# 7. GENERAL POPULATION EVACUATION TIME ESTIMATES (ETE)

This section presents the current results of the computer analyses using the IDYNEV System described in Appendices B, C and D. These results cover 35 regions within the IPEC EPZ and the 14 Evacuation Scenarios discussed in Section 6.

The ETE for all Evacuation Cases are presented in Tables 7-1A through 7-1D. **These tables present the estimated times to clear the indicated population percentages from the Evacuation Regions for all Evacuation Scenarios.** Table 7-1E presents "EPZ Clearance Times". The tabulated values of ETE are obtained by interpolating the PCDYNEV simulation model outputs which are generated at 30-minute intervals, then rounding these data to the nearest 5 minutes.

## 7.1 Voluntary Evacuation and Shadow Evacuation

We define "voluntary evacuees" as people who are within the EPZ in ERPAs for which an Advisory to Evacuate *has not* been issued, yet who nevertheless elect to evacuate. We define "shadow evacuation" as the movement of people from areas *outside* the EPZ for whom no protective action recommendation has been issued. Both voluntary and shadow evacuation are assumed to take place over the same time frame as the evacuation from within the impacted Evacuation Region.

The ETE for IPEC addresses the issue of voluntary evacuees in the manner shown in Figure 7-1. Within the circle defined by the farthest radial distance of the Evacuation Region, 50 percent of those people located in ERPAs not advised to evacuate, are assumed to do so. Within the annular ring extending from the furthest distance of the Evacuation Region (if less than 10 miles), to the EPZ boundary, it is assumed that 35 percent of the people located there will elect to evacuate.

Figure 7-2 presents the area identified as the Shadow Evacuation Region. This region extends from the boundary of the EPZ to the bounding Interstate Highways: I-87 on the west, I-87/287 on the south, I-684 on the east, and I-84 on the north. These interstate highways were selected for this purpose for the following reasons:

- Many evacuees from within the Evacuation Region who elect to travel directly to their respective final destinations (i.e., not travel to reception centers), will likely utilize one or more of these interstate highways.
- It is reasonable to expect that State Police would limit use of these interstate highway sections by external trips to assure access and capacity for evacuees.
- Those people located outside these interstate highways who elect to travel during the evacuation, will undoubtedly move *away* from the IPEC location and thereby largely avoid the interstate highways.

As a result, there is likely to be limited interaction between evacuees traveling from within the Evacuation Region and vehicles originating their trips in areas outside the interstate highways.

Traffic generated within this Shadow Evacuation Region, traveling away from the IPEC location, has a potential for impeding evacuating vehicles from within the Evacuation Region. We assume that the traffic volumes emitted within the Shadow Evacuation Region corresponds to 30 percent of the residents there plus a proportionate number of employees in that region. **All ETE calculations include this shadow traffic movement.**

## 7.2 Patterns of Traffic Congestion During Evacuation

Figures 7-3 through 7-6 illustrate the patterns of traffic congestion that arise for the case when the entire EPZ (Region R3) is advised to evacuate during the summer, midweek, midday period under good weather conditions (Evacuation Scenario 1).

Traffic congestion, as the term is used here, is defined as Level of Service (LOS) F. LOS F is defined as follows (2000 HCM):

> Level of Service F is used to define forced or breakdown flow. This condition exists wherever the amount of traffic approaching a point exceeds the amount that can traverse the point. Queues form behind such locations. Operations within the queue are characterized by stop-and-go waves, and they are extremely unstable. Vehicles may progress at reasonable speeds for several hundred feet or more, then be required to stop in a cyclic fashion. Level of Service F is used to describe the operating conditions within the queue, as well as the point of the breakdown. It should be noted, however, that in many cases operating conditions of vehicles or pedestrians discharged from the queue may be quite good. Nevertheless, it is the point at which arrival flow exceeds discharge flow, which causes the queue to form, and Level of Service F is an appropriate designation for such points.

This definition is general and conceptual in nature, and applies primarily to uninterrupted flow. Levels of Service for interrupted flow facilities vary widely in terms of both the user's perception of service quality and the operational variables used to describe them.

All highway "links" which experience LOS F are delineated in these Figures by a thick red line; all others are lightly indicated. Congestion develops rapidly around concentrations of population and traffic bottlenecks. Several areas in the EPZ are congested by 30 minutes (Figure 7-3) after the evacuation advisory including:

- Approaches to I-287 in Rockland County
- Southbound Route 9 in Westchester County
- Routes 6 and 202 approaching the Taconic Parkway

Figure 7-4 presents the congestion pattern one hour after the Advisory to Evacuate. Major areas of congestion in the EPZ are:

- Virtually all of the southbound routes in Rockland County.

- In Westchester County, the southbound major highways, south of IPEC are all congested. Routes 6 and 202 are congested with vehicles departing the Peekskill area. The Taconic Parkway is congested in the outbound directions, relative to the location of IPEC (i.e., northbound in the section north of IPEC and southbound in the section south of IPEC).
- Congestion in Putnam County extends on northbound selected routes including Route 9.
- Orange County shows congestion along Route 9W northbound from West Point. Congestion is also present along Route 6 approaching the Woodbury Commons area.

Figure 7-5 presents congestion levels at 3 hours after the start of evacuation. This figure shows the peak congestion during the evacuation. However, some areas have begun to clear. For example, the congestion in the Woodbury Commons area has cleared by this time.

Figure 7-6 presents the congestion levels at 7 hours after the start of evacuation. Note that most areas of heavy congestion have cleared by this time. Extensive congestion still exists leaving the Peekskill area, and along southbound Route 9 in the Croton on Hudson area.

The absence of congestion on network links implies that traffic demand there has decreased below the roadway capacity for a period of time sufficient to dissipate any traffic queues. It does not imply that traffic has completely cleared from these roadway sections.

## 7.3 Evacuation Rates

Evacuation is a continuous process, as implied by Figures 7-3 through 7-6. Another format for displaying the dynamics of evacuation is depicted in Figure 7-7. This plot indicates the rate at which traffic flows out of the indicated areas for the case of an evacuation of the full 10-mile Region R3 (i.e., entire EPZ) under the indicated conditions. Appendix J presents these plots for all Evacuation Scenarios for Region R3.

As indicated in Figure 7-7, there is typically a long "tail" to these distributions. Vehicles evacuate an area slowly at the beginning, as people respond to the Advisory to Evacuate at different rates. Then traffic demand builds rapidly (slopes of curves increase). When the system becomes congested, traffic exits the EPZ at rates somewhat below capacity until some evacuation routes have cleared. As more routes clear, the aggregate rate of egress slows since many vehicles have already left the EPZ. Towards the end of the process, a relatively few evacuation routes service the remaining demand.

This decline in aggregate flow rate, towards the end of the process, is characterized by these curves flattening and gradually becoming horizontal. Ideally, it would be desirable to fully saturate all evacuation routes equally so that all will service traffic near capacity levels and all will clear at the same time. For this ideal situation, all curves would retain the same slope until the end -- thus minimizing evacuation time. In the real world, this ideal is generally unattainable reflecting the variation in population density and in highway capacity over the EPZ.

## 7.4 EPZ Clearance Times

The estimated EPZ clearance times, presented in Table 7-1E, represent the elapsed times, referenced to the Advisory to Evacuate, that it takes evacuees to clear the EPZ boundary, regardless of the impacted Evacuation Region. (Recall that the ETE are defined as the evacuation times to leave the impacted Evacuation Region – not necessarily the EPZ). For all Regions other than R3 (the entire EPZ), the EPZ clearance times could exceed the Region-specific ETE. This is due to the fact that some of the evacuees may travel within the EPZ *after* they have exited the impacted Evacuation Region.

For example, consider Region R1, representing the circular area of 2-mile radius. After the evacuees depart this Region, they must travel another 8 miles or so to reach the EPZ boundary. During this travel, evacuees' progress may be impeded by other vehicles driven by people who are "voluntary evacuees". Thus, the evacuees from Region R1 will exit the EPZ at some time after they have exited Region R1; the time they exit the EPZ is called the EPZ Clearance Time for Region R1. Referring to Tables 7-1D and 7-1E, it is seen that the ETE (from Region R1) is 4:55 for Scenario 1, while the corresponding EPZ Clearance Time is 6:05.

## 7.5 Guidance on Using ETE Tables

Tables 7-1A through 7-1D present the ETE values for all 35 Evacuation Regions and all 14 Evacuation Scenarios. They are organized as follows:

| Table | Contents |
|---|---|
| 7-1A | ETE represents the elapsed time required for 50 percent of the population within a Region, to evacuate from that Region. |
| 7-1B | ETE represents the elapsed time required for 90 percent of the population within a Region, to evacuate from that Region. |
| 7-1C | ETE represents the elapsed time required for 95 percent of the population within a Region, to evacuate from that Region. |
| 7-1D | 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
     - Winter (also Autumn and Spring)
   - The Day of Week
     - Midweek
     - Weekend
   - The Time of Day
     - Midday
     - Evening
   - Weather Condition
     - Good Weather
     - Rain
     - Snow
   - Special Event (if any)
     - Football game at West Point
     - Commencement Exercises at West Point

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 7-1A through 7-1E. For these conditions, Scenario (4) applies.
- The conditions of a winter evening (either midweek or weekend) and rain or snow are not explicitly identified in Tables 7-1A through 7-1E. For these conditions, Scenarios (10) for rain and (11) for snow, apply.
- 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 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: *towards* N, NNE, NE,…
   - Determine the distance that the Evacuation Region will extend from IPEC. The applicable distances and their associated candidate Regions are given below:
     - 2 Miles (Region R1)
     - 5 Miles (Regions R2 and R4-R19)
     - to EPZ Boundary (Regions R3 and R20-R35)
   - Enter Table 7-2 and identify the applicable group of candidate Regions based on the distance that the selected Region extends from IPEC. Within this group, identify the row corresponding to the Azimuth Direction identified in the 2nd bullet above (see column with the heading, DESCRIPTION OF REGION). 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 7-1 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 *to* the northeast.
- 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 7-1C is applicable because the 95-percentile population is desired. Proceed as follows:

1. Identify the Scenario as summer, weekend, evening and raining. Entering Table 7-1C, 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 7-2 and locate the group entitled "5 Mile Ring and Sector to EPZ Boundary". Under "DESCRIPTION OF REGION", identify the NE (northeast) azimuth (wind direction) and read REGION R22 in the first column of that row.

3. Enter Table 7-1C to locate the data cell containing the value of ETE for Scenario 4 and Region 22. This data cell is in column (4) and in the row for Region R22; it contains the ETE value of **7:00**.

| Table 7-1A. Time To Clear The Indicated Area of 50 Percent of the Affected Population (Page 1 of 2) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Summer | | Summer | | Summer | | Winter | | | Winter | | | Winter | | Autumn | Spring |
| | Midweek | | Weekend | | Midweek Weekend | | Midweek | | | Weekend | | | Midweek Weekend | | Weekend USMA Football | Midweek USMA Graduation |
| Scenario: | (1) | (2) | (3) | (4) | (5) | Scenario: | (6) | (7) | (8) | (9) | (10) | (11) | (12) | Scenario: | (13) | (14) |
| Region | Midday | | Midday | | Evening | Region | Midday | | | Midday | | | Evening | Region | Midday | Midday |
| | Good Weather | Rain | Good Weather | Rain | Good Weather | | Good Weather | Rain | Snow | Good Weather | Rain | Snow | Good Weather | | Good Weather | Good Weather |
| Entire 2-Mile Region, 5-Mile Region, and EPZ | | | | | | | | | | | | | | | | |
| R1 | 1:45 | 1:50 | 1:35 | 1:40 | 1:20 | R1 | 1:45 | 1:55 | 2:20 | 1:30 | 1:35 | 2:00 | 1:25 | R1 | 1:30 | 1:45 |
| R2 | 2:10 | 2:25 | 2:00 | 2:15 | 1:40 | R2 | 2:20 | 2:30 | 2:55 | 1:55 | 2:05 | 2:30 | 1:45 | R2 | 1:55 | 2:20 |
| R3 | 3:05 | 3:25 | 2:30 | 2:50 | 2:10 | R3 | 3:10 | 3:30 | 3:55 | 2:30 | 2:50 | 3:15 | 2:10 | R3 | 2:35 | 3:10 |
| 2-Mile Ring and Keyhole to 5 Miles | | | | | | | | | | | | | | | | |
| R4 | 1:55 | 2:00 | 1:45 | 1:50 | 1:35 | R4 | 1:55 | 2:05 | 2:30 | 1:40 | 1:45 | 2:15 | 1:35 | R4 | 1:50 | 1:55 |
| R5 | 2:00 | 2:10 | 1:55 | 2:00 | 1:40 | R5 | 2:05 | 2:15 | 2:45 | 1:50 | 2:00 | 2:30 | 1:45 | R5 | 1:50 | 2:05 |
| R6 | 2:00 | 2:10 | 1:50 | 1:55 | 1:40 | R6 | 2:05 | 2:15 | 2:40 | 1:45 | 1:55 | 2:25 | 1:40 | R6 | 1:45 | 2:05 |
| R7 | 2:00 | 2:05 | 1:50 | 1:55 | 1:35 | R7 | 2:05 | 2:15 | 2:40 | 1:45 | 1:50 | 2:20 | 1:40 | R7 | 1:45 | 2:05 |
| R8 | 2:05 | 2:10 | 1:50 | 2:00 | 1:35 | R8 | 2:05 | 2:15 | 2:45 | 1:45 | 1:55 | 2:20 | 1:40 | R8 | 1:45 | 2:05 |
| R9 | 2:10 | 2:25 | 2:00 | 2:15 | 1:40 | R9 | 2:20 | 2:30 | 2:55 | 1:55 | 2:00 | 2:30 | 1:40 | R9 | 1:55 | 2:20 |
| R10 | 2:05 | 2:20 | 2:00 | 2:10 | 1:30 | R10 | 2:15 | 2:25 | 2:50 | 1:50 | 1:55 | 2:20 | 1:30 | R10 | 1:50 | 2:15 |
| R11 | 2:10 | 2:25 | 2:00 | 2:15 | 1:40 | R11 | 2:20 | 2:30 | 2:50 | 1:55 | 2:05 | 2:30 | 1:40 | R11 | 1:55 | 2:20 |
| R12 | 2:10 | 2:25 | 2:00 | 2:15 | 1:40 | R12 | 2:20 | 2:30 | 2:50 | 1:55 | 2:05 | 2:30 | 1:45 | R12 | 1:55 | 2:20 |
| R13 | 1:55 | 2:10 | 1:50 | 2:00 | 1:40 | R13 | 2:05 | 2:15 | 2:35 | 1:50 | 2:00 | 2:25 | 1:40 | R13 | 1:50 | 2:05 |
| R14 | 1:45 | 1:55 | 1:35 | 1:45 | 1:30 | R14 | 1:50 | 2:05 | 2:25 | 1:40 | 1:50 | 2:15 | 1:35 | R14 | 1:40 | 1:50 |
| R15 | 1:45 | 1:55 | 1:35 | 1:45 | 1:30 | R15 | 1:50 | 2:05 | 2:25 | 1:40 | 1:50 | 2:15 | 1:35 | R15 | 1:40 | 1:50 |
| R16 | 1:45 | 1:50 | 1:35 | 1:35 | 1:20 | R16 | 1:45 | 1:55 | 2:20 | 1:30 | 1:35 | 2:00 | 1:25 | R16 | 1:30 | 1:45 |
| R17 | 1:45 | 1:50 | 1:35 | 1:35 | 1:20 | R17 | 1:45 | 1:55 | 2:20 | 1:30 | 1:35 | 2:00 | 1:20 | R17 | 1:45 | 1:45 |
| R18 | 1:45 | 1:50 | 1:35 | 1:35 | 1:20 | R18 | 1:45 | 1:55 | 2:20 | 1:30 | 1:35 | 2:00 | 1:15 | R18 | 1:40 | 1:45 |
| R19 | 1:50 | 1:55 | 1:40 | 1:50 | 1:30 | R19 | 1:55 | 2:00 | 2:30 | 1:35 | 1:45 | 2:10 | 1:30 | R19 | 1:45 | 1:55 |

| Table 7-1A. Time To Clear The Indicated Area of 50 Percent of the Affected Population (Page 2 of 2) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Summer | | Summer | | Summer | | Winter | | | Winter | | | Winter | | Autumn | Spring |
| | Midweek | | Weekend | | Midweek Weekend | | Midweek | | | Weekend | | | Midweek Weekend | | Weekend USMA Football | Midweek USMA Graduation |
| Scenario: | (1) | (2) | (3) | (4) | (5) | Scenario: | (6) | (7) | (8) | (9) | (10) | (11) | (12) | Scenario: | (13) | (14) |
| Region | Midday | | Midday | | Evening | Region | Midday | | | Midday | | | Evening | Region | Midday | Midday |
| | Good Weather | Rain | Good Weather | Rain | Good Weather | | Good Weather | Rain | Snow | Good Weather | Rain | Snow | Good Weather | | Good Weather | Good Weather |
| 5 Mile Ring and Keyhole to EPZ Boundary | | | | | | | | | | | | | | | | |
| R20 | 2:25 | 2:40 | 2:05 | 2:20 | 1:50 | R20 | 2:25 | 2:50 | 3:10 | 2:05 | 2:20 | 2:50 | 1:50 | R20 | 2:15 | 2:25 |
| R21 | 2:35 | 2:50 | 2:10 | 2:25 | 1:55 | R21 | 2:40 | 3:00 | 3:25 | 2:10 | 2:25 | 2:55 | 1:55 | R21 | 2:20 | 2:40 |
| R22 | 2:45 | 3:05 | 2:20 | 2:40 | 2:00 | R22 | 2:50 | 3:10 | 3:35 | 2:20 | 2:35 | 3:05 | 2:00 | R22 | 2:20 | 2:50 |
| R23 | 2:50 | 3:10 | 2:20 | 2:40 | 1:55 | R23 | 2:50 | 3:15 | 3:40 | 2:20 | 2:40 | 3:00 | 1:55 | R23 | 2:20 | 2:50 |
| R24 | 2:55 | 3:15 | 2:25 | 2:45 | 2:00 | R24 | 2:55 | 3:20 | 3:40 | 2:20 | 2:35 | 3:00 | 2:00 | R24 | 2:20 | 2:55 |
| R25 | 3:00 | 3:20 | 2:30 | 2:50 | 2:10 | R25 | 3:05 | 3:30 | 3:50 | 2:30 | 2:50 | 3:10 | 2:10 | R25 | 2:30 | 3:05 |
| R26 | 2:45 | 3:05 | 2:25 | 2:40 | 2:00 | R26 | 2:50 | 3:10 | 3:35 | 2:20 | 2:40 | 3:00 | 2:00 | R26 | 2:25 | 2:50 |
| R27 | 2:55 | 3:10 | 2:25 | 2:45 | 2:05 | R27 | 3:00 | 3:15 | 3:40 | 2:25 | 2:45 | 3:05 | 2:05 | R27 | 2:25 | 3:00 |
| R28 | 2:40 | 3:00 | 2:10 | 2:25 | 1:55 | R28 | 2:45 | 3:00 | 3:25 | 2:10 | 2:25 | 2:45 | 1:55 | R28 | 2:15 | 2:45 |
| R29 | 2:35 | 2:50 | 2:10 | 2:20 | 1:55 | R29 | 2:40 | 3:00 | 3:20 | 2:10 | 2:25 | 2:50 | 1:55 | R29 | 2:15 | 2:40 |
| R30 | 2:35 | 2:50 | 2:10 | 2:20 | 1:55 | R30 | 2:40 | 2:55 | 3:20 | 2:10 | 2:25 | 2:50 | 1:55 | R30 | 2:15 | 2:40 |
| R31 | 2:15 | 2:25 | 2:00 | 2:15 | 1:40 | R31 | 2:20 | 2:35 | 3:05 | 1:55 | 2:00 | 2:30 | 1:45 | R31 | 1:55 | 2:20 |
| R32 | 2:10 | 2:25 | 2:00 | 2:15 | 1:40 | R32 | 2:20 | 2:35 | 2:55 | 1:55 | 2:05 | 2:35 | 1:45 | R32 | 2:05 | 2:20 |
| R33 | 2:10 | 2:25 | 2:00 | 2:15 | 1:40 | R33 | 2:20 | 2:40 | 3:00 | 1:55 | 2:10 | 2:35 | 1:45 | R33 | 2:05 | 2:20 |
| R34 | 2:10 | 2:25 | 2:00 | 2:15 | 1:40 | R34 | 2:20 | 2:35 | 2:55 | 1:55 | 2:05 | 2:35 | 1:45 | R34 | 2:05 | 2:20 |
| R35 | 2:15 | 2:30 | 2:00 | 2:15 | 1:45 | R35 | 2:20 | 2:40 | 3:05 | 1:55 | 2:10 | 2:40 | 1:45 | R35 | 2:10 | 2:20 |

Table 7-1B. Time To Clear The Indicated Area of 90 Percent of the Affected Population (Page 1 of 2)

| | Summer | | Summer | | Summer | | Winter | | | Winter | | | Winter | | Autumn | Spring |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Midweek | | Weekend | | Midweek Weekend | | Midweek | | | Weekend | | | Midweek Weekend | | Weekend USMA Football | Midweek USMA Graduation |
| Scenario: | (1) | (2) | (3) | (4) | (5) | Scenario: | (6) | (7) | (8) | (9) | (10) | (11) | (12) | Scenario: | (13) | (14) |
| | Midday | | Midday | | Evening | | Midday | | | Midday | | | Evening | | Midday | Midday |
| 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 |
| Entire 2-Mile Region, 5-Mile Region, and EPZ | | | | | | | | | | | | | | | | |
| R1 | 3:50 | 4:10 | 3:15 | 3:25 | 2:55 | R1 | 3:55 | 4:15 | 4:50 | 3:15 | 3:30 | 4:05 | 2:55 | R1 | 3:15 | 3:55 |
| R2 | 4:50 | 5:10 | 4:20 | 4:45 | 3:55 | R2 | 4:55 | 5:20 | 6:20 | 4:15 | 4:40 | 5:40 | 3:55 | R2 | 4:15 | 4:55 |
| R3 | 6:30 | 7:20 | 5:45 | 6:25 | 4:55 | R3 | 6:30 | 7:10 | 8:05 | 5:30 | 6:05 | 7:00 | 5:00 | R3 | 5:30 | 6:30 |
| 2-Mile Ring and Keyhole to 5 Miles | | | | | | | | | | | | | | | | |
| R4 | 4:30 | 4:55 | 3:55 | 4:20 | 3:40 | R4 | 4:35 | 5:05 | 5:50 | 4:05 | 4:30 | 5:15 | 3:35 | R4 | 4:05 | 4:35 |
| R5 | 4:45 | 5:10 | 4:15 | 4:35 | 3:55 | R5 | 4:55 | 5:20 | 6:20 | 4:15 | 4:40 | 5:40 | 3:55 | R5 | 4:15 | 4:55 |
| R6 | 4:50 | 5:10 | 4:15 | 4:35 | 3:55 | R6 | 4:50 | 5:20 | 6:20 | 4:15 | 4:40 | 5:35 | 3:55 | R6 | 4:15 | 4:50 |
| R7 | 4:50 | 5:10 | 4:10 | 4:35 | 3:55 | R7 | 4:55 | 5:20 | 6:15 | 4:15 | 4:40 | 5:35 | 3:55 | R7 | 4:15 | 4:55 |
| R8 | 4:50 | 5:10 | 4:10 | 4:30 | 3:50 | R8 | 4:50 | 5:20 | 6:10 | 4:10 | 4:40 | 5:30 | 3:50 | R8 | 4:10 | 4:50 |
| R9 | 4:45 | 5:10 | 4:15 | 4:45 | 3:30 | R9 | 4:45 | 5:10 | 5:55 | 4:05 | 4:25 | 5:00 | 3:30 | R9 | 4:05 | 4:45 |
| R10 | 4:30 | 4:55 | 4:05 | 4:35 | 3:15 | R10 | 4:30 | 4:55 | 5:35 | 3:50 | 4:05 | 4:40 | 3:10 | R10 | 3:50 | 4:30 |
| R11 | 4:35 | 5:00 | 4:10 | 4:40 | 3:35 | R11 | 4:35 | 5:00 | 5:35 | 4:00 | 4:20 | 4:55 | 3:25 | R11 | 4:00 | 4:35 |
| R12 | 4:35 | 5:05 | 4:15 | 4:40 | 3:35 | R12 | 4:35 | 5:00 | 5:35 | 4:00 | 4:20 | 4:55 | 3:25 | R12 | 4:00 | 4:35 |
| R13 | 4:20 | 4:50 | 3:50 | 4:15 | 3:35 | R13 | 4:20 | 4:45 | 5:25 | 3:55 | 4:15 | 4:55 | 3:30 | R13 | 3:55 | 4:20 |
| R14 | 4:15 | 4:40 | 3:45 | 4:10 | 3:30 | R14 | 4:15 | 4:45 | 5:20 | 3:50 | 4:10 | 4:50 | 3:25 | R14 | 3:50 | 4:15 |
| R15 | 4:15 | 4:40 | 3:45 | 4:10 | 3:30 | R15 | 4:15 | 4:45 | 5:20 | 3:50 | 4:10 | 4:50 | 3:25 | R15 | 3:50 | 4:15 |
| R16 | 3:50 | 4:10 | 3:15 | 3:25 | 3:00 | R16 | 3:55 | 4:15 | 4:50 | 3:20 | 3:30 | 4:10 | 3:00 | R16 | 3:20 | 3:55 |
| R17 | 3:50 | 4:10 | 3:15 | 3:30 | 2:55 | R17 | 3:55 | 4:15 | 4:50 | 3:15 | 3:30 | 4:05 | 2:55 | R17 | 4:15 | 3:55 |
| R18 | 3:50 | 4:10 | 3:15 | 3:30 | 2:55 | R18 | 3:55 | 4:15 | 4:55 | 3:15 | 3:30 | 4:05 | 2:55 | R18 | 4:15 | 3:55 |
| R19 | 4:30 | 4:50 | 3:50 | 4:15 | 3:35 | R19 | 4:30 | 5:00 | 5:50 | 3:55 | 4:25 | 5:10 | 3:30 | R19 | 3:50 | 4:30 |

| Table 7-1B. Time To Clear The Indicated Area of 90 Percent of the Affected Population (Page 2 of 2) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Summer | | Summer | | Summer | | Winter | | | Winter | | | Winter | | Autumn | Spring |
| | Midweek | | Weekend | | Midweek Weekend | | Midweek | | | Weekend | | | Midweek Weekend | | Weekend USMA Football | Midweek USMA Graduation |
| Scenario: | (1) | (2) | (3) | (4) | (5) | Scenario: | (6) | (7) | (8) | (9) | (10) | (11) | (12) | Scenario: | (13) | (14) |
| Region | Midday | | Midday | | Evening | Region | Midday | | | Midday | | | Evening | Region | Midday | Midday |
| | Good Weather | Rain | Good Weather | Rain | Good Weather | | Good Weather | Rain | Snow | Good Weather | Rain | Snow | Good Weather | | Good Weather | Good Weather |
| 5 Mile Ring and Keyhole to EPZ Boundary | | | | | | | | | | | | | | | | |
| R20 | 5:25 | 6:05 | 4:50 | 5:25 | 4:20 | R20 | 5:30 | 6:05 | 6:55 | 4:55 | 5:15 | 6:10 | 4:15 | R20 | 4:55 | 5:30 |
| R21 | 5:50 | 6:30 | 5:15 | 5:45 | 4:40 | R21 | 5:55 | 6:30 | 7:30 | 5:10 | 5:40 | 6:40 | 4:40 | R21 | 5:10 | 5:55 |
| R22 | 6:15 | 6:55 | 5:35 | 6:10 | 4:55 | R22 | 6:25 | 7:05 | 8:05 | 5:30 | 6:05 | 7:00 | 5:00 | R22 | 5:30 | 6:25 |
| R23 | 6:15 | 7:00 | 5:40 | 6:15 | 4:55 | R23 | 6:20 | 7:00 | 7:55 | 5:25 | 6:00 | 7:00 | 4:55 | R23 | 5:25 | 6:20 |
| R24 | 6:15 | 7:00 | 5:35 | 6:15 | 4:50 | R24 | 6:20 | 7:00 | 7:50 | 5:20 | 5:55 | 6:50 | 4:50 | R24 | 5:20 | 6:20 |
| R25 | 6:30 | 7:20 | 5:45 | 6:25 | 4:45 | R25 | 6:30 | 7:10 | 8:05 | 5:30 | 6:05 | 6:55 | 4:40 | R25 | 5:30 | 6:30 |
| R26 | 6:10 | 6:45 | 5:20 | 6:00 | 4:20 | R26 | 6:10 | 6:45 | 7:30 | 5:10 | 5:40 | 6:25 | 4:20 | R26 | 5:10 | 6:10 |
| R27 | 6:05 | 6:40 | 5:25 | 5:55 | 4:30 | R27 | 6:10 | 6:40 | 7:30 | 5:10 | 5:40 | 6:25 | 4:20 | R27 | 5:10 | 6:10 |
| R28 | 5:50 | 6:35 | 5:10 | 5:40 | 4:25 | R28 | 5:55 | 6:30 | 7:20 | 5:00 | 5:25 | 6:10 | 4:15 | R28 | 5:00 | 5:55 |
| R29 | 5:35 | 6:10 | 4:55 | 5:25 | 4:15 | R29 | 5:35 | 6:10 | 6:55 | 4:45 | 5:10 | 5:55 | 4:05 | R29 | 4:45 | 5:35 |
| R30 | 5:30 | 6:10 | 4:50 | 5:20 | 4:15 | R30 | 5:30 | 6:10 | 6:55 | 4:40 | 5:05 | 5:55 | 4:05 | R30 | 4:40 | 5:30 |
| R31 | 5:10 | 5:45 | 4:25 | 4:55 | 3:55 | R31 | 5:15 | 5:45 | 6:35 | 4:20 | 4:45 | 5:30 | 3:55 | R31 | 4:20 | 5:15 |
| R32 | 5:05 | 5:45 | 4:30 | 5:05 | 4:00 | R32 | 5:10 | 5:40 | 6:25 | 4:25 | 4:50 | 5:40 | 3:55 | R32 | 4:40 | 5:10 |
| R33 | 5:05 | 5:45 | 4:30 | 5:00 | 4:00 | R33 | 5:10 | 5:40 | 6:25 | 4:25 | 4:50 | 5:40 | 3:55 | R33 | 4:40 | 5:10 |
| R34 | 5:05 | 5:45 | 4:30 | 5:00 | 4:00 | R34 | 5:10 | 5:40 | 6:25 | 4:25 | 4:50 | 5:40 | 3:55 | R34 | 4:40 | 5:10 |
| R35 | 5:10 | 5:45 | 4:35 | 5:05 | 4:05 | R35 | 5:10 | 5:45 | 6:25 | 4:30 | 4:50 | 5:40 | 3:55 | R35 | 4:40 | 5:10 |

| Table 7-1C. Time To Clear The Indicated Area of 95 Percent of the Affected Population (Page 1 of 2) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Summer | | Summer | | Summer | | Winter | | | Winter | | | Winter | | Autumn | Spring |
| | Midweek | | Weekend | | Midweek Weekend | | Midweek | | | Weekend | | | Midweek Weekend | | Weekend USMA Football | Midweek USMA Graduation |
| Scenario: | (1) | (2) | (3) | (4) | (5) | Scenario: | (6) | (7) | (8) | (9) | (10) | (11) | (12) | Scenario: | (13) | (14) |
| Region | Midday | | Midday | | Evening | Region | Midday | | | Midday | | | Evening | Region | Midday | Midday |
| | Good Weather | Rain | Good Weather | Rain | Good Weather | | Good Weather | Rain | Snow | Good Weather | Rain | Snow | Good Weather | | Good Weather | Good Weather |
| Entire 2-Mile Region, 5-Mile Region, and EPZ | | | | | | | | | | | | | | | | |
| R1 | 4:15 | 4:40 | 3:35 | 3:50 | 3:15 | R1 | 4:20 | 4:40 | 5:20 | 3:40 | 3:55 | 4:30 | 3:15 | R1 | 3:40 | 4:20 |
| R2 | 5:20 | 5:45 | 4:45 | 5:15 | 4:15 | R2 | 5:20 | 6:00 | 6:55 | 4:40 | 5:05 | 6:10 | 4:15 | R2 | 4:40 | 5:20 |
| R3 | 7:20 | 8:10 | 6:35 | 7:15 | 5:35 | R3 | 7:20 | 8:00 | 9:10 | 6:15 | 7:00 | 8:10 | 5:40 | R3 | 6:15 | 7:20 |
| 2-Mile Ring and Keyhole to 5 Miles | | | | | | | | | | | | | | | | |
| R4 | 5:00 | 5:25 | 4:20 | 4:45 | 4:00 | R4 | 5:00 | 5:30 | 6:25 | 4:25 | 4:50 | 5:40 | 3:55 | R4 | 4:25 | 5:00 |
| R5 | 5:20 | 5:45 | 4:40 | 5:00 | 4:15 | R5 | 5:20 | 6:00 | 6:55 | 4:40 | 5:05 | 6:10 | 4:15 | R5 | 4:40 | 5:20 |
| R6 | 5:20 | 5:45 | 4:40 | 5:00 | 4:15 | R6 | 5:20 | 6:00 | 6:55 | 4:40 | 5:05 | 6:10 | 4:15 | R6 | 4:40 | 5:20 |
| R7 | 5:20 | 5:45 | 4:45 | 5:00 | 4:15 | R7 | 5:20 | 5:50 | 6:55 | 4:40 | 5:05 | 6:05 | 4:15 | R7 | 4:40 | 5:20 |
| R8 | 5:15 | 5:40 | 4:35 | 5:00 | 4:15 | R8 | 5:20 | 5:50 | 6:50 | 4:40 | 5:05 | 6:05 | 4:15 | R8 | 4:40 | 5:20 |
| R9 | 5:10 | 5:30 | 4:40 | 5:05 | 3:50 | R9 | 5:05 | 5:25 | 6:25 | 4:20 | 4:45 | 5:25 | 3:50 | R9 | 4:20 | 5:05 |
| R10 | 4:50 | 5:15 | 4:25 | 4:55 | 3:30 | R10 | 4:50 | 5:15 | 5:55 | 4:05 | 4:25 | 5:00 | 3:25 | R10 | 4:10 | 4:50 |
| R11 | 4:55 | 5:25 | 4:35 | 5:10 | 4:00 | R11 | 4:55 | 5:25 | 6:00 | 4:25 | 4:45 | 5:20 | 3:55 | R11 | 4:35 | 4:55 |
| R12 | 4:55 | 5:25 | 4:40 | 5:10 | 4:00 | R12 | 4:55 | 5:25 | 6:05 | 4:25 | 4:45 | 5:25 | 3:55 | R12 | 4:35 | 4:55 |
| R13 | 4:50 | 5:20 | 4:20 | 4:50 | 4:05 | R13 | 4:50 | 5:20 | 6:00 | 4:25 | 4:50 | 5:25 | 4:05 | R13 | 4:35 | 4:50 |
| R14 | 4:45 | 5:15 | 4:15 | 4:40 | 4:00 | R14 | 4:45 | 5:15 | 5:55 | 4:20 | 4:45 | 5:25 | 4:00 | R14 | 4:25 | 4:45 |
| R15 | 4:45 | 5:15 | 4:15 | 4:40 | 4:00 | R15 | 4:45 | 5:15 | 5:55 | 4:20 | 4:45 | 5:25 | 4:00 | R15 | 4:25 | 4:45 |
| R16 | 4:15 | 4:40 | 3:35 | 3:50 | 3:20 | R16 | 4:20 | 4:40 | 5:30 | 3:40 | 3:55 | 4:40 | 3:20 | R16 | 3:40 | 4:20 |
| R17 | 4:15 | 4:40 | 3:35 | 3:55 | 3:15 | R17 | 4:20 | 4:40 | 5:25 | 3:40 | 3:55 | 4:35 | 3:15 | R17 | 4:55 | 4:40 |
| R18 | 4:20 | 4:40 | 3:40 | 3:55 | 3:15 | R18 | 4:25 | 4:45 | 5:35 | 3:40 | 3:55 | 4:45 | 3:15 | R18 | 4:40 | 4:25 |
| R19 | 5:00 | 5:20 | 4:15 | 4:45 | 4:05 | R19 | 5:00 | 5:30 | 6:30 | 4:20 | 4:50 | 5:40 | 4:00 | R19 | 4:20 | 5:00 |

| Table 7-1C. Time To Clear The Indicated Area of 95 Percent of the Affected Population (Page 2 of 2) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Summer | | Summer | | Summer | | Winter | | | | Winter | | | Winter | | Autumn | Spring |
| | Midweek | | Weekend | | Midweek Weekend | | Midweek | | | | Weekend | | | Midweek Weekend | | Weekend USMA Football | Midweek USMA Graduation |
| Scenario: | (1) | (2) | (3) | (4) | (5) | Scenario: | (6) | (7) | (8) | (9) | (10) | (11) | (12) | Scenario: | | (13) | (14) |
| Region | Midday | | Midday | | Evening | Region | Midday | | | Midday | | | Evening | Region | | Midday | Midday |
| | Good Weather | Rain | Good Weather | Rain | Good Weather | | Good Weather | Rain | Snow | Good Weather | Rain | Snow | Good Weather | | | Good Weather | Good Weather |
| 5 Mile Ring and Keyhole to EPZ Boundary | | | | | | | | | | | | | | | | | |
| R20 | 5:55 | 6:40 | 5:25 | 6:00 | 4:55 | R20 | 6:00 | 6:45 | 7:35 | 5:30 | 5:50 | 6:55 | 4:50 | R20 | | 5:30 | 6:00 |
| R21 | 6:30 | 7:10 | 5:55 | 6:30 | 5:15 | R21 | 6:35 | 7:15 | 8:20 | 5:45 | 6:25 | 7:30 | 5:15 | R21 | | 5:45 | 6:35 |
| R22 | 7:10 | 8:00 | 6:25 | 7:00 | 5:35 | R22 | 7:20 | 8:00 | 9:10 | 6:15 | 7:00 | 8:10 | 5:40 | R22 | | 6:15 | 7:20 |
| R23 | 7:10 | 8:00 | 6:30 | 7:10 | 5:35 | R23 | 7:15 | 8:00 | 9:10 | 6:15 | 6:55 | 8:10 | 5:35 | R23 | | 6:15 | 7:15 |
| R24 | 7:10 | 8:00 | 6:25 | 7:10 | 5:30 | R24 | 7:15 | 7:55 | 9:05 | 6:10 | 6:50 | 8:00 | 5:30 | R24 | | 6:10 | 7:15 |
| R25 | 7:10 | 7:55 | 6:25 | 7:05 | 5:20 | R25 | 7:10 | 8:00 | 8:55 | 6:05 | 6:45 | 7:45 | 5:15 | R25 | | 6:05 | 7:10 |
| R26 | 6:55 | 7:35 | 6:05 | 6:50 | 4:55 | R26 | 6:50 | 7:30 | 8:25 | 5:45 | 6:20 | 7:10 | 4:50 | R26 | | 5:45 | 6:50 |
| R27 | 6:50 | 7:30 | 6:05 | 6:40 | 5:00 | R27 | 6:50 | 7:25 | 8:20 | 5:45 | 6:20 | 7:10 | 4:50 | R27 | | 5:45 | 6:50 |
| R28 | 6:30 | 7:20 | 5:50 | 6:25 | 4:55 | R28 | 6:35 | 7:15 | 8:10 | 5:35 | 6:00 | 6:55 | 4:45 | R28 | | 5:35 | 6:35 |
| R29 | 6:00 | 6:45 | 5:25 | 5:55 | 4:40 | R29 | 6:05 | 6:45 | 7:30 | 5:10 | 5:40 | 6:25 | 4:30 | R29 | | 5:10 | 6:05 |
| R30 | 6:00 | 6:40 | 5:20 | 5:55 | 4:40 | R30 | 6:00 | 6:40 | 7:30 | 5:05 | 5:35 | 6:25 | 4:30 | R30 | | 5:10 | 6:00 |
| R31 | 5:40 | 6:20 | 4:55 | 5:25 | 4:20 | R31 | 5:45 | 6:20 | 7:10 | 4:50 | 5:15 | 6:10 | 4:15 | R31 | | 4:50 | 5:45 |
| R32 | 5:35 | 6:20 | 5:00 | 5:35 | 4:25 | R32 | 5:40 | 6:15 | 7:00 | 4:55 | 5:20 | 6:10 | 4:20 | R32 | | 5:05 | 5:40 |
| R33 | 5:35 | 6:15 | 5:00 | 5:30 | 4:25 | R33 | 5:35 | 6:15 | 7:00 | 4:55 | 5:20 | 6:10 | 4:20 | R33 | | 5:10 | 5:35 |
| R34 | 5:35 | 6:15 | 5:00 | 5:30 | 4:25 | R34 | 5:40 | 6:15 | 7:00 | 4:55 | 5:20 | 6:10 | 4:20 | R34 | | 5:10 | 5:40 |
| R35 | 5:40 | 6:20 | 5:05 | 5:35 | 4:30 | R35 | 5:40 | 6:20 | 7:05 | 5:00 | 5:25 | 6:15 | 4:25 | R35 | | 5:15 | 5:40 |

| Table 7-1D. Time To Clear The Indicated Area of 100 Percent of the Affected Population (Page 1 of 2) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Summer | | Summer | | Summer | | Winter | | | Winter | | | Winter | | Autumn | Spring |
| | Midweek | | Weekend | | Midweek Weekend | | Midweek | | | Weekend | | | Midweek Weekend | | Weekend USMA Football | Midweek USMA Graduation |
| Scenario: | (1) | (2) | (3) | (4) | (5) | Scenario: | (6) | (7) | (8) | (9) | (10) | (11) | (12) | Scenario: | (13) | (14) |
| Region | Midday | | Midday | | Evening | Region | Midday | | | Midday | | | Evening | Region | Midday | Midday |
| | Good Weather | Rain | Good Weather | Rain | Good Weather | | Good Weather | Rain | Snow | Good Weather | Rain | Snow | Good Weather | | Good Weather | Good Weather |
| Entire 2-Mile Region, 5-Mile Region, and EPZ | | | | | | | | | | | | | | | | |
| R1 | 4:55 | 5:30 | 4:50 | 5:25 | 4:45 | R1 | 5:15 | 5:15 | 6:50 | 4:55 | 5:30 | 5:55 | 4:30 | R1 | 5:30 | 5:15 |
| R2 | 6:20 | 7:10 | 5:55 | 6:45 | 5:25 | R2 | 6:20 | 7:00 | 8:00 | 5:55 | 6:25 | 7:20 | 5:25 | R2 | 6:30 | 6:20 |
| R3 | 9:25 | 10:30 | 8:50 | 9:50 | 7:15 | R3 | 9:30 | 10:55 | 12:00 | 7:55 | 8:50 | 10:10 | 7:10 | R3 | 8:45 | 9:30 |
| 2-Mile Ring and Keyhole to 5 Miles | | | | | | | | | | | | | | | | |
| R4 | 5:45 | 6:20 | 5:10 | 5:35 | 4:50 | R4 | 5:45 | 6:25 | 7:30 | 5:15 | 5:30 | 6:35 | 4:45 | R4 | 5:55 | 5:45 |
| R5 | 6:00 | 6:45 | 5:25 | 5:50 | 5:15 | R5 | 6:10 | 7:00 | 8:00 | 5:25 | 5:45 | 7:10 | 5:15 | R5 | 5:55 | 6:10 |
| R6 | 6:00 | 6:45 | 5:25 | 5:50 | 5:15 | R6 | 6:10 | 7:00 | 8:00 | 5:25 | 5:45 | 7:10 | 5:15 | R6 | 5:55 | 6:10 |
| R7 | 6:10 | 6:40 | 5:20 | 5:50 | 5:10 | R7 | 6:10 | 6:45 | 8:00 | 5:20 | 5:40 | 7:05 | 5:15 | R7 | 6:00 | 6:10 |
| R8 | 6:10 | 6:35 | 5:20 | 5:50 | 5:10 | R8 | 6:05 | 6:45 | 8:00 | 5:20 | 5:45 | 7:10 | 5:15 | R8 | 6:00 | 6:05 |
| R9 | 5:55 | 6:25 | 5:55 | 6:40 | 4:35 | R9 | 6:00 | 6:30 | 7:35 | 5:10 | 5:30 | 6:45 | 4:35 | R9 | 6:00 | 6:00 |
| R10 | 5:25 | 5:45 | 5:55 | 6:40 | 4:25 | R10 | 5:20 | 5:55 | 6:45 | 4:40 | 5:25 | 5:55 | 4:25 | R10 | 5:30 | 5:20 |
| R11 | 6:20 | 6:55 | 5:55 | 6:40 | 5:25 | R11 | 6:20 | 6:55 | 7:45 | 5:55 | 6:20 | 7:20 | 5:25 | R11 | 6:30 | 6:20 |
| R12 | 6:20 | 6:55 | 5:55 | 6:40 | 5:25 | R12 | 6:20 | 6:55 | 7:45 | 5:55 | 6:20 | 7:20 | 5:25 | R12 | 6:30 | 6:20 |
| R13 | 6:20 | 7:10 | 5:55 | 6:45 | 5:25 | R13 | 6:20 | 6:55 | 7:40 | 5:55 | 6:25 | 7:15 | 5:25 | R13 | 6:30 | 6:20 |
| R14 | 6:20 | 7:10 | 5:55 | 6:45 | 5:25 | R14 | 6:20 | 6:55 | 7:40 | 5:55 | 6:25 | 7:15 | 5:25 | R14 | 6:30 | 6:20 |
| R15 | 6:20 | 7:10 | 5:55 | 6:45 | 5:25 | R15 | 6:20 | 6:55 | 7:40 | 5:55 | 6:25 | 7:15 | 5:25 | R15 | 6:30 | 6:20 |
| R16 | 5:25 | 5:40 | 4:50 | 5:10 | 4:25 | R16 | 5:10 | 5:45 | 6:45 | 4:45 | 5:30 | 5:55 | 4:25 | R16 | 5:30 | 5:10 |
| R17 | 5:25 | 5:40 | 4:50 | 5:10 | 4:25 | R17 | 5:10 | 5:45 | 6:45 | 4:45 | 5:30 | 5:55 | 4:25 | R17 | 6:50 | 5:10 |
| R18 | 5:20 | 5:40 | 4:50 | 5:15 | 4:25 | R18 | 5:15 | 5:50 | 6:45 | 4:45 | 5:30 | 5:50 | 4:25 | R18 | 6:50 | 6:00 |
| R19 | 5:40 | 6:20 | 4:55 | 5:30 | 4:45 | R19 | 5:40 | 6:35 | 7:30 | 5:15 | 5:30 | 6:35 | 4:45 | R19 | 5:55 | 5:40 |

| Table 7-1D. Time To Clear The Indicated Area of 100 Percent of the Affected Population (Page 2 of 2) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Summer | | Summer | | Summer | | Winter | | | Winter | | | Winter | | Autumn | Spring |
| | Midweek | | Weekend | | Midweek Weekend | | Midweek | | | Weekend | | | Midweek Weekend | | Weekend USMA Football | Midweek USMA Graduation |
| Scenario: | (1) | (2) | (3) | (4) | (5) | Scenario: | (6) | (7) | (8) | (9) | (10) | (11) | (12) | Scenario: | (13) | (14) |
| Region | Midday | | Midday | | Evening | Region | Midday | | | Midday | | | Evening | Region | Midday | Midday |
| | Good Weather | Rain | Good Weather | Rain | Good Weather | | Good Weather | Rain | Snow | Good Weather | Rain | Snow | Good Weather | | Good Weather | Good Weather |
| 5 Mile Ring and Keyhole to EPZ Boundary | | | | | | | | | | | | | | | | |
| R20 | 7:25 | 8:10 | 6:45 | 7:30 | 6:25 | R20 | 7:30 | 8:15 | 9:25 | 6:55 | 7:25 | 8:40 | 6:25 | R20 | 6:50 | 7:30 |
| R21 | 8:00 | 8:55 | 7:20 | 8:15 | 6:45 | R21 | 8:10 | 8:55 | 10:20 | 7:10 | 8:05 | 9:20 | 6:40 | R21 | 7:00 | 8:10 |
| R22 | 8:55 | 9:55 | 7:50 | 8:45 | 7:15 | R22 | 8:55 | 9:55 | 11:15 | 7:55 | 8:45 | 10:05 | 7:10 | R22 | 8:45 | 9:15 |
| R23 | 8:55 | 9:55 | 8:15 | 8:50 | 7:15 | R23 | 9:00 | 10:00 | 11:20 | 7:50 | 8:50 | 10:10 | 7:05 | R23 | 8:45 | 9:15 |
| R24 | 8:45 | 9:40 | 7:55 | 9:00 | 7:05 | R24 | 8:50 | 9:40 | 11:00 | 7:45 | 8:20 | 9:50 | 7:00 | R24 | 8:45 | 9:20 |
| R25 | 9:25 | 10:30 | 8:50 | 9:30 | 6:55 | R25 | 9:25 | 10:55 | 12:00 | 7:30 | 8:05 | 9:30 | 6:50 | R25 | 8:15 | 9:25 |
| R26 | 9:25 | 10:30 | 8:50 | 9:30 | 6:15 | R26 | 9:30 | 10:55 | 12:00 | 7:20 | 7:55 | 8:45 | 6:00 | R26 | 7:50 | 9:30 |
| R27 | 9:20 | 10:30 | 8:20 | 9:25 | 6:15 | R27 | 9:25 | 10:55 | 11:55 | 7:05 | 7:55 | 8:45 | 6:00 | R27 | 7:50 | 9:25 |
| R28 | 9:20 | 10:25 | 8:20 | 9:50 | 6:20 | R28 | 9:30 | 10:30 | 12:00 | 7:15 | 7:35 | 8:45 | 6:25 | R28 | 7:50 | 9:30 |
| R29 | 8:10 | 8:55 | 7:20 | 7:40 | 6:25 | R29 | 8:10 | 8:55 | 9:50 | 6:50 | 7:20 | 8:15 | 6:15 | R29 | 6:45 | 8:10 |
| R30 | 8:00 | 8:55 | 7:25 | 7:45 | 6:50 | R30 | 8:00 | 8:45 | 10:00 | 6:45 | 7:20 | 8:20 | 6:20 | R30 | 7:30 | 8:00 |
| R31 | 7:15 | 8:25 | 6:45 | 7:20 | 6:20 | R31 | 7:20 | 7:55 | 8:50 | 6:45 | 7:00 | 8:25 | 6:15 | R31 | 7:30 | 7:20 |
| R32 | 6:40 | 7:45 | 6:40 | 7:10 | 5:50 | R32 | 6:45 | 7:40 | 8:30 | 6:10 | 6:40 | 7:55 | 5:40 | R32 | 6:50 | 6:45 |
| R33 | 6:40 | 7:45 | 6:40 | 7:10 | 5:50 | R33 | 6:45 | 7:40 | 8:30 | 6:10 | 6:40 | 7:55 | 5:40 | R33 | 6:50 | 6:45 |
| R34 | 6:40 | 7:45 | 6:40 | 7:10 | 5:50 | R34 | 6:45 | 7:40 | 8:30 | 6:10 | 6:40 | 7:55 | 5:40 | R34 | 6:50 | 6:45 |
| R35 | 6:55 | 7:45 | 6:40 | 7:10 | 5:50 | R35 | 6:55 | 7:40 | 8:30 | 6:20 | 6:55 | 7:55 | 5:50 | R35 | 6:50 | 6:55 |

| Table 7-1E. Time To Clear The EPZ Boundary of 100 Percent of the Affected Population (Page 1 of 2) | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Summer | | Summer | | Summer | | Winter | | | | Winter | | | Winter | | Autumn | Spring |
| | Midweek | | Weekend | | Midweek Weekend | | Midweek | | | | Weekend | | | Midweek Weekend | | Weekend USMA Football | Midweek USMA Graduation |
| Scenario: | (1) | (2) | (3) | (4) | (5) | Scenario: | (6) | (7) | (8) | (9) | (10) | (11) | (12) | Scenario: | (13) | (14) |
| Region | Midday | | Midday | | Evening | Region | Midday | | | Midday | | | Evening | Region | Midday | Midday |
| | Good Weather | Rain | Good Weather | Rain | Good Weather | | Good Weather | Rain | Snow | Good Weather | Rain | Snow | Good Weather | | Good Weather | Good Weather |
| Entire 2-Mile Region, 5-Mile Region, and EPZ | | | | | | | | | | | | | | | | |
| R1 | 6:05 | 6:40 | 5:45 | 6:20 | 4:55 | R1 | 6:05 | 6:40 | 7:40 | 5:50 | 6:20 | 7:20 | 4:40 | R1 | 5:55 | 6:05 |
| R2 | 6:45 | 7:35 | 6:15 | 7:05 | 5:40 | R2 | 6:40 | 7:35 | 8:30 | 6:15 | 6:40 | 7:50 | 5:35 | R2 | 7:00 | 6:40 |
| R3 | 9:25 | 10:30 | 8:50 | 9:50 | 7:15 | R3 | 9:30 | 10:55 | 12:00 | 7:55 | 8:50 | 10:10 | 7:10 | R3 | 8:45 | 9:30 |
| 2-Mile Ring and Keyhole to 5 Miles | | | | | | | | | | | | | | | | |
| R4 | 6:30 | 7:00 | 5:45 | 6:40 | 5:25 | R4 | 6:30 | 7:15 | 8:05 | 5:55 | 6:40 | 7:20 | 5:25 | R4 | 6:35 | 6:30 |
| R5 | 6:40 | 7:20 | 6:10 | 6:40 | 5:40 | R5 | 6:40 | 7:35 | 8:30 | 6:05 | 6:40 | 7:50 | 5:35 | R5 | 6:30 | 6:40 |
| R6 | 6:40 | 7:20 | 6:10 | 6:40 | 5:40 | R6 | 6:40 | 7:35 | 8:30 | 6:05 | 6:40 | 7:50 | 5:35 | R6 | 6:30 | 6:40 |
| R7 | 6:35 | 7:10 | 6:05 | 6:40 | 5:30 | R7 | 6:40 | 7:25 | 8:25 | 6:05 | 6:40 | 7:50 | 5:30 | R7 | 6:45 | 6:40 |
| R8 | 6:35 | 7:10 | 6:05 | 6:40 | 5:35 | R8 | 6:40 | 7:25 | 8:25 | 6:05 | 6:40 | 7:50 | 5:30 | R8 | 6:50 | 6:40 |
| R9 | 6:25 | 7:00 | 6:15 | 7:05 | 4:55 | R9 | 6:30 | 7:00 | 8:10 | 5:50 | 6:40 | 7:40 | 5:00 | R9 | 6:10 | 6:30 |
| R10 | 6:10 | 6:40 | 6:15 | 7:05 | 4:55 | R10 | 6:10 | 6:45 | 7:55 | 5:50 | 6:25 | 7:20 | 4:40 | R10 | 5:55 | 6:10 |
| R11 | 6:45 | 7:25 | 6:15 | 7:05 | 5:40 | R11 | 6:40 | 7:10 | 7:55 | 6:15 | 6:35 | 7:35 | 5:35 | R11 | 6:45 | 6:40 |
| R12 | 6:45 | 7:25 | 6:15 | 7:05 | 5:40 | R12 | 6:40 | 7:10 | 7:55 | 6:15 | 6:35 | 7:35 | 5:35 | R12 | 6:45 | 6:40 |
| R13 | 6:45 | 7:35 | 6:15 | 7:05 | 5:40 | R13 | 6:40 | 7:10 | 7:55 | 6:15 | 6:35 | 7:35 | 5:35 | R13 | 6:45 | 6:40 |
| R14 | 6:45 | 7:35 | 6:15 | 7:05 | 5:40 | R14 | 6:40 | 7:10 | 7:55 | 6:15 | 6:35 | 7:35 | 5:35 | R14 | 6:45 | 6:40 |
| R15 | 6:45 | 7:35 | 6:15 | 7:05 | 5:40 | R15 | 6:40 | 7:10 | 7:55 | 6:15 | 6:35 | 7:35 | 5:35 | R15 | 6:45 | 6:40 |
| R16 | 6:05 | 6:40 | 5:50 | 6:20 | 4:55 | R16 | 6:10 | 6:40 | 7:55 | 5:50 | 6:25 | 7:20 | 4:40 | R16 | 5:55 | 6:10 |
| R17 | 6:05 | 6:40 | 5:50 | 6:20 | 4:55 | R17 | 6:10 | 6:40 | 7:55 | 5:50 | 6:20 | 7:20 | 4:40 | R17 | 7:00 | 6:10 |
| R18 | 6:05 | 6:40 | 5:50 | 6:20 | 4:55 | R18 | 6:10 | 6:40 | 7:55 | 5:50 | 6:20 | 7:20 | 4:40 | R18 | 7:00 | 6:10 |
| R19 | 6:30 | 7:00 | 5:45 | 6:40 | 5:20 | R19 | 6:30 | 7:00 | 8:05 | 5:50 | 6:40 | 7:20 | 5:15 | R19 | 6:50 | 6:30 |

Table 7-1E. Time To Clear The EPZ Boundary of 100 Percent of the Affected Population (Page 2 of 2)

| | Summer | | Summer | | Summer | | Winter | | | Winter | | | Winter | | Autumn | Spring |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Midweek | | Weekend | | Midweek Weekend | | Midweek | | | Weekend | | | Midweek Weekend | | Weekend USMA Football | Midweek USMA Graduation |
| Scenario: | (1) | (2) | (3) | (4) | (5) | Scenario: | (6) | (7) | (8) | (9) | (10) | (11) | (12) | Scenario: | (13) | (14) |
| | Midday | | Midday | | Evening | | Midday | | | Midday | | | Evening | | Midday | Midday |
| 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 |
| 5 Mile Ring and Keyhole to EPZ Boundary | | | | | | | | | | | | | | | | |
| R20 | 7:30 | 8:15 | 6:50 | 7:35 | 6:30 | R20 | 7:35 | 8:20 | 9:30 | 7:00 | 7:30 | 8:45 | 6:30 | R20 | 7:15 | 8:10 |
| R21 | 8:05 | 9:00 | 7:20 | 8:20 | 6:50 | R21 | 8:15 | 9:00 | 10:25 | 7:15 | 8:10 | 9:25 | 6:45 | R21 | 7:45 | 8:50 |
| R22 | 9:00 | 10:00 | 7:55 | 8:50 | 7:15 | R22 | 9:00 | 10:00 | 11:20 | 7:55 | 8:50 | 10:10 | 7:10 | R22 | 8:45 | 9:20 |
| R23 | 9:00 | 10:00 | 8:20 | 8:55 | 7:15 | R23 | 9:05 | 10:05 | 11:25 | 7:55 | 8:50 | 10:10 | 7:10 | R23 | 8:45 | 9:20 |
| R24 | 8:50 | 9:45 | 8:00 | 9:05 | 7:10 | R24 | 8:55 | 9:45 | 11:05 | 7:50 | 8:25 | 9:55 | 7:05 | R24 | 8:45 | 9:20 |
| R25 | 9:25 | 10:30 | 8:50 | 9:35 | 7:00 | R25 | 9:30 | 10:55 | 12:00 | 7:35 | 8:10 | 9:35 | 6:55 | R25 | 8:20 | 9:30 |
| R26 | 9:25 | 10:30 | 8:50 | 9:35 | 6:20 | R26 | 9:30 | 10:55 | 12:00 | 7:25 | 8:05 | 8:50 | 6:05 | R26 | 7:55 | 9:30 |
| R27 | 9:25 | 10:30 | 8:25 | 9:30 | 6:20 | R27 | 9:30 | 10:55 | 12:00 | 7:10 | 8:00 | 8:50 | 6:05 | R27 | 7:55 | 9:30 |
| R28 | 9:25 | 10:30 | 8:25 | 9:50 | 6:25 | R28 | 9:30 | 10:35 | 12:00 | 7:20 | 7:40 | 8:50 | 6:30 | R28 | 7:55 | 9:30 |
| R29 | 8:15 | 9:00 | 7:25 | 7:45 | 6:30 | R29 | 8:15 | 9:00 | 9:55 | 6:55 | 7:25 | 8:20 | 6:20 | R29 | 7:05 | 8:25 |
| R30 | 8:05 | 9:00 | 7:30 | 7:50 | 6:55 | R30 | 8:05 | 8:50 | 10:05 | 6:50 | 7:25 | 8:25 | 6:25 | R30 | 7:35 | 8:25 |
| R31 | 7:20 | 8:30 | 6:50 | 7:25 | 6:25 | R31 | 7:25 | 8:05 | 9:10 | 6:50 | 7:15 | 8:30 | 6:20 | R31 | 7:35 | 8:10 |
| R32 | 7:00 | 7:55 | 6:50 | 7:20 | 5:55 | R32 | 7:10 | 8:05 | 9:10 | 6:35 | 7:15 | 8:10 | 5:50 | R32 | 7:05 | 8:10 |
| R33 | 7:00 | 7:55 | 6:50 | 7:20 | 5:55 | R33 | 7:10 | 8:05 | 9:10 | 6:35 | 7:15 | 8:10 | 5:50 | R33 | 7:05 | 8:10 |
| R34 | 7:00 | 7:55 | 6:50 | 7:20 | 5:55 | R34 | 7:10 | 8:05 | 9:10 | 6:35 | 7:15 | 8:10 | 5:50 | R34 | 7:05 | 8:10 |
| R35 | 7:00 | 7:55 | 6:50 | 7:20 | 5:55 | R35 | 7:10 | 8:05 | 9:10 | 6:35 | 7:15 | 8:10 | 5:50 | R35 | 7:05 | 8:10 |

## Table 7-2. Definition of Evacuation Regions

| REGION | ERPAs IN ORANGE COUNTY | ERPAs IN PUTNAM COUNTY | ERPAs IN ROCKLAND COUNTY | ERPAs IN WESTCHESTER COUNTY | DESCRIPTION OF REGION | ERPAs IN REGION |
|---|---|---|---|---|---|---|
| **R1** | 39 | NONE | 29, 38, 39 | 1-4, 7, 44 | Entire 2 mile ring | 1-4, 7, 29, 38, 39, 44 |
| **R2** | 26, 39, 40 | 16, 18, 45 | 29-31, 38-40 | 1-9, 43, 44, 47-49 | Entire 5 mile ring | 1-9, 16, 18, 24, 26, 29-31, 38-40, 43-45, 47-49 |
| **R3** | 24-28, 39, 40 | 16-20, 23, 45, 46 | 29-41 | 1-15, 21, 22, 42-44, 47-51 | Full EPZ | 1-51 |
| **2 Mile Ring and Sector to 5 Miles** | | | | | | |
| **R4** | 26, 39, 45 | 16, 18, 45 | 29, 38, 39 | 1-4, 7, 8, 44 | N | 1-4, 7, 8, 16, 18, 26, 29, 38, 39, 44, 45 |
| **R5** | 39, 45 | 16, 18, 45 | 29, 38, 39, 44, 45 | 1-4, 7-9, 44, 45 | NNE | 1-4, 7-9, 16, 18, 29, 38, 39, 44, 45 |
| **R6** | 39 | 16, 18 | 29, 38, 39, 44 | 1-4, 7-9, 44, 49 | NE | 1-4, 7-9, 16, 18, 29, 38, 39, 44, 49 |
| **R7** | 39 | NONE | 29, 38, 39, 44 | 1-4, 7-9, 44, 49 | ENE | 1-4, 7-9, 29, 38, 39, 44, 49 |
| **R8** | 39 | NONE | 29, 38, 39, 44 | 1-5, 7-9, 44, 48, 49 | E | 1-5, 7-9, 29, 38, 39, 44, 48, 49 |
| **R9** | 39 | NONE | 29, 38, 39, 44 | 1-7, 9, 44, 47-49 | ESE | 1-7, 9, 29, 38, 39, 44, 47-49 |
| **R10** | 39 | NONE | 29, 38, 39, 43, 44 | 1-7, 43, 44, 47-49 | SE | 1-7, 29, 38, 39, 43, 44, 47-49 |
| **R11** | 39 | NONE | 29-31, 38, 39, 43, 44 | 1-7, 43, 44, 47-49 | SSE | 1-7, 29-31, 38, 39, 43, 44, 47-49 |
| **R12** | 39 | NONE | 29-31, 38, 39, 43, 44 | 1-4, 6, 7, 43, 44, 47, 48 | S | 1-4, 6, 7, 29-31, 38, 39, 43, 44, 47, 48 |
| **R13** | 39 | NONE | 29-31, 38, 39, 43, 44 | 1-4, 7, 43, 44 | SSW | 1-4, 7, 29-31, 38, 39, 43, 44 |
| **R14** | 39, 40 | NONE | 29-31, 38-40, 43, 44 | 1-4, 7, 43, 44 | SW | 1-4, 7, 29-31, 38-40, 43, 44 |
| **R15** | 39, 40 | NONE | 29-31, 38-40, 44 | 1-4, 7, 44 | WSW | 1-4, 7, 29-31, 38-40, 44 |
| **R16** | 39, 40 | NONE | 29, 30, 38-40, 44 | 1-4, 7, 44 | W | 1-4, 7, 29, 30, 38-40, 44 |
| **R17** | 24, 26, 39, 40, 45 | 45 | 29, 30, 38-40, 44, 45 | 1-4, 7, 44, 45 | WNW | 1-4, 7, 24, 26, 29, 30, 38-40, 44, 45 |
| **R18** | 24, 26, 39, 40, 45 | 16, 45 | 29, 38-40, 44, 45 | 1-4, 7, 44, 45 | NW | 1-4, 7, 16, 24, 26, 29, 38-40, 44, 45 |
| **R19** | 24, 26, 39, 40, 45 | 16, 45 | 29, 38, 39, 40, 44, 45 | 1-4, 7, 8, 44, 45 | NNW | 1-4, 7, 8, 16, 24, 26, 29, 38, 39, 40, 44, 45 |

## Table 7-2. Definition of Evacuation Regions

(Concluded)

| REGION | ERPAs IN ORANGE COUNTY | ERPAs IN PUTNAM COUNTY | ERPAs IN ROCKLAND COUNTY | ERPAs IN WESTCHESTER COUNTY | DESCRIPTION OF REGION | ERPAs IN REGION |
|---|---|---|---|---|---|---|
| **5 Mile Ring and Sector to EPZ Boundary** | | | | | | |
| **R20** | 24-26, 39, 40 | 16-19, 23, 45, 46 | 29-31, 38-40 | 1-9, 43, 44, 47-49 | N | 1-9, 16-19, 23-26, 29-31, 38-40, 43-49 |
| **R21** | 24, 26, 39, 40 | 16-20, 23, 45, 46 | 29-31, 38-40 | 1-10, 43, 44, 47-49 | NNE | 1-10, 16-20, 23, 24, 26, 29-31, 38-40, 43-49 |
| **R22** | 24,26, 39, 40 | 16-20, 45 | 29-31, 38-40 | 1-14, 43, 44, 47-49 | NE | 1-14, 16-20, 24,26, 29-31, 38-40, 43-45, 47-49 |
| **R23** | 24,26, 39, 40 | 16, 18, 19, 20, 45 | 29-31, 38-40 | 1-15, 43, 44, 47-49 | ENE | 1-16, 18-20, 24,26, 29-31, 38-40, 43-45, 47-49 |
| **R24** | 24,26, 39, 40 | 16, 18, 20, 45 | 29-31, 38-40 | 1-15, 21, 43, 44, 47-50 | E | 1-16, 18, 20, 21, 24,26, 29-31, 38-40, 43-45, 47-50 |
| **R25** | 24,26, 39, 40 | 16, 18, 45 | 29-31, 38-40 | 1-9, 11-15, 21, 22, 43, 44, 47-51 | ESE | 1-9, 11-16, 18, 21, 22, 24,26, 29-31, 38-40, 43-45, 47-51 |
| **R26** | 24,26, 39, 40 | 16, 18, 45 | 29-32, 38-40 | 1-9, 12, 13, 21, 22, 42-44, 47-51 | SE | 1-9, 12-13, 16, 18, 21-22, 24,26, 29-32, 38-40, 42-45, 47-51 |
| **R27** | 24,26, 39, 40 | 16, 18, 45 | 29-35, 38-40 | 1-9, 12, 21, 22, 42-44, 47-51 | SSE | 1-9, 12, 16, 18, 21, 22, 24,26, 29-35, 38-40, 42-45, 47-51 |
| **R28** | 24,26, 39, 40 | 16, 18, 45 | 29-40 | 1-9, 22, 42-44, 47-49, 51 | S | 1-9, 16, 18, 22, 24,26, 29-40, 42-45, 47-49, 51 |
| **R29** | 24,26, 39, 40 | 16, 18, 45 | 29-41 | 1-9, 42-44, 47-49 | SSW | 1-9, 16, 18, 24,26, 29-45, 47-49 |
| **R30** | 24,26, 39, 40 | 16, 18, 45 | 29-31, 34-41 | 1-9, 43, 44, 47-49 | SW | 1-9, 16, 18, 24,26, 29-31, 34-41, 43-45, 47-49 |
| **R31** | 24,26, 28, 39, 40 | 16, 18, 45 | 29-31, 34, 36-41 | 1-9, 43, 44, 47-49 | WSW | 1-9, 16, 18, 24,26, 28-31, 34, 36-41, 43-45, 47-49 |
| **R32** | 24, 26-28, 39, 40 | 16, 18, 45 | 29-31, 38-41 | 1- 9, 43, 44, 47-49 | W | 1-9, 16, 18, 24, 26-31, 38-41, 43-45, 47-49 |
| **R33** | 24-28, 39, 40 | 16, 18, 45 | 29-31, 38-40 | 1-9, 43, 44, 47-49 | WNW | 1-9, 16, 18, 24-31, 38-40, 43-45, 47-49 |
| **R34** | 24-28, 39, 40 | 16, 18, 45 | 29-31, 38-40 | 1-9, 43, 44, 47-49 | NW | 1-9, 16, 18, 24-31, 38-40, 43-45, 47-49 |
| **R35** | 24-27, 39, 40 | 16-18, 23, 45, 46 | 29-31, 38-40 | 1-9, 43, 44, 47-49 | NNW | 1-9, 16-18, 23-27, 29-31, 38-40, 43-49 |

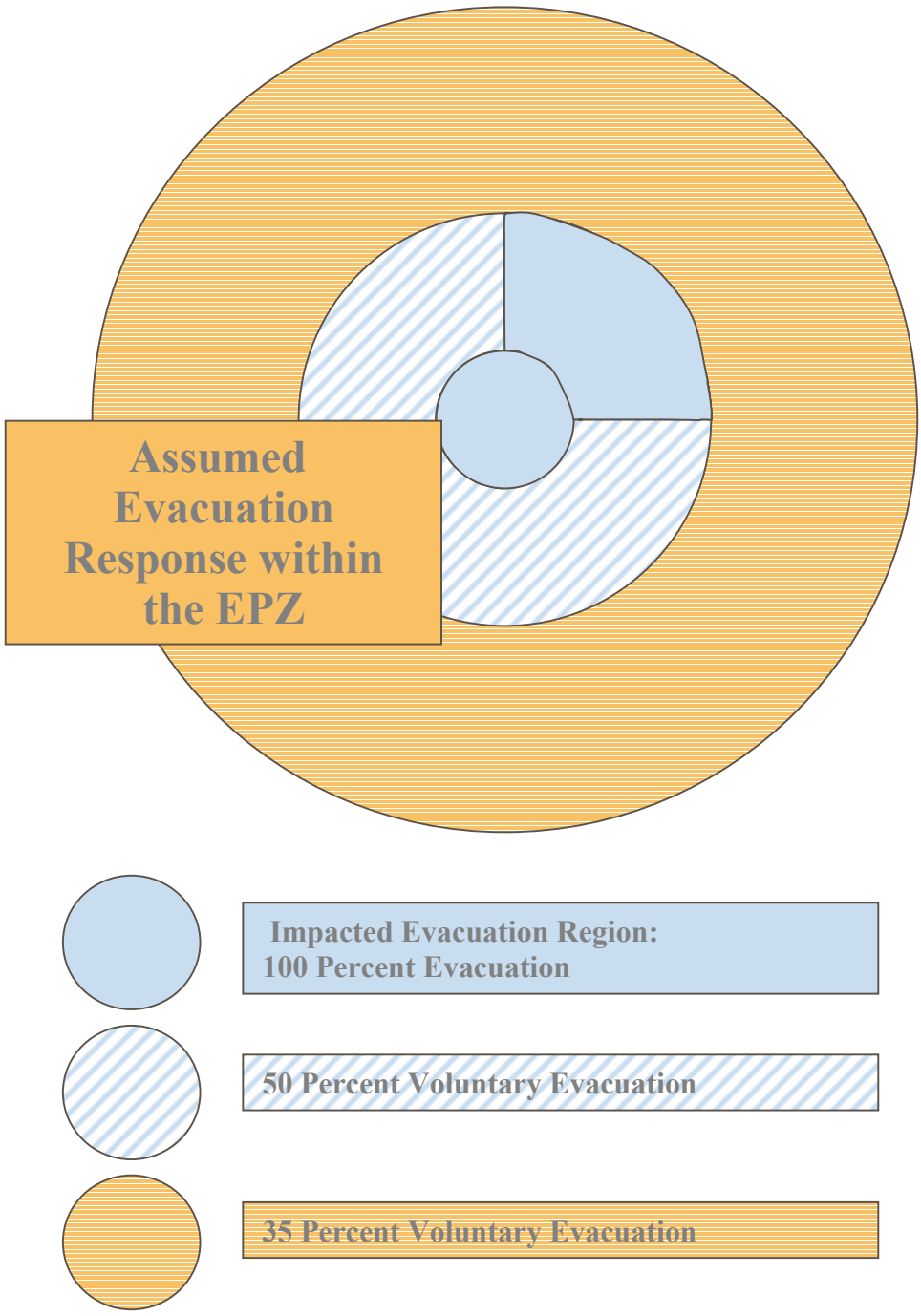


**Figure 7-1. Assumed Evacuation Response**

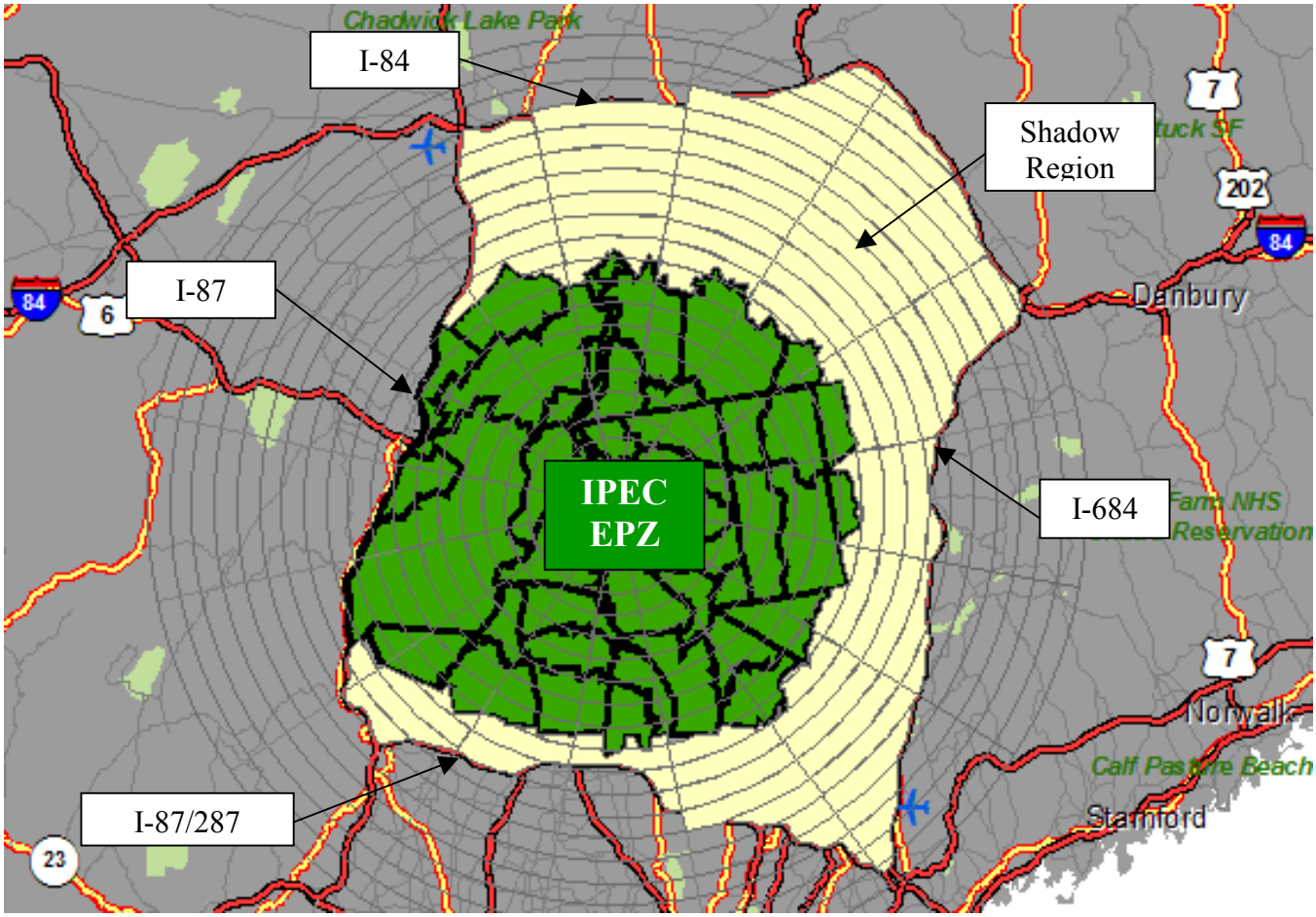


**Figure 7-2. Shadow Evacuation Region**

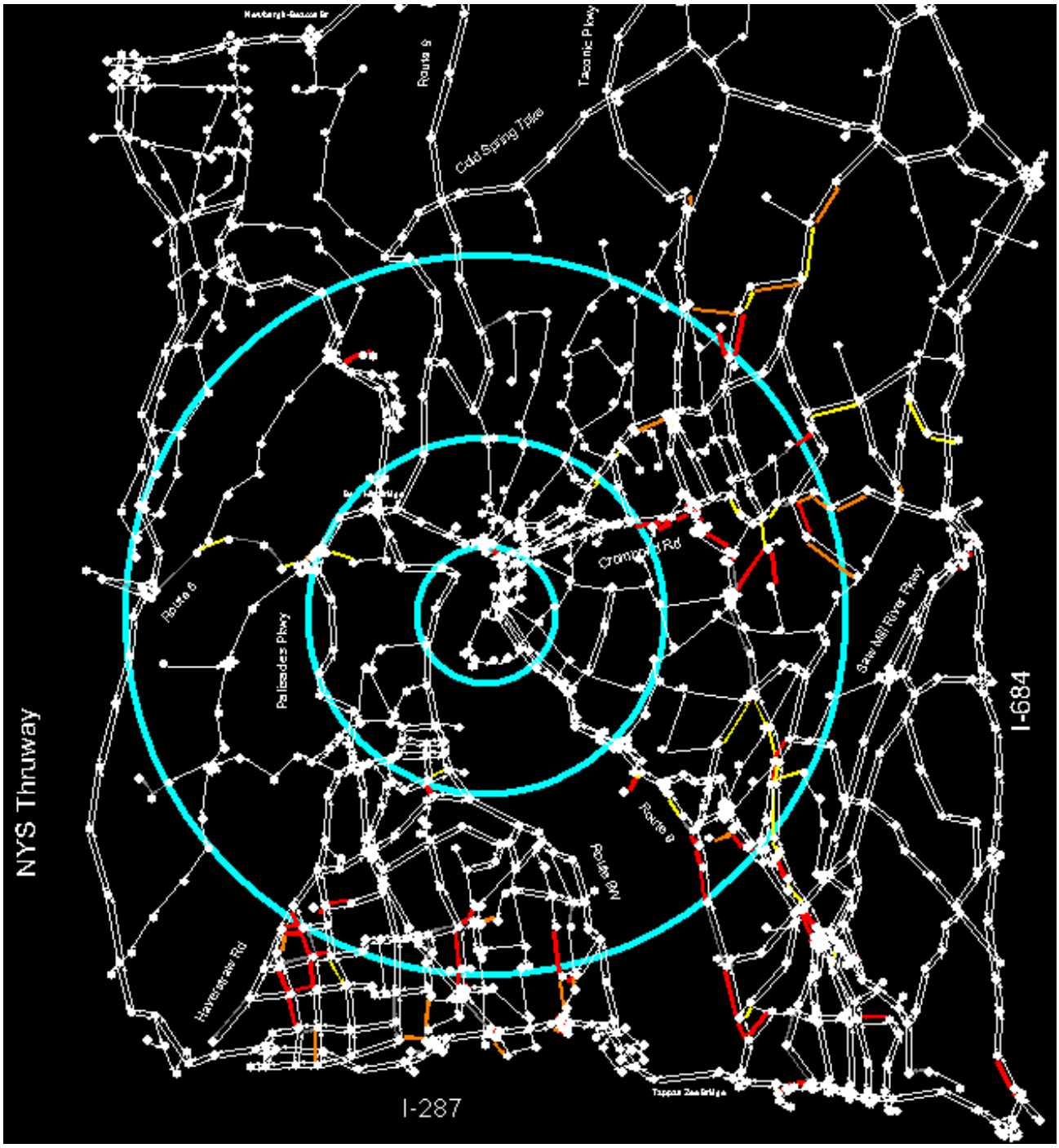


**Figure 7-3. Areas of Traffic Congestion**

**30 Minutes after the Evacuation Recommendation**

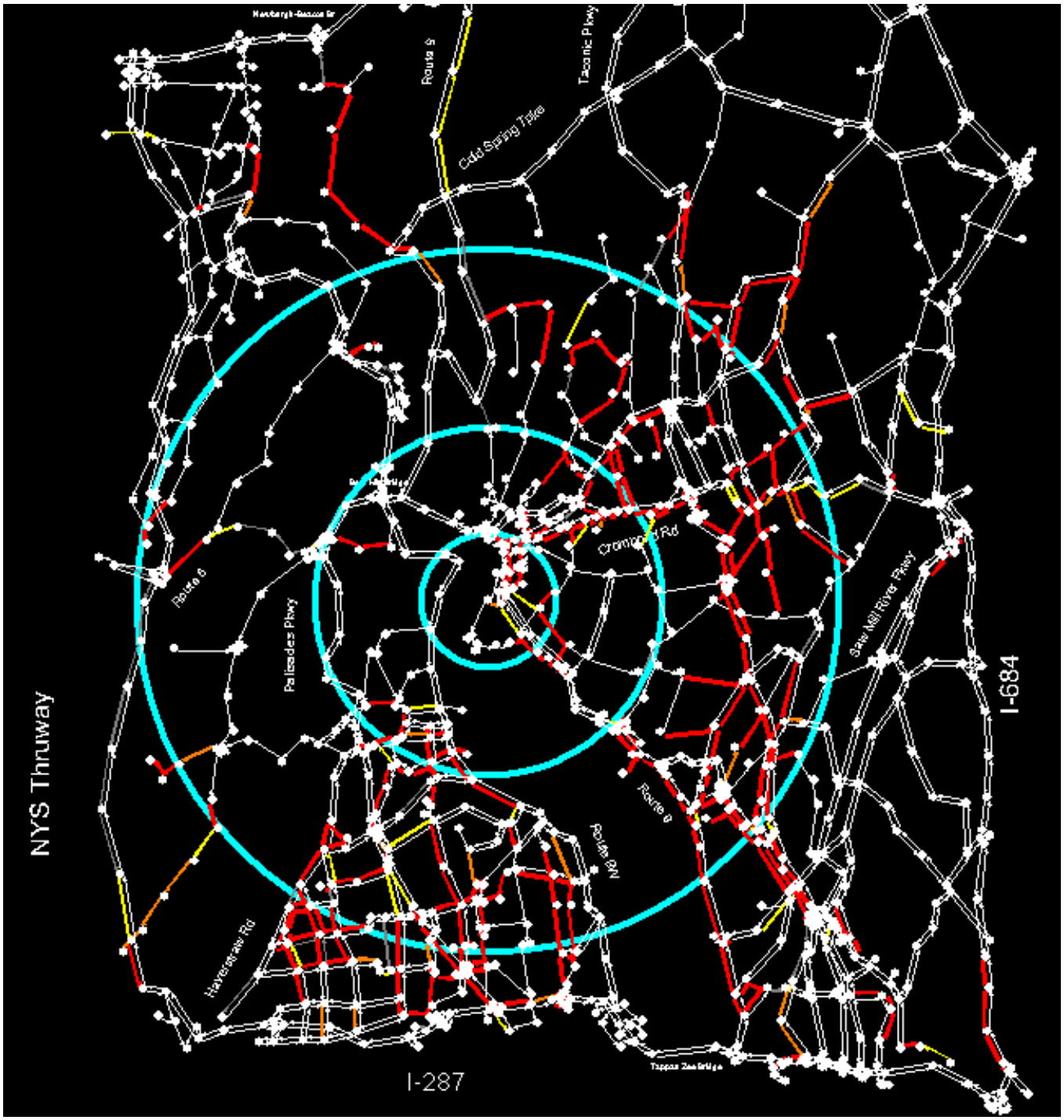


**Figure 7-4. Areas of Traffic Congestion**

**1 Hour after the Evacuation Recommendation**

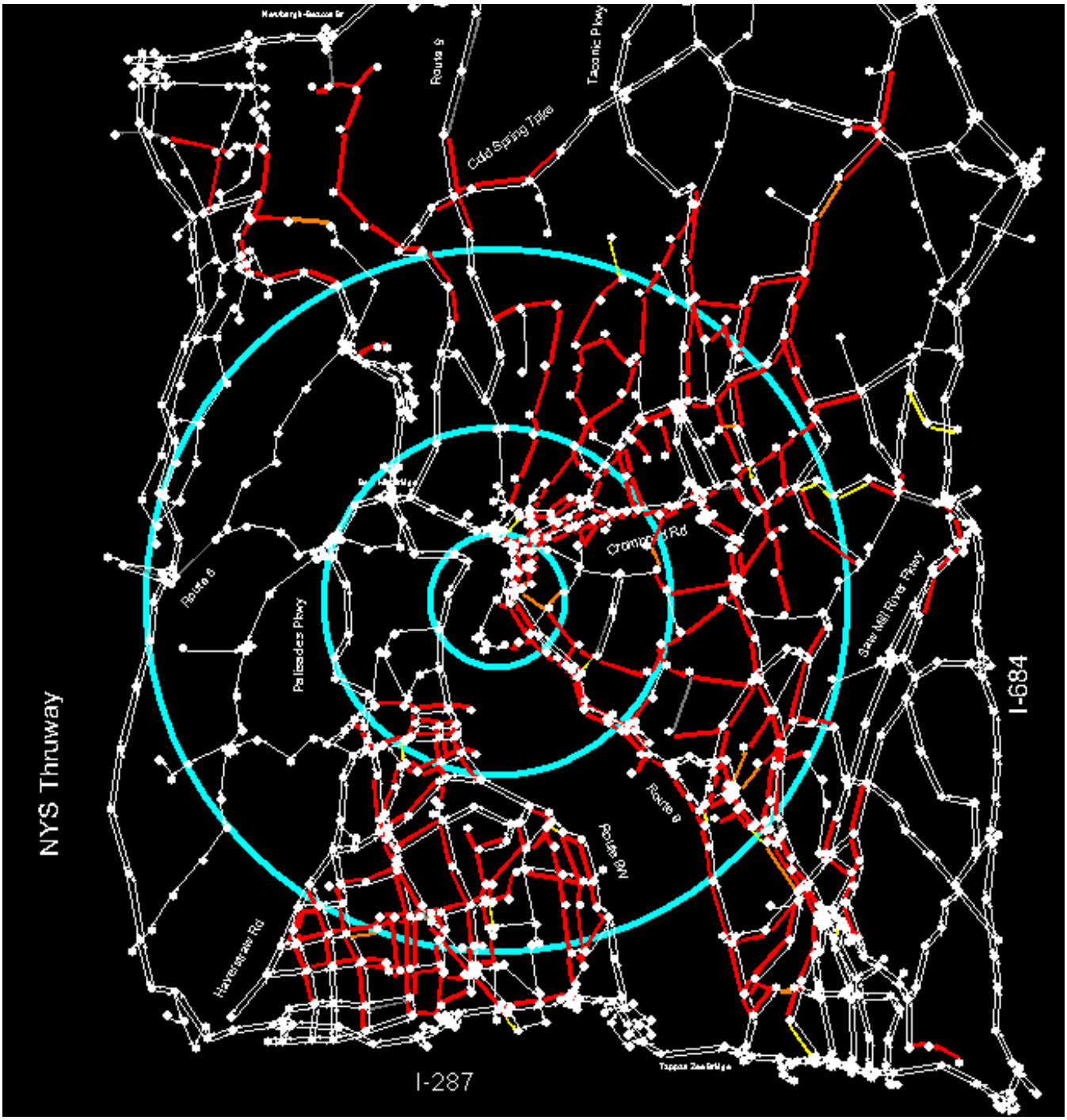


**Figure 7-5. Areas of Traffic Congestion**

**3 Hours after the Evacuation Recommendation**

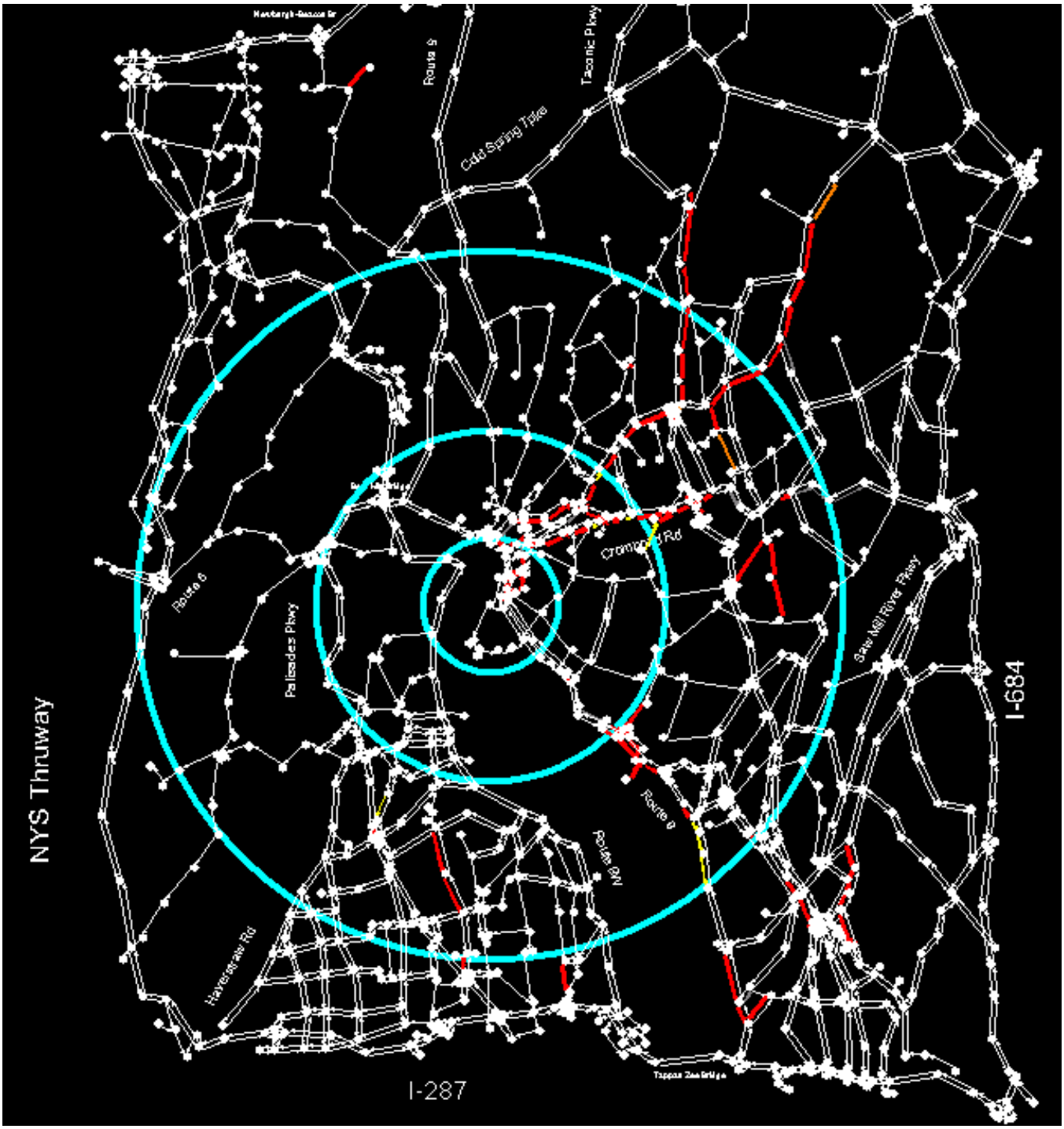


**Figure 7-6. Areas of Traffic Congestion**

**7 Hours after the Evacuation Recommendation**

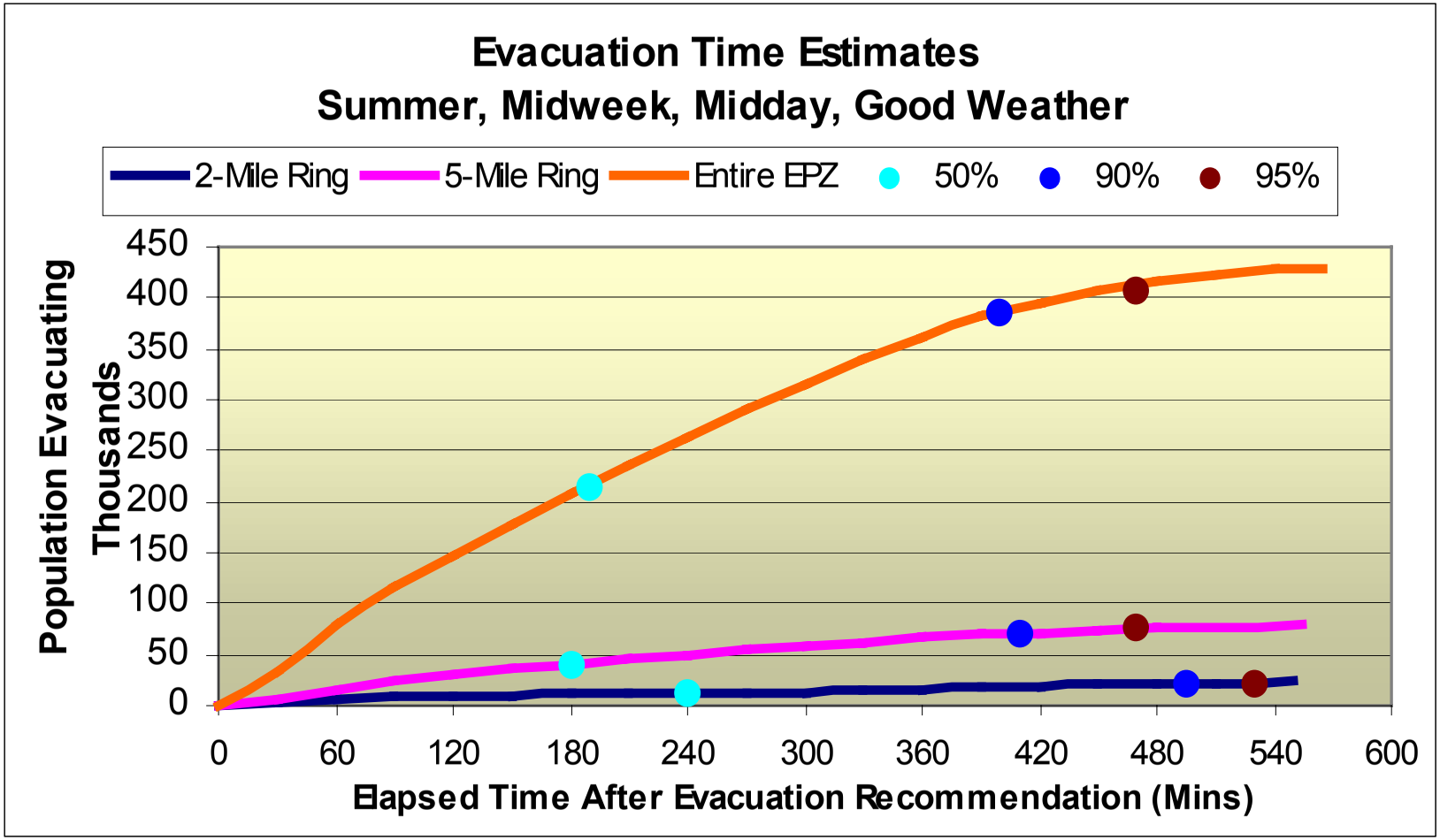


**Figure 7-7. Evacuation Time Estimates for IPEC Summer, Midweek, Midday, Good Weather Evacuation of Region R3 (Entire EPZ)**