

As discussed in Section 2.3, these TCP are not credited in calculating the ETE results. Access control points (ACP) are deployed near the periphery of the EPZ to divert “through” trips. The ETE calculations reflect the assumptions that all “external-external” trips are interdicted after 90 minutes have elapsed after the advisory to evacuate (ATE).

All transit trips and other responders entering the EPZ to support the evacuation are assumed to be unhindered by personnel manning ACPs.

Study Assumptions 5 and 6 in Section 2.3 discuss ACP and TCP staffing schedules and operations.

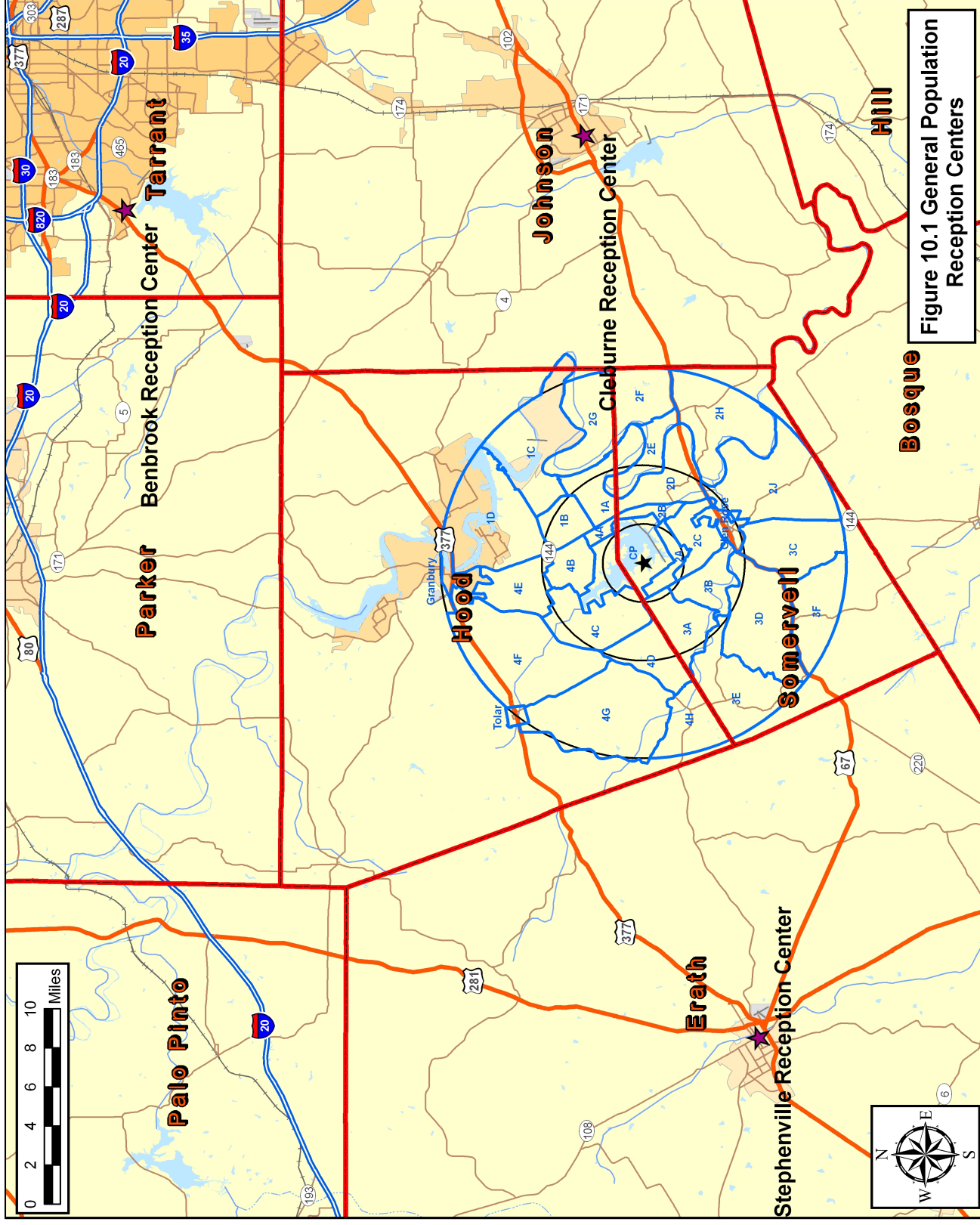
10. EVACUATION ROUTES

Evacuation routes are comprised of two distinct components:

- Routing from a Zone being evacuated to the boundary of the Evacuation Region and thence out of the Emergency Planning Zone (EPZ).
- Routing of evacuees from the EPZ boundary to the Reception Centers.

Evacuees should be routed within the EPZ in such a way as to *minimize their exposure to risk*. This primary requirement is met by routing traffic to move *away* from the location of the Comanche Peak Nuclear Power Plant, to the extent practicable, and by delineating evacuation routes that expedite the movement of evacuating vehicles. This latter objective is addressed by developing evacuation routes to achieve a balancing of traffic demand relative to the available highway capacity to the extent possible, subject to satisfying the primary requirement noted above. This is achieved by carefully specifying candidate destinations for all origin centroids where evacuation trips are generated, and applying the TRAD model effectively. See Appendices A-D for further discussion.

Figure 10-1 presents a map showing the general population Reception Centers. The major evacuation routes for the two counties within the EPZ are presented in Figures 10-2 and 10-3.



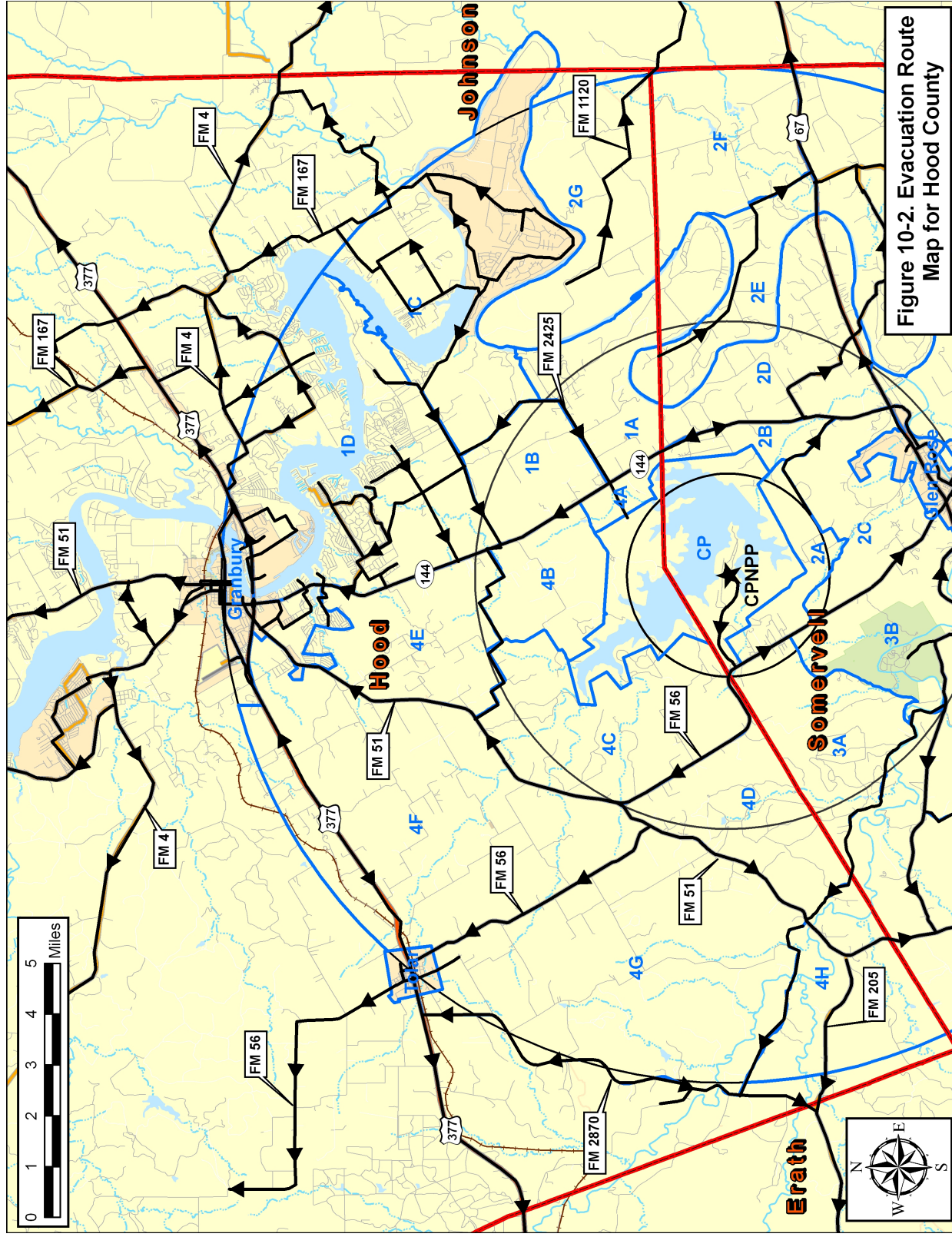


Figure 10-2. Evacuation Route
Map for Hood County

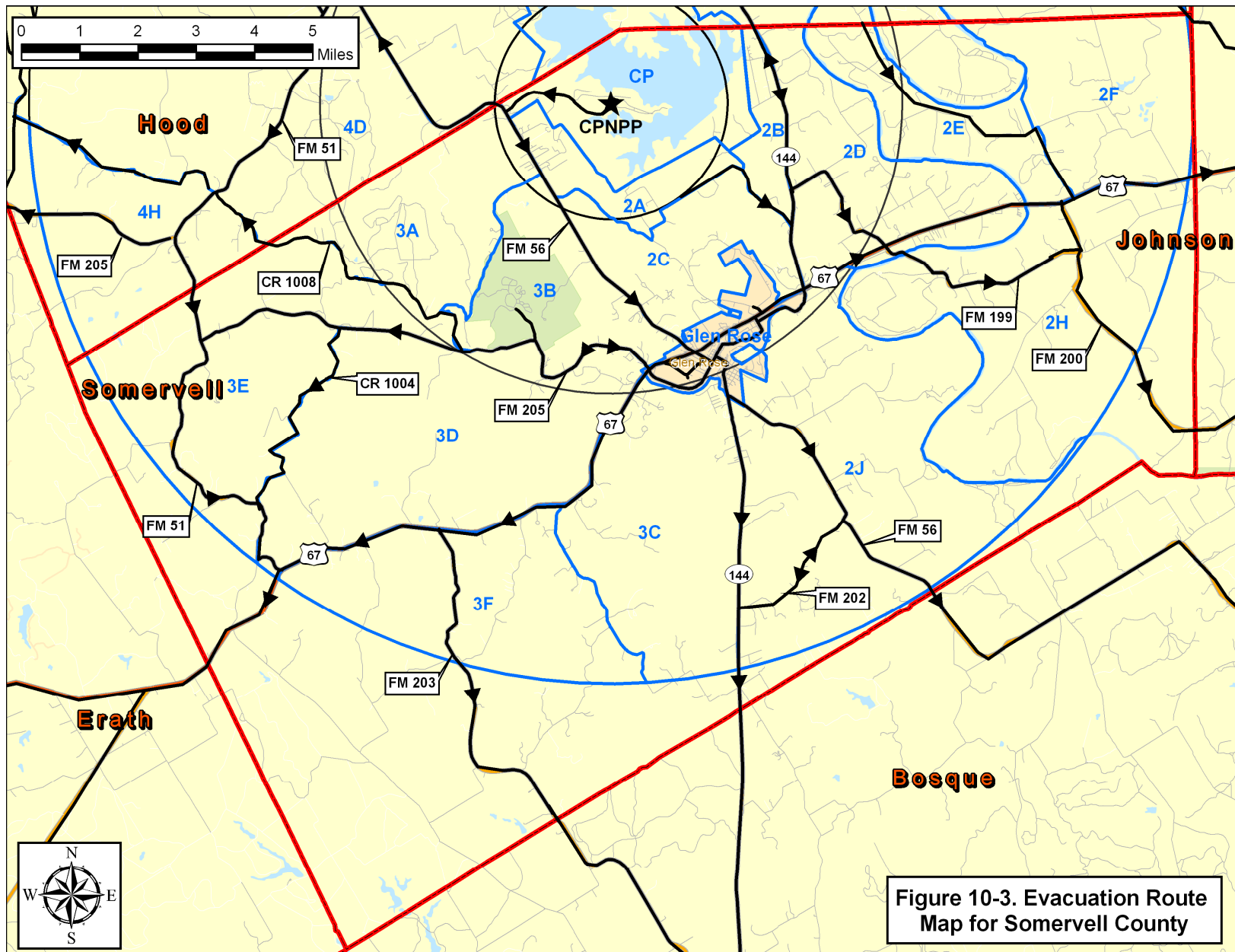


Figure 10-3. Evacuation Route Map for Somervell County

11. SURVEILLANCE OF EVACUATION OPERATIONS

There is a need for surveillance of traffic operations during the evacuation. There is also a need to clear any blockage of roadways arising from accidents or vehicle disablement. Surveillance can take several forms.

1. Traffic control personnel, located at Traffic Control and Access Control Points, provide fixed-point surveillance.
2. Ground patrols may be undertaken along well-defined paths to ensure coverage of those highways that serve as major evacuation routes.
3. Aerial surveillance of evacuation operations may also be conducted using helicopter or fixed-wing aircraft.
4. Cellular phone calls (if cellular coverage exists) from motorists may also provide direct field reports of road blockages.

These concurrent surveillance procedures are designed to provide coverage of the entire EPZ as well as the area around its periphery. It is the responsibility of the Counties to support an emergency response system that can receive messages from the field and be in a position to respond to any reported problems in a timely manner. This coverage should quickly identify, and expedite the response to, any blockage caused by a disabled vehicle.

Tow Vehicles

In a low-speed traffic environment, any vehicle disablement is likely to arise due to a low-speed collision, mechanical failure or the exhausting of its fuel supply. In any case, the disabled vehicle can be pushed onto the shoulder, thereby restoring traffic flow. Past experience in other emergencies indicates that evacuees who are leaving an area often perform activities such as pushing a disabled vehicle to the side of the road without prompting.

While the need for tow vehicles is expected to be low under the circumstances described above, it is still prudent to be prepared for such a need. Tow trucks with a supply of gasoline may be deployed at strategic locations within, or just outside, the EPZ. These locations should be selected so that:

1. They permit access to key, heavily loaded, evacuation routes.
2. Responding tow trucks would most likely travel counter-flow relative to evacuating traffic.

12. CONFIRMATION TIME

It is necessary to confirm that the evacuation process is effective in the sense that the public is complying with the advisory to evacuate. Although Hood and Somervell Counties may use their own procedures for confirmation, we suggest an alternative or complementary approach.

The procedure we suggest employs a stratified random sample and a telephone survey. The size of the sample is dependent on the expected number of households that do not comply with the advisory to evacuate. We believe it is reasonable to assume, for the purpose of estimating sample size that at least 80 percent of the population within the EPZ will comply with the advisory to evacuate. On this basis, an analysis could be undertaken (see Table 12-1) to yield an estimated sample size of approximately 300.

The confirmation process should start at about 3 hours after the advisory to evacuate, which is when 90 percent of evacuees have completed their mobilization activities. At this time, virtually all evacuees will have departed on their respective trips and the local telephone system will be largely free of traffic.

As indicated in Table 12-1, approximately 7-1/2 person hours are needed to complete the telephone survey. If six people are assigned to this task, each dialing a different set of telephone exchanges (e.g., each person can be assigned a different set of Zones), then the confirmation process will extend over a time frame of about 75 minutes. Thus, the confirmation should be completed approximately when the evacuated area is cleared. Of course, fewer people would be needed for this survey if the Evacuation Region were only a portion of the EPZ. Use of modern automated computer controlled dialing equipment can significantly reduce the manpower requirements and the time required to undertake this type of confirmation survey.

Should the number of telephone responses (i.e., people still at home) exceed 20 percent, then the telephone survey should be repeated after an hour's interval until the confirmation process is completed.

TABLE 12-1
ESTIMATED NUMBER OF TELEPHONE CALLS REQUIRED
FOR CONFIRMATION OF EVACUATION

Problem Definition

Estimate number of phone calls, n , needed to ascertain the proportion, F of households that have not evacuated.

Reference: Burstein, H., Attribute Sampling, McGraw Hill, 1971

Given:

No. of households plus other facilities, N , within the EPZ (est.) = 15,200

Est. proportion, F , of households that have not evacuated = 0.20

Allowable error margin, e : 0.05

Confidence level, α : 0.95 (implies $A = 1.96$)

Applying Table 10 of cited reference,

$$p = F + e = 0.25; \quad q = 1 - p = 0.75$$

$$n = \frac{A^2 pq + e}{e^2} = 308$$

Finite population correction:

$$n_F = \frac{nN}{n + N - 1} = 302$$

Thus, some 300 telephone calls will confirm that approximately 20 percent of the population has not evacuated. If only 10 percent of the population does not comply with the advisory to evacuate, then the required sample size, $n_F = 212$.

Est. Person Hours to complete 300 telephone calls

Assume: Time to dial using touch-tone (random selection of listed numbers): 30 seconds
Time for 6 rings (no answer): 36 seconds
Time for 4 rings plus short conversation: 60 sec.
Interval between calls: 20 sec.

Person Hours: $300[30+20+0.8(36)+0.2(60)]/3600 = 7.6$

APPENDIX A

Glossary of Traffic Engineering Terms

APPENDIX A: GLOSSARY OF TRAFFIC ENGINEERING TERMS

| Term | Definition |
|---|---|
| Link | A network link represents a specific, one-directional section of roadway. A link has both physical (length, number of lanes, topology, etc.) and operational (turn movement percentages, service rate, free-flow speed) characteristics. |
| Measures of Effectiveness | Statistics describing traffic operations on a roadway network |
| Node | A network node generally represents an intersection of network links. A node has control characteristics, i.e., the allocation of service time to each approach link. |
| Origin | A location attached to a network link, within the EPZ or shadow area, where trips are generated at a specified rate in vehicles per hour (vph). These trips enter the roadway system to travel to their respective destinations. |
| Network | A graphical representation of the geometric topology of a physical roadway system, which is comprised of directional links and nodes. |
| Prevailing roadway and traffic conditions | Relates to the physical features of the roadway, the nature (e.g., composition) of traffic on the roadway and the ambient conditions (weather, visibility, pavement conditions, etc.) |
| Service Rate | Maximum rate at which vehicles, executing a specific turn maneuver, can be discharged from a section of roadway at the prevailing conditions, expressed in vehicles per second (vps) or vehicles per hour (vph). |
| Service Volume | Maximum number of vehicles which can pass over a section of roadway in one direction during a specified time period with operating conditions at a specified Level of Service. (The Service Volume at the upper bound of Level of Service, E, equals Capacity.) Service Volume is usually expressed as vehicles per hour (vph). |
| Signal Cycle Length | The total elapsed time to display all signal indications, in sequence. The cycle length is expressed in seconds. |
| Signal Interval | A single combination of signal indications. The interval duration is expressed in seconds. A signal phase is comprised of a sequence of signal intervals. |
| Signal Phase | A set of signal indications (and intervals) which services a particular combination of traffic movements on selected approaches to the intersection. The phase duration is expressed in seconds. |

| Term | Definition |
|---|---|
| Traffic (Trip) Assignment | A process of assigning traffic to paths of travel in such a way as to satisfy all trip objectives (i.e., the desire of each vehicle to travel from a specified origin in the network to a specified destination) and to optimize some stated objective or combination of objectives. In general, the objective is stated in terms of minimizing a generalized "cost". For example, "cost" may be expressed in terms of travel time. |
| Traffic Density | The number of vehicles that occupy one lane of a roadway section of specified length at a point of time, expressed as vehicles per mile (vpm). |
| Traffic (Trip) Distribution | A process for determining the destinations of all traffic generated at the origins. The result often takes the form of a Trip Table, which is a matrix of origin-destination traffic volumes. |
| Traffic Simulation | A computer model designed to replicate the real-world operation of vehicles on a roadway network, so as to provide statistics describing traffic performance. These statistics are called Measures of Effectiveness. |
| Traffic Volume | The number of vehicles that pass over a section of roadway in one direction, expressed in vehicles per hour (vph). Where applicable, traffic volume may be stratified by turn movement. |
| Travel Mode | Distinguishes between private auto, bus, rail, pedestrian and air travel modes. |
| Trip Table or Origin-Destination Matrix | A rectangular matrix or table, whose entries contain the number of trips generated at each specified origin, during a specified time period, that are attracted to (and travel toward) each of its specified destinations. These values are expressed in vehicles per hour (vph) or in vehicles. |
| Turning Capacity | The capacity associated with that component of the traffic stream which executes a specified turn maneuver from an approach at an intersection. |

APPENDIX B

Traffic Assignment Model

APPENDIX B: TRAFFIC ASSIGNMENT MODEL

This section describes the integrated trip assignment and distribution model named TRAD that is expressly designed for use in analyzing evacuation scenarios. This model employs equilibrium traffic assignment principles and is one of the models of the IDYNEV System.

To apply TRAD, the analyst must specify the highway network, link capacity information, the volume of traffic generated at all origin centroids, a set of accessible candidate destination nodes on the periphery of the EPZ for each origin, and the capacity (i.e., “attraction”) of each destination node. TRAD calculates the optimal trip distribution and the optimal trip assignment (i.e., routing) of the traffic generated at each origin node, traveling to the associated set of candidate destination nodes, so as to minimize evacuee travel times.

Overview of Integrated Distribution and Assignment Model

The underlying premise is that the selection of destinations and routes is intrinsically coupled in an evacuation scenario. That is, people in vehicles seek to travel out of an area of potential risk as rapidly as possible by selecting the “best” route. The model is designed to identify these “best” routes in a manner that distributes vehicles from origins to destinations and routes them over the highway network, in a consistent and optimal manner.

The approach we adopt is to extend the basic equilibrium assignment methodology to embrace the distribution process, as well. That is, the selection of destination nodes by travelers from each origin node, and the selection of the connecting paths of travel, are both determined by the integrated model. This determination is subject to specified capacity constraints, so as to satisfy the stated objective function. This objective function is the statement of the User Optimization Principle by Wardrop¹.

To accomplish this integration, we leave the equilibrium assignment model intact, changing only the form of the objective function. It will also be necessary to create a “fictional” augmentation of the highway network. This augmentation will consist of Pseudo-Links and Pseudo-Nodes, so configured as to embed an equilibrium Distribution Model within the fabric of the Assignment Model.

¹ Wardrop, J.G., 1952. Some Theoretical Aspects of Road Traffic Research, *Proceedings, Institute of Civil Engineers*, Part II, Vol. 1, pp. 325-378.

Specification of TRAD Model Inputs

The user must specify, for each origin node, the average hourly traffic volume generated, as well as a set of candidate accessible destinations. A destination is “accessible” to traffic originating at an origin node if there is at least one path connecting the origin to the destination node. There must be at least one destination node specified for each origin centroid. The number of trips generated at the origin node, which are distributed to each specified, accessible destination node within this set, is determined by the model in a way as to satisfy the network-wide objective function (Wardrop's Principle).

The user must also specify the total number of trips which can be accommodated by each destination node. This value reflects the capacities of the road(s) immediately servicing the destination node. We call this number of trips, the "attraction" of the destination node, consistent with conventional practice. Clearly, we require that the total number of trips traveling to a destination, j , from all origin nodes, i , cannot exceed the attraction of destination node, j . By summing over all destination nodes, this constraint also states that the total trips generated at all origin nodes must not exceed the total capacity to accommodate these trips at all of the specified destinations.

In summary, the user must specify the total trips generated at each of the origin nodes, the maximum number of trips that can be accommodated by each of the specified destination nodes and the highway network attributes which include the traffic control tactics. The TRAD model includes a function which expresses travel time on each network link in terms of traffic volume and link capacity. This function drives the underlying trip distribution and trip assignment decision-making process. Thus, the TRAD model satisfies the objectives of evacuees to select destination nodes and travel paths to minimize evacuation travel time. As such, this integrated model is classified as a behavioral model.

At the outset, it may appear that we have an intractable problem:

- If TRAD retains the basic assignment algorithm, it must be provided a Trip Table as input.
- On the other hand, if the distribution model is embedded within the assignment model, rather than preceding it, a Trip Table is not available as input.

The resolution of this problem is as follows:

1. We construct an "augmentation" network that allows the user to specify only the volume for each origin node. The allocation of trips from the origin node to each candidate destination node, is not specified and will be determined internally by the model.
2. We construct pseudo-links which enforce the specified values of attraction, A_j , for all destination nodes, j , by suitably calibrating the relationship of the travel time vs. volume and capacity.

This augmented network is comprised of three subnetworks:

1. The highway subnetwork, which consists of "Class I" Links and Nodes.
2. A subnetwork of "Class II" Pseudo-Links which acts as an interface between the highway subnetwork and the network augmentation.
3. The subnetwork of "Class III" Pseudo-Links and Nodes which comprises the network augmentation described above.

The need for these Class II links will become clear later. The classifications are described below:

Class I Links and Nodes

These links and nodes represent the physical highway network: sections of highway and intersections. Trips generated at each Origin [Centroid] Node are assigned to a specified Class I link via a "connector" link. These connector links are transparent to the user and offer no impedance to the traveler; they represent the aggregation of local streets which service the centroidal generated trips and feed them onto the highway network. The real-world destination nodes are part of this network. The immediate approaches to these destination nodes are Class I links.

Class II Links

These pseudo-links are constructed so as to connect each specified destination node with its Class III Pseudo-Node (P-N) counterpart on a one-to-one basis. The capacities of these Class II links are set equal to the capacities at their respective destination nodes.

Class III Links and Nodes

Class III links and nodes form the augmentation to the basic network. These Pseudo-Links provide paths from the Class II links servicing traffic traveling from the specified [real] destination nodes, to the Super-Nodes which represent the user-specified set of destination nodes associated with each origin node.

Each Class of links provides a different function:

- Class I links represent the physical highway network. As such, each link has a finite capacity, a finite length and an estimated travel time for free-flowing vehicles. The nodes generally represent intersections, interchanges and, possibly, changes in link geometry. The topology of the Class I network represents that of the physical highway system.
- The Class II links represent the interface between the real highway subnetwork and the augmentation subnetwork. These pseudo-links are needed to represent the specified "attractions" of each destination node, i.e.,

the maximum number of vehicles that can be accommodated by each destination node. Instead of explicitly assigning a capacity limitation to the destination nodes, we assign this capacity limitation of the Class II Pseudo-Links. This approach is much more suitable, computationally.

- The topology of the network augmentation (i.e., Class III Links and Nodes) is designed so that all traffic from an origin node can only travel to the single “Super-Node” by flowing through its set of real destination nodes, thence along the links of the augmented network.

The Class II Pseudo-Links and the network augmentation of Class III Pseudo-Nodes and Links represent logical constructs of fictitious links created internally by the model, that allows the user to specify the identity of all destination nodes in each origin-based set, without specifying the distribution of traffic volumes from the origin to each destination node in that set.

Calculation of Capacities and Impedances

Each class of links exhibits different properties. Specifically, the relationship between travel impedance (which is expressed in terms of travel time) and both volume and capacity will differ:

- For Class I links, the capacity represents the physical limitation of the highway sections. Travel impedance is functionally expressed by relating travel time with respect to the traffic volume-link capacity relationship.
- For Class II links, link capacity represents the maximum number of vehicles that can be accommodated at the [real] destination nodes that form the upstream nodes of each Class II link. Since Class II links are Pseudo-Links, there should be virtually no difference in impedance to traffic along Class II links when the assigned traffic volume on these links is below their respective capacities. That is, the assignment of traffic should not be influenced by differences in travel impedance on those Class II links where the assigned volumes do not exceed their respective capacities.
- For Class III links, both capacity and impedance have no meaning. Since the Class II links limit the number of vehicles entering the Class III subnetwork at all entry points (i.e., at the Class II Pseudo-Nodes) and since all these links are Pseudo-Links, it follows that the Class III network is, by definition, an uncapacitated network.

Specification of the Objective Function

It is computationally convenient to be able to specify a single impedance (or "cost") function relating the travel time on a link, to its capacity and assigned traffic volume, for all classes of links. To achieve this, we will adopt the following form based on the original "BPR Formula"²:

$$T = T_o \{ \alpha [1 + a_1 (\frac{V}{C})^{b_1}] + \beta [1 + a_2 (\frac{V}{C})^{b_2}] \} + I$$

Where, as for the present traffic assignment model in TRAD,

| | | |
|---------------------------------|---|--|
| T | = | Link travel time, sec. |
| T _o | = | Unimpeded link travel time, sec. |
| V | = | Traffic volume on the link, veh/hr |
| C | = | Link capacity, veh/hr |
| a _i , b _i | = | Calibration parameters |
| α, β | = | Coefficients defined below |
| I | = | Impedance term, expressed in seconds, which could represent turning penalties or any other factor which is justified in the user's opinion |

The assignment of coefficients varies according to the Class in which a link belongs:

| Class | α | β | T _o |
|-------|---|---|------------------|
| I | 1 | 0 | L/U _f |
| II | 0 | 1 | W |
| III | 0 | 0 | 1 |

Here, L is a highway link length and U_f is the free-flow speed of traffic on a highway link. The values of a₁ and b₁, which are applicable only for Class I links, are based on experimental data:

$$a_1 = 0.8 \qquad b_1 = 5.0$$

The values of a₂ and b₂, which are applicable for each Class II link, are based upon the absolute requirement that the upstream destination node can service no more traffic than the user-specified value of the maximum "attraction". In addition, these parameters must be chosen so that these Pseudo-Links all offer the same impedance to traffic when their assigned volumes are less than their respective specified maximum attractions.

The weighting factor, W, is computed internally by the software.

² Bureau of Public Roads (1964). Traffic Assignment Manual. U.S. Dept. of Commerce, Urban Planning Division, Washington D.C.

Of course, it is still possible for the assignment algorithm within TRAD to distribute more traffic to a destination node than that node can accommodate. For emergency planning purposes, this is a desirable model feature. Such a result will be flagged by the model to alert the user to the fact that some factor is strongly motivating travelers to move to that destination node, despite its capacity limitations. This factor can take many forms: inadequate highway capacity to other destinations, improper specification of candidate destinations for some of the origins, or some other design inadequacy. The planner can respond by modifying the control tactics, changing the origin-destination distribution pattern, providing more capacity at the overloaded destinations, etc.

APPENDIX C

Traffic Simulation Model: PC-DYNEV

APPENDIX C: TRAFFIC SIMULATION MODEL: PC-DYNEV

A model, named PC-DYNEV, is an adaptation of the TRAFLO Level II simulation model, developed by KLD for the Federal Highway Administration (FHWA). Extensions in scope were introduced to expand the model's domain of application to include all types of highway facilities, to represent the evacuation traffic environment and to increase its computational efficiency. This model produces the extensive set of output Measures of Effectiveness (MOE) shown in Table C-1.

The traffic stream is described internally in the form of statistical flow profiles. These profiles, expressed internally as statistical histograms, describe the platoon structure of the traffic stream on each network link. The simulation logic identifies five types of histograms:

- The ENTRY histogram which describes the platoon flow at the upstream end of the subject link. This histogram is simply an aggregation of the appropriate OUTPUT turn-movement-specific histograms of all feeder links.
- The INPUT histograms which describe the platoon flow pattern arriving at the stop line. These are obtained by first disaggregating the ENTRY histogram into turn-movement-specific component ENTRY histograms. Each such component is modified to account for the platoon dispersion which results as traffic traverses the link. The resulting INPUT histograms reflect the specified turn percentages for the subject link.
- The SERVICE histogram which describes the service rates for each turn movement. These service rates reflect the type of control device servicing traffic on this approach; if it is a signal, then this histogram reflects the specified movement-specific signal phasing. A separate model estimates service rates for each turn movement, given that the control is GO.

These data are provided for each network link and are also aggregated over the entire network.

- The QUEUE histograms that describe the time-varying ebb and growth of the queue formation at the stop line. These histograms are derived from the interaction of the respective IN histograms with the SERVICE histograms.
- The OUT histograms that describe the pattern of traffic discharging from the subject link. Each of the IN histograms is transformed into an OUT histogram by the control applied to the subject link. Each of these OUT histograms is added into the (aggregate) ENTRY histogram of its receiving link. This approach provides the model with the ability to identify the characteristics of each turn-movement-specific component of the traffic stream. Each component is serviced at a different saturation flow rate as is the case in the real world. The logic recognizes when one component of the traffic flow encounters saturation conditions even if the others do not.

Algorithms provide estimates of delay and stops reflecting the interaction of the IN histograms with the SERVICE histograms. The logic also provides for properly treating spillback conditions reflecting queues extending from its host link, into its upstream feeder links.

A valuable feature is the ability to internally generate functions that relate mean speed to density on each link, given user-specified estimates of free-flow speed and saturation service rates for each link. Such relationships are essential in order to simulate traffic operations on freeways and rural roads, where signal control does not exist or where its effect is not the dominant factor in impeding traffic flow.

All traffic simulation models are data-intensive. Table C-2 outlines the input data elements. This input describes:

- Topology of the roadway system
- Geometrics of each roadway component
- Channelization of traffic on each roadway component
- Motorist behavior that, in aggregate, determines the operational performance of vehicles in the system
- Specification of the traffic control devices and their operational characteristics
- Traffic volumes entering and leaving the roadway system
- Traffic composition.

To provide an efficient framework for defining these specifications, the physical environment is represented as a network. The unidirectional links of the network generally represent roadway components: either urban streets or freeway segments. The nodes of the network generally represent urban intersections or points along the freeway where a geometric property changes (e.g. a lane drop, change in grade or ramp).

Figure C-1 is an example of a small network representation. The freeway is defined by the sequence of links, (20,21), (21,22), and (22,23). Links (8001, 19) and (3, 8011) are Entry and Exit links, respectively. An arterial extends from node 3 to node 19 and is partially subsumed within a grid network. Note that links (21,22) and (17,19) are grade-separated.

| Table C-1. Measures of Effectiveness Output by PC-DYNEV | |
|--|---------------------------------|
| Measure | Units |
| Travel | Vehicle-Miles and Vehicle-Trips |
| Moving Time | Vehicle-Minutes |
| Delay Time | Vehicle-Minutes |
| Total Travel Time | Vehicle-Minutes |
| Efficiency: Moving Time/Total Travel Time | Percent |
| Mean Travel Time per Vehicle | Seconds |
| Mean Delay per Vehicle | Seconds |
| Mean Delay per Vehicle-Mile | Seconds/Mile |
| Mean Speed | Miles/Hour |
| Mean Occupancy | Vehicles |
| Mean Saturation | Percent |
| Vehicle Stops | Percent |

Table C-2. Input Requirements for the PC-DYNEV Model

GEOMETRICS

- Links defined by upstream downstream node numbers
- Links lengths
- Number of lanes (up to 6)
- Turn pockets
- Grade
- Network topology defined in terms of target nodes for each receiving link

TRAFFIC VOLUMES

- On all entry links and sink/source nodes stratified by vehicle type: auto, car pool, bus, truck
- Link-specific turn movements

TRAFFIC CONTROL SPECIFICATIONS

- Traffic signals: link-specific, turn movement specific
- Signal control treated as fixed time
- Stop and Yield signs
- Right-turn-on-red (RTOR)
- Route diversion specifications
- Turn restrictions
- Lane control (e.g. lane closure, movement-specific)

DRIVER'S AND OPERATIONAL CHARACTERISTICS

- Drivers (vehicle-specific) response mechanisms: free-flow speed, aggressiveness, discharge headway
- Link-specific mean speed for free-flowing (unimpeded) traffic
- Vehicle-type operational characteristics: acceleration, deceleration
- Such factors as bus route designation, bus station location, dwell time, headway, etc.

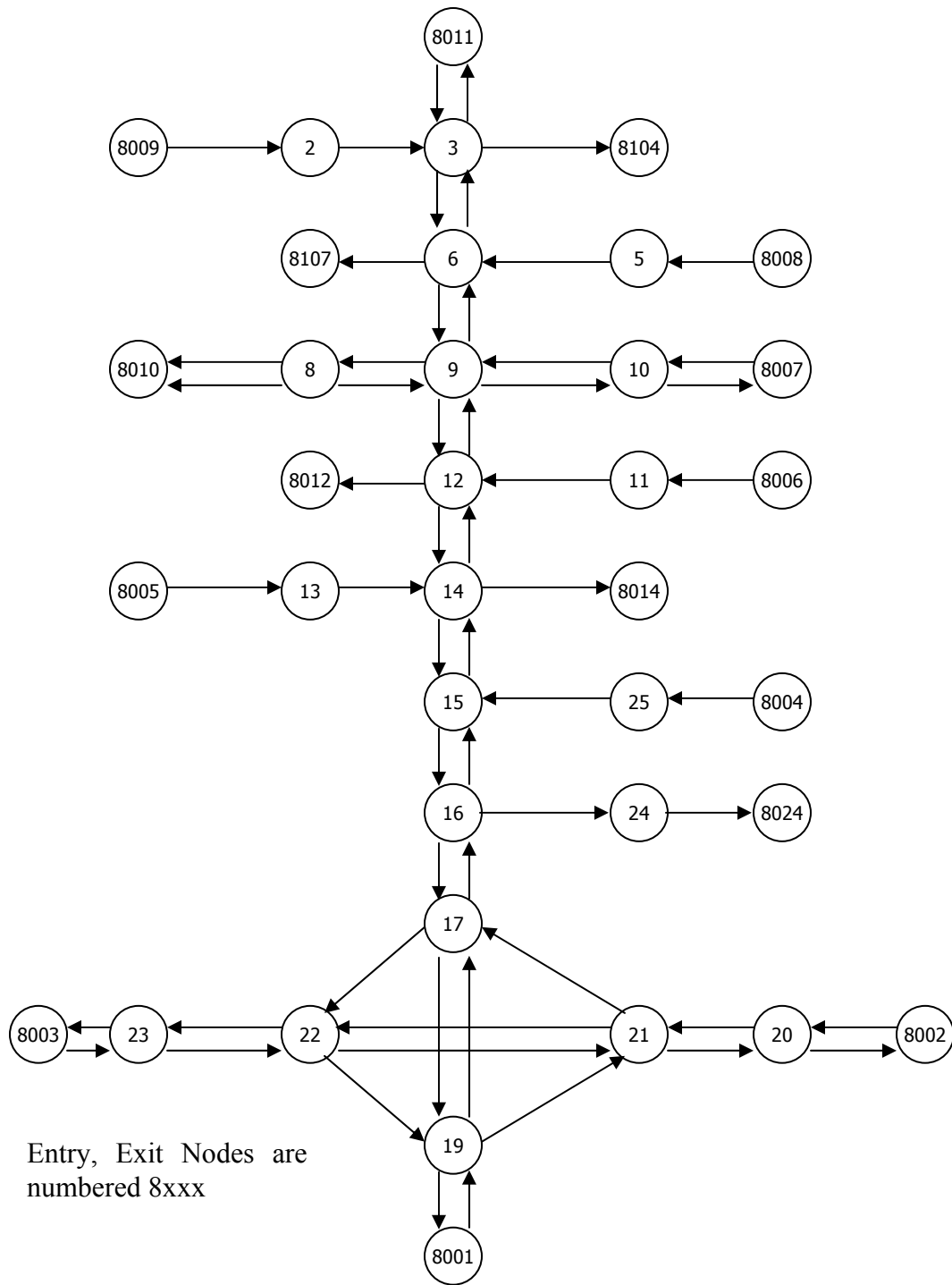


Figure C-1: Representative Analysis Network

APPENDIX D

Detailed Description of Study Procedure

APPENDIX D: DETAILED DESCRIPTION OF STUDY PROCEDURE

This appendix describes the activities that were performed to compute accurate Evacuation Time Estimates (ETE). The individual steps of this effort are represented as a flow diagram in Figure D-1. Each numbered step in the description that follows corresponds to the numbered element in this flow diagram.

Step 1.

The first activity is to obtain data defining the spatial distribution and demographic characteristics of the population within the Emergency Planning Zone (EPZ). These data were obtained from Enercon Services personnel and from the results of a telephone survey conducted within the EPZ. Employee and transient population data were obtained from local sources of information and County Emergency Management Offices.

Step 2.

The next activity is to examine large-scale maps of the EPZ in both hard-copy form and using Geographical Information System (GIS) software. These maps were used to identify the analysis highway network and the access roads from each residential and employment development to the adjoining elements of this network. This information is used to plan a field survey of the highway system and later, to assign generated evacuation trips to the correct destinations at the periphery of the EPZ.

Step 3.

The next step is to conduct a physical survey of the roadway system. The purpose of this survey is to determine the geometric properties of the highway elements, the channelization of lanes on each section of roadway, whether there are any turn restrictions or special treatment of traffic at intersections, the type and functioning of traffic control devices and to make the necessary observations needed to estimate realistic values of roadway capacity.

Step 4.

With this information, develop the evacuation network representation of the physical roadway system.

Step 5.

With the network drawn, proceed to estimate the capacities of each link and to locate the origin centroids where trips would be generated during the evacuation process.

Step 6.

With this information at hand, the data were entered into the computer to create the input stream for the TRAFFIC Assignment and Distribution (TRAD) model. This model was designed to be compatible with the PC-DYNEV traffic simulation model used later in the project; the input stream required for one model is entirely compatible with the input stream required by the other. Using a software system developed by KLD named UNITES, the data entry activity is performed interactively directly on the computer.

Step 7.

The TRAD model contains software that performs diagnostic testing of the input stream. These assist the user in identifying and correcting errors in the input stream.

Step 8.

After creating the input stream, execute the TRAD model to compute evacuating traffic routing patterns consistent with the guidelines of NUREG 0654, Appendix 4. The TRAD model also provides estimates of traffic loading on each highway link as well as rough estimates of operational performance.

Step 9.

Critically examine the statistics produced by the TRAD model. This is a labor-intensive activity, requiring the direct participation of skilled analysts who possess the necessary practical experience to interpret the results and to determine the causes of any problems reflected in the results.

Essentially, the approach is to identify those "hot spots" in the network that represent locations where congested conditions are pronounced and to identify the cause of this congestion. This cause can take many forms, either as excess demand due to improper routing, as a shortfall of capacity, or as a quantitative error in the way the physical system was represented in the input stream. This examination leads to one of two conclusions:

- The results are as satisfactory as could be expected at this stage of the analysis process; or
- The input stream must be modified accordingly.

This decision requires, of course, the application of the user's judgment based upon the results obtained in previous applications of the TRAD model and a comparison of the results of this last case with the previous ones. If the results are satisfactory in the opinion of the user, then the process continues with Step 12. Otherwise, proceed to Step 10.

Step 10.

There are many "treatments" available to the user in resolving such problems. These treatments range from decisions to reroute the traffic by imposing turn restrictions where they can produce significant improvements in capacity, changing the control treatment at critical intersections so as to provide improved service for one or more movements, or in prescribing specific treatments for channelizing the flow so as to expedite the movement of traffic along major roadway systems or changing the trip table. Such "treatments" take the form of modifications to the original input stream.

Step 11.

As noted above, the changes to the input stream must be implemented to reflect the modifications undertaken in Step 10. At the completion of this activity, the process returns to Step 8 where the TRAD model is again executed.

Step 12.

The output of the TRAD model includes the computed turn movements for each link. These data are required – and – accessed by the PC-DYNEV simulation model. This step completes the specification of the PC-DYNEV input stream.

Step 13.

After the PC-DYNEV input stream has been debugged, the simulation model is executed to provide detailed estimates, expressed as statistical Measures of Effectiveness (MOE), which describe the detailed performance of traffic operations on each link of the network.

Step 14.

In this step, the detailed output of the simulation model is examined to identify whether problems exist on the network. The results of the simulation model are extremely detailed and far more accurately describe traffic operations than those provided by the TRAD model. Thus, it is possible to identify the cause of any problems by carefully studying the output.

Again, one can implement corrective treatments designed to expedite the flow of traffic on the network in the event that the results are considered to be less efficient than is possible to achieve. If input changes are needed, the analysis process proceeds to Step 15. On the other hand, if the results are satisfactory, then one can decide whether to return to Step 8 to again execute the TRAD model and repeat the whole process, or to accept the simulation results. If there were no changes indicated by the activities of Step 14, because the results were satisfactory, we can then proceed to document them in Step 17. Otherwise, return to Step 8 to determine the effects of the changes implemented in Step 14

on the optimal routing patterns over the network. This determination can be ascertained by executing the TRAD model.

Step 15.

This activity implements the changes in control treatments or in the assignment of destinations associated with one or more origins in order to improve the representation of traffic flow over the network. These treatments can also include the consideration of adding roadway segments to the existing analysis network to improve the representation of the physical system.

Step 16.

Once the treatments have been identified, it is necessary to modify the simulation model input stream accordingly. At the completion of this effort, the procedure returns to Step 13 to execute the simulation model again.

Step 17.

The simulation results are analyzed, tabulated and graphed. The results are then documented, as required.

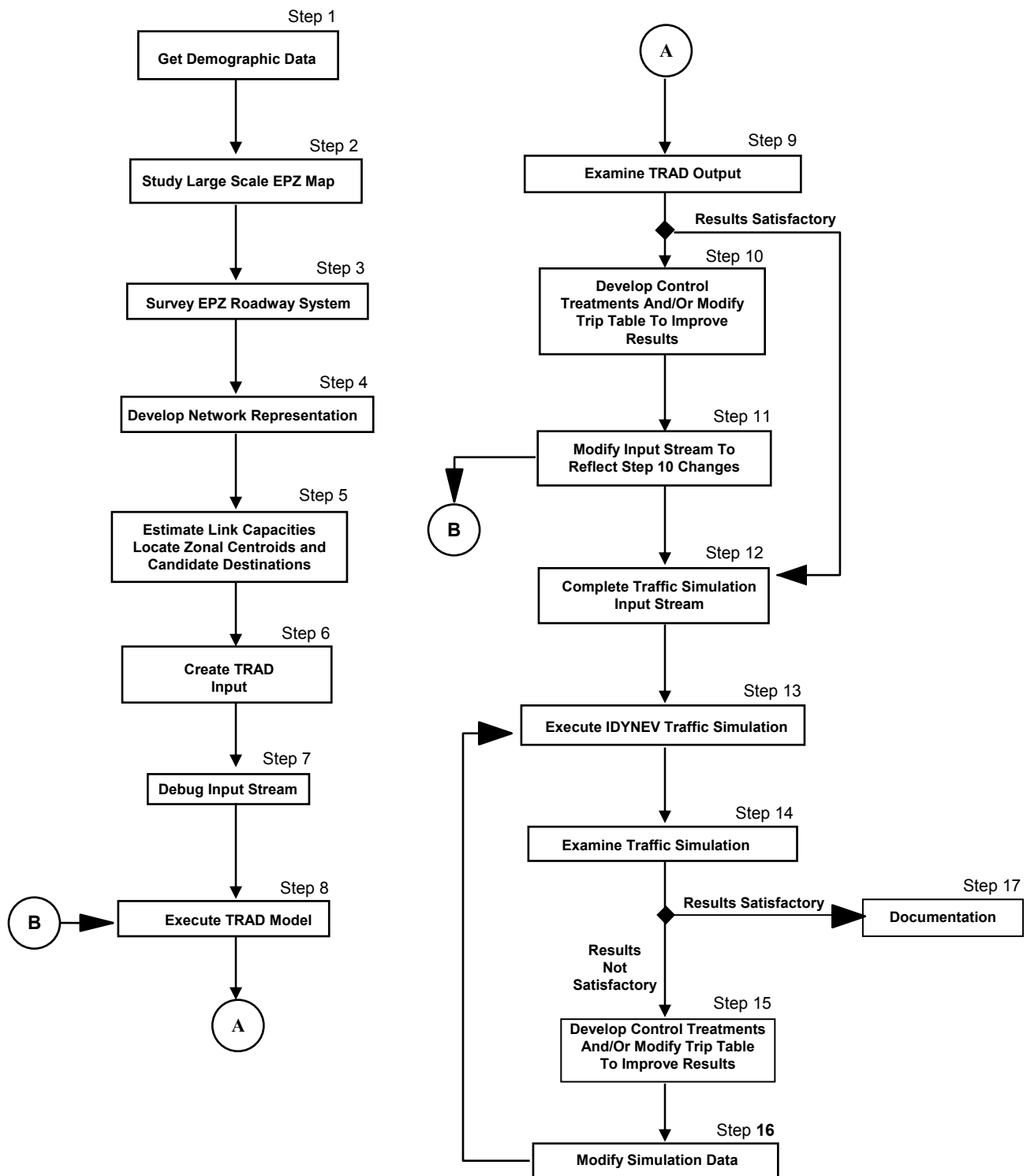


Figure D-1. Flow Diagram of Activities

APPENDIX E

Special Facility Data

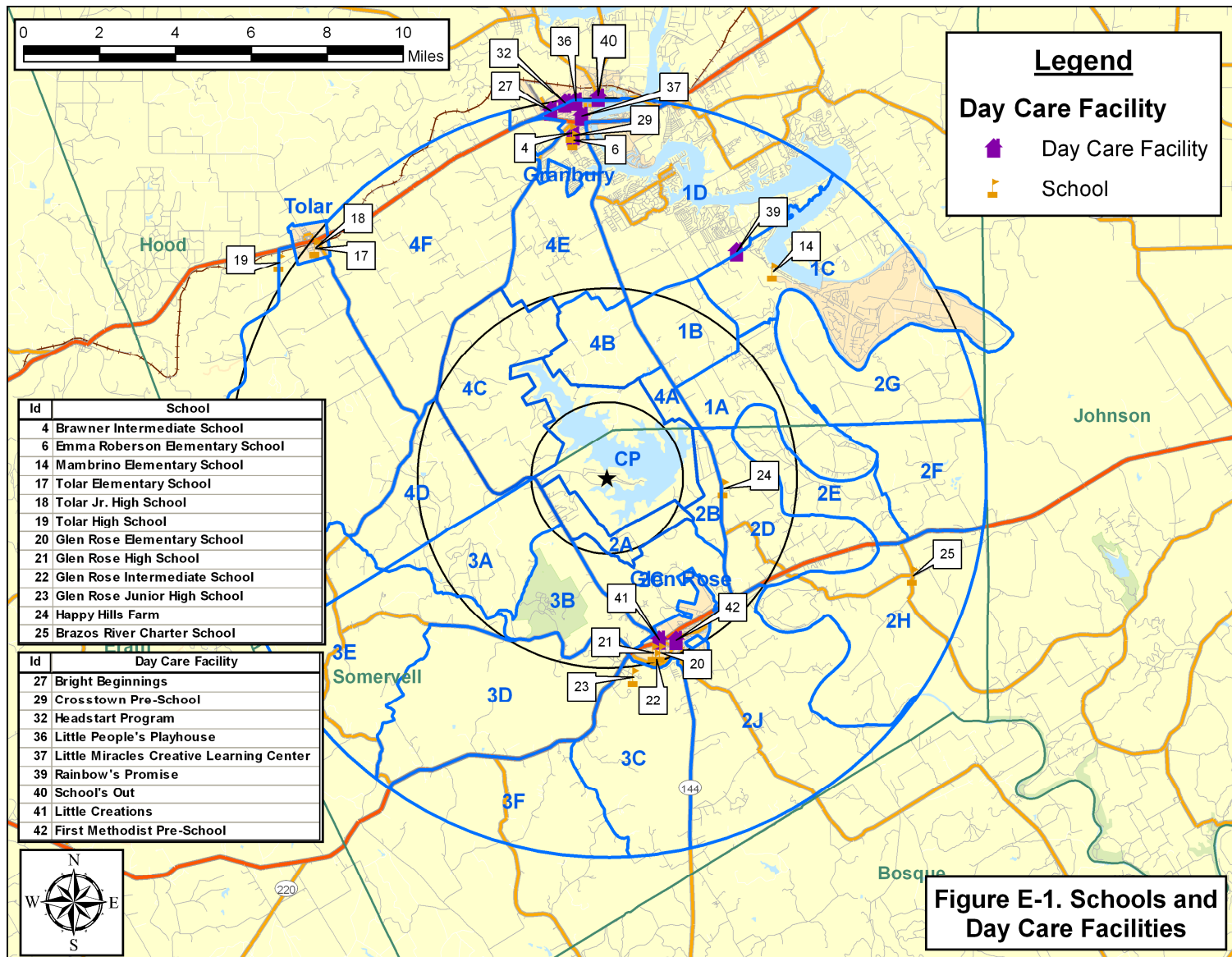
APPENDIX E: SPECIAL FACILITY DATA

The following tables list population information, as of August 2007, for special facilities that are located within the Comanche Peak Nuclear Power Plant (CPNPP) EPZ. Special facilities are defined as schools, day care centers, hospitals and other medical care facilities, correctional institutions, and major employers. Transient population data is included in the tables for state parks, county parks, lodging facilities, and other recreational areas. Each table is grouped by county. The location of the facility is defined by its straight-line distance (miles) and direction (magnetic bearing) from the CPNPP.

| Comanche Peak EPZ: Schools | | | | | | | | |
|----------------------------|---------------------|-----------|---------------------------------|----------------------|--------------|----------------|-----------------|-------|
| Zone | Distance (miles) | Direction | School Name | Street Address | Municipality | Phone | Enroll- ment | Staff |
| HOOD COUNTY | | | | | | | | |
| 1C | 6.9 | NE | Mambrino Elementary School | 3835 Mambrino Hwy | Granbury | (817) 408-0475 | 630 | 77 |
| 4G | 10.3 | WNW | Tolar High School | 301 Rock Church Rd | Tolar | (254) 835-4316 | 620 | 75 |
| Granbury | 9 | N | Brawner Intermediate School | 1520 S. Meadows Dr | Granbury | (817) 408-4950 | 412 | 51 |
| Granbury | 8.9 | N | Emma Roberson Elementary School | 1500 Misty Meadow Dr | Granbury | (817) 408-4500 | 642 | 59 |
| Tolar | 9.8 | NW | Tolar Elementary School | 401 E. 7th St | Tolar | (254) 835-4028 | 260 | 30 |
| Tolar | 9.8 | NW | Tolar Jr. High School | 401 E. 7th St | Tolar | (254) 835-5207 | 150 | 15 |
| SOMERVELL COUNTY | | | | | | | | |
| 2D | 3.1 | E | Happy Hills Farm | 3846 N. Hwy 144 | Granbury | (254) 897-4822 | 120 | 100 |
| 2H | 8.5 | ESE | Brazos River Charter School | 1964 S FM 199 | Nemo | (254) 898-9226 | 160 | 15 |
| 3C | 5.3 | S | Glen Rose Junior High School | Moody Ln | Glen Rose | (254) 898-3703 | 389 | 55 |
| Glen Rose | 4.8 | SSE | Glen Rose Elementary School | 601 Stadium Dr | Glen Rose | (254) 898-3503 | 413 | 66 |
| Glen Rose | 4.7 | SSE | Glen Rose High School | 900 Stadium Dr | Glen Rose | (254) 898-3803 | 500 | 90 |
| Glen Rose | 4.9 | SSE | Glen Rose Intermediate School | 201 Allen Dr | Glen Rose | (254) 898-3603 | 385 | 55 |
| Total | | | | | | | 4,681 | 688 |

| Comanche Peak EPZ: Day Care Facilities | | | | | | |
|--|---------------------|-----------|--|--------------------|--------------|----------------|
| Zone | Distance (miles) | Direction | Name | Street Address | Municipality | Phone |
| HOOD COUNTY | | | | | | |
| 1D | 6.9 | NNE | Rainbow's Promise | 2727 Mambrino Hwy | Granbury | (817) 279-6794 |
| Granbury | 9.8 | N | Bright Beginnings | 2001 W. Pearl St | Granbury | (817) 579-9796 |
| Granbury | 9.1 | N | Crosstown Pre-School | 1400 N. Meadows Dr | Granbury | (817) 776-2074 |
| Granbury | 9.9 | N | Headstart Program | 1509 W. Pearl St | Granbury | (817) 579-1303 |
| Granbury | 9.6 | N | Little Miracles Creative Learning Center | 807 Paluxy Hwy | Granbury | (817) 573-4242 |
| Granbury | 9.9 | N | Little People's Playhouse | 1107 W. Pearl St | Granbury | (817) 573-3188 |
| Granbury | 10.0 | N | School's Out | 206 West Bridge | Granbury | (817) 573-1237 |
| SOMERVELL COUNTY | | | | | | |
| Glen Rose | 4.5 | SSE | Little Creations | 805 Hereford St | Glen Rose | (254) 897-3502 |
| Glen Rose | 4.6 | SSE | First United Methodist Pre-School | Bernard St | Glen Rose | (254) 897-2572 |
| Total | | | | | | 599 |
| | | | | | | 84 |

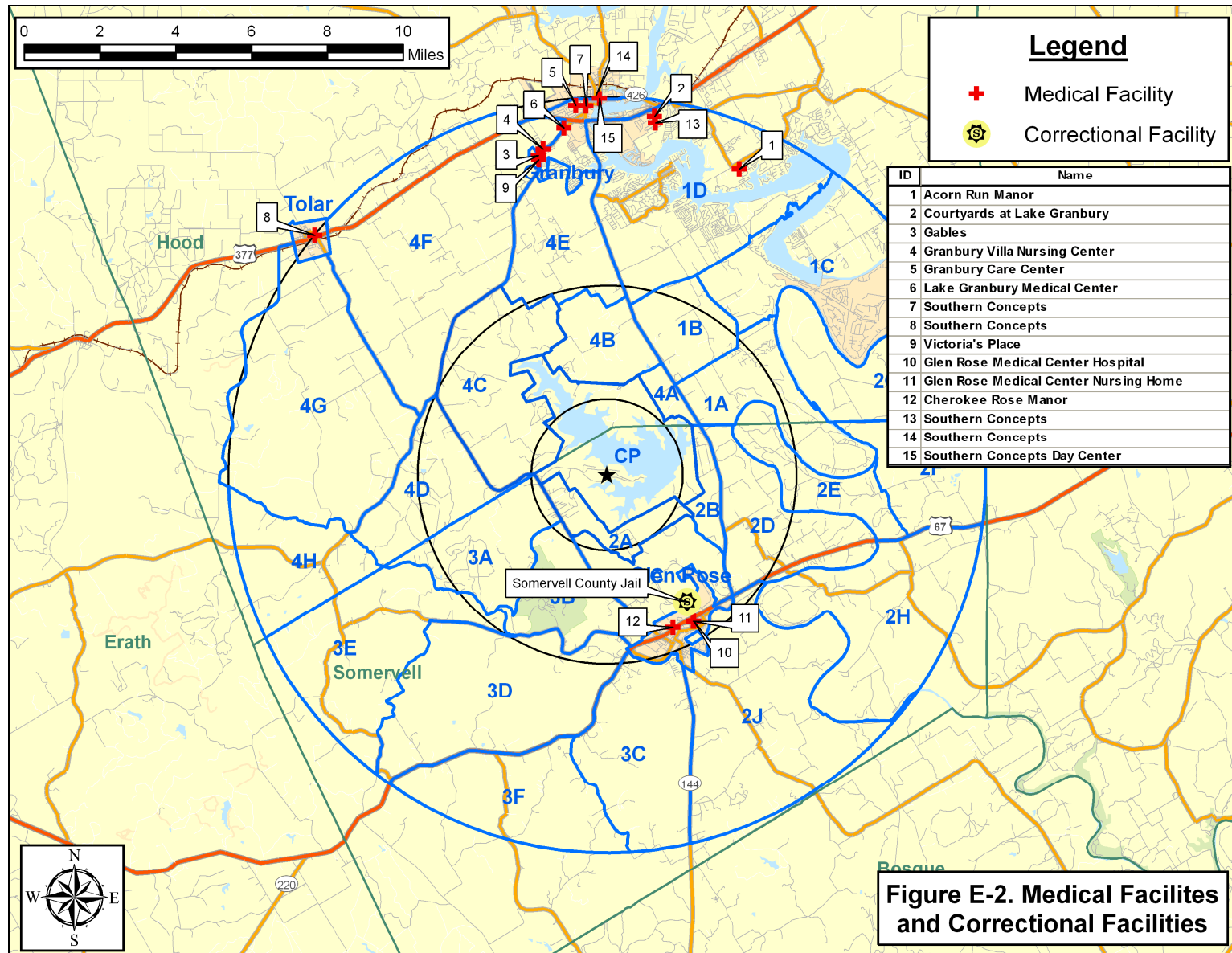
N/A= Data not available



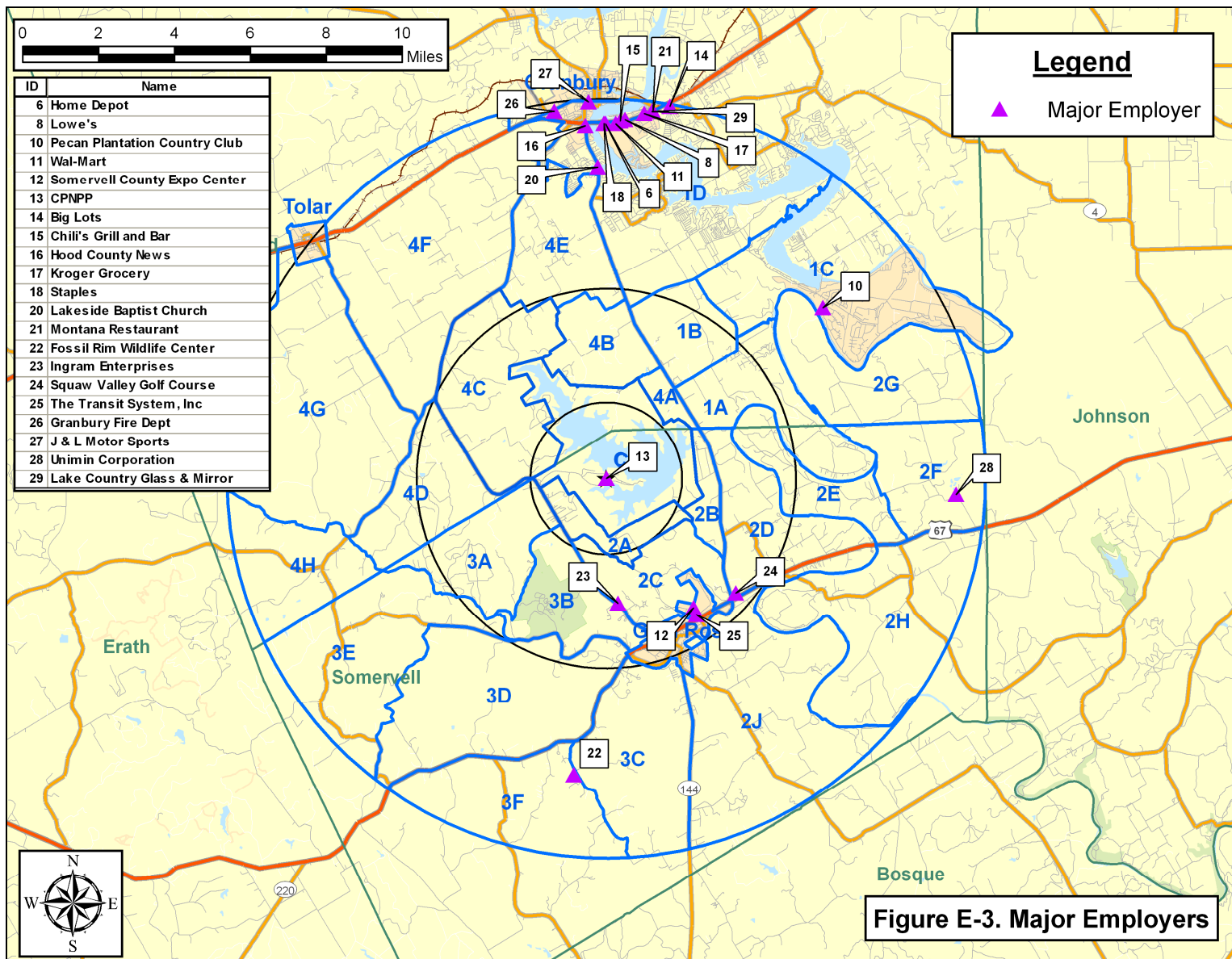
| Comanche Peak EPZ: Medical Facilities and Assisted Living Facilities | | | | | | | | | |
|--|---------------------|----------------|---------------------------------------|-------------------|--------------|----------------|----------|--------|------------------------|
| Zone | Distance (miles) | Dir- ection | Name | Street Address | Municipality | Phone | Capacity | Census | Employees Max Shift |
| HOOD COUNTY | | | | | | | | | |
| 1D | 8.8 | NNE | Acorn Run Manor | 3705 Acorn Run | Granbury | (817) 326-5050 | 2 | 2 | 2 |
| 1D | 9.6 | N | Courtyards at Lake Granbury | 801 Calinco Dr | Granbury | (817) 736-4300 | 112 | 112 | 10 |
| 1D | 10.1 | N | Southern Concepts | 1400 Fifth St | Granbury | (817) 579-9678 | 6 | 6 | 1 |
| 4F | 8.8 | N | Granbury Villa Nursing Center | 2124 Paluxy Hwy | Granbury | (817) 573-9131 | 93 | 81 | 26 |
| 4F | 8.5 | NNW | Victoria's Place | 2310 Paluxy Hwy | Granbury | (817) 279-9607 | 19 | 18 | 2 |
| Granbury | 8.7 | NNE | Gables | 2300 Paluxy Hwy | Granbury | (817) 279-9259 | 77 | 77 | 8 |
| Granbury | 9.8 | N | Granbury Care Center | 301 South Park St | Granbury | (817) 573-3726 | 178 | 170 | 30 |
| Granbury | 9.3 | N | Lake Granbury Medical Center | 1310 Paluxy Hwy | Granbury | (817) 573-2273 | 59 | 25 | 80 |
| Granbury | 9.8 | N | Southern Concepts | Torrey St | Granbury | (817) 579-9678 | 6 | 6 | 1 |
| Granbury | 9.9 | N | Southern Concepts | 210 Travis St | Granbury | (817) 579-9678 | 3 | 2 | 1 |
| Granbury | 9.9 | N | Southern Concepts Day Activity Center | 109 W. Pearl St | Granbury | (817) 579-9678 | 20 | 20 | 4 |
| Tolar | 9.9 | SSE | Southern Concepts | 6th & Mesquite | Tolar | (817) 579-9678 | 6 | 6 | 1 |
| SOMERVELL COUNTY | | | | | | | | | |
| Glen Rose | 4.4 | SSE | Cherokee Rose Manor | 203 Bo Gibbs Blvd | Glen Rose | (254) 897-7361 | 102 | 70 | 15 |
| Glen Rose | 4.5 | SSE | Glen Rose Medical Center Hospital | 1021 Holden St | Glen Rose | (254) 897-2215 | N/A | 16 | 13 |
| Glen Rose | 4.5 | SSE | Glen Rose Medical Center Nursing Home | 1021 Holden St | Glen Rose | (254) 897-1429 | N/A | 118 | 25 |
| Total | | | | | | | | 729 | 219 |

N/A= Data not available

| Comanche Peak EPZ: Correctional Facilities | | | | | | | |
|--|---------------------|-----------|-----------------------|----------------|--------------|----------------|-----------|
| Zone | Distance (miles) | Direction | Name | Street Address | Municipality | Phone | Capacity |
| SOMERVELL COUNTY | | | | | | | |
| Glen Rose | 4 | SSE | Somervell County Jail | 750 Gibbs Blvd | Glen Rose | (254) 897-4286 | 57 |
| | | | | | | Total | 57 |
| | | | | | | | 32 |



| Comanche Peak EPZ: Major Employers | | | | | | | | |
|------------------------------------|---------------------|----------------|---------------------------------|--------------------|--------------|----------------|--------------------|--------------|
| Zone | Distance (miles) | Dir- ection | Facility Name | Street Address | Municipality | Phone | Total Employees | Max Shift |
| HOOD COUNTY | | | | | | | | |
| 1C | 7.3 | NE | Pecan Plantation Country Club | 8650 Westover Ct | Granbury | (817) 573-2641 | 110 | 110 |
| 1D | 10 | N | Big Lots | 1820 Acton Hwy | Granbury | (817) 573-6619 | 23 | 20 |
| 1D | 9.4 | N | Home Depot | 415 E. Hwy 377 | Granbury | (817) 579-0050 | 120 | 70 |
| 1D | 9.3 | N | Hood County News | 1501 S. Morgan St | Granbury | (817) 573-7066 | 65 | 50 |
| 1D | 9.7 | N | Kroger Grocery | 1420 E. Hwy 377 | Granbury | (817) 573-8887 | 100 | 70 |
| 1D | 9.7 | N | Lake Country Glass & Mirror Co. | 1422 N. Plaza Dr | Granbury | (817) 573-5660 | N/A | 81 |
| 1D | 9.8 | N | Montana Restaurant | 1454 E. Hwy 377 | Granbury | (817) 573-2500 | 80 | 20 |
| 1D | 9.4 | N | Staples | 301 E. Hwy 377 | Granbury | (817) 573-4695 | 30 | 20 |
| 1D | 9.4 | N | Wal-Mart | 735 E. Hwy 377 | Granbury | (817) 573-3791 | 500 | 350 |
| Granbury | 9 | N | Chili's Grill & Bar | 1000 E. Hwy 377 | Granbury | (817) 579-9402 | 80 | 20 |
| Granbury | 9.7 | N | Granbury Fire Dept | 1701 W. Pearl St | Granbury | (817) 579-1111 | N/A | 60 |
| Granbury | 9.9 | N | J & L Motor Sports | 110 S Baker St | Granbury | (817) 579-9042 | N/A | 61 |
| Granbury | 8.2 | N | Lakeside Baptist Church | 3410 Glen Rose Hwy | Granbury | (817) 279-8094 | 60 | 60 |
| Granbury | 9.5 | N | Lowe's | 1021 E. Hwy 377 | Granbury | (817) 736-7000 | 126 | 75 |
| SOMERVELL COUNTY | | | | | | | | |
| 2C | 3 | SE | Ingram Enterprises | 1845 Hwy 56 N | Glen Rose | (254) 897-4016 | 30 | 20 |
| 2D | 5 | SE | Squaw Valley Golf Course | 2439 E. Hwy 67 | Glen Rose | (254) 897-7956 | 40 | 30 |
| 2F | 9.3 | E | Unimin Corporation | 1788 County Rd 308 | Glen Rose | (254) 897-3272 | N/A | 50 |
| 3F | 8 | SE | Fossil Rim Wildlife Center | 2155 CR 2008 | Glen Rose | (254) 897-2960 | 69 | 50 |
| CP | 1 | N | CPNPP | FM 56 | Glen Rose | (254) 897-5554 | N/A | 1,001 |
| Glen Rose | 4.1 | SE | Somervell County Expo Center | 202 Bo Gibbs Blvd | Glen Rose | (254) 897-4509 | 12 | 30 |
| Glen Rose | 4 | SSE | The Transit System, Inc. | 401 Commerce St | Glen Rose | (254) 897-2964 | 29 | 22 |
| Total | | | | | | | 2,270 | 1,409 |



| Comanche Peak EPZ: Recreational Areas | | | | | | | | |
|---------------------------------------|------------------|----------------|-------------------------------------|----------------------|--------------|----------------|---------------|-------------------|
| Zone | Distance (miles) | Dir- ection | Facility Name | Street Address | Municipality | Phone | Persons | Total Vehicles |
| HOOD COUNTY | | | | | | | | |
| 1D | 9.4 | N | Bridge Harbor Marina | 1003 White Cliff | Granbury | (817) 279-6969 | N/A | N/A |
| 1D | 8.9 | N | Pier 144 Marina & RV Park | 2323 S. Morgan St | Granbury | (817) 573-3698 | 120 | 60 |
| 4A | 2.8 | NE | Midway Pines & RV Park & Storage | 9322 Glen Rose Hwy | Granbury | (817) 279-7925 | 92 | 46 |
| 4A | 2.9 | NE | Nibbin Ridge | 8905 Glen Rose Hwy | Granbury | (817) 573-5331 | 14 | 7 |
| 4F | 9.7 | NNW | Countryside RV Park | 2600 Hwy 377 W | Granbury | (817) 573-7539 | N/A | N/A |
| 4F | 9.7 | NNW | Lake Trails RV Park | 3636 S. Hwy 377 | Granbury | (817) 573-4433 | 60 | 27 |
| SOMERVELL COUNTY | | | | | | | | |
| 2E | 4.6 | E | Camp Arrowhead | 5236 FM 199 | Cleburne | (254) 897-2323 | 56 | 25 |
| 2H | 8.4 | ESE | Steven's Ranch | Rt 199 | Nemo | (254) 8972515 | Camp | |
| 2J | 4.9 | SE | Camp Tres Rios | 2322 CR 312 | Glen Rose | (254) 897-4253 | 650 | 294 |
| 2J | 8.4 | SE | River Bend Retreat Center | 1232 CR 411B | Glen Rose | (254) 897-4011 | 700 | 360 |
| 3B | 3.7 | SSW | Dinosaur Valley State Park | Park Rd 59 | Glen Rose | (254) 897-4588 | 791 | 358 |
| 3B | 4.2 | SSW | Dinosaur World | 1058 Park Rd 59 | Glen Rose | (254) 898-1526 | 400 | 181 |
| 3D | 7.0 | S | Cedar Ridge Cabins & RV Park | 4475 W. Hwy 67 | Glen Rose | (254) 897-3410 | 105 | 40 |
| 3F | 8.2 | S | Fossil Rim - Safari Camp Cabins | 2155 CR 2008 | Glen Rose | (254) 897-2960 | 14 | 7 |
| 3F | 8.2 | S | Fossil Rim - The Lodge | 2155 CR 2008 | Glen Rose | (254) 897-2960 | 10 | 5 |
| 3F | 8.2 | S | Fossil Rim - Wolf Ridge Bunkhouses | 2155 CR 2008 | Glen Rose | (254) 897-2960 | 70 | 7 |
| 3F | 7.9 | S | Fossil Rim Wildlife Center | 2155 CR 2008 | Glen Rose | (254) 897-2960 | 900 | 407 |
| Glen Rose | 4.7 | S | B Street RV Park | 1900 S.W. Barnard St | Glen Rose | (254) 898-1163 | 23 | 10 |
| Glen Rose | 4.7 | SSE | Glen Lake Methodist Camp | 1102 N.E. Barnard St | Glen Rose | (254) 897-2247 | 250 | 40 |
| Glen Rose | 4.6 | SSE | Oakdale Camp 'n' Fish | 1019 N.E. Barnard St | Glen Rose | (254) 897-2478 | 400 | 181 |
| Glen Rose | 4.1 | SE | Somervell County Expo Center | 202 Bo Gibbs Blvd | Glen Rose | (254) 897-4509 | 6,710 | 2,314 |
| Glen Rose | 4.1 | SE | Somervell County Texas Amphitheatre | 202 Bo Gibbs Blvd | Glen Rose | (254) 897-4509 | Special Event | |
| TOTAL | | | | | | | 11,365 | 4,369 |

Highlighted facilities include camps with a large number of people; ETEs calculated separately for camps (transit dependents) in Section 8. Camp children and the buses/vans which drop them off are not included here.

Visitors to the Somervell County Texas Amphitheatre are counted in the special events Scenario 11 (1,563 vehicles).

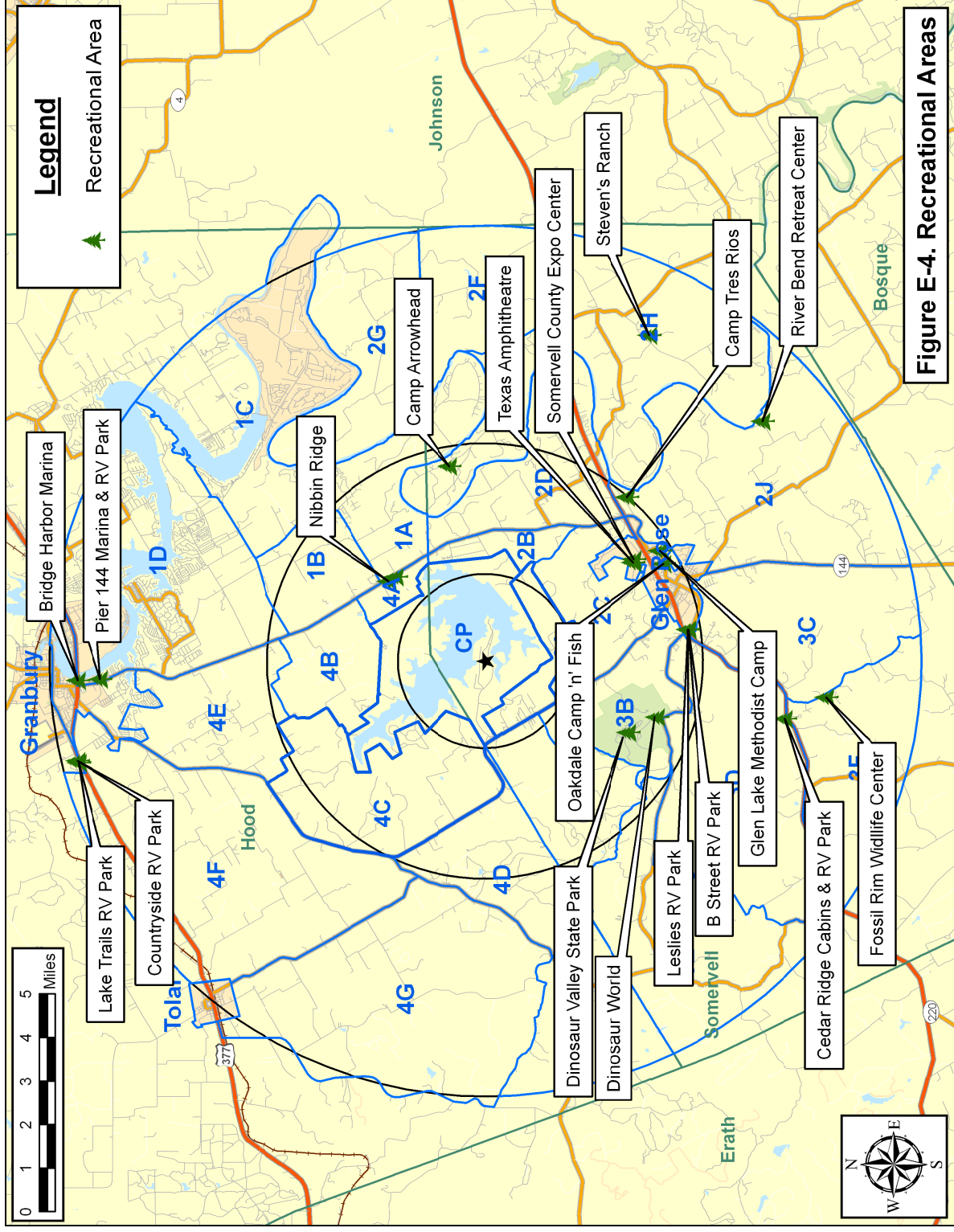
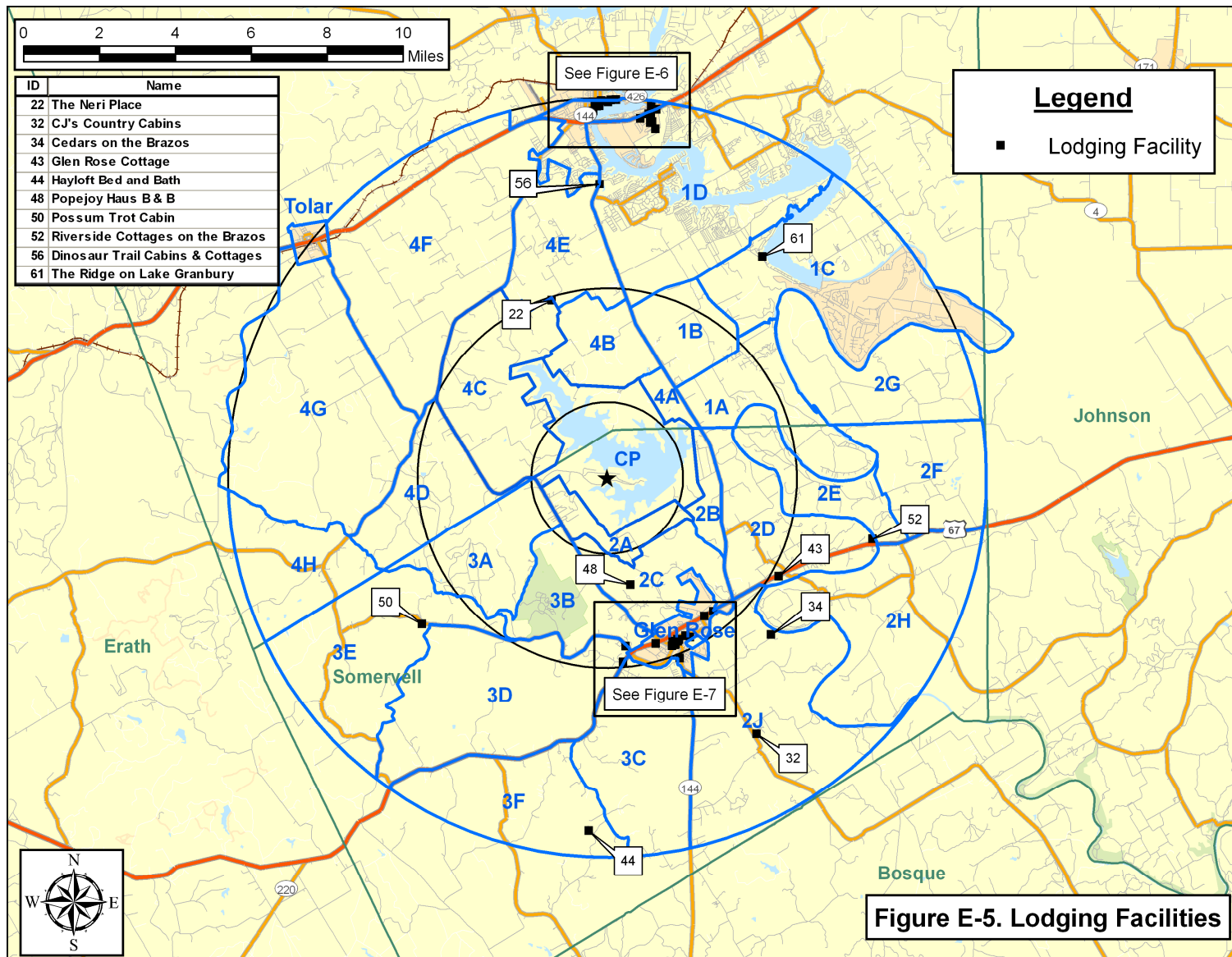
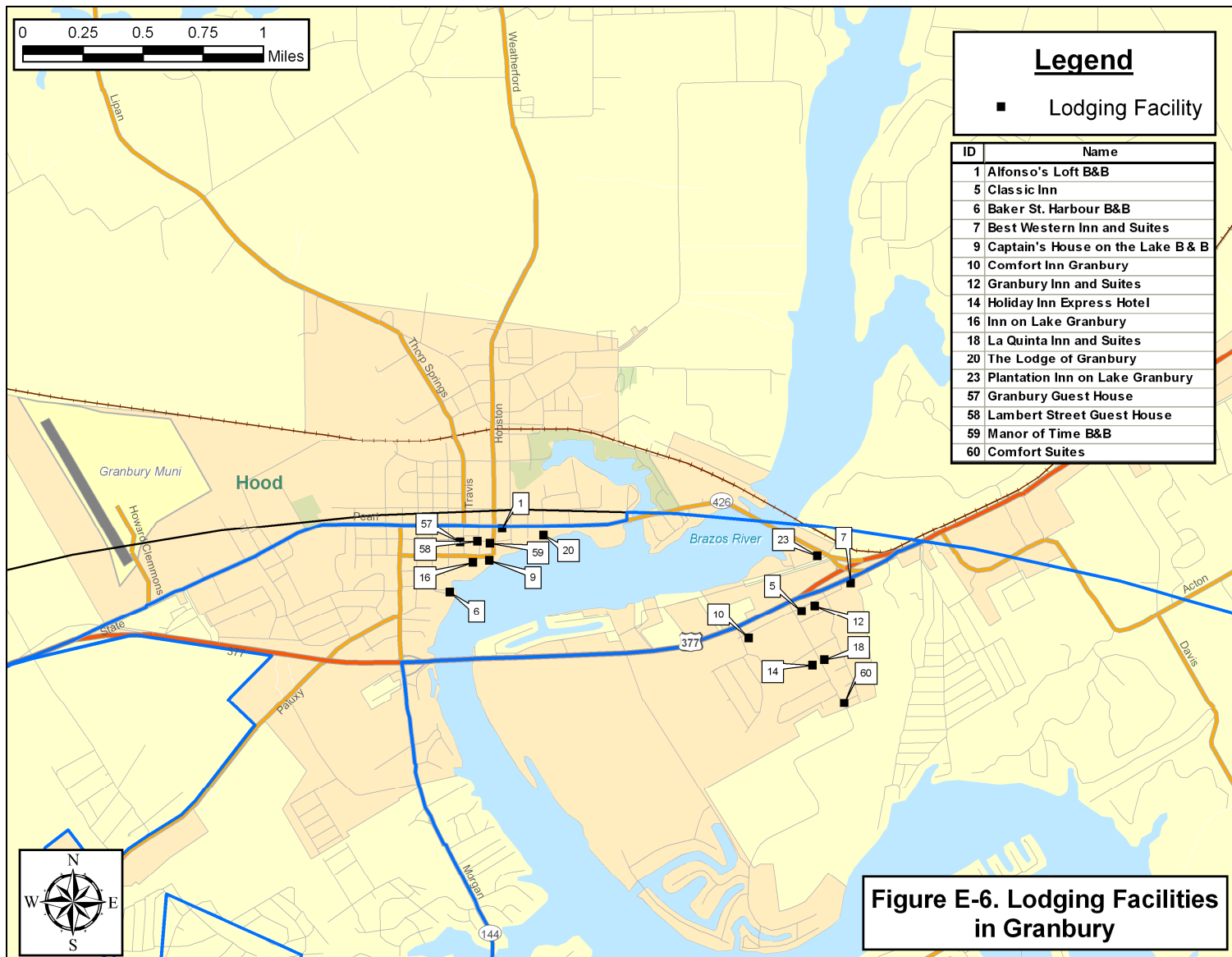


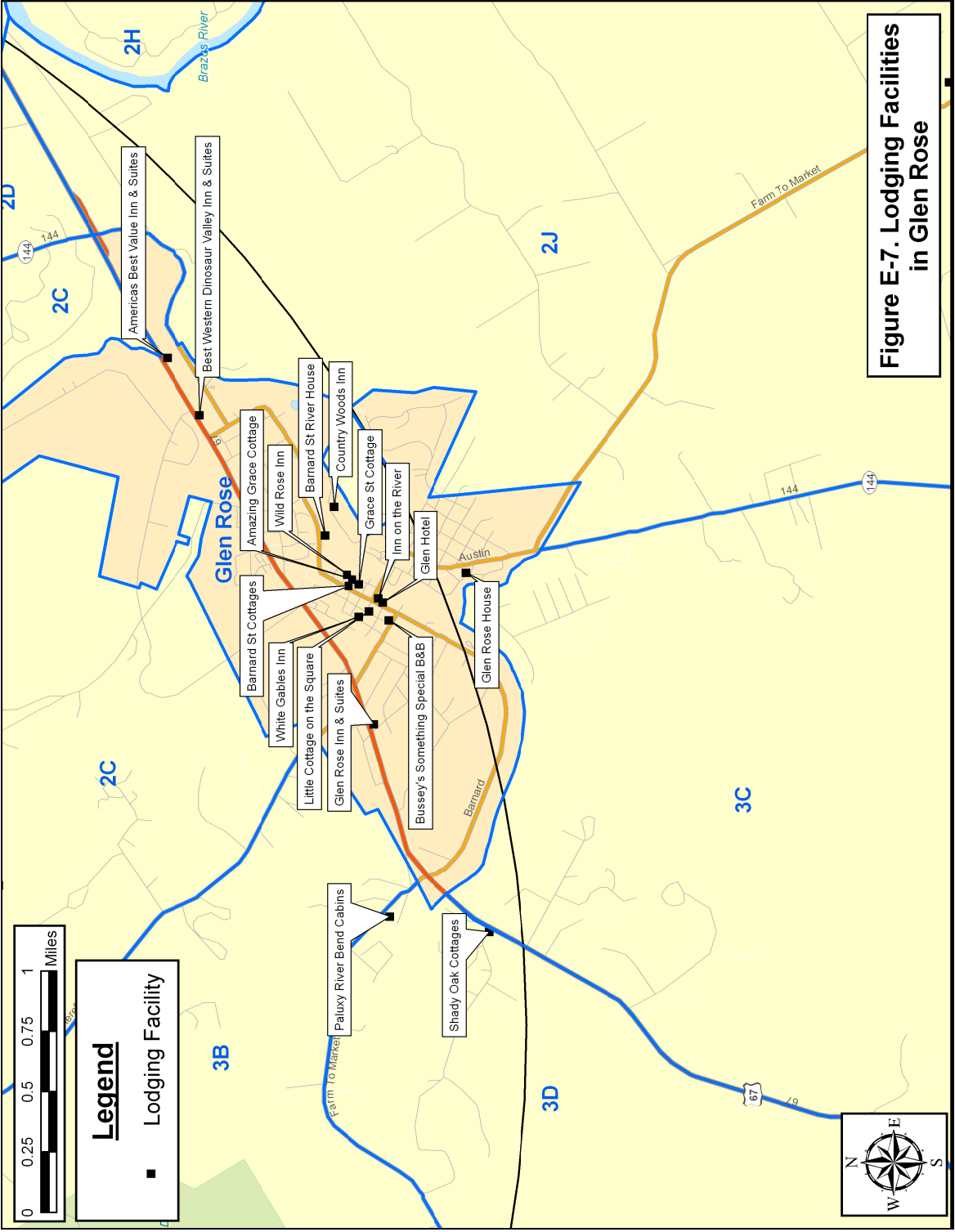
Figure E-4. Recreational Areas

| Comanche Peak EPZ: Lodging - HOOD COUNTY | | | | | | | | |
|--|------------------|-----------|-----------------------------------|---------------------|--------------|----------------|---------|----------|
| Zone | Distance (miles) | Direction | Facility Name | Street Address | Municipality | Phone | Persons | Vehicles |
| 1C | 7.1 | NE | The Ridge on Lake Granbury | 6450 Kelly Dr | Granbury | (817) 279-7148 | 98 | 44 |
| 1D | 9.8 | N | Best Western Inn & Suites | 1517 Plaza Dr | Granbury | (817) 573-4239 | 91 | 46 |
| 1D | 9.6 | N | Classic Inn | 1209 N. Plaza Dr | Granbury | (817) 573-8874 | 150 | 75 |
| 1D | 9.5 | N | Comfort Inn Granbury | 1201 N. Plaza Dr | Granbury | (817) 573-2611 | 176 | 44 |
| 1D | 7.7 | N | Dinosaur Trail Cabins & Cottages | 2800 TX-144 | Granbury | (817) 573-3023 | 8 | 3 |
| 1D | 9.7 | N | Granbury Inn and Suites | 1339 N. Plaza Dr | Granbury | (817) 573-2691 | 134 | 67 |
| 1D | 9.4 | N | Holiday Inn Express Hotel | 800 Harbor Lakes Dr | Granbury | (817) 573-4411 | 135 | 45 |
| 1D | 9.5 | N | La Quinta Inn and Suites | 880 Harbor Lakes Dr | Granbury | (817) 573-2007 | 114 | 57 |
| 4C | 4.9 | NNW | The Neri Place | 3014 Neri Rd | Granbury | (817) 219-1879 | 10 | 5 |
| Granbury | 9.3 | N | Comfort Suites | 903 Harbor Lakes Dr | Granbury | (817) 579-5559 | 154 | 55 |
| Granbury | 9.8 | N | Granbury Guest House | 204 South Travis | Granbury | (817) 573-1335 | 4 | 2 |
| Granbury | 9.8 | N | Lambert Street Guest House | 215 S. Lambert St | Granbury | (817) 573-0535 | 5 | 2 |
| Granbury | 9.8 | N | Manor of Time B&B | 121 W. Bluff St | Granbury | (817) 279-9110 | 8 | 4 |
| Granbury | 9.9 | N | Alfonso's Loft B&B | 137 E. Pearl St | Granbury | (817) 573-3308 | 2 | 1 |
| Granbury | 9.6 | N | Baker St. Harbour B&B | 511 S. Baker St | Granbury | (817) 578-3684 | 8 | 4 |
| Granbury | 9.8 | N | Captain's House on the Lake B & B | 123 W. Doyle | Granbury | (817) 579-6664 | 8 | 6 |
| Granbury | 9.8 | N | Inn on Lake Granbury | 205 W. Doyle | Granbury | (817) 573-0046 | 56 | 55 |
| Granbury | 9.9 | N | Plantation Inn on Lake Granbury | 1451 E. Pearl St | Granbury | (817) 573-8846 | 106 | 53 |
| Granbury | 9.9 | N | The Lodge of Granbury | 401 E. Pearl St | Granbury | (817) 573-2606 | 134 | 86 |
| Total | | | | | | | 1,401 | 654 |

| Comanche Peak EPZ: Lodging - SOMERVELL COUNTY | | | | | | | | |
|---|------------------|----------------|---|--------------------------|--------------|----------------|--------------|---------------|
| Zone | Distance (miles) | Dir- ection | Facility Name | Street Address | Municipality | Phone | Per- sons | Veh- icles |
| 2C | 2.9 | SSE | Popejoy Haus B & B | 1943 CR 321 | Glen Rose | (254) 897-3521 | 10 | 5 |
| 2D | 5.2 | ESE | Glen Rose Cottage | 3279 E Hwy 67 | Glen Rose | (254) 897-7198 | 6 | 6 |
| 2D | 7.2 | ESE | Riverside Cottages on the Brazos | 1140 CR 315 | Glen Rose | (254) 898-0909 | 24 | 12 |
| 2J | 6.0 | SE | Cedars on the Brazos | 2920 CR 413 | Glen Rose | (254) 898-1000 | 12 | 4 |
| 2J | 7.8 | SSE | CJ's Country Cabins | 3454 FM 56 South | Glen Rose | (254) 898-9533 | 26 | 13 |
| 3D | 4.8 | S | Paluxy River Bed Cabins | 1319 FM 205 | Glen Rose | (800) 235 2004 | 8 | 4 |
| 3D | 4.9 | S | Shady Oak Cottages | 1443 Hwy 67 | Glen Rose | (254) 898-2332 | 4 | 4 |
| 3E | 6.2 | SW | Possum Trot Cabin | 7582 FM 205 | Glen Rose | (254) 396-2159 | 2 | 1 |
| 3F | 9.3 | S | Hayloft Bed & Bath | CR 2009 | Glen Rose | (254) 897-3094 | 4 | 2 |
| Glen Rose | 4.7 | SSE | Amazing Grace Cottage | 306 Grace St | Glen Rose | (254) 396-2592 | 6 | 3 |
| Glen Rose | 4.5 | SE | America's Best Value Inn & Suites | 1614 N. Big Bend Tr | Glen Rose | (254) 897-2111 | 92 | 46 |
| Glen Rose | 4.6 | SSE | Barnard Street Cottages | 307 Northeast Barnard St | Glen Rose | (254) 897-4630 | 4 | 4 |
| Glen Rose | 4.6 | SSE | Barnard Street River House | 800 Barnard St | Glen Rose | (800) 476-0175 | 6 | 3 |
| Glen Rose | 4.5 | SE | Best Western Dinosaur Valley Inn & Suites | 1311 NE Big Bend Tr | Glen Rose | (254) 897-4818 | 162 | 54 |
| Glen Rose | 4.7 | SSE | Bussey's Something Special B&B | 202 Hereford St | Glen Rose | (254) 897-4843 | 8 | 4 |
| Glen Rose | 4.7 | SSE | Country Woods Inn | 420 Grand Ave | Glen Rose | (254) 897-4933 | 52 | 13 |
| Glen Rose | 4.8 | SSE | Glen Hotel | 201 SW Barnard St. | Glen Rose | (254) 898-2068 | 78 | 37 |
| Glen Rose | 5.1 | SSE | Glen Rose House | 704 Paluxy Hwy | Glen Rose | (972) 317-7641 | 4 | 2 |
| Glen Rose | 4.5 | SSE | Glen Rose Inn & Suites | 300 SW Big Bend Tr | Glen Rose | (254) 897-2940 | 192 | 87 |
| Glen Rose | 4.7 | SSE | Grace St Cottage | 300 Grace St | Glen Rose | (254) 396-2592 | 4 | 2 |
| Glen Rose | 4.7 | SSE | Inn on the River | 205 SW Barnard St | Glen Rose | (254) 897-2929 | 45 | 20 |
| Glen Rose | 4.7 | SSE | Little Cottage on the Square | 104 S.W. Vernon St | Glen Rose | (254) 396-2592 | 2 | 1 |
| Glen Rose | 4.6 | SSE | White Gables Inn | 101 Vine St | Glen Rose | (254) 897-2149 | 10 | 5 |
| Glen Rose | 4.7 | SSE | Wild Rose Inn | 401 Grace St | Glen Rose | (254) 897-4112 | 14 | 7 |
| Total | | | | | | | 775 | 339 |







APPENDIX F

Telephone Survey

APPENDIX F: TELEPHONE SURVEY

1. INTRODUCTION

The development of evacuation time estimates for the Emergency Planning Zone (EPZ) of the Comanche Peak Nuclear Power Plant requires the identification of travel patterns, car ownership and the average household size of the population within the EPZ. Demographic information is obtained from Census data. The use of this data has several limitations when applied to emergency planning. First, the Census data do not encompass the range of information needed to identify the time required for preliminary activities that must be undertaken prior to evacuating the area. Secondly, the Census data do not contain attitudinal responses needed from the population of the EPZ and consequently may not accurately represent the anticipated behavioral characteristics of the evacuating populace.

These concerns are addressed by a telephone survey. The survey is designed to elicit information from the public concerning family demographics and estimates of response times to well-defined events. The design of the survey includes a limited number of questions of the form “What would you do if ...?” and other questions regarding activities with which the respondent is familiar (“How long does it take you to ...?”)

2. SURVEY INSTRUMENT AND SAMPLING PLAN

Attachment A presents the final survey instrument. A draft of the instrument was submitted for comment. Comments were received and the survey instrument was modified.

Following the completion of the instrument, a sampling plan was developed. A sample size of approximately 550 completed survey forms yields results with an acceptable sampling error. The sample must be drawn from the EPZ population. Consequently, a list of EPZ zip codes was developed. This list is shown in Table F-1. Along with each zip code, an estimate of the population in each area was determined. The proportional number of the desired completed survey interviews for each area was identified, as shown in Table F-1. The completed survey adhered to the sampling plan.

| Table F-1. CPNPP Telephone Survey Sampling Plan | | | |
|--|--------------------------|---------------------------------|------------------------|
| Zip Code | Population (2000) | Households in EPZ (2000) | Required Sample |
| 76033 | 276 | 114 | 5 |
| 76043 | 5,107 | 1,811 | 86 |
| 76048 | 13,668 | 5,378 | 255 |
| 76049 | 8,011 | 3,243 | 154 |
| 76070 | 405 | 141 | 7 |
| 76077 | 643 | 243 | 12 |
| 76433 | 87 | 35 | 2 |
| 76476 | 1,706 | 638 | 30 |
| Total: | 29,903 | 11,602 | 550 |
| Average Household Size | | 2.58 | |
| Total Sample Required | | 550 | |

3. SURVEY RESULTS

The results of the survey fall into two categories. First, the household demographics of the area can be identified. Demographic information includes such factors as household size, automobile ownership, and automobile availability. The distributions of the time to perform certain pre-evacuation activities are the second category of survey results. These data are processed to develop the trip generation distributions used in the evacuation modeling effort.

Household Demographic Results

Household Size

Figure F-1 presents the distribution of household size within the EPZ. The average household contains 2.21 people. The estimated household size (2.58 persons) used to determine the survey sample (Table F-1) was drawn from Census data. The difference in the factors can be described by a likely shift in demographics within the EPZ since the 2000 Census.

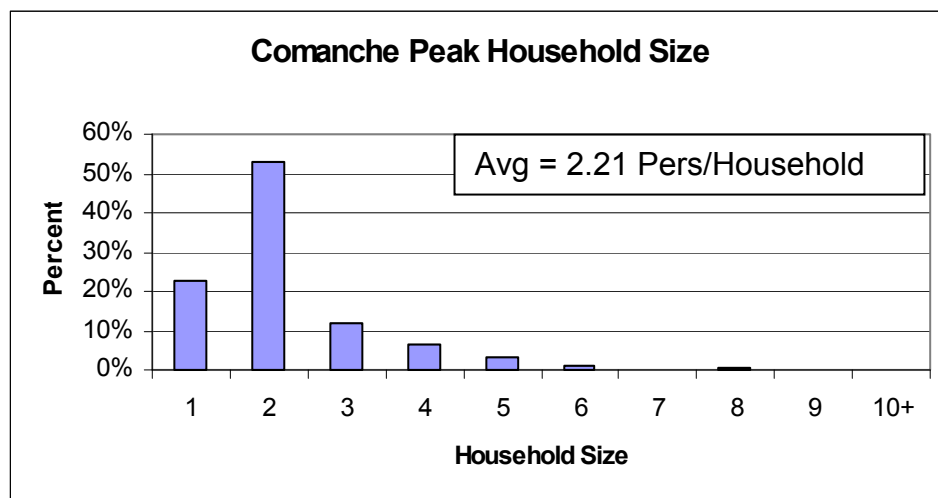


Figure F-1. Household Size in the EPZ

Automobile Ownership

The average number of automobiles per household in the EPZ is 1.95. It should be noted that approximately 3 percent of households do not have access to an automobile. The distribution of automobile ownership is presented in Figure F-2. Figures F-3 and F-4 present the automobile availability by household size. Note that the majority of households without access to a car are single person households. As expected, nearly all households of 2 or more people have access to at least one vehicle.

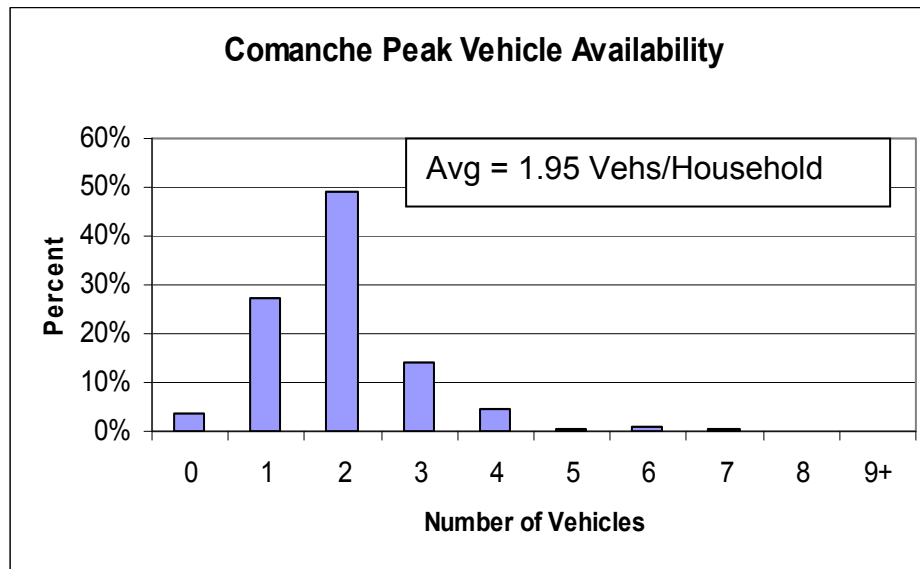


Figure F-2. Household Vehicle Availability

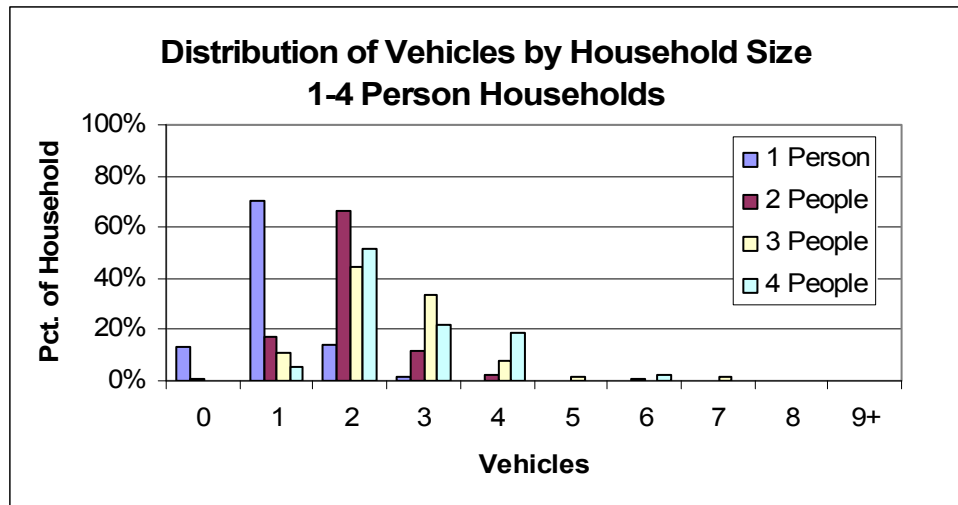


Figure F-3. Vehicle Availability – 1 to 4 Person Households

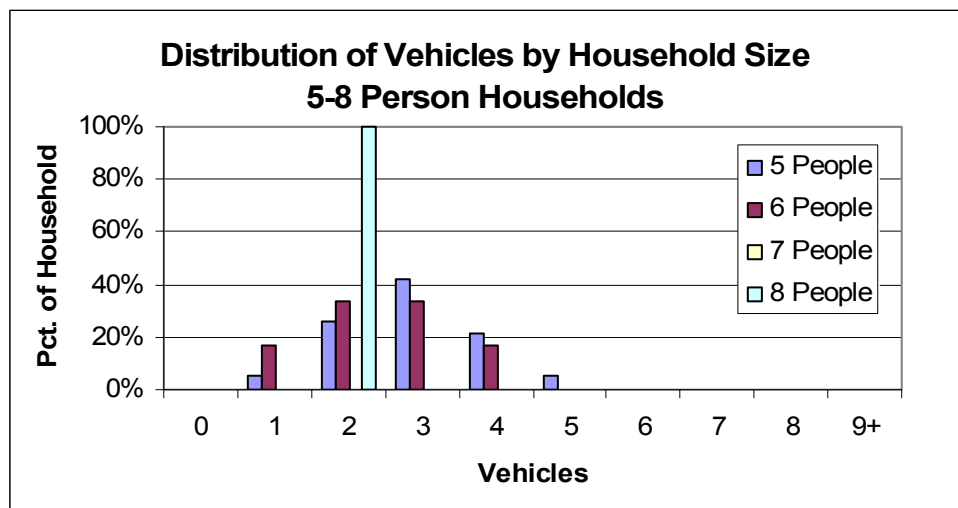


Figure F-4. Vehicle Availability – 5 to 8 Person Households

School Children

The average number of school children per household identified by the survey is 0.39. Figure F-5 presents the distribution of school children.

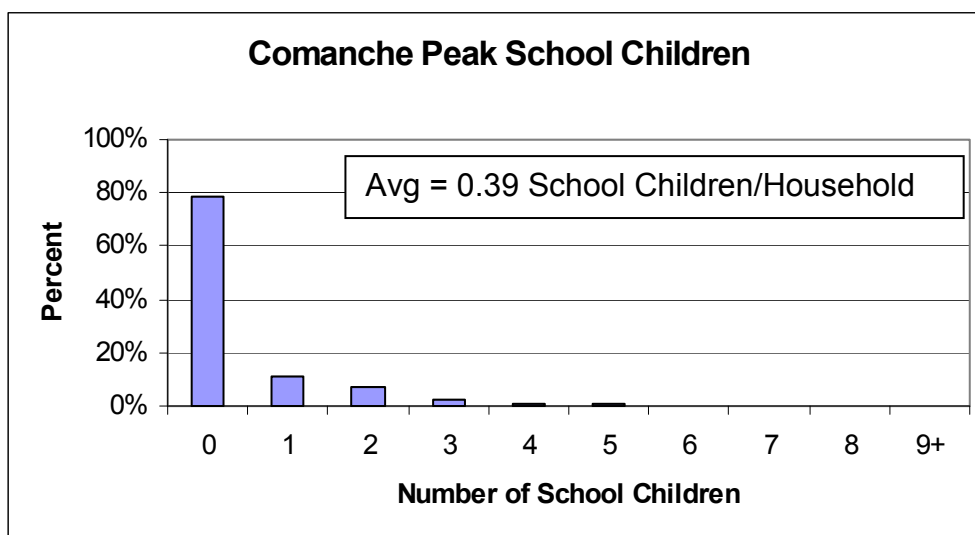


Figure F-5. School Children in Households

Commuters

Figure F-6 presents the distribution of the number of commuters in each household. The data shows an average of 0.66 commuters in each household in the EPZ.

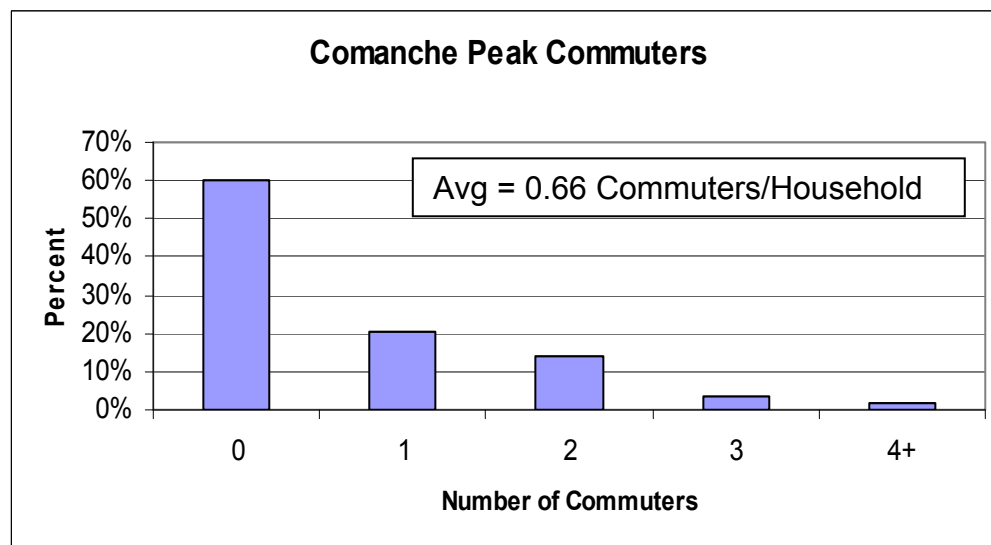


Figure F-6. Commuters in Households in the EPZ

Commuter Travel Modes

Figure F-7 presents the mode of travel that commuters use on a daily basis. The vast majority of commuters use their private automobiles to travel to work or school.

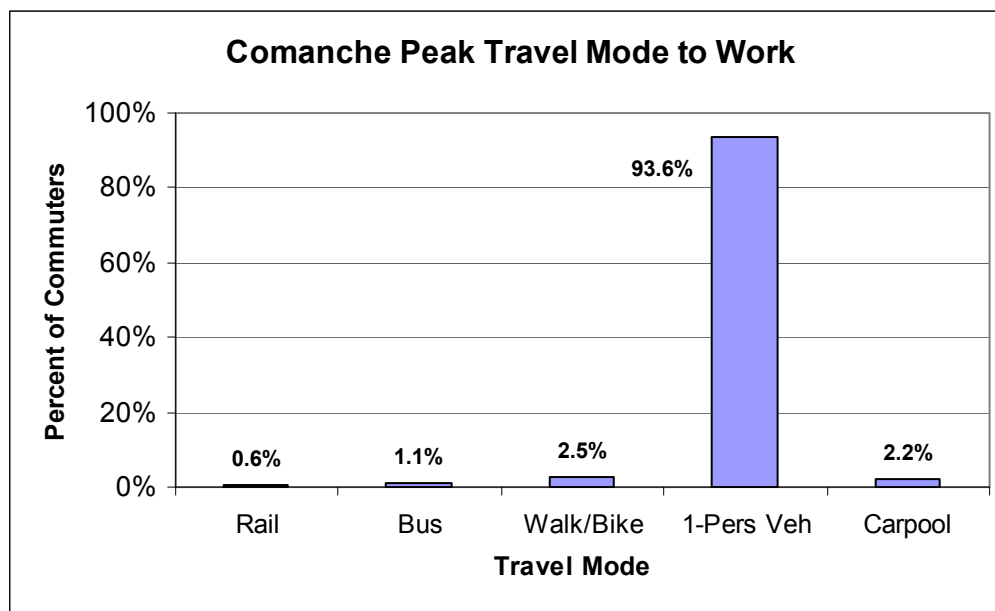


Figure F-7. Modes of Travel in the EPZ

Evacuation Response

Several questions were asked which are used to gauge the population's response to an emergency. The first of these asked "How many of the vehicles that are usually available to the household would your family use during an evacuation?" The response is shown in Figure F-8. On average, 1.29 vehicles per household would be used for evacuation purposes.

The second evacuation response question asked was "When the commuters are away from home, is there a vehicle at home that is available for evacuation during an emergency?" Of the survey participants who responded, 71 percent said that there was another vehicle available to evacuate, while 29 percent answered that there would be no vehicle available for evacuation.

The third evacuation response question was "Would your family await the return of other family members prior to evacuating the area?" Of the survey participants who responded, 45 percent said they would await the return of other family members before evacuating and 55 percent indicated that they would not await the return of other family members.

The fourth evacuation response question was “Would you take household pets with you if you were asked to evacuate the area?” As shown in Figure F-9, 52 percent of respondents said they would take their pets; 23 percent would not. The remaining 25 percent either did not have a pet, or did not give a definitive answer.

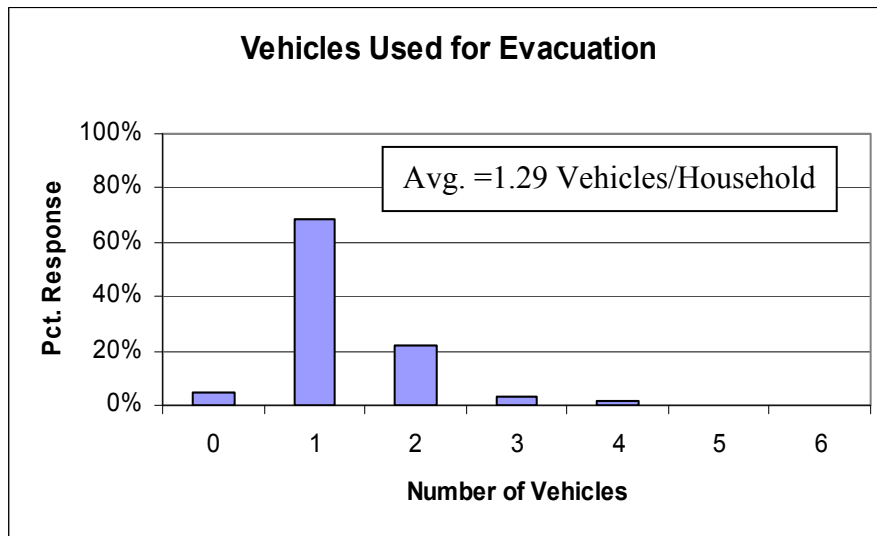


Figure F-8. Number of Vehicles Used for Evacuation

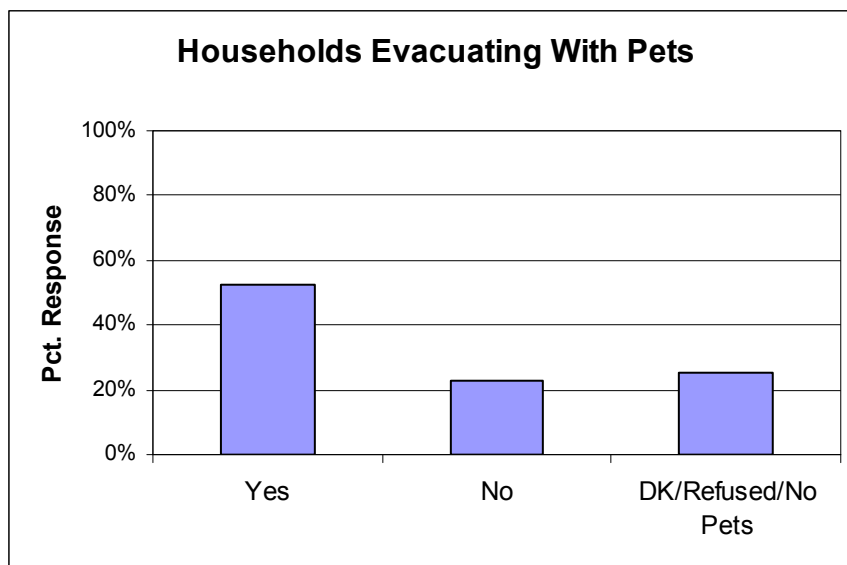


Figure F-9. Households Evacuating With Pets

Time Distribution Results

The survey asked several questions about the amount of time it takes to perform certain pre-evacuation activities. These activities involve actions taken by residents during the course of their day-to-day lives. Thus, the answers fall within the realm of the responder's experience.

How long does it take the commuter to complete preparation for leaving work?

Figure F-10 presents the cumulative distributions for the EPZ. In all cases, the activity is completed by about 90 minutes. Seventy percent can leave within 15 minutes.

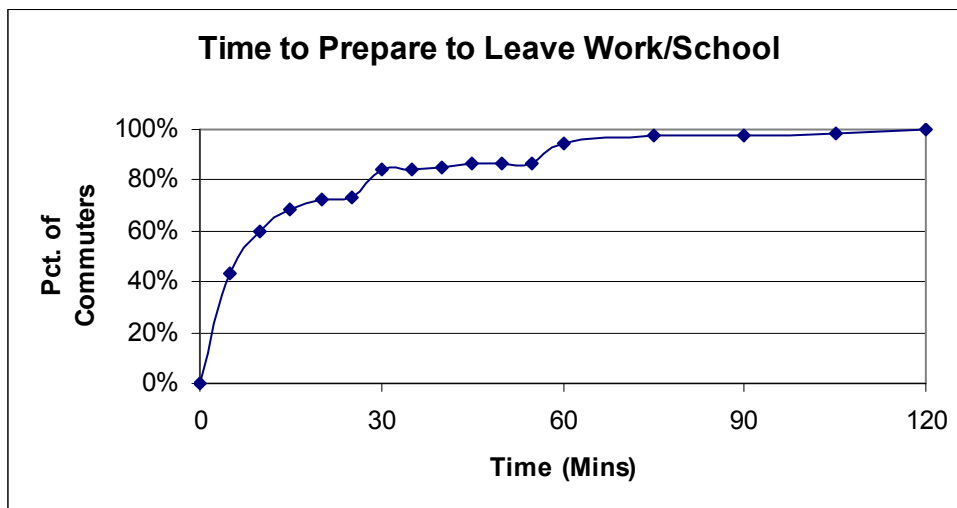


Figure F-10. Time Required to Prepare to Leave Work/School

How long would it take the commuter to travel home?

Figure F-11 presents the work to home travel time for the EPZ. In all cases, over 80 percent of commuters can arrive home within about 35 minutes of leaving work; nearly all within 90 minutes.

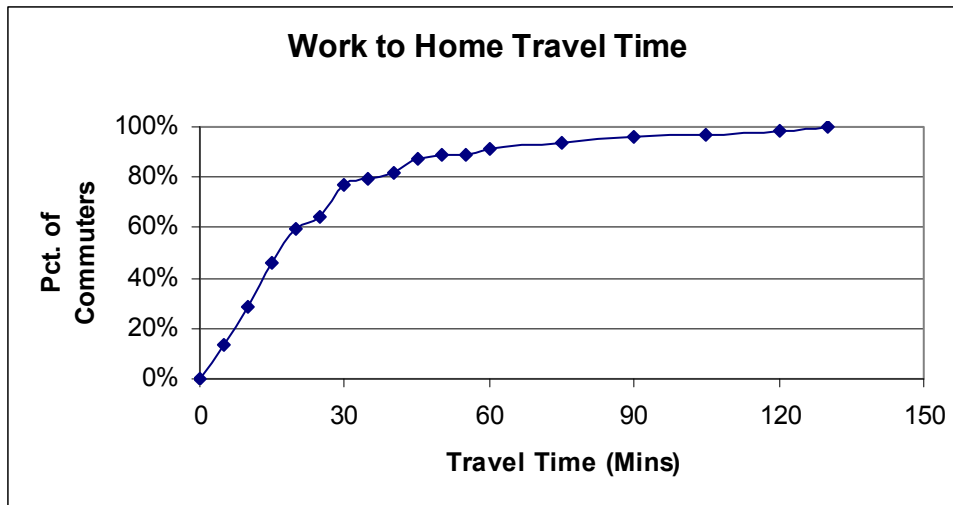


Figure F-11. Work to Home Travel Time

How long would it take the family to pack clothing, secure the house, and load the car?

Figure F-12 presents the time required to prepare for leaving on an evacuation trip. In many ways this activity mimics a family's preparation for a short holiday or weekend away from home. Hence, the responses represent the experience of the responder in performing similar activities.

The distribution shown in Figure F-12 has a long "tail". 85 percent of households can be ready to leave home within an hour; 95 percent of households can be ready to leave within 2 hours.

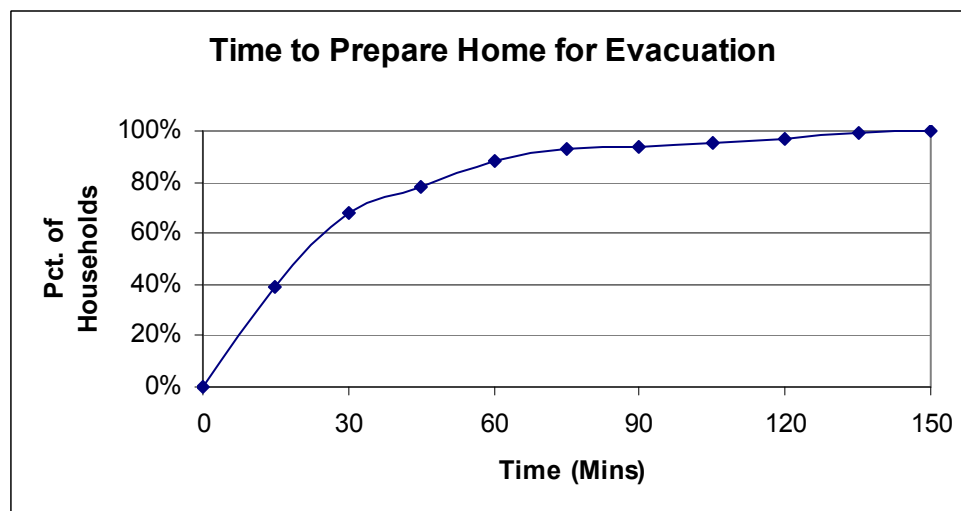


Figure F-12. Time to Prepare Home for Evacuation

4. CONCLUSIONS

The telephone survey provides valuable, relevant data that have been used to quantify "mobilization time" which can influence evacuation time estimates.

ATTACHMENT A

Telephone Survey Instrument

Survey Instrument

Hello, my name is _____ and I'm working COL.1 Unused
on a survey being made for [insert marketing firm COL.2 Unused
name] designed to identify local travel patterns COL.3 Unused
in your area. The information obtained will be COL.4 Unused
used in a traffic engineering study and in COL.5 Unused
connection with an update of the county's
emergency response plans. Your participation in this
survey will greatly enhance the county's emergency
preparedness program. Sex COL. 8
1 Male
2 Female

INTERVIEWER:ASK TO SPEAK TO THE HEAD OF HOUSEHOLD OR THE SPOUSE OF THE HEAD OF HOUSEHOLD.
(Terminate call if not a residence)

DO NOT ASK:

1A.Record area code. To Be Determined

COL. 9-11

1B.Record exchange number. To Be Determined

COL. 12-14

2.What is your home Zip Code Col. 15-19

3.In total, how many cars, or other vehicles COL.20
are usually available to the household?
(DO NOT READ ANSWERS.)

1 ONE
2 TWO
3 THREE
4 FOUR
5 FIVE
6 SIX
7 SEVEN
8 EIGHT
9 NINE OR MORE
0 ZERO (NONE)
X REFUSED

4.How many people usually live in this COL.21 COL.22
household? (DO NOT READ ANSWERS.)

1 ONE 0 TEN
2 TWO 1 ELEVEN
3 THREE2 TWELVE
4 FOUR3 THIRTEEN
5 FIVE4 FOURTEEN
6 SIX 5 FIFTEEN
7 SEVEN6 SIXTEEN
8 EIGHT7 SEVENTEEN
9 NINE8 EIGHTEEN
9 NINETEEN OR MORE
X REFUSED

5. How many children living in this COL. 23
household go to local public,
private, or parochial schools?
(DO NOT READ ANSWERS.)

0 ZERO
1 ONE
2 TWO
3 THREE
4 FOUR
5 FIVE
6 SIX
7 SEVEN
8 EIGHT
9 NINE OR MORE
X REFUSED

6. How many people in the household COL. 24 SKIP TO
commute to a job, or to college,
at least 4 times a week?

0 ZEROQ. 12
1 ONEQ. 7
2 TWOQ. 7
3 THREEQ. 7
4 FOUR OR MOREQ. 7
5 DON'T KNOW/REFUSEDQ. 12

INTERVIEWER: For each person identified in Question 6, ask Questions 7, 8, 9, and 10.

7. Thinking about commuter #1, how does that person usually travel to work or college? (REPEAT QUESTION FOR EACH COMMUTER.)

Commuter #1Commuter #2Commuter #3Commuter #4

COL. 25 COL. 26 COL. 27 COL. 28

| | | | | |
|------------------------------------|---|---|---|---|
| Rail | 1 | 1 | 1 | 1 |
| Bus | 2 | 2 | 2 | 2 |
| Walk/Bicycle | 3 | 3 | 3 | 3 |
| Driver Car/Van | 4 | 4 | 4 | 4 |
| Park & Ride (Car/Rail, Xpress_bus) | 5 | 5 | 5 | 5 |
| Driver Carpool-2 or more people | 6 | 6 | 6 | 6 |
| Passenger Carpool-2 or more people | 7 | 7 | 7 | 7 |
| Taxi | 8 | 8 | 8 | 8 |
| Refused | 9 | 9 | 9 | 9 |

8. What is the name of the city, town or community in which Commuter #1 works or attends school? (REPEAT QUESTION FOR EACH COMMUTER.) (FILL IN ANSWER.)

| COMMUTER #1 | | | COMMUTER #2 | | COMMUTER #3 | | COMMUTER #4 | | | | |
|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| City/Town | State | | City/Town | State | City/Town | State | City/Town | State | City/Town | State | |
| <u>COL. 29</u> | <u>COL. 30</u> | <u>COL. 31</u> | <u>COL. 32</u> | <u>COL. 33</u> | <u>COL. 34</u> | <u>COL. 35</u> | <u>COL. 36</u> | <u>COL. 37</u> | <u>COL. 38</u> | <u>COL. 39</u> | <u>COL. 40</u> |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |

9. How long would it take Commuter #1 to travel home from work or college?
(REPEAT QUESTION FOR EACH COMMUTER.) (DO NOT READ ANSWERS.)

| <u>COMMUTER #1</u> | |
|---------------------|----------------------|
| <u>COL. 41</u> | <u>COL. 42</u> |
| 1 5 MINUTES OR LESS | 1 46-50 MINUTES |
| 2 6-10 MINUTES | 2 51-55 MINUTES |
| 3 11-15 MINUTES | 3 56 - 1 HOUR |
| 4 16-20 MINUTES | 4 OVER 1 HOUR, BUT |
| 5 21-25 MINUTES | LESS THAN 1 HOUR |
| 6 26-30 MINUTES | 15 MINUTES |
| 7 31-35 MINUTES | 5 BETWEEN 1 HOUR |
| 8 36-40 MINUTES | 16 MINUTES AND 1 |
| 9 41-45 MINUTES | HOUR 30 MINUTES |
| | 6 BETWEEN 1 HOUR |
| | 31 MINUTES AND 1 |
| | HOUR 45 MINUTES |
| | 7 BETWEEN 1 HOUR |
| | 46 MINUTES AND |
| | 2 HOURS |
| | 8 OVER 2 HOURS |
| | (SPECIFY _____) |
| | 9 |
| | 0 |
| | X DON'T KNOW/REFUSED |

| <u>COMMUTER #2</u> | |
|---------------------|----------------------|
| <u>COL. 43</u> | <u>COL. 44</u> |
| 1 5 MINUTES OR LESS | 1 46-50 MINUTES |
| 2 6-10 MINUTES | 2 51-55 MINUTES |
| 3 11-15 MINUTES | 3 56 - 1 HOUR |
| 4 16-20 MINUTES | 4 OVER 1 HOUR, BUT |
| 5 21-25 MINUTES | LESS THAN 1 HOUR |
| 6 26-30 MINUTES | 15 MINUTES |
| 7 31-35 MINUTES | 5 BETWEEN 1 HOUR |
| 8 36-40 MINUTES | 16 MINUTES AND 1 |
| 9 41-45 MINUTES | HOUR 30 MINUTES |
| | 6 BETWEEN 1 HOUR |
| | 31 MINUTES AND 1 |
| | HOUR 45 MINUTES |
| | 7 BETWEEN 1 HOUR |
| | 46 MINUTES AND |
| | 2 HOURS |
| | 8 OVER 2 HOURS |
| | (SPECIFY _____) |
| | 9 |
| | 0 |
| | X DON'T KNOW/REFUSED |

| <u>COMMUTER #3</u> | <u>COMMUTER #4</u> |
|---------------------|----------------------|
| <u>COL. 45</u> | <u>COL. 46</u> |
| 1 5 MINUTES OR LESS | 1 46-50 MINUTES |
| 2 6-10 MINUTES | 2 51-55 MINUTES |
| 3 11-15 MINUTES | 3 56 - 1 HOUR |
| 4 16-20 MINUTES | 4 OVER 1 HOUR, BUT |
| 5 21-25 MINUTES | LESS THAN 1 HOUR |
| 6 26-30 MINUTES | 15 MINUTES - |
| 7 31-35 MINUTES | 5 BETWEEN 1 HOUR |
| 8 36-40 MINUTES | 16 MINUTES AND 1 |
| 9 41-45 MINUTES | HOUR 30 MINUTES |
| | 6 BETWEEN 1 HOUR |
| | 31 MINUTES AND 1 |
| | HOUR 45 MINUTES |
| | 7 BETWEEN 1 HOUR |
| | 46 MINUTES AND |
| | 2 HOURS |
| | 8 OVER 2 HOURS |
| | (SPECIFY _____) |
| | 9 |
| | 0 |
| | X DON'T KNOW/REFUSED |

| <u>COL. 47</u> | <u>COL. 48</u> |
|---------------------|----------------------|
| 1 5 MINUTES OR LESS | 1 46-50 MINUTES |
| 2 6-10 MINUTES | 2 51-55 MINUTES |
| 3 11-15 MINUTES | 3 56 - 1 HOUR |
| 4 16-20 MINUTES | 4 OVER 1 HOUR, BUT |
| 5 21-25 MINUTES | LESS THAN 1 HOUR |
| 6 26-30 MINUTES | 15 MINUTES |
| 7 31-35 MINUTES | 5 BETWEEN 1 HOUR |
| 8 36-40 MINUTES | 16 MINUTES AND 1 |
| 9 41-45 MINUTES | HOUR 30 MINUTES |
| | 6 BETWEEN 1 HOUR |
| | 31 MINUTES AND 1 |
| | HOUR 45 MINUTES |
| | 7 BETWEEN 1 HOUR |
| | 46 MINUTES AND |
| | 2 HOURS |
| | 8 OVER 2 HOURS |
| | (SPECIFY _____) |
| | 9 |
| | 0 |
| | X DON'T KNOW/REFUSED |

10. Approximately how long does it take Commuter #1 to complete preparation for leaving work or college prior to starting the trip home? (REPEAT QUESTION FOR EACH COMMUTER.)
(DO NOT READ ANSWERS.)

| <u>COMMUTER #1</u> | | <u>COMMUTER #2</u> | |
|---------------------|----------------------|---------------------|----------------------|
| <u>COL. 49</u> | <u>COL. 50</u> | <u>COL. 51</u> | <u>COL. 52</u> |
| 1 5 MINUTES OR LESS | 1 46-50 MINUTES | 1 5 MINUTES OR LESS | 1 46-50 MINUTES |
| 2 6-10 MINUTES | 2 51-55 MINUTES | 2 6-10 MINUTES | 2 51-55 MINUTES |
| 3 11-15 MINUTES | 3 56 - 1 HOUR | 3 11-15 MINUTES | 3 56 - 1 HOUR |
| 4 16-20 MINUTES | 4 OVER 1 HOUR, BUT | 4 16-20 MINUTES | 4 OVER 1 HOUR, BUT |
| 5 21-25 MINUTES | LESS THAN 1 HOUR | 5 21-25 MINUTES | LESS THAN 1 HOUR |
| 6 26-30 MINUTES | 15 MINUTES | 6 26-30 MINUTES | 15 MINUTES |
| 7 31-35 MINUTES | 5 BETWEEN 1 HOUR | 7 31-35 MINUTES | 5 BETWEEN 1 HOUR |
| 8 36-40 MINUTES | 16 MINUTES AND 1 | 8 36-40 MINUTES | 16 MINUTES AND 1 |
| 9 41-45 MINUTES | HOUR 30 MINUTES | 9 41-45 MINUTES | HOUR 30 MINUTES |
| | 6 BETWEEN 1 HOUR | | 6 BETWEEN 1 HOUR |
| | 31 MINUTES AND 1 | | 31 MINUTES AND 1 |
| | HOUR 45 MINUTES | | HOUR 45 MINUTES |
| | 7 BETWEEN 1 HOUR | | 7 BETWEEN 1 HOUR |
| | 46 MINUTES AND | | 46 MINUTES AND |
| | 2 HOURS | | 2 HOURS |
| | 8 OVER 2 HOURS | | 8 OVER 2 HOURS |
| | (SPECIFY _____) | | (SPECIFY _____) |
| | 9 | | 9 |
| | 0 | | 0 |
| | X DON'T KNOW/REFUSED | | X DON'T KNOW/REFUSED |

| <u>COMMUTER #3</u> | <u>COMMUTER #4</u> | <u>COL. 55</u> | <u>COL. 56</u> |
|---------------------|----------------------|---------------------|----------------------|
| <u>COL. 53</u> | <u>COL. 54</u> | | |
| 1 5 MINUTES OR LESS | 1 46-50 MINUTES | 1 5 MINUTES OR LESS | 1 46-50 MINUTES |
| 2 6-10 MINUTES | 2 51-55 MINUTES | 2 6-10 MINUTES | 2 51-55 MINUTES |
| 3 11-15 MINUTES | 3 56 - 1 HOUR | 3 11-15 MINUTES | 3 56 - 1 HOUR |
| 4 16-20 MINUTES | 4 OVER 1 HOUR, BUT | 4 16-20 MINUTES | 4 OVER 1 HOUR, BUT |
| 5 21-25 MINUTES | LESS THAN 1 HOUR | 5 21-25 MINUTES | LESS THAN 1 HOUR |
| 6 26-30 MINUTES | 15 MINUTES | 6 26-30 MINUTES | 15 MINUTES |
| 7 31-35 MINUTES | 5 BETWEEN 1 HOUR | 7 31-35 MINUTES | 5 BETWEEN 1 HOUR |
| 8 36-40 MINUTES | 16 MINUTES AND 1 | 8 36-40 MINUTES | 16 MINUTES AND 1 |
| 9 41-45 MINUTES | HOUR 30 MINUTES | 9 41-45 MINUTES | HOUR 30 MINUTES |
| | 6 BETWEEN 1 HOUR | | 6 BETWEEN 1 HOUR |
| | 31 MINUTES AND 1 | | 31 MINUTES AND 1 |
| | HOUR 45 MINUTES | | HOUR 45 MINUTES |
| | 7 BETWEEN 1 HOUR | | 7 BETWEEN 1 HOUR |
| | 46 MINUTES AND | | 46 MINUTES AND |
| | 2 HOURS | | 2 HOURS |
| | 8 OVER 2 HOURS | | 8 OVER 2 HOURS |
| | (SPECIFY _____) | | (SPECIFY _____) |
| | 9 | | 9 |
| | 0 | | 0 |
| | X DON'T KNOW/REFUSED | | X DON'T KNOW/REFUSED |

11. When the commuters are away from home, is there a vehicle at home that is available for evacuation during any emergency?

Col. 57

1 Yes

2 No

3 Don't Know/Refused

12. Would you await the return of family members
prior to evacuating the area?

Col. 58

- 1 Yes
- 2 No
- 3 Don't Know/Refused

13. How many of the vehicles that are usually available to
the household would your family use during an evacuation?
(DO NOT READ ANSWERS.)

COL. 59

- 1 ONE
- 2 TWO
- 3 THREE
- 4 FOUR
- 5 FIVE
- 6 SIX
- 7 SEVEN
- 8 EIGHT
- 9 NINE OR MORE
- 0 ZERO (NONE)
- X REFUSED

14. How long would it take the family to pack clothing, secure the house, load the car, and
complete preparations prior to evacuating the area? (DO NOT READ ANSWERS.)

COL. 60

- 1 LESS THAN 15 MINUTES
- 2 15-30 MINUTES
- 3 31-45 MINUTES
- 4 46 MINUTES - 1 HOUR
- 5 1 HOUR TO 1 HOUR 15 MINUTES
- 6 1 HOUR 16 MINUTES TO 1 HOUR 30 MINUTES
- 7 1 HOUR 31 MINUTES TO 1 HOUR 45 MINUTES
- 8 1 HOUR 46 MINUTES TO 2 HOURS
- 9 2 HOURS TO 2 HOURS 15 MINUTES
- 0 2 HOURS 16 MINUTES TO 2 HOURS 30 MINUTES
- X 2 HOURS 31 MINUTES TO 2 HOURS 45 MINUTES
- Y 2 HOURS 46 MINUTES TO 3 HOURS

COL. 61

- 1 3 HOURS TO 3 HOURS 15 MINUTES
- 2 3 HOURS 16 MINUTES TO 3 HOURS 30 MINUTES
- 3 3 HOURS 31 MINUTES TO 3 HOURS 45 MINUTES
- 4 3 HOURS 46 MINUTES TO 4 HOURS
- 5 4 HOURS TO 4 HOURS 15 MINUTES
- 6 4 HOURS 16 MINUTES TO 4 HOURS 30 MINUTES
- 7 4 HOURS 31 MINUTES TO 4 HOURS 45 MINUTES
- 8 4 HOURS 46 MINUTES TO 5 HOURS
- 9 5 HOURS TO 5 HOURS 15 MINUTES
- 0 5 HOURS 16 MINUTES TO 5 HOURS 30 MINUTES
- X 5 HOURS 31 MINUTES TO 5 HOURS 45 MINUTES
- Y 5 HOURS 46 MINUTES TO 6 HOURS

COL. 62

- 1 DON'T KNOW

15. Would you take household pets with you if you were asked to evacuate the area?

Col. 58

- 1 Yes
- 2 No
- 3 Don't Know/Refused

Thank you very much.
(TELEPHONE NUMBER CALLED)

If requested:
For Additional information
Contact your County Emergency Management Office

ANNEX B
Code of Data Collection Standards With Notes Section
Market Research Association

P.O. Box 230 • Rocky Hill, CT 06067-0230 • 860-257-4008 • Fax: 860-257-3990

Code Approved May 1997

Notes Added September 1999

RESPONSIBILITIES TO RESPONDENTS

Data Collection Companies ...

1. will make factually correct statements to secure cooperation and will honor promises to respondents, whether verbal or written;
2. will not use information to identify respondents without the permission of the respondent, except to those who check the data or are involved in processing the data. If such permission is given, it must be recorded by the interviewer at the time the permission is secured;
3. will respect the respondent's right to withdraw or to refuse to cooperate at any stage of the study and not use any procedure or technique to coerce or imply that cooperation is obligatory;
4. will obtain and document respondent consent when it is known that the name and address or identity of the respondent may be passed to a third party for legal or other purposes, such as audio or video recordings;
5. will obtain permission and document consent of a parent, legal guardian or responsible guardian before interviewing children 12 years old or younger;
6. will give respondents the opportunity to refuse to participate in the research when there is a possibility they may be identifiable even without the use of their name or address (e.g., because of the size of the population being sampled).

Interviewers ...

1. will treat the respondent with respect and not influence him or her through direct or indirect attempts, including the framing of questions and/or a respondent's opinion or attitudes on any issue;
2. will obtain and document permission from a parent, legal guardian or responsible guardian before interviewing children 12 years old or younger. Prior to obtaining permission, the interviewer should divulge the subject matter, length of the interview and other special tasks that will be required.

RESPONSIBILITIES TO CLIENTS

Data Collection Companies ...

1. will ensure that each study is conducted according to the client's exact specifications;
2. will observe confidentiality with all research techniques or methodologies and with information considered confidential or proprietary. Information will not be revealed that could be used to identify clients or respondents without proper authorization;
3. will ensure that companies, their employees and subcontractors involved in data collection take all reasonable precautions so that more than one survey is not conducted in one interview without explicit permission from the Client
4. will report research results accurately and honestly;
5. will not misrepresent themselves as having qualifications, experience, skills or facilities that they do not possess;
6. will refrain from referring to membership in the Marketing Research Association as proof of competence, since the Association does not certify any person's or organization's competency or skill level.

RESPONSIBILITIES TO DATA COLLECTORS

Clients ...

1. will be responsible for providing products and services that are safe and fit or their intended use and disclose/label all product contents;
2. will provide verbal or written instructions;
3. will not ask our members who subcontract research to engage in any activity that is not acceptable as defined in this Code or that is prohibited under any applicable federal, state, local laws, regulations and/or ordinances.

RESPONSIBILITIES TO THE GENERAL PUBLIC AND BUSINESS

COMMUNITY

Data Collection Companies ...

1. will not intentionally abuse public confidence in marketing and opinion research;
2. will not represent a non-research activity to be marketing and opinion research, such as:
 - questions whose sole objective is to obtain personal information about respondents, whether for legal, political, private or other purposes,
 - the compilation of lists, registers or data banks of names and addresses for any non-research purposes (e.g., canvassing or fundraising),
 - industrial, commercial or any other form of espionage,
 - the acquisition of information for use by credit rating services or similar organizations,
 - sales or promotional approaches to the respondent,
 - the collection of debts;
3. will make interviewers aware of any special conditions that may be applicable to any minor (18 years old or younger).

These notes are intended to help users of the Code to interpret and apply it in practice. Any questions about how to apply the Code in a specific situation should be addressed to MRA Headquarters.

RESPONSIBILITIES TO RESPONDENTS

Data Collection Companies ...

1. will make factually correct statements to secure cooperation and honor promises to respondents, whether oral or written; *Interviewers will not knowingly provide respondents with information that misrepresents any portion of the interviewing process, such as; length of the interview, scope of task involved, compensation, or intended use of the information collected.*
2. will not use information to identify respondents without the permission of the respondent, except to those who check the data or are involved in processing the data. If such permission is given, it must be recorded by the interviewer at the time the permission is secured; *Respondent information will be linked to data collected only for research purposes such as validation, evaluating data in aggregate based on demographic information, modeling. Providing respondent information is not permissible for any purpose other than legitimate research purposes as mentioned above. If anyone requests respondent identifiable information it will only be provided upon receipt of written declaration of and agreement of some intended use. Such use shall be determined by the provider to qualify as legitimate research use. (i.e. validation, planned recalls, modeling, demographic analysis.) No other use of this information falls within the boundaries of the Code. This applies to all types of respondent sample sources including client supplied lists.*
3. will respect the respondent's right to withdraw or to refuse to cooperate at any stage of the study and not use any procedure or technique to coerce or imply that cooperation is obligatory. *Respondent cooperation is strictly on a voluntary basis. Respondents are entitled to withdraw from an interview at any stage or to refuse to cooperate in a research project. Interviewers should never lead respondents to believe they have no choice in their participation.*
4. will obtain and record respondent consent when it is known that the name and addresses or identity of the respondent may be passed to a third party for legal or other purposes, such as audio or video recordings; *By documenting the respondent's consent for a defined specific use of his/ her name and address we are confirming the respondent realizes we are asking something new of them, i.e., possible participation in another research project.*
5. will obtain permission and document consent of a parent, legal guardian or responsible guardian before interviewing children 12 years old or younger; *Interviewers must take special care when interviewing children or young people. The informed consent of the parent or responsible adult must first be obtained for interviews with children.*
6. will give respondents the opportunity to refuse to participate in the research when there is a possibility they may be identifiable even without the use of their name or address (e.g., because of the size of the population being sampled.) *Respondent cooperation is strictly on a voluntary basis. Respondents are entitled to withdraw from a research project. Company policies and/or interviewer instructions should state the interviewer must give respondents the opportunity to not participate for any reason.*

Interviewers ...

1. will treat the respondent with respect and not influence him or her through direct or indirect attempts,

including the framing of questions, a respondent's opinion or attitudes on any issue. *Interviewers cannot ask questions in a way that leads or influences respondents' answers, nor can they provide their own opinions, thoughts or feelings that might bias a respondent and therefore impact the answers they give.*

2. will obtain and document permission of a parent, legal guardian or responsible guardian before interviewing children 12 years old or younger. Prior to obtaining permission, the interviewer should divulge the subject matter, length of interview and other special tasks that will be required. *Interviewers must take special care when interviewing children and young people. The informed consent of the parent or responsible adult must first be obtained for interviews with children. Parents or responsible adults must be told some specifics about the interview process and special tasks, such as audio or video recording, taste testing, respondent fees and special tasks, before permission is obtained.*

RESPONSIBILITIES TO CLIENTS

Data Collection Companies ...

1. will ensure that each study is conducted according to the client's specifications; *Procedures are implemented to conform or verify that client specifications are being followed.*
2. will observe confidentiality with all research techniques or methodologies and with information considered confidential or proprietary. Information will not be revealed that could be used to identify clients or respondents without proper authorization; *Respondent information will be linked to data collected only for research purposes and will not be used for any purpose other than legitimate research. Protect the confidentiality of anything learned about the respondent and/or his or her business.*
3. will ensure that companies, their employees and subcontractors involved in data collection take all reasonable precautions so that no more than one survey is conducted in one interview without explicit permission from the sponsorship company or companies; *Company policies or procedures indicate the practice of conducting more than one survey within an interview is not done without specific permission from the relevant clients.*
4. will report research results accurately and honestly; *Describe how the research was done in enough detail that a skilled researcher could repeat the study; provide data representative of a defined population or activity and enough data to yield projectable results; present the results understandably and fairly, including any results that may seem contradictory or unfavorable.*
5. will not misrepresent themselves as having qualifications, experience, skills or facilities that they do not possess; *If regularly subcontracting data collection, should not infer to clients and prospective clients that they possess this capability "in house"; claim only legitimate academic degrees, clients and other qualifications.*
6. will refrain from referring to membership in the Marketing Research Association as proof of competence, since the Association does not certify any person's or organization's competency or skill level. *MRA does not currently have a certification program for marketing research competency, therefore while members can state their membership in the Association, they cannot claim that this automatically conveys a message of their competency to carry out the marketing research process.*

RESPONSIBILITIES TO DATA COLLECTORS

Clients ...

1. will be responsible for providing products and services that are safe and fit for their intended use and disclose/label all product contents; *It is the client's responsibility to ensure that all test products are in compliance with all safety standards and that all product contents information is provided to the data collectors. Data Collectors should request in writing all pertinent information as well as emergency numbers for respondents and themselves.*
2. will provide oral or written instructions; *To ensure the success of the research, detailed instructions are to be provided prior to the start of any project. These instructions must be written and then confirmed orally for: understanding, ability of the agency to implement and agreement to comply.*
3. will not ask our members who subcontract research to engage in any activity that is not acceptable as defined in this Code or that is prohibited under any applicable federal, state and local laws, regulations and ordinances. *All MRA Members have agreed to comply with the Code as written and thus will not agree to, or ask anyone else to, knowingly violate any of the points of the Code.*

RESPONSIBILITIES TO THE GENERAL PUBLIC AND BUSINESS COMMUNITY

Data Collection Companies ...

1. will not intentionally abuse public confidence in marketing and opinion research; *Marketing research shall*

be conducted and reported for the sole purpose of providing factual information upon which decisions will be made. At no time is marketing research information to be used to intentionally mislead public opinion. Instances of abuse of public confidence undermine the credibility of our Industry.

2. will not represent a non-research activity to be marketing and opinion research, such as:
 - questions whose sole objective is to obtain personal information about respondents, whether for legal, political, private or other purposes,
 - the compilation of lists, registers or data banks of names and addresses for any non-research purposes (e.g., canvassing or fundraising),
 - industrial, commercial or any other form of espionage,
 - the acquisition of information for use by credit rating services or similar organizations,
 - sales or promotional approaches to the respondent,

APPENDIX G

Traffic Management

APPENDIX G: TRAFFIC MANAGEMENT

This appendix presents the traffic control and access control tactics implemented in developing evacuation time estimates for the Comanche Peak Nuclear Power Plant. Suggested Traffic Control Points (TCP) and Access Control Points (ACP) are listed, recognizing that existing plans are in place and have been tested. **This Appendix provides information that may be considered in updating the existing plans, but does not supersede them.** TCP and ACP should be manned according to priority, manpower and available equipment resources – not all TCP and ACP need to be activated.

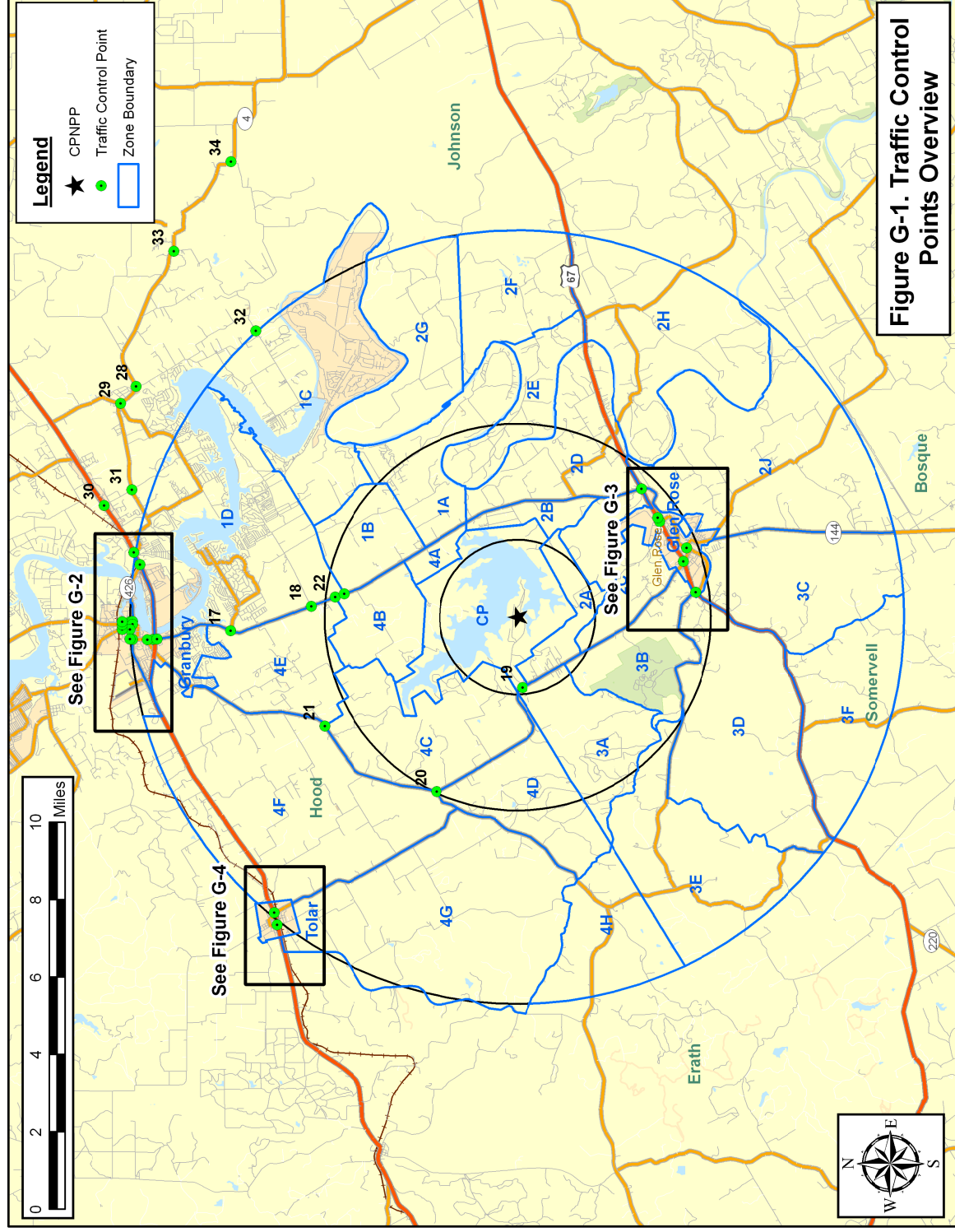
Pages G-2 through G-43 detail the TCP, which are typically within the EPZ or just outside the EPZ. TCP are established to facilitate the flow of evacuating traffic from the Region being evacuated. Figure G-1 presents an overview map of the TCP, while Figures G-2 through G-4 depict the TCP in the more populated areas of the EPZ. Table G-1 summarizes the TCP and the manpower and equipment needed to implement traffic control. The table is sorted by county and by priority.

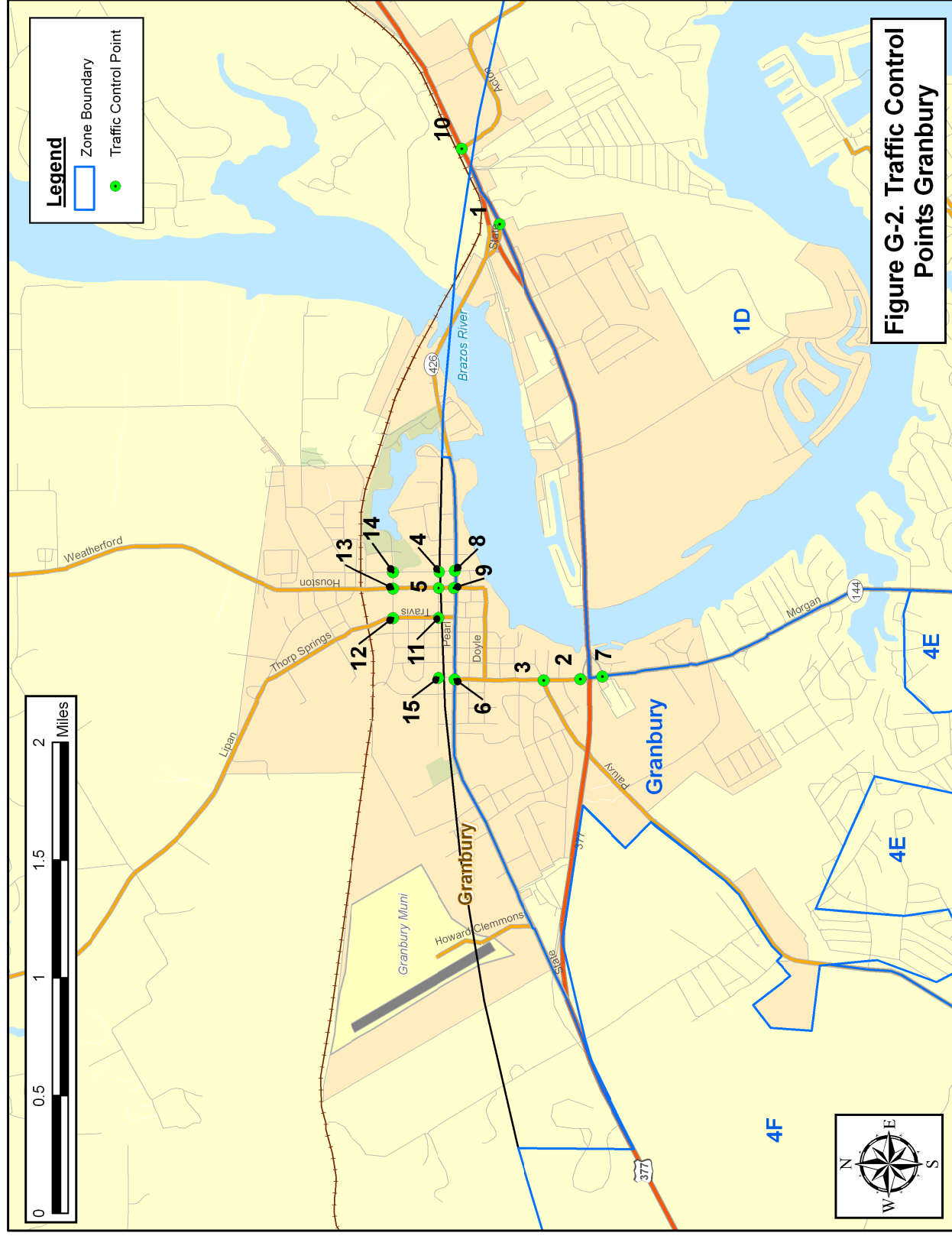
Pages G-44 through G-61 detail the ACP, which are typically on the periphery of the EPZ; these points are established to divert vehicles from entering the EPZ. Doing so provides all of the available roadway capacity within the EPZ to the evacuees. Table G-2 summarizes the ACP and the manpower and equipment needed to establish access control, while Figure G-5 provides a detailed map of the location of each ACP.

Manpower and equipment shortages are likely to arise; as such, prioritization of TCP and ACP was established to make the most efficient use of manpower and equipment in the event of an emergency. The use of ITS technologies, as outlined in Section 9, can also aid in overcoming resource constraints.

With reference to the discussion of Section 2.3, these TCP serve many useful functions, but are not considered in specifying the inputs to the PC-DYNEV model used to calculate ETE. Consequently, the results presented in Section 7 and in Appendix J do not credit the presence of these TCP.

All transit trips and other responders entering the EPZ to support the evacuation are assumed to be unhindered by personnel manning ACPs.





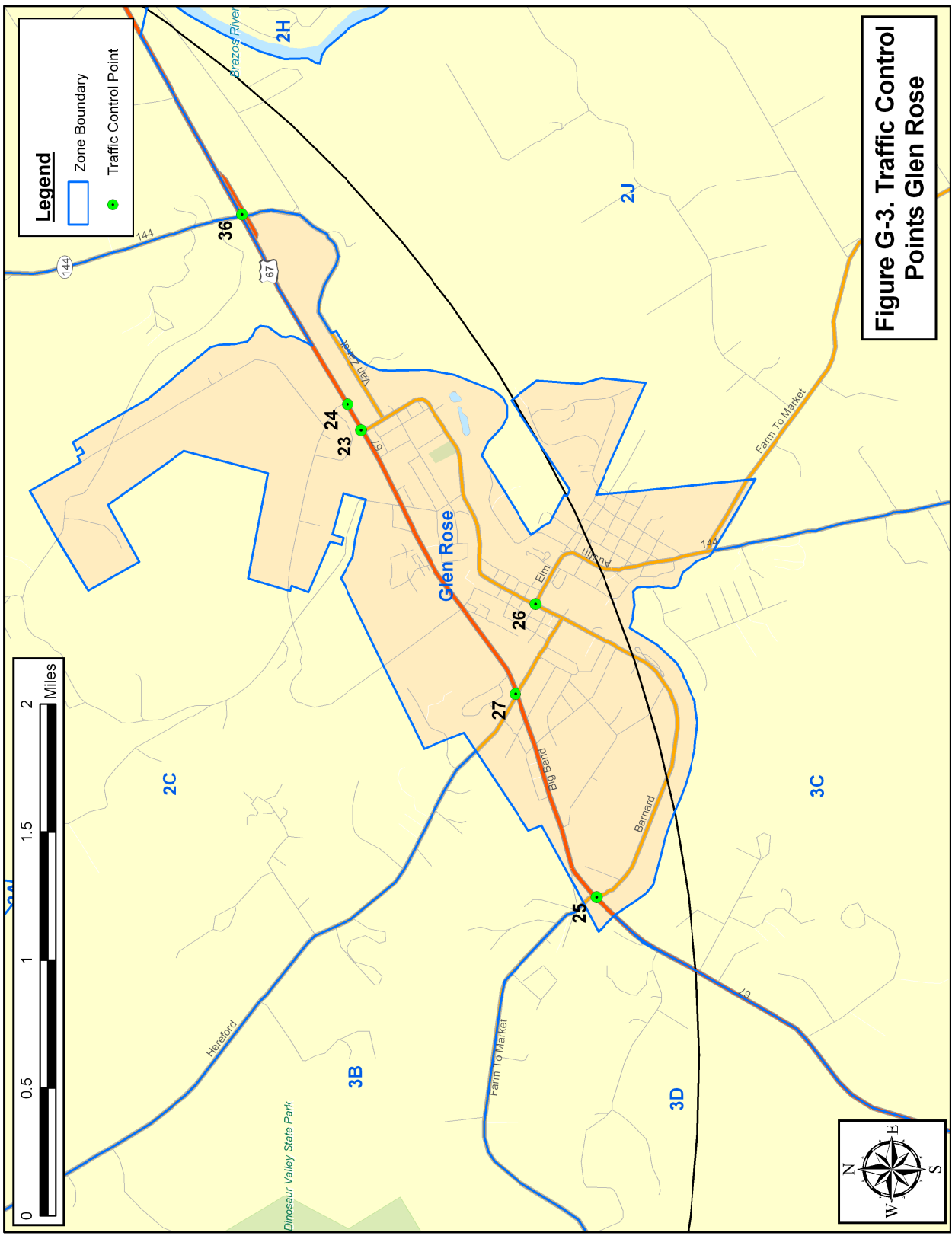
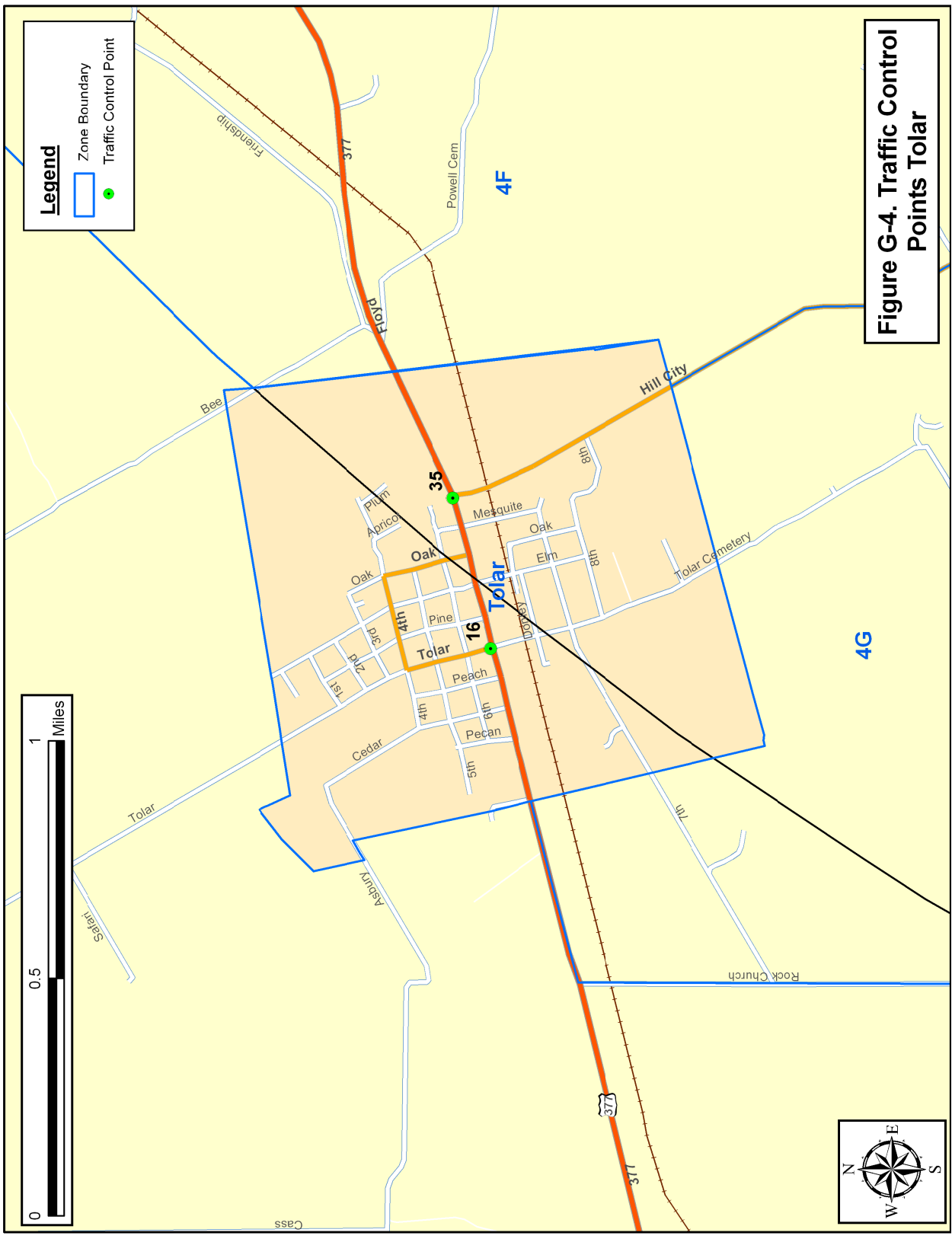


Figure G-3. Traffic Control Points Glen Rose



| Table G-1. Comanche Peak Traffic Control Point Summary | | | | | | |
|--|--------|--|--------------|----------|-------------|------------|
| Hood County Traffic Control Points | | | | | | |
| ZONE | TCP ID | Intersection Location | Municipality | Priority | # of Guides | # of Cones |
| Granbury | 7 | STHY 144 - Ramp for US Hwy 377 EB | Granbury | 1 | 2 | 6 |
| Shadow | 10 | Acton Hwy (FM 4) & US Hwy 377 | Granbury | 1 | 2 | 12 |
| Tolar | 16 | US Hwy 377 & FM 201 | Tolar | 1 | 1 | 6 |
| 1D | 17 | Glen Rose Hwy (STHY 144) & Contrary Creek Rd | Granbury | 1 | 2 | 6 |
| 1D | 18 | Glen Rose Hwy (STHY 144) & Williamson Rd | Granbury | 1 | 1 | 6 |
| 4E | 21 | Paluxy Hwy (FM 51) & Neri Rd | Granbury | 1 | 1 | 3 |
| 1D | 22 | Glen Rose Hwy (STHY 144) & Neri Rd | Granbury | 1 | 1 | 6 |
| Shadow | 29 | Fall Creek Hwy (FM 167) & Acton Hwy | Granbury | 1 | 1 | 3 |
| Tolar | 35 | US Hwy 377 & Hill Hwy (FM 56) | Tolar | 1 | 1 | 9 |
| Granbury | 1 | Business US Hwy 377 - Merge With US Hwy 377 EB | Granbury | 2 | 1 | 0 |
| Granbury | 2 | STHY 144 - Ramp for US Hwy 377 WB | Granbury | 2 | 2 | 0 |
| Granbury | 3 | STHY 144 & FM 51 | Granbury | 2 | 2 | 3 |
| Shadow | 5 | Houston St (FM 4) & Bridge St | Granbury | 2 | 1 | 3 |
| Granbury | 6 | STHY 144 & Pearl St (BUS 377) | Granbury | 2 | 2 | 6 |
| Granbury | 8 | E Pearl St (BUS 377) & Crockett St | Granbury | 2 | 1 | 6 |
| Granbury | 9 | Pearl St (BUS 377) & Houston St | Granbury | 2 | 1 | 6 |
| Shadow | 11 | Travis St & W Bridge St | Granbury | 2 | 1 | 6 |
| Shadow | 28 | Cleburne Hwy & Fall Creek Hwy & FM 167 | Granbury | 2 | 1 | 3 |
| Shadow | 30 | US Hwy 377 & Cleveland Rd (FM 323) | Granbury | 2 | 2 | 6 |
| Shadow | 31 | Cleveland Rd (FM 323) & Acton Hwy (FM 4) | Granbury | 2 | 1 | 6 |
| Shadow | 33 | Cleburne Hwy & Massey Rd | Granbury | 2 | 1 | 6 |
| 1B | 37 | Glen Rose Hwy (STHY 144) & Mambrino Hwy | Granbury | 2 | 1 | 12 |
| Shadow | 4 | E Bridge St & Crockett St | Granbury | 3 | 1 | 6 |
| Shadow | 12 | N Travis St & W Rucker St | Granbury | 3 | 1 | 6 |
| Shadow | 13 | N Houston St & Rucker St | Granbury | 3 | 1 | 6 |
| Shadow | 14 | E Rucker St & N Crockett St | Granbury | 3 | 1 | 6 |
| Shadow | 15 | Morgan St & W Bridge St | Granbury | 3 | 1 | 6 |
| 4C | 20 | Hill City Hwy (FM 56) & Paluxy Hwy (FM 51) | Tolar | 3 | 2 | 9 |
| 1C | 32 | Fall Creek Hwy & Monticello Dr & Rollins Rd | Granbury | 3 | 3 | 9 |
| Hood County Total Manpower/Equipment Needed: | | | | | 39 | 168 |
| Somervell County Traffic Control Points | | | | | | |
| Glen Rose | 36 | US Hwy 67 & STHY 144 | Glen Rose | 1 | 3 | 9 |
| CP | 19 | CPNPP Access Rd & FM 56 | Glen Rose | 2 | 1 | 0 |
| Glen Rose | 23 | Barnard St & US Hwy 67 | Glen Rose | 2 | 2 | 6 |
| Glen Rose | 25 | US Hwy 67 & Barnard St (FM 205) | Glen Rose | 2 | 1 | 6 |
| Glen Rose | 26 | STHY 144 & FM 56 & FM 205 | Glen Rose | 2 | 1 | 6 |
| Glen Rose | 27 | US Hwy 67 & FM 56 | Glen Rose | 2 | 2 | 15 |
| Glen Rose | 24 | Gibbs Blvd & US Hwy 67 | Glen Rose | 3* | 1 | 0 |
| Somervell County Total Manpower/Equipment Needed: | | | | | 11 | 42 |
| Johnson County Traffic Control Points | | | | | | |
| Shadow | 34 | Cleburne Hwy (FM 4) & FM 1131 | Godley | 2 | 1 | 3 |
| Johnson County Total Manpower/Equipment Needed: | | | | | 1 | 3 |
| EPZ Total Manpower/Equipment Needed: | | | | | 51 | 213 |

*TCP 24 is a Priority 1 intersection when there is an event at the Amphitheatre, Priority 3 when there is no event.

TCP

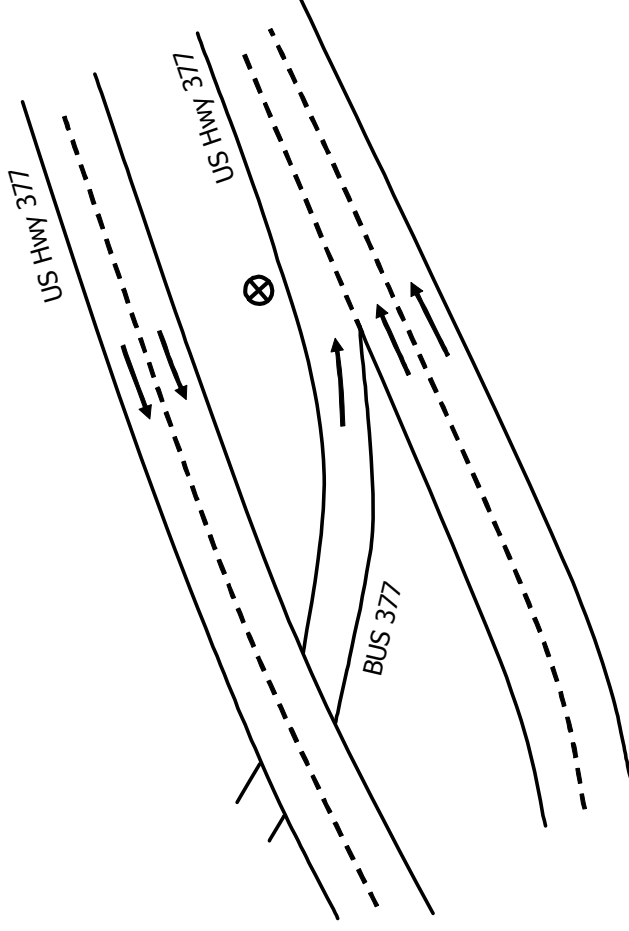
MUNICIPALITY: GRANBURY

LOCATION: BUSINESS US HWY 377 - MERGE WITH US HWY 377 EB

TCP ID: 1

ZONE: GRANBURY

COUNTY: HOOD



****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

DESCRIPTION

1. Facilitate the merge of traffic from Business US 377. Park patrol car in the shoulder with lights flashing.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)

LOCATION PRIORITY

- 2

Top

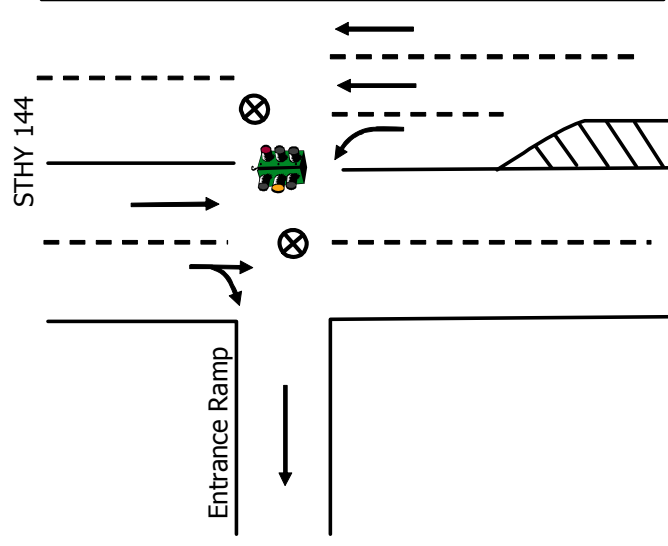
MUNICIPALITY: GRANBURY

LOCATION: STHY 144 – Ramp for US Hwy 377 WB

TCP ID: 2








ZONE: GRANBURY

COUNTY: HOOD



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

z ←

| | |
|---|---|
| <u>Key</u> | |
| → | 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): |
| |  |

DESCRIPTION

1. Facilitate flow of traffic onto entrance ramp for US 377.

MANPOWER/EQUIPMENT

- 2 Traffic Guide(s)

LOCATION PRIORITY

- 2

TOP

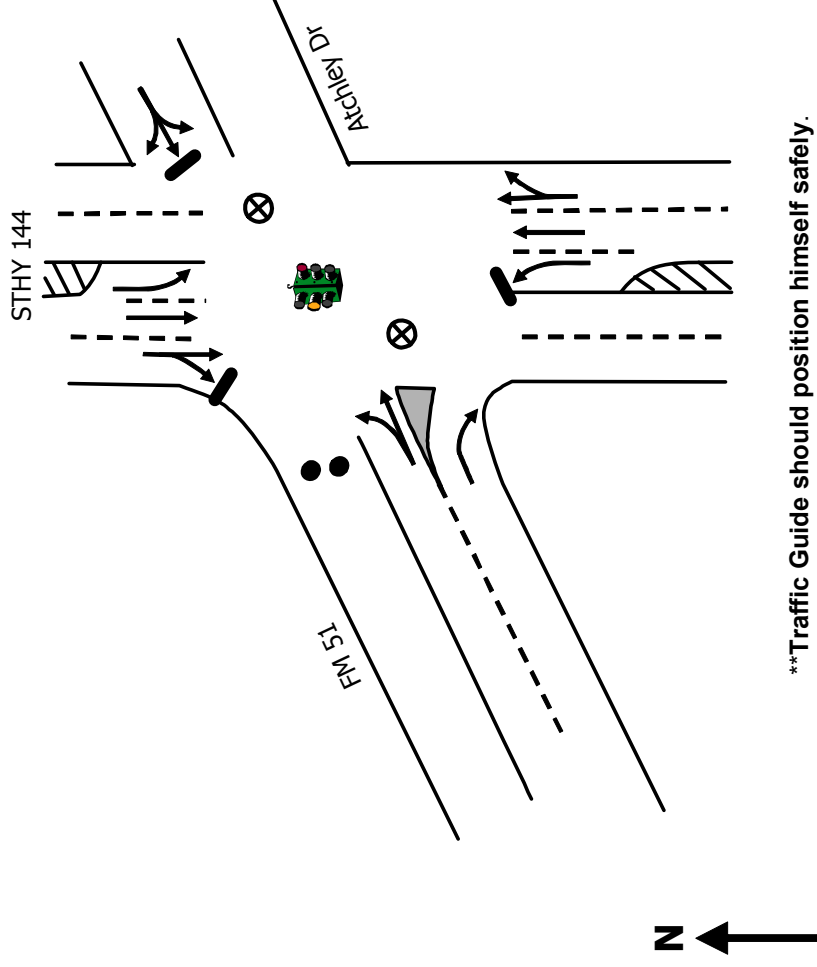
MUNICIPALITY: GRANBURY

LOCATION: STHY 144 & FM 51

TCP ID: 3

ZONE: GRANBURY

COUNTY: HOOD



****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):

DESCRIPTION

1. Discourage westbound movement along FM 51

MANPOWER/EQUIPMENT

- | | |
|---|------------------|
| 2 | Traffic Guide(s) |
| 3 | Traffic Cones |

LOCATION PRIORITY

- 2

TCP

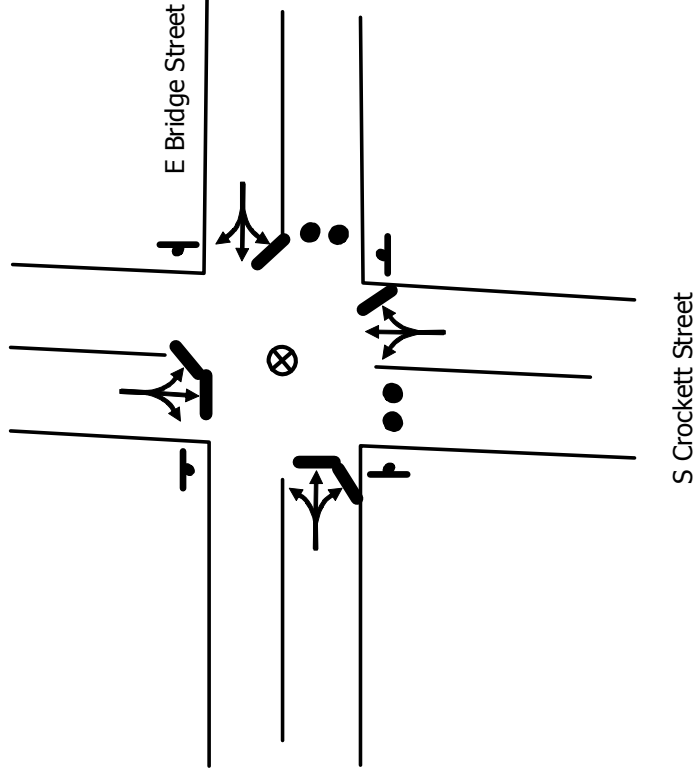
MUNICIPALITY: GRANBURY

LOCATION: E BRIDGE ST & CROCKETT ST

TCP ID: 4

ZONE: SHADOW

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage eastbound movement along E. Bridge St.
2. Discourage southbound movement along S. Crockett St.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

3

TCP

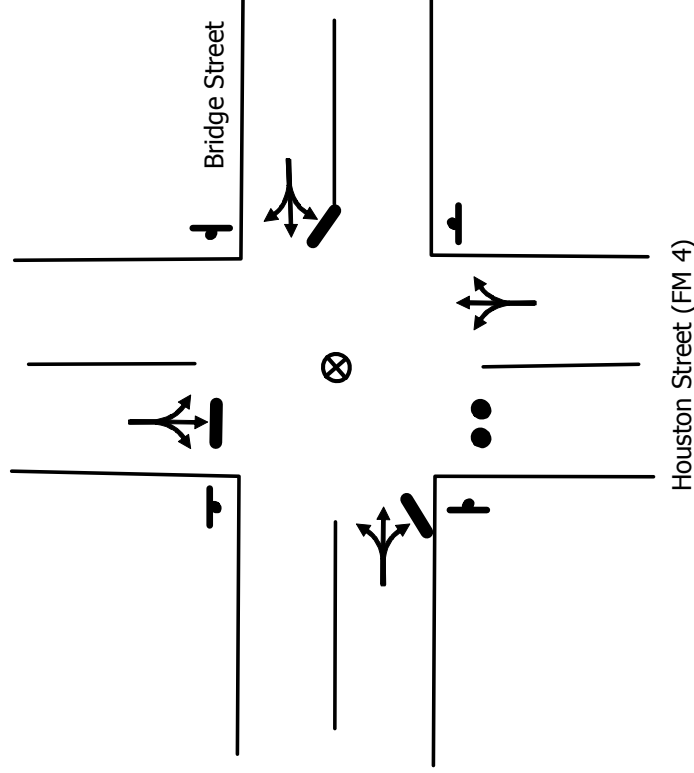
MUNICIPALITY: GRANBURY

LOCATION: HOUSTON ST (FM 4) & BRIDGE ST

TCP ID: 5

ZONE: SHADOW

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage southbound movement along Houston St.
2. Facilitate flow of traffic northbound on Houston St.

MANPOWER/EQUIPMENT

1. Traffic Guide(s)
3. Traffic Cones

LOCATION PRIORITY

2

TCP

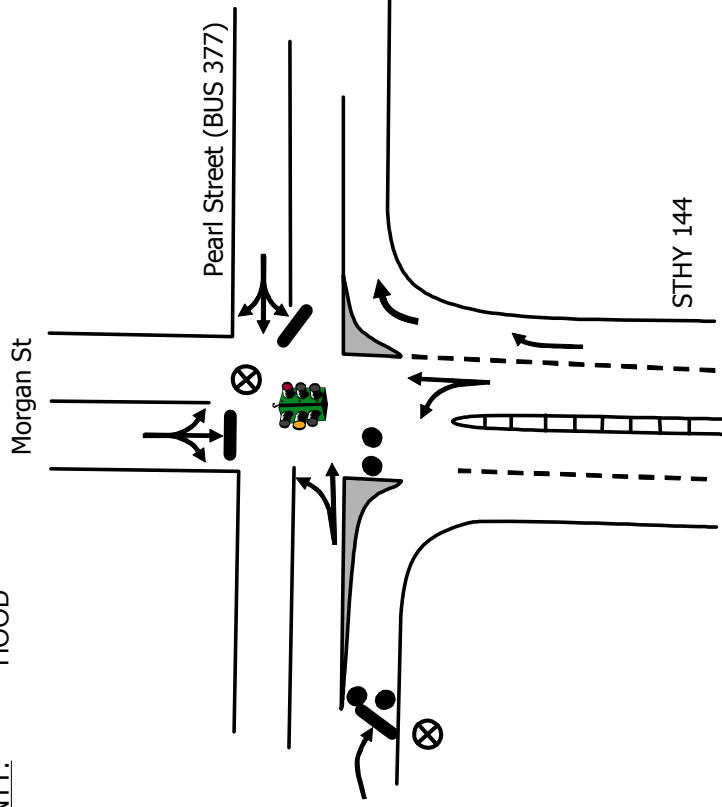
MUNICIPALITY: GRANBURY

LOCATION: STHY 144 & PEARL ST (BUS 377)

TCP ID: 6

ZONE: GRANBURY

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage southbound movement along STHY 144.

MANPOWER/EQUIPMENT

- 2 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

- 2

TCP

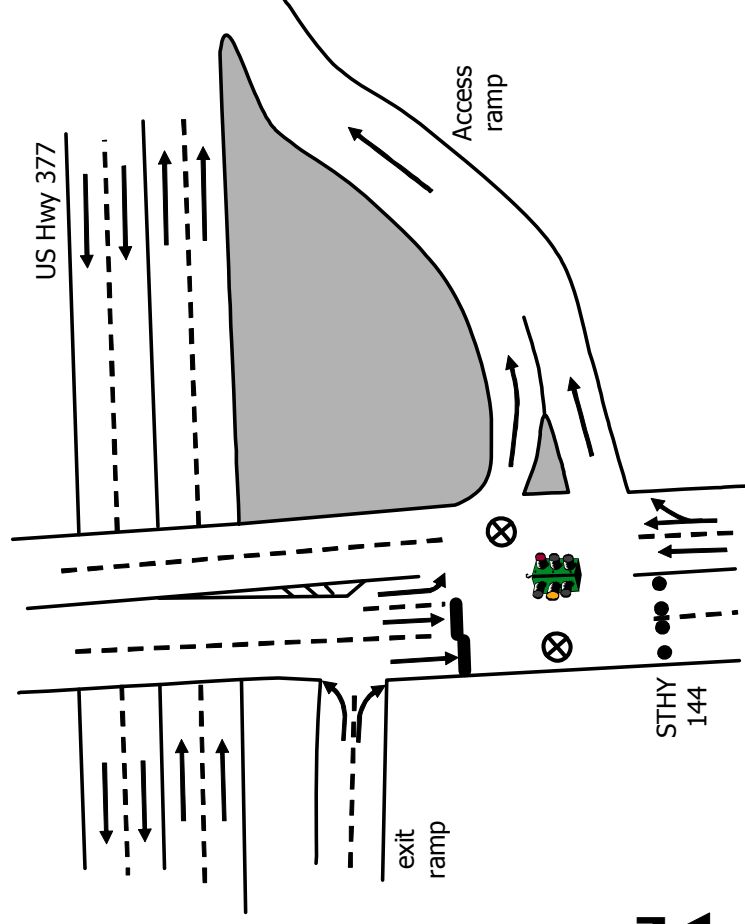
MUNICIPALITY: GRANBURY

LOCATION: STHY 144 – Ramp for US Hwy 377 EB

TCP ID: 7

ZONE: GRANBURY

COUNTY: HOOD



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

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

DESCRIPTION

1. Discourage southbound movement along STHY 144.
2. Facilitate access to US Hwy 377 eastbound.

MANPOWER/EQUIPMENT

- 2 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

- 1

TCP

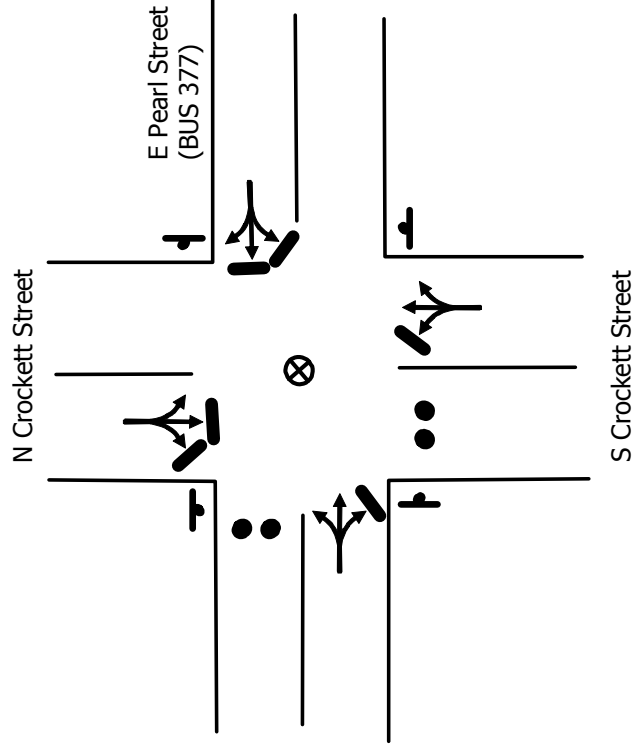
MUNICIPALITY: GRANBURY

LOCATION: E PEARL ST (BUS 377) & CROCKETT ST

TCP ID: 8

ZONE: GRANBURY

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage westbound movement along BUS 377.
2. Discourage southbound movement along Crockett St.

MANPOWER/EQUIPMENT

1. Traffic Guide(s)
6. Traffic Cones

LOCATION PRIORITY

2

TCP

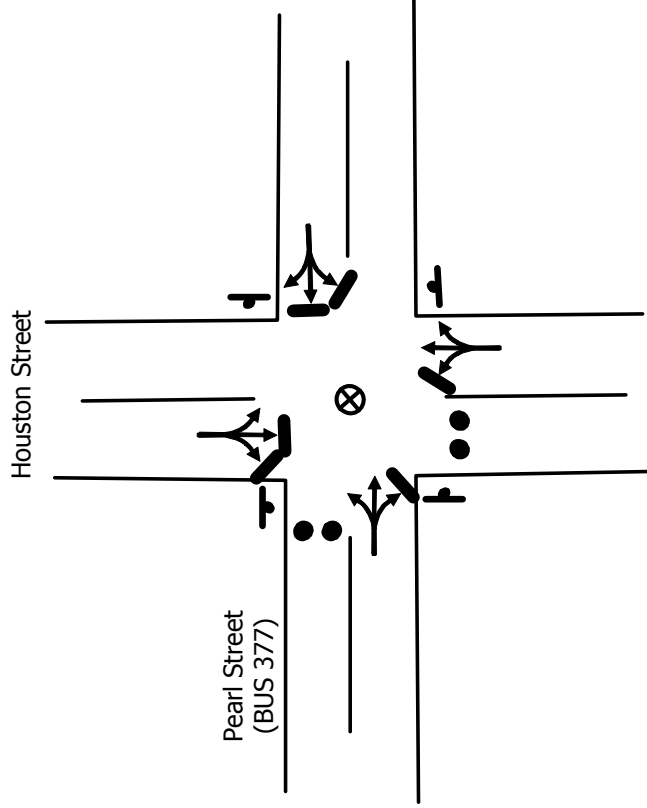
MUNICIPALITY: GRANBURY

LOCATION: PEARL ST (BUS 377) & HOUSTON ST

TCP ID: 9

ZONE: GRANBURY

COUNTY: HOOD



****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

DESCRIPTION

1. Discourage westbound movement along BUS 377.
2. Discourage southbound movement along Houston St.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

2

TOP

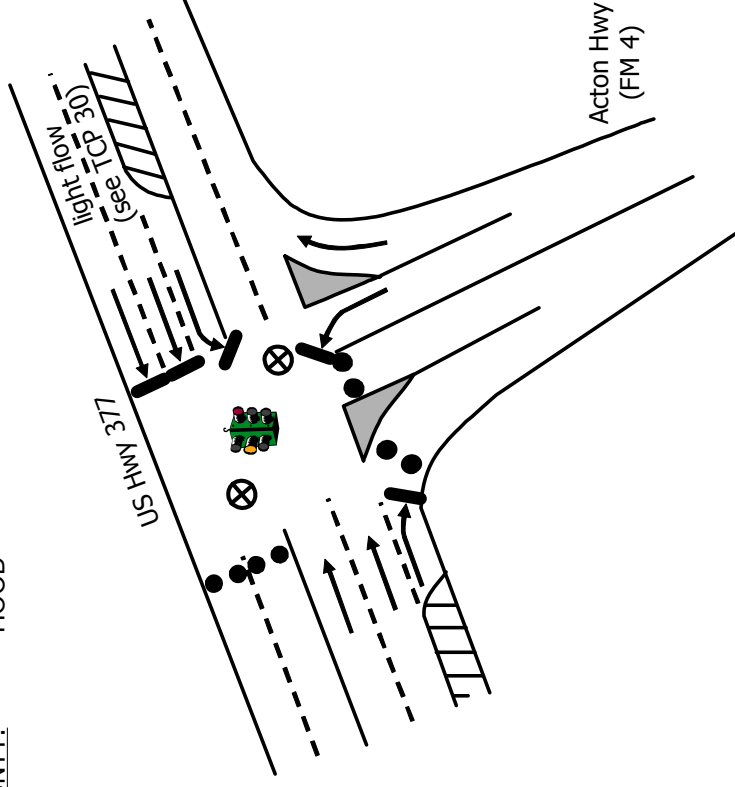
MUNICIPALITY: GRANBURY

LOCATION: ACTON HWY (FM 4) & US HWY 377

TCP ID: 10

ZONE: SHADOW

COUNTY: HOOD




Key

→ MOVEMENT FACILITATED

↑
MOVEMENT DISCOURAGED/DIVERTED

TRAFFIC GUIDE



STOP SIGN

X 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):

DESCRIPTION

1. Discourage westbound movement along US Hwy 377.
2. Discourage southbound movement along FM 4.

MANPOWER/EQUIPMENT

- | | |
|----|------------------|
| 2 | Traffic Guide(s) |
| 12 | Traffic Cones |

LOCATION PRIORITY

- 1

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

TCP

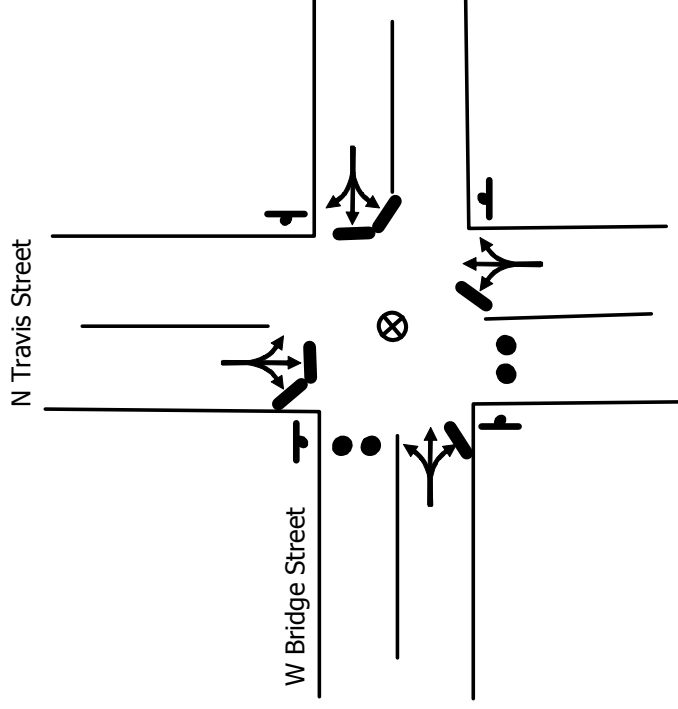
MUNICIPALITY: GRANBURY

LOCATION: TRAVIS ST & W BRIDGE ST

TCP ID: 11

ZONE: SHADOW

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage southbound movement along Travis St.
2. Discourage westbound movement along Bridge St.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

- 2

TCP

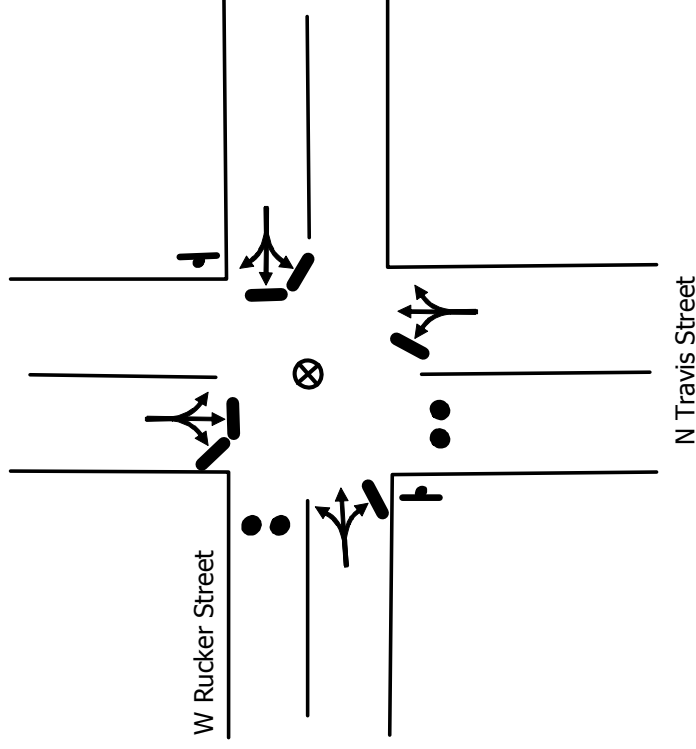
MUNICIPALITY: GRANBURY

LOCATION: N TRAVIS ST & W RUCKER ST

TCP ID: 12

ZONE: SHADOW

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage westbound movement along Rucker St.
2. Discourage southbound movement along Travis St.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

3

TCP

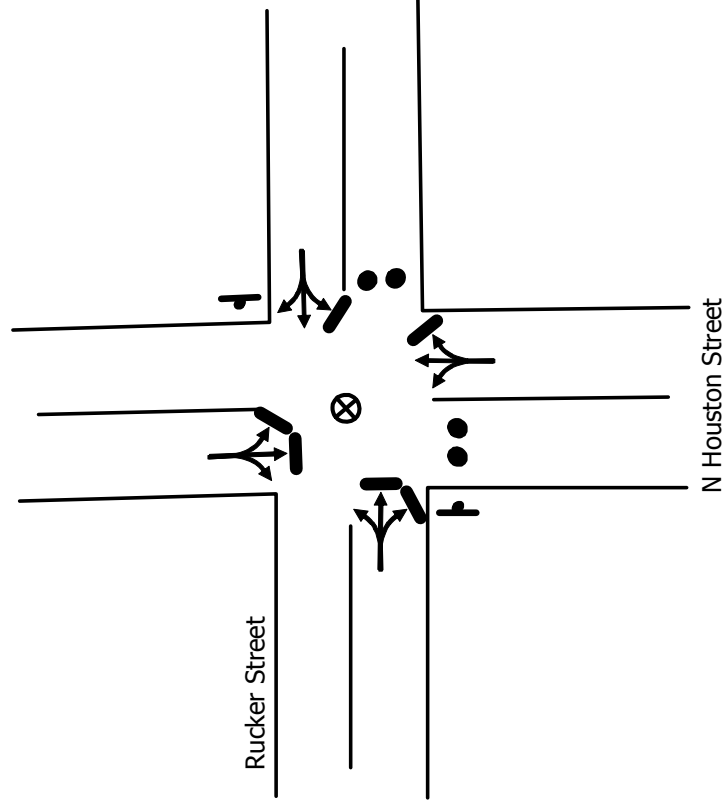
MUNICIPALITY: GRANBURY

LOCATION: N HOUSTON ST & RUCKER ST

TCP ID: 13

ZONE: SHADOW

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage eastbound movement along Rucker St.
2. Discourage southbound movement along Houston St.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

3

TCP

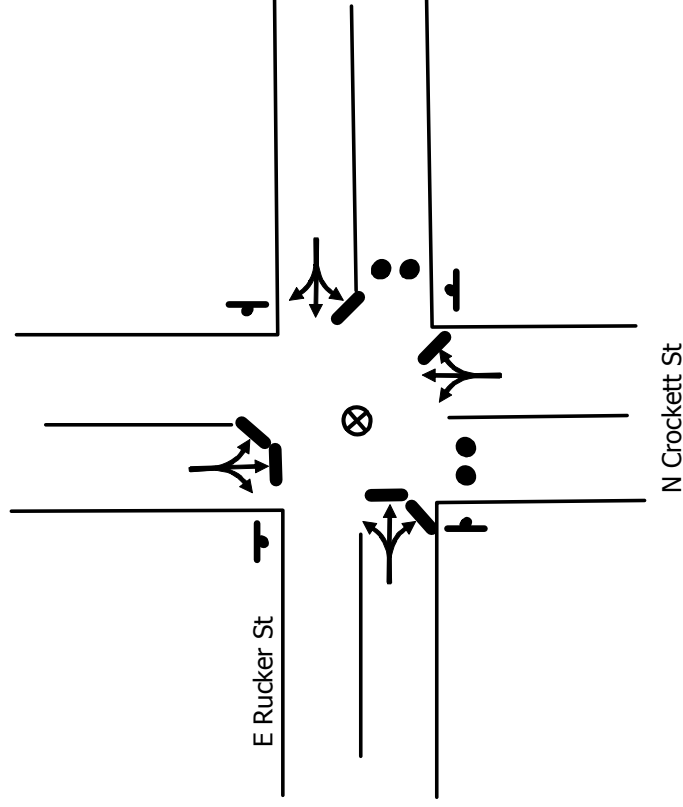
MUNICIPALITY: GRANBURY

LOCATION: E RUCKER STREET & N CROCKETT STREET

TCP ID: 14

ZONE: SHADOW

COUNTY: HOOD



****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

DESCRIPTION

1. Discourage eastbound movement along Rucker St.
2. Discourage southbound movement along Crockett St.

MANPOWER/EQUIPMENT

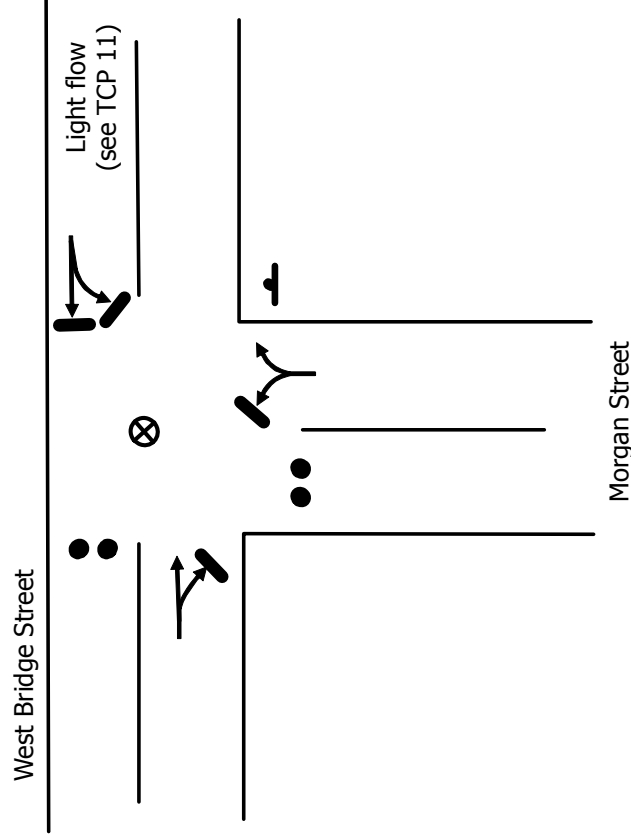
- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

3

TCP

MUNICIPALITY: GRANBURY
LOCATION: MORGAN ST & W BRIDGE ST
TCP ID: 15
ZONE: SHADOW
COUNTY: HOOD



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

Key

→ MOVEMENT FACILITATED
 → MOVEMENT DISCOURAGED/DIVERTED
 ⊗ TRAFFIC GUIDE
 T STOP SIGN
 X 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

DESCRIPTION

1. Discourage westbound movement along West Bridge St.
2. Discourage southbound movement along Morgan St.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

3

TCP

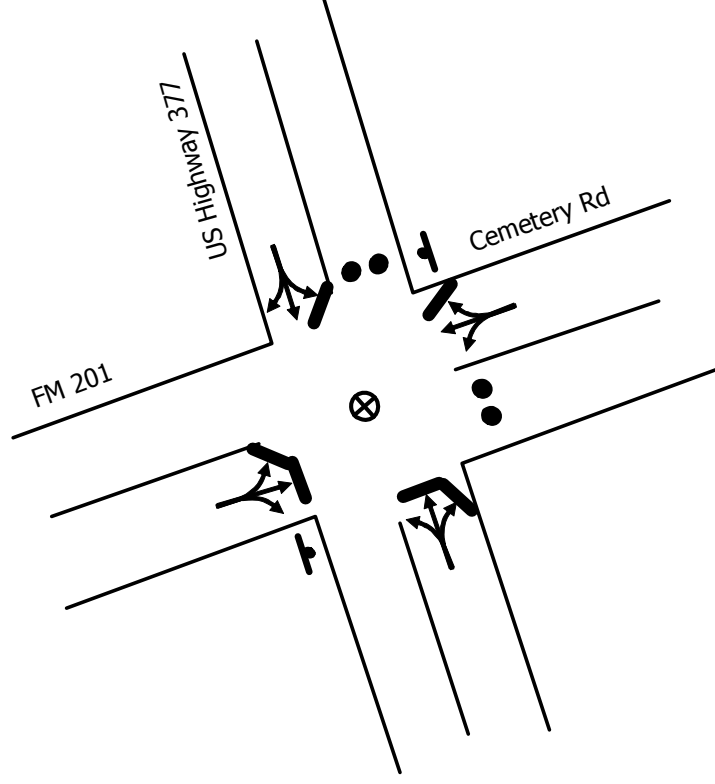
MUNICIPALITY: TOLAR

LOCATION: US HWY 377 & FM 201

TCP ID: 16

ZONE: TOLAR

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage eastbound movement along US 377.
2. Facilitate westbound movement along US 377.
3. Discourage southbound movement along Cemetery Rd.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

- 1

TCP

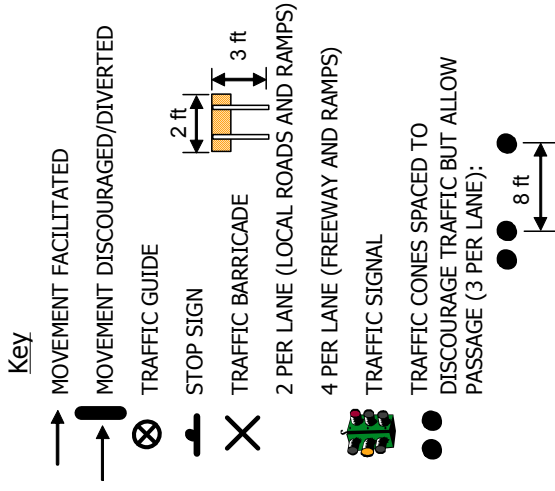
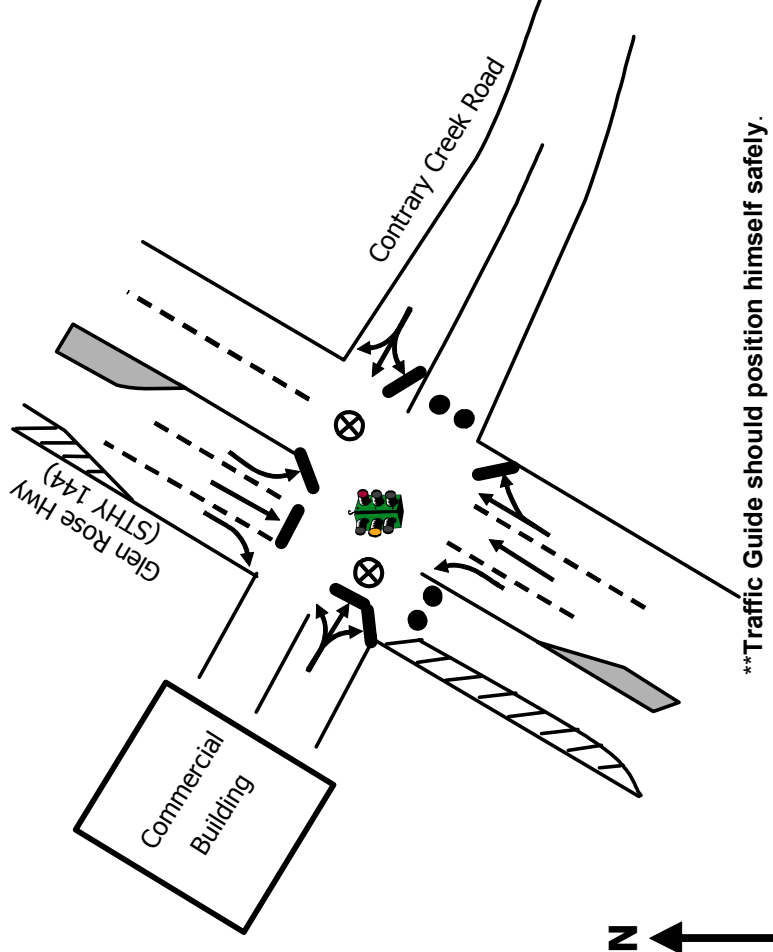
MUNICIPALITY: GRANBURY

LOCATION: GLEN ROSE HWY (STHY 144) & CONTRARY CREEK RD

TCP ID: 17

ZONE: 1D

COUNTY: HOOD



DESCRIPTION

1. Discourage southbound movement along STHY 144.
2. Discourage eastbound movement along Contrary Creek Rd.

MANPOWER/EQUIPMENT

- 2 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

1

TCP

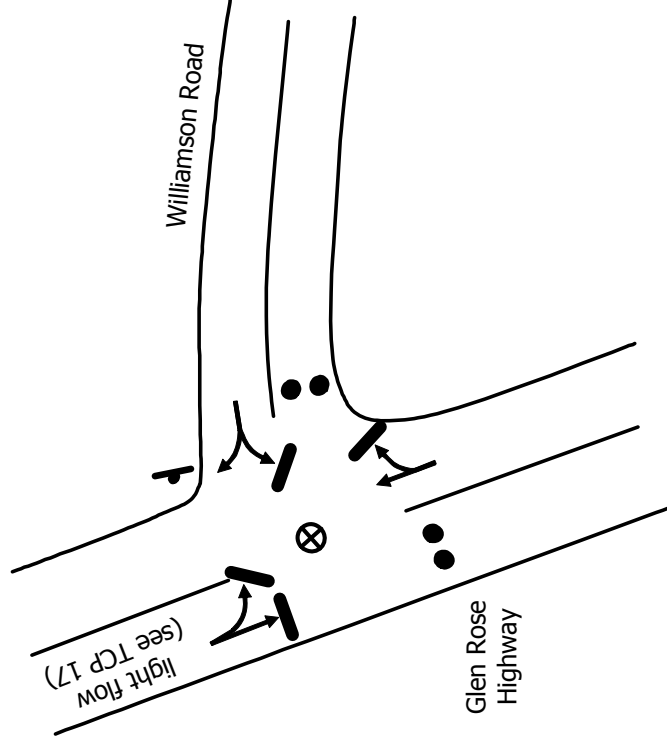
MUNICIPALITY: GRANBURY

LOCATION: GLEN ROSE HWY (STHY 144) & WILLIAMSON RD

TCP ID: 18

ZONE: 1D

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage southbound movement along STHY 144.
2. Discourage eastbound movement along Williamson Rd.

MANPOWER/EQUIPMENT

- | | |
|---|------------------|
| 1 | Traffic Guide(s) |
| 6 | Traffic Cones |

LOCATION PRIORITY

- | | |
|---|--|
| 1 | |
|---|--|

TCP

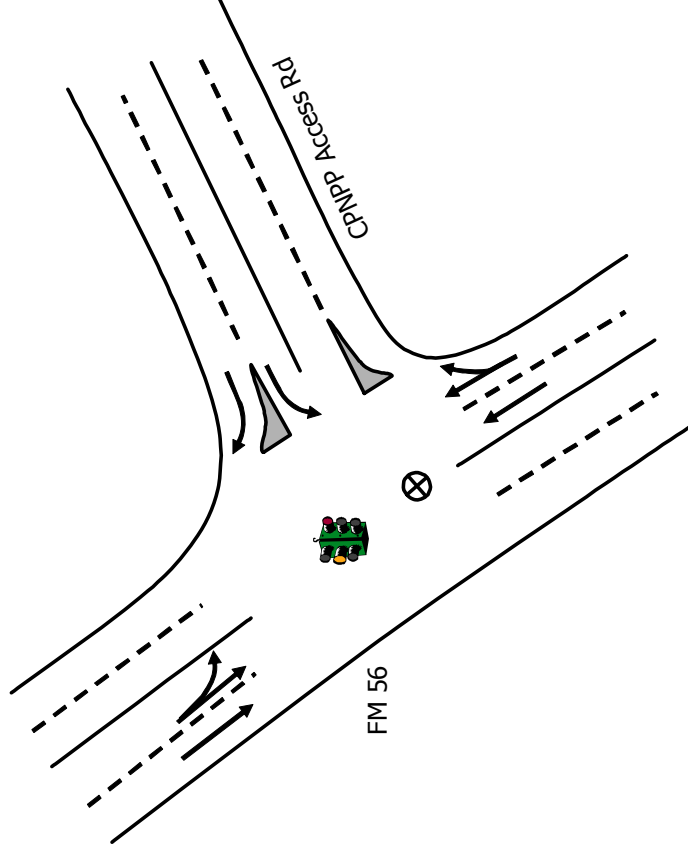
MUNICIPALITY: GLEN ROSE

LOCATION: CPNPP ACCESS RD & FM 56

TCP ID: 19

ZONE: CP

COUNTY: SOMERVELL



****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 |

DESCRIPTION

1. Facilitate flow of traffic coming from CPNPP.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)

LOCATION PRIORITY

- 2

TOP

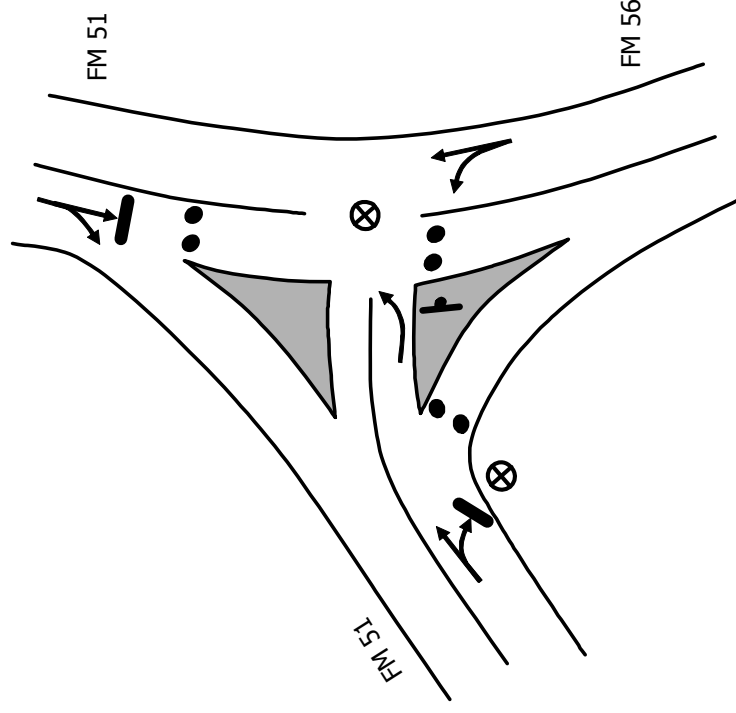
MUNICIPALITY: TOLAR

LOCATION: HILL CITY HWY (FM 56) & PALUXY HWY (FM 51)






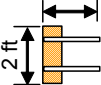

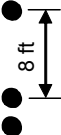
TCP ID: 20

ZONE: 4C

COUNTY: HOOD



****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) | |
|  | 2 ft |
| 3 ft | |
| 4 PER LANE (FREEWAY AND RAMPS) | |
|  | TRAFFIC SIGNAL |
|  | TRAFFIC CONES SPACED TO DISCOURAGE TRAFFIC BUT ALLOW PASSAGE (3 PER LANE): |
|  | 8 ft |
| DESCRIPTION | |
| 1. | Discourage southbound movement along FM 56. |
| MANPOWER/EQUIPMENT | |
| 2 | Traffic Guide(s) |
| 9 | Traffic Cones |
| LOCATION PRIORITY | |

TCP

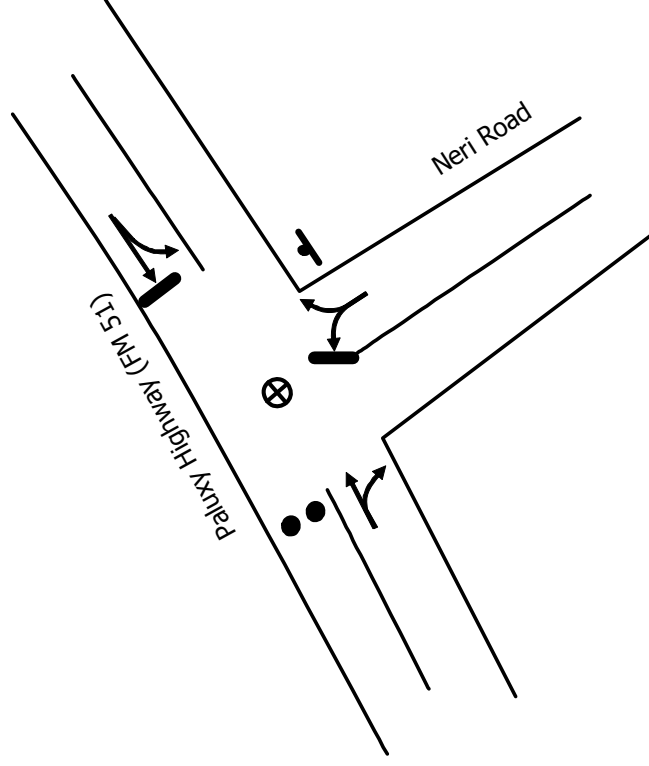
MUNICIPALITY: GRANBURY

LOCATION: PALUXY HWY (FM 51) & NERI RD

TCP ID: 21

ZONE: 4E

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage southbound movement along FM 51.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 3 Traffic Cones

LOCATION PRIORITY

- 1

TCP

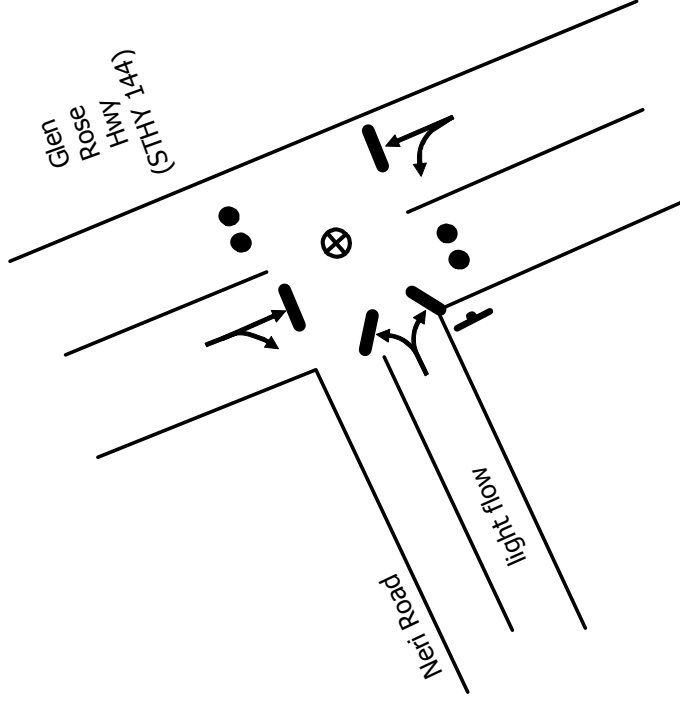
MUNICIPALITY: GRANBURY

LOCATION: GLEN ROSE HWY (STHY 144) & NERI RD

TCP ID: 22

ZONE: 1D

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage northbound movement along STHY 144. Re-route northbound traffic to FM 51 via Neri Rd.
2. Discourage southbound movement along STHY 144.

MANPOWER/EQUIPMENT

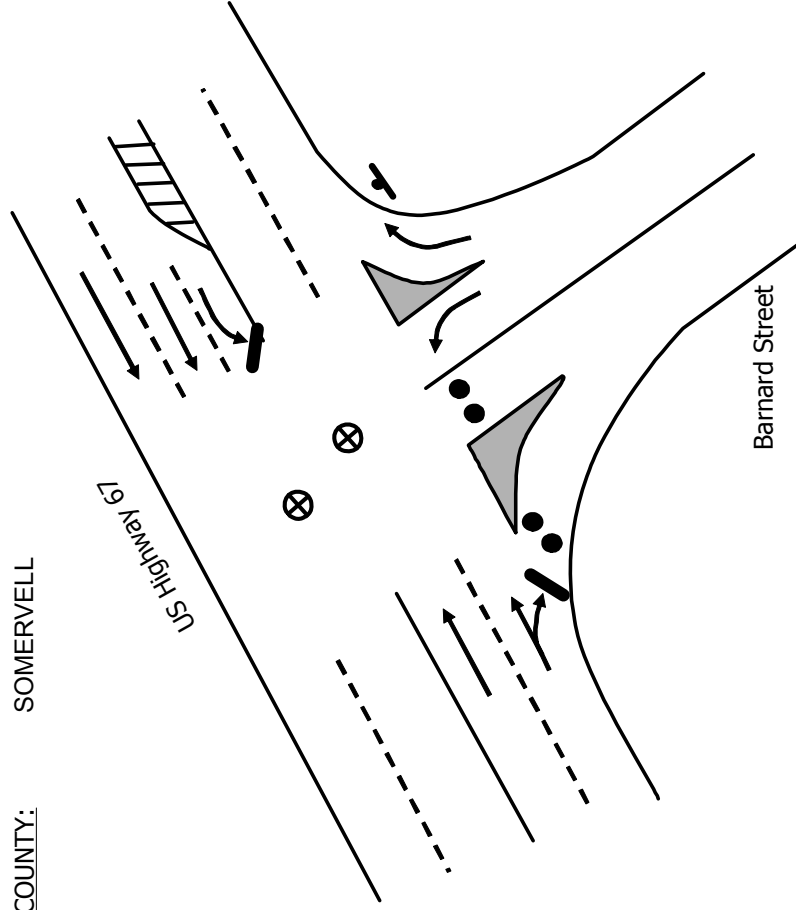
- | | |
|---|------------------|
| 1 | Traffic Guide(s) |
| 6 | Traffic Cones |

LOCATION PRIORITY

- | |
|---|
| 1 |
|---|

TCP

MUNICIPALITY: GLEN ROSE
LOCATION: BARNARD ST & US HWY 67
TCP ID: 23
ZONE: GLEN ROSE
COUNTY: SOMERVELL



****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

DESCRIPTION

1. Discourage southbound movement along Barnard St.

MANPOWER/EQUIPMENT

- 2 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

2

TCP

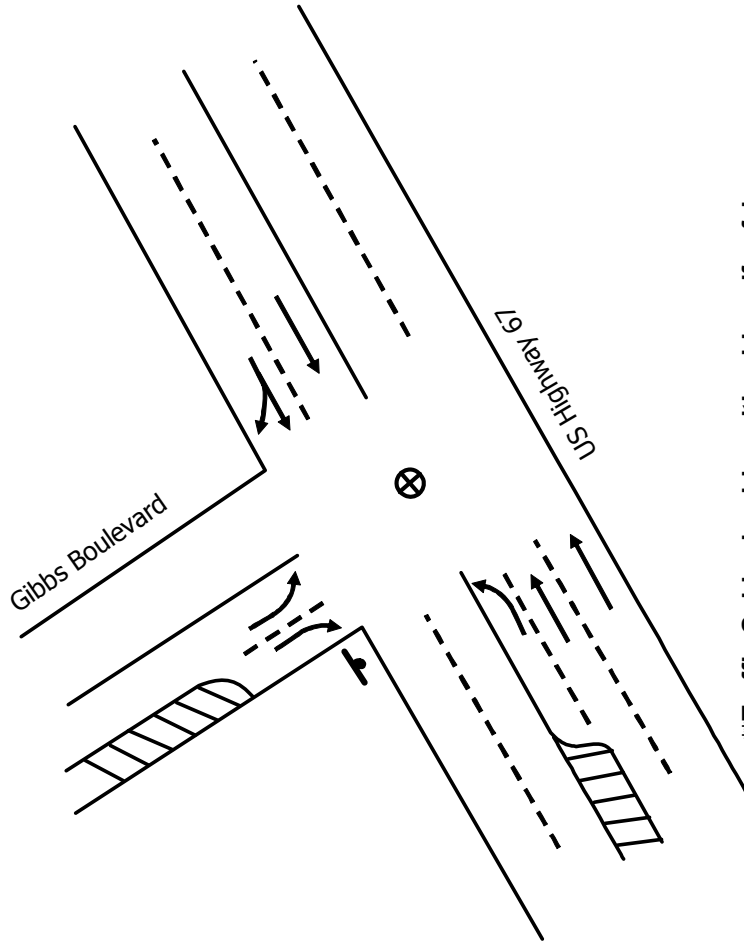
MUNICIPALITY: GLEN ROSE

LOCATION: GIBBS BLVD & US HWY 67

TCP ID: 24

ZONE: GLEN ROSE

COUNTY: SOMERVELL



****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

DESCRIPTION

1. Facilitate the flow of traffic out of the amphitheatre.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)

LOCATION PRIORITY

- 1 (If there is an event at amphitheatre)
- 3 (Otherwise)

TCP

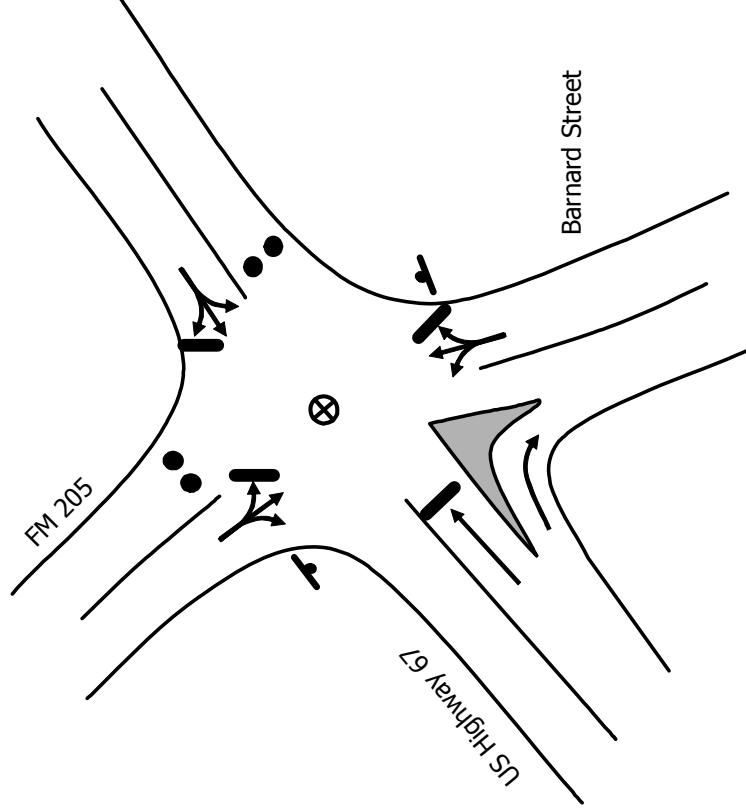
MUNICIPALITY: GLEN ROSE

LOCATION: US HWY 67 & BARNARD ST (FM 205)

TCP ID: 25

ZONE: GLEN ROSE

COUNTY: SOMERVELL



****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 |

DESCRIPTION

1. Discourage eastbound movement along US Hwy 67
2. Discourage northbound movement along FM 205

MANPOWER/EQUIPMENT

1. Traffic Guide(s)
6. Traffic Cones

LOCATION PRIORITY

2

TCP

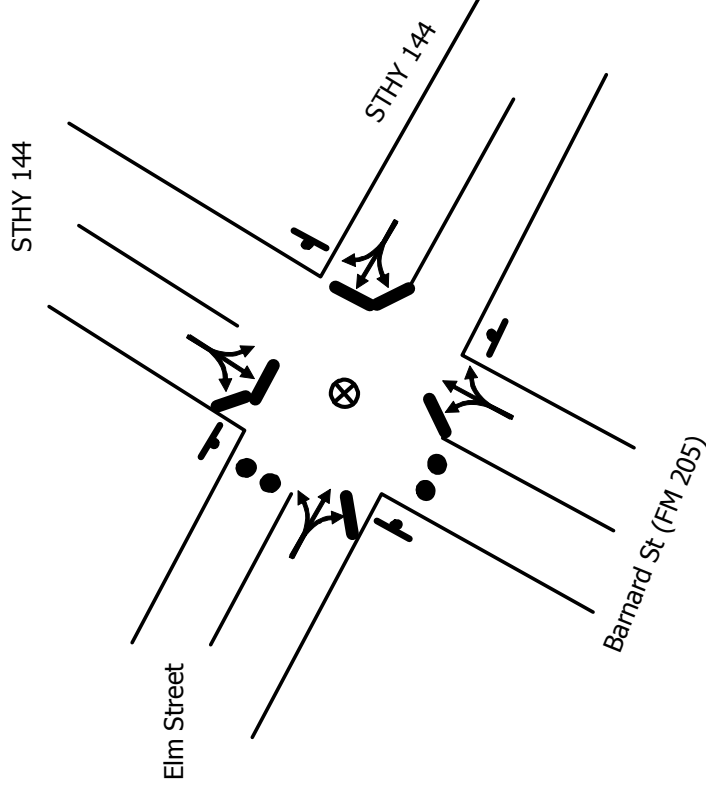
MUNICIPALITY: GLEN ROSE

LOCATION: STHY 144 & FM 56 & FM 205

TCP ID: 26

ZONE: GLEN ROSE

COUNTY: SOMERVELL



****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 |

DESCRIPTION

1. Discourage westbound movement on Elm St.
2. Discourage westbound movement on FM 205

MANPOWER/EQUIPMENT

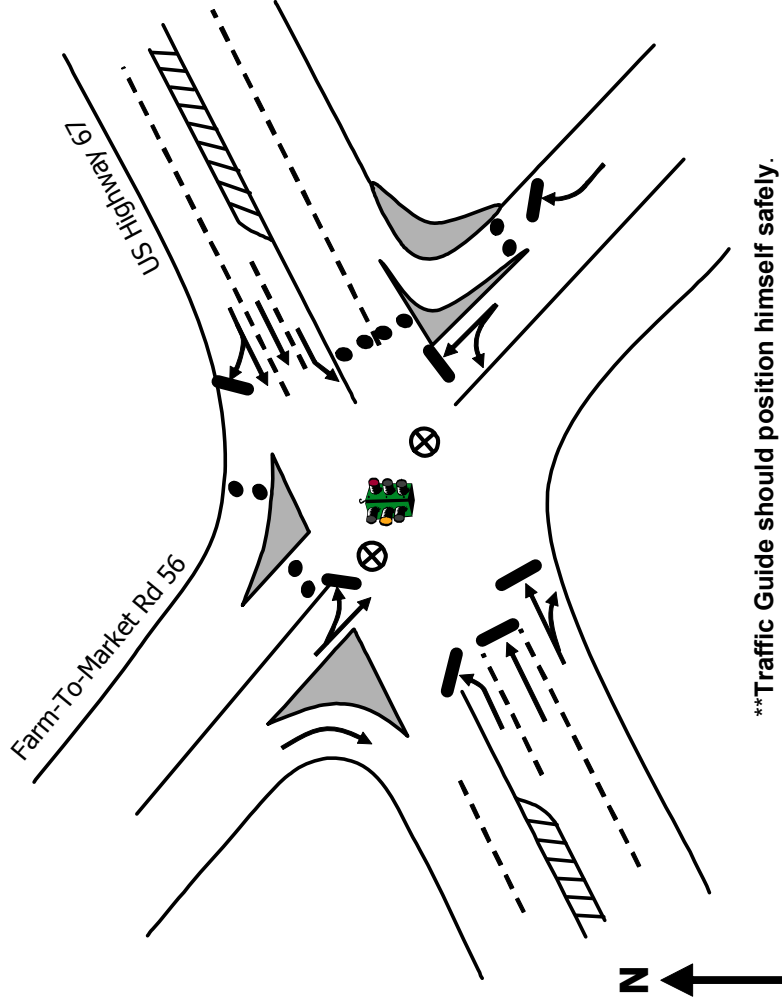
- 1 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

2

TCP

MUNICIPALITY: GLEN ROSE
LOCATION: US HWY 67 & FM 56
TCP ID: 27
ZONE: GLEN ROSE
COUNTY: SOMERVELL



Key

→ MOVEMENT FACILITATED
 → MOVEMENT DISCOURAGED/DIVERTED
 ⊗ TRAFFIC GUIDE
 ⊙ STOP SIGN
 X 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

DESCRIPTION

1. Discourage northbound movement along FM 56.
2. Discourage eastbound movement along US Hwy 67.

MANPOWER/EQUIPMENT

- 2 Traffic Guide(s)
- 15 Traffic Cones

LOCATION PRIORITY

- 2

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

TCP

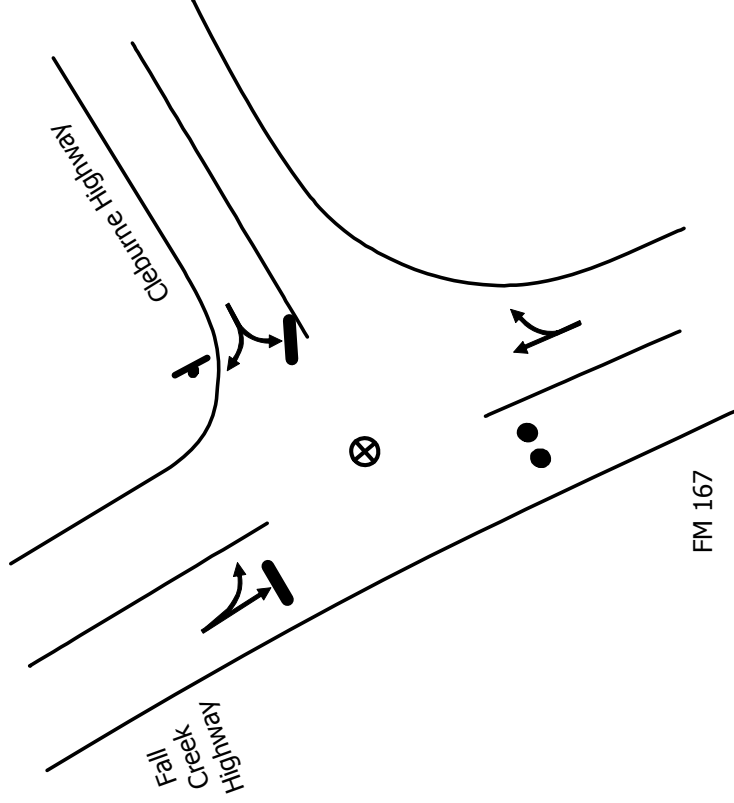
MUNICIPALITY: GRANBURY

LOCATION: CLEBURNE HWY & FALL CREEK HWY & FM 167

TCP ID: 28

ZONE: SHADOW

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage southbound movement along FM 167.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 3 Traffic Cones

LOCATION PRIORITY

- 2

TOP

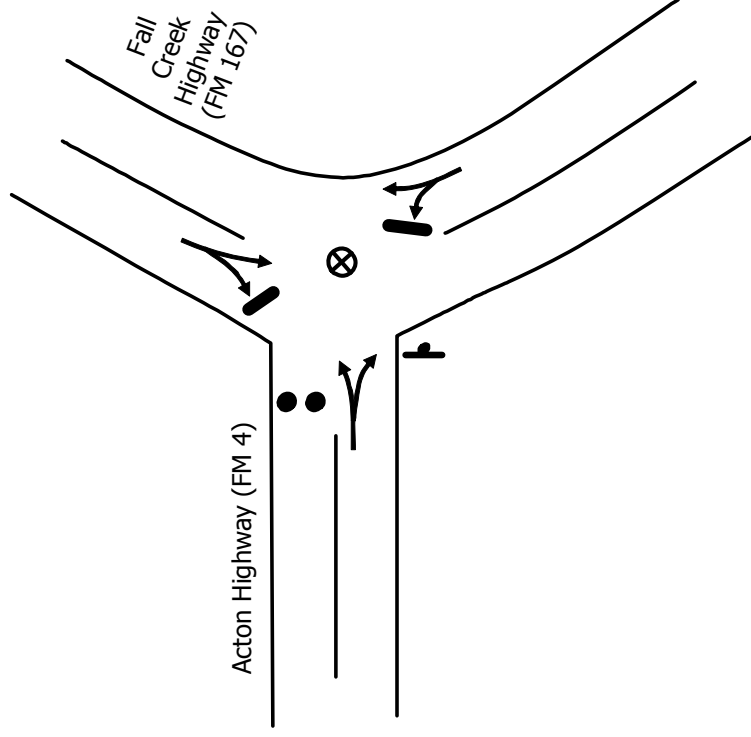
MUNICIPALITY: GRANBURY

LOCATION: FALL CREEK HWY (FM 167) & ACTON HWY

TCP ID: 29

ZONE: SHADOW

COUNTY: HOOD



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

| | |
|---|--|
| <u>Key</u> | |
|  | 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): |
|  | |

DESCRIPTION

1. Discourage westbound movement along FM 4.

MANPOWER/EQUIPMENT

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

LOCATION PRIORITY

- 1

TCP

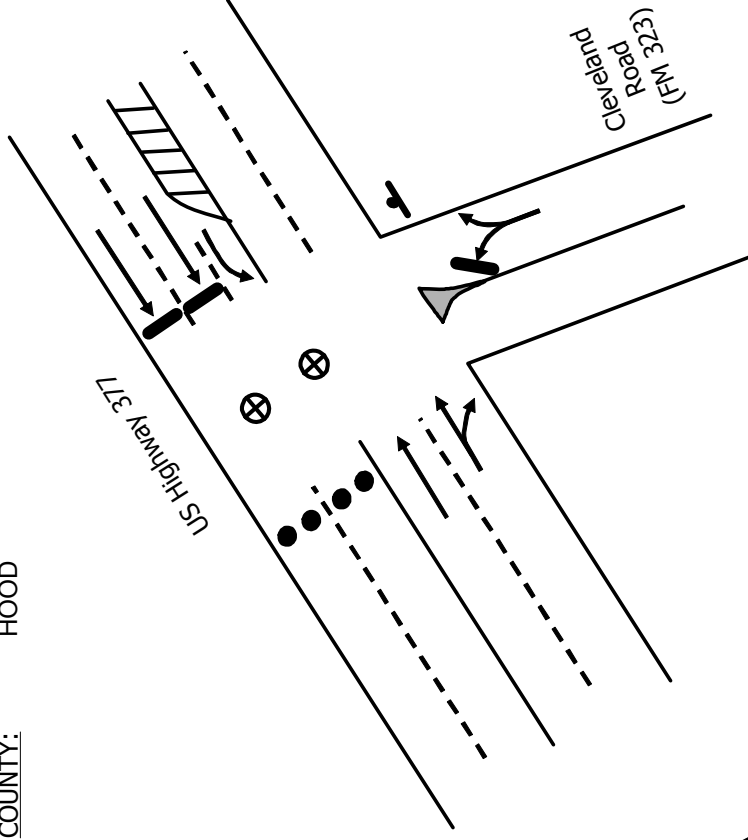
MUNICIPALITY: GRANBURY

LOCATION: US HWY 377 & CLEVELAND RD (FM 323)

TCP ID: 30

ZONE: SHADOW

COUNTY: HOOD



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

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

DESCRIPTION

1. Discourage westbound movement along US Hwy 377.

MANPOWER/EQUIPMENT

- 2 Traffic Guide(s)
- 6 Traffic Cones

LOCATION PRIORITY

- 2

TCP

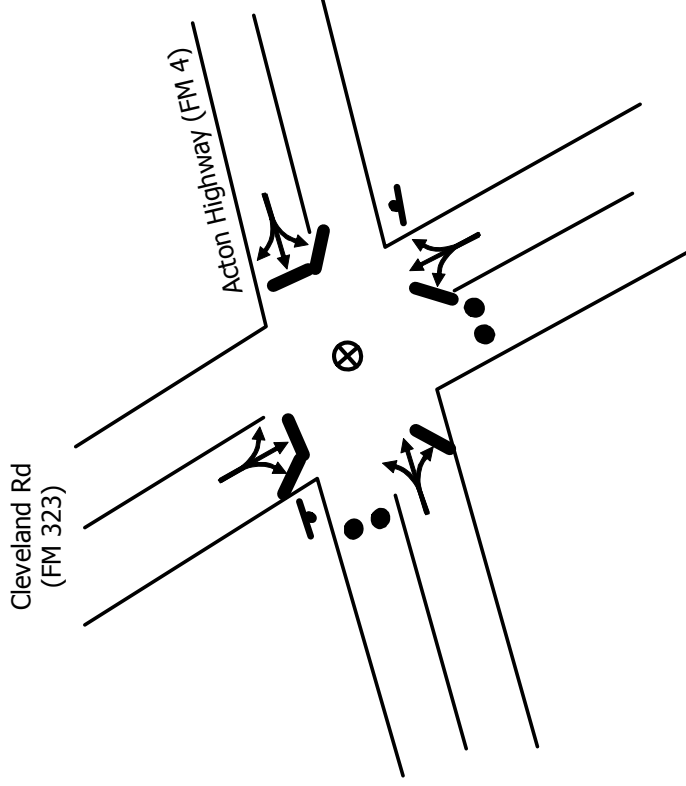
MUNICIPALITY: GRANBURY

LOCATION: CLEVELAND RD (FM 323) & ACTON HWY (FM 4)

TCP ID: 31

ZONE: SHADOW

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage westbound movement along FM 4.
2. Discourage southbound movement along FM 323.

MANPOWER/EQUIPMENT

1. Traffic Guide(s)
6. Traffic Cones

LOCATION PRIORITY

2

TCP

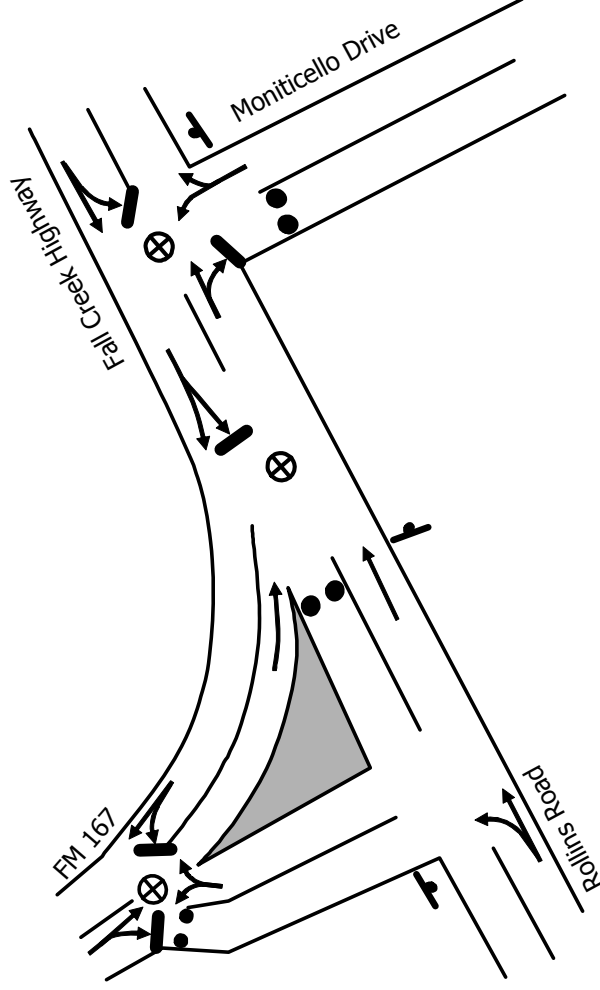
MUNICIPALITY: GRANBURY

LOCATION: FALL CREEK HWY & MONTICELLO DR & ROLLINS RD

TCP ID: 32

ZONE: 1C

COUNTY: HOOD



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

DESCRIPTION

1. Discourage westbound movement along Rollins Rd.
2. Discourage southbound movement along Monticello Dr.
3. Facilitate the flow of traffic on FM 167.

MANPOWER/EQUIPMENT

- | | |
|---|----------------|
| 3 | Traffic Guides |
| 9 | Traffic Cones |

LOCATION PRIORITY

- | |
|---|
| 3 |
|---|

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

TCP

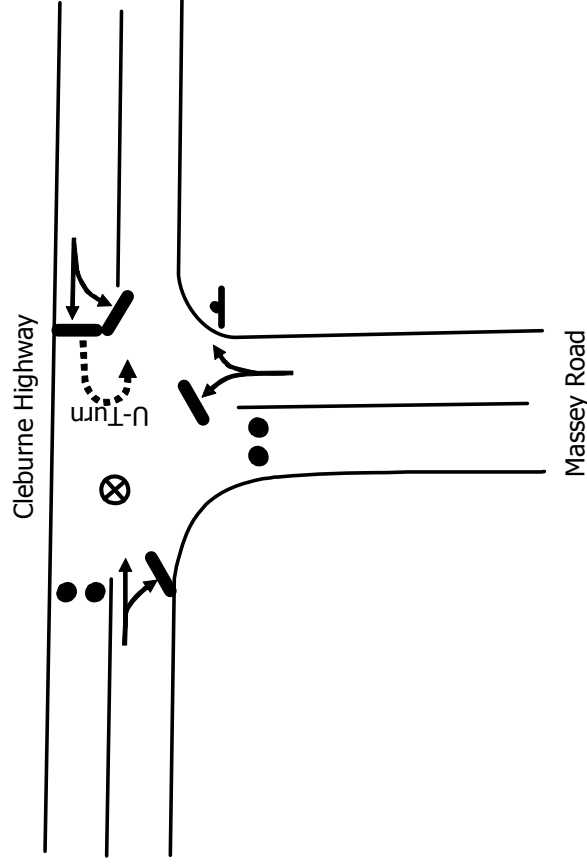
MUNICIPALITY: GRANBURY

LOCATION: CLEBURNE HWY & MASSEY RD

TCP ID: 33

ZONE: SHADOW

COUNTY: HOOD



****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 |

DESCRIPTION

1. Discourage westbound movement along Cleburne Hwy.
2. Discourage southbound movement along Massey Rd.

MANPOWER/EQUIPMENT

- | | |
|---|------------------|
| 1 | Traffic Guide(s) |
| 6 | Traffic Cones |

LOCATION PRIORITY

- | |
|---|
| 2 |
|---|

TCP

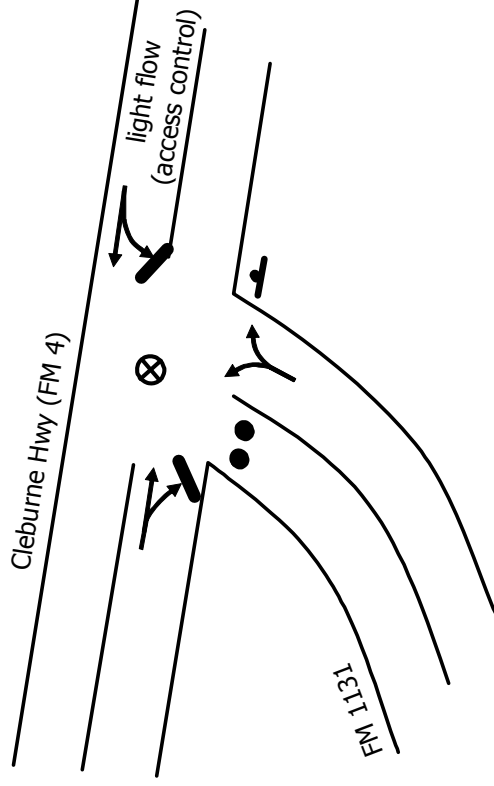
MUNICIPALITY: GODLEY

LOCATION: CLEBURNE HWY (FM 4) & FM 1131

TCP ID: 34

ZONE: SHADOW

COUNTY: JOHNSON



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

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

DESCRIPTION

1. Discourage westbound movement along FM 1131.
2. Facilitate the flow of traffic from FM 1131 onto FM 4

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 3 Traffic Cones

LOCATION PRIORITY

- 2

TCP

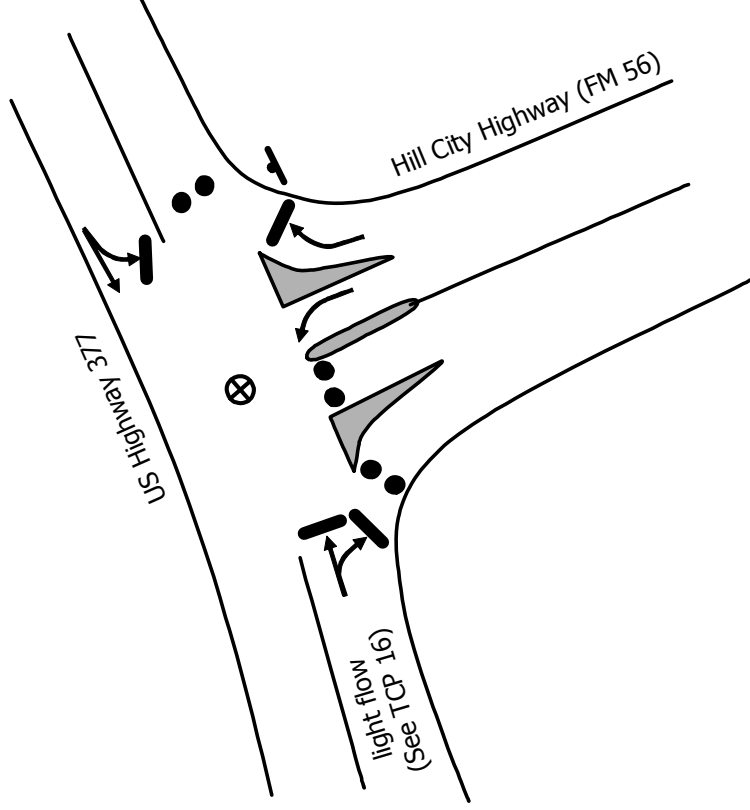
MUNICIPALITY: TOLAR

LOCATION: US HWY 377 & HILL HWY (FM 56)

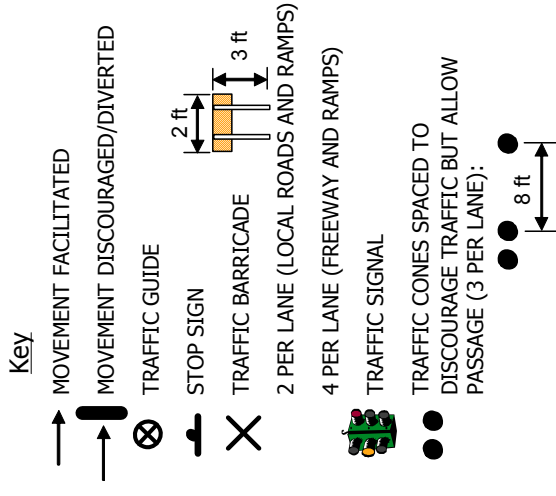
TCP ID: 35

ZONE: TOLAR

COUNTY: HOOD



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



DESCRIPTION

1. Discourage eastbound movement along US 377.
2. Discourage southbound movement along FM 56
3. Facilitate westbound movement along US 377

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 9 Traffic Cones

LOCATION PRIORITY

1

TCP

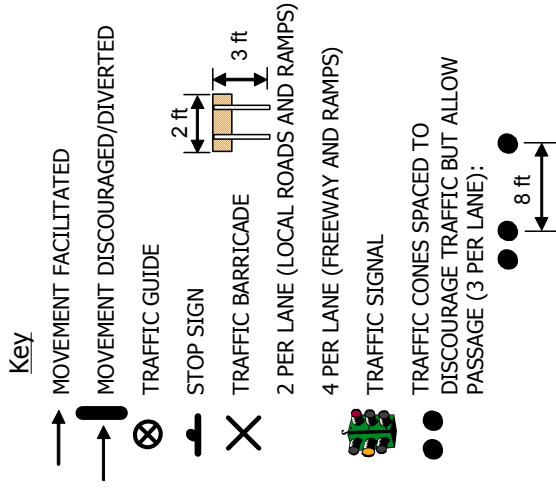
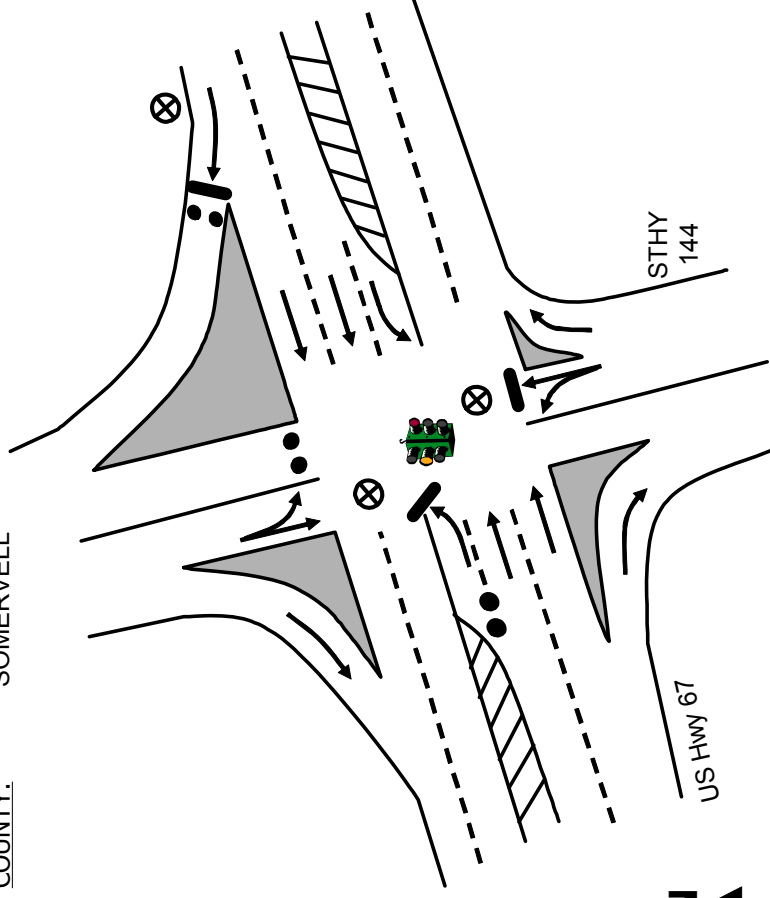
MUNICIPALITY: GLEN ROSE

LOCATION: US HWY 67 & STATE HWY 144

TCP ID: 36

ZONE: GLEN ROSE

COUNTY: SOMERVELL



DESCRIPTION

1. Discourage northbound movement along STHY 144.

MANPOWER/EQUIPMENT

- 3 Traffic Guide(s)
- 9 Traffic Cones

LOCATION PRIORITY

- 1

TCP

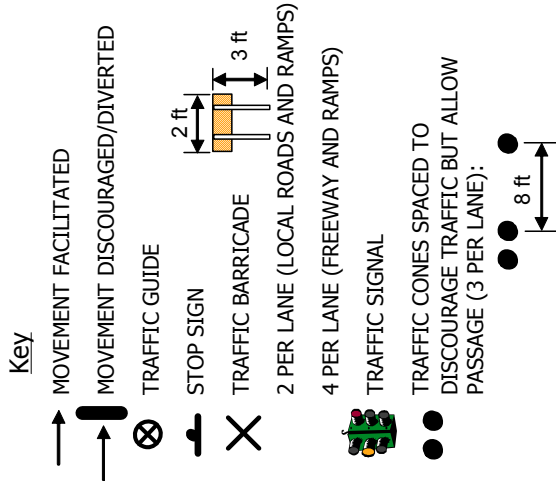
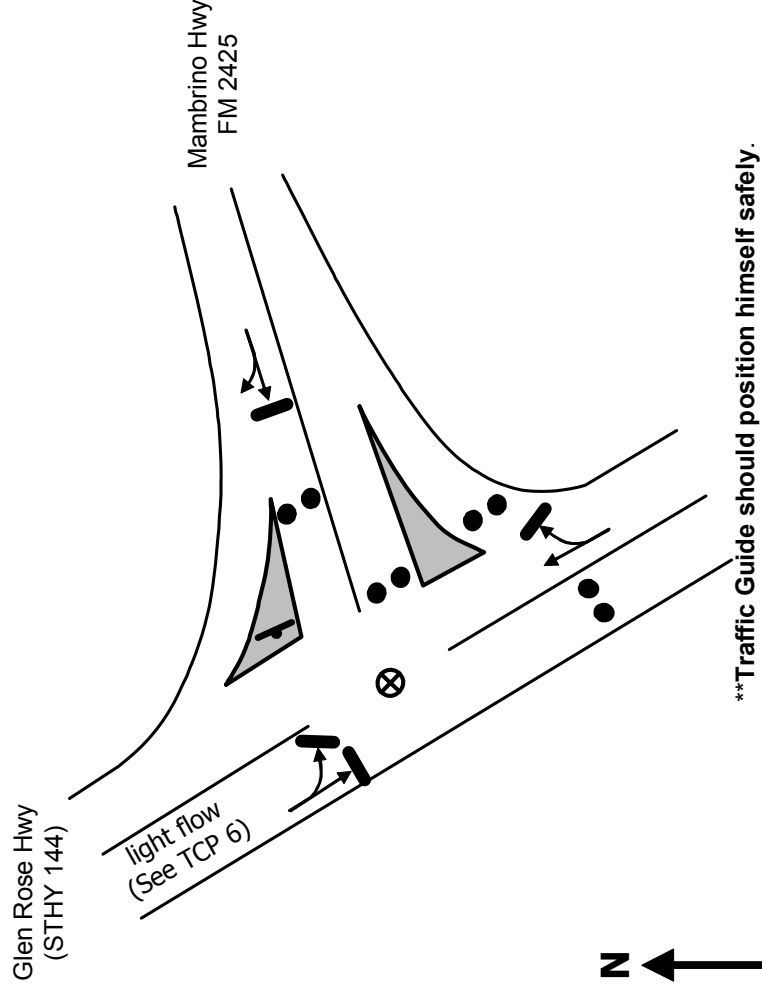
MUNICIPALITY: GRANBURY

LOCATION: GLEN ROSE HWY (STHY 144) & MAMBRINO HWY

TCP ID: 37

ZONE: 1B

COUNTY: HOOD



DESCRIPTION

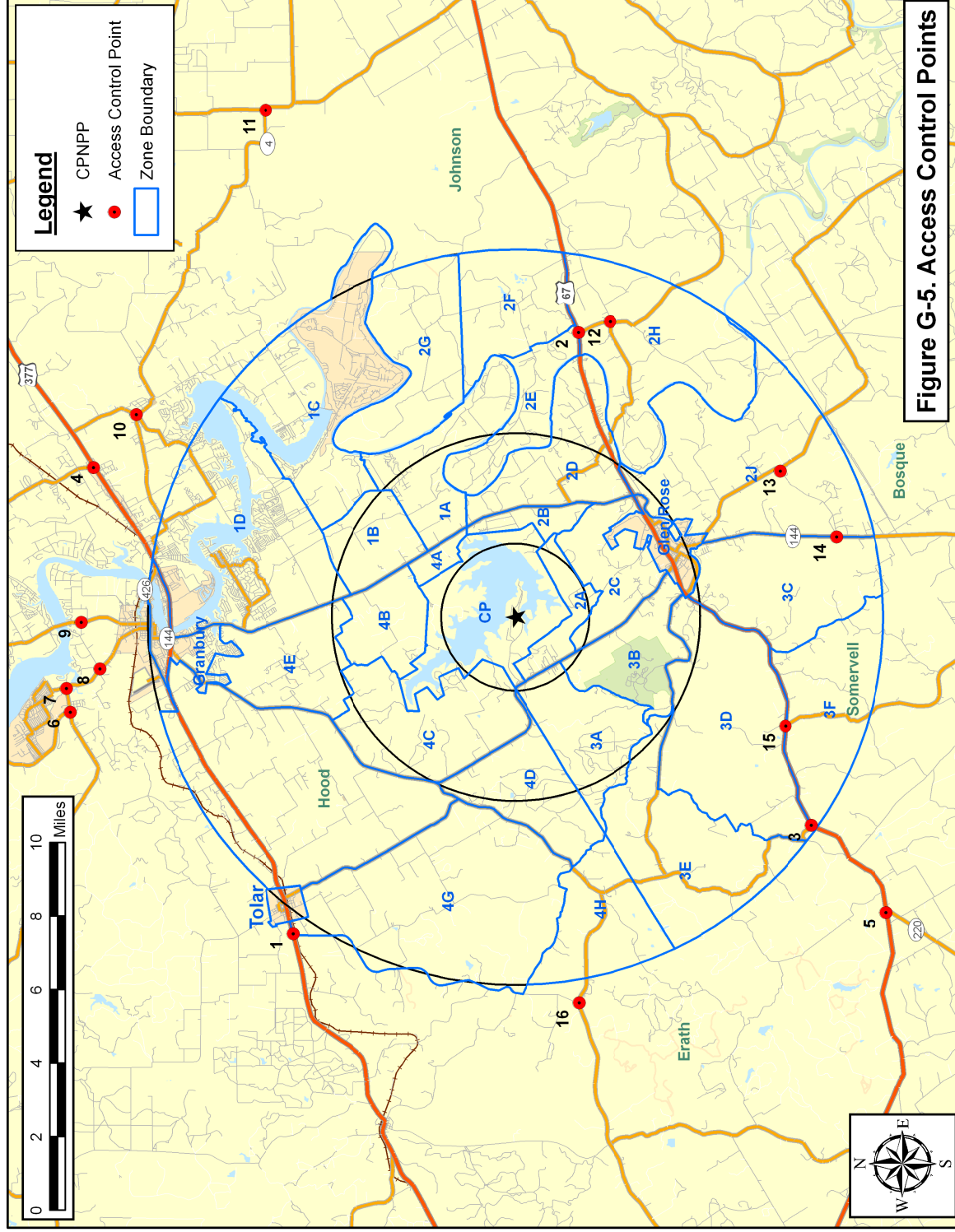
1. Discourage southbound movement along STHY 144.
2. Discourage eastbound movement along FM2425.
3. Facilitate northbound movement along STHY 144.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 12 Traffic Cones

LOCATION PRIORITY

2

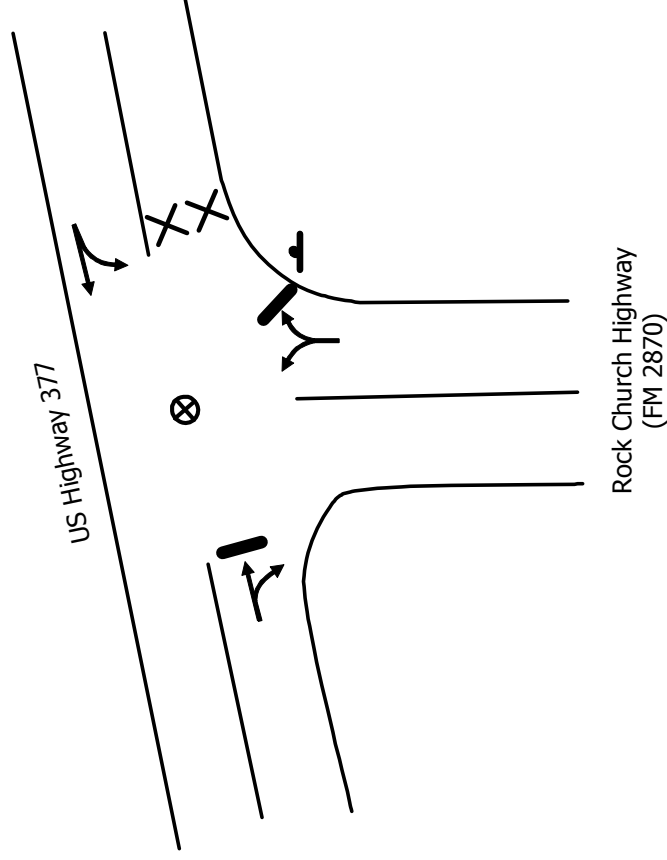


| Table G-2. Comanche Peak Access Control Point Summary | | | | | | |
|--|--------|--|----------------|----------|---------------|-------------------|
| Hood County Access Control Points | | | | | | |
| ZONE | ACP ID | Location | Municipality | Priority | No. of Guides | No. of Barricades |
| 4G | 1 | US Hwy 377 & Rock Church Hwy (FM 2870) | Tolar | 1 | 1 | 2 |
| Shadow | 4 | US Hwy 377 & Temple Hall Hwy (FM 167) | Granbury | 1 | 2 | 8 |
| Shadow | 6 | Lipan Hwy (FM 4) & Tin Top Hwy (FM 2580) | Thorp Spring | 1 | 1 | 2 |
| Shadow | 8 | Lipan Hwy (FM 4) & Avery Rd | Granbury | 1 | 2 | 4 |
| Shadow | 9 | Weatherford Hwy (FM 51) & Avery Rd | Granbury | 1 | 2 | 2 |
| Shadow | 10 | Acton Hwy (FM 4) & Fall Creek Hwy (FM 167) | Granbury | 1 | 1 | 2 |
| Shadow | 7 | Lipan Hwy (FM 4) & Oak Trail Dr | Thorp Spring | 2 | 1 | 2 |
| Hood County Total Manpower/Equipment Needed: | | | | | 10 | 22 |
| Somervell County Access Control Points | | | | | | |
| 2H | 2 | US Hwy 67 & FM 199 | Nemo | 2 | 1 | 2 |
| 3D | 3 | US Hwy 67 & FM 51 | Chalk Mountain | 2 | 1 | 4 |
| 2J | 14 | State Hwy 144 & FM 202 | Glen Rose | 2 | 1 | 2 |
| 3F | 15 | US Hwy 67 & FM 203 | Glass | 2 | 1 | 2 |
| 2H | 12 | FM 199 & FM 200 | Nemo | 3 | 1 | 2 |
| 2J | 13 | FM 202 & FM 56 | Glen Rose | 3 | 1 | 2 |
| Somervell County Total Manpower/Equipment Needed: | | | | | 6 | 14 |
| Erath County Access Control Points | | | | | | |
| Shadow | 5 | US Hwy 67 & State Hwy 220 | Chalk Mountain | 2 | 2 | 4 |
| Shadow | 16 | FM 205 & FM 2870 | Stephenville | 3 | 1 | 2 |
| Erath County Total Manpower/Equipment Needed: | | | | | 3 | 6 |
| Johnson County Access Control Points | | | | | | |
| Shadow | 11 | FM 4 & FM 2331 | Godley | 2 | 1 | 4 |
| Johnson County Total Manpower/Equipment Needed: | | | | | 1 | 4 |
| EPZ Total Manpower/Equipment Needed: | | | | | 20 | 46 |

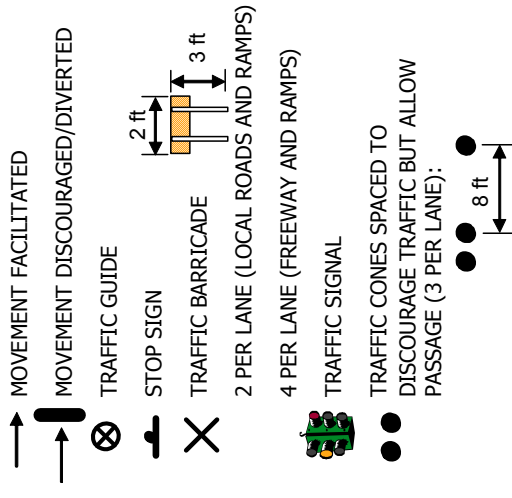
MUNICIPALITY: TOLAR

LOCATION: US HWY 377 & ROCK CHURCH HWY (FM 2870)

ACP



Key

DESCRIPTION

1. Interdict and Divert eastbound movement along US Highway 377.

MANPOWER/EQUIPMENT

- | | Traffic Guide(s) | Traffic Barricades |
|---|------------------|--------------------|
| 1 | | |
| 2 | | |

LOCATION PRIORITY

- 1

ACP

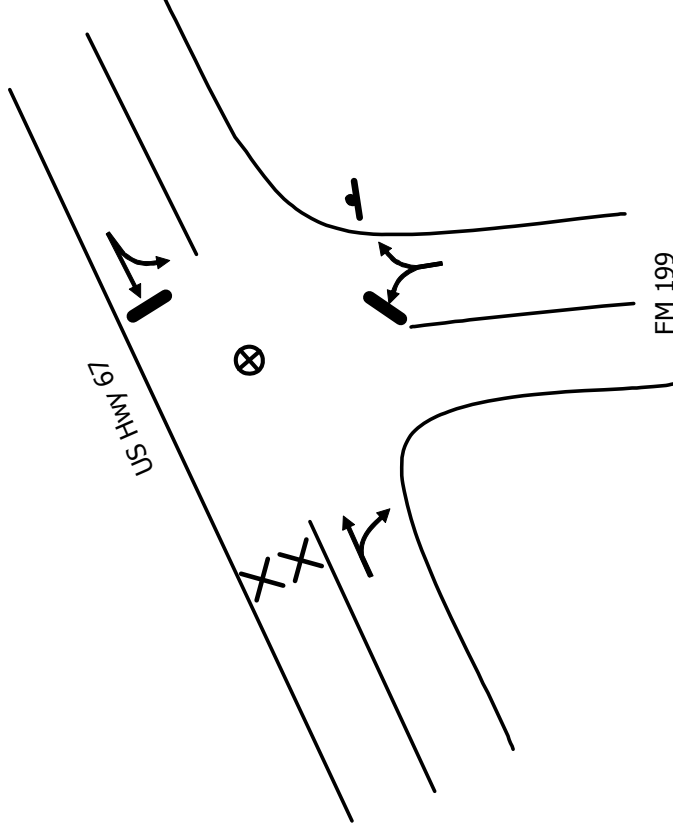
MUNICIPALITY: NEMO

LOCATION: US HWY 67 & FM 199

ACP ID: 2

ZONE: 2H

COUNTY: SOMERVELL



****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 |

DESCRIPTION

1. Interdict and Divert westbound movement along US Hwy 67.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 2 Traffic Barricades

LOCATION PRIORITY

- 2

ACP

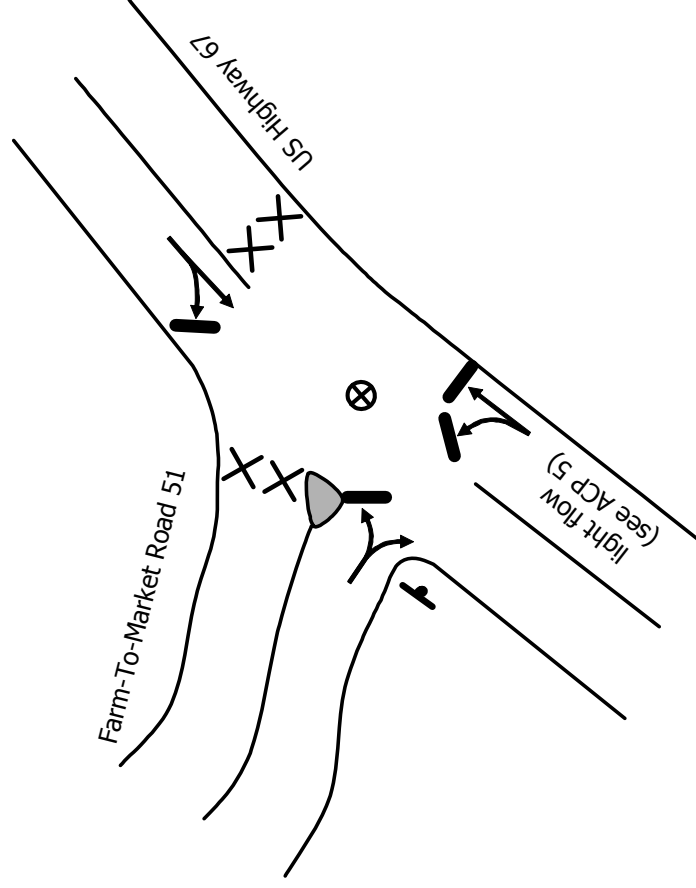
MUNICIPALITY: CHALK MOUNTAIN

LOCATION: US HWY 67 & FM 51








ACP ID: 3

ZONE: 3D

COUNTY: SOMERVELL



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): |

DESCRIPTION

1. Interdict and Divert eastbound movement along US Hwy 67.
2. Interdict and Divert northbound movement along FM 51.

MANPOWER/EQUIPMENT

- | | Traffic Guide(s) | Traffic Barricades |
|---|------------------|--------------------|
| 1 | | |
| 4 | | |

LOCATION PRIORITY

- 2

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

ACP

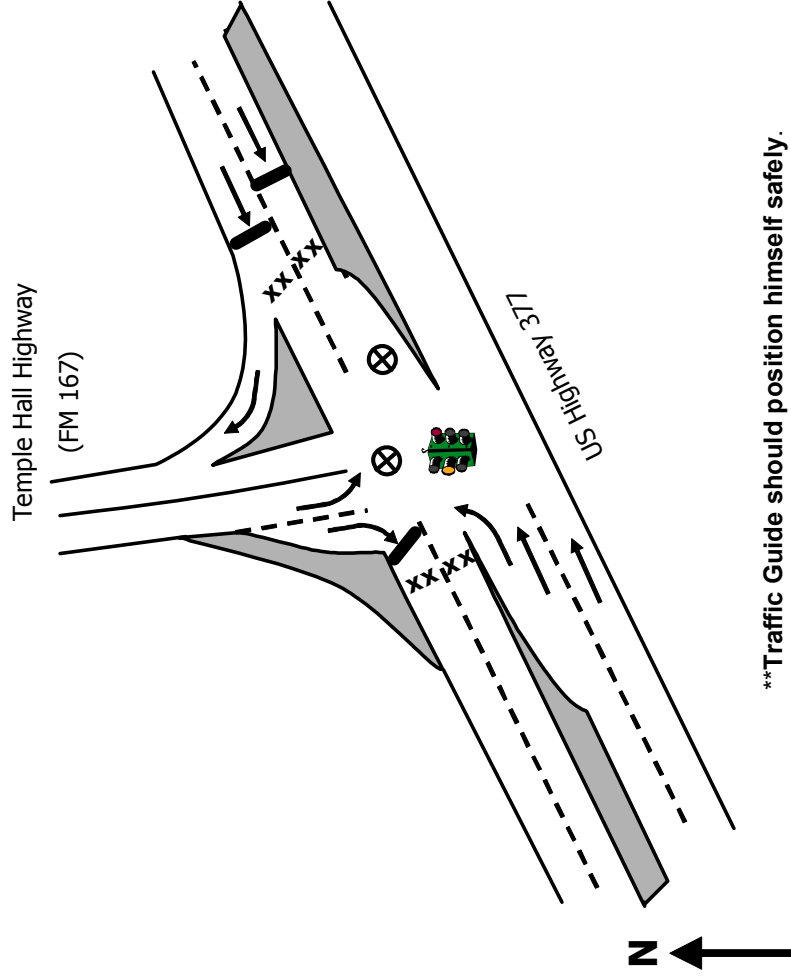
MUNICIPALITY: GRANBURY

LOCATION: US HWY 377 & TEMPLE HALL HWY (FM 167)

ACP ID: 4

ZONE: SHADOW

COUNTY: HOOD



****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 |

DESCRIPTION

1. Interdict and Divert westbound movement along US Hwy 377.

MANPOWER/EQUIPMENT

- 2 Traffic Guide(s)
- 8 Traffic Barricades

LOCATION PRIORITY

- 1

ACP

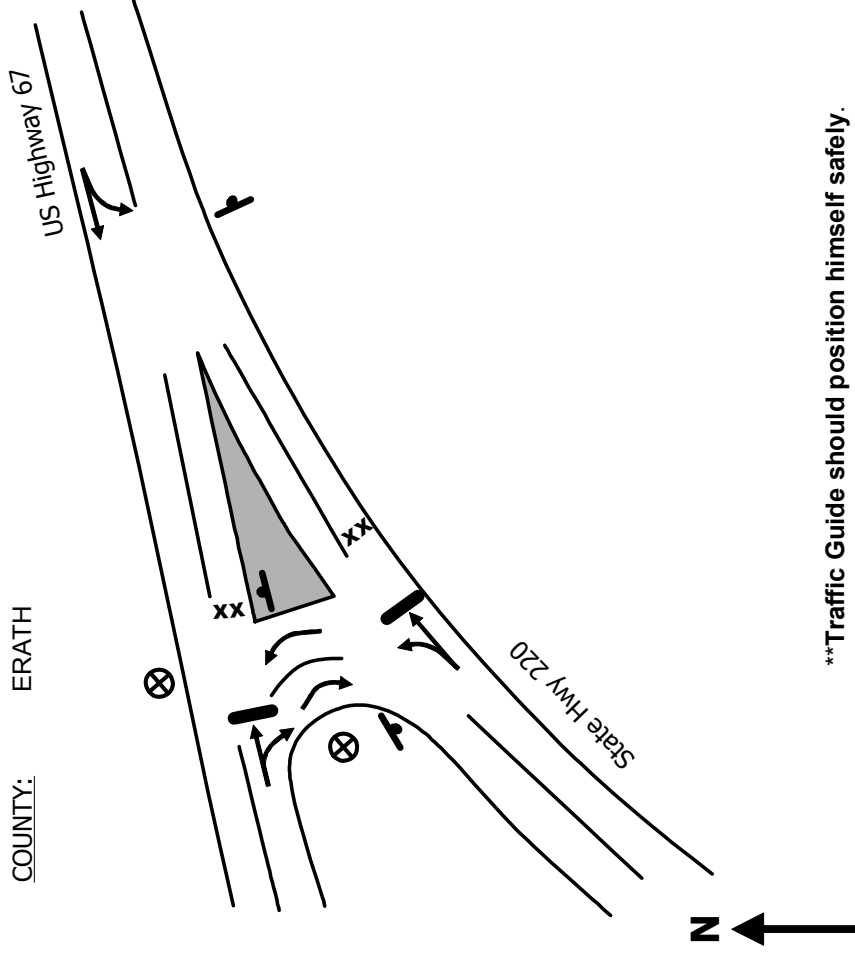
MUNICIPALITY: CHALK MOUNTAIN

LOCATION: US HWY 67 & STATE HWY 220

ACP ID: 5

ZONE: SHADOW

COUNTY: ERATH



****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

DESCRIPTION

1. Interdict and Divert eastbound movement along US Hwy 67.

MANPOWER/EQUIPMENT

- 2 Traffic Guide(s)
- 4 Traffic Barricades

LOCATION PRIORITY

- 2

ACP

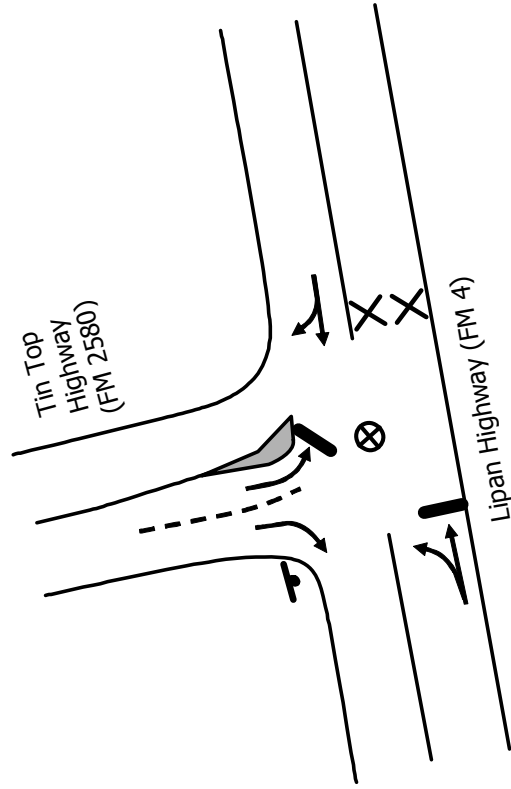
MUNICIPALITY: THORP SPRING

LOCATION: LIPAN HWY (FM 4) & TIN TOP HWY (FM 2580)

ACP ID: 6

ZONE: SHADOW

COUNTY: HOOD



****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 |

DESCRIPTION

1. Interdict and Divert eastbound movement along Lipan Highway.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 2 Traffic Barricades

LOCATION PRIORITY

- 1

ACP

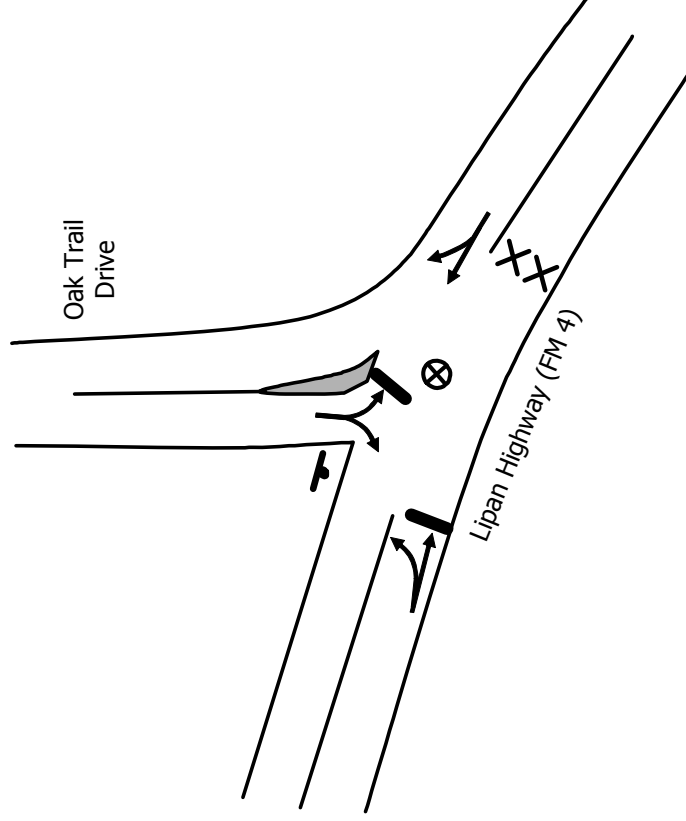
MUNICIPALITY: THORP SPRING

LOCATION: LIPAN HWY (FM 4) & OAK TRAIL DR

ACP ID: 7

ZONE: SHADOW

COUNTY: HOOD



****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 |

DESCRIPTION

1. Interdict and Divert eastbound movement along Lipan Highway.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 2 Traffic Barricades

LOCATION PRIORITY

- 2

ACP

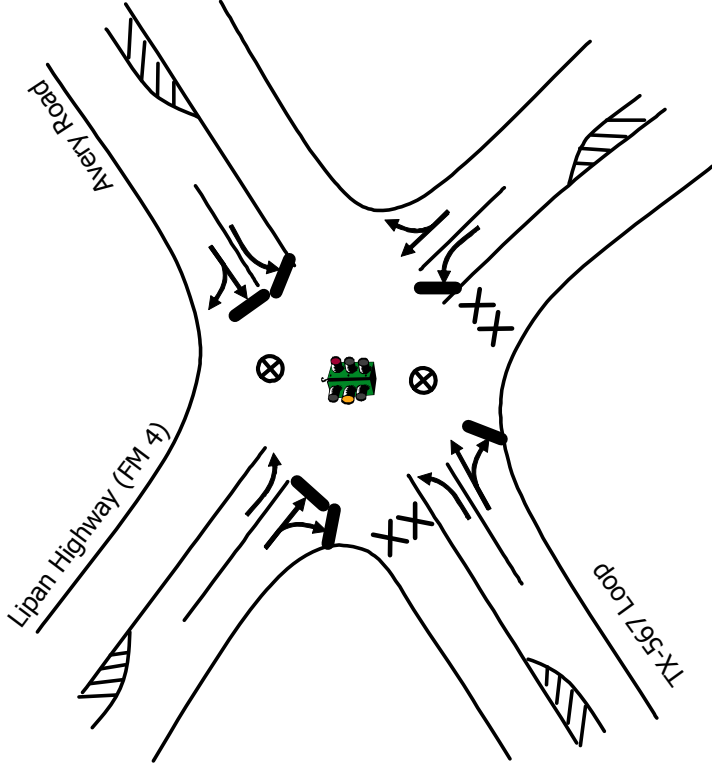
MUNICIPALITY: GRANBURY

LOCATION: LIPAN HWY (FM 4) & AVERY RD

ACP ID: 8

ZONE: SHADOW

COUNTY: HOOD



****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 |

DESCRIPTION

1. Interdict and Divert eastbound movement along Lipan Highway.
2. Interdict and Divert westbound movement along TX-567 Loop.

MANPOWER/EQUIPMENT

- 2 Traffic Guide(s)
- 4 Traffic Barricades

LOCATION PRIORITY

1

ACP

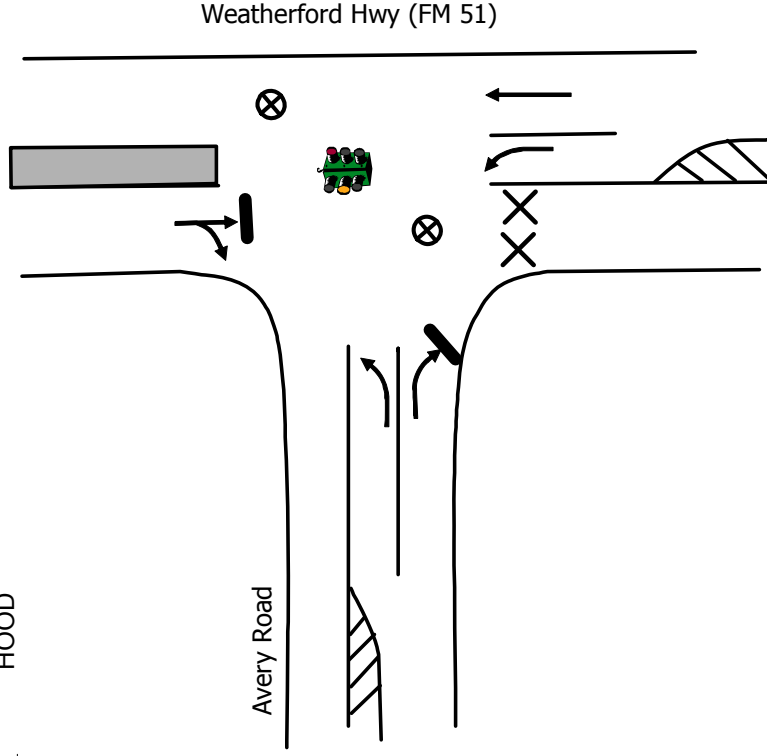
MUNICIPALITY: GRANBURY

LOCATION: WEATHERFORD HWY (FM 51) & AVERY RD

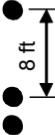
ACP ID: 9

ZONE: SHADOW

COUNTY: HOOD



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

| | |
|---|---|
| <u>Key</u> | |
| → | 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): |
| |  |

DESCRIPTION

1. Interdict and Divert southbound movement along FM 51.

MANPOWER/EQUIPMENT

- | | |
|---|--------------------|
| 2 | Traffic Guide(s) |
| 2 | Traffic Barricades |

LOCATION PRIORITY

- 1

ACP

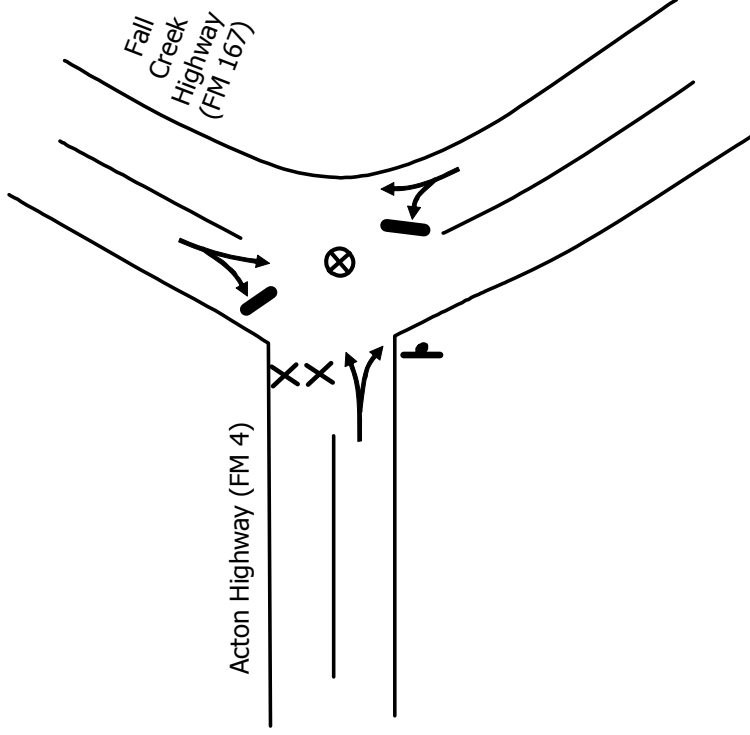
MUNICIPALITY: GRANBURY

LOCATION: FALL CREEK HWY (FM 167) & ACTON HWY

ACP ID: 10

ZONE: SHADOW

COUNTY: HOOD



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

DESCRIPTION

1. Interdict and Divert westbound movement along FM 4.
2. Facilitate flow of traffic on Fall Creek Hwy.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 2 Traffic Barricades

LOCATION PRIORITY

- 1

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

ACP

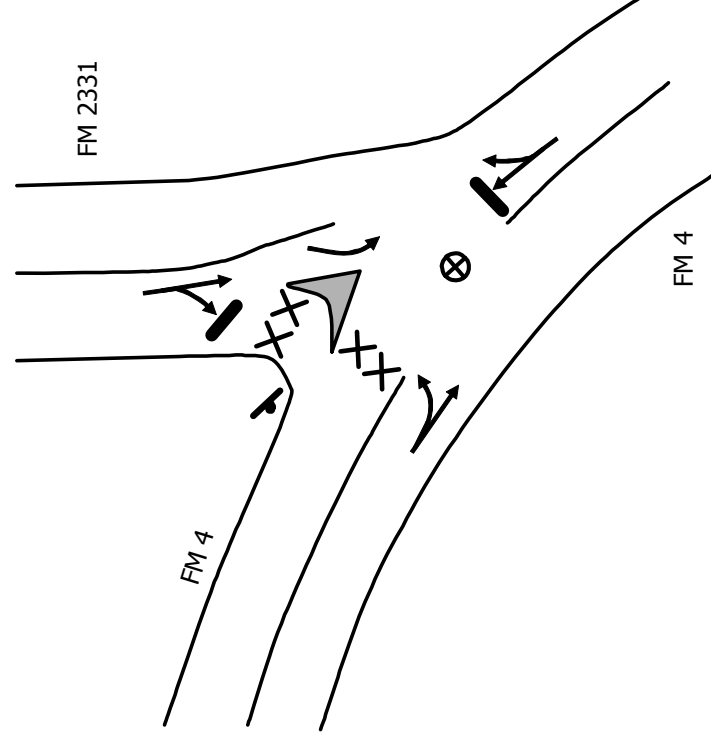
MUNICIPALITY: GODLEY

LOCATION: FM 4 & FM 2331

ACP ID: 11

ZONE: SHADOW

COUNTY: JOHNSON




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

Key

→ MOVEMENT FACILITATED

↑
MOVEMENT DISCOURAGED/DIVERTED

TRAFFIC GUIDE



STOP SIGN

X 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):

DESCRIPTION

1. Interdict and Divert westbound movement along FM 4.

MANPOWER/EQUIPMENT

- | 1 | Traffic Guide(s) |
|---|--------------------|
| 4 | Traffic Barricades |

LOCATION PRIORITY

- 2

ACP

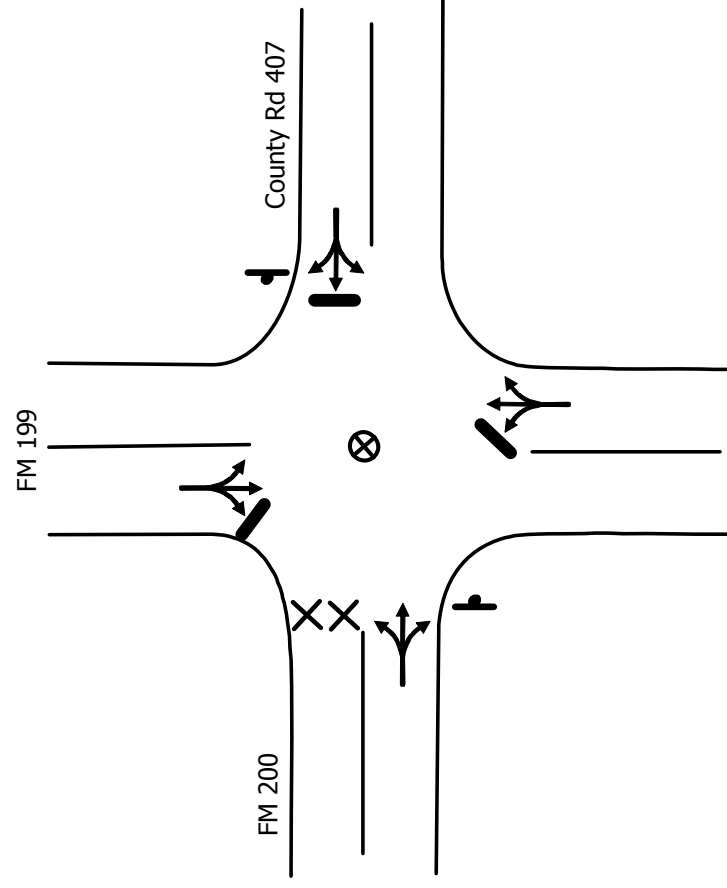
MUNICIPALITY: NEMO

LOCATION: FM 199 & FM 200

ACP ID: 12








ZONE: 2H

COUNTY: SOMERVELL



****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): |

DESCRIPTION

1. Interdict and Divert westbound traffic along FM 200.

MANPOWER/EQUIPMENT

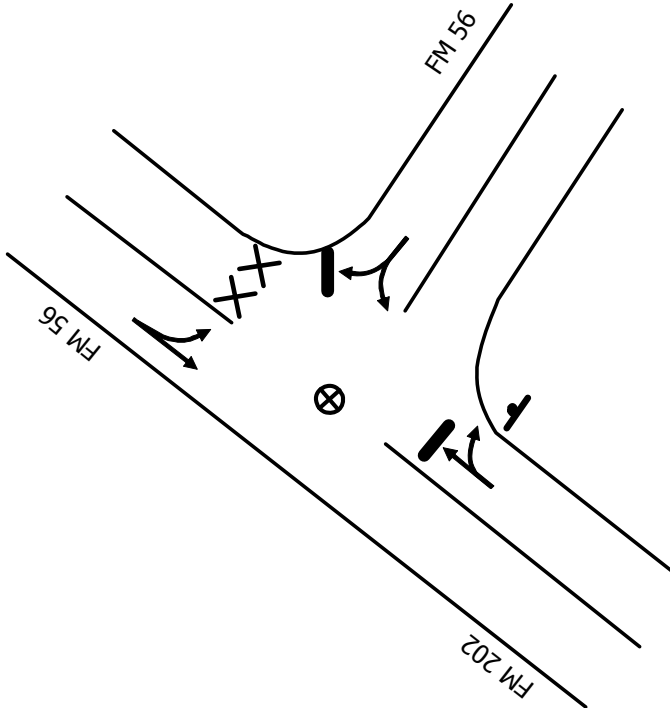
- | | Traffic Guide(s) | Traffic Barricades |
|---|------------------|--------------------|
| 1 | | |
| 2 | | |

LOCATION PRIORITY

- 3

ACP

MUNICIPALITY: GLEN ROSE
LOCATION: FM 202 & FM 56
ACP ID: 13
ZONE: 2J
COUNTY: SOMERVELL



- 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

DESCRIPTION

- Interdict and Divert northbound movement along FM 56.

MANPOWER/EQUIPMENT

- Traffic Guide(s)
- Traffic Barricades

LOCATION PRIORITY

3

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

ACP

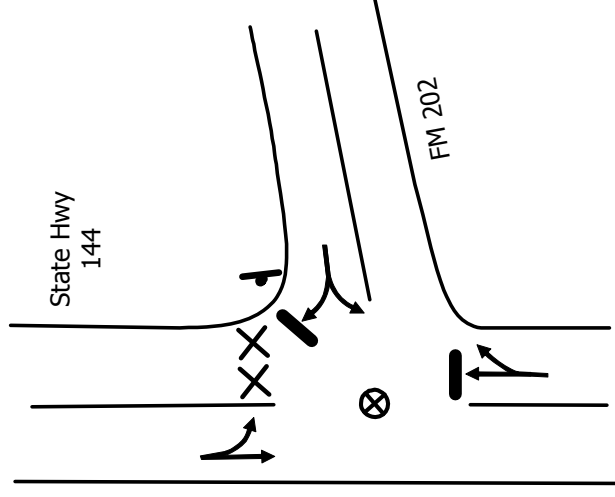
MUNICIPALITY: GLEN ROSE

LOCATION: STATE HWY 144 & FM 202

ACP ID: 14

ZONE: 2J

COUNTY: SOMERVELL



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

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

DESCRIPTION

1. Interdict and Divert northbound movement along State Hwy 144.

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 2 Traffic Barricades

LOCATION PRIORITY

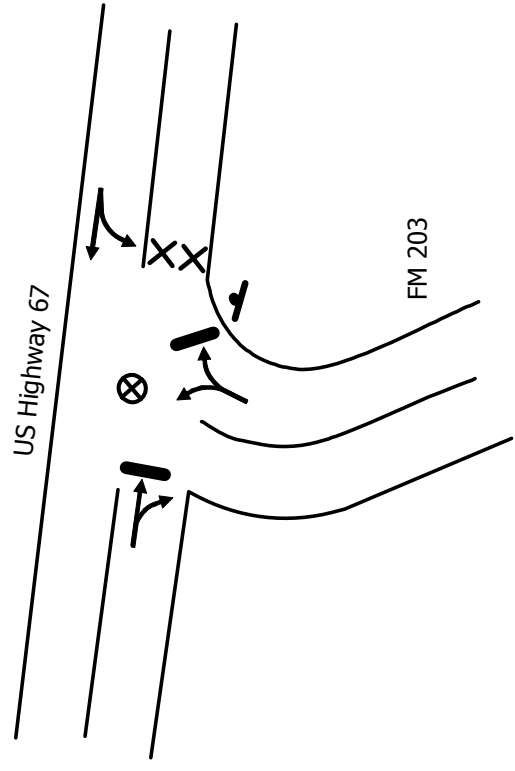
- 2

ACP

MUNICIPALITY: GLASS
LOCATION: US HWY 67 & FM 203
ACP ID: 15
ZONE: 3F
COUNTY: SOMERVELL

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



DESCRIPTION

- Interdict and Divert eastbound movement along US Hwy 67.

MANPOWER/EQUIPMENT

- Traffic Guide(s)
- Traffic Barricades

LOCATION PRIORITY

-

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

ACP

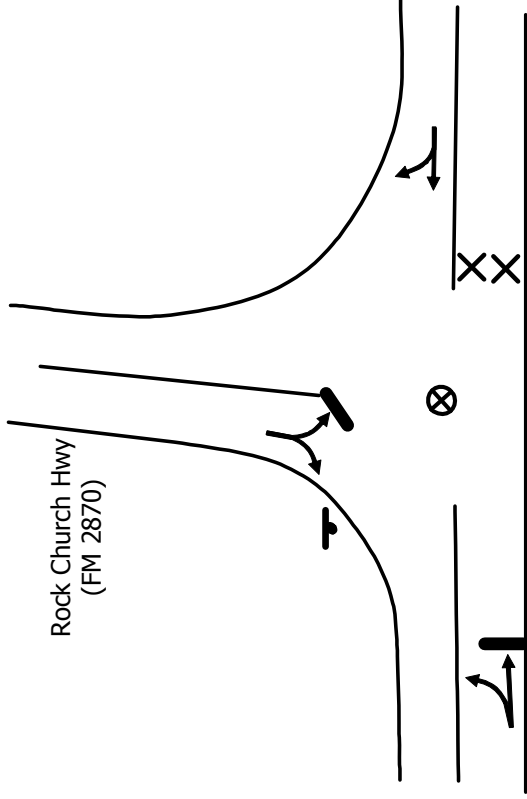
MUNICIPALITY: STEPHENVILLE

LOCATION: FM 205 & FM 2870

ACP ID: 16

ZONE: SHADOW

COUNTY: ERATH



Chalk Mountain Hwy (FM 205)

****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 |

DESCRIPTION

1. Interdict and Divert eastbound movement along FM 205

MANPOWER/EQUIPMENT

- 1 Traffic Guide(s)
- 2 Traffic Barricades

LOCATION PRIORITY

3