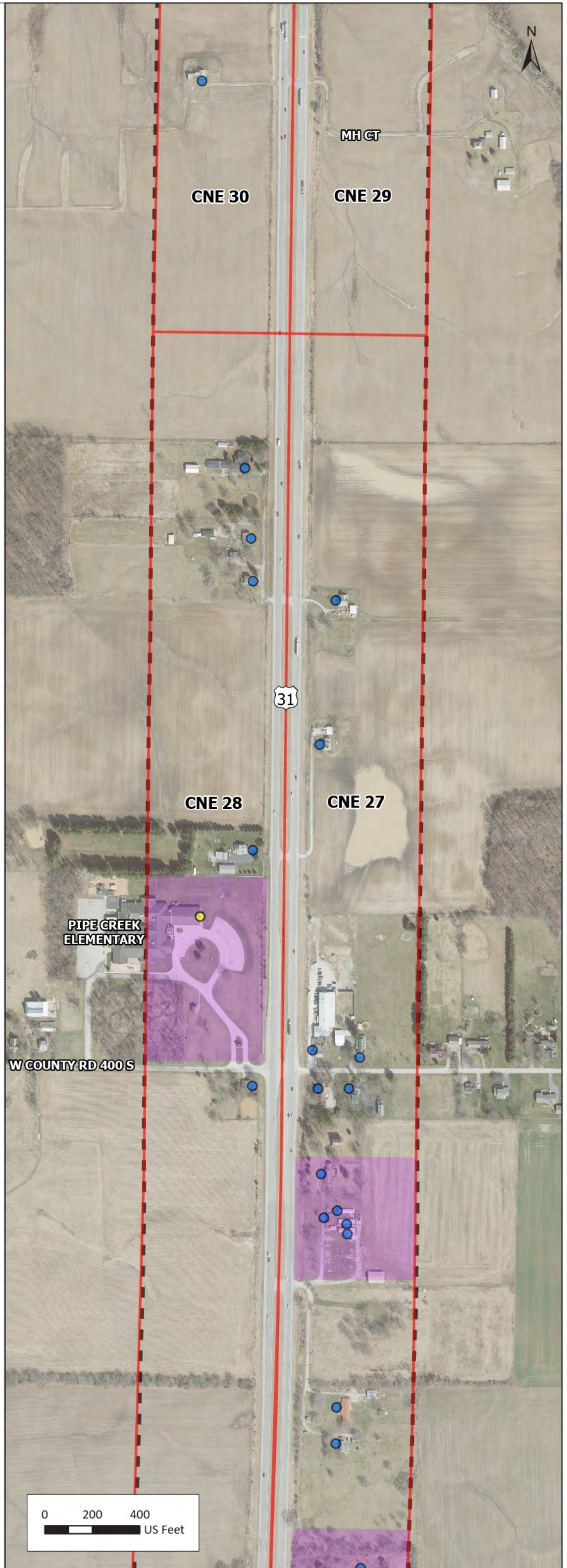
Appendix A, Page 21 of 27



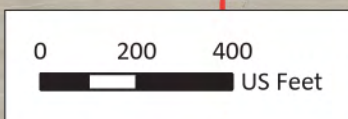
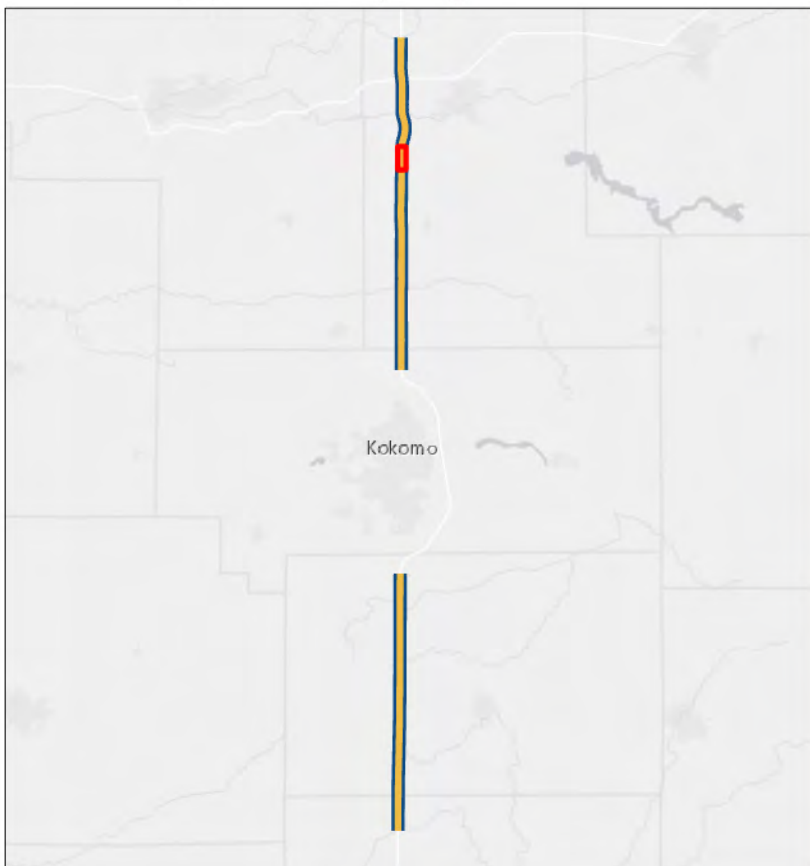
US 31 South North Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
- Common Noise Environment (CNE)
- Area for Further Investigation
- FHWA Noise Abatement Category**
- B
- C
- D
- E



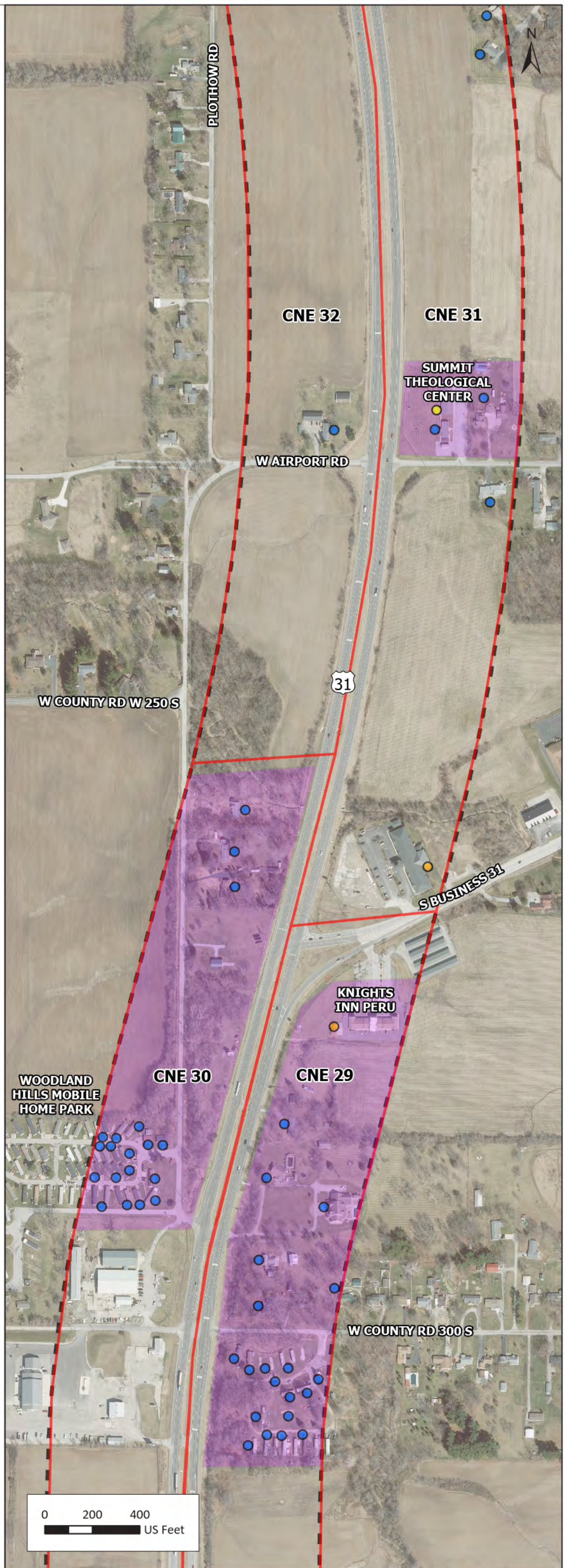
Appendix A, Page 22 of 27



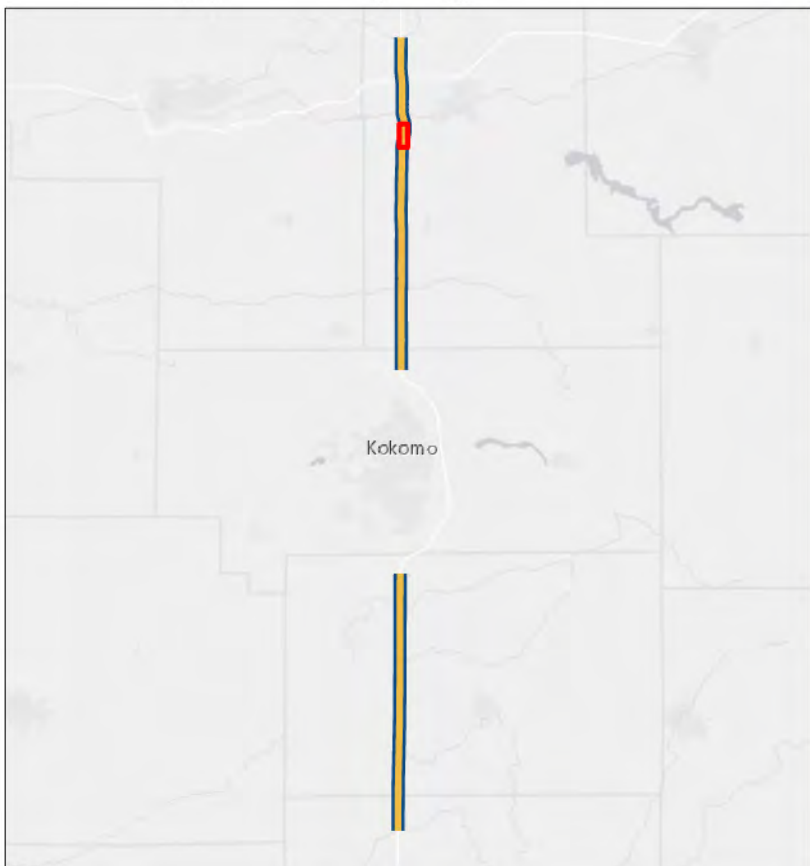
US 31 South North Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
 - Common Noise Environment (CNE)
 - Area for Further Investigation
- FHWA Noise Abatement Category
- B
 - C
 - D
 - E



Appendix A, Page 23 of 27

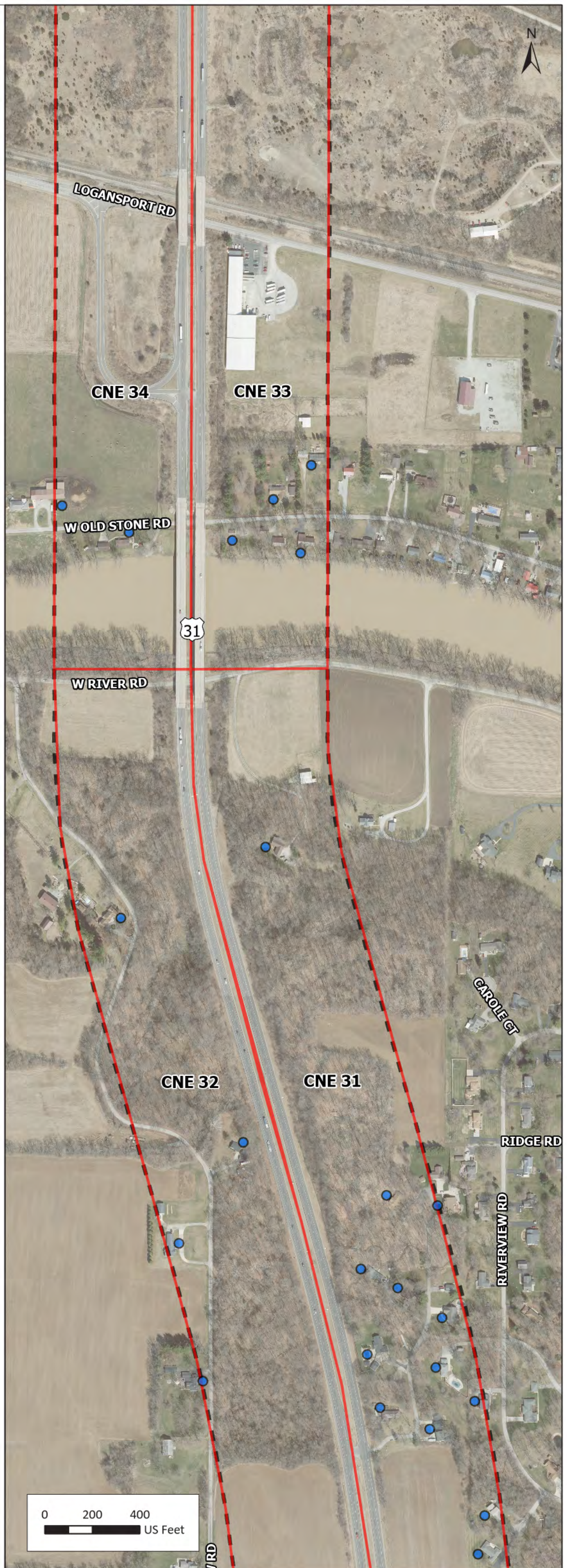




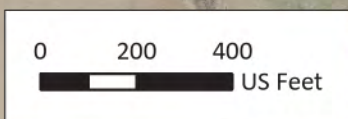
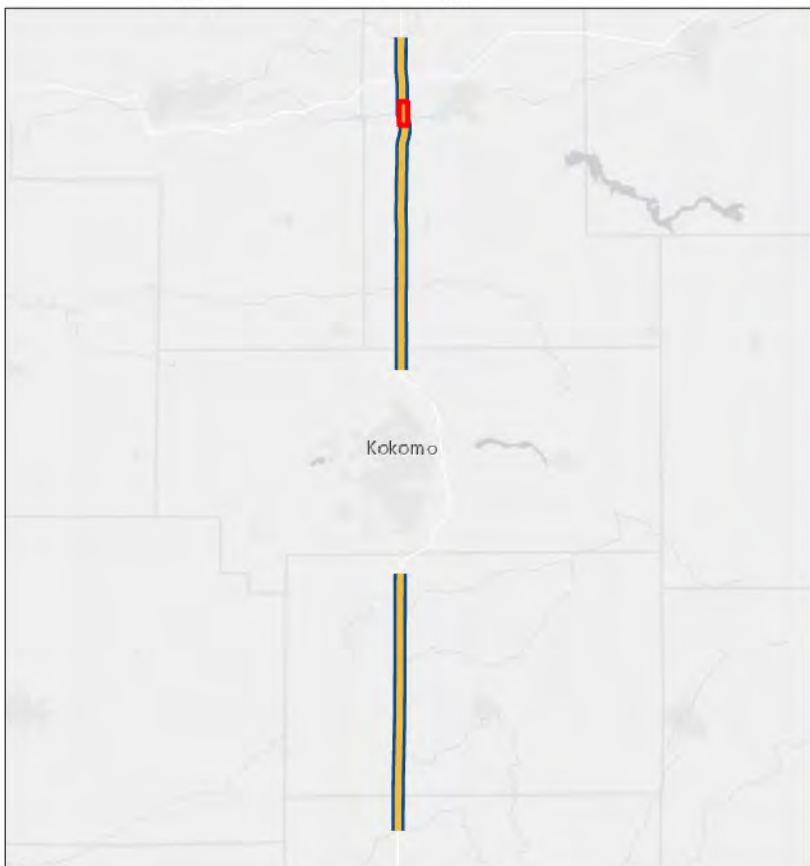
US 31 South North Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
- Common Noise Environment (CNE)
- Area for Further Investigation
- FHWA Noise Abatement Category**
- B
- C
- D
- E










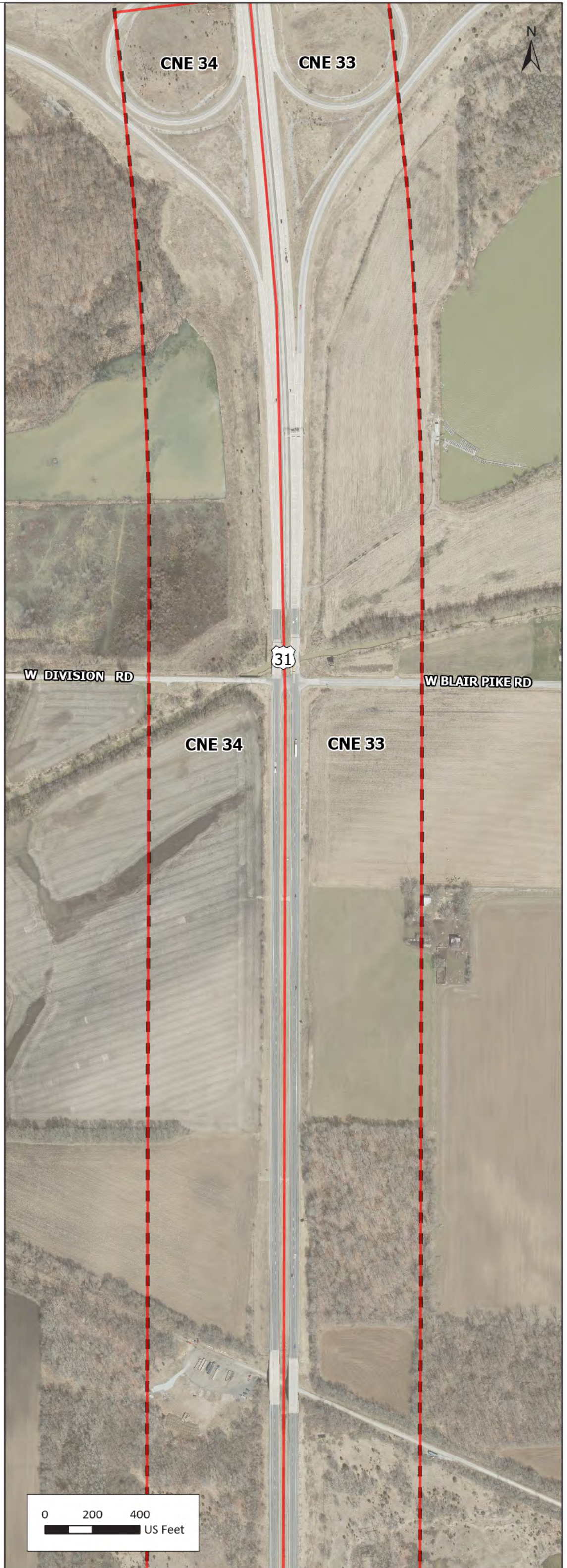
Appendix A, Page 24 of 27



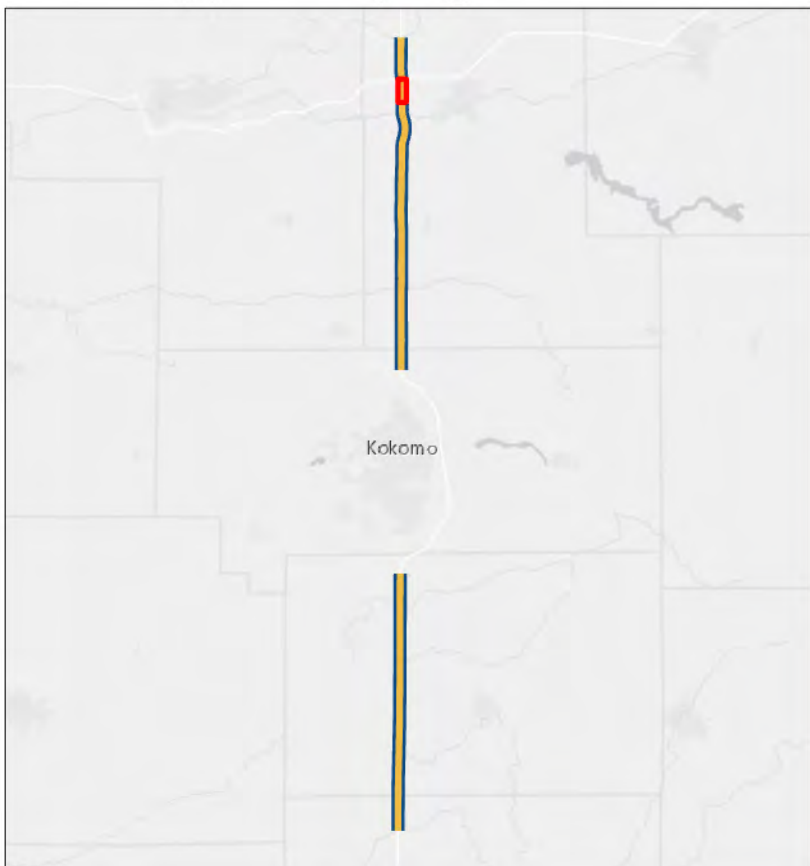
**US 31 South
North Segment
Noise-Sensitive Areas**

Legend

-  500-Foot Noise Study Area
-  Common Noise Environment (CNE)
-  Area for Further Investigation
- FHWA Noise Abatement Category**
-  B
-  C
-  D
-  E










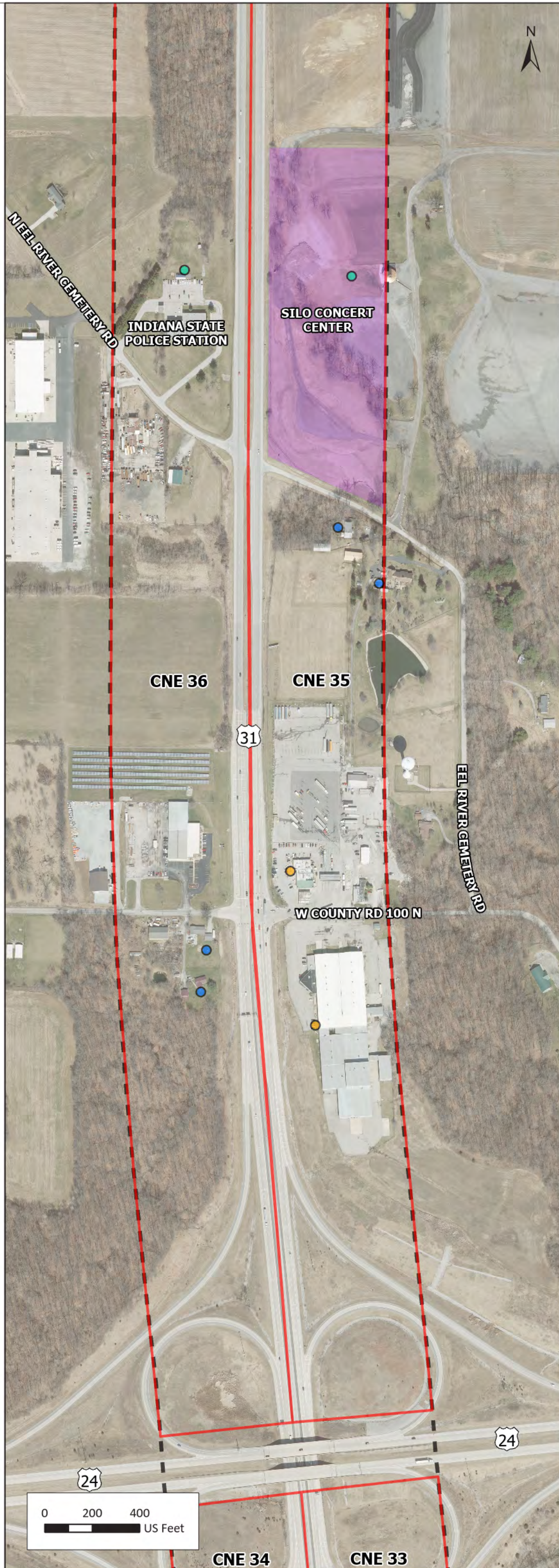
Appendix A, Page 25 of 27



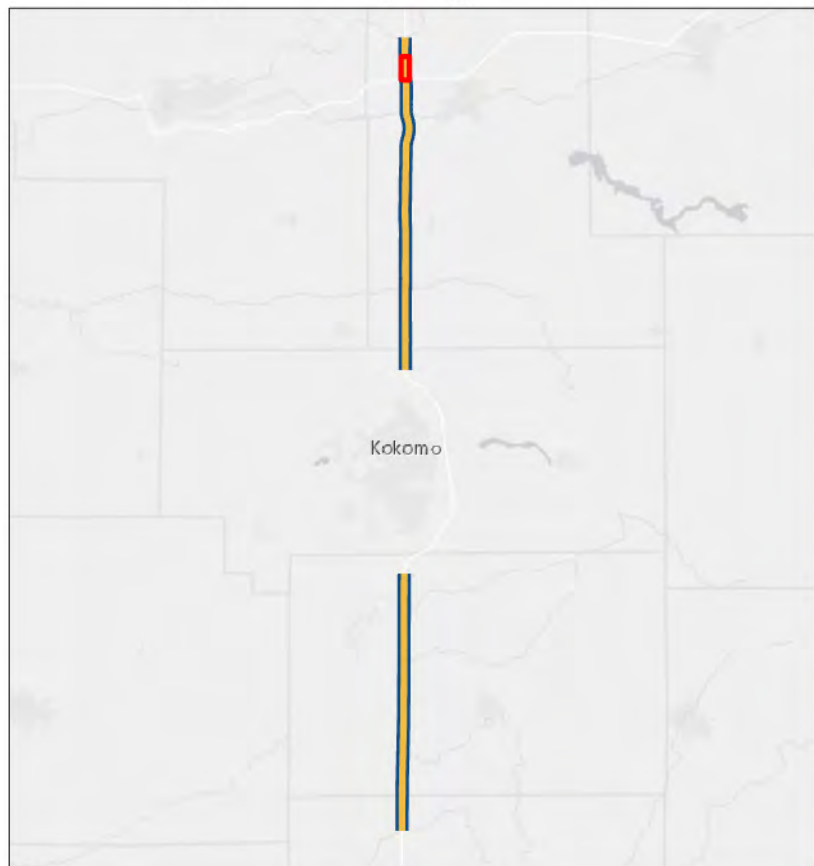
US 31 South North Segment Noise-Sensitive Areas

Legend

-  500-Foot Noise Study Area
 -  Common Noise Environment (CNE)
 -  Area for Further Investigation
- FHWA Noise Abatement Category
-  B
 -  C
 -  D
 -  E



Appendix A, Page 26 of 27

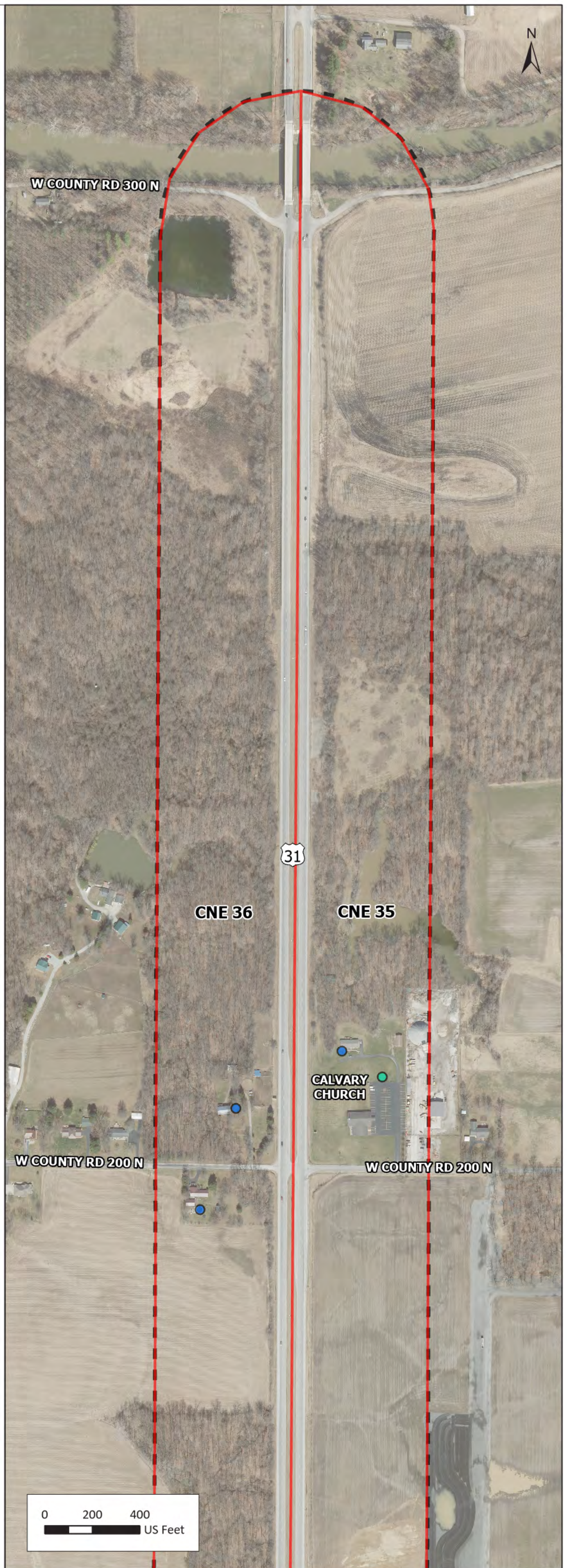




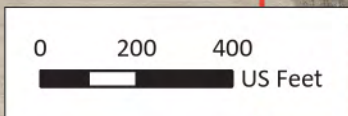
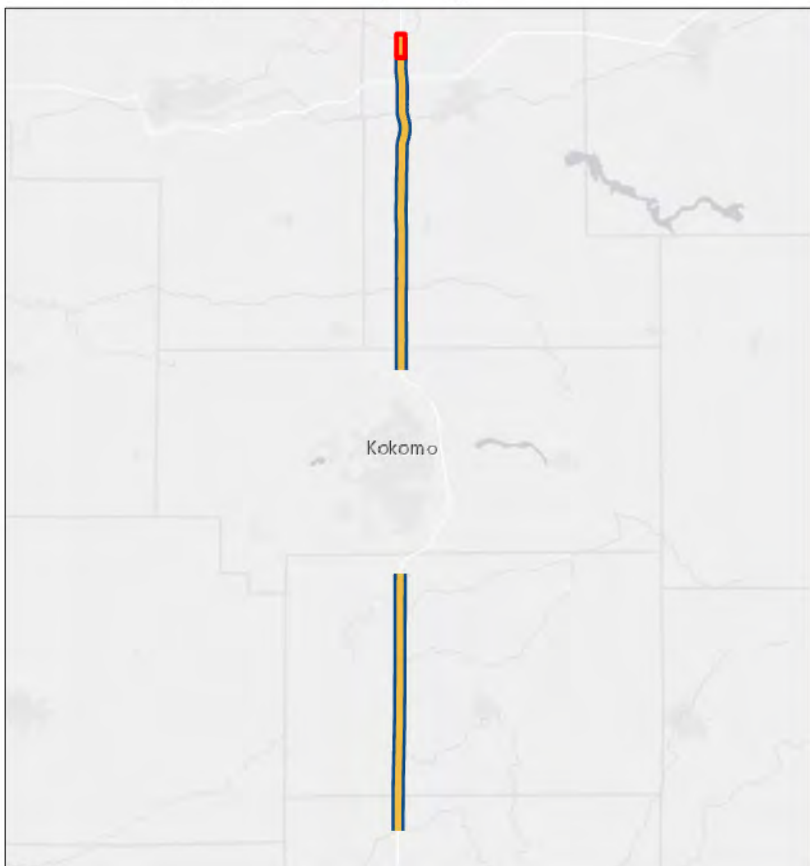
US 31 South North Segment Noise-Sensitive Areas

Legend

- 500-Foot Noise Study Area
 - Common Noise Environment (CNE)
 - Area for Further Investigation
- FHWA Noise Abatement Category
- B
 - C
 - D
 - E



Appendix A, Page 27 of 27



| <u>Potential Centennial Farm</u> | <u>County</u> | <u>Homestead Year</u> | <u>Centennial Year</u> | <u>Sesquicentennial Year</u> |
|----------------------------------|---------------|-----------------------|------------------------|------------------------------|
| A. Hunter Farm | Hamilton | 1836 | 1983 | |
| A. Myers Farm | Hamilton | 1887 | 1988 | |
| A. Salo Farm | Hamilton | 1865 | 1977 | |
| Anderson Farm | Hamilton | 1905 | 2013 | |
| B. Briney Farm | Hamilton | 1866 | 1991 | |
| B. Clark Farm | Hamilton | 1835 | 1976 | |
| B. Haworth Farm | Hamilton | 1882 | 1988 | |
| B. Newby Farm | Hamilton | 1887 | 1995 | |
| Beck'S Superior Hybrids Inc Farm | Hamilton | 1901 | 2001 | |
| C. Carey Farm | Hamilton | 1861 | 1977 | |
| C. Hiatt Farm | Hamilton | 1869 | 1977 | |
| C. Inman Farm | Hamilton | 1851 | 1987 | |
| C. Knapp Farm | Hamilton | 1906 | 2022 | |
| C. Richardson Farm | Hamilton | 1853 | 1982 | |
| Crawford Farm | Hamilton | 184 | 2013 | |
| D. Berg-Bryant Farm | Hamilton | 1863 | 1999 | |
| D. Davis Farm | Hamilton | 1914 | 2014 | |
| D. Delph Farm | Hamilton | 1910 | 2011 | |
| D. Hinshaw Farm | Hamilton | 1879 | 1995 | |
| D. Knapp Farm | Hamilton | 1906 | 2022 | |
| D. Knight Farm | Hamilton | 1856 | 1976 | |
| D. Pickett Farm | Hamilton | 1918 | 2023 | |
| D. Stewart Farm | Hamilton | 1905 | 2010 | |
| D. Stultz Farm | Hamilton | 1832 | 1977 | |
| E. Bevington Farm | Hamilton | 1869 | 1984 | |
| E. Hinshaw Farm | Hamilton | 1854 | 1990 | |
| E. Moore Jacobs Farm | Hamilton | 1903 | 2004 | |
| E. Roudebush Farm | Hamilton | 1861 | 2005 | |
| F. Porter Farm | Hamilton | 1847 | 1976 | |
| F. Wann Farm | Hamilton | 1863 | 1976 | |
| G. Baker Farm | Hamilton | 1880 | 1988 | |
| G. Blake Farm | Hamilton | 1829 | 2022 | 2022 |
| G. Brown Farm | Hamilton | 1878 | 1991 | |
| G. Roudebush Farm | Hamilton | 1839 | 1976 | |
| G. Rulon Farm | Hamilton | 1906 | 2007 | |
| H. Flanders Farm | Hamilton | 1865 | 1988 | 2018 |
| H. Flanders Farm | Hamilton | 1879 | 1995 | |
| H. Musselman Farm | Hamilton | 1884 | 1988 | |
| Haughey Farm | Hamilton | 1882 | 2018 | |
| Hensley Farm | Hamilton | 1905 | 2017 | |
| I. Haworth Farm | Hamilton | 1842 | 2019 | 2019 |
| I. Sherman Farm | Hamilton | 1882 | 1995 | |
| J. Brown Farm | Hamilton | 1845 | | 2017 |
| J. Drago Farm | Hamilton | 1860 | 1976 | |
| J. Durr Farm | Hamilton | 1905 | 2010 | |
| J. Harvey Farm | Hamilton | 1872 | 1976 | |
| J. Johnson Farm | Hamilton | 1838 | 1976 | |
| J. Myers Farm | Hamilton | 1867 | 1976 | |
| J. O'Bryhim Farm | Hamilton | 1835 | 1983 | |

| <u>Potential Centennial Farm</u> | <u>County</u> | <u>Homestead Year</u> | <u>Centennial Year</u> | <u>Sesquicentennial Year</u> |
|----------------------------------|---------------|-----------------------|------------------------|------------------------------|
| J. Schmidt Farm | Hamilton | 1868 | 1976 | |
| J. Wheeler Farm | Hamilton | 1851 | 2018 | 2018 |
| Johnson Farm | Hamilton | 1905 | 2017 | |
| L. Carey Farm | Hamilton | 1837 | 1976 | |
| L. Pickett Farm | Hamilton | 1858 | 1976 | |
| L. Rulon Farm | Hamilton | 1880 | 1982 | |
| M. Blackford Farm | Hamilton | 1883 | 2002 | |
| M. Bray Farm | Hamilton | 1841 | 1986 | |
| M. Brown Farm | Hamilton | 1901 | 2001 | |
| M. Crawford Farm | Hamilton | 1834 | 1983 | |
| M. Crehan Farm | Hamilton | 1864 | 1982 | |
| M. Fulton Mullin Farm | Hamilton | 1900 | 2001 | |
| M. Harvey Farm | Hamilton | 1849 | 1977 | |
| M. Hodson Farm | Hamilton | 1833 | 1976 | |
| M. House Farm | Hamilton | 1869 | 1989 | |
| M. House Farm | Hamilton | 1917 | 2018 | |
| M. Hume Farm | Hamilton | 1892 | 1993 | |
| M. Johnson Farm | Hamilton | 1836 | 1976 | |
| M. Knapp Farm | Hamilton | 1906 | 2022 | |
| M. London Farm | Hamilton | 1856 | 1976 | |
| M. Meyers Farm | Hamilton | 1894 | 1999 | |
| M. Miller Farm | Hamilton | 1854 | 1976 | |
| M. Newby Farm | Hamilton | 1862 | 1995 | |
| M. Noggle Farm | Hamilton | 1901 | 2010 | |
| M. Osborne Farm | Hamilton | 1863 | 1977 | |
| M. Roberts Farm | Hamilton | 1843 | 1976 | |
| M. Schembre Farm | Hamilton | 1827 | 1976 | |
| N. Reynolds-Davis Farm | Hamilton | 1905 | 2008 | |
| N. Roberts Farm | Hamilton | 1869 | 1977 | |
| N. Schembra Farm | Hamilton | 1827 | 2004 | |
| O. Newton Farm | Hamilton | 1875 | 1976 | |
| P. Brocket Farm | Hamilton | 1906 | 2022 | |
| R. Curfman Farm | Hamilton | 1903 | 2022 | |
| R. Davis Farm | Hamilton | 1914 | 2017 | |
| R. Devaney Farm | Hamilton | 1875 | 1982 | |
| R. Etchison Farm | Hamilton | 1880 | 2003 | |
| R. Laudig Farm | Hamilton | 1837 | 1982 | |
| R. Reynolds Farm | Hamilton | 1905 | 2008 | |
| R. Roudenbush Farm | Hamilton | 1851 | 1977 | |
| R. Schulenburg Farm | Hamilton | 1844 | 1977 | |
| R. Webb Farm | Hamilton | 1865 | 1977 | |
| Ringer Farms Inc Farm | Hamilton | 1894 | 2021 | |
| S. Mckinley Farm | Hamilton | 1902 | 2017 | |
| S. Osborne Farm | Hamilton | 1863 | 2017 | 2017 |
| V. Eller Farm | Hamilton | 1831 | 1976 | |
| V. Hinshaw Farm | Hamilton | 1867 | 1987 | |
| V. Swing Farm | Hamilton | 1846 | 2002 | |
| W. Hawley Farm | Hamilton | 1834 | 1977 | |
| W. Morris Farm | Hamilton | 1872 | 1984 | |

| <u>Potential Centennial Farm</u> | <u>County</u> | <u>Homestead Year</u> | <u>Centennial Year</u> | <u>Sesquicentennial Year</u> |
|----------------------------------|---------------|-----------------------|------------------------|------------------------------|
| W. Sigmund Farm | Hamilton | 1834 | 1990 | |
| Wyant Family Enterprise Farm | Hamilton | 1905 | 2012 | |
| A. Coan Farm | Howard | 1889 | 1990 | |
| A. Kingseed Farm | Howard | 1848 | 2021 | |
| A. Maish Farm | Howard | 1860 | 1986 | 2019 |
| C. Bennett Farm | Howard | 1918 | 2021 | |
| C. Hobson Farm | Howard | 1869 | 1978 | |
| C. Lamb Farm | Howard | 1855 | 2002 | |
| C. Petro Farm | Howard | 1886 | 2019 | |
| Countryman Farm | Howard | 1905 | 2017 | |
| D. David Farm | Howard | 1874 | 1978 | |
| D. Fawcett Farm | Howard | 1905 | 1999 | |
| D. Kerkhoff Farm | Howard | 1870 | 1990 | |
| D. Merrell Farm | Howard | 1846 | 1977 | |
| D. Reser Farm | Howard | 1891 | 1993 | |
| E. Fenn Farm | Howard | 1873 | 1976 | |
| E. Kendall Farm | Howard | 1848 | 1988 | |
| E. Riley Farm | Howard | 1904 | 2017 | |
| E. Smith Farm | Howard | 1848 | 2018 | 2018 |
| F. David Farm | Howard | 1855 | 1984 | |
| G. Fisher Farm | Howard | 1847 | 2002 | 2018 |
| G. Hite Farm | Howard | 1903 | 2019 | |
| G. Murphy Farm | Howard | 1873 | 1976 | |
| G. Sullivan Farm | Howard | 1849 | 2004 | |
| H. Carter Farm | Howard | 1886 | 1998 | |
| H. David Farm | Howard | 1905 | 2008 | |
| H. Eller Farm | Howard | 1905 | 2018 | |
| H. Woodmansee Farm | Howard | 1882 | 1982 | |
| Hannah Farm | Howard | 1905 | 2017 | |
| I. Hollingsworth Farm | Howard | 1853 | 1987 | 2018 |
| J. Fleming Farm | Howard | 1857 | 2017 | |
| J. Howell Farm | Howard | 1880 | 2023 | |
| J. Jarvis Nelson Farm | Howard | 1863 | 2001 | |
| J. Maher Farm | Howard | 1860 | 1983 | |
| J. Mcdonald Farm | Howard | 1864 | 1993 | |
| J. Miller Farm | Howard | 1903 | 2011 | |
| J. Moss Farm | Howard | 1892 | 2017 | |
| J. White Farm | Howard | 1917 | 2020 | |
| J. White Farm | Howard | 1899 | 2020 | |
| Jackson Farm | Howard | 1905 | 2017 | |
| K. Breisch Farm | Howard | 1848 | 2021 | 2021 |
| K. Shoemaker Farm | Howard | 1905 | 2019 | |
| Kendall BrosLlc Farm | Howard | 1905 | 2017 | 2017 |
| Kring Farm | Howard | 1905 | 2017 | |
| L. Etherington Farm | Howard | 1848 | 1985 | |
| L. Hensler Farm | Howard | 1854 | 1994 | 2006 |
| L. Lambert Farm | Howard | 1905 | 2008 | |
| L. Rinehart Farm | Howard | 1860 | 1977 | |
| Linson Farm | Howard | 1905 | 2017 | |

| <u>Potential Centennial Farm</u> | <u>County</u> | <u>Homestead Year</u> | <u>Centennial Year</u> | <u>Sesquicentennial Year</u> |
|----------------------------------|---------------|-----------------------|------------------------|------------------------------|
| M. Crites Farm | Howard | 1898 | 2010 | |
| M. Davis Farm | Howard | 1920 | 2021 | |
| M. Hite Farm | Howard | 1863 | 1996 | 2019 |
| M. Jackson Farm | Howard | 1853 | 1976 | |
| M. James Farm | Howard | 1888 | 1988 | |
| M. Jones Farm | Howard | 197 | 2000 | |
| M. Kingseed Farm | Howard | 1919 | 2021 | |
| M. Newby Farm | Howard | 1905 | 2008 | |
| M. Oyler Farm | Howard | 1880 | 2001 | |
| M. Rich Farm | Howard | 1906 | 2007 | |
| Maple Farm | Howard | 1905 | 2017 | |
| N. Cranor Farm | Howard | 1905 | 2008 | |
| N. Godfrey Farm | Howard | 1883 | 2012 | |
| N. Miller Farm | Howard | 1850 | 1988 | |
| P. Hobson Farm | Howard | 1843 | 1976 | |
| P. Hollingsworth Farm | Howard | 1898 | 2022 | |
| P. Kingseed Farm | Howard | 1903 | 2021 | 2022 |
| R. Armstrong Farm | Howard | 1865 | 1976 | |
| R. Barrett Farm | Howard | 1846 | 1990 | |
| R. Hill Farm | Howard | 1848 | 1983 | |
| R. Hunter Farm | Howard | 1901 | 2002 | |
| R. Merrell Farm | Howard | 1903 | 2004 | |
| R. Merrell Farm | Howard | 1889 | 1990 | |
| R. Plummer Farm | Howard | 1891 | 2000 | |
| R. Pollock Farm | Howard | 1864 | 1976 | |
| R. Rodkey Farm | Howard | 1848 | 1976 | |
| R. Schafer Farm | Howard | 1905 | 2012 | |
| R. Williams Farm | Howard | 1914 | 2022 | |
| R. Winegardner Farm | Howard | 1885 | 1998 | |
| S. Coy Farm | Howard | 1858 | 1977 | |
| S. Kurtz Farm | Howard | 1919 | 2019 | |
| S. Miller Farm | Howard | 1905 | 2009 | |
| Shafer Farm | Howard | 1865 | 2018 | 2018 |
| T. Bohler Farm | Howard | 1905 | 2011 | |
| T. Howell Farm | Howard | 1851 | 1983 | |
| T. Kendall Farm | Howard | 1905 | 2009 | |
| V. King Farm | Howard | 1870 | 1977 | |
| W. Kerby Farm | Howard | 1852 | 1976 | |
| W. Tarkington Farm | Howard | 1918 | 2018 | |
| W. Wilson Farm | Howard | 1855 | 1976 | |
| RBK Farms, LLC | MIAMI | 1908 | 2019 | |
| RBK Farms, LLC | MIAMI | 1915 | 2019 | |
| RBK Farms, LLC | MIAMI | 1888 | 2019 | |
| R. BEALL Farm | MIAMI | 1893 | 1994 | |
| J. BECK Farm | MIAMI | 1859 | 1982 | |
| Berglan Farm | MIAMI | 1905 | 2006 | |
| W. BETZNER Farm | MIAMI | 1857 | 2004 | |
| W. BETZNER Farm | MIAMI | 1879 | 2004 | |
| J. BOONE Farm | MIAMI | 1848 | 2000 | |

| <u>Potential Centennial Farm</u> | <u>County</u> | <u>Homestead Year</u> | <u>Centennial Year</u> | <u>Sesquicentennial Year</u> |
|----------------------------------|---------------|-----------------------|------------------------|------------------------------|
| M. BORDEN Farm | MIAMI | 1852 | 1995 | |
| L. CARVEY Farm | MIAMI | 1894 | 2010 | |
| C. CAVERT Farm | MIAMI | 1880 | 1996 | |
| P. CHILDERS Farm | MIAMI | 1887 | 1990 | |
| C. COMERFORD Farm | MIAMI | 1879 | 1982 | |
| F. COOK Farm | MIAMI | 1840 | 1976 | |
| J. CROCKETT Farm | MIAMI | 1865 | 2021 | 2021 |
| R. DANIELS Farm | MIAMI | 1854 | 1976 | |
| G. DAWALD Farm | MIAMI | 1905 | 2005 | |
| G. DAWALD, JR. Farm | MIAMI | 2004 | 2005 | |
| L. DELAWTER Farm | MIAMI | 1854 | 1983 | |
| H. DONALDSON Farm | MIAMI | 1865 | 1978 | |
| F. EKSTROM FARM | MIAMI | 1849 | 1976 | |
| H. FINSTER FARM | MIAMI | 1882 | 1982 | |
| B. FITES FARM | MIAMI | 1863 | 1999 | |
| G. FRIEND Farm | MIAMI | 1869 | 1993 | |
| J. GAERTE Farm | MIAMI | 1905 | 2014 | 2017 |
| J. GAERTE Farm | MIAMI | 1848 | 1976 | |
| GAHS Farm | MIAMI | 1905 | 2006 | |
| H GARBER, Life Estate Farm | MIAMI | 1895 | 1997 | |
| H. GOVERN Farm | MIAMI | 1847 | 1976 | |
| C. GRAFT Farm | MIAMI | 1887 | 1989 | |
| W. GROGG Farm | MIAMI | 1841 | 2004 | |
| M. HATTERY Farm | MIAMI | 1904 | 2004 | |
| C. HOPKINSs Farm | MIAMI | 1849 | 1988 | |
| J. HORNER Farm | MIAMI | 1871 | 1984 | |
| M. HOULIHAN Farm | MIAMI | 1905 | 2017 | |
| E. HOUTAKKER Farm | MIAMI | 1855 | 1997 | 2006 |
| D. HUNT Farm | MIAMI | 1905 | 2006 | |
| N. HUNT Farm | MIAMI | 1905 | 2007 | |
| N. HUNT Farm | MIAMI | 1890 | 1994 | |
| R. HUNT Farm | MIAMI | 1859 | 1980 | |
| P. HURST Farm | MIAMI | 1849 | 1976 | |
| G. JOHNSTON Farm | MIAMI | 1870 | 1976 | |
| S. KENDALL Farm | MIAMI | 1862 | 2018 | 2018 |
| R. KERCHER Farm | MIAMI | 1905 | 2010 | |
| D. KERSCHER Farm | MIAMI | 1894 | 1994 | |
| L. KOTTERMAN Farm | MIAMI | 1905 | 2008 | |
| A. KOTTERMAN Farm | MIAMI | 1855 | 1992 | |
| KRANZ Farm | MIAMI | 1905 | 2006 | |
| G. KUNTZ Farm | MIAMI | 1905 | 2012 | |
| LARRISON Farm | MIAMI | 1905 | 2017 | 2017 |
| D. LAVENGOOD Farm | MIAMI | 1858 | 1985 | |
| LEEDY Farm | MIAMI | 1905 | 2017 | |
| T. LONG Farm | MIAMI | 1886 | 1991 | |
| H. MAUS Farm | MIAMI | 1878 | 1995 | |
| R. MCCONNELL Farm | MIAMI | 1905 | | 2017 |
| M. MILLER Farm | MIAMI | 1905 | 2000 | |
| A. MILLER Farm | MIAMI | 1890 | 1990 | |

| <u>Potential Centennial Farm</u> | <u>County</u> | <u>Homestead Year</u> | <u>Centennial Year</u> | <u>Sesquicentennial Year</u> |
|----------------------------------|---------------|-----------------------|------------------------|------------------------------|
| L. MILLIS Farm | MIAMI | 1905 | 2013 | |
| H. MOSELEY Farm | MIAMI | 1905 | 1999 | |
| R. MURPHY Farm | MIAMI | 1846 | 1976 | |
| D. MYERS-DAVIS Farm | MIAMI | 1905 | 1999 | |
| M. OGLE Farm | MIAMI | 1882 | 1982 | |
| D. POWEEL Farm | MIAMI | 1905 | 2008 | |
| G. RABER Farm | MIAMI | 1905 | 2013 | |
| R. RADEL Farm | MIAMI | 1847 | 1994 | |
| M. ROBERTS Farm | MIAMI | 1852 | 1978 | |
| D. RUNYAN Farm | MIAMI | 1848 | 1984 | |
| C. RUNYAN Farm | MIAMI | 1852 | 1984 | |
| D. SAVAGE Farm | MIAMI | 1859 | 1995 | |
| K. SAVAGE Farm | MIAMI | 1839 | 1976 | |
| D. SCOTT Farm | MIAMI | 1893 | 2019 | |
| SEE Farm | MIAMI | 1905 | 2017 | |
| J. SEE Farm | MIAMI | 1841 | 1976 | 2021 |
| M. SMITH Farm | MIAMI | 1853 | 1976 | |
| R. SROUFE Farm | MIAMI | 1875 | 1978 | |
| N. SULLIVAN Farm | MIAMI | 1847 | 1987 | |
| J. VINCENT Farm | MIAMI | 1865 | 2014 | 2019 |
| J. VINCENT Farm | MIAMI | 1905 | 2014 | |
| W. VINCENT Farm | MIAMI | 1868 | 1982 | |
| R. WAISNER Farm | MIAMI | 1849 | 1976 | |
| V. WALTZ Farm | MIAMI | 1861 | 1984 | |
| E. WALTZ Farm | MIAMI | 1884 | 1984 | |
| WEISHAAR Farm | MIAMI | 1905 | 2017 | |
| J. WILDERMUTH Farm | MIAMI | 1907 | 2007 | |
| A. WILSON ASH Farm | MIAMI | 1896 | 2001 | |
| C. YOARS Farm | MIAMI | 1870 | 1976 | 2022 |
| A. Conaway Farm | Tipton | 1835 | 1983 | |
| A. Coverdale Farm | Tipton | 1868 | 1983 | |
| A. Coverdale Farm | Tipton | 1874 | 1983 | |
| A. Wright Farm | Tipton | 1853 | 1983 | |
| B. Dickover Farm | Tipton | 1848 | 1983 | |
| B. Jackson Farm | Tipton | 1882 | 1984 | |
| B. Scherich Farm | Tipton | 1849 | 2019 | 2019 |
| B. Zauss Farm | Tipton | 1879 | 1985 | |
| C. Achenbach Farm | Tipton | 1855 | 1976 | |
| C. Fischer Farm | Tipton | 1905 | 2010 | |
| C. Garhart Farm | Tipton | 1873 | 2017 | |
| C. Heron Farm | Tipton | 1886 | 1993 | |
| C. Hobbs Farm | Tipton | 1870 | 1976 | |
| C. Juday Farm | Tipton | 1850 | 1977 | |
| C. Michel Farm | Tipton | 1883 | 1984 | |
| C. Rose Farm | Tipton | 1867 | 1983 | |
| C. Sheffer Farm | Tipton | 1879 | 1983 | |
| C. Sloan Farm | Tipton | 1869 | 1983 | |
| C. Snyder Farm | Tipton | 1919 | 2020 | |
| C. Trimble Farm | Tipton | 1852 | 1976 | |

| <u>Potential Centennial Farm</u> | <u>County</u> | <u>Homestead Year</u> | <u>Centennial Year</u> | <u>Sesquicentennial Year</u> |
|----------------------------------|---------------|-----------------------|------------------------|------------------------------|
| C. Witham Farm | Tipton | 1878 | 1985 | |
| Conditioning Limited Farm | Tipton | 1905 | 2012 | |
| Conway Farm | Tipton | 1905 | 2017 | |
| D. Burton Farm | Tipton | 1864 | 1983 | |
| D. Gish Farm | Tipton | 1873 | 1983 | |
| D. Hinds Farm | Tipton | 1885 | 1993 | |
| D. McMullan Farm | Tipton | 1853 | 1989 | |
| D. Schulenburg Farm | Tipton | 1902 | 2002 | |
| D. Ulrich Farm | Tipton | 1857 | 1983 | |
| E. Beatty Farm | Tipton | 1868 | 1976 | |
| E. Blount Farm | Tipton | 1840 | 1988 | |
| E. Cardwell Farm | Tipton | 1905 | 2004 | |
| E. Cline Farm | Tipton | 1850 | 1984 | |
| E. Harper Farm | Tipton | 1867 | 1976 | |
| E. Hodson Farm | Tipton | 1865 | 1990 | |
| E. Kelley Farm | Tipton | 1871 | 1983 | |
| E. Kinder Farm | Tipton | 1883 | 1984 | |
| E. Ripberger Farm | Tipton | 1869 | 1996 | |
| Egler Farm | Tipton | 1899 | 2010 | |
| F. Floyd Farm | Tipton | 1851 | 1983 | |
| F. Haskett Farm | Tipton | 1860 | 1983 | |
| F. Letsinger Farm | Tipton | 1905 | 2010 | |
| F. Ray Farm | Tipton | 1889 | 1989 | |
| F. Spears Farm | Tipton | 1892 | 2002 | |
| G. Barr Farm | Tipton | 1849 | 1985 | |
| G. Boyer Farm | Tipton | 1854 | 1983 | |
| G. Cooper Farm | Tipton | 1884 | 1984 | |
| G. Crawford Farm | Tipton | 1854 | 1983 | |
| G. David Farm | Tipton | 1905 | 2020 | |
| G. Harlow Farm | Tipton | 1864 | 1983 | |
| G. Kirby Farm | Tipton | 1905 | 2021 | |
| G. Shirley Moore Farm | Tipton | 1901 | 2001 | |
| G. Terwilliger Farm | Tipton | 1885 | 1992 | |
| G. Todd Farm | Tipton | 1863 | 1976 | |
| H. David Farm | Tipton | 1904 | 2020 | |
| H. Eastman Farm | Tipton | 1869 | 1983 | |
| H. Heath Farm | Tipton | 1905 | 2006 | |
| H. Heath Farm | Tipton | 1894 | 2004 | |
| H. Legg Farm | Tipton | 1881 | 1983 | |
| H. Myerly Farm | Tipton | 1866 | 1993 | |
| H. Off Farm | Tipton | 1864 | 1996 | |
| H. Tragesser Farm | Tipton | 1891 | 1993 | |
| I. Alexander Farm | Tipton | 1848 | 1982 | |
| I. Henry Farm | Tipton | 1857 | 1983 | |
| I. Meyer Farm | Tipton | 1864 | 1983 | |
| I. Terry Farm | Tipton | 1905 | 2012 | |
| J. Bishop Farm | Tipton | 1837 | 1976 | |
| J. Charles Kirkpatrick Farm | Tipton | 1905 | 2012 | |
| J. Clouser Farm | Tipton | 1917 | 2017 | |

| <u>Potential Centennial Farm</u> | <u>County</u> | <u>Homestead Year</u> | <u>Centennial Year</u> | <u>Sesquicentennial Year</u> |
|----------------------------------|---------------|-----------------------|------------------------|------------------------------|
| J. Day Farm | Tipton | 1857 | 1986 | |
| J. Funke Farm | Tipton | 1886 | 1989 | |
| J. Gasho Farm | Tipton | 1856 | 1976 | |
| J. Henderson Farm | Tipton | 1848 | 2002 | |
| J. Juday Farm | Tipton | 1837 | 1977 | |
| J. Kirkendall Farm | Tipton | 1894 | 2017 | |
| J. Nash Farm | Tipton | 1871 | 1983 | |
| J. Ratcliff Farm | Tipton | 1910 | 2020 | |
| J. Samuels Farm | Tipton | 1856 | 1976 | |
| J. Smith Farm | Tipton | 1837 | 1976 | |
| J. Thornton Farm | Tipton | 1880 | 1987 | |
| J. Vanness Farm | Tipton | 1911 | 2012 | |
| John Beck Homestead Farm | Tipton | | | 2017 |
| K. Bozell Farm | Tipton | 1852 | 1983 | |
| L. Armstrong Farm | Tipton | 1898 | 1999 | |
| L. Heath Farm | Tipton | 1905 | 2009 | |
| L. Kirby Farm | Tipton | 1875 | 2021 | |
| L. Nash Farm | Tipton | 1905 | 2013 | |
| L. Phifer Farm | Tipton | 1854 | 1976 | |
| L. Rush Farm | Tipton | 1867 | 1983 | |
| L. Teuscher Farm | Tipton | 1856 | 1983 | |
| Leisure Farm | Tipton | 1907 | 2018 | |
| M. Baird Farm | Tipton | 1883 | 1984 | |
| M. Barnett Farm | Tipton | 1895 | 1995 | |
| M. Burget Farm | Tipton | 1861 | 1984 | |
| M. Crawford Farm | Tipton | 1844 | 1983 | 2013 |
| M. Henderson Farm | Tipton | 1897 | 2002 | |
| M. Letsinger Farm | Tipton | 1905 | 2010 | |
| M. Longfellow Farm | Tipton | 1848 | 2004 | |
| M. Roler Farm | Tipton | 1873 | 1983 | |
| M. Swift Farm | Tipton | 1884 | 1994 | |
| M. Tolle Farm | Tipton | 1881 | 1984 | |
| M. West Farm | Tipton | 1868 | 1976 | |
| N. Dewitt Farm | Tipton | 1905 | 2009 | |
| N. Pearson Farm | Tipton | 1905 | 2009 | |
| N. Poer Farm | Tipton | | | |
| O. Rector Farm | Tipton | 1854 | 1976 | |
| P. Harper Farm | Tipton | 1854 | 1985 | |
| P. Weismiller Farm | Tipton | 1903 | 2004 | |
| Paul Farm | Tipton | 1905 | 2013 | |
| R. Achenbach Farm | Tipton | 1918 | 2018 | |
| R. Gunning Farm | Tipton | 1882 | 2003 | |
| R. Leininger Farm | Tipton | 1865 | 1983 | |
| R. Lindley Farm | Tipton | 1878 | 1985 | |
| R. Longfellow Farm | Tipton | 1848 | 1994 | |
| R. Shockney Farm | Tipton | 1857 | 1976 | |
| R. Smith Farm | Tipton | 1851 | 1976 | |
| R. Summers Farm | Tipton | 1850 | 1905 | |
| S. Fearnow Hundley Farm | Tipton | 1896 | 2001 | |

| <u>Potential Centennial Farm</u> | <u>County</u> | <u>Homestead Year</u> | <u>Centennial Year</u> | <u>Sesquicentennial Year</u> |
|----------------------------------|---------------|-----------------------|------------------------|------------------------------|
| S. Reed Farm | Tipton | 1849 | 1976 | |
| S. Wheatley Farm | Tipton | 1866 | 1983 | |
| Sottong Farm | Tipton | 1905 | 2017 | |
| T. Cooper Farm | Tipton | 1887 | 1988 | |
| T. Harper Farm | Tipton | 1854 | 1985 | |
| T. Ketchum Farm | Tipton | | | |
| T. Sweet Farm | Tipton | 1878 | 1983 | |
| T. Wynn-Prifogle-Henry Farm | Tipton | 1900 | 2010 | |
| V. Findling-Ploughe Farm | Tipton | 1905 | 2017 | |
| V. Groves Farm | Tipton | 1855 | 1977 | |
| V. O'Malley Farm | Tipton | 1884 | 1988 | |
| V. Rayl Farm | Tipton | 1847 | 1983 | |
| V. Vanbibber Farm | Tipton | 1871 | 1983 | |
| W. Funke Farm | Tipton | 1887 | 1988 | |
| W. Gall Farm | Tipton | 1916 | 2017 | |
| W. Lindley Savage Farm | Tipton | 1905 | 2006 | |
| W. Moore Farm | Tipton | 1835 | 2004 | |
| W. Salsbery Farm | Tipton | 1896 | 2023 | |
| W. Schulenburg Farm | Tipton | 1892 | 1993 | |
| W. Stainbrook Farm | Tipton | 1881 | 1984 | |
| W. Thompson Farm | Tipton | 1905 | 2010 | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |

| Constraints | Results |
|--|--|
| Socio-economic <ul style="list-style-type: none"> EO 12898-Environmental Justice Limited English Proficiency Limited Vehicle Access Limited Internet Access Persons with Disabilities | <ul style="list-style-type: none"> 28 census block groups with minority populations of concern 41 census block groups with low-income populations of concern 42 census block groups with LEP populations 108 census block groups with limited internet access populations 72 census block groups with limited vehicle access populations 111 census tracts with persons with disabilities |
| Infrastructure Constraints | <ul style="list-style-type: none"> Standard overhead and underground utilities Six railroads cross through the study area, two active railroads with Norfolk Southern. Two airports, one public and one private, are located within the study area |
| Parks, Recreation Areas, Wildlife or Waterfowl Refuges, or Publicly Owned Historic Properties (Recreational Facilities) <ul style="list-style-type: none"> FHWA Section 4(f) Regulations (23 CFR 774) Land and Water Conservation Fund Act (LWCF) of 1965 | <ul style="list-style-type: none"> Three recreational facilities, one managed land, five trail segments, seven cemeteries, and 21 historic resources were identified as potentially eligible Section 4(f) properties No Section 6(f) properties within the study area |
| Natural Resources <ul style="list-style-type: none"> NWI Wetlands and INDOT Mitigation Sites Streams (including IDEM 303(D) Listed) Floodplains and Flood Hazard Mitigation Grant Program Lands Canal Structures and Canal Routes – Historic Lakes Protected Species | <ul style="list-style-type: none"> 197 NWI mapped wetlands Three INDOT mitigation sites, impacts should be avoided 128 stream segments mapped within the study area 36 IDEM 303(D) Listed streams and lakes 43 floodplain polygons No flood hazard mitigation grant program lands One historic canal structure and one historic canal route Study area is within range of the federally endangered Indiana bat (<i>Myotis sodalis</i>) and northern long-eared bat (<i>Myotis septentrionalis</i>), as well as the proposed endangered tricolored bat (<i>Perimyotis subflavus</i>). The federally threatened Rabbitsfoot (<i>Quadrula cylindrica cylindrica</i>) and round hickorynut (<i>Obovaria subrotunda</i>), and one proposed endangered mussel, salamander mussel (<i>Simpsonaias ambigua</i>), are also present within the study area. There is also one “experimental population” for the whooping crane (<i>Grus americana</i>) within the study area. |
| Cultural Resources <ul style="list-style-type: none"> Above Ground Archaeological Historic Canal Structures Historic Canal Routes Centennial Farms | <ul style="list-style-type: none"> SHAARD preliminary determination: 21 potentially eligible structures within the study area (includes four already listed in the NRHP (three of which have been demolished) SHAARD preliminary determination: Numerous eligible or potentially eligible archaeological sites within the study area One historic canal structure and one historic canal route 462 Centennial farms within the counties that encompass the study |
| Mineral Resources/Petroleum Wells | <ul style="list-style-type: none"> 41 oil and gas wells and one mineral resource wells were identified within the study area |

| Constraints | Results |
|--|--|
| Air Quality | <ul style="list-style-type: none"> Study area is partially located within a maintenance area for 8-hour Ozone (1997), potential air quality analysis would be required Greenhouse Gases- consideration will be given to integrating GHG into the study |
| Noise | <ul style="list-style-type: none"> 36 Common Noise Environments have been preliminarily identified, with 17 areas requiring further investigation. |
| Hazardous Materials | Sites of potential concern: <ul style="list-style-type: none"> One superfund site One brownfield site Two institutional control sites Four UST sites Ten LUST sites |
| Other Schools, Worship, cemeteries, hospitals, fire stations, Police stations | <ul style="list-style-type: none"> One School identified Two places of worship identified Two police stations identified |

Notes:

- The study area is an approximately 0.5-mile buffer on either side of the existing centerline of the roadway.
- Demographic data was analyzed within a 5-mile buffer.