

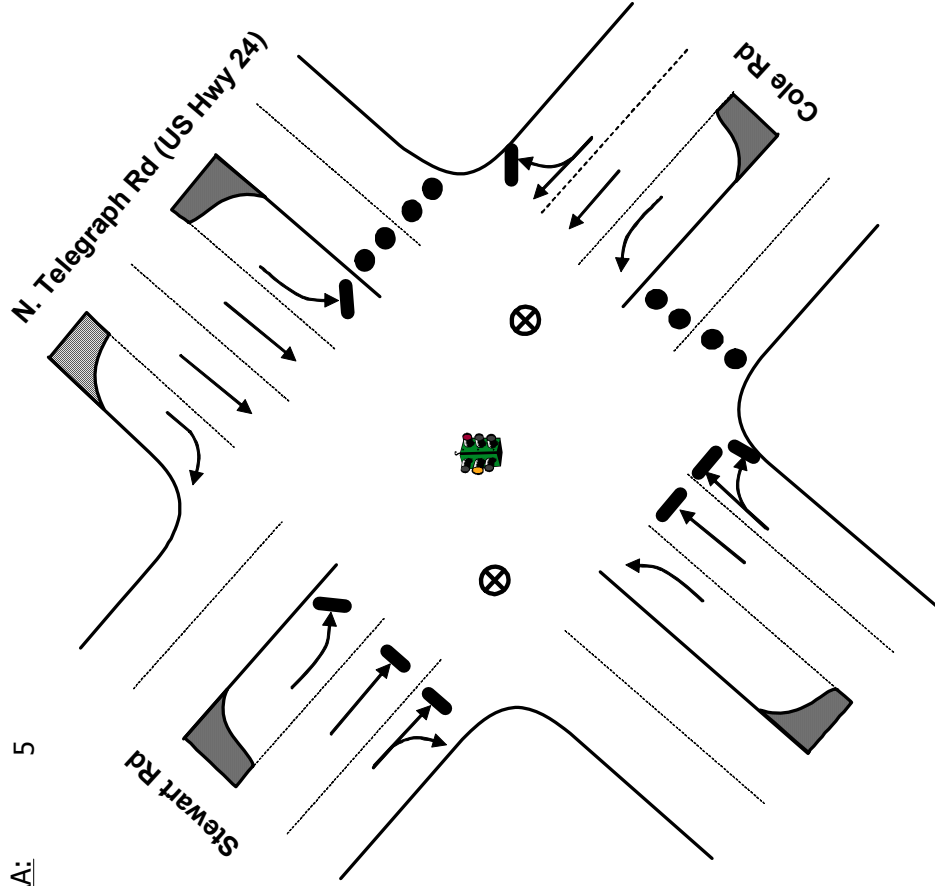
TCP

TOWN: FRENCHTOWN

LOCATION: US HWY 24 & STEWART RD/COLE RD

TCP ID: 8

PAA: 5



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- × TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage northbound movement on North Telegraph Rd.
2. Discourage eastbound movement on Cole Rd.

MANPOWER/EQUIPMENT ESTIMATE

- 2 Traffic Guide(s)
- 12 Traffic Cones

LOCATION PRIORITY

2

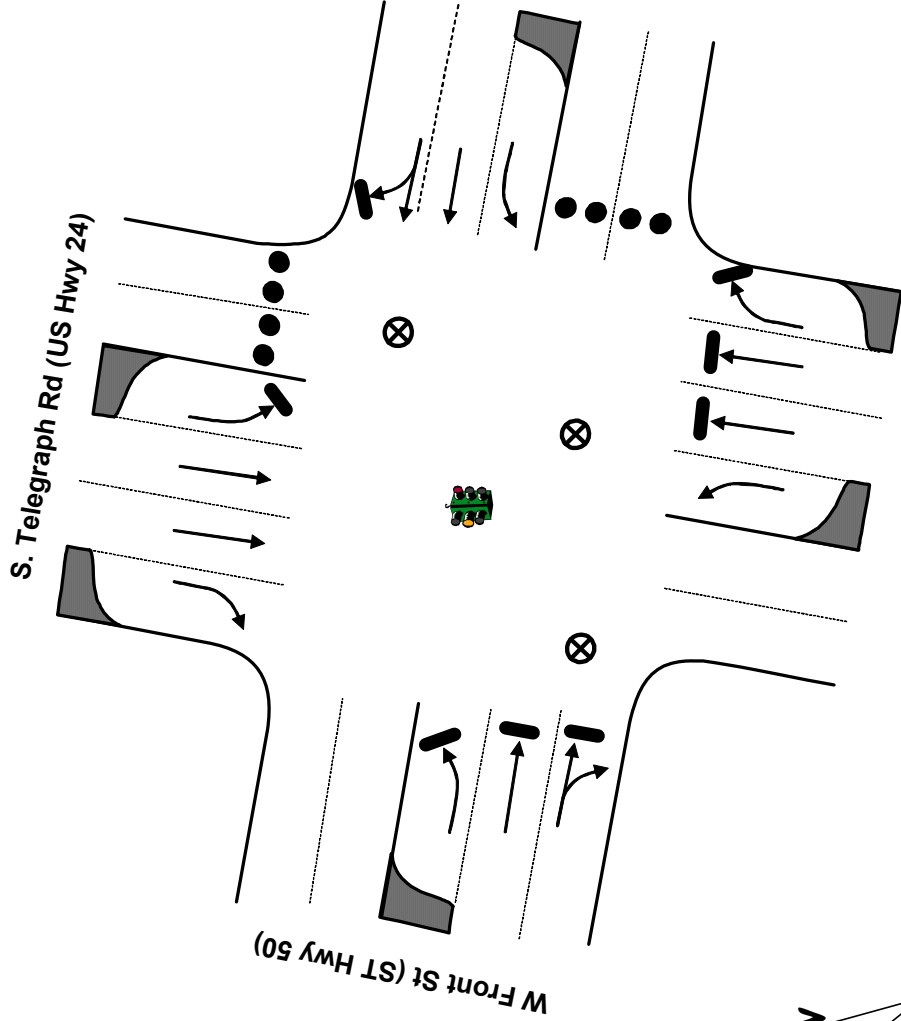
TCP

TOWN: CITY OF MONROE

LOCATION: US HWY 24 & STATE HWY 50

TCP ID: 9

PAA: 5



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage northbound movement on US Hwy 24.
2. Discourage eastbound movement on West Front St.

MANPOWER/EQUIPMENT ESTIMATE

- 3 Traffic Guide(s)
- 12 Traffic Cones

LOCATION PRIORITY

1

TCP

TOWN: MONROE

LOCATION: STATE HWY 50 & RAISINVILLE RD

TCP ID: 11

PAA: 5

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- × TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMPS)
- 4 PER LANE (FREEWAY AND RAMPS)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

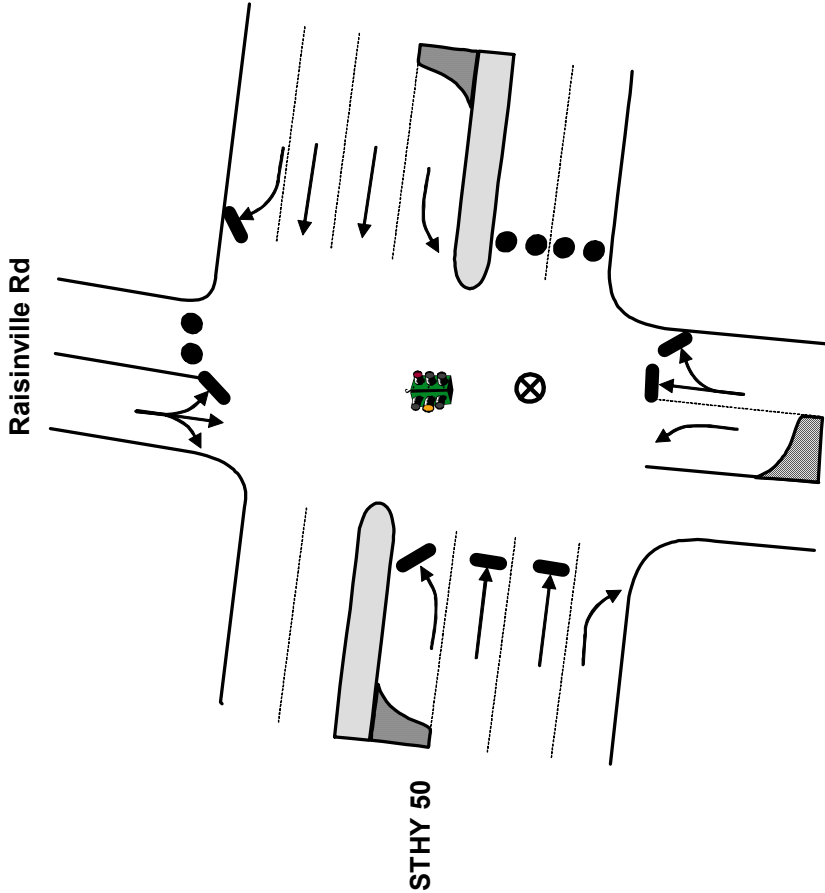
1. Discourage eastbound movement on STHY 50.
2. Discourage northbound movement on Raisinville Rd.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 9 Traffic Cones

LOCATION PRIORITY

2



****Traffic Guide should position himself safely**

TCP

TOWN: BERLIN

LOCATION: S. HURON RIVER DR & I-75 NORTHBOUND RAMP

TCP ID: 12A

PAA: 4

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

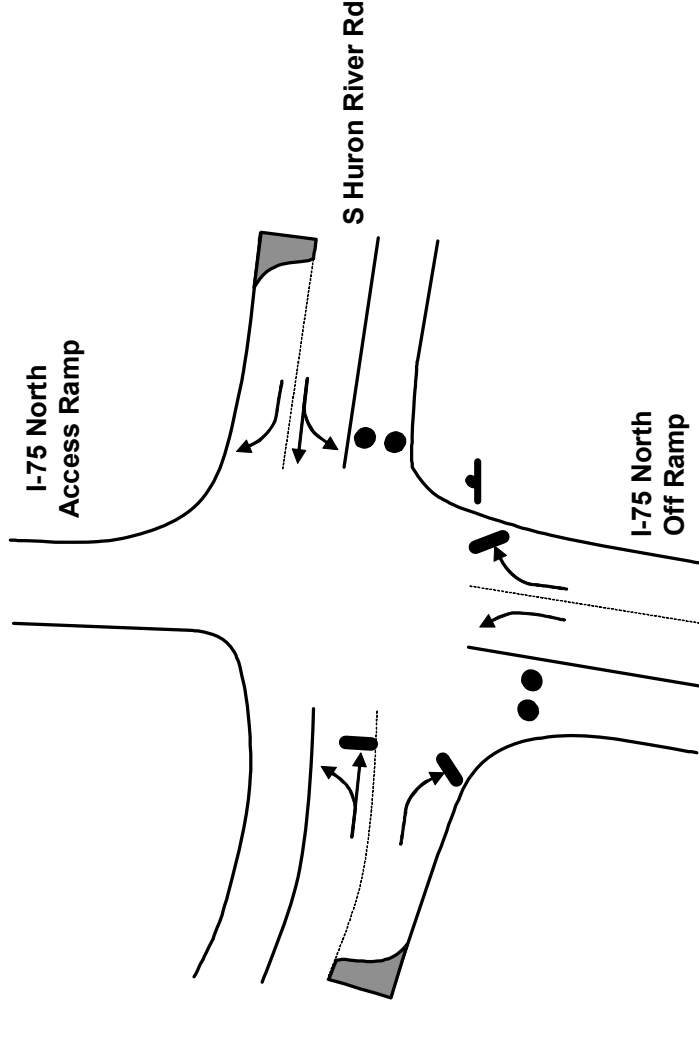
1. Discourage eastbound movement on South Huron River Dr.
2. Facilitate access to I-75 northbound.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 6 Traffic Barricades

LOCATION PRIORITY

2



****Traffic Guide should position himself safely**

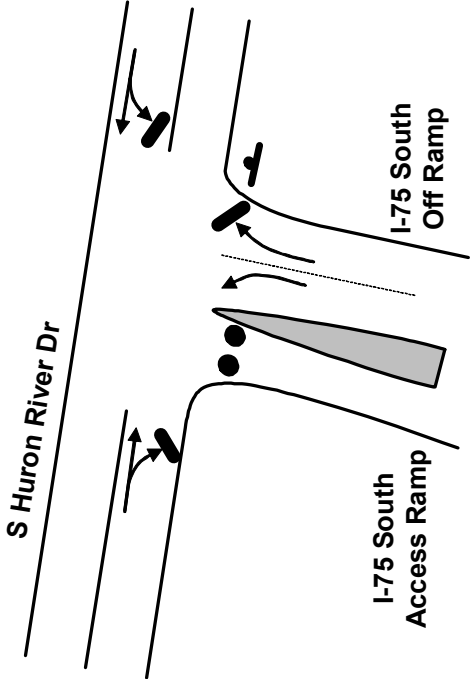
TCP

TOWN: BERLIN

LOCATION: S. HURON RIVER DR & RAMPS TO SOUTHBOUND I-75

ACP ID: 12B

PAA: 4



****Traffic Guide should position himself safely**

Fermi Nuclear Power Plant
Evacuation Time Estimate

G-14

KLD Associates, Inc.
Rev. 3

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- ⬇ STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMPS)
- 4 PER LANE (FREEWAY AND RAMPS)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage access to I-75 southbound.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 3 Traffic Barricades

LOCATION PRIORITY

- 2

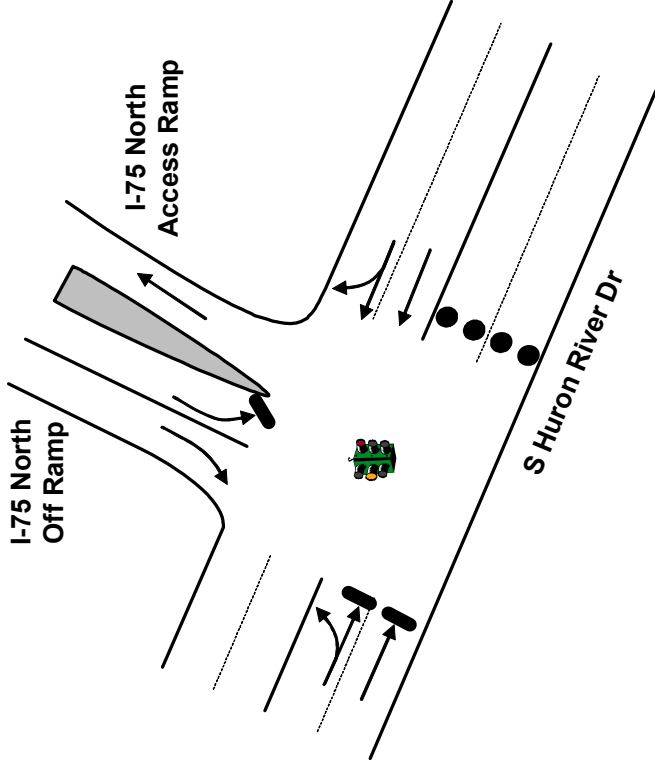
TCP

TOWN: BERLIN

LOCATION: N. HURON RIVER DR & I-75 NORTHBOUND RAMP

TCP ID: 13

PAA: 4



****Traffic Guide should position himself safely**

Fermi Nuclear Power Plant
Evacuation Time Estimate

G-15

KLD Associates, Inc.
Rev. 3

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- ⬇ STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMPS)
- 4 PER LANE (FREEWAY AND RAMPS)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage eastbound movement on North Huron River Dr.

MANPOWER/EQUIPMENT ESTIMATE

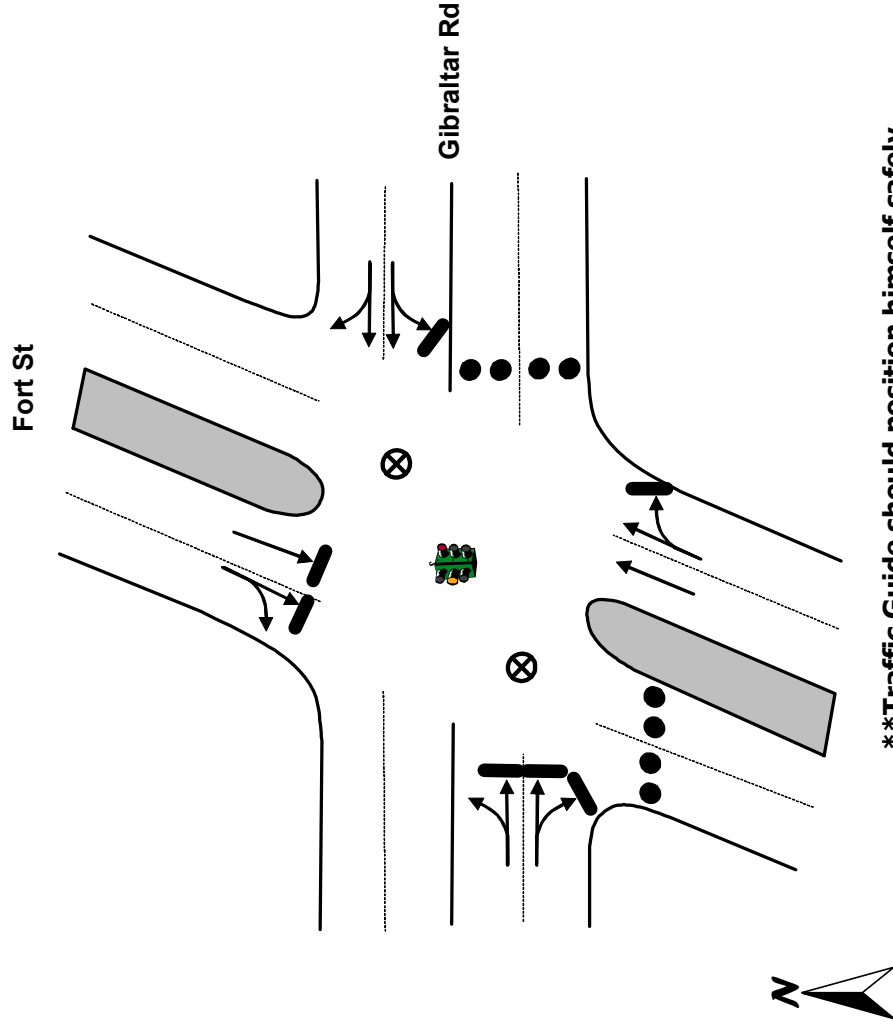
- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

2

TCP

TOWN: BROWNSTOWN
LOCATION: FORT ST & GIBRALTAR RD
TCP ID: 14
PAA: 4



- KEY
- MOVEMENT FACILITATED
 - MOVEMENT DISCOURAGED/DIVERTED
 - ⊗ TRAFFIC GUIDE
 - ⬮ STOP SIGN
 - ✕ TRAFFIC BARRICADE
 - 2 PER LANE (LOCAL ROADS AND RAMPS)
 - 4 PER LANE (FREEWAY AND RAMPS)
 - 🚦 TRAFFIC SIGNAL
 - TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage southbound movement on Fort St.
2. Discourage eastbound movement on Gibraltar Rd.

MANPOWER/EQUIPMENT ESTIMATE

- 2 Traffic Guide(s)
- 12 Traffic Cones

LOCATION PRIORITY

2

TCP

TOWN: ASH

LOCATION: INTERSTATE 275 & CARLETON ROCKWOOD RD

TCP ID: 15

PAA: 4

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- ⬇ STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

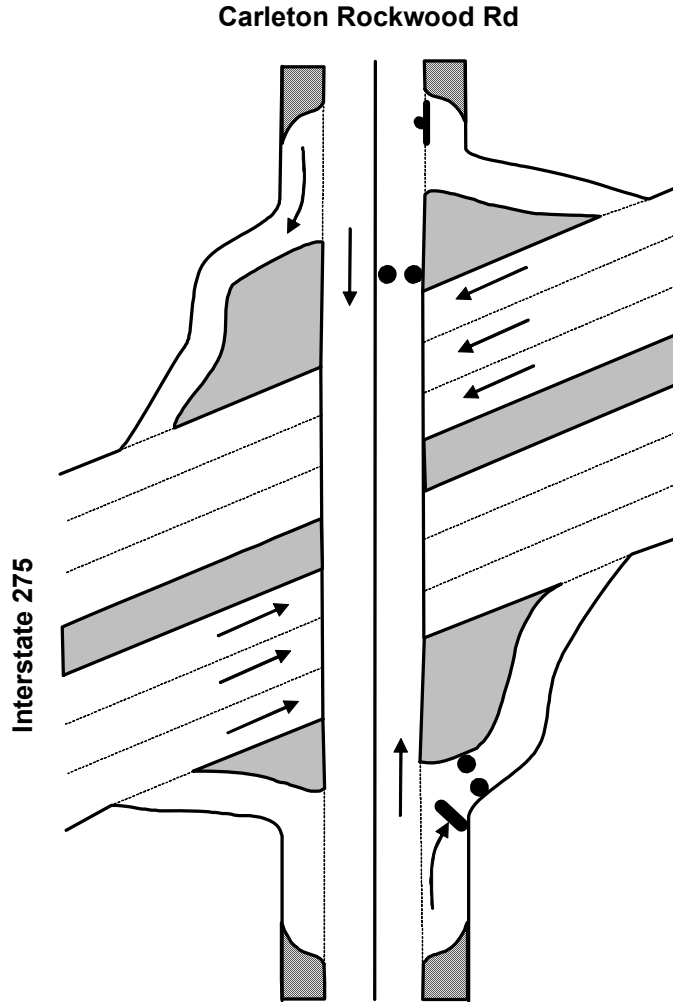
1. Discourage westbound movement on Carleton Rockwood Rd.

MANPOWER/EQUIPMENT ESTIMATE

- 2 Traffic Guide(s)
- 9 Traffic Cones

LOCATION PRIORITY

1



****Traffic Guide should position himself safely**

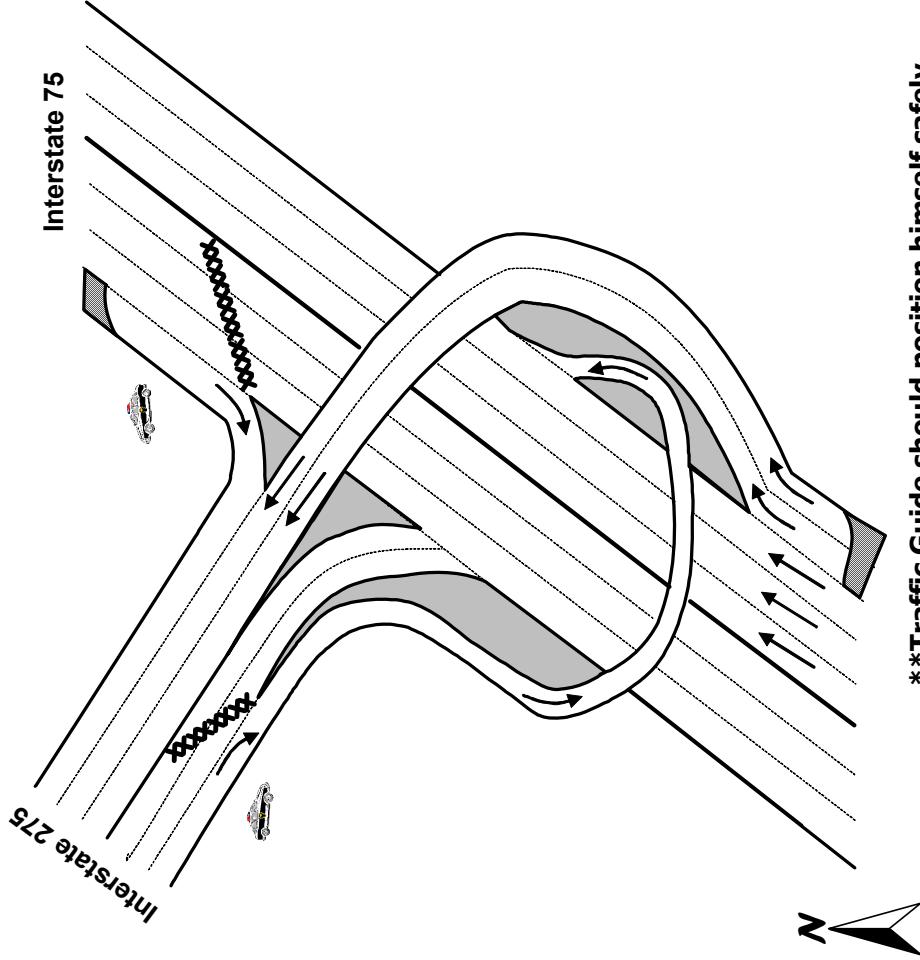
TCP

TOWN: FRENCHTOWN

LOCATION: INTERSTATE 75 & INTERSTATE 275

TCP ID: 16

PAA: 3



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMPs)
- 4 PER LANE (FREEWAY AND RAMPs)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage southbound movement on I-75.
2. Park Police Cruiser in shoulder with lights flashing.

MANPOWER/EQUIPMENT ESTIMATE

- 2 Traffic Guide(s)
- 20 Traffic Barricades

LOCATION PRIORITY

1

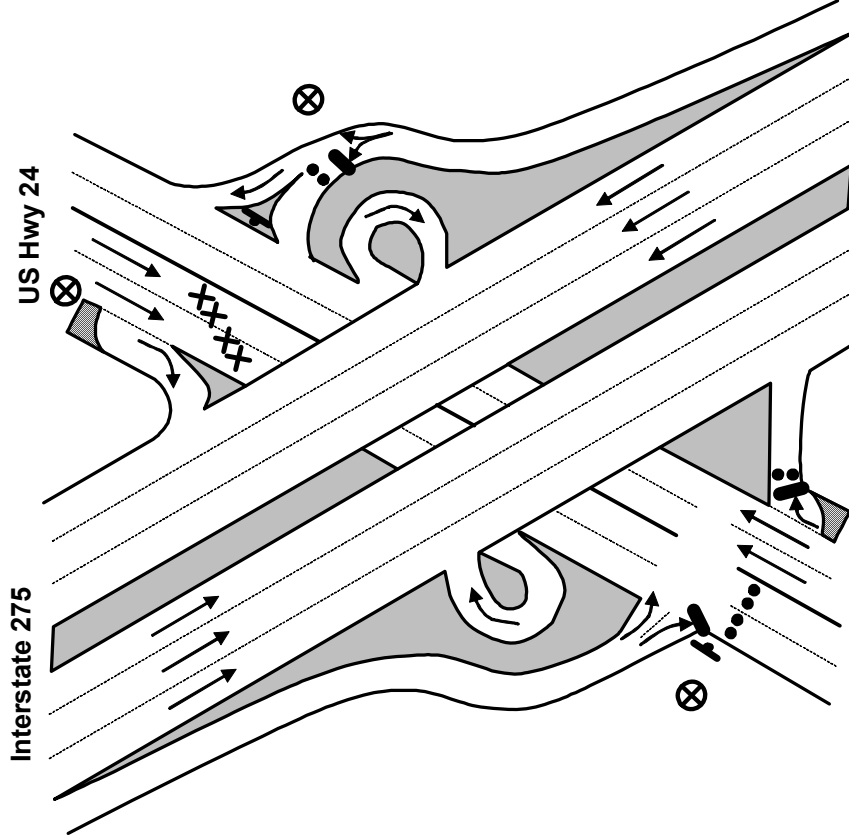
TCP

TOWN: ASH

LOCATION: INTERSTATE 275 & US HWY 24

TCP ID: 17

PAA: 4



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- ⊗ STOP SIGN
- ⊗ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMPs)
- 4 PER LANE (FREEWAY AND RAMPs)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage southbound on US Hwy 24.
2. Discourage access to I-275 South.

MANPOWER/EQUIPMENT ESTIMATE

- 3 Traffic Guide(s)
- 4 Traffic Barricades
- 12 Traffic Cones

LOCATION PRIORITY

1

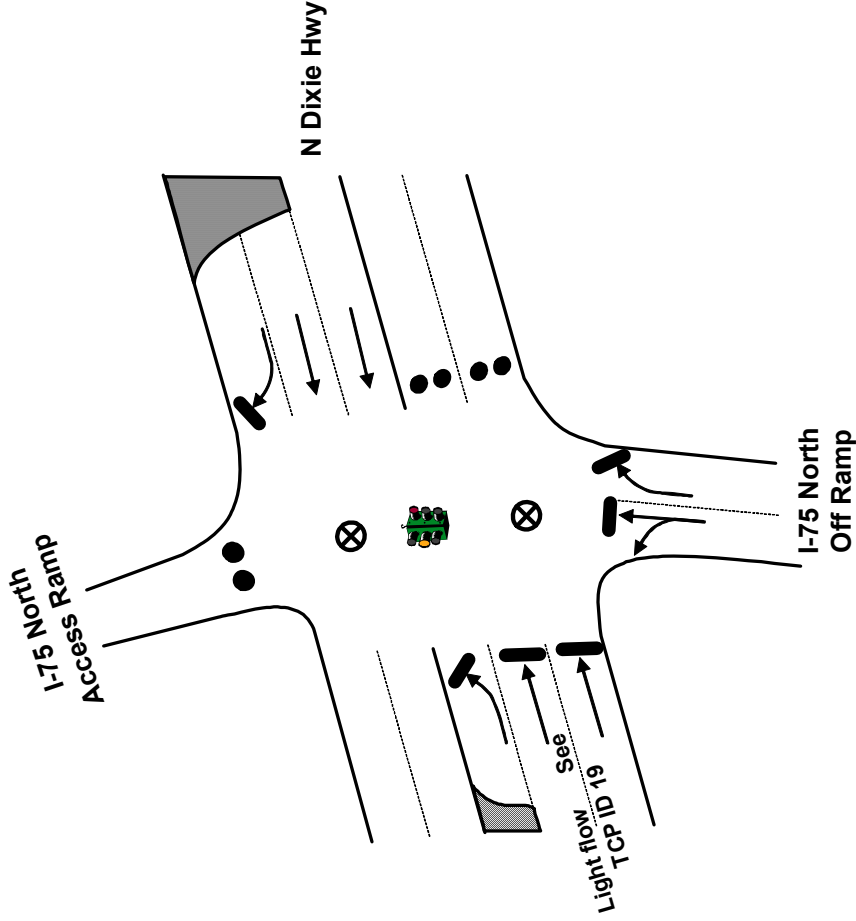
TCP

TOWN: FRENCHTOWN

LOCATION: N. DIXIE HWY & RAMP TO INTERSTATE 75 NORTH

TCP ID: 18

PAA: 5



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- × TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage northbound movement on North Dixie Hwy.
2. Discourage access to I-75 northbound.

MANPOWER/EQUIPMENT ESTIMATE

- 2 Traffic Guide(s)
- 9 Traffic Cones

LOCATION PRIORITY

1

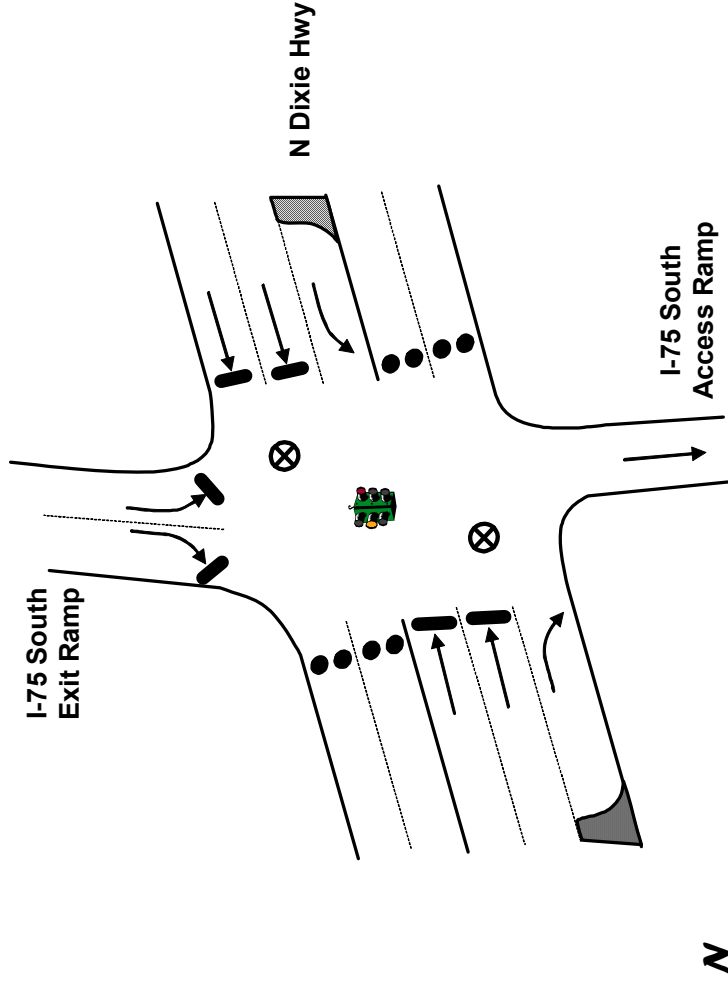
TCP

TOWN: CITY OF MONROE

LOCATION: N. DIXIE HWY & RAMP TO I-75 SOUTHBOUND

TCP ID: 19

PAA: 5



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage northbound and southbound movement on North Dixie Hwy.
2. Facilitate access to I-75 southbound.

MANPOWER/EQUIPMENT ESTIMATE

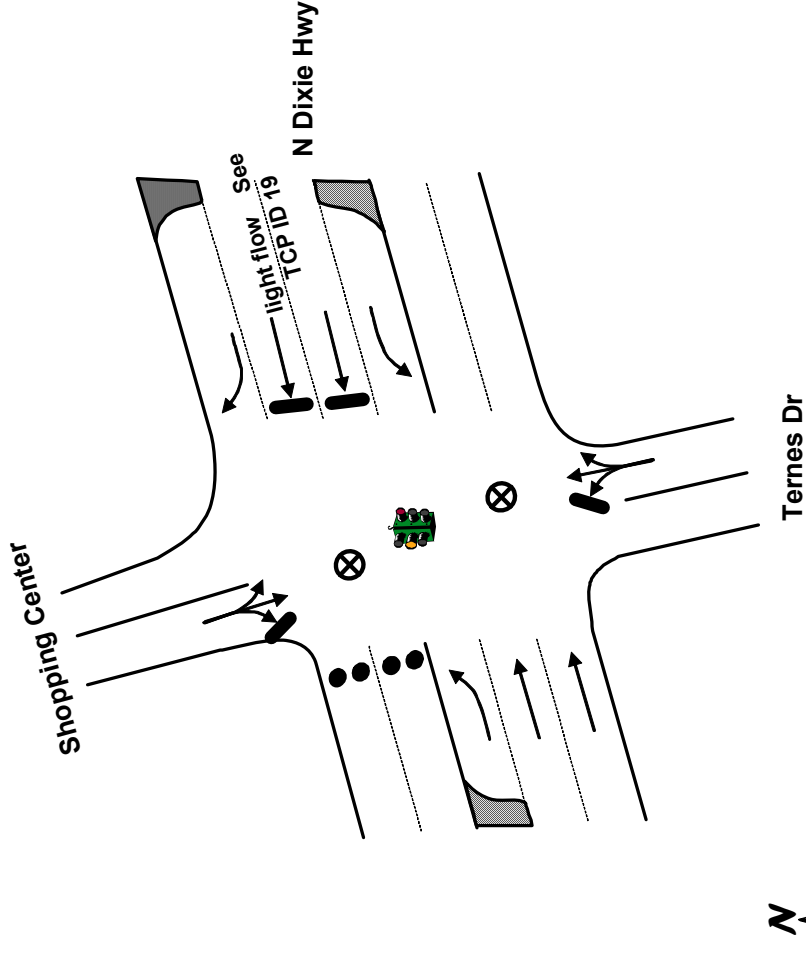
- 2 Traffic Guide(s)
- 12 Traffic Cones

LOCATION PRIORITY

1

TCP

TOWN: CITY OF MONROE
 LOCATION: N. DIXIE HWY & TERNES DR
 TCP ID: 20
 PAA: 5



****Traffic Guide should position himself safely**

- KEY
- MOVEMENT FACILITATED
 - MOVEMENT DISCOURAGED/DIVERTED
 - ⊗ TRAFFIC GUIDE
 - ⊘ STOP SIGN
 - ⊗ TRAFFIC BARRICADE
 - 2 PER LANE (LOCAL ROADS AND RAMP)
 - 4 PER LANE (FREEWAY AND RAMP)
 - TRAFFIC SIGNAL
 - TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft
- ACTIONS TO BE TAKEN
1. Discourage southbound movement on North Dixie Hwy.

MANPOWER/EQUIPMENT ESTIMATE

- 2 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

3

TCP

TOWN: MONROE

LOCATION: LAPLAISANCE RD & I-75 SOUTHBOUND RAMP

TCP ID: 21

PAA: 5

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- × TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): 8 ft

ACTIONS TO BE TAKEN

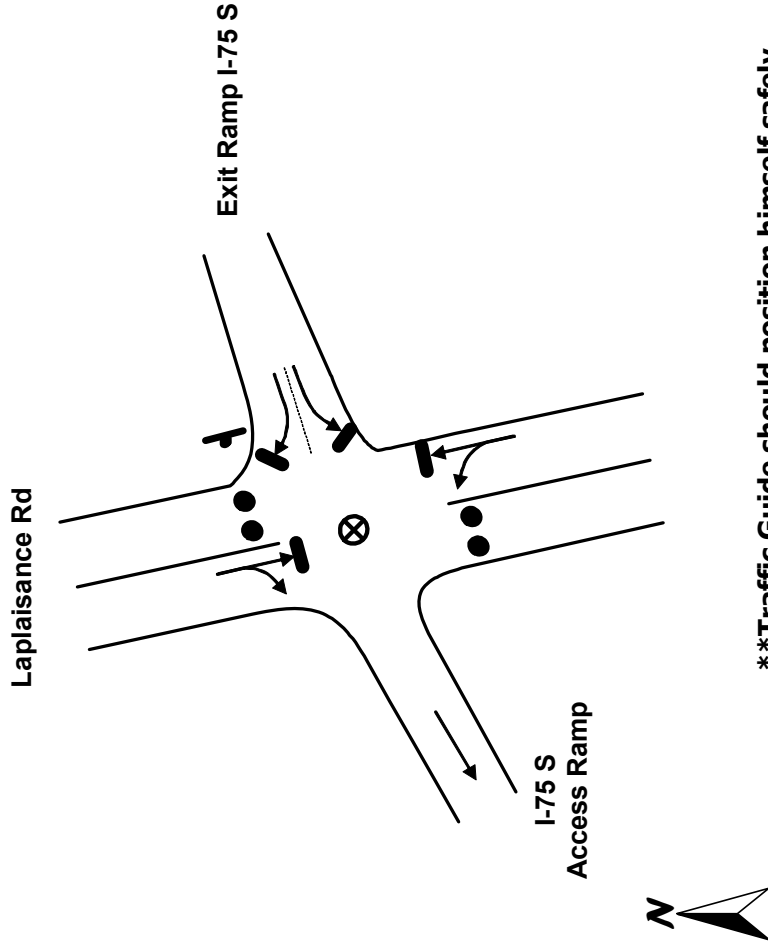
1. Facilitate access to I-75 S.
2. Discourage movement on Laplaisance Rd.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

1



****Traffic Guide should position himself safely**

TCP

TOWN: CITY OF MONROE
LOCATION: EAST ELM AVE & I-75 NORTH RAMPS
TCP ID: 22A
PAA: 5

KEY

→

MOVEMENT FACILITATED

→

MOVEMENT DISCOURAGED/DIVERTED

⊗

TRAFFIC GUIDE

⏹

STOP SIGN

✕

TRAFFIC BARRICADE

2 PER LANE (LOCAL ROADS AND RAMPS)

4 PER LANE (FREEWAY AND RAMPS)

TRAFFIC SIGNAL

● ● ● ●

TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): 8 ft

2 ft

3 ft

- ACTIONS TO BE TAKEN
1. Discourage access to I-75 North.

2. Discourage eastbound movement on East Elm Ave.

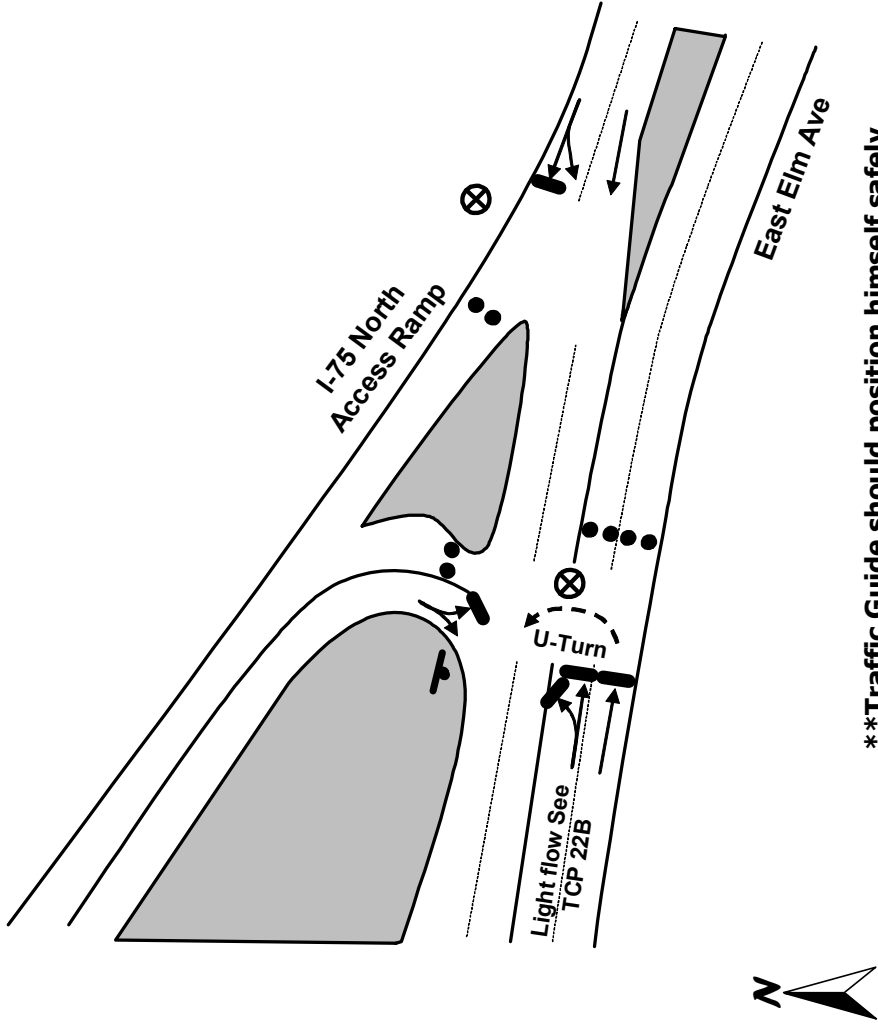
MANPOWER/EQUIPMENT ESTIMATE

2 Traffic Guide(s)

12 Traffic Cones

LOCATION PRIORITY

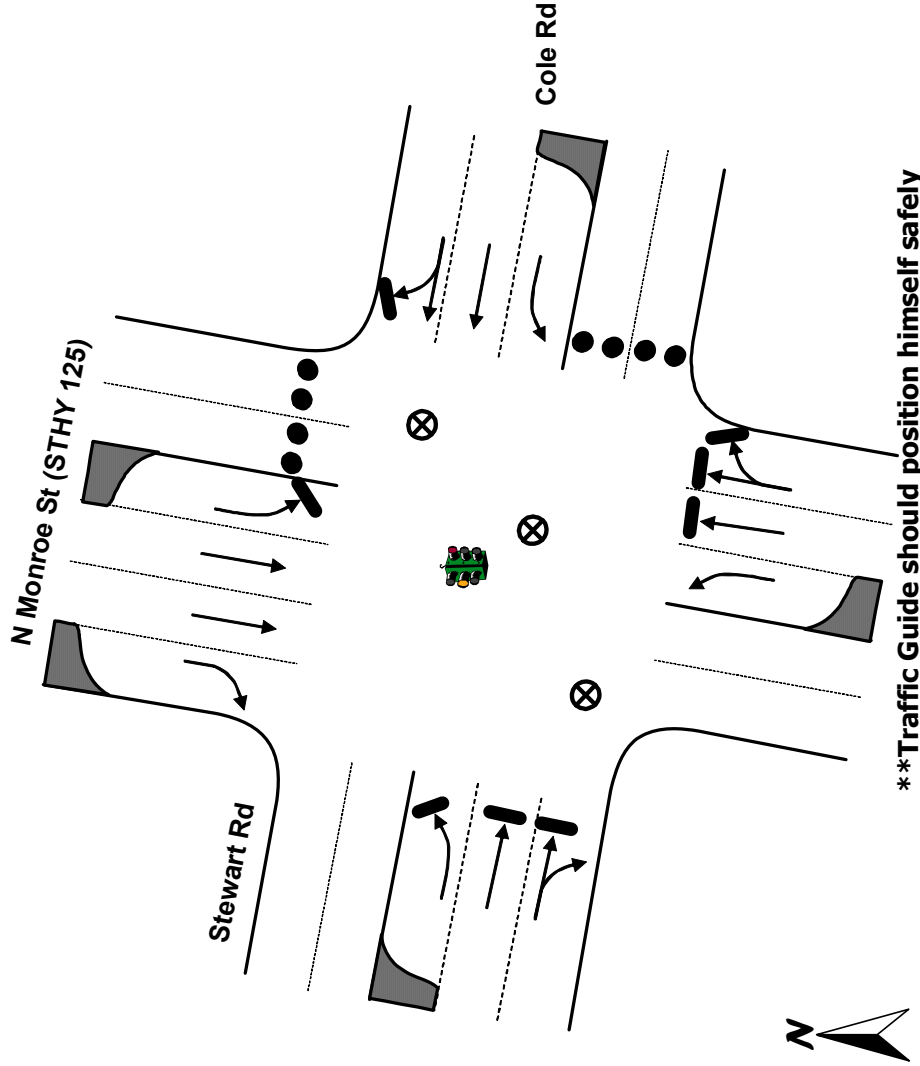
2



****Traffic Guide should position himself safely**

TCP

TOWN: CITY OF MONROE
 LOCATION: N. MONROE ST (STHY 125) & COLE RD/STEWART RD
 TCP ID: 23
 PAA: 5



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage northbound movement on North Monroe St.
2. Discourage eastbound movement on Cole Rd

MANPOWER/EQUIPMENT ESTIMATE

- 3 Traffic Guide(s)
- 12 Traffic Cones

LOCATION PRIORITY

1

TOWN: MONROE

LOCATION: STATE HWY 50 & HERR RD

TCP ID: 24

PAA: 5

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Rev. 3

2

TOWN: FLAT ROCK

LOCATION: INTERSTATE 75 SOUTHBOUND RAMP 5 & GIBALTAR RD

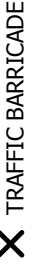
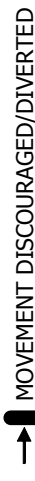
TCP ID: 25

PAA: 4



****Traffic Guide should position himself safely**

KEY



2 PER LANE (LOCAL ROADS AND RAMPS)

4 PER LANE (FREEWAY AND RAMPS)



●● TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ●●

ACTIONS TO BE TAKEN

1. Discourage access to I-75 southbound.

MANPOWER/EQUIPMENT ESTIMATE

- | | |
|---|------------------|
| 1 | Traffic Guide(s) |
| 3 | Traffic Cones |

LOCATION PRIORITY

2

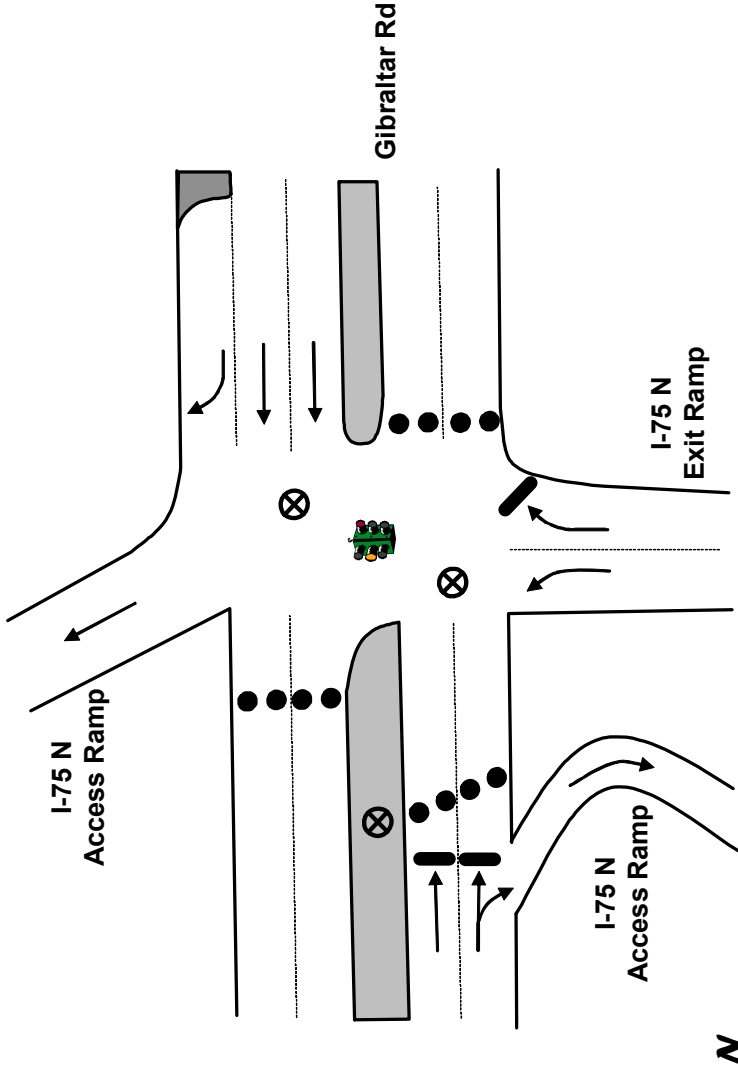
TCP

TOWN: BROWNSTOWN

LOCATION: INTERSTATE 75 NORTHBOUND RAMP & GIBRALTAR RD

TCP ID: 26

PAA: 4



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- ⬇ STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Facilitate access to I-75 N.
2. Discourage eastbound and westbound movement on Gibraltar Rd.

MANPOWER/EQUIPMENT ESTIMATE

- 3 Traffic Guide(s)
- 18 Traffic Cones

LOCATION PRIORITY

2

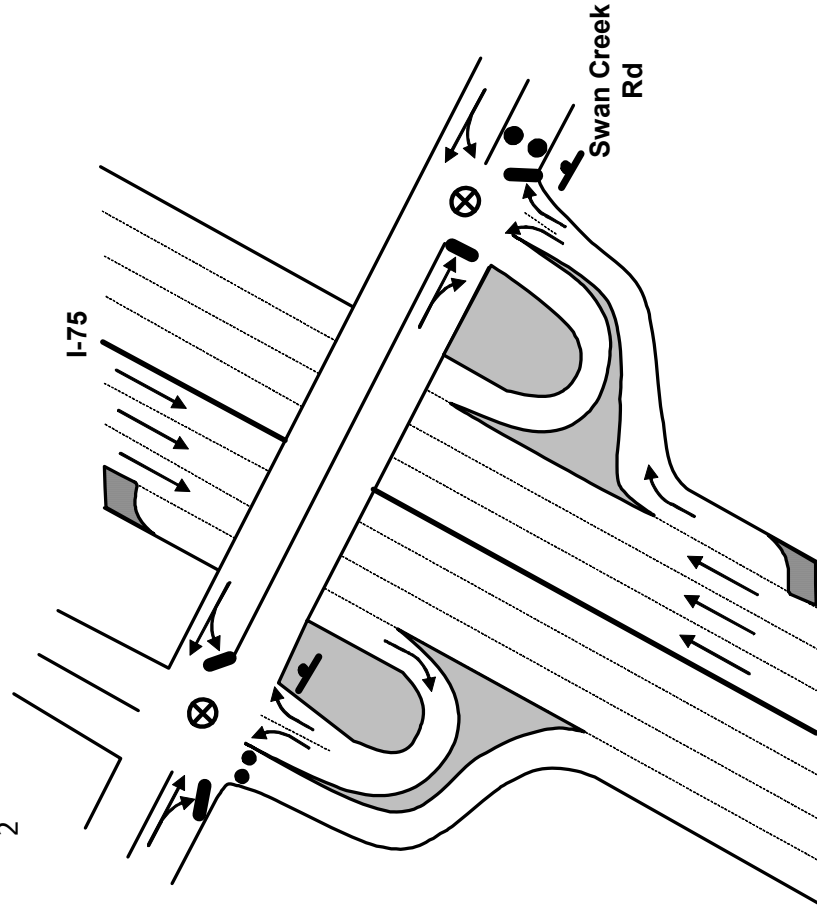
TCP

TOWN: BERLIN

LOCATION: SWAN CREEK RD & I-75

TCP ID: 27828

PAA: 2



KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- ⬮ STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage access to I-75 southbound.
2. Discourage eastbound movement on Swan Creek Rd.

MANPOWER/EQUIPMENT ESTIMATE

- 2 Traffic Guide(s)
- 6 Traffic Cones

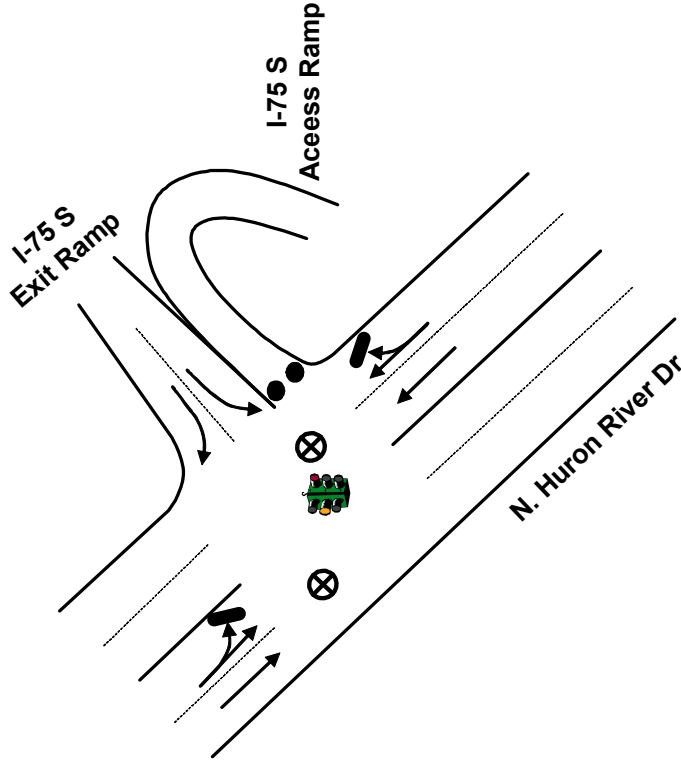
LOCATION PRIORITY

2

****Traffic Guide should position himself safely**

TCP

TOWN: ROCKWOOD
LOCATION: NORTH HURON RIVER DR & I-75 S RAMP
TCP ID: 29
PAA: 4



- KEY
- MOVEMENT FACILITATED
 - MOVEMENT DISCOURAGED/DIVERTED
 - ⊗ TRAFFIC GUIDE
 - STOP SIGN
 - ✕ TRAFFIC BARRICADE
 - 2 PER LANE (LOCAL ROADS AND RAMPS)
 - 4 PER LANE (FREEWAY AND RAMPS)
 - TRAFFIC SIGNAL
 - TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft
- ACTIONS TO BE TAKEN
1. Discourage access to I-75 southbound.

MANPOWER/EQUIPMENT ESTIMATE

- 2 Traffic Guide(s)
- 3 Traffic Cones

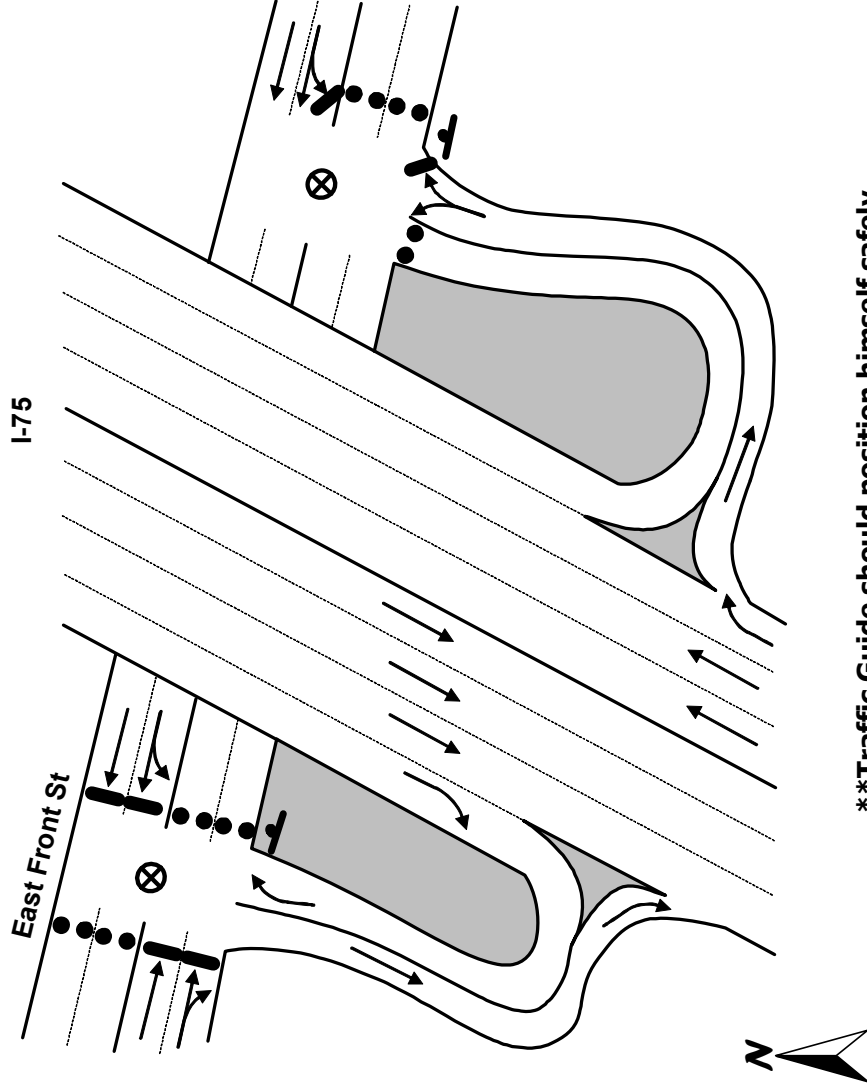
LOCATION PRIORITY

2

****Traffic Guide should position himself safely**

TCP

TOWN: CITY OF MONROE
LOCATION: I-75 & EAST FRONT ST
TCP ID: 30
PAA: 5



****Traffic Guide should position himself safely**

- KEY
- MOVEMENT FACILITATED
 - MOVEMENT DISCOURAGED/DIVERTED
 - ⊗ TRAFFIC GUIDE
 - ⬮ STOP SIGN
 - ✕ TRAFFIC BARRICADE
 - 2 PER LANE (LOCAL ROADS AND RAMP)
 - 4 PER LANE (FREEWAY AND RAMP)
 - TRAFFIC SIGNAL
 - TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage access to I-75 northbound.
2. Facilitate access to I-75 southbound.

MANPOWER/EQUIPMENT ESTIMATE

- 2 Traffic Guide(s)
- 21 Traffic Cones

LOCATION PRIORITY

2

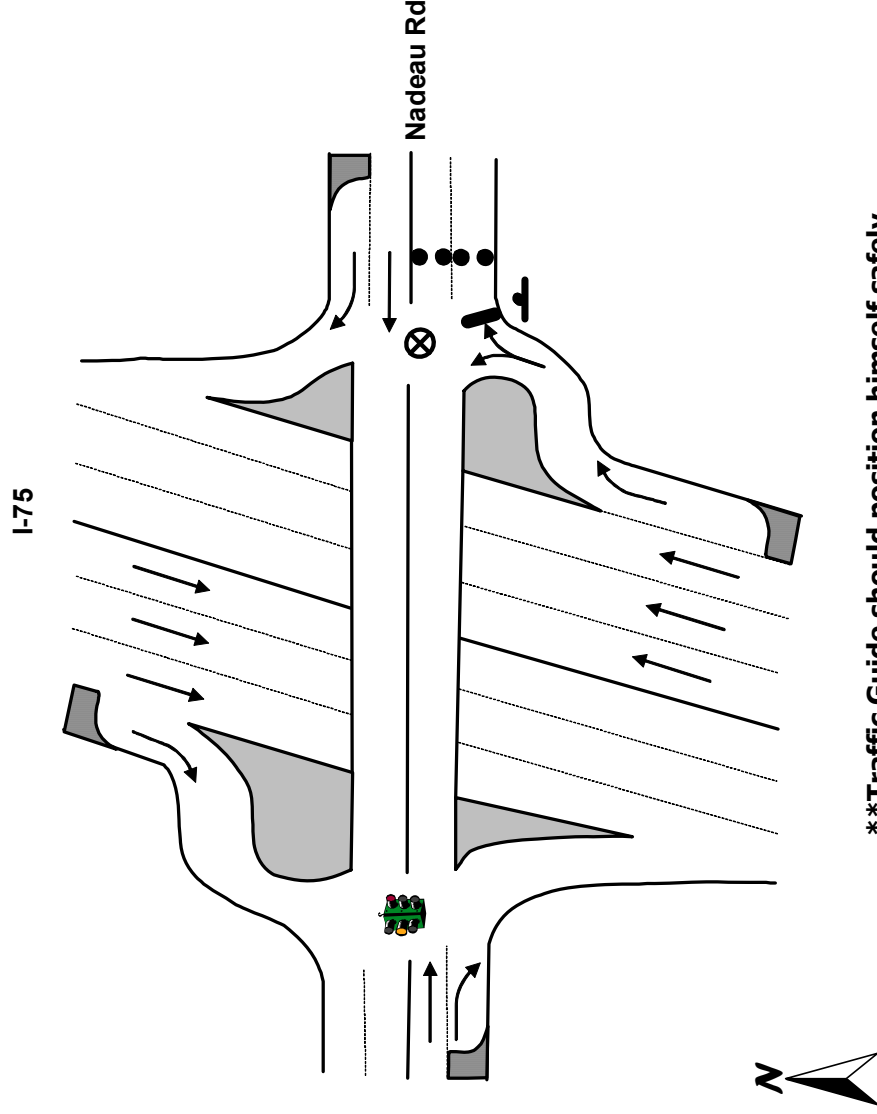
TCP

TOWN: FRENCHTOWN

LOCATION: I-75 & NADEAU RD

TCP ID: 31

PAA: 3



KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- × TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)

- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage eastbound movement on Nadeau Rd.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

2

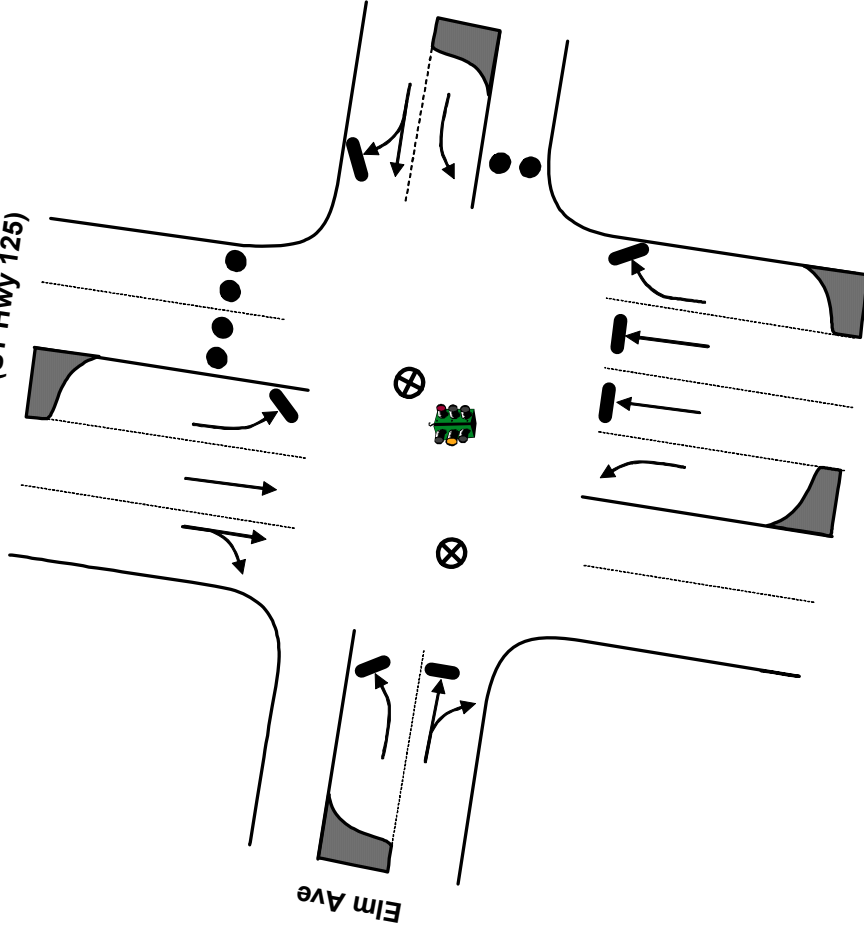
****Traffic Guide should position himself safely**

TCP

TOWN: MONROE CITY
 LOCATION: MONROE ST & ELM AVE
 TCP ID: 32
 PAA: 5

Monroe St (ST Hwy 125)

Elm Ave



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- ⊗ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage northbound movement on Monroe St.
2. Discourage eastbound movement on Elm Ave.

MANPOWER/EQUIPMENT ESTIMATE

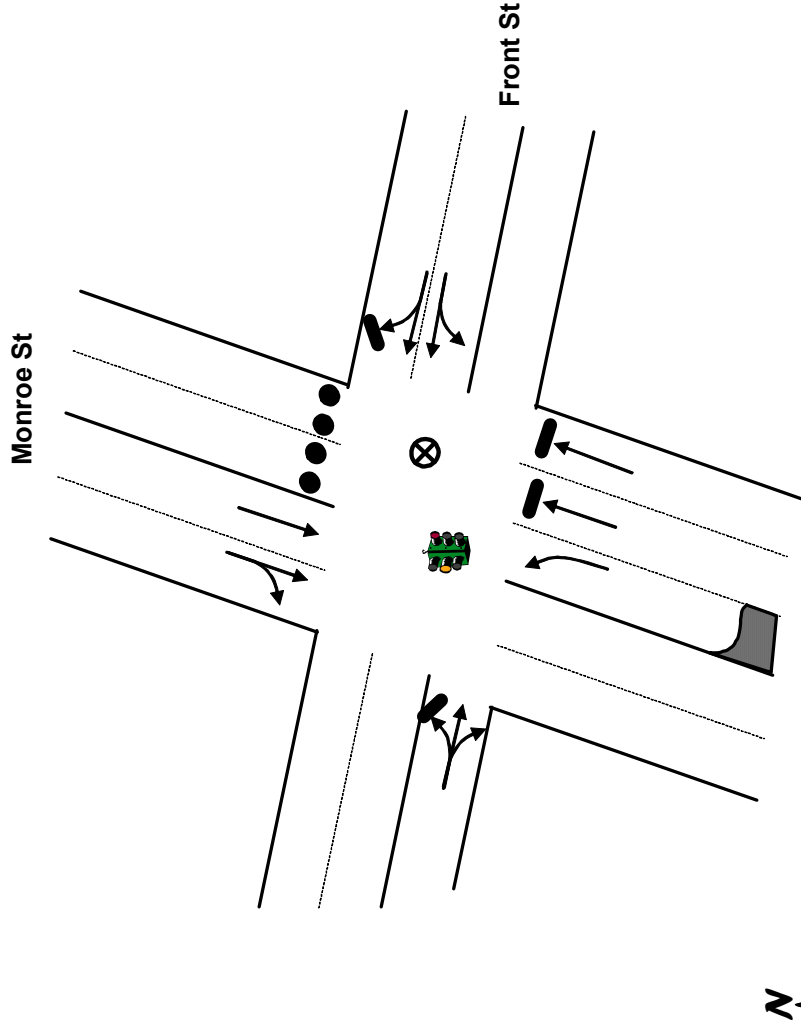
- 2 Traffic Guide(s)
- 9 Traffic Cones

LOCATION PRIORITY

1

TCP

TOWN: CITY OF MONROE
 LOCATION: MONROE ST & FRONT ST
 TCP ID: 33
 PAA: 5



****Traffic Guide should position himself safely**

- KEY
- MOVEMENT FACILITATED
 - MOVEMENT DISCOURAGED/DIVERTED
 - ⊗ TRAFFIC GUIDE
 - ⬮ STOP SIGN
 - ⊗ TRAFFIC BARRICADE
 - 2 PER LANE (LOCAL ROADS AND RAMP(S))
 - 4 PER LANE (FREEWAY AND RAMP(S))
 - TRAFFIC SIGNAL
 - TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage northbound movement on Monroe St.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

1

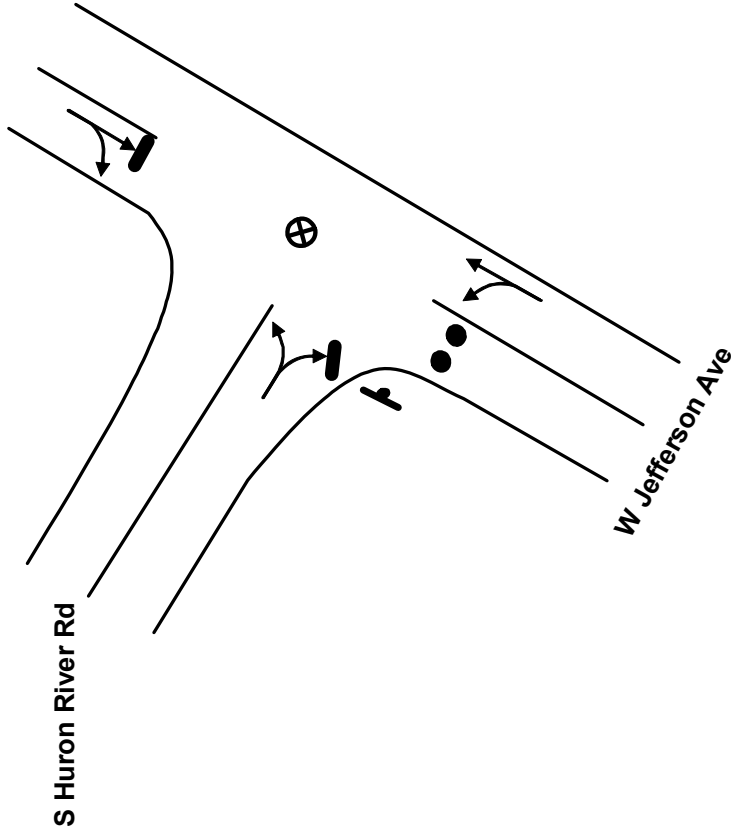
TCP

TOWN: BERLIN

LOCATION: WEST JEFFERSON AVE & SOUTH HURON RIVER RD

TCP ID: 34

PAA: 4



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- ⬇️ STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMPS)
- 4 PER LANE (FREEWAY AND RAMPS)
- 🚦 TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage southbound movement on West Jefferson Ave.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 3 Traffic Cones

LOCATION PRIORITY

2

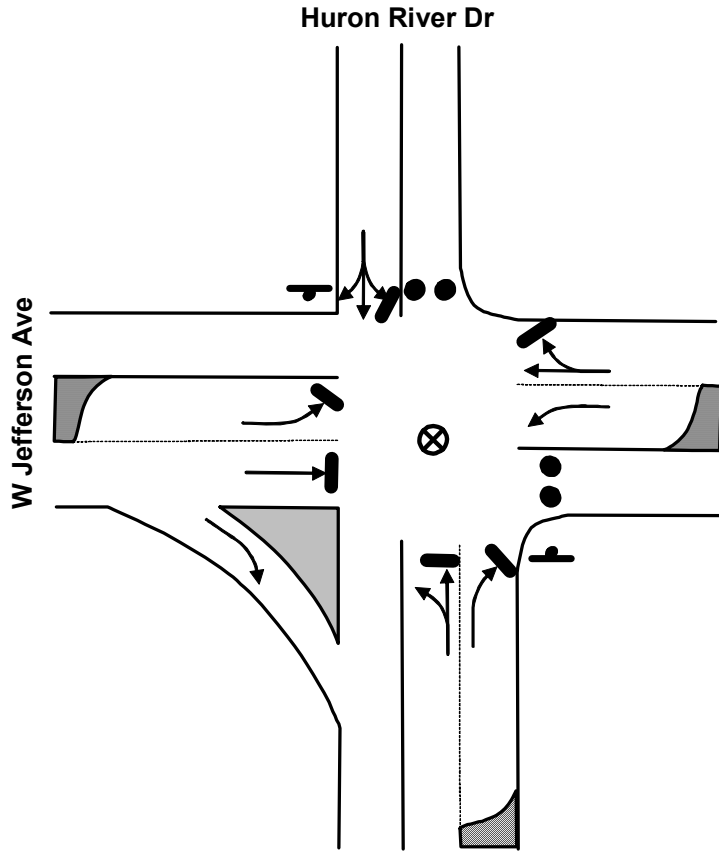
TCP

TOWN: BROWNSTOWN

LOCATION: WEST JEFFERSON AVE & HURON RIVER DR

TCP ID: 35

PAA: 4



- KEY
- MOVEMENT FACILITATED
 - MOVEMENT DISCOURAGED/DIVERTED
 - ⊗ TRAFFIC GUIDE
 - STOP SIGN
 - × TRAFFIC BARRICADE
 - 2 PER LANE (LOCAL ROADS AND RAMP)
 - 4 PER LANE (FREEWAY AND RAMP)
 - TRAFFIC SIGNAL
 - TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): 8 ft

ACTIONS TO BE TAKEN

1. Discourage southbound movement on West Jefferson Ave.
2. Discourage eastbound movement on Huron River Dr.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 9 Traffic Cones

LOCATION PRIORITY

2



****Traffic Guide should position himself safely**

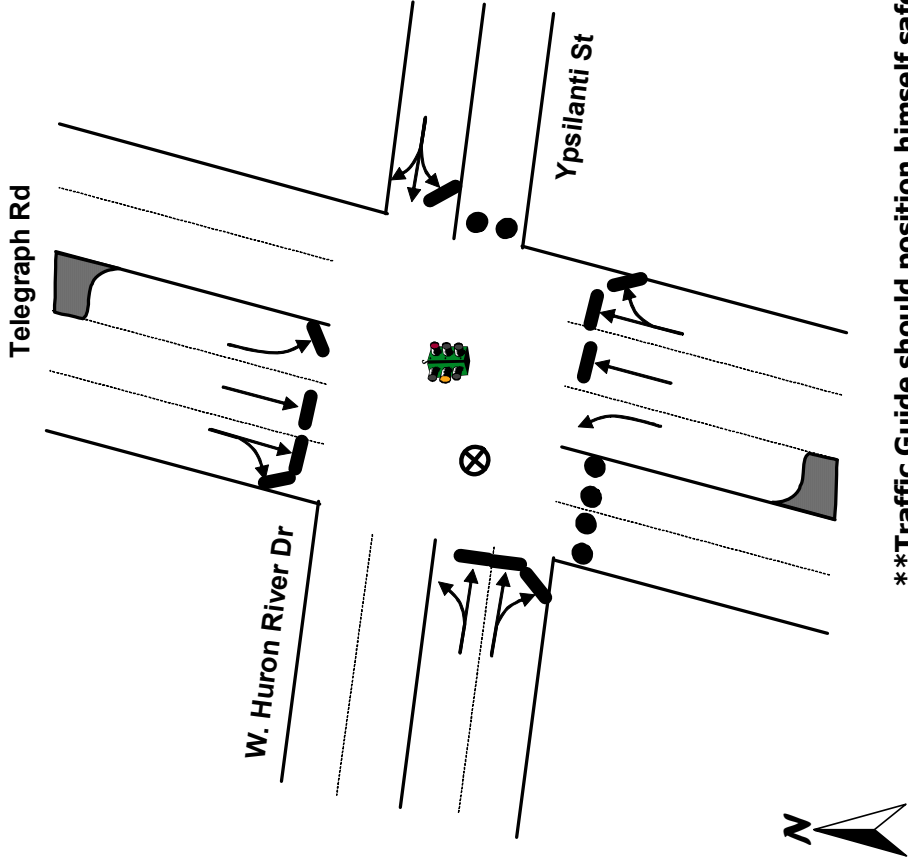
TCP

TOWN: BROWNSTOWN

LOCATION: TELEGRAPH RD & WEST HURON RIVER RD

TCP ID: 36

PAA: 4



****Traffic Guide should position himself safely**

Fermi Nuclear Power Plant
Evacuation Time Estimate

G-38

KLD Associates, Inc.
Rev. 3

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- × TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage northbound movement on Telegraph Rd.
2. Discourage eastbound movement on Ypsilanti St.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 9 Traffic Cones

LOCATION PRIORITY

2

TCP

TOWN: BROWNSTOWN

LOCATION: WEST JEFFERSON AVE & GIBRALTAR RD

TCP ID: 37

PAA: 4

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- × TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): 8 ft

ACTIONS TO BE TAKEN

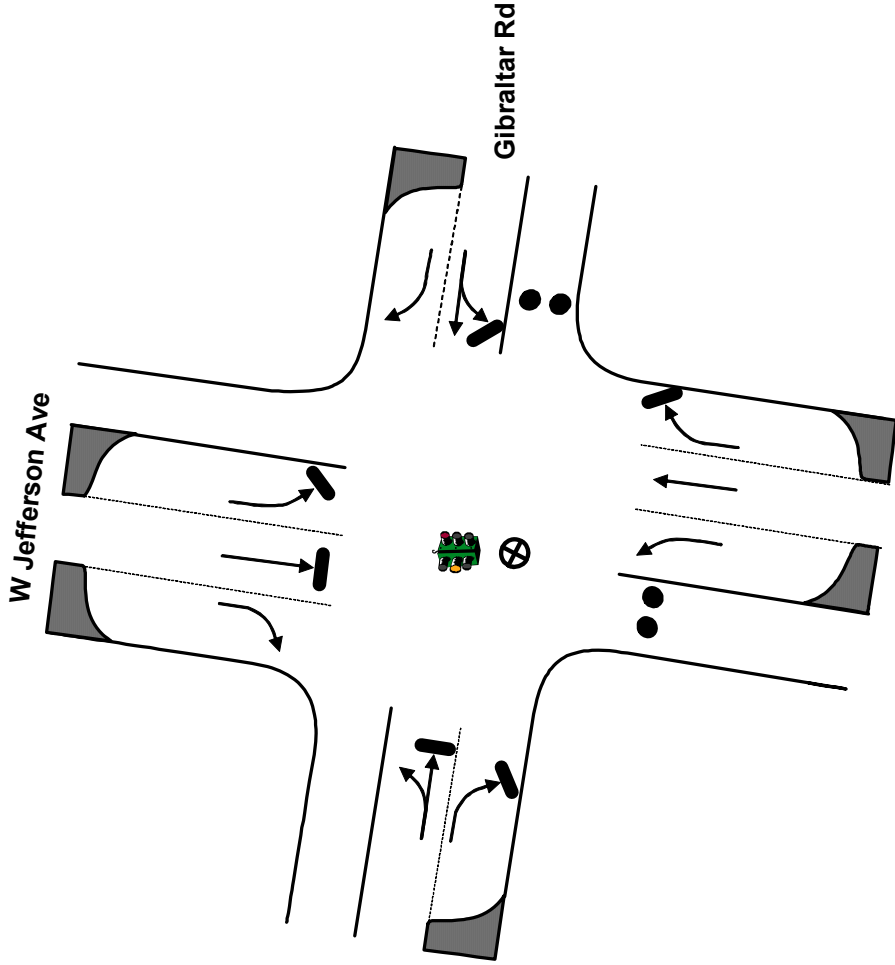
1. Discourage southbound movement on West Jefferson Ave.
2. Discourage eastbound movement on Gibraltar Rd.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

2



****Traffic Guide should position himself safely**

TCP

TOWN: BERLIN

LOCATION: TELEGRAPH RD & WILL CARLETON RD/SOUTH HURON RIVER RD

ACP ID: 38

PAA: 4

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- × TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

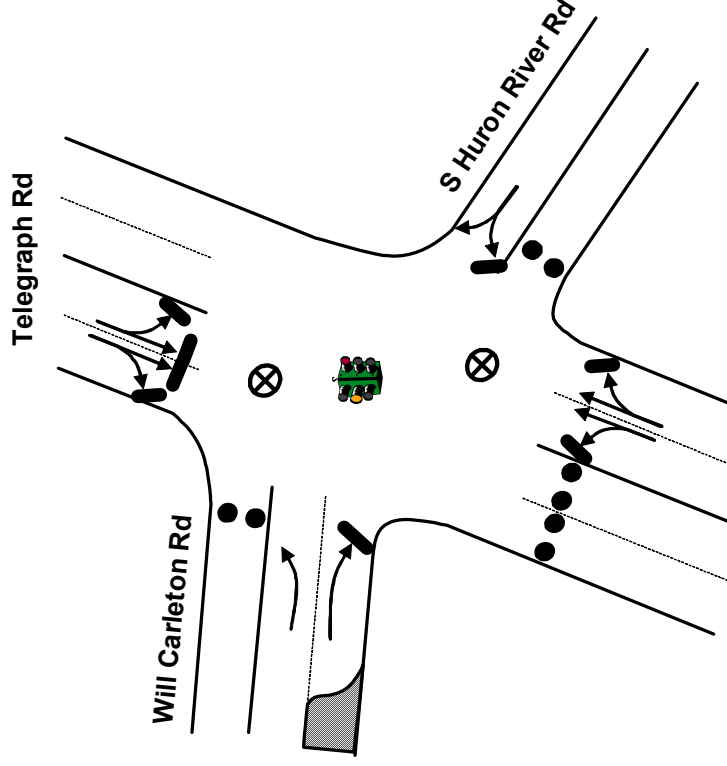
1. Discourage southbound movement on Telegraph Rd.
2. Discourage eastbound movement on South Huron River Rd.
3. Discourage westbound movement on Will Carleton Rd.

MANPOWER/EQUIPMENT ESTIMATE

- 2 Traffic Guide(s)
- 9 Traffic Barricades

LOCATION PRIORITY

2



****Traffic Guide should position himself safely**

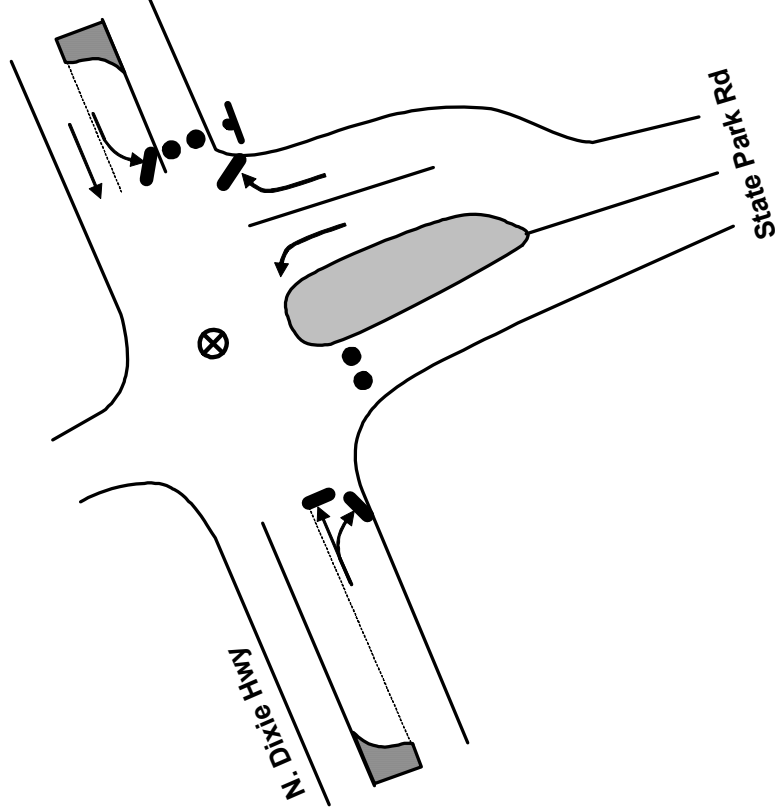
TCP

TOWN: FRENCHTOWN

LOCATION: NORTH DIXIE HWY & STERLING STATE PARK ENTRANCE

TCP ID: 39

PAA: 5



KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMPS)
- 4 PER LANE (FREEWAY AND RAMPS)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Discourage northbound movement on North Dixie Hwy.
2. Discourage access to Sterling State Park

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

- 1 (Only for summer Weekend)

****Traffic Guide should position himself safely**

Table G-2. Summary of Access Control Points						
PAS	ACP ID	Municipality	Intersection Location	Priority	# of Guides	# of Barricades
Monroe County						
Shadow	1	Lasalle	Interstate 75 & S. Otter Creek Rd	1	3	18
Shadow	2	Lasalle	S. Dixie Hwy & S. Otter Creek Rd	2	1	2
Shadow	3	Lasalle	S. Dixie Hwy & S. Otter Creek Rd	2	1	2
Shadow	4	Lasalle	Telegraph Rd & S. Otter Creek Rd	1	2	2
Shadow	5	Raisinville	S. Custer Rd & Lewis Ave	2	1	4
Total Manpower/Equipment for Monroe County:					8	28
Wayne County						
Shadow	6	Huron	Interstate 275 & Sibley Rd	1	3	14
Shadow	7	Brownstown	Telegraph Rd & Sibley Rd	1	3	4
Shadow	8	Brownstown	Interstate 75 & Sibley Rd	1	1	12
Shadow	9	Brownstown	Dixie Toledo Hwy & Sibley Rd	2	3	4
Shadow	10	Brownstown	Dixie Toledo Hwy & Interstate 75 Southbound	2	1	4
Shadow	11	Riverview	Fort St & Sibley Rd	2	2	10
Total Manpower/Equipment for Wayne County:					13	48
Total Manpower/Equipment for Entire EPZ:					21	76

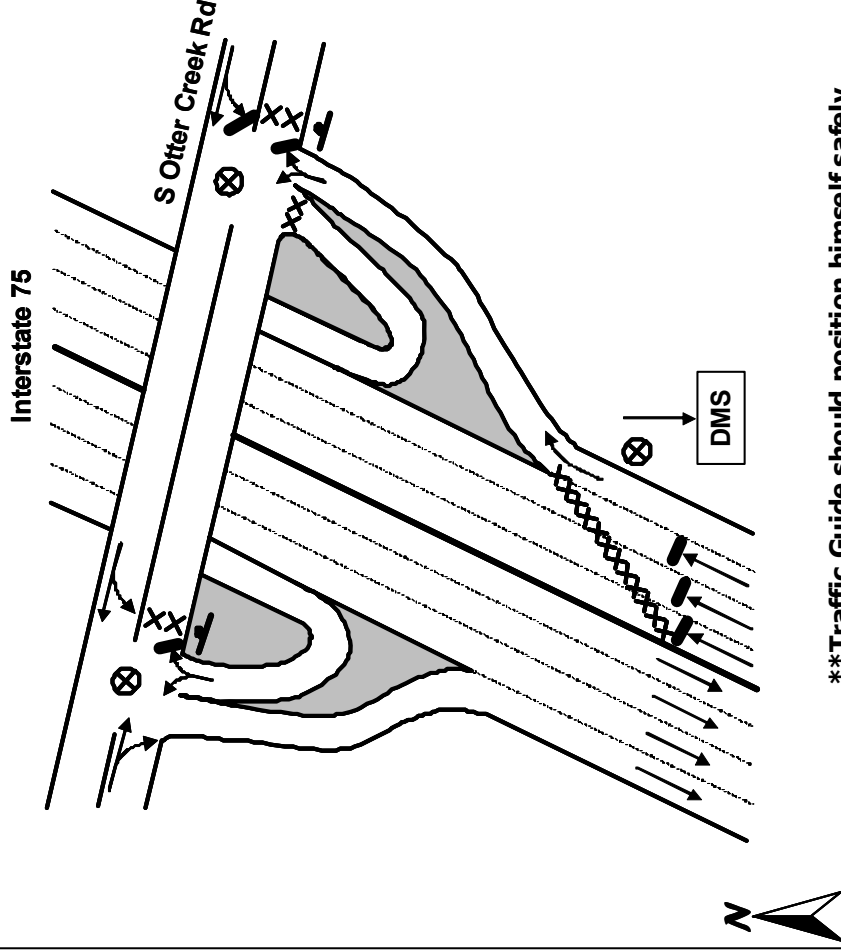


ACP

TOWN: LASALLE

LOCATION: INTERSTATE 75 & SOUTH OTTER CREEK RD

ACP ID: 1



KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- ⊘ STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMPS)
- 4 PER LANE (FREEWAY AND RAMPS)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Interdict & Divert northbound traffic on I-75.
2. Interdict & Divert access to I-75 northbound.
3. Position Dynamic Message Sign (DMS) upstream indicating I-75 northbound is closed.

MANPOWER/EQUIPMENT ESTIMATE

- 3 Traffic Guide(s)
- 18 Traffic Barricades

LOCATION PRIORITY

1

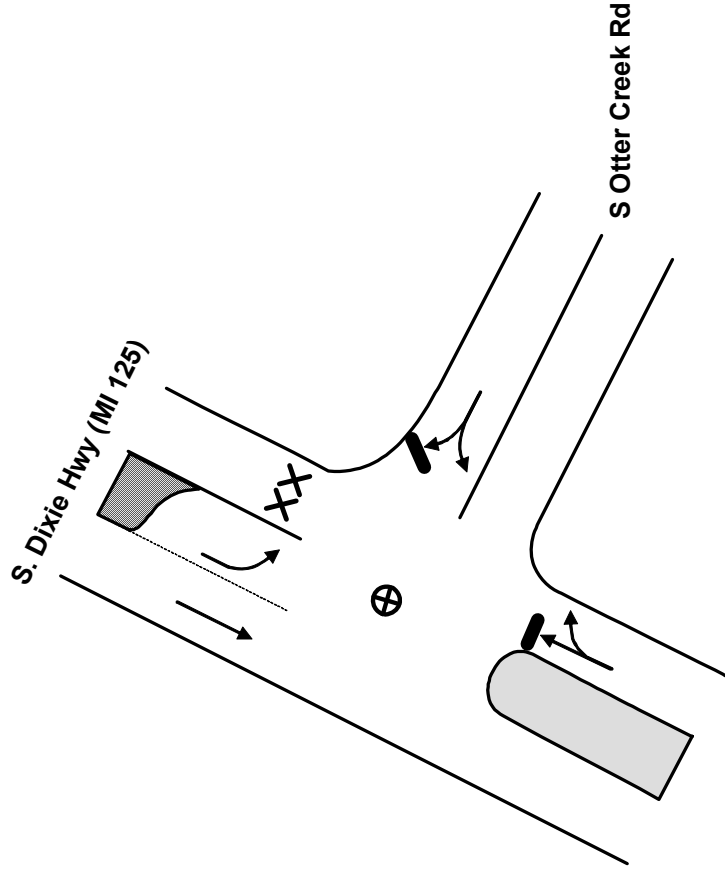
****Traffic Guide should position himself safely**

ACP

TOWN: LASALLE

LOCATION: S. DIXIE HWY (MI 125) & SOUTH OTTER CREEK RD

ACP ID: 2



- KEY
- MOVEMENT FACILITATED
 - MOVEMENT DISCOURAGED/DIVERTED
 - ⊗ TRAFFIC GUIDE
 - ⬇ STOP SIGN
 - ✕ TRAFFIC BARRICADE
 - 2 PER LANE (LOCAL ROADS AND RAMP)
 - 4 PER LANE (FREEWAY AND RAMP)
 - TRAFFIC SIGNAL
 - TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Interdict & Divert northbound movement on Michigan Hwy 125.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 2 Traffic Barricades

LOCATION PRIORITY

2

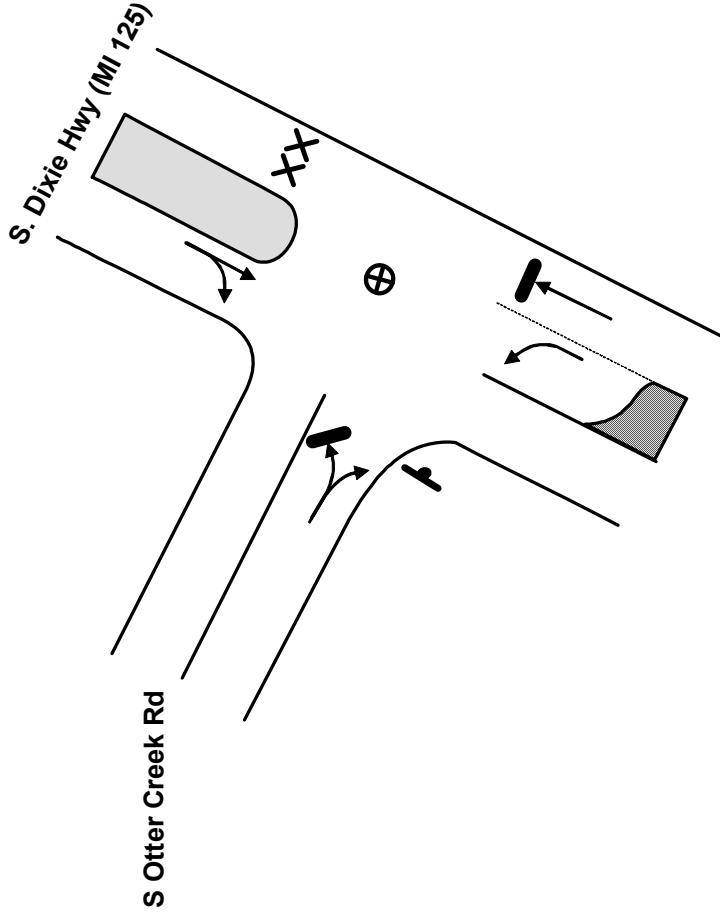
****Traffic Guide should position himself safely**

ACP

TOWN: LASALLE

LOCATION: S. DIXIE HWY (MI 125) & SOUTH OTTER CREEK RD

ACP ID: 3



KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- ⊘ STOP SIGN
- ⊗ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Interdict & Divert northbound movement on MI Hwy 125.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 2 Traffic Barricades

LOCATION PRIORITY

2

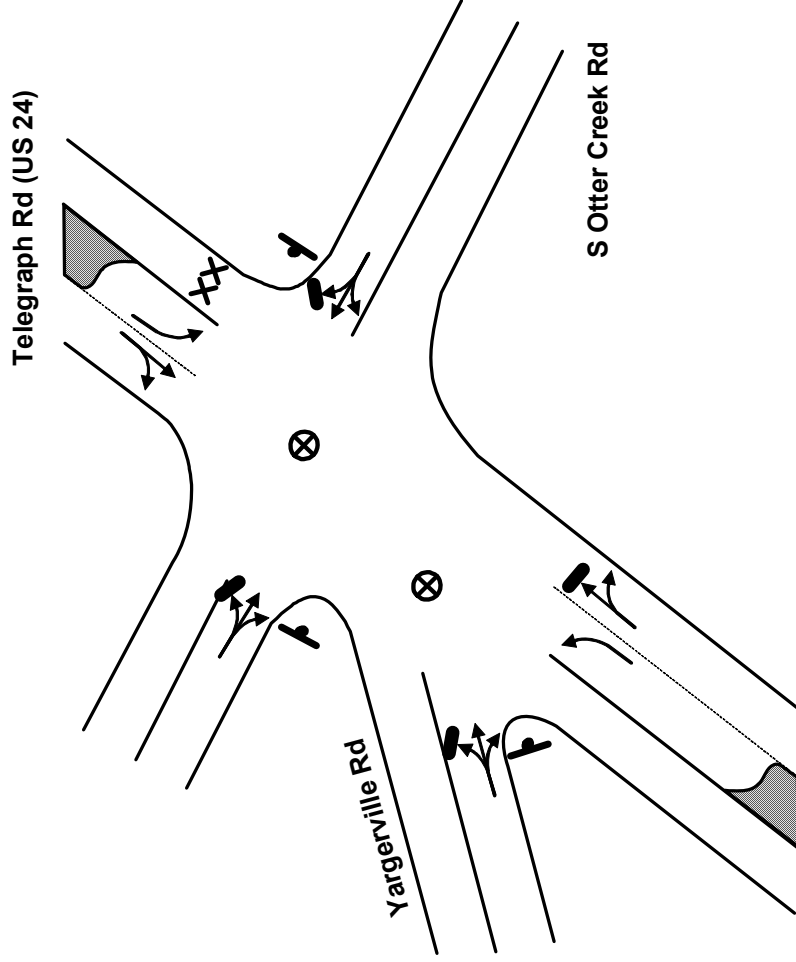
****Traffic Guide should position himself safely**

ACP

TOWN: LASALLE

LOCATION: TELEGRAPH RD (US 24) & SOUTH OTTER CREEK RD

ACP ID: 4



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- ⊙ STOP SIGN
- ⊗ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Interdict & Divert northbound movement on Telegraph Rd.

MANPOWER/EQUIPMENT ESTIMATE

- 2 Traffic Guide(s)
- 2 Traffic Barricades

LOCATION PRIORITY

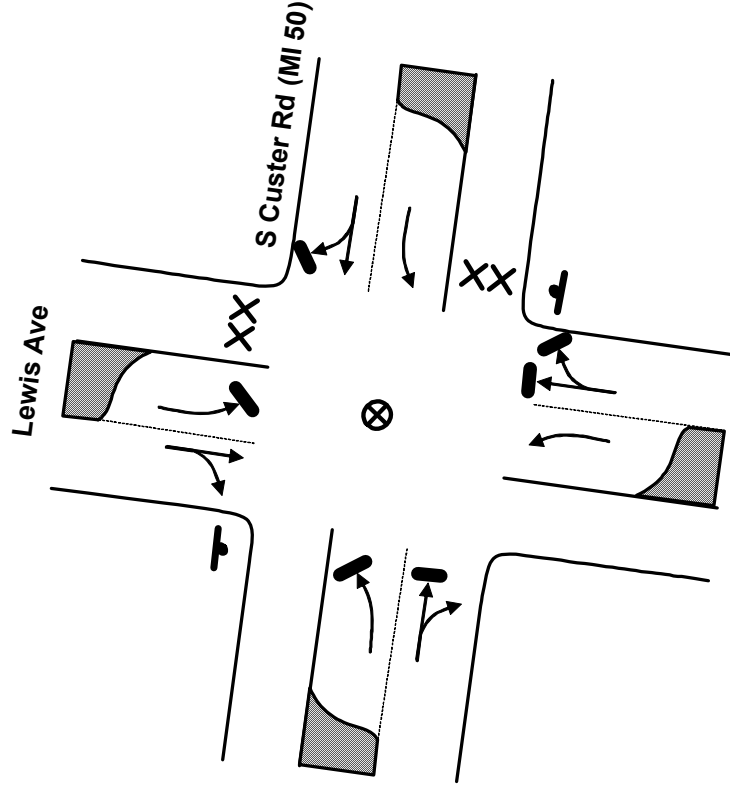
- 1

ACP

TOWN: RAINSVILLE

LOCATION: SOUTH CUSTER RD (MI 50) & LEWIS AVE

ACP ID: 5



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Interdict & Divert eastbound movement on MI Hwy 50.
2. Interdict & Divert northbound movement on Lewis Ave.

MANPOWER/EQUIPMENT ESTIMATE

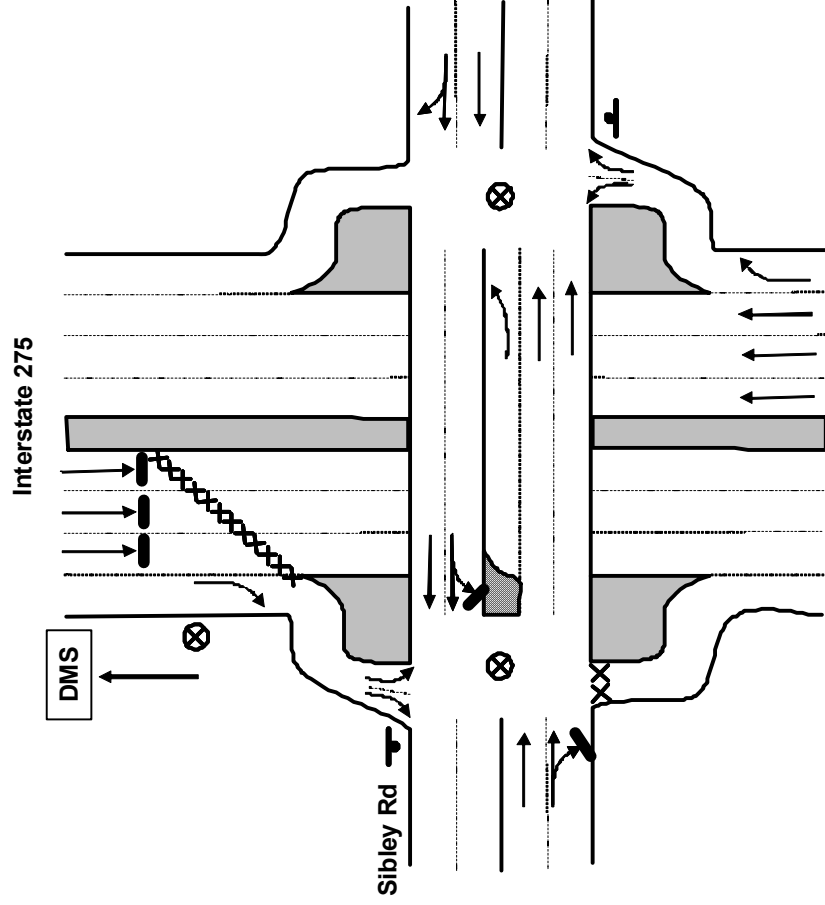
- 1 Traffic Guide(s)
- 4 Traffic Barricades

LOCATION PRIORITY

2

ACP

TOWN: HURON
 LOCATION: I-275 & SIBLEY RD
 ACP ID: 6



****Traffic Guide should position himself safely**

- KEY**
- MOVEMENT FACILITATED
 - MOVEMENT DISCOURAGED/DIVERGED
 - ⊗ TRAFFIC GUIDE
 - STOP SIGN
 - × TRAFFIC BARRICADE
 - 2 PER LANE (LOCAL ROADS AND RAMPS)
 - 4 PER LANE (FREEWAY AND RAMPS)
 - TRAFFIC SIGNAL
 - TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): 8 ft
- ACTIONS TO BE TAKEN**
1. Interdict & Divert southbound movement on I-275.
 2. Interdict and Divert access to southbound I-275.
 3. Position Dynamic Message Sign (DMS) upstream indicating that I-275 southbound is closed.

MANPOWER/EQUIPMENT ESTIMATE

- 3 Traffic Guide(s)
- 14 Traffic Barricades

LOCATION PRIORITY

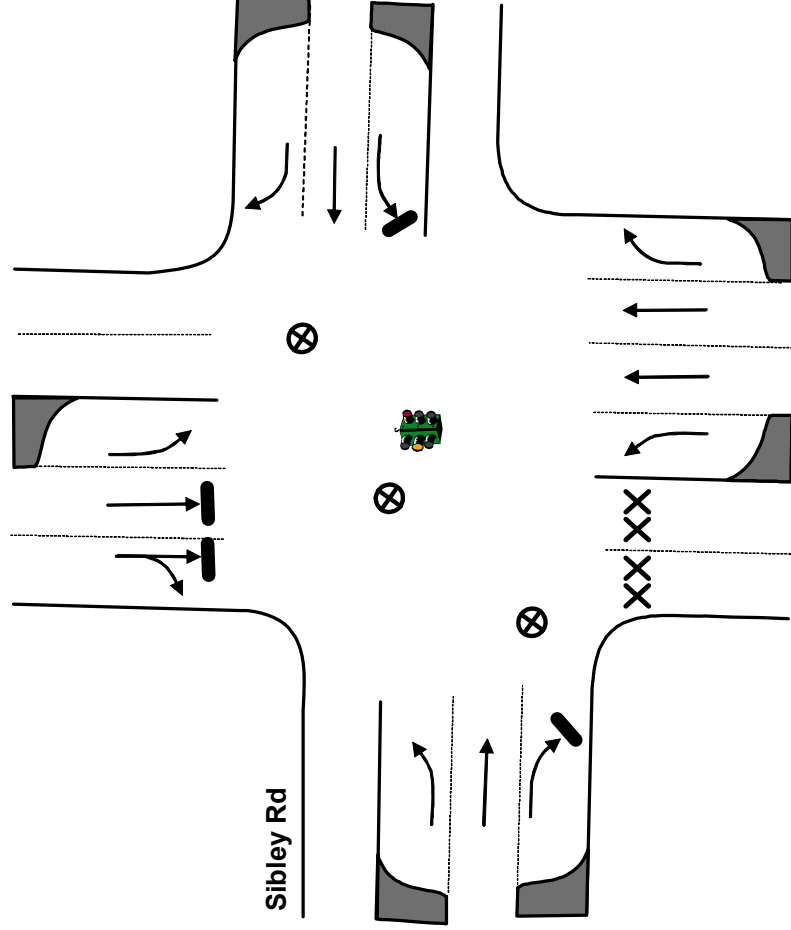
1

ACP

TOWN: BROWNSTOWN
LOCATION: TELEGRAPH RD & SIBLEY RD
ACP ID: 7

S. Telegraph Rd (US Hwy 24)

Sibley Rd



****Traffic Guide should position himself safely**

- KEY
- MOVEMENT FACILITATED
 - MOVEMENT DISCOURAGED/DIVERTED
 - ⊗ TRAFFIC GUIDE
 - ⬮ STOP SIGN
 - ✕ TRAFFIC BARRICADE
 - 2 PER LANE (LOCAL ROADS AND RAMP)
 - 4 PER LANE (FREEWAY AND RAMP)
 - TRAFFIC SIGNAL
 - TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Interdict & Divert southbound movement on US Hwy 24.

MANPOWER/EQUIPMENT ESTIMATE

- 3 Traffic Guide(s)
- 4 Traffic Barricades

LOCATION PRIORITY

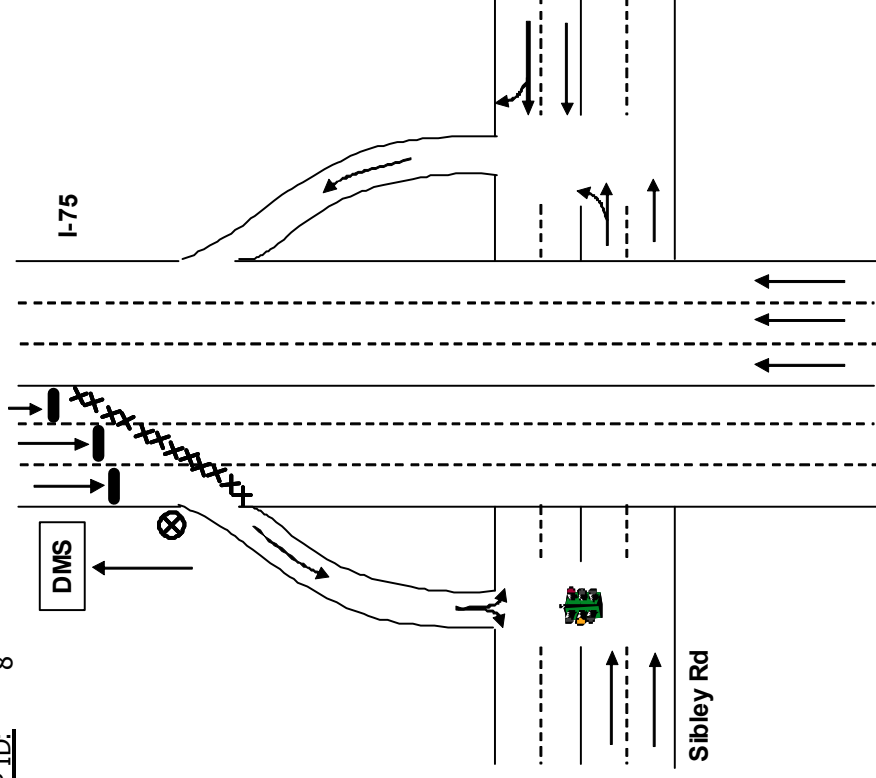
1

ACP

TOWN: BROWNSTOWN

LOCATION: INTERSTATE 75 & SIBLEY RD

ACP ID: 8



****Traffic Guide should position himself safely**

- KEY
- MOVEMENT FACILITATED
 - MOVEMENT DISCOURAGED/DIVERTED
 - ⊗ TRAFFIC GUIDE
 - ⊗ STOP SIGN
 - ⊗ TRAFFIC BARRICADE
 - 2 PER LANE (LOCAL ROADS AND RAMP)
 - 4 PER LANE (FREEWAY AND RAMP)
 - TRAFFIC SIGNAL
 - TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● 8 ft

ACTIONS TO BE TAKEN

1. Interdict and divert southbound movement on I-75.
2. Position a Dynamic Message Sign (DMS) upstream indicating that I-75 southbound is closed.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 12 Traffic Cones

LOCATION PRIORITY

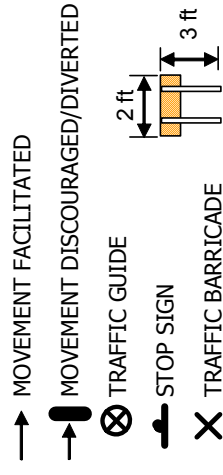
1

TOWN: BROWNSTOWN

LOCATION: DIXIE TOLEDO HWY & SIBLEY RD

ACP ID: 9

KEY



2 PER LANE (LOCAL ROADS AND RAMPS)

4 PER LANE (FREEWAY AND RAMPS)



● ● TRAFFIC CONES SPACED TO
DISCOURAGE TRAFFIC BUT ALLOW
PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Interdict & Divert southbound movement on Dixie Toledo Hwy.

MANPOWER/EQUIPMENT ESTIMATE

- 3 Traffic Guide(s)
- 4 Traffic Barricades

LOCATION PRIORITY

2

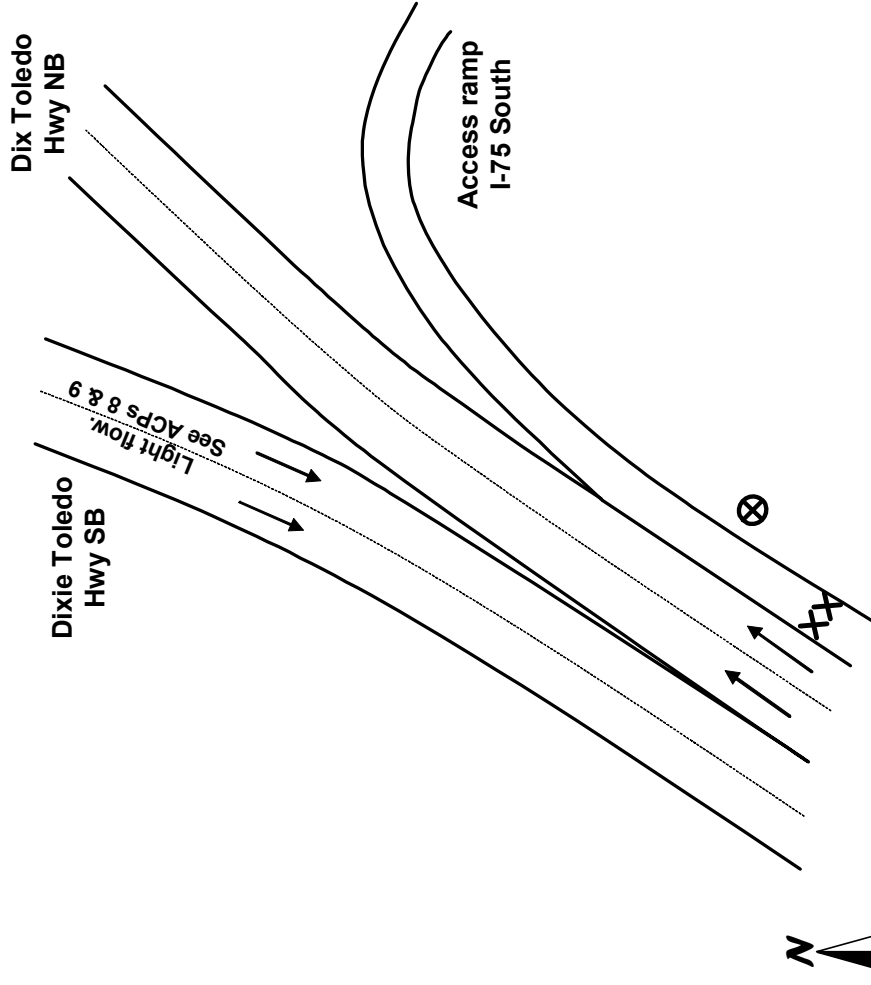
****Traffic Guide should position himself safely**

ACP

TOWN: BROWNSTOWN

LOCATION: DIXIE TOLEDO HWY & I-75 SOUTHBOUND RAMP

ACP ID: 10



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- ⬇ STOP SIGN
- ✕ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Interdict and divert access to I-75 southbound.

MANPOWER/EQUIPMENT ESTIMATE

- 1 Traffic Guide(s)
- 4 Traffic Barricades

LOCATION PRIORITY

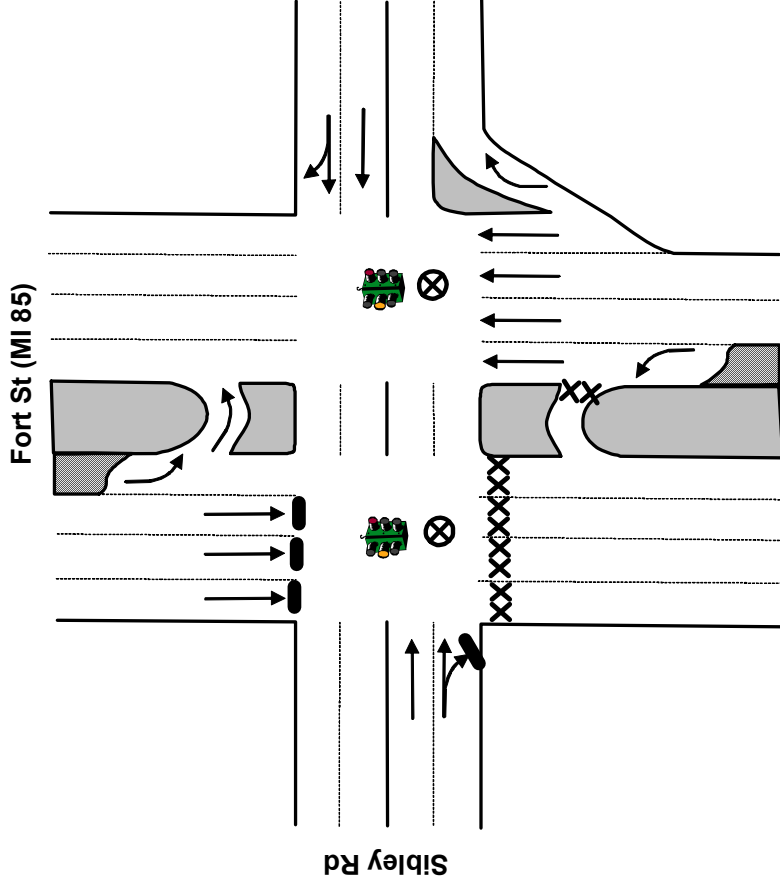
2

ACP

TOWN: RIVERVIEW

LOCATION: FORT ST (MI 85) & SIBLEY RD

ACP ID: 11



****Traffic Guide should position himself safely**

KEY

- MOVEMENT FACILITATED
- MOVEMENT DISCOURAGED/DIVERTED
- ⊗ TRAFFIC GUIDE
- ⊘ STOP SIGN
- ⊗ TRAFFIC BARRICADE
- 2 PER LANE (LOCAL ROADS AND RAMP)
- 4 PER LANE (FREEWAY AND RAMP)
- TRAFFIC SIGNAL
- TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): ● ● ● 8 ft

ACTIONS TO BE TAKEN

1. Interdict & Divert southbound movement on Fort St.

MANPOWER/EQUIPMENT ESTIMATE

- 2 Traffic Guide(s)
- 10 Traffic Barricades

LOCATION PRIORITY

2

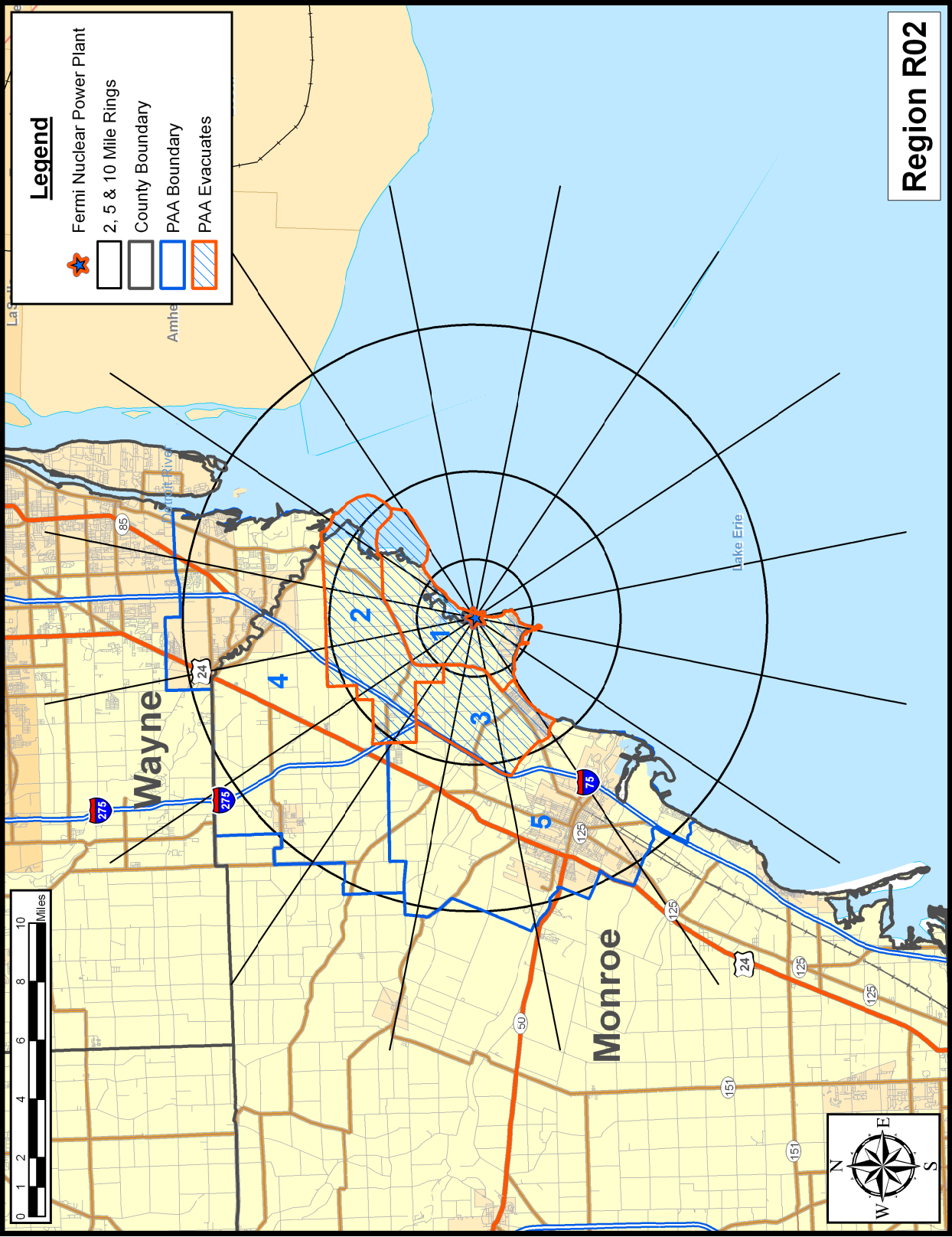
APPENDIX H

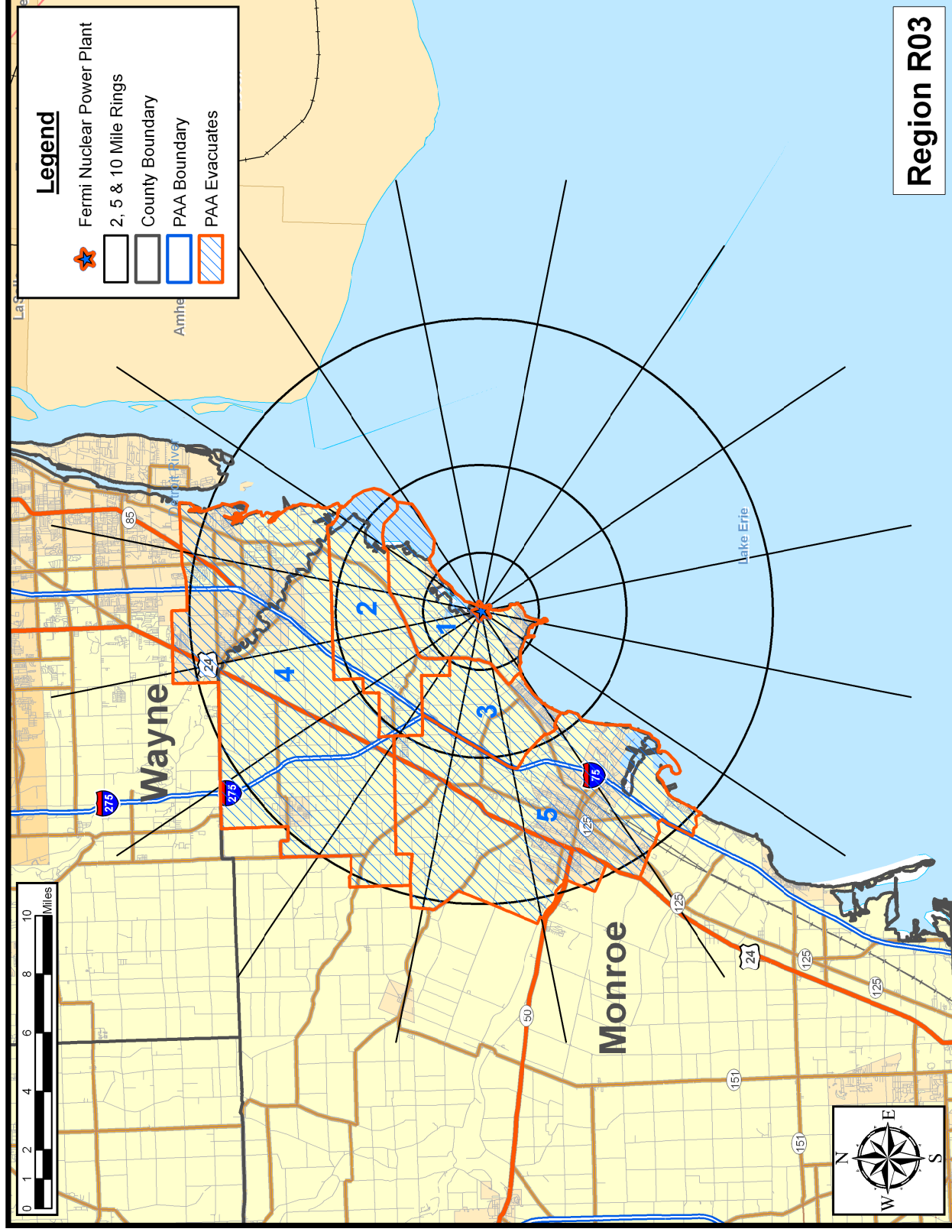
Evacuation Region Maps

APPENDIX H: EVACUATION REGION MAPS

This appendix presents maps of all Evacuation Regions.

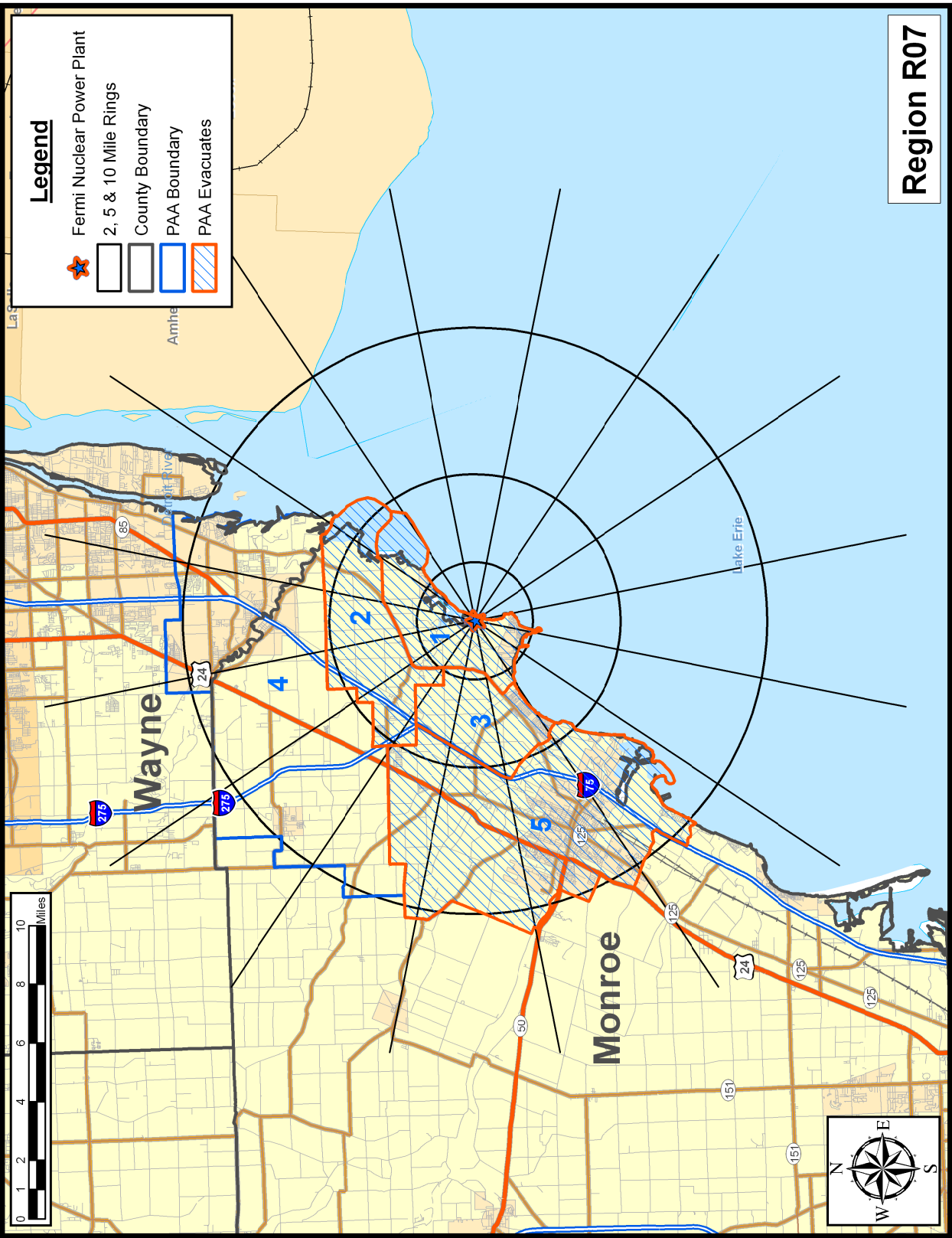












APPENDIX I

Evacuation Sensitivity Studies

APPENDIX I: EVACUATION SENSITIVITY STUDIES

A sensitivity study was performed to determine whether changes in the estimated trip generation time have an effect upon the Evacuation Time Estimate (ETE) for the entire EPZ. The case considered was Scenario 1, Region 3; a summer, midweek, midday, good weather evacuation for the entire EPZ. Table I-1 presents the results of this study.

Table I-1. Evacuation Time Estimates for Trip Generation Sensitivity Study			
Trip Generation Period	Evacuation Region		
	2-Mile Region (R01)	5-Mile Region (R02)	Entire EPZ (R03)
3 Hours	3:00	3:00	3:40
4 Hours (Base)	4:00	4:00	4:05
5 Hours	5:00	5:00	5:05

As discussed in Section 7.2, the congestion clears at about 3½ hours after the Advisory to Evacuate with a 4 hour mobilization time. Reducing the mobilization time to 3 hours loads more vehicles onto the analysis network in less time, further intensifying congestion. Thus, as the mobilization time is reduced to 3 hours, the congestion extends beyond the trip generation period and the congestion within the City of Monroe determines the ETE. The ETE closely mirror the trip generation time for the 4 hour and 5 hour cases. The results confirm the importance of accurately estimating the trip generation times. The results indicate that programs to educate the public and encourage them toward faster responses for a radiological emergency can considerably enhance county emergency planning programs.

A sensitivity study was also conducted to determine the effects on ETE of changes in the percentage of people who decide to relocate from the Shadow Region. The movement of people in the Shadow Region has the potential to impede vehicles evacuating from an Evacuation Region within the EPZ. A Scenario 1, Region 3 case is also used for this sensitivity study.

Table I-2 presents the evacuation time estimates for this study. The ETE for all regions remain unchanged as the percentage of people who decide to relocate from areas within the Shadow Region increases from 15% to 60%. There are a total of 101,339 people (46,200 vehicles) within the Shadow Region. The animations of the evacuation indicate that congestion is intensified in the Wayne County portion of the EPZ (where the shadow population is greatest); however, the ETE still does not extend beyond the mobilization time of 4 hours.

Table I-2. Evacuation Time Estimates for Shadow Sensitivity Study					
Shadow Data			Evacuation Region		
Percent Shadow Evacuation	Number of Shadow Residents	Number of Shadow Resident Vehicles	2-Mile Region (R01)	5-Mile Region (R02)	Entire EPZ (R03)
15	15,201	6,930	4:00	4:00	4:05
30 (Base)	30,402	13,860	4:00	4:00	4:05
60	60,804	27,720	4:00	4:00	4:05

APPENDIX J

Evacuation Time Estimates for All Evacuation Regions and Scenarios
and
Evacuation Time Graphs for Region R03, for all Scenarios

APPENDIX J: EVACUATION TIME ESTIMATES FOR
ALL EVACUATION REGIONS AND SCENARIOS
AND
EVACUATION TIME GRAPHS FOR REGION R03, FOR ALL SCENARIOS

This appendix presents the ETE Results for all 7 Regions and all 14 Scenarios (Tables J-1A through J-1D).

Plots of Evacuating Vehicles vs. Elapsed Time leaving the 2-mile and 5-mile circular areas around the Fermi Nuclear Power Plant and the entire EPZ for Region R03, for all 14 scenarios are presented. Each plot has points indicating the evacuation times corresponding to the 50th, 90th, and 95th percentiles of evacuated vehicles.

J.1 Guidance on Using ETE Tables

Tables J-1A through J-1D present the ETE values for all 7 Evacuation Regions and all 14 Evacuation Scenarios. They are organized as follows:

Table	Contents
J-1A	ETE represents the elapsed time required for 50 percent of the population within a Region, to evacuate from that Region.
J-1B	ETE represents the elapsed time required for 90 percent of the population within a Region, to evacuate from that Region.
J-1C	ETE represents the elapsed time required for 95 percent of the population within a Region, to evacuate from that Region.
J-1D	ETE represents the elapsed time required for 100 percent of the population within a Region, to evacuate from that Region.

The user first determines the percentile of population for which the ETE is sought. The applicable value of ETE within the chosen Table may then be identified using the following procedure:

1. Identify the applicable **Scenario**:
 - The Season
 - Summer (schools not in session)
 - Winter (also Autumn and Spring)
 - The Day of Week
 - Midweek (work-day)
 - Weekend, Holiday

- The Time of Day
 - Midday (work and commuting hours)
 - Evening
- Weather Condition
 - Good Weather
 - Rain
 - Snow
- Special Event (if any)
 - River Raisin Jazz Festival
 - Construction of new unit

While these Scenarios are designed, in aggregate, to represent conditions throughout the year, some further clarification is warranted:

- The conditions of a summer evening (either midweek or weekend) and rain are not explicitly identified in Tables J-1A through J-1D. For these conditions, Scenario (4) applies.
- The conditions of a winter evening (either midweek or weekend) and rain are not explicitly identified in Tables J-1A through J-1D. For these conditions, Scenario (10) applies.
- The seasons are defined as follows:
 - Summer implies that public schools are *not* in session.
 - Winter, Spring and Autumn imply that public schools *are* in session.
- Time of Day: Midday implies the time over which most commuters are at work.

2. With the Scenario (and column in the Table) identified, now identify the **Evacuation Region**:

- Determine the projected azimuth direction of the plume (coincident with the wind direction). This direction is expressed in terms of compass orientation: *from* N, NNE, NE...
- Determine the distance that the Evacuation Region will extend from the Fermi Nuclear Power Plant. The applicable distances and their associated candidate Regions are given below:
 - 2 Miles (Region R01)
 - 5 Miles (Regions R02, R04 and R05)
 - to EPZ Boundary (Regions R03, R06 and R07)
- Enter Table J-2 and identify the applicable group of candidate Regions based on the wind direction and on the distance that the selected Region extends from the FNPP. Select the Evacuation Region identifier in that row from the first column of the Table.

3. Determine the **ETE for the Scenario** identified in Step 1 and the Region identified in Step 2, as follows:
 - The columns of Table J-1 are labeled with the Scenario numbers. Identify the proper column in the selected Table using the Scenario number determined in Step 1.
 - Identify the row in this table that provides ETE values for the Region identified in Step 2.
 - The unique data cell defined by the column and row so determined contains the desired value of ETE expressed in Hours:Minutes.

Example

It is desired to identify the ETE for the following conditions:

- Sunday, August 10th at 4:00 AM.
- It is raining.
- Wind direction is *from* the southwest (SW).
- Wind speed is such that the distance to be evacuated is judged to be 10 miles (to EPZ boundary).
- The desired ETE is that value needed to evacuate 95 percent of the population from within the impacted Region.

Table J-1C is applicable because the 95th-percentile population is desired. Proceed as follows:

1. Identify the Scenario as summer, weekend, evening and raining. Entering Table J-1C, it is seen that there is no match for these descriptors. However, the clarification given above assigns this combination of circumstances to Scenario 4.
2. Enter Table J-2 and locate the group entitled “Evacuate 5-Mile Ring and Downwind to EPZ Boundary”. Under “Wind Direction From:”, identify the SW (southwest) azimuth and read REGION R06 in the first column of that row.
3. Enter Table J-1C to locate the data cell containing the value of ETE for Scenario 4 and Region R06. This data cell is in column (4) and in the row for Region R06; it contains the ETE value of **2:50**.

Table J-1A. Time To Clear The Indicated Area of 50 Percent of the Evacuating Population																
Scenario:	Summer		Summer		Summer		Winter		Winter		Winter		Summer		Summer	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	Midweek Weekend	Summer Jazz Festival	Summer Midweek Construction + Refueling	
Region	Midweek		Weekend		Midweek		Midweek		Midweek		Midweek		Midweek		Midweek	
	Good Weather	Rain	Good Weather	Rain	Good Weather	Rain	Good Weather	Rain	Good Weather	Rain	Good Weather	Rain	Good Weather	Rain	Good Weather	Good Weather
Entire 2-Mile Region, 5-Mile Region, and EPZ																
R1	1:15	1:15	1:00	1:00	1:00	R1	1:15	1:15	1:35	1:00	1:00	1:25	1:00	R1	1:00	1:15
R2	1:05	1:05	1:00	1:00	1:00	R2	1:05	1:05	1:10	1:00	1:00	1:05	1:00	R2	0:55	1:05
R3	1:35	1:40	1:25	1:35	1:15	R3	1:35	1:40	2:00	1:20	1:30	1:50	1:15	R3	1:30	1:40
2-Mile Ring and Downwind to 5 Miles																
R4	1:00	1:00	0:55	0:55	0:55	R4	1:00	1:00	1:05	0:55	0:55	1:00	0:55	R4	0:55	1:05
R5	1:00	1:00	1:00	1:00	1:00	R5	1:00	1:00	1:10	1:00	1:00	1:05	1:00	R5	0:55	1:05
5-Mile Ring and Downwind to EPZ Boundary																
R6	1:20	1:25	1:15	1:15	1:10	R6	1:20	1:25	1:40	1:10	1:15	1:30	1:10	R6	1:15	1:30
R7	1:30	1:35	1:20	1:25	1:15	R7	1:30	1:35	1:50	1:15	1:25	1:40	1:15	R7	1:25	1:30

Table J-1B. Time To Clear The Indicated Area of 90 Percent of the Evacuating Population																
Scenario:	Summer		Summer		Summer		Winter		Winter		Winter		Summer		Summer	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	Midweek Jazz Festival	Summer Weekend Construction + Refueling
Region	Midweek		Weekend		Midweek		Weekend		Midweek		Weekend		Midweek		Weekend	
	Good Weather	Rain	Good Weather	Rain	Good Weather	Rain	Good Weather	Rain	Good Weather	Rain	Good Weather	Rain	Good Weather	Rain	Good Weather	Rain
Entire 2-Mile Region, 5-Mile Region, and EPZ																
R1	2:20	2:20	2:00	2:10	2:00	2:20	2:20	2:50	2:00	2:10	2:40	2:00		R1	2:00	2:10
R2	1:50	1:50	1:40	1:45	1:50	1:50	1:50	2:20	1:40	1:45	1:55	1:50		R2	1:40	2:05
R3	2:50	3:05	2:45	3:00	2:25	2:50	3:05	3:35	2:35	2:45	3:15	2:25		R3	3:00	3:05
2-Mile Ring and Downwind to 5 Miles																
R4	1:40	1:45	1:35	1:35	1:40	1:40	1:45	2:00	1:35	1:35	1:45	1:40		R4	1:35	1:50
R5	1:45	1:50	1:40	1:45	1:50	1:45	1:50	2:10	1:40	1:40	1:50	1:50		R5	1:40	2:00
5-Mile Ring and Downwind to EPZ Boundary																
R6	2:30	2:45	2:20	2:35	2:10	2:30	2:45	3:10	2:15	2:25	2:50	2:10		R6	2:20	3:05
R7	2:55	3:15	2:50	3:10	2:35	2:55	3:10	3:45	2:40	2:55	3:25	2:35		R7	3:15	3:00

Table J-1D. Time To Clear The Indicated Area of 100 Percent of the Evacuating Population																
Scenario:	Summer		Summer		Summer		Winter		Winter		Winter		Winter		Summer Weekend Jazz Festival (13)	Summer Midweek Construction + Refueling (14)
	(1)	(2)	(3)	(4)	(5)	Scenario:	(6)	(7)	(8)	(9)	(10)	(11)	(12)			
														Midweek		
Region	Good Weather	Rain	Good Weather	Rain	Good Weather	Region	Good Weather	Rain	Snow	Good Weather	Rain	Snow	Good Weather	Region	Good Weather	Good Weather
	Evening	Midday	Evening	Midday	Evening	Midday	Evening	Midday	Evening	Midday	Evening	Midday	Evening			
Entire 2-Mile Region, 5-Mile Region, and EPZ																
R1	4:00	4:00	4:00	4:00	4:00	R1	4:00	4:00	5:00	4:00	4:00	5:00	4:00	R1	4:00	4:00
R2	4:00	4:00	4:00	4:00	4:00	R2	4:00	4:00	5:00	4:00	4:00	5:00	4:00	R2	4:00	4:00
R3	4:05	4:10	4:05	4:10	4:05	R3	4:05	4:10	5:10	4:05	4:05	5:10	4:05	R3	4:30	4:10
2-Mile Ring and Downwind to 5 Miles																
R4	4:00	4:00	4:00	4:00	4:00	R4	4:00	4:00	5:00	4:00	4:00	5:00	4:00	R4	4:00	4:00
R5	4:00	4:00	4:00	4:00	4:00	R5	4:00	4:00	5:00	4:00	4:00	5:00	4:00	R5	4:00	4:00
5-Mile Ring and Downwind to EPZ Boundary																
R6	4:05	4:10	4:05	4:10	4:00	R6	4:05	4:10	5:00	4:00	4:00	5:00	4:00	R6	4:05	4:10
R7	4:00	4:10	4:00	4:10	4:00	R7	4:00	4:00	5:00	4:00	4:00	5:00	4:00	R7	4:30	4:00

Table J-2. Description of Evacuation Regions						
Region	Description	Protective Action Area				
		1	2	3	4	5
R01	2-Mile Ring	X				
R02	5-Mile Ring	X	X	X		
R03	Full EPZ	X	X	X	X	X
Evacuate 2-Mile Ring and 5 Miles Downwind						
Region	Wind Direction From:	Protective Action Area				
		1	2	3	4	5
R04	SSE,S,SSW,SW,WSW	X	X			
	W,WNW,NW,NNW,N,NNE	Refer to Region R01				
R05	NE,ENE,E	X		X		
	ESE,SE	Refer to Region R02				
Evacuate 5-Mile Ring and Downwind to EPZ boundary						
Region	Wind Direction From:	Protective Action Area				
		1	2	3	4	5
R06	SSE,S,SSW,SW	X	X	X	X	
	WSW,W,WNW,NW,NNW,N	Refer to Region R02				
R07	NNE,NE,ENE	X	X	X		X
	E,ESE,SE	Refer to Region R03				

Evacuation Time Estimates Summer, Midweek, Midday, Good Weather (Scenario 1)

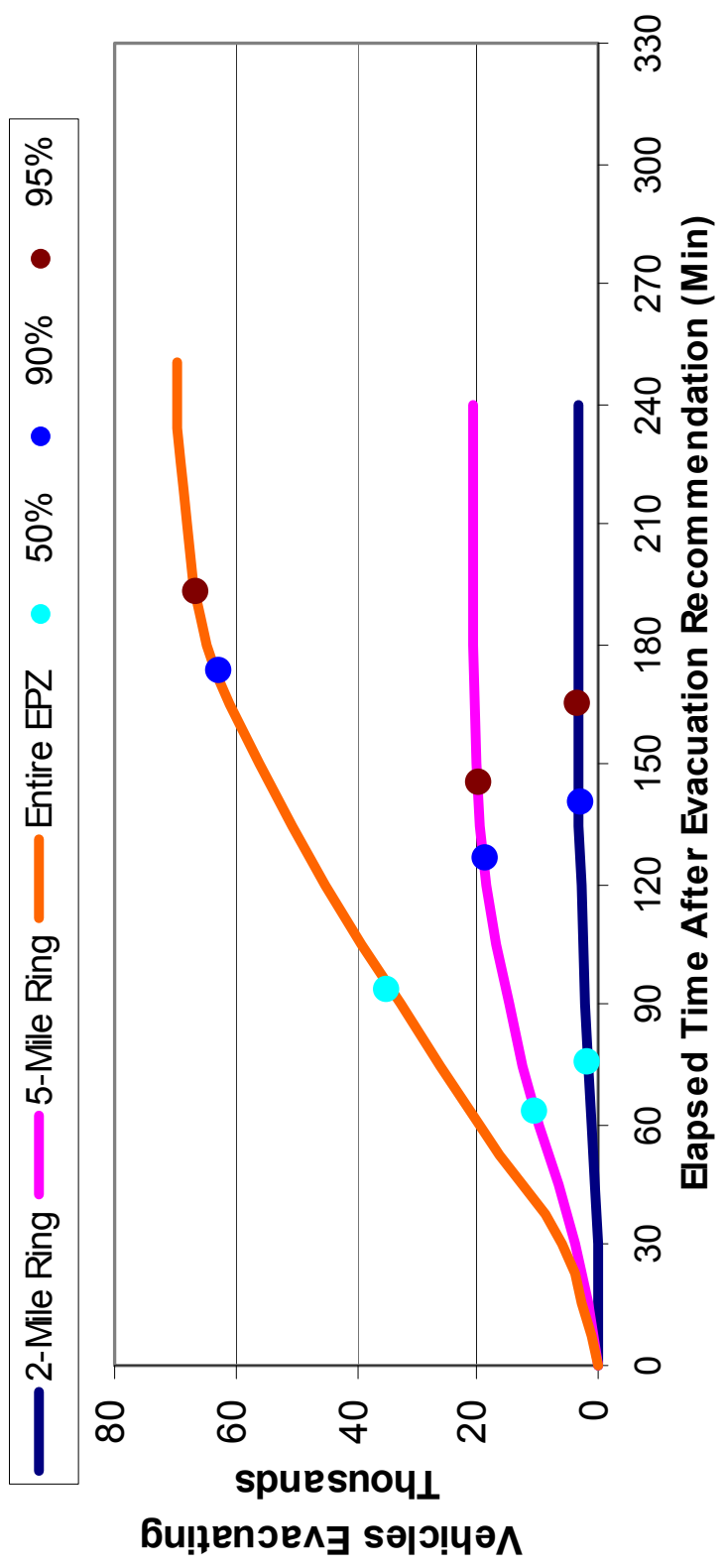


Figure J-1. Evacuation Time Estimates – Scenario 1 for Region R03 (Entire EPZ)

Evacuation Time Estimates Summer, Midweek, Midday, Rain (Scenario 2)

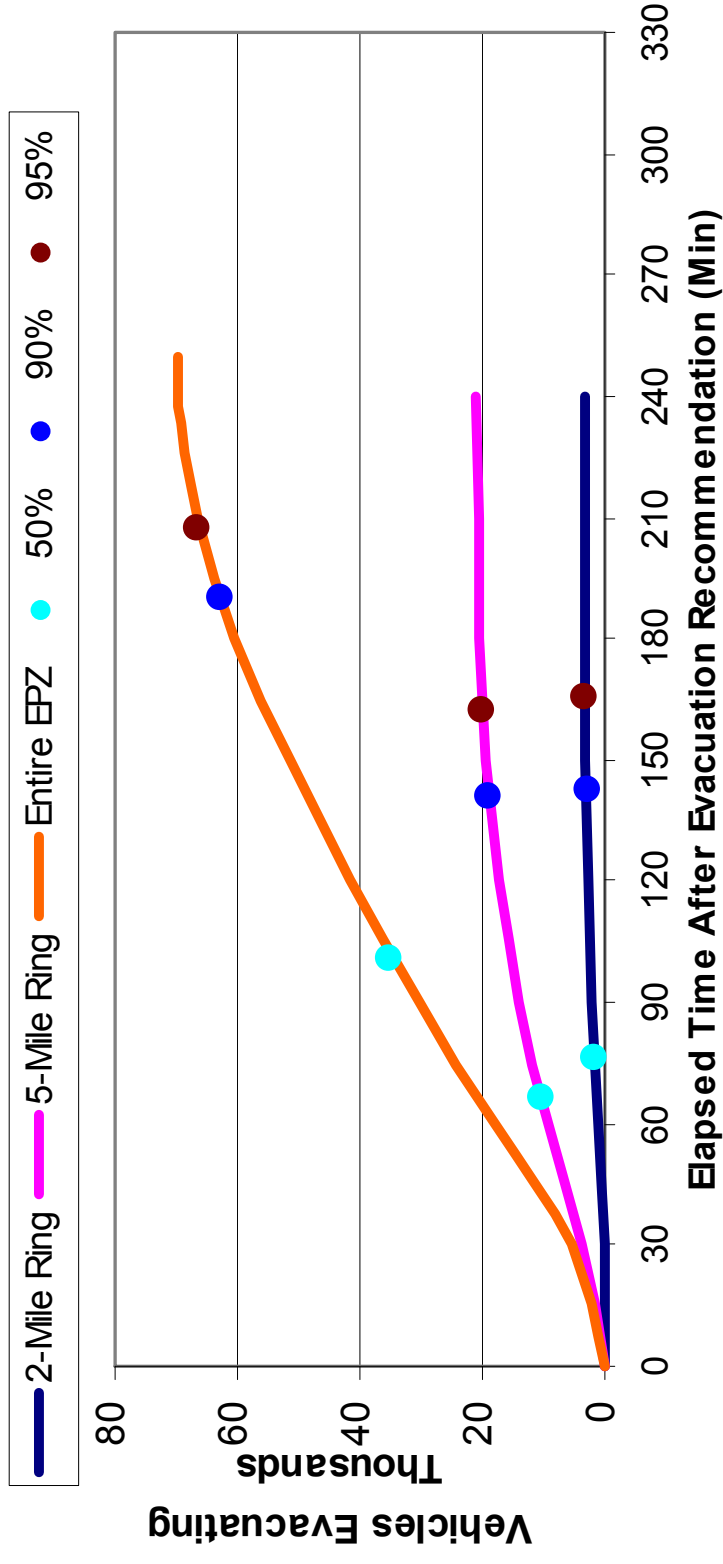


Figure J-2. Evacuation Time Estimates –
Scenario 2 for Region R03 (Entire EPZ)

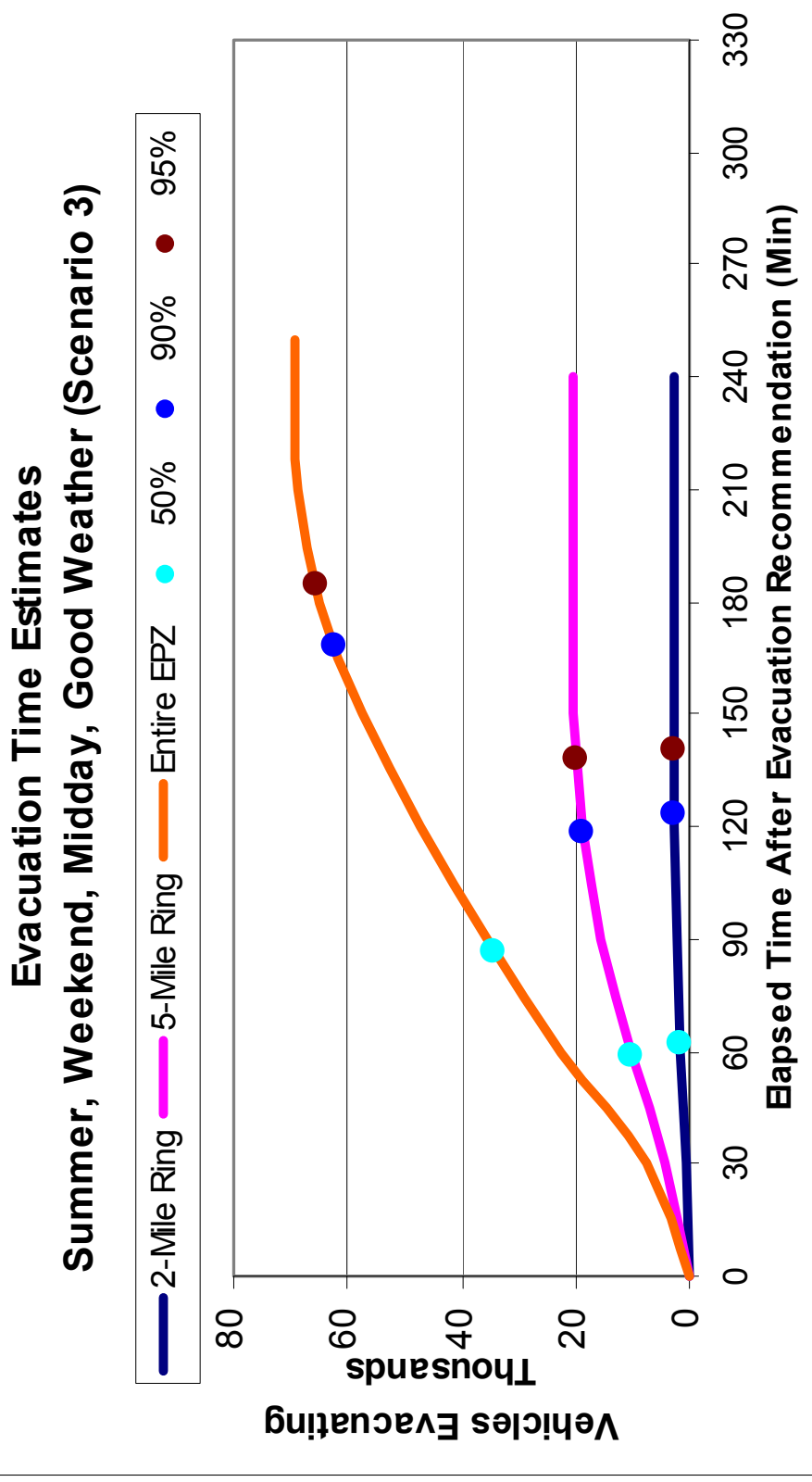


Figure J-3. Evacuation Time Estimates –
Scenario 3 for Region R03 (Entire EPZ)

Evacuation Time Estimates Summer, Weekend, Midday, Rain (Scenario 4)

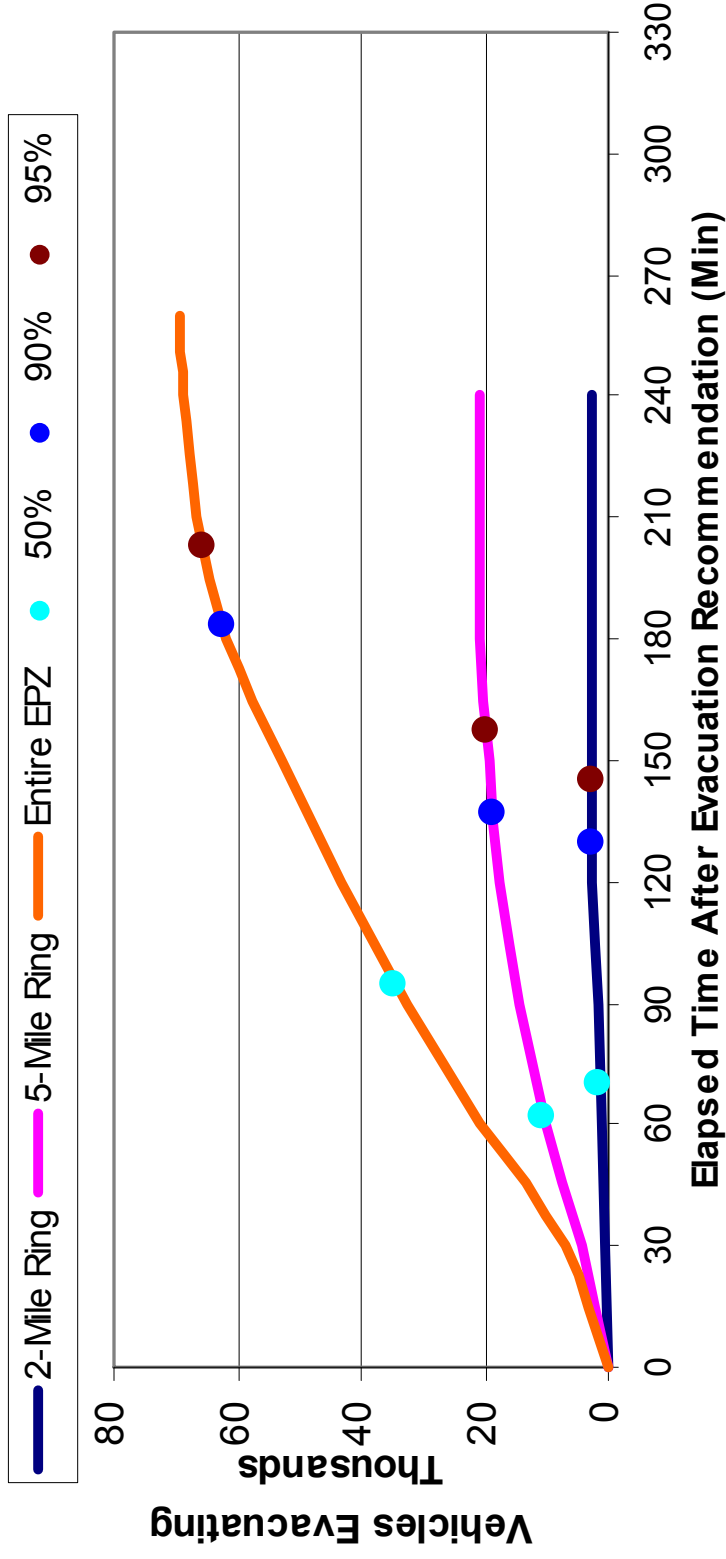


Figure J-4. Evacuation Time Estimates –
Scenario 4 for Region R03 (Entire EPZ)

Evacuation Time Estimates Summer, Evening, Good Weather (Scenario 5)

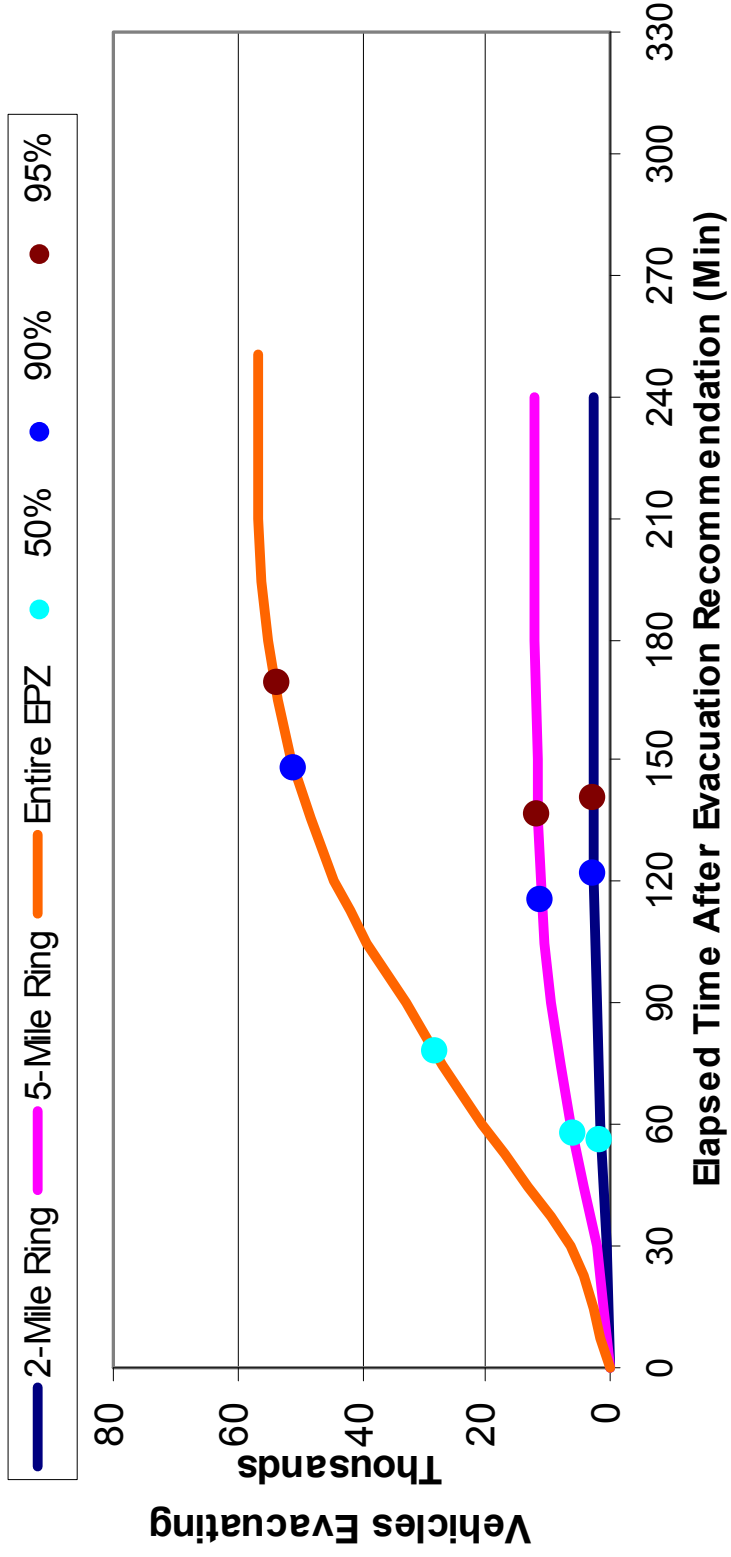


Figure J-5. Evacuation Time Estimates –
Scenario 5 for Region R03 (Entire EPZ)

Evacuation Time Estimates Winter, Midweek, Midday, Good Weather (Scenario 6)

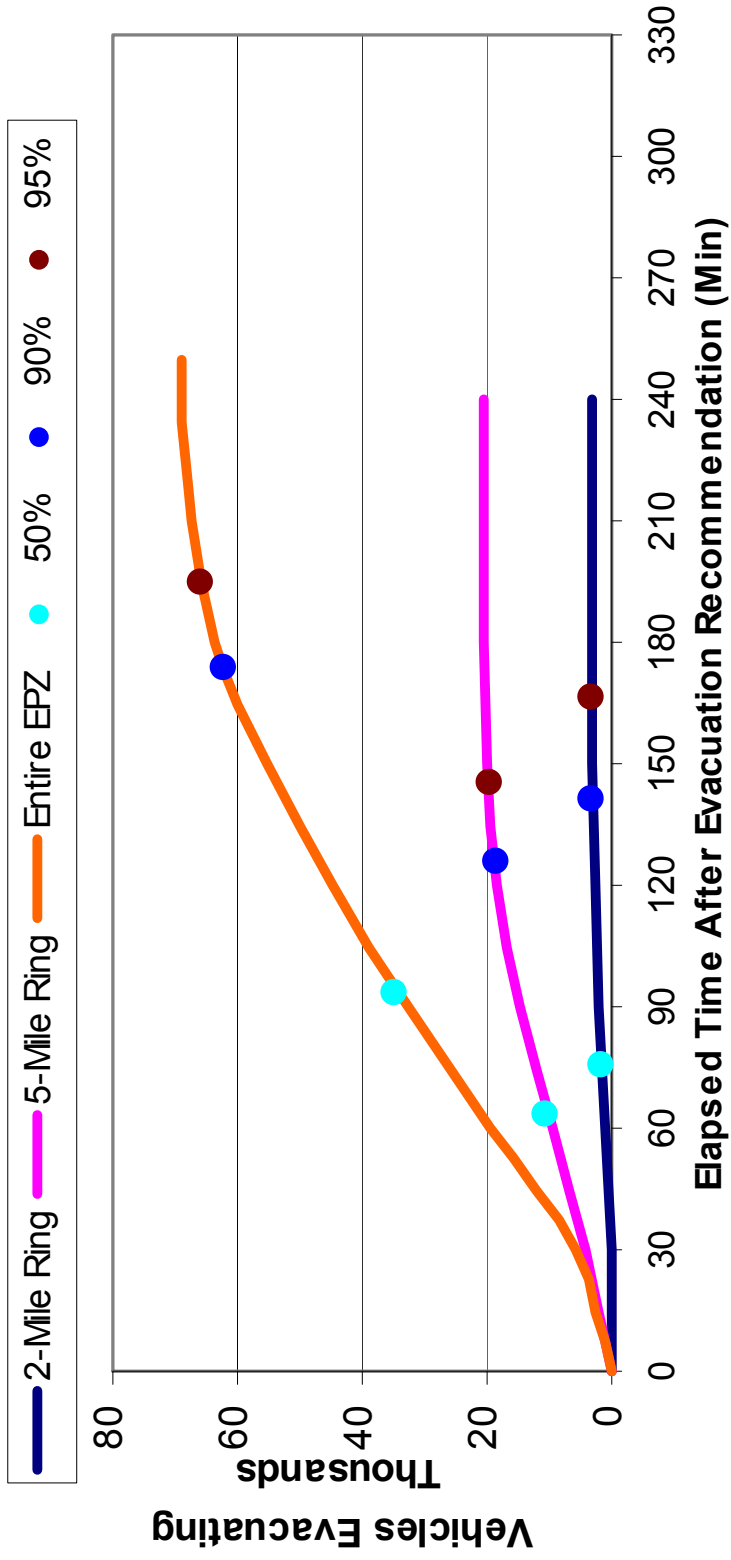


Figure J-6. Evacuation Time Estimates –
 Scenario 6 for Region R03 (Entire EPZ)

Evacuation Time Estimates Winter, Midweek, Midday, Rain (Scenario 7)

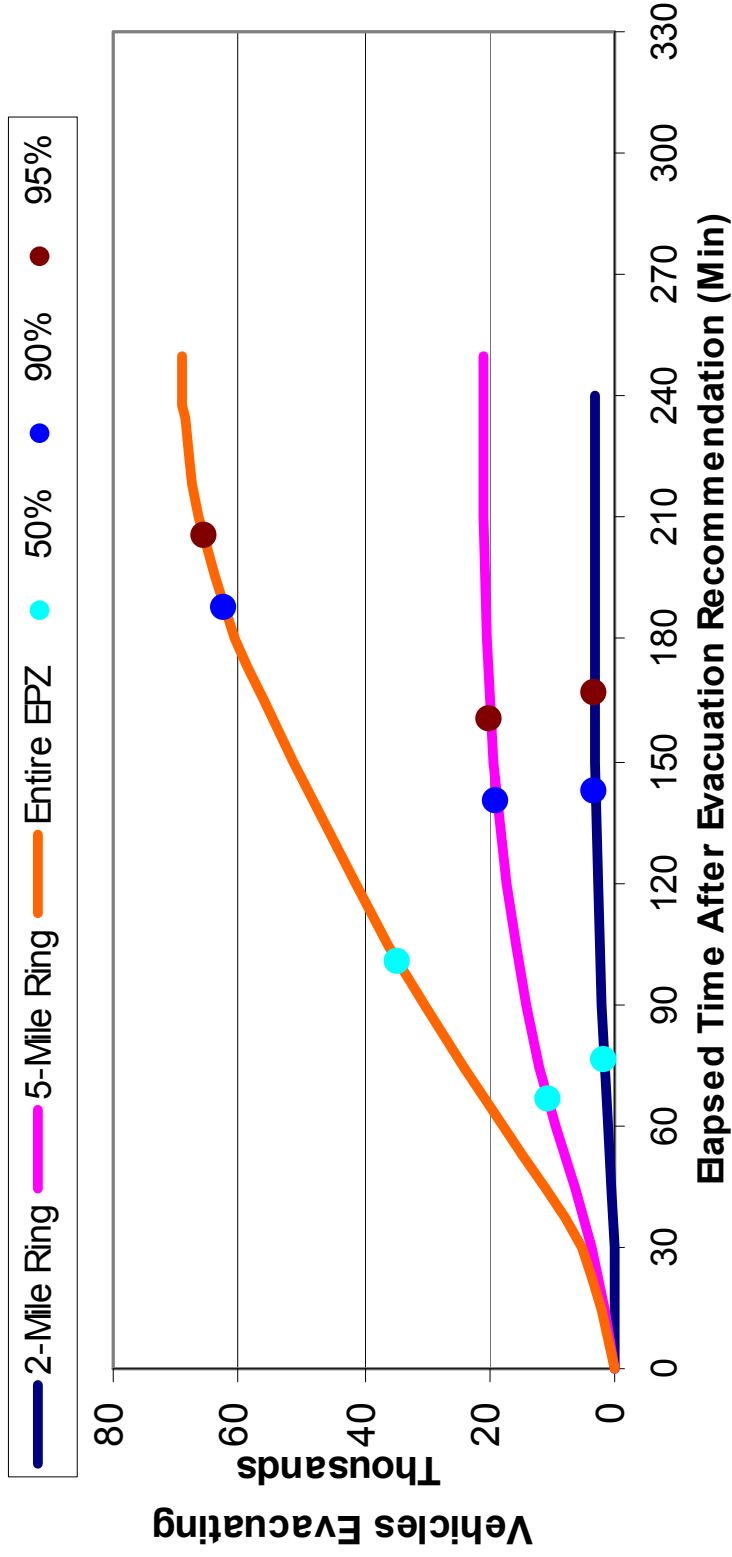


Figure J-7. Evacuation Time Estimates –
Scenario 7 for Region R03 (Entire EPZ)

Evacuation Time Estimates Winter, Midweek, Midday, Snow (Scenario 8)

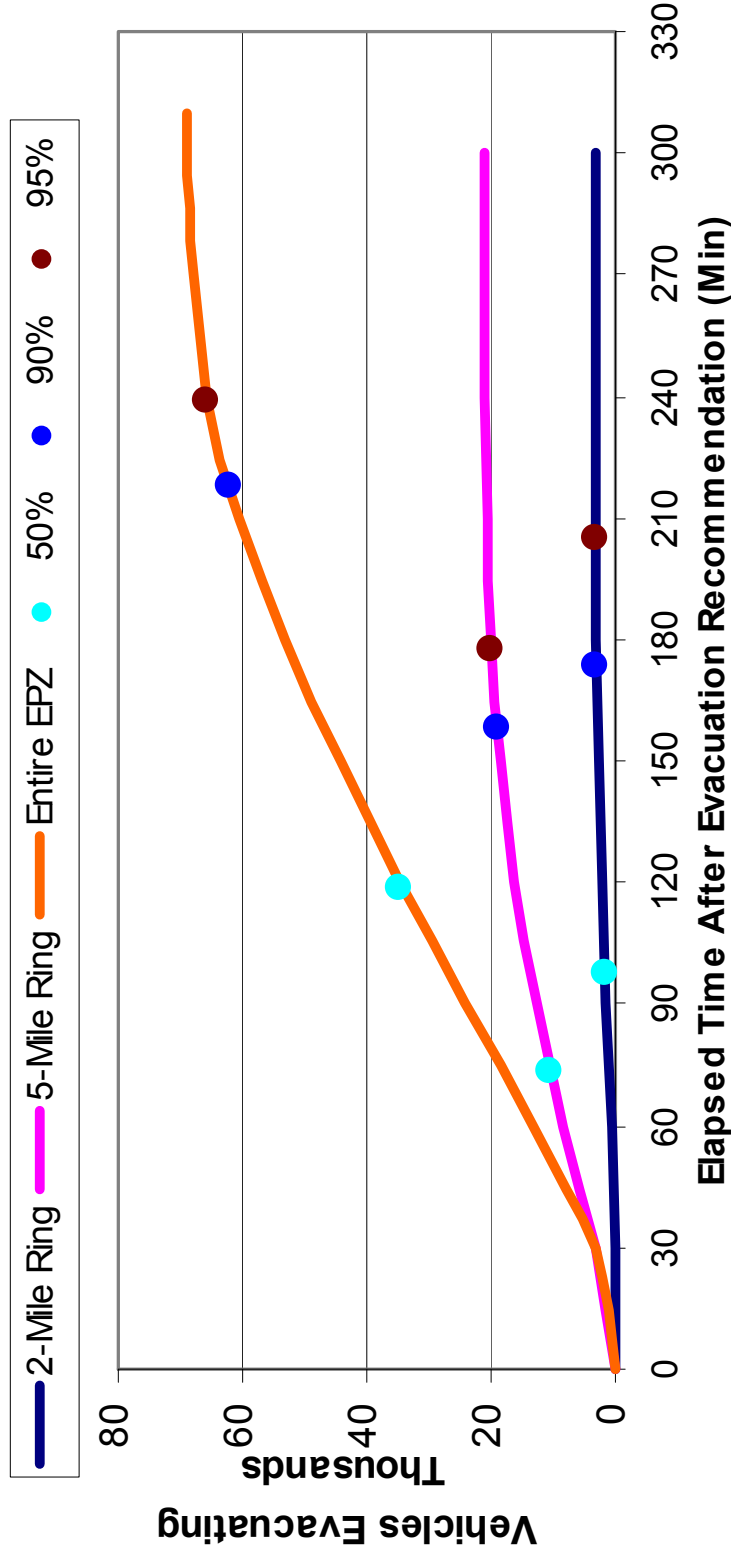


Figure J-8. Evacuation Time Estimates –
Scenario 8 for Region R03 (Entire EPZ)

Evacuation Time Estimates Winter, Weekend, Midday, Good Weather (Scenario 9)

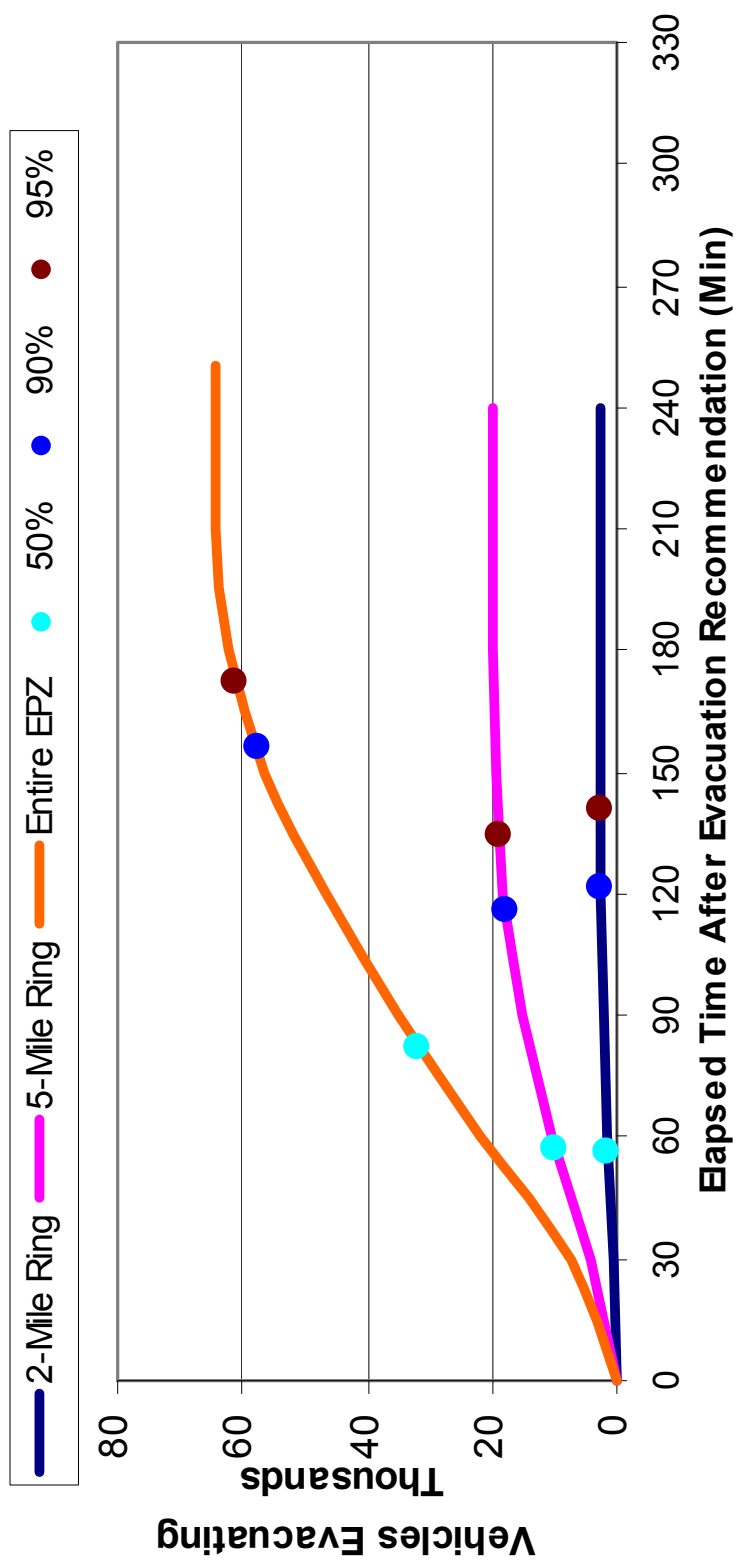


Figure J-9. Evacuation Time Estimates –
Scenario 9 for Region R03 (Entire EPZ)

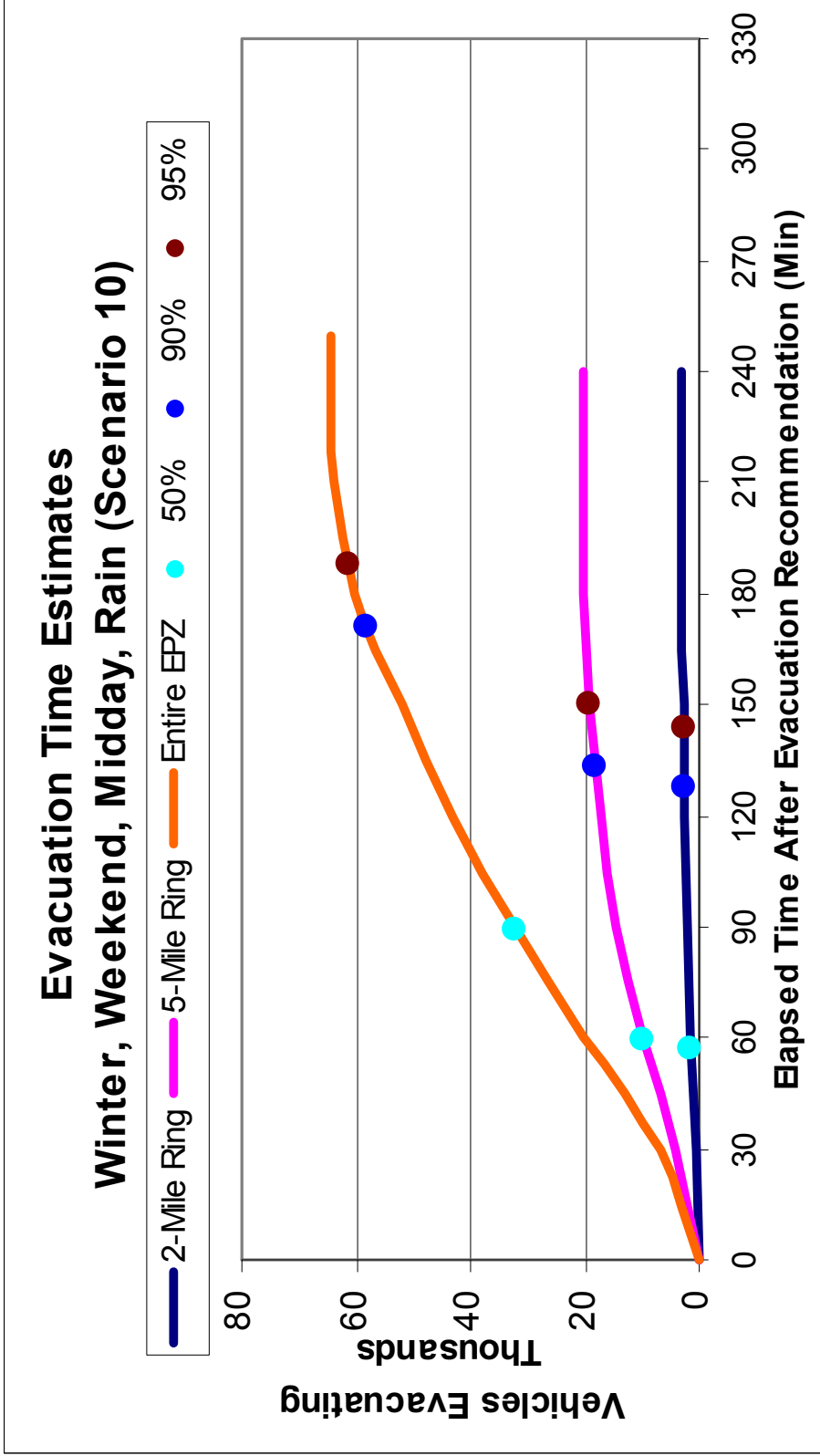


Figure J-10. Evacuation Time Estimates –
Scenario 10 for Region R03 (Entire EPZ)

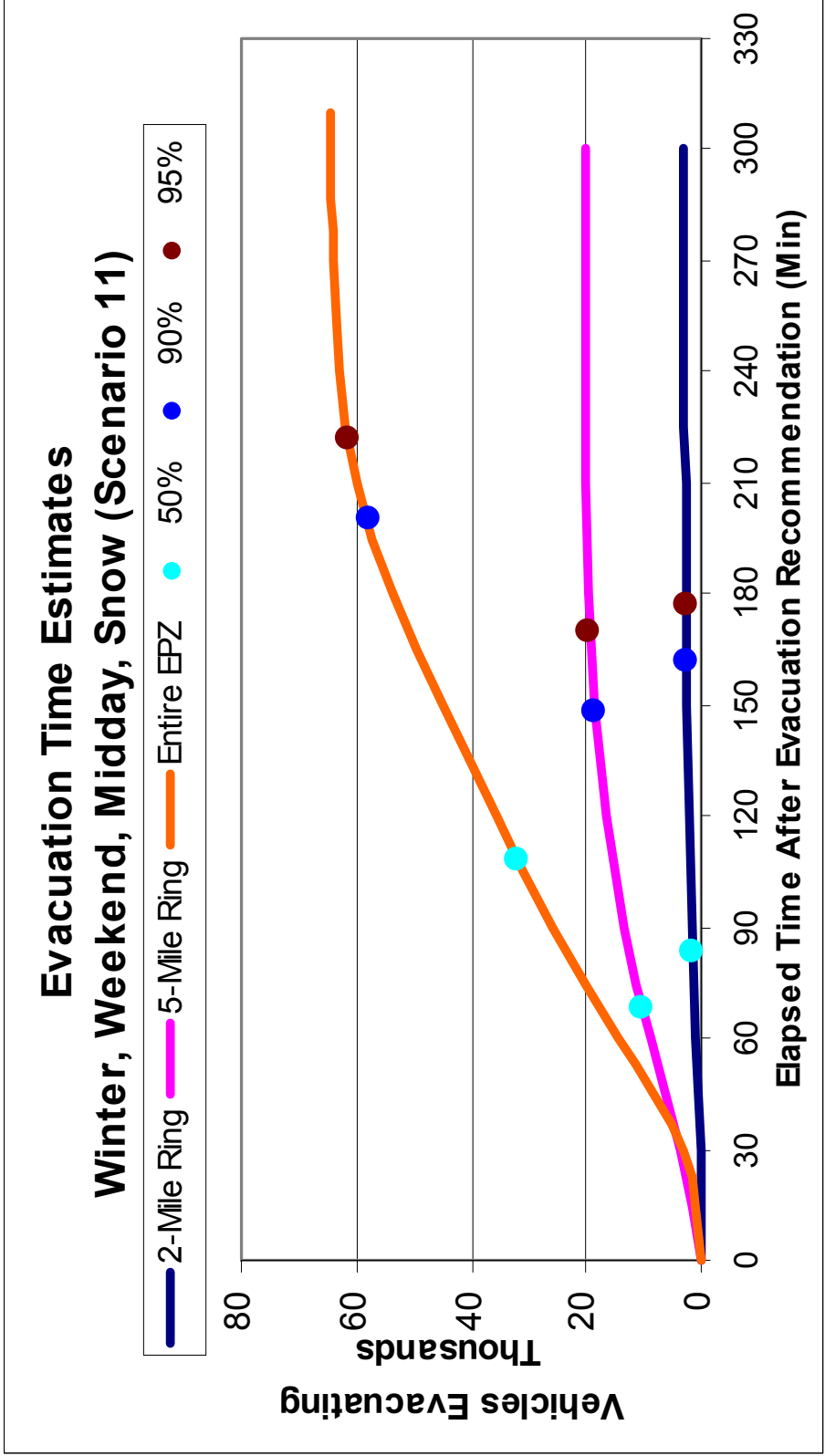


Figure J-11. Evacuation Time Estimates –
Scenario 11 for Region R03 (Entire EPZ)

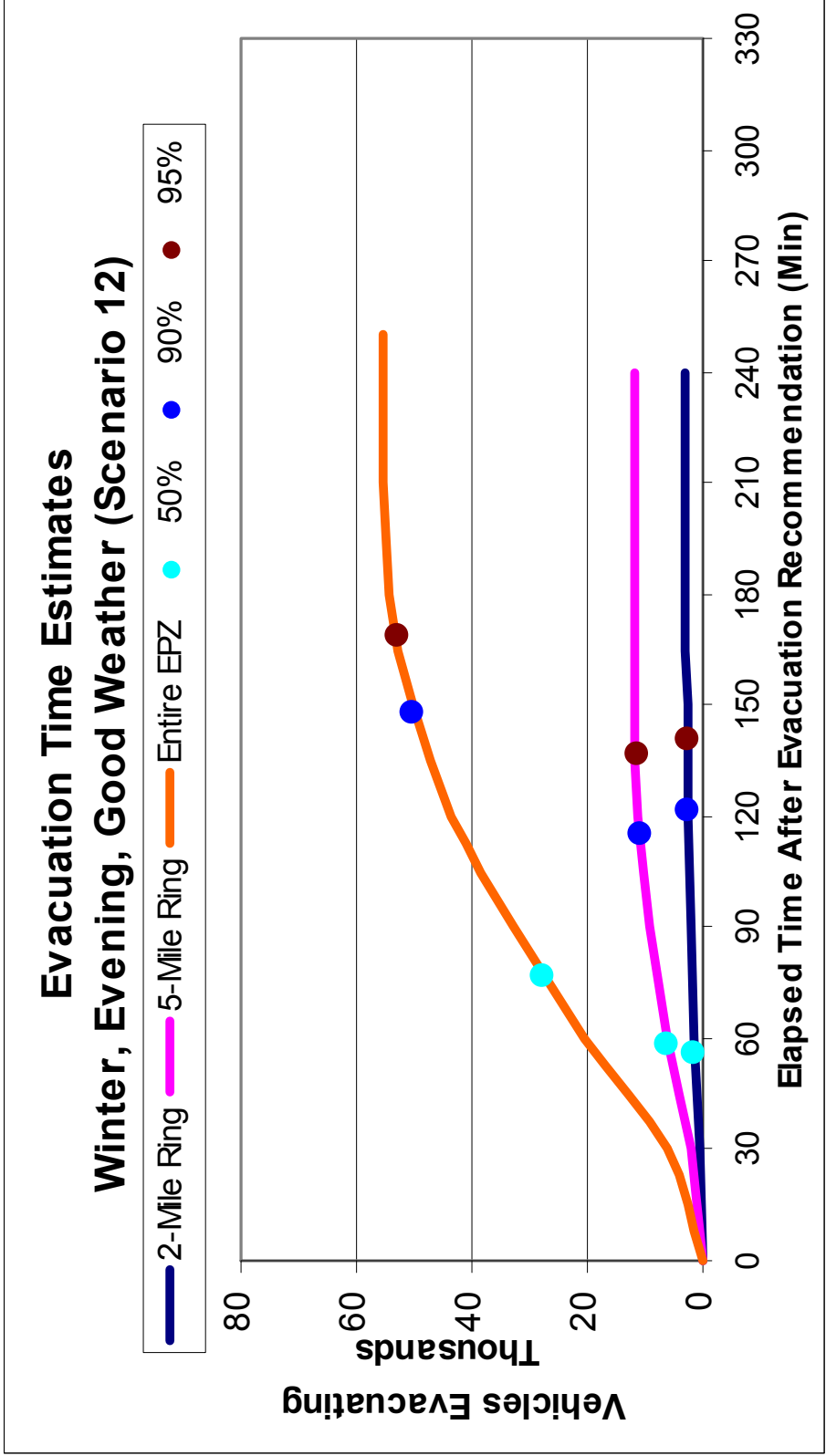


Figure J-12. Evacuation Time Estimates –
Scenario 12 for Region R03 (Entire EPZ)

Evacuation Time Estimates **Summer, Weekend, Midday, Good Weather** **Jazz Festival (Scenario 13)**

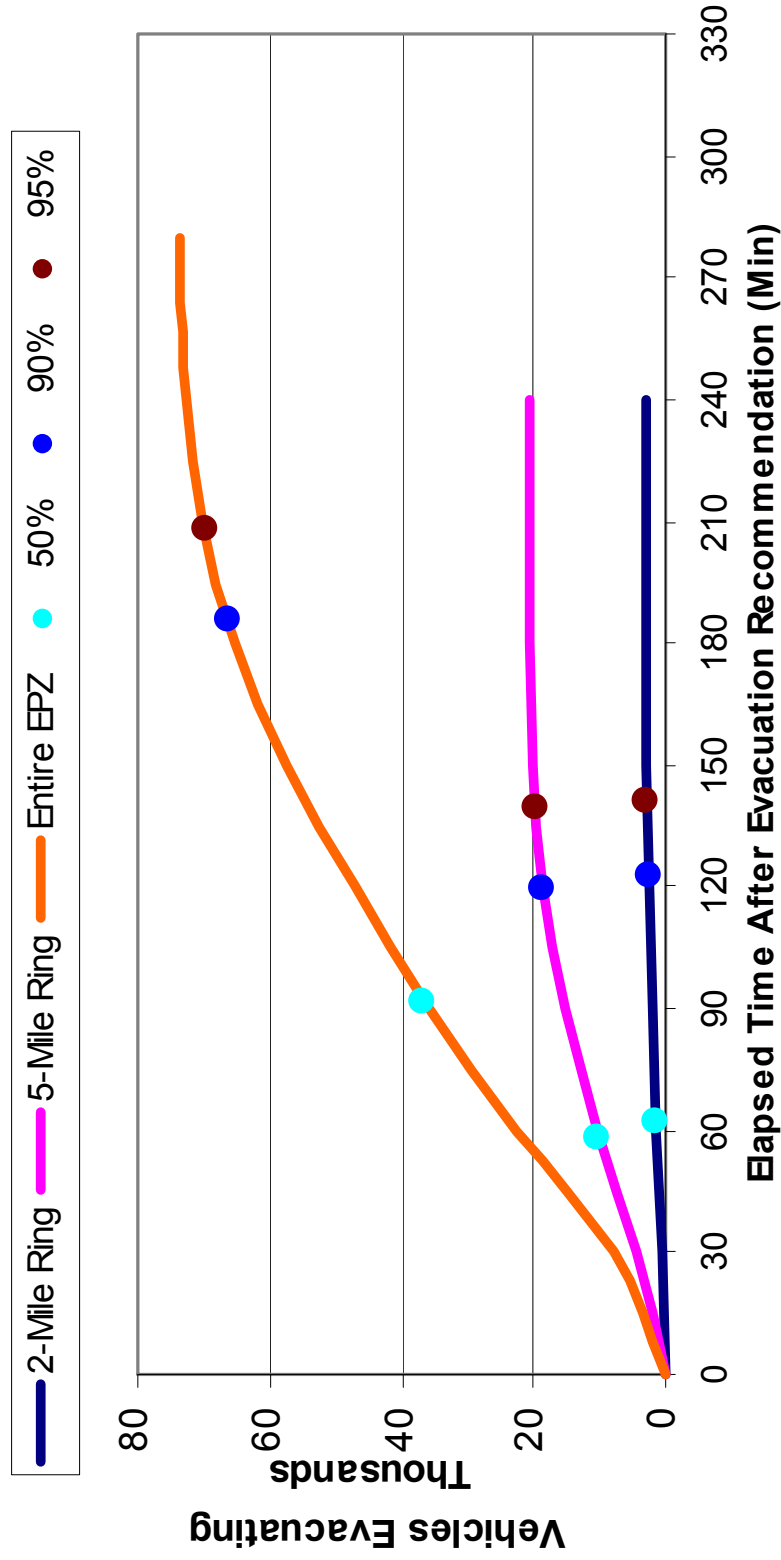


Figure J-13. Evacuation Time Estimates –
 Scenario 13 for Region R03 (Entire EPZ)

Evacuation Time Estimates Summer, Midweek, Midday, Good Weather Construction + Refueling (Scenario 14)

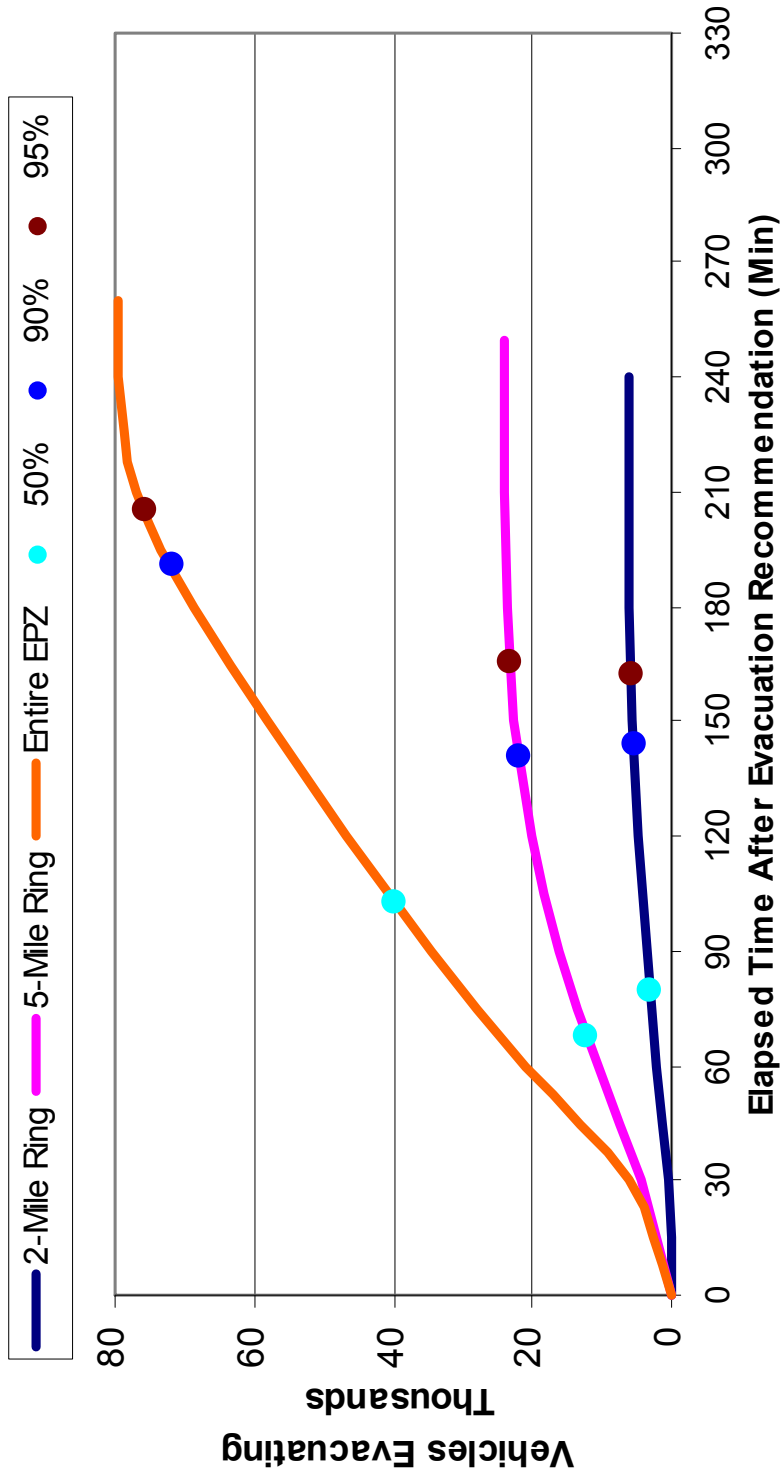


Figure J-14. Evacuation Time Estimates –
 Scenario 14 for Region R03 (Entire EPZ)

APPENDIX K

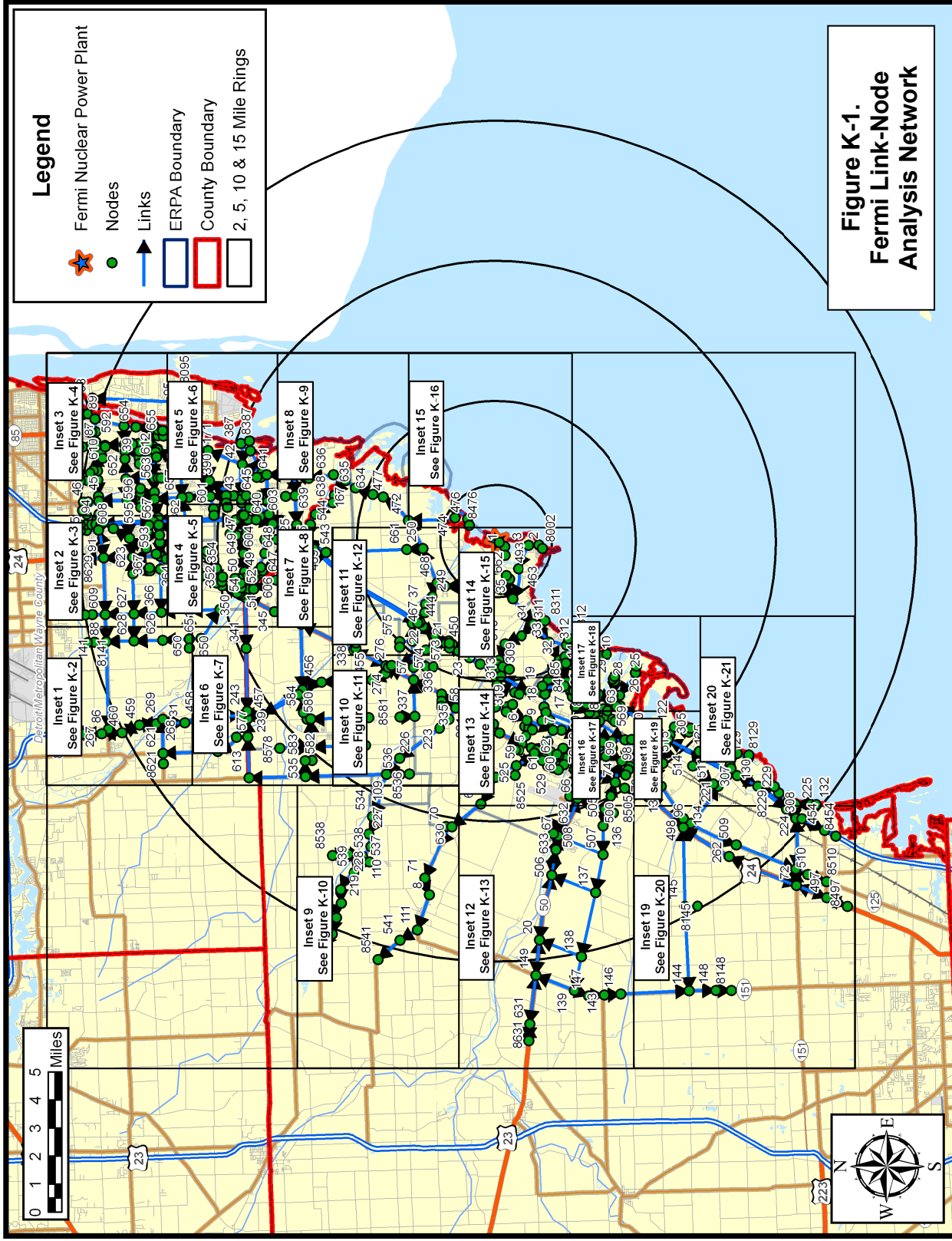
Evacuation Roadway Network

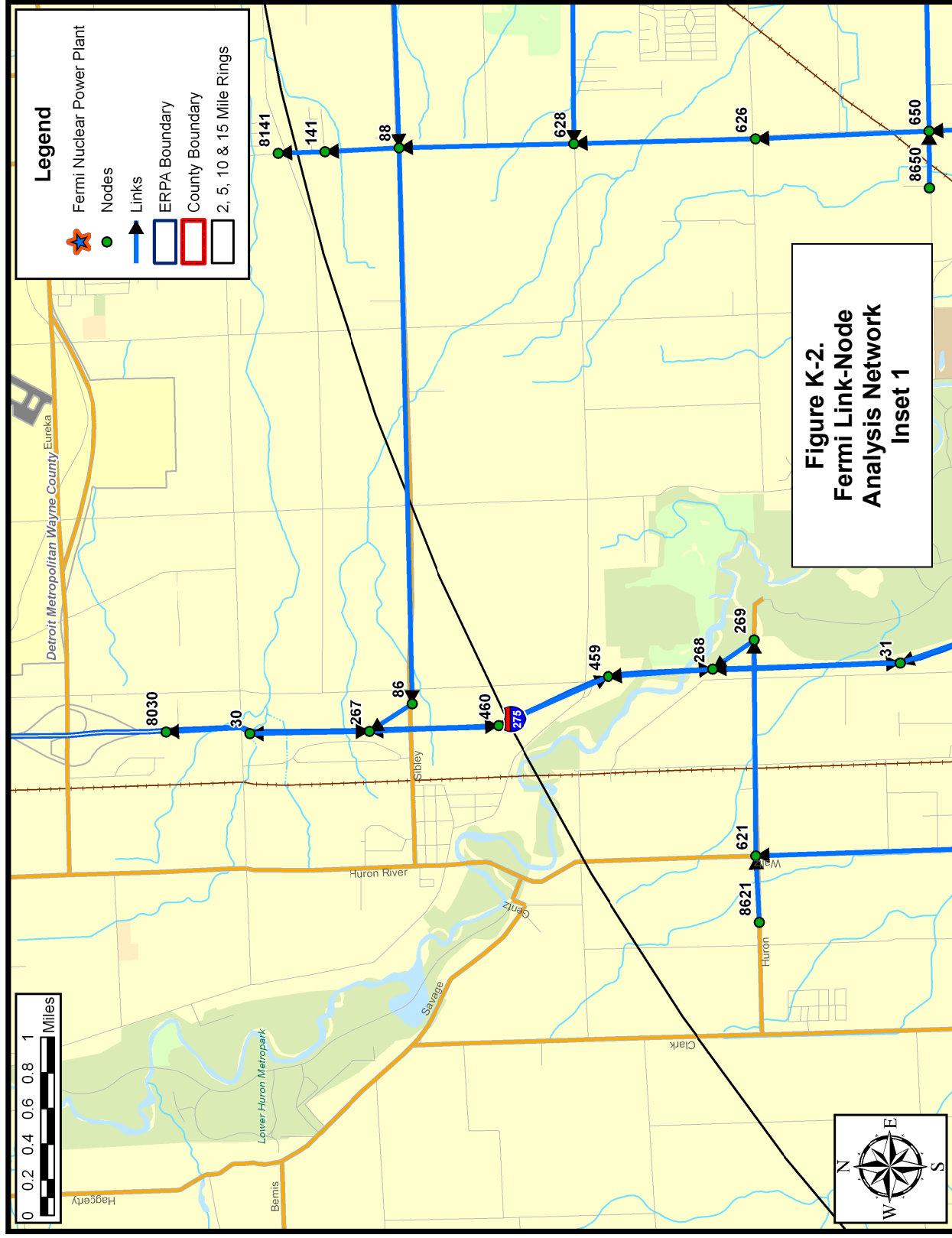
Appendix K: Evacuation Roadway Network

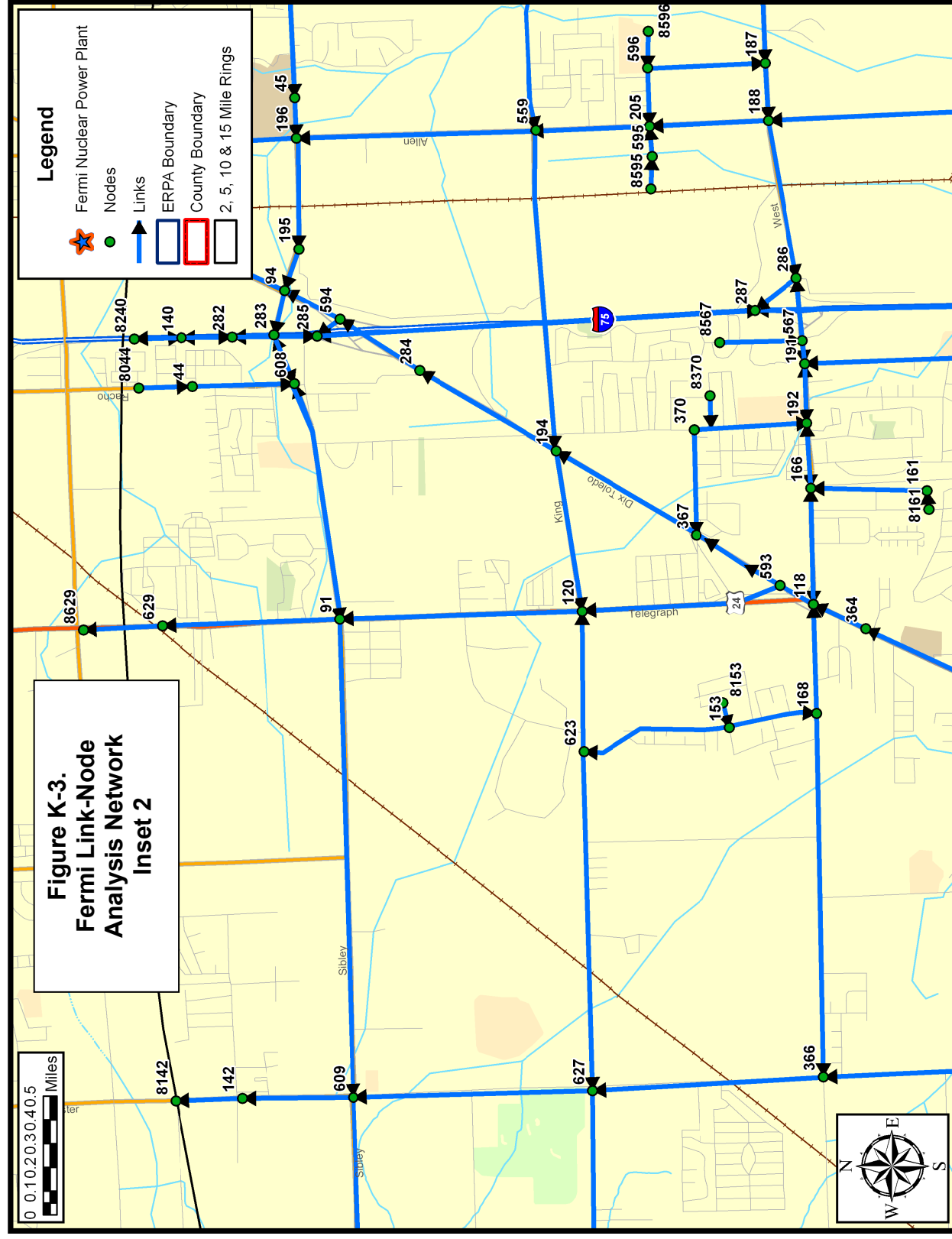
As discussed in Section 1.3, a computerized link-node analysis network was constructed to model the roadway network within the study area. Figure K-1 provides an overview of the link-node analysis network. The figure has been divided up into 20 more detailed figures (Figures K-2 through K-21) which show each of the links and nodes in the network.

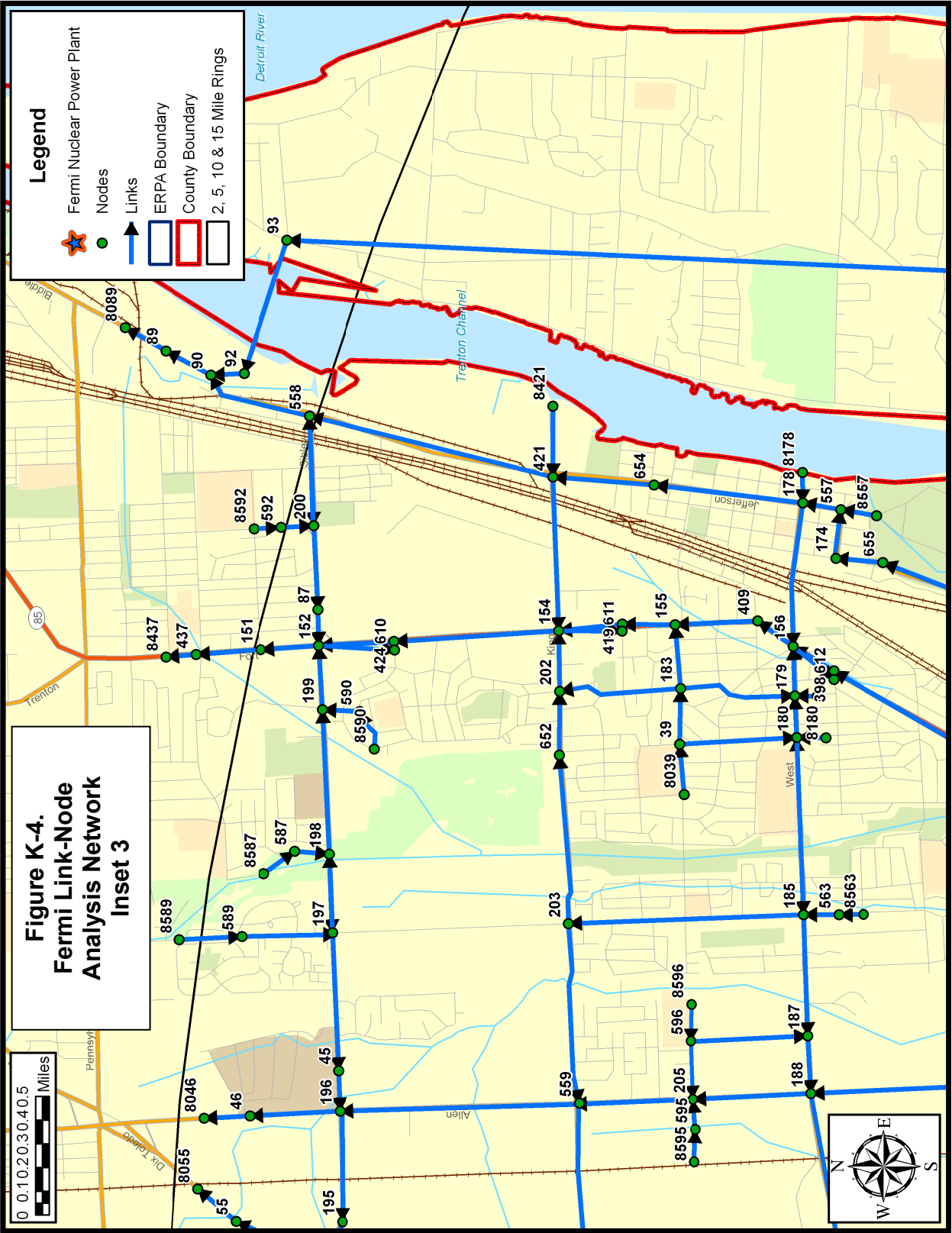
The analysis network was calibrated using the observations made during the field survey conducted in January 2008. Table K-1 lists the characteristics of each roadway section modeled in the ETE analysis. Each link is identified by its upstream and downstream node numbers. These node numbers can be cross-referenced to Figures K-1 through K-21 to identify the geographic location of each link.

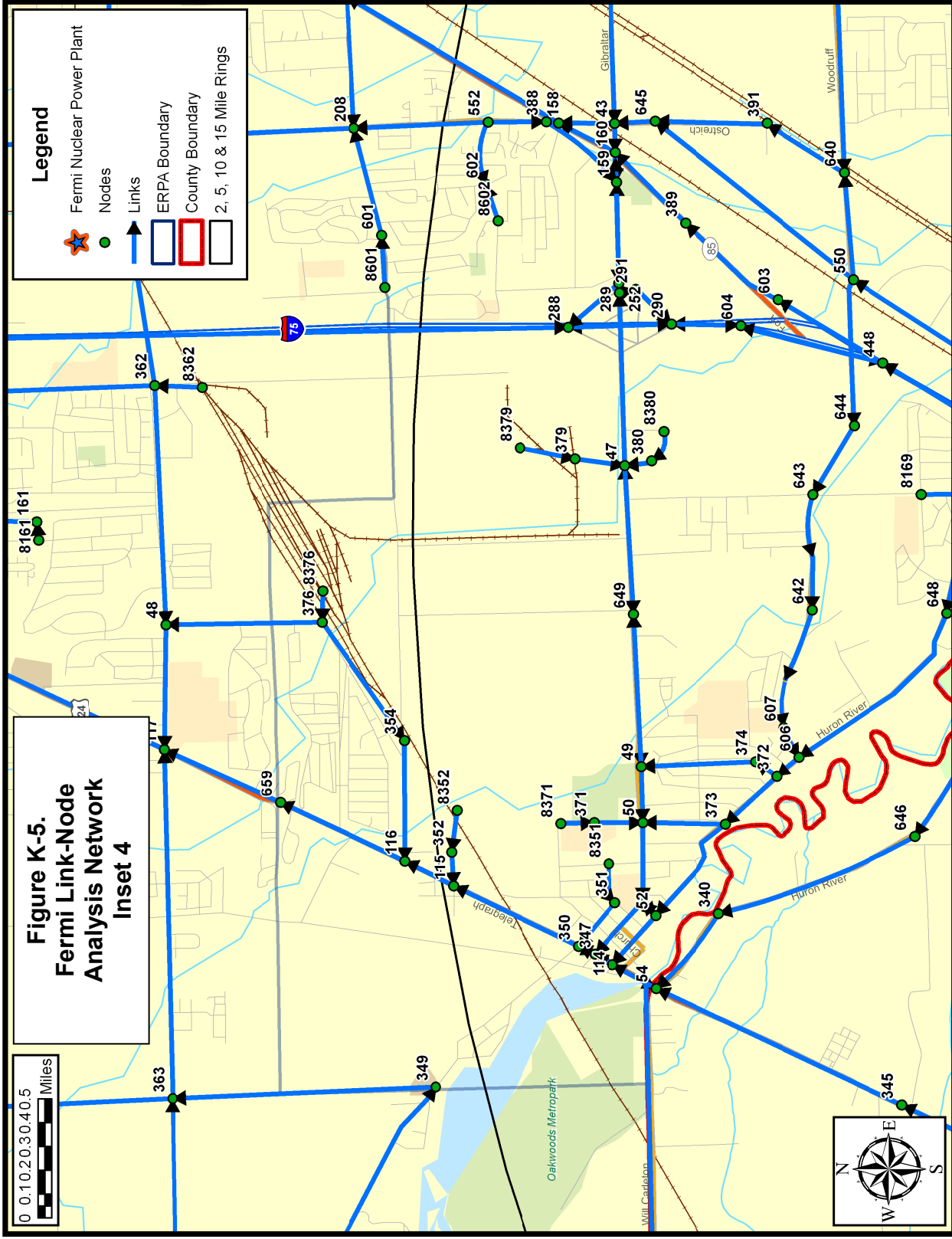
The term, “Full Lanes” in Table K-1 identifies the number of lanes that extend throughout the length of the link. Many links have additional lanes on the immediate approach to an intersection (turn pockets); these have been recorded and entered into the IDYNEV System input stream.

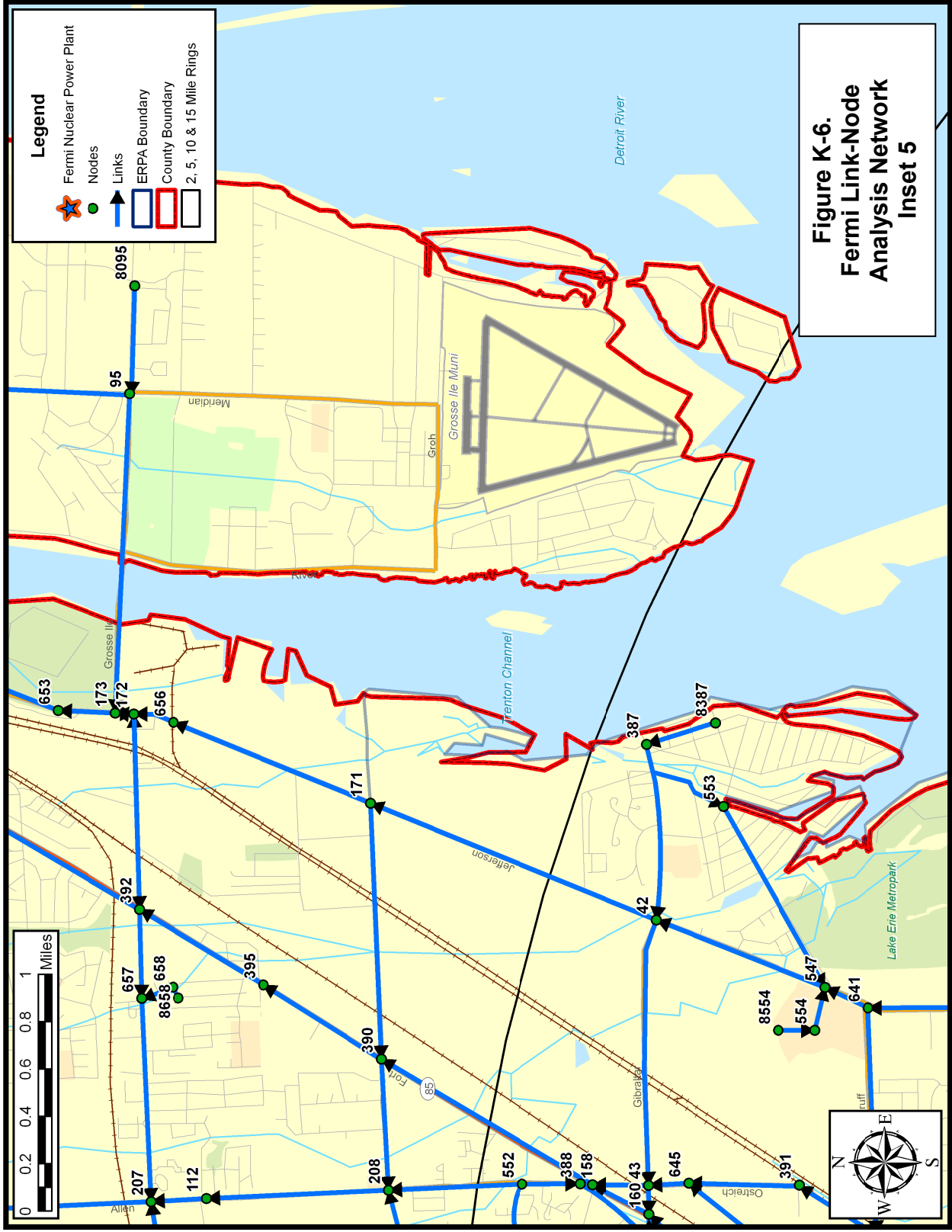


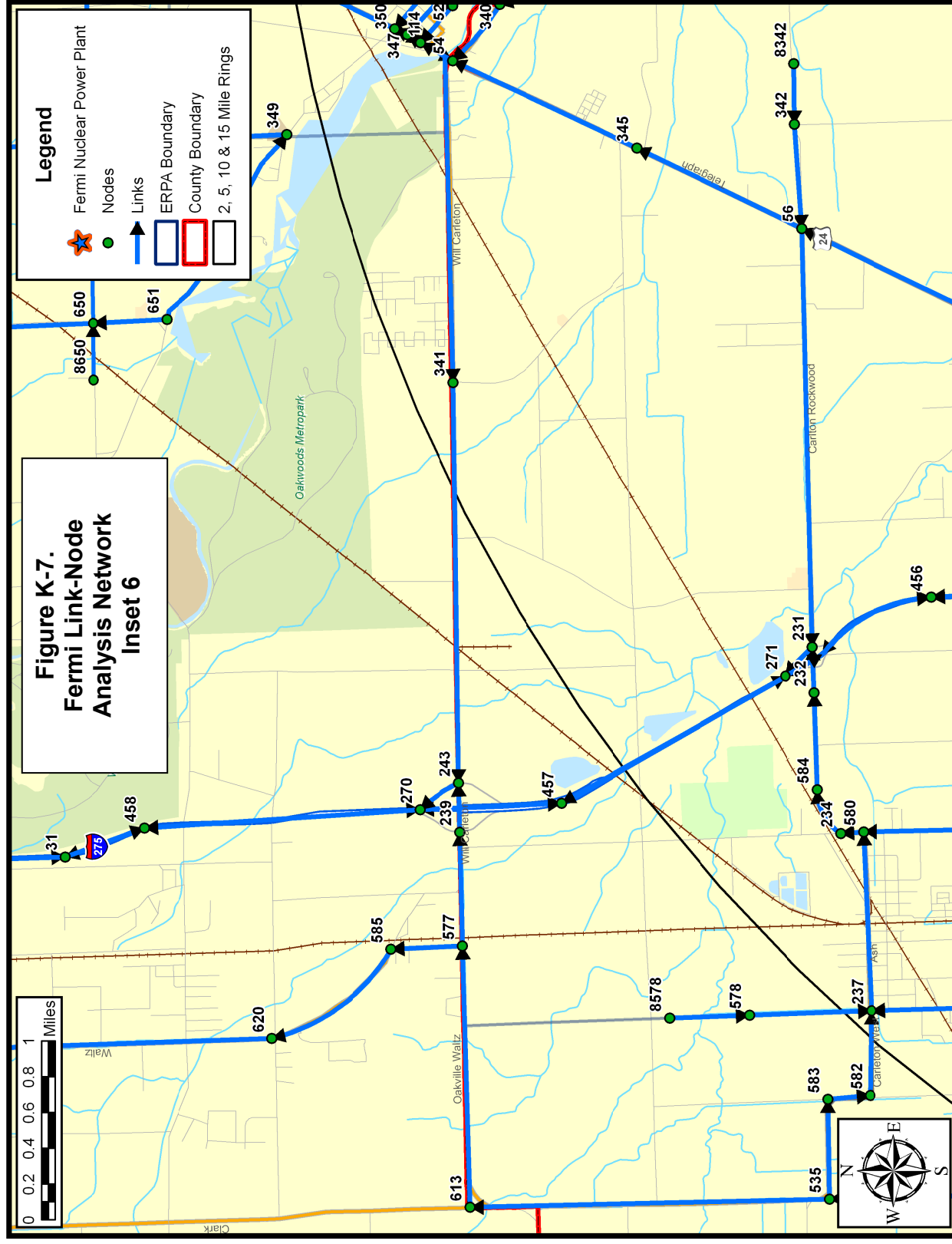


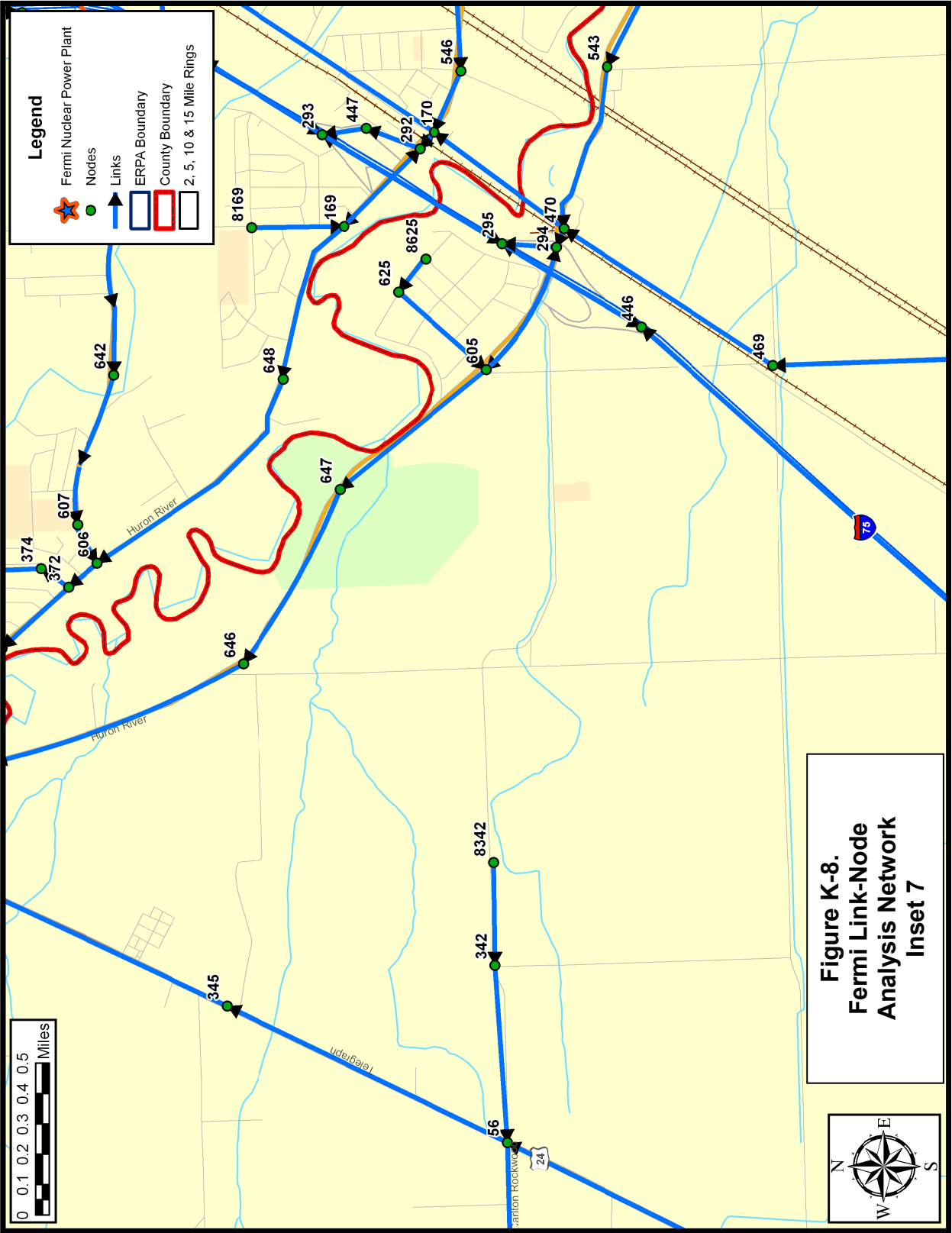


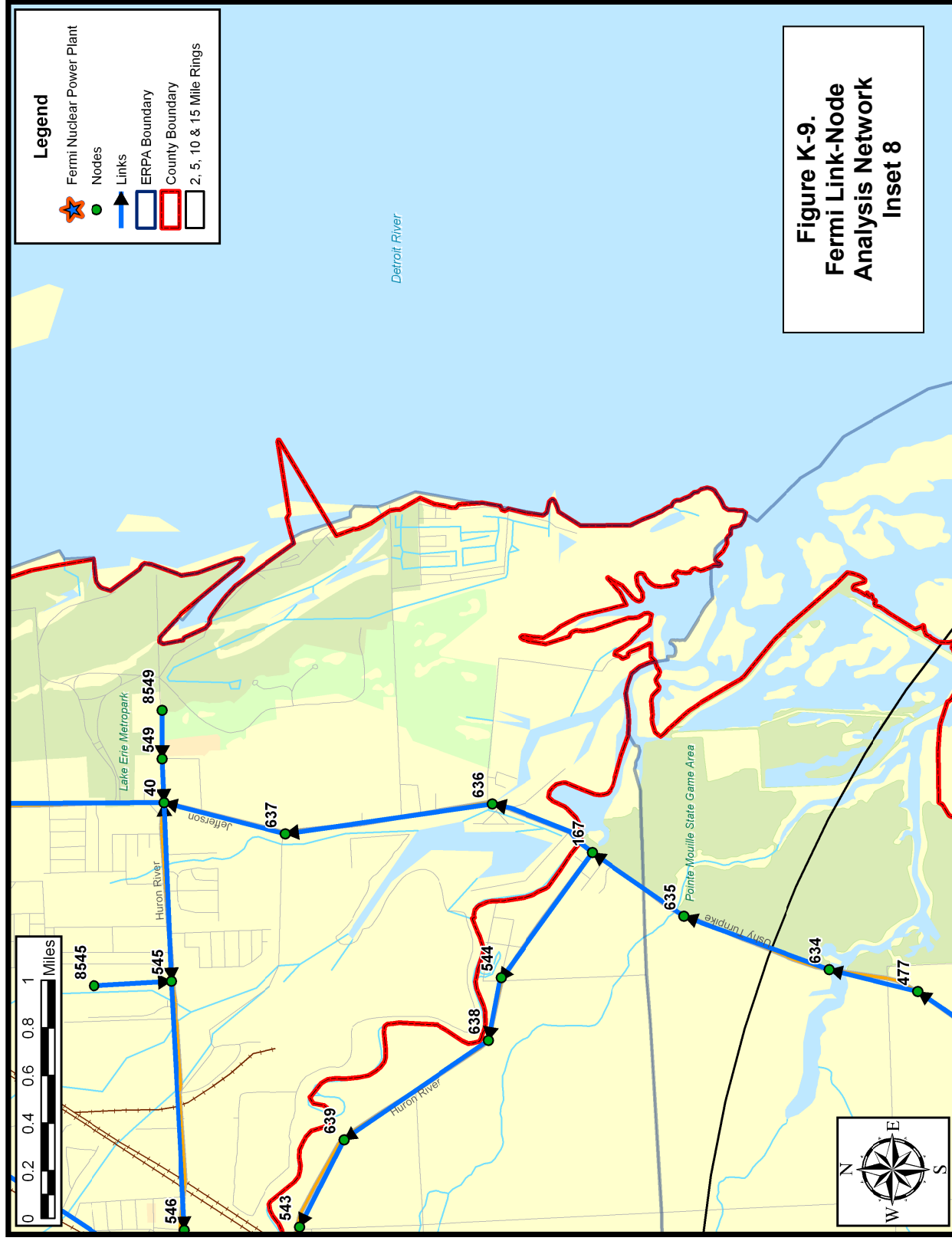


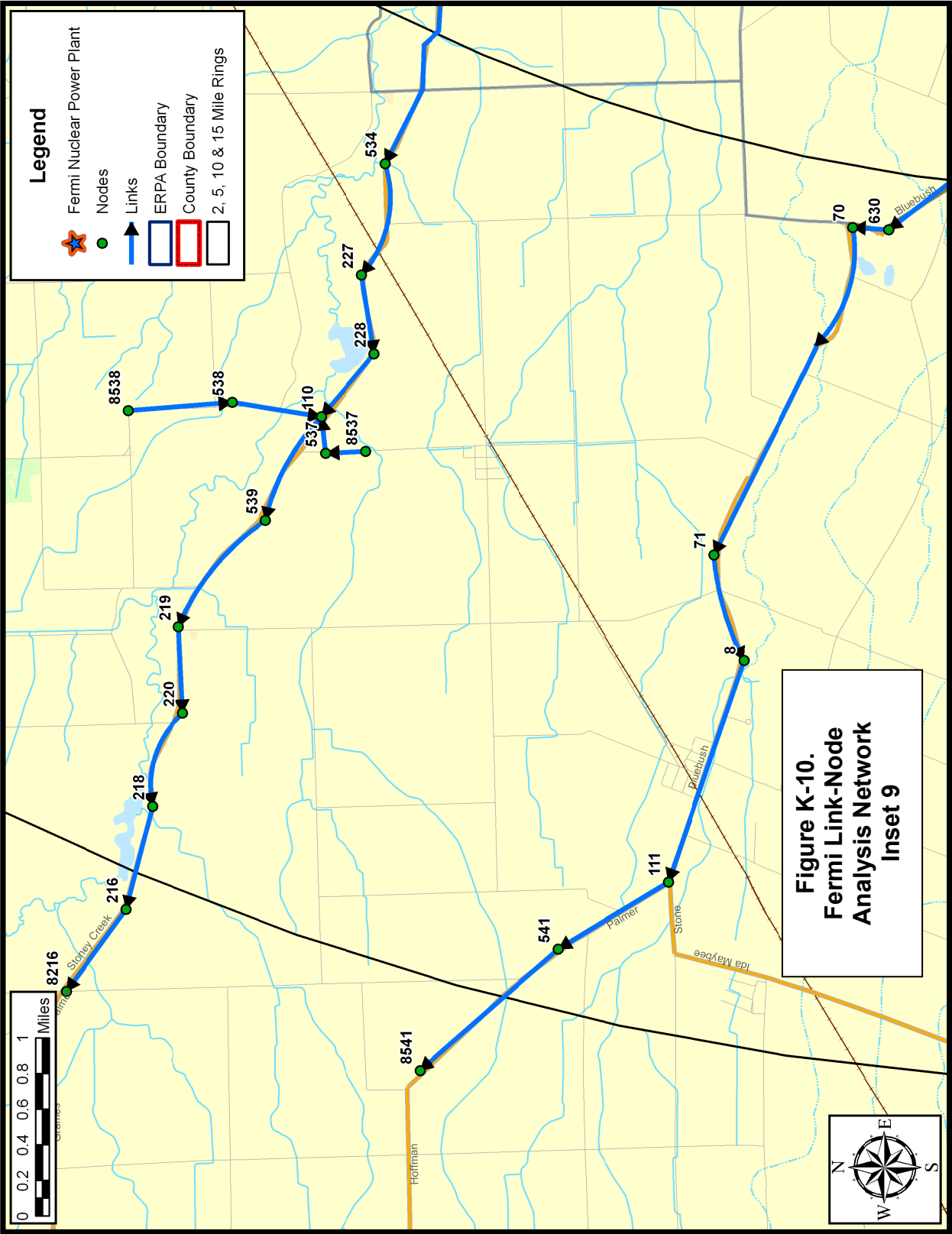


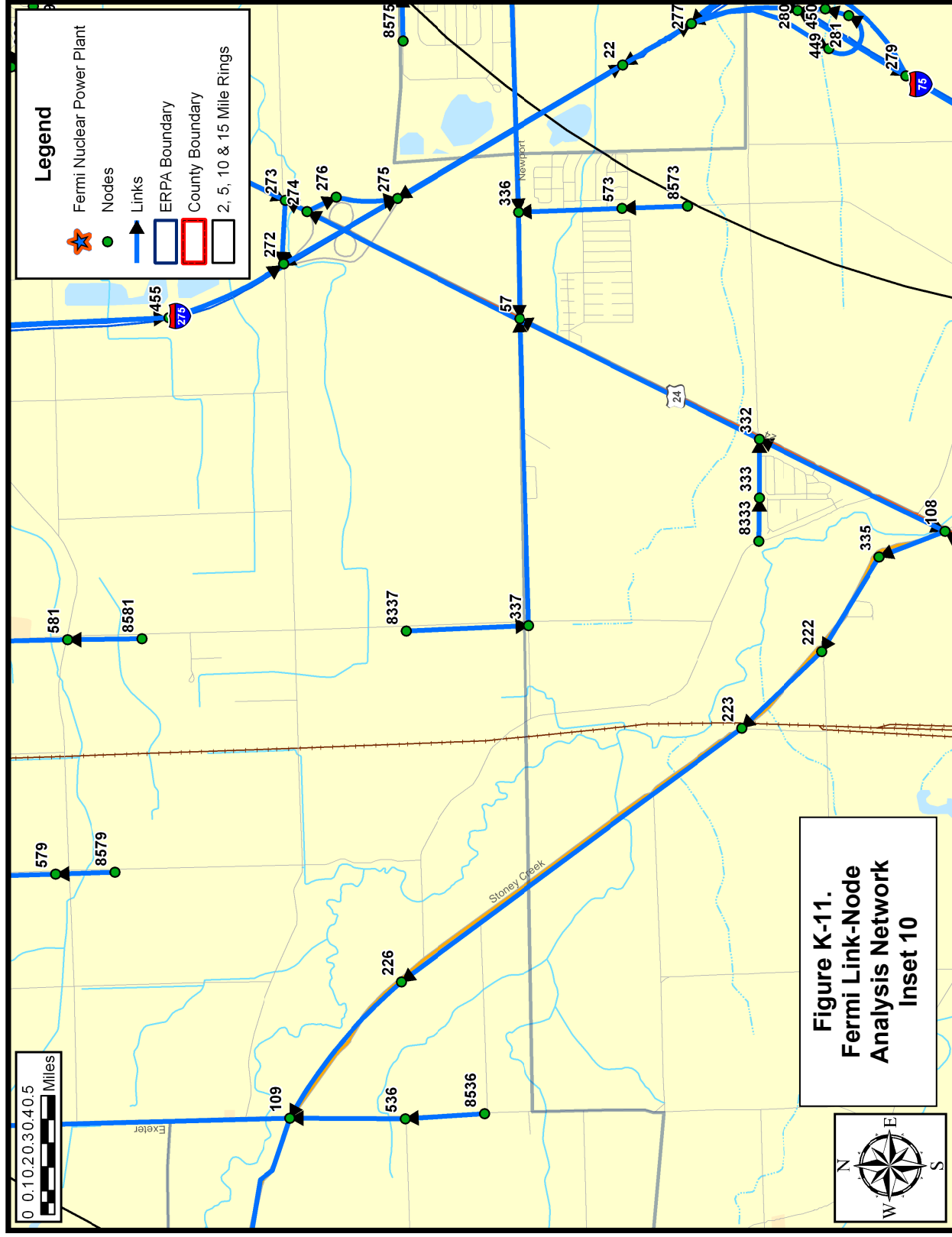


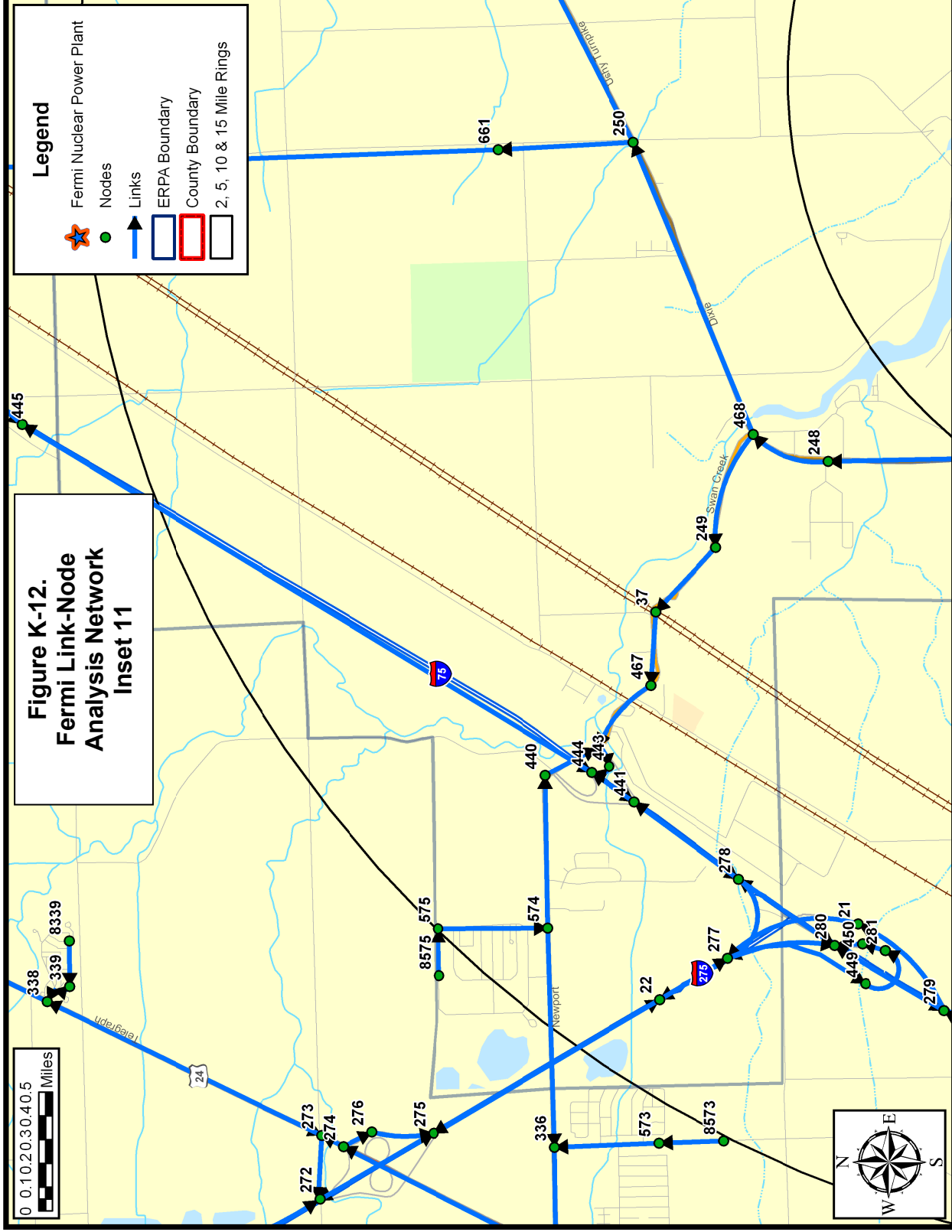


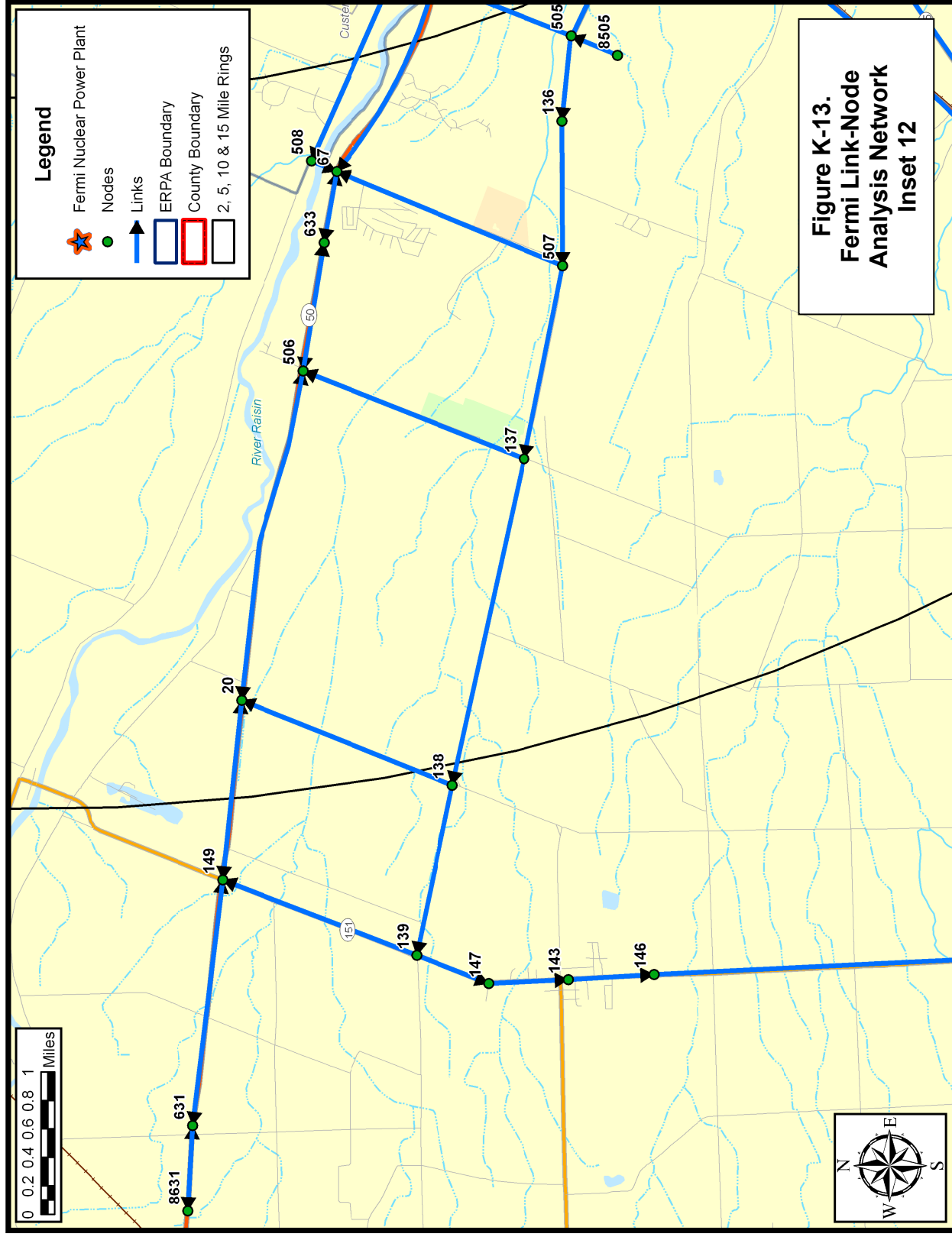


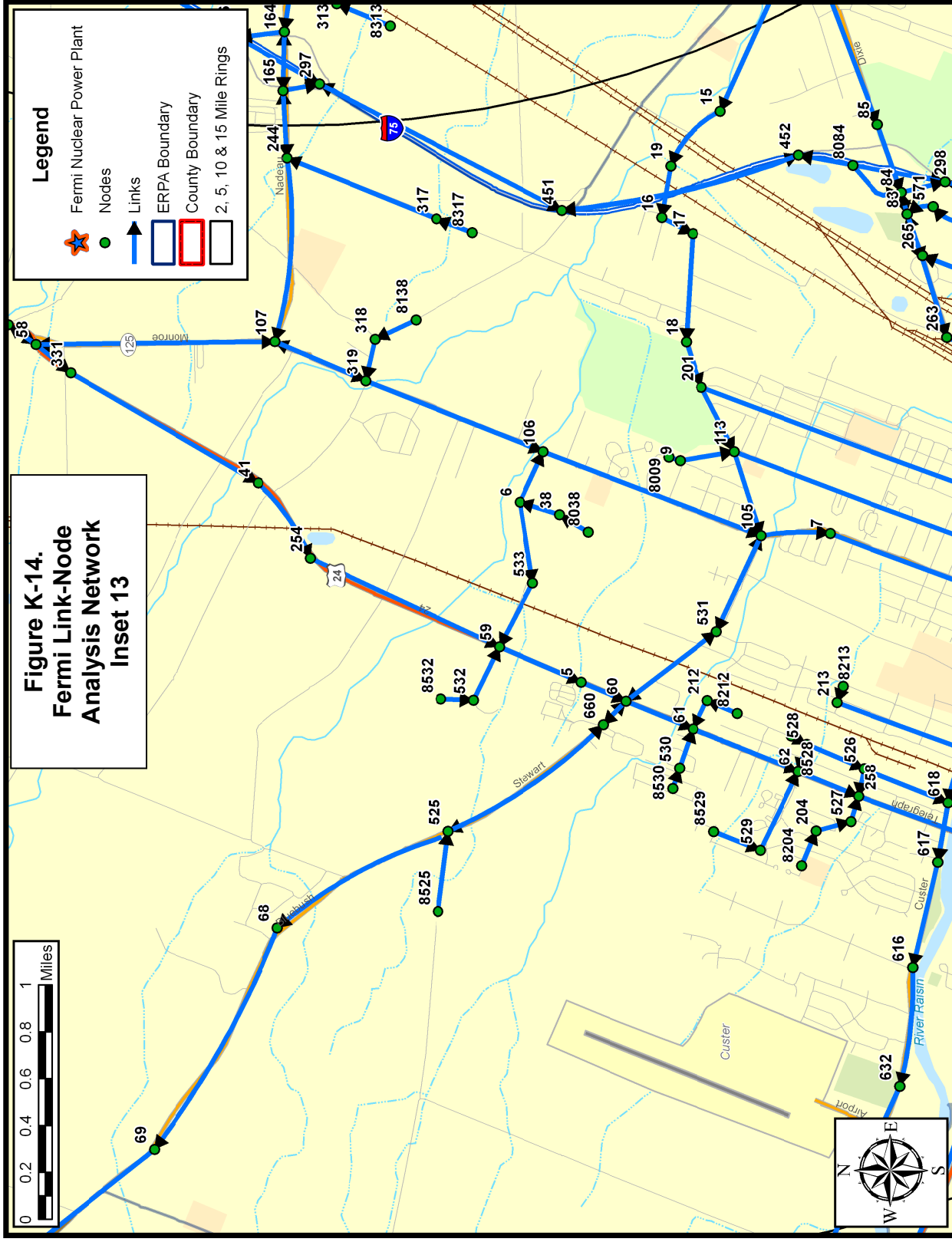


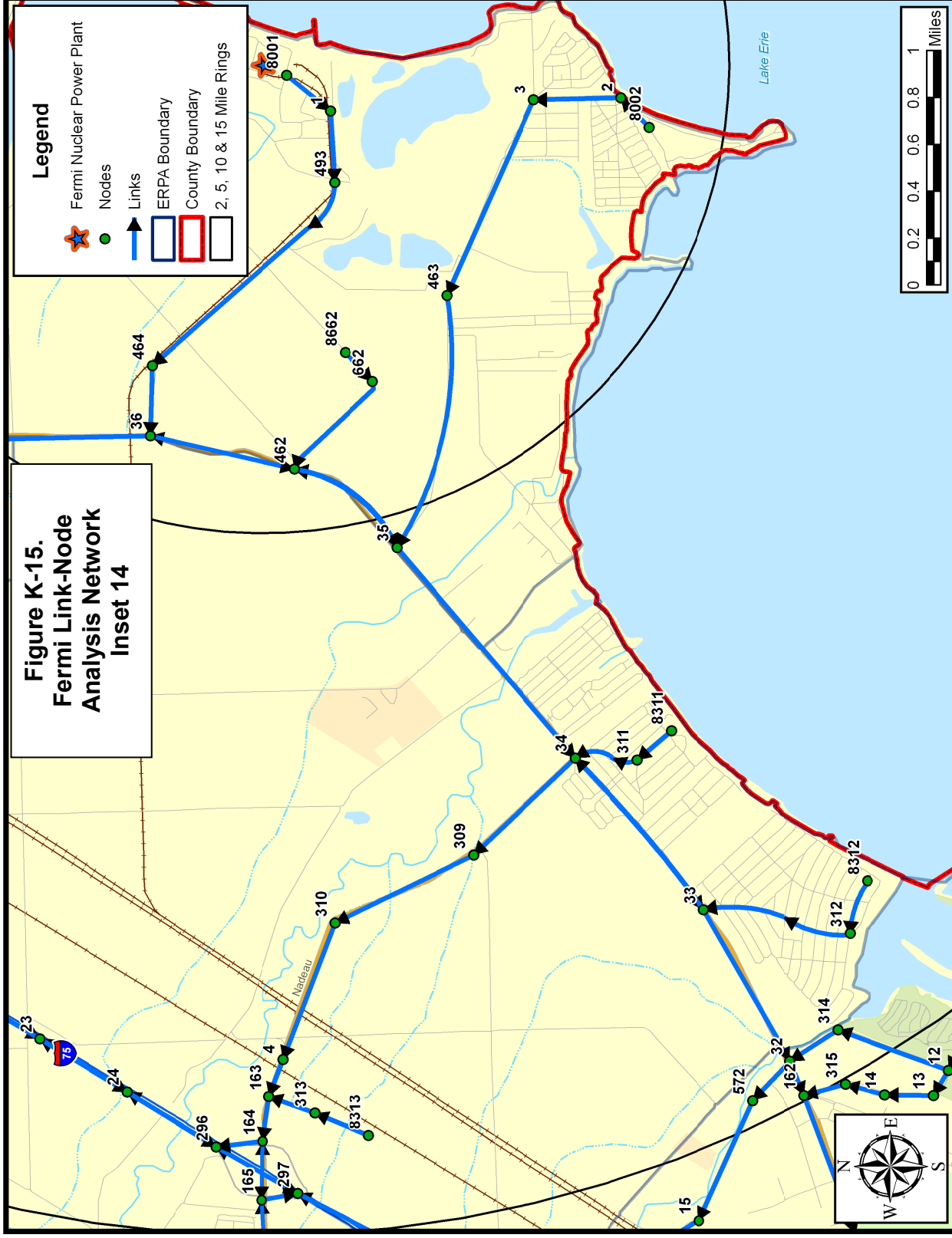


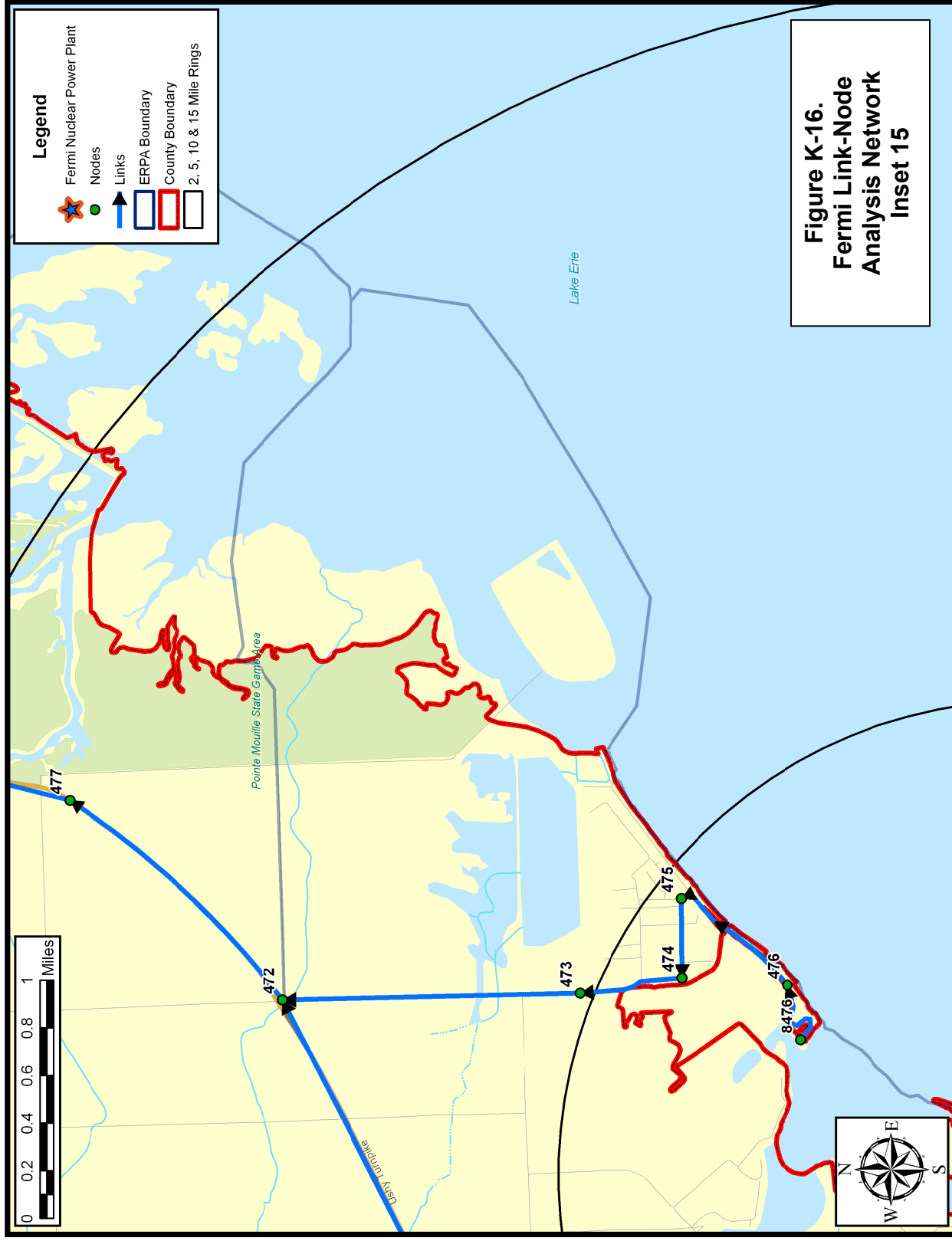


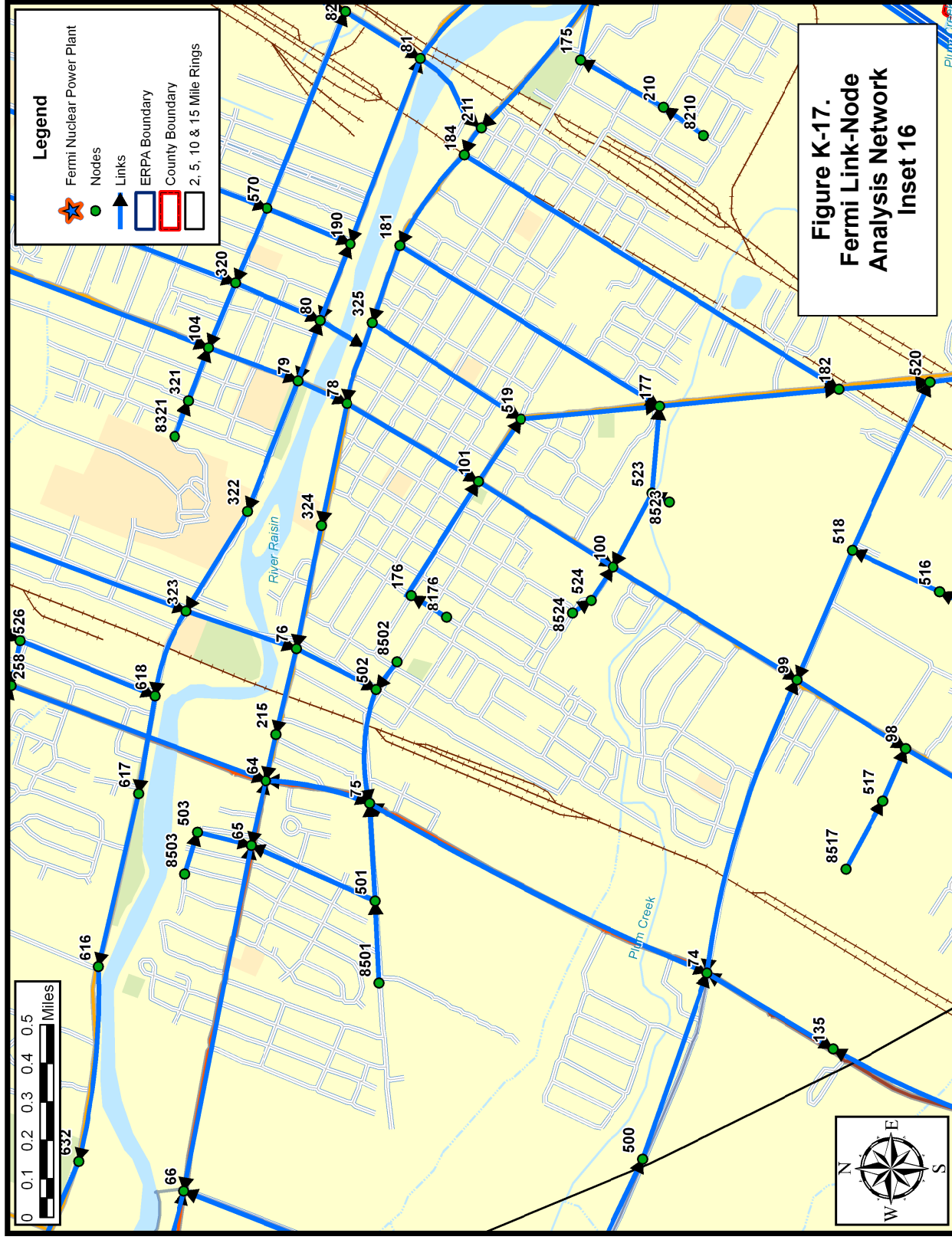


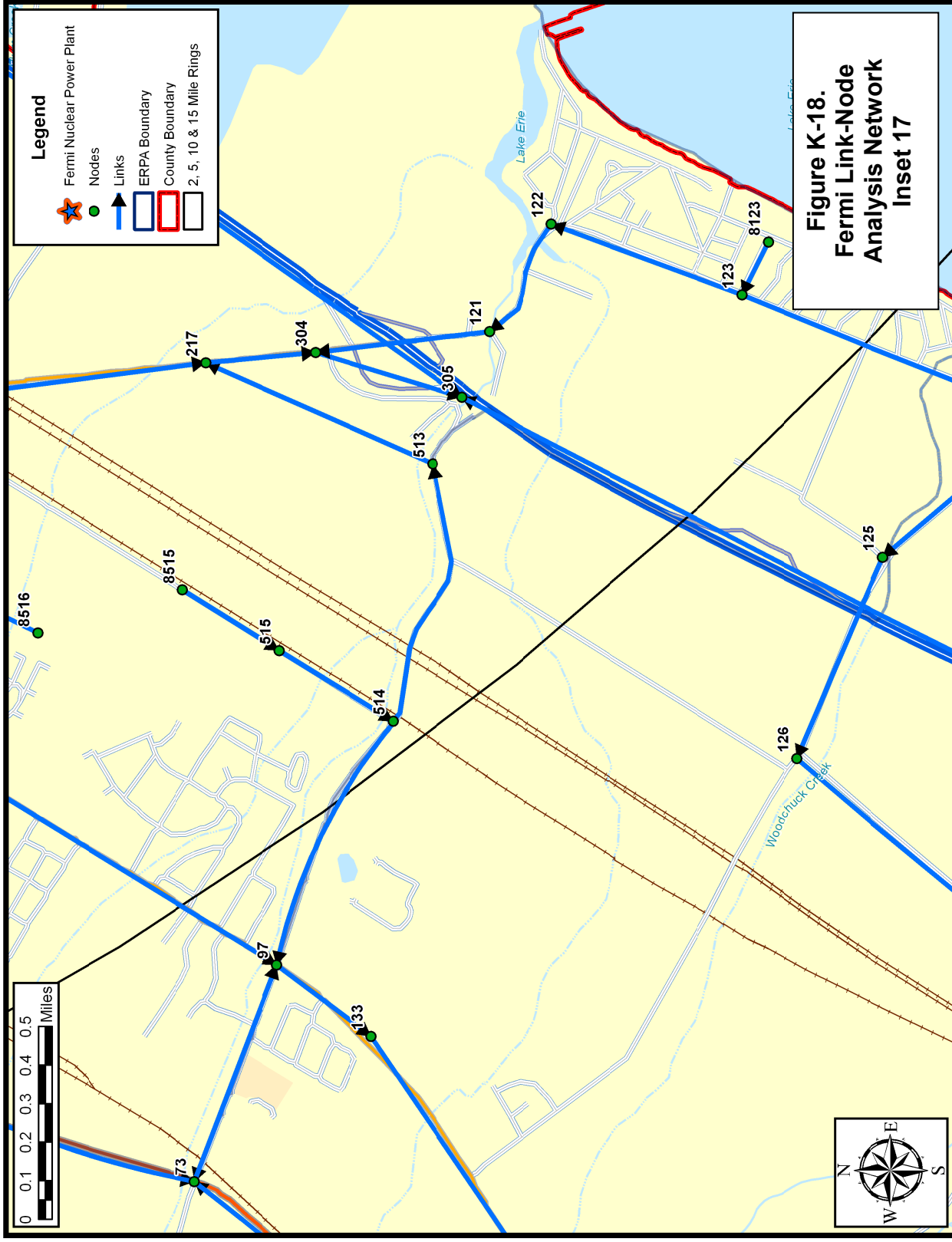


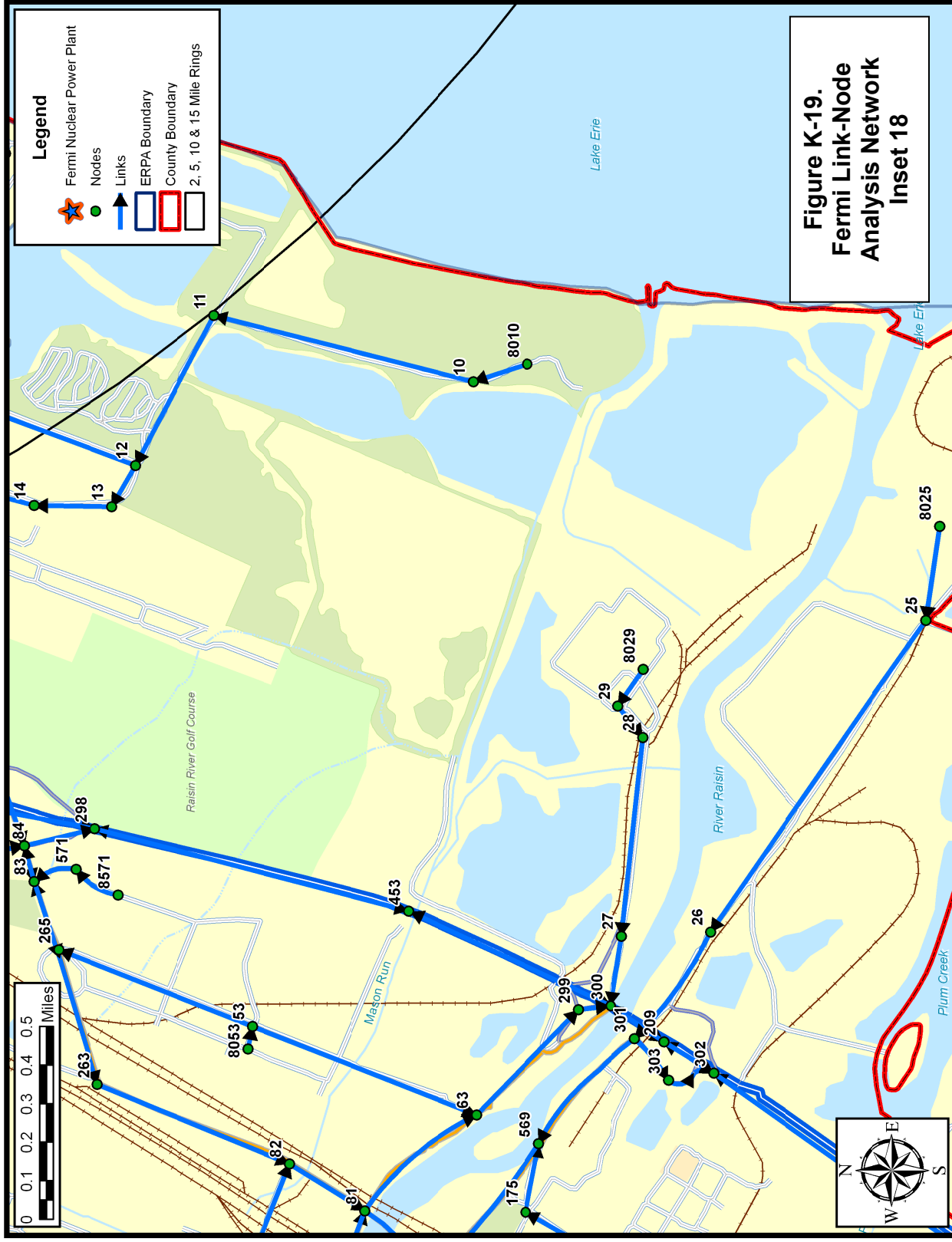


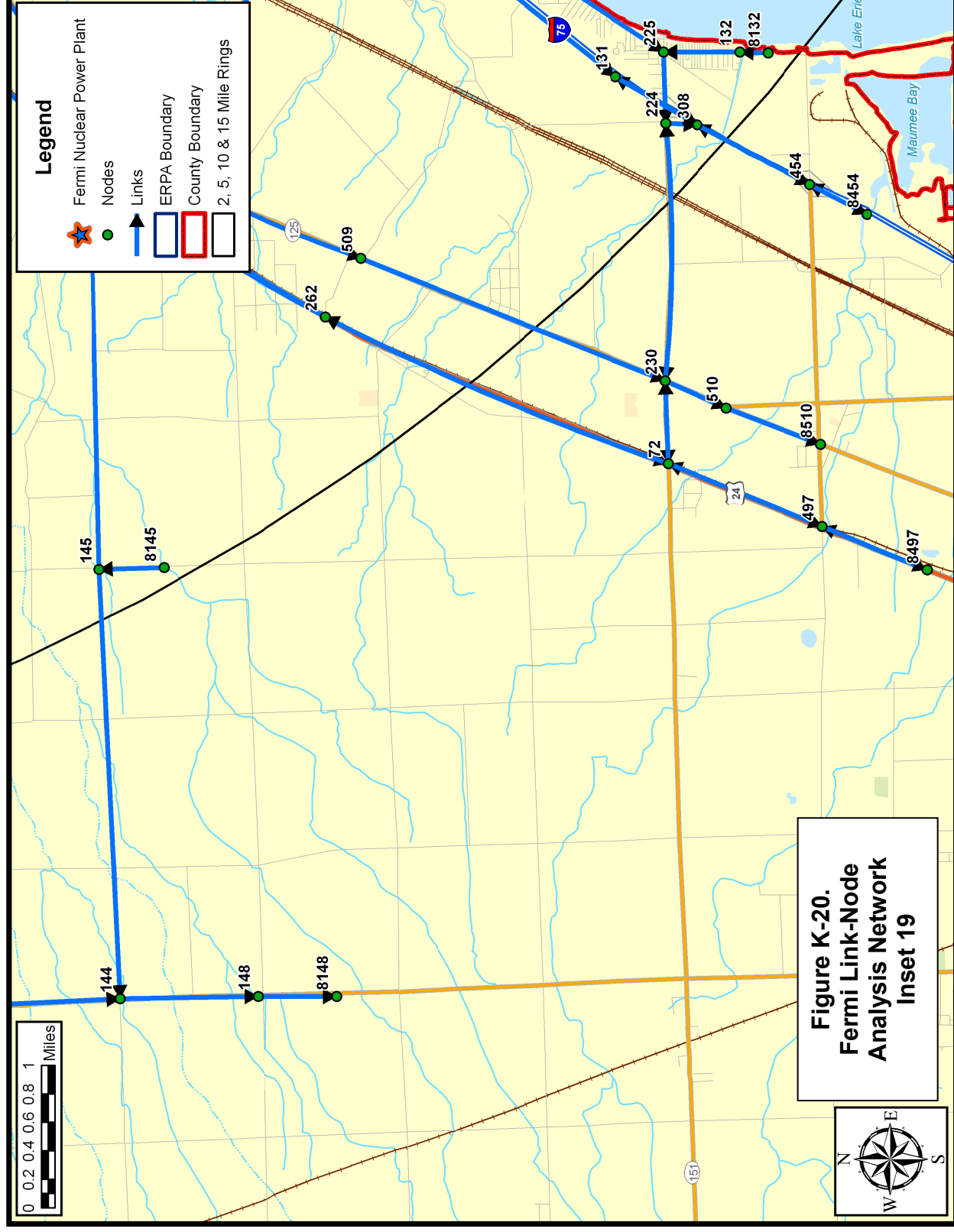












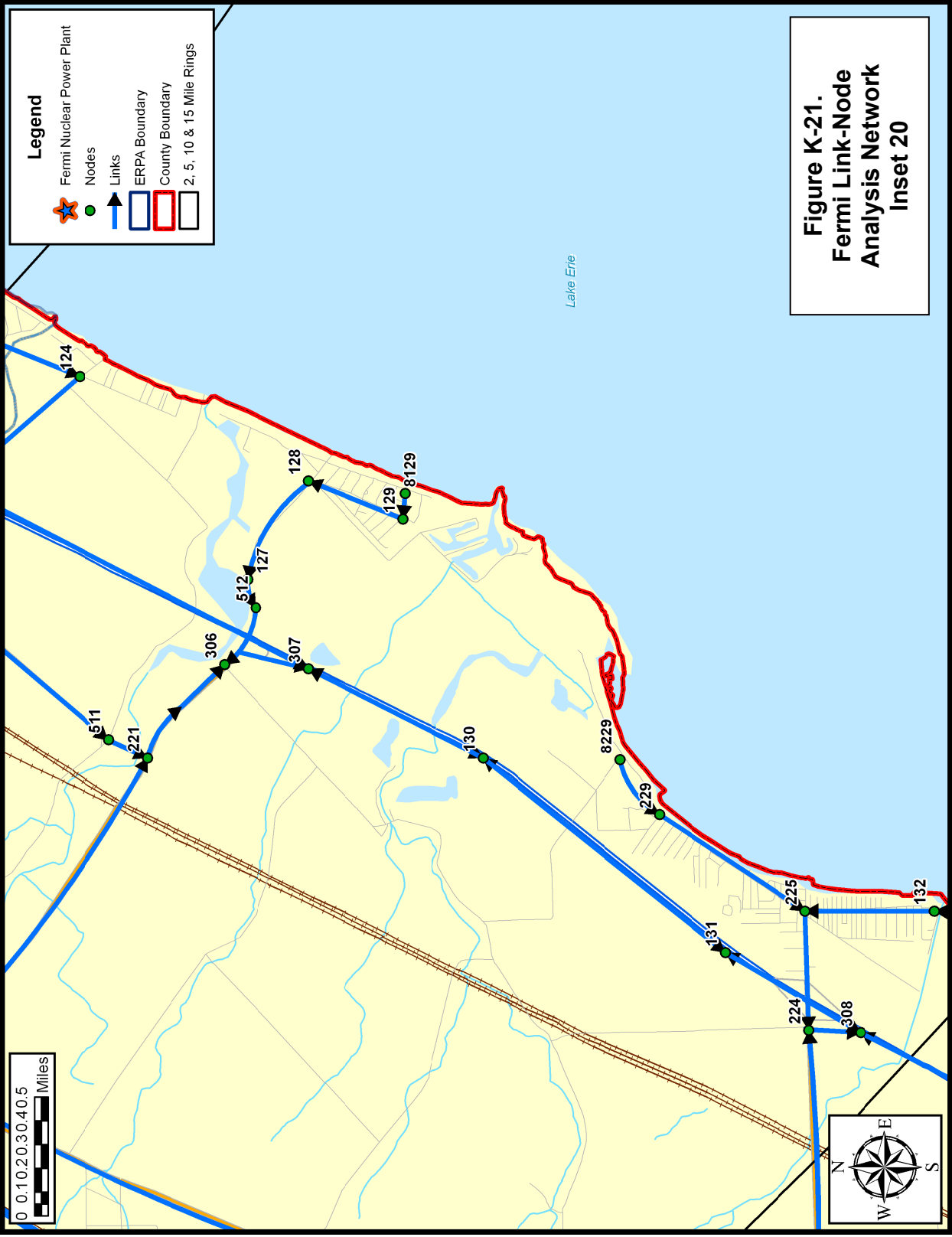


Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
1	493	0.31	1	1,714	40
2	3	0.38	1	1,714	40
3	463	0.92	1	1,714	40
4	163	0.17	2	1,714	50
5	60	0.21	2	1,714	45
6	106	0.24	1	1,714	40
6	533	0.35	1	1,714	40
7	104	0.68	2	1,500	35
8	111	1.32	1	1,500	30
9	113	0.21	1	1,714	40
10	11	0.70	1	1,714	20
11	12	0.44	1	1,714	20
12	13	0.12	1	1,714	25
12	314	0.50	1	1,714	30
13	14	0.20	1	1,714	30
14	315	0.17	1	1,714	30
15	19	0.32	1	1,714	40
16	17	0.15	1	1,714	35
17	18	0.46	1	1,714	35
18	201	0.20	1	1,714	40
19	16	0.22	1	1,714	35
20	149	1.27	1	1,714	60
20	506	2.35	1	1,714	60
21	277	0.59	2	2,250	65
22	277	0.34	3	2,250	65
22	275	1.21	2	2,250	75
23	279	0.45	5	2,250	65
23	24	0.44	3	2,250	65
24	23	0.44	5	2,250	65
24	296	0.45	3	2,250	65
25	26	0.98	2	1,714	45
26	301	0.41	2	1,714	40
27	299	0.25	1	1,714	40
28	27	0.53	2	1,714	40
29	28	0.10	2	1,714	40
30	267	0.67	3	2,250	75
31	458	0.48	3	2,250	75

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
31	268	1.05	3	2,250	75
32	572	0.23	1	1,714	40
32	162	0.16	1	1,714	50
33	32	0.75	1	1,714	50
33	34	0.85	1	1,714	40
34	309	0.60	1	1,714	50
34	33	0.85	1	1,714	45
35	462	0.55	1	1,714	50
35	34	1.18	1	1,714	45
36	462	0.64	1	1,714	50
36	248	1.35	1	1,714	50
37	467	0.31	1	1,500	30
38	6	0.18	1	1,714	30
39	183	0.22	1	1,714	30
39	180	0.48	1	1,714	35
40	545	0.75	1	1,714	50
40	641	0.96	1	1,714	50
41	254	0.39	1	1,714	60
42	171	1.31	1	1,714	50
42	43	1.12	1	1,714	50
43	158	0.24	1	1,714	40
43	160	0.15	2	1,714	50
44	608	0.46	1	1,714	40
45	196	0.18	2	1,714	45
47	649	0.63	2	1,714	50
47	289	0.73	2	1,714	45
48	117	0.53	1	1,714	40
49	649	0.64	1	1,714	45
49	50	0.24	1	1,714	40
50	51	0.33	1	1,714	25
51	347	0.30	1	1,714	35
51	52	0.08	1	1,714	25
52	51	0.08	1	1,714	25
52	114	0.27	1	1,714	35
53	63	0.63	1	1,714	40
53	265	0.53	1	1,714	40
54	114	0.20	2	1,714	35

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
54	341	1.78	1	1,714	40
56	345	1.03	2	1,714	55
56	231	2.22	1	1,714	50
57	274	1.00	2	1,714	50
58	107	1.03	2	1,714	50
58	108	0.14	2	1,714	55
58	331	0.19	2	1,714	50
59	5	0.38	1	1,714	45
60	61	0.31	2	1,714	45
60	531	0.49	2	1,714	35
60	660	0.14	2	1,714	40
61	62	0.49	2	1,714	45
62	258	0.28	2	1,714	45
63	299	0.34	2	1,714	40
64	75	0.28	2	1,500	35
64	65	0.17	2	1,500	35
65	64	0.17	2	1,714	35
65	66	0.92	2	1,714	45
66	67	1.50	2	1,714	45
66	65	0.92	2	1,500	35
67	66	1.50	2	1,714	40
67	633	0.51	2	1,714	45
68	69	1.15	1	1,714	55
69	630	1.27	1	1,714	55
70	71	2.00	1	1,714	55
71	8	0.62	1	1,714	55
72	497	1.18	1	1,714	60
72	262	2.63	1	1,714	60
72	230	0.58	1	1,714	45
73	498	1.65	1	1,714	50
73	135	0.90	1	1,714	45
73	97	0.60	1	1,714	40
74	75	0.99	2	1,500	35
74	99	0.80	1	1,714	40
74	135	0.38	2	1,714	45
75	64	0.28	2	1,714	35
75	74	0.99	2	1,714	45

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
76	215	0.23	1	1,714	30
76	502	0.23	1	1,500	35
78	101	0.40	2	1,200	30
78	324	0.32	1	1,500	35
79	322	0.36	1	1,500	35
79	78	0.14	2	1,500	35
79	80	0.17	1	1,500	35
80	190	0.21	1	1,500	35
80	325	0.14	1	1,500	35
80	79	0.17	1	1,500	35
81	63	0.38	1	1,714	40
81	190	0.52	1	1,500	35
81	211	0.24	2	1,714	40
82	81	0.23	2	1,714	40
83	84	0.08	2	1,714	45
83	265	0.21	2	1,714	45
84	298	0.19	1	1,714	50
84	83	0.08	1	1,714	45
85	84	0.33	2	1,714	45
86	267	0.29	1	1,714	50
87	152	0.15	2	1,714	35
88	86	3.12	1	1,714	50
88	141	0.43	1	1,714	45
90	89	0.23	2	1,714	40
91	608	1.02	1	1,714	50
91	609	2.02	1	1,714	50
91	629	0.75	2	1,714	55
92	90	0.17	1	1,714	40
93	92	0.58	1	1,714	40
94	55	0.45	2	1,714	55
94	283	0.11	2	1,714	40
95	93	3.11	1	1,714	40
95	173	1.35	1	1,714	40
96	221	1.66	1	1,714	50
96	509	1.83	1	1,714	60
97	73	0.60	1	1,714	45
97	133	0.31	2	1,714	45

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
98	97	1.01	2	1,714	40
99	74	0.80	1	1,714	40
99	98	0.33	2	1,714	45
100	99	0.61	2	1,500	35
101	100	0.37	2	1,500	35
101	519	0.20	1	1,500	35
104	79	0.25	2	1,500	35
105	7	0.30	2	1,714	45
105	531	0.45	2	1,714	35
106	105	1.00	2	1,714	50
107	58	1.03	2	1,714	50
107	244	0.79	1	1,714	50
107	319	0.42	2	1,714	50
108	332	0.87	2	1,714	55
108	335	0.29	1	1,714	50
108	58	0.14	3	1,714	50
109	535	2.90	1	1,714	45
109	534	1.61	1	1,714	40
110	539	0.66	1	1,714	55
111	541	0.73	1	1,714	40
112	207	0.24	2	1,714	50
113	105	0.38	2	1,714	35
113	320	1.18	1	1,500	35
114	347	0.09	2	1,714	35
114	54	0.20	2	1,714	35
115	116	0.23	2	1,714	45
116	659	0.58	2	1,714	45
117	364	0.88	2	1,714	50
118	593	0.34	3	1,714	40
118	166	0.49	1	1,714	40
120	91	1.03	2	1,714	55
121	304	0.46	1	1,714	40
122	121	0.32	1	1,714	45
123	124	0.84	1	1,714	45
123	122	0.53	1	1,714	45
124	125	0.55	1	1,714	45
125	126	0.57	1	1,714	45

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
126	511	0.99	1	1,714	45
127	512	0.14	1	1,714	40
128	127	0.49	1	1,714	40
129	128	0.43	1	1,714	40
130	307	0.82	3	2,250	70
130	131	1.31	3	2,250	70
131	308	0.65	3	2,250	70
131	130	1.31	3	2,250	70
132	225	0.54	1	1,500	35
133	134	1.39	1	1,714	60
134	96	0.29	1	1,714	60
135	74	0.38	2	1,714	45
135	73	0.90	1	1,714	45
136	507	1.02	1	1,714	55
137	138	2.35	1	1,714	55
137	506	1.68	1	1,714	45
138	20	1.60	1	1,714	45
138	139	1.22	1	1,714	40
139	149	1.47	1	1,714	45
139	147	0.55	1	1,714	45
140	282	0.22	3	2,250	75
143	146	0.61	1	1,714	30
144	148	0.97	1	1,714	55
145	144	3.02	1	1,714	45
145	498	2.81	1	1,714	55
146	144	2.42	1	1,714	55
147	143	0.56	1	1,714	30
149	631	1.74	1	1,714	60
149	20	1.27	1	1,714	60
151	437	0.27	3	1,714	45
152	610	0.33	2	1,714	40
152	151	0.24	3	1,714	45
153	168	0.41	1	1,714	30
153	623	0.59	1	1,714	30
154	611	0.28	2	1,714	40
154	424	0.70	2	1,714	55
155	419	0.23	2	1,714	55

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
156	409	0.17	2	1,714	55
156	612	0.22	2	1,714	40
158	390	1.03	2	1,714	55
159	160	0.15	2	1,714	50
159	252	0.38	2	1,714	45
160	158	0.28	2	1,714	55
160	159	0.15	2	1,714	50
161	166	0.45	1	1,714	40
162	85	0.63	1	1,714	45
163	164	0.19	2	1,714	40
164	165	0.25	1	1,714	40
164	296	0.20	1	1,714	50
165	244	0.29	1	1,714	50
165	297	0.16	1	1,714	50
165	164	0.25	1	1,714	40
166	118	0.49	1	1,714	40
166	192	0.28	2	1,714	40
167	544	0.63	1	1,714	50
167	636	0.47	1	1,714	50
168	118	0.46	1	1,714	40
168	366	1.53	1	1,714	40
169	292	0.36	2	1,714	30
169	648	0.66	1	1,714	30
170	550	1.06	1	1,714	30
170	292	0.07	2	1,714	30
171	390	1.09	1	1,714	45
171	656	0.90	1	1,714	50
172	173	0.08	2	1,714	55
172	392	0.82	2	1,714	40
173	172	0.08	2	1,714	40
173	653	0.24	2	1,714	40
174	557	0.23	1	1,500	30
175	569	0.18	1	1,500	35
176	101	0.36	1	1,500	30
177	182	0.47	1	1,500	35
178	654	0.61	1	1,714	45
178	156	0.61	2	1,714	35

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
179	156	0.21	2	1,714	35
180	179	0.18	2	1,714	35
180	185	0.75	2	1,714	35
181	177	0.77	1	1,200	35
181	325	0.26	1	1,500	35
182	520	0.23	1	1,714	40
183	155	0.29	1	1,714	40
183	179	0.48	1	1,714	30
183	202	0.52	1	1,714	30
184	181	0.29	1	1,500	35
184	182	1.14	1	1,714	30
185	180	0.75	2	1,714	35
185	187	0.51	2	1,714	35
185	203	1.00	1	1,714	30
187	188	0.24	2	1,714	35
188	205	0.50	2	1,714	50
188	286	0.68	2	1,714	40
190	80	0.21	1	1,500	35
190	81	0.52	1	1,500	30
191	192	0.25	2	1,714	40
191	286	0.36	2	1,714	40
192	166	0.28	2	1,714	40
192	191	0.25	2	1,714	40
194	120	0.68	1	1,714	40
194	284	0.67	2	1,714	60
195	94	0.19	2	1,714	45
196	46	0.39	2	1,714	50
196	195	0.45	2	1,714	45
197	198	0.34	1	1,714	35
197	45	0.58	1	1,714	45
198	199	0.61	1	1,714	35
198	197	0.34	1	1,714	35
199	152	0.27	2	1,714	35
200	87	0.35	1	1,714	35
200	558	0.47	1	1,714	35
201	570	1.43	1	1,500	35
201	113	0.31	1	1,714	40

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
202	154	0.26	2	1,714	40
203	559	0.76	1	1,714	45
203	652	0.71	1	1,714	45
204	527	0.15	1	1,714	30
205	559	0.51	2	1,714	50
207	188	1.00	2	1,714	50
208	112	0.77	1	1,714	50
209	300	0.19	4	2,250	70
209	302	0.15	3	2,250	70
210	175	0.25	1	1,500	35
211	184	0.11	1	1,500	35
211	569	0.45	1	1,500	35
212	61	0.12	1	1,714	30
213	323	0.59	1	1,500	35
215	64	0.12	2	1,714	35
217	304	0.29	1	1,714	40
218	216	0.67	1	1,714	55
219	220	0.49	1	1,714	55
220	218	0.48	1	1,714	55
221	306	0.51	1	1,714	40
222	223	0.47	1	1,714	50
223	226	1.80	1	1,714	50
224	308	0.24	1	1,714	50
224	230	1.81	1	1,714	50
225	224	0.50	1	1,714	40
226	109	0.74	1	1,714	40
227	228	0.45	1	1,714	40
228	110	0.38	1	1,714	40
229	225	0.74	1	1,500	35
230	510	0.47	1	1,714	60
230	224	1.81	1	1,714	40
230	72	0.58	1	1,714	45
231	271	0.42	1	1,714	50
232	231	0.38	1	1,714	50
234	584	0.26	1	1,500	35
237	580	0.99	1	1,500	30
239	243	0.28	1	1,714	45

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
243	270	0.25	1	1,714	50
244	107	0.79	1	1,714	50
244	165	0.29	1	1,714	40
248	468	0.34	1	1,714	50
249	37	0.37	1	1,714	50
250	661	0.57	1	1,714	50
250	472	1.13	1	1,714	55
252	288	0.28	1	1,714	50
252	159	0.38	2	1,714	50
254	59	0.90	1	1,714	45
258	64	0.71	2	1,714	35
262	498	1.95	1	1,714	50
262	72	2.63	1	1,714	60
263	82	0.49	2	1,714	45
265	263	0.38	2	1,714	45
265	83	0.21	2	1,714	45
267	460	0.73	3	2,250	75
267	30	0.67	3	2,250	75
268	459	0.59	3	2,250	75
268	31	1.05	3	2,250	75
269	268	0.30	1	1,714	50
270	458	1.60	3	2,250	75
270	457	0.78	3	2,250	75
271	457	1.30	3	2,250	75
271	456	0.88	3	2,250	75
272	275	0.39	3	2,250	75
272	455	0.44	3	2,250	75
273	272	0.27	1	1,714	50
273	338	1.30	2	1,714	30
274	273	0.13	2	1,714	50
274	276	0.26	1	1,500	30
275	272	0.39	3	2,250	75
275	22	1.21	2	2,250	75
276	275	0.16	1	1,500	50
277	449	0.62	1	1,714	50
277	280	0.47	2	1,714	50
277	22	0.34	3	2,250	65

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
278	280	0.49	3	2,250	65
278	277	0.34	1	1,714	50
278	441	0.55	3	2,250	75
279	280	0.53	3	2,250	65
279	23	0.45	4	2,250	65
279	21	0.52	2	1,895	60
280	279	0.53	4	2,250	65
280	278	0.49	3	2,250	75
281	450	0.11	1	1,714	40
282	285	0.36	3	1,714	50
282	140	0.22	3	2,250	75
283	608	0.27	2	1,714	40
283	282	0.24	1	1,714	50
284	594	0.40	2	1,714	60
285	282	0.36	3	2,250	75
285	287	1.88	3	2,250	75
286	191	0.36	2	1,714	40
286	287	0.20	1	1,714	50
287	285	1.88	3	2,250	75
287	288	2.95	3	2,250	70
288	290	0.33	3	2,250	70
288	287	2.95	3	2,250	75
289	291	0.14	1	1,500	30
289	252	0.04	2	1,714	45
290	288	0.33	3	2,250	70
290	604	0.40	3	2,250	70
291	290	0.20	1	1,500	50
292	447	0.20	1	1,714	40
292	170	0.07	2	1,714	30
292	169	0.36	2	1,714	30
293	295	0.70	3	2,250	75
293	448	0.46	4	2,250	65
294	605	0.47	1	1,714	30
294	295	0.19	1	1,714	50
295	446	0.54	3	2,250	75
295	293	0.70	3	2,250	75
296	297	0.40	3	2,250	65

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
296	24	0.45	4	2,250	65
297	451	1.17	3	2,250	65
297	296	0.40	3	2,250	65
298	452	0.63	3	2,250	70
298	453	0.86	3	2,250	70
299	300	0.10	1	1,714	50
300	453	0.55	3	2,250	70
300	209	0.19	4	2,250	70
301	303	0.16	1	1,714	40
302	209	0.15	3	2,250	70
302	305	2.09	3	2,250	70
303	302	0.12	1	1,714	50
304	305	0.43	1	1,714	50
305	302	2.09	3	2,250	70
305	307	2.79	3	2,250	70
306	307	0.37	1	1,714	50
307	130	0.83	3	2,250	70
307	305	2.79	3	2,250	70
308	131	0.66	3	2,250	70
308	454	0.90	3	2,250	70
309	310	0.66	1	1,714	50
310	4	0.62	1	1,714	50
311	34	0.27	1	1,714	30
312	33	0.58	1	1,714	30
313	163	0.21	1	1,714	30
314	32	0.25	1	1,714	30
315	162	0.18	1	1,714	30
317	244	0.69	1	1,714	35
318	319	0.18	1	1,714	35
319	106	0.82	2	1,714	50
319	107	0.42	2	1,714	50
320	80	0.26	1	1,500	35
320	104	0.18	1	1,500	35
321	104	0.16	1	1,500	35
322	323	0.30	1	1,500	35
323	76	0.30	1	1,500	35
323	618	0.24	1	1,714	40

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
324	76	0.33	1	1,500	35
325	519	0.45	1	1,200	30
325	78	0.16	1	1,500	35
331	41	0.93	1	1,714	60
332	108	0.87	2	1,714	55
332	57	1.11	2	1,714	55
333	332	0.25	1	1,714	35
335	222	0.47	1	1,714	50
336	57	0.47	1	1,714	50
337	57	1.28	1	1,714	50
338	56	2.08	2	1,714	55
338	273	1.30	2	1,714	50
339	338	0.23	1	1,714	55
340	54	0.41	1	1,714	35
341	243	2.24	1	1,714	50
342	56	0.53	1	1,714	40
345	54	1.13	2	1,714	45
347	350	0.08	2	1,714	35
347	114	0.09	2	1,714	35
349	651	1.25	1	1,714	40
349	363	1.11	1	1,714	40
350	349	0.84	1	1,714	40
350	347	0.08	2	1,714	35
350	115	0.60	2	1,714	45
351	350	0.23	1	1,714	35
352	115	0.16	1	1,714	30
354	116	0.51	1	1,714	35
362	48	1.01	1	1,714	45
362	191	1.01	2	1,714	30
362	207	1.05	1	1,714	40
363	117	1.47	1	1,714	40
363	366	0.99	1	1,714	40
364	118	0.24	3	1,714	50
366	627	1.01	1	1,714	40
367	194	0.73	2	1,714	60
370	192	0.46	1	1,714	30
370	367	0.47	1	1,714	40

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
371	50	0.20	1	1,714	30
372	374	0.11	1	1,714	30
372	373	0.30	1	1,714	30
373	50	0.35	1	1,714	30
373	52	0.48	1	1,714	25
374	49	0.48	1	1,714	30
376	354	0.61	1	1,714	30
376	48	0.66	1	1,714	35
379	47	0.21	2	1,714	35
380	47	0.14	2	1,714	35
387	42	0.62	1	1,714	30
387	553	0.35	1	1,714	30
388	159	0.30	1	1,714	40
389	160	0.40	2	1,714	55
390	208	0.54	1	1,714	40
390	395	0.61	2	1,714	55
391	645	0.46	1	1,714	45
392	172	0.82	2	1,714	40
392	398	1.01	2	1,714	55
392	657	0.37	2	1,714	40
395	392	0.61	2	1,714	55
398	156	0.19	2	1,714	55
409	155	0.33	2	1,714	55
419	154	0.29	2	1,714	55
421	154	0.65	2	1,714	40
421	558	1.07	2	1,714	45
424	152	0.32	2	1,714	55
440	442	0.29	1	1,714	30
441	444	0.22	3	2,250	75
441	278	0.55	4	2,250	75
442	443	0.16	1	1,500	30
443	444	0.14	1	1,714	40
444	445	2.82	3	2,250	75
444	441	0.22	3	2,250	75
445	446	1.77	3	2,250	75
445	444	2.82	3	2,250	75
446	295	0.54	3	2,250	75

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
446	445	1.77	3	2,250	75
447	293	0.15	1	1,714	50
448	604	0.63	3	2,250	70
448	293	0.46	3	2,250	75
448	603	0.52	1	1,714	50
449	281	0.24	1	1,714	40
450	280	0.12	1	1,714	50
451	297	1.17	3	2,250	65
451	452	1.04	3	2,250	65
452	451	1.04	3	2,250	65
452	298	0.63	3	2,250	70
453	300	0.55	3	2,250	70
453	298	0.86	3	2,250	70
454	308	0.90	3	2,250	70
455	456	2.14	3	2,250	75
455	272	0.44	3	2,250	75
456	455	2.14	3	2,250	75
456	271	0.88	3	2,250	75
457	270	0.78	3	2,250	75
457	271	1.30	3	2,250	75
458	270	1.60	3	2,250	75
458	31	0.48	3	2,250	75
459	268	0.59	3	2,250	75
459	460	0.68	3	2,250	75
460	267	0.73	3	2,250	75
460	459	0.68	3	2,250	75
462	35	0.55	1	1,714	50
462	36	0.64	1	1,714	40
463	35	1.13	1	1,714	40
464	36	0.30	1	1,714	50
467	442	0.33	1	1,714	30
468	250	1.33	1	1,714	50
468	249	0.50	1	1,714	50
469	470	0.82	1	1,714	30
470	170	0.54	1	1,714	30
470	294	0.07	1	1,714	30
472	477	1.23	1	1,714	55

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
473	472	1.26	1	1,714	50
474	473	0.42	1	1,714	50
475	474	0.36	1	1,200	30
476	475	0.57	1	1,200	35
477	634	0.45	1	1,714	55
493	464	1.11	1	1,714	40
497	72	1.18	1	1,714	60
498	262	1.95	1	1,714	50
498	73	1.65	1	1,714	45
500	74	0.51	1	1,714	40
501	65	0.32	1	1,500	35
501	75	0.24	1	1,500	35
502	75	0.30	1	1,500	35
503	65	0.14	1	1,500	35
505	500	0.54	1	1,714	40
505	66	1.05	1	1,714	30
505	136	0.58	1	1,714	45
506	20	2.35	1	1,714	60
506	633	0.91	1	1,714	60
507	67	1.73	1	1,714	45
507	137	1.39	1	1,714	55
508	67	0.19	1	1,714	45
509	230	2.30	1	1,714	60
511	221	0.17	1	1,714	35
512	306	0.27	1	1,714	40
513	217	0.71	1	1,714	40
514	513	0.68	1	1,500	30
514	97	0.69	1	1,714	40
515	514	0.33	1	1,714	40
516	518	0.25	1	1,714	35
517	98	0.15	1	1,200	25
518	99	0.37	1	1,714	40
518	520	0.48	1	1,714	40
519	177	0.36	1	1,500	35
520	217	0.62	1	1,714	40
523	100	0.22	1	1,500	35
523	177	0.23	1	1,500	35

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
524	100	0.08	1	1,500	35
525	68	0.86	1	1,714	55
525	660	0.79	1	1,714	40
526	618	0.38	1	1,714	30
526	258	0.12	1	1,714	30
527	258	0.11	1	1,714	30
528	62	0.12	1	1,714	30
528	526	0.27	1	1,714	30
529	62	0.37	1	1,714	30
530	61	0.18	1	1,714	30
531	60	0.49	2	1,714	35
531	105	0.45	2	1,714	35
532	59	0.25	1	1,714	30
533	59	0.31	1	1,714	35
534	227	0.60	1	1,714	40
535	583	0.52	1	1,714	45
535	613	2.02	1	1,714	50
536	109	0.49	1	1,714	40
537	110	0.21	1	1,714	40
538	110	0.51	1	1,714	40
539	219	0.78	1	1,714	55
543	470	0.55	1	1,714	30
544	638	0.32	1	1,714	50
545	40	0.75	1	1,714	40
545	546	1.05	1	1,714	30
546	170	0.22	1	1,714	30
547	42	0.77	1	1,714	50
549	40	0.18	1	1,714	30
550	640	0.42	1	1,714	30
550	644	0.61	1	1,714	30
550	645	1.07	1	1,714	45
552	208	0.57	1	1,714	50
552	388	0.34	1	1,714	40
553	547	0.87	1	1,714	30
554	547	0.19	1	1,714	30
557	178	0.18	1	1,500	30
558	90	0.44	2	1,714	40

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
558	200	0.47	1	1,714	35
559	194	1.35	1	1,714	40
559	196	0.98	2	1,714	50
563	185	0.15	1	1,714	30
567	191	0.21	1	1,714	30
569	301	0.30	2	1,714	45
570	320	0.21	1	1,500	35
570	82	0.56	1	1,714	35
570	190	0.23	1	1,500	35
571	83	0.10	1	1,714	30
572	15	0.56	1	1,714	50
573	336	0.44	1	1,714	30
574	336	0.92	1	1,714	50
574	440	0.61	1	1,714	50
575	574	0.45	1	1,714	30
577	239	0.67	1	1,714	55
577	585	0.38	1	1,714	50
578	237	0.69	1	1,500	30
579	237	1.66	1	1,500	30
580	234	0.17	1	1,500	30
581	580	1.74	1	1,500	30
582	237	0.49	1	1,500	30
583	582	0.27	1	1,500	30
584	232	0.55	1	1,714	50
585	620	0.85	1	1,714	50
587	198	0.20	1	1,714	30
589	197	0.40	1	1,714	30
590	199	0.16	1	1,714	30
592	200	0.16	1	1,714	35
593	367	0.20	2	1,714	60
593	120	0.72	2	1,714	55
594	94	0.23	2	1,714	55
594	285	0.12	1	2,250	75
595	205	0.13	1	1,714	30
596	187	0.48	1	1,714	30
596	205	0.25	1	1,714	30
601	208	0.47	1	1,714	40

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
602	552	0.26	1	1,714	35
603	389	0.51	2	1,714	50
604	290	0.40	3	2,250	70
604	448	0.62	3	2,250	65
605	294	0.47	1	1,714	30
605	647	0.63	1	1,714	40
606	372	0.12	1	1,714	30
607	606	0.21	1	1,714	30
608	91	1.02	1	1,714	50
608	283	0.27	2	1,714	40
609	88	0.98	1	1,714	50
609	142	0.47	1	1,714	45
610	424	0.10	2	1,500	20
611	419	0.08	2	1,500	20
612	398	0.07	2	1,500	25
613	577	1.44	1	1,714	50
616	632	0.51	1	1,500	35
617	616	0.46	1	1,500	35
618	617	0.26	1	1,714	40
620	621	1.96	1	1,714	40
621	269	1.22	1	1,714	45
623	627	1.41	1	1,714	40
623	120	0.61	1	1,714	40
625	605	0.34	1	1,714	30
626	628	1.00	1	1,714	40
627	609	1.02	1	1,714	45
627	628	0.98	1	1,714	40
628	88	0.99	1	1,714	45
630	70	0.20	1	1,714	35
631	149	1.74	1	1,714	60
632	508	1.46	1	1,714	45
633	67	0.51	2	1,714	45
633	506	0.91	1	1,714	60
634	635	0.60	1	1,714	55
635	167	0.45	1	1,714	50
636	637	0.88	1	1,714	50
637	40	0.47	1	1,714	50

Table K-1. Evacuation Roadway Network Characteristics					
Upstream Node Number	Downstream Node Number	Length (Miles)	Full Lanes	Saturation Flow Rate (Veh/hr/ln)	Free Flow Speed (MPH)
638	639	0.72	1	1,714	40
639	543	0.34	1	1,714	30
640	391	0.42	1	1,714	40
641	640	0.99	1	1,714	45
641	547	0.19	1	1,714	50
642	607	0.43	1	1,714	30
643	642	0.47	1	1,714	30
644	643	0.38	1	1,714	30
645	43	0.17	1	1,714	50
646	340	0.82	1	1,714	30
647	646	0.66	1	1,714	30
648	606	0.79	1	1,714	30
649	49	0.64	1	1,714	45
649	47	0.63	2	1,714	35
650	363	1.00	1	1,714	40
650	626	0.97	1	1,714	40
651	650	0.42	1	1,714	45
652	202	0.27	2	1,714	45
653	655	0.34	2	1,714	40
654	421	0.43	2	1,714	45
655	174	0.14	1	1,500	30
656	172	0.17	2	1,714	50
657	207	0.87	1	1,714	40
658	657	0.14	1	1,714	30
659	117	0.54	2	1,714	50
660	60	0.14	2	1,714	40
660	525	0.79	1	1,714	40
661	469	2.90	1	1,714	50
662	462	0.50	1	1,714	40

APPENDIX L

Protective Action Area Boundaries

APPENDIX L: PROTECTIVE ACTION AREA BOUNDARIES

Area 1: MONROE COUNTY

- Berlin Township east of North Dixie Highway, and south of U.S. Turnpike and Reaume Road.
- Frenchtown Township east of North Dixie Highway and north of Brest Road.

Area 2: MONROE COUNTY

- Berlin Township south of Sigler Road, west of North Dixie Highway, north of U.S. Turnpike and Reaume Road.

Area 3: MONROE COUNTY

- Frenchtown Township west of North Dixie Highway, south of Brest Road, east of I-75 and north of Hurd Road.

Area 4: WAYNE COUNTY

- Brownstone Township south of Vreeland Road and the municipalities of Rockwood, Gibraltar, and Flat Rock.

MONROE COUNTY

- Berlin Township north of Sigler Road.
- Ash Township east of Maxwell Road and south of Carleton West Road.
- Exeter Township south of O'Hara Road and east of Finzel Road.

Area 5: MONROE COUNTY

- Frenchtown Township west of I-75 and south of Hurd Road.
- Raisinville Township east of Steffas Road and North Raisinville Road and north of North Custer Road.
- Monroe Township east of Herr Road, north of Dunbar Road, east of South Telegraph Road, north of Albain Road, east of I-75, and north of Mortar Creek Road.
- City of Monroe.