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CHAPTER ONE
TEACHING PROFESSIONAL DRIVERS

This chapter is a comprehensive summary of teaching principles and methods to help you learn how to teach safe driving techniques to professional drivers.

Think of it as a reference document—a resource to guide you as you implement your curriculum.

Let’s start by defining your role...

A DRIVER INSTRUCTOR IS A TEACHER AND A TRAINER
Even though trainer is the most commonly used word, you are also a teacher. Training is the process of drilling until the correct procedure is mastered. Teaching involves imparting information, guiding, or showing by example. Driver instruction involves both processes. Your students must not only understand What and Why (which you will teach), they must also master How (which you will train).

THE SIX PRINCIPLES
Effective instructors practice the following six principles:

1. Know your subject and prepare well. (Knowledge & Preparation)

2. Provide relevant instruction. (Relevance)

3. Create a safe learning environment. (Safety)

4. Use a variety of teaching methods. (Variety)

5. Evaluate constructively. (Evaluation)

6. Be sensitive to individual concerns and responsive to feedback. (Listening)
The six principles are written here as a list. But it is more accurate to display them as a continuous circle. We start with our own knowledge and skill and complete the circle by listening to our students. What we learn from them increases our knowledge and skill and allows us to produce better instruction. The circle of teaching and learning is therefore continuous. As long as we teach, we continue to learn, which keeps the whole process fresh, interesting, and alive.

Here are the six principles displayed as a continuous circle.
CHAPTER ONE: TEACHING PROFESSIONAL DRIVERS

PRINCIPLE ONE: KNOW YOUR SUBJECT AND PREPARE WELL

Knowledge and Skill

With teaching you have to have knowledge. With training you have to have skill. Driver instructors must possess both knowledge and skill. With knowledge and skill you will gain the respect of your drivers and they will listen to you. They won’t say to themselves: “Why is this so-and-so up there teaching me when I know as much he or she does?” If they draw that conclusion, particularly in the beginning of training, you will have a hard time convincing them otherwise, and an even harder time getting them to listen to you. So be certain that you have the knowledge and expertise you need before you start teaching or training.

Prepare Well

The six P’s of an effective presentation are:

PROPER PRESENTATION AND PRACTICE
PREVENT POOR PERFORMANCE.

Creative Training Techniques Handbook, by Bob Pike

If you are teaching a defensive driving class, for example, prepare your presentation well and then spend whatever time is necessary alone, practicing it out loud. Time the presentation so that you know you have a enough to time to deliver all the material, and practice what you intend to say so that it comes out in a clear and concise way. More to the point, practice what you teach so well that you can turn your attention away from yourself in the classroom to focus on the students and how well they are learning what you are teaching.
PRINCIPLE TWO: PROVIDE RELEVANT INSTRUCTION

People are born with intrinsic motivation, self-esteem, dignity, curiosity to learn, joy in learning.

- Dr. W. Edwards Deming

We observe the joy of learning by watching any group of pre-school children interacting with their environment.

So what happens? What goes wrong? Why does our intrinsic motivation to learn so often dissolve by adulthood? Why are so many adults resistant, discouraged learners?

The answers to these questions can be traced to the public school system after the fun times in pre-school and kindergarten are over. Our method of teaching children in public schools causes many adults to dislike and resist learning. This is because, as school children, we were:

- confined to a desk in a classroom
- taught primarily by lecture—the least effective teaching method
- taught abstract information irrelevant to their present concerns
- taught in extremely large groups, overlooking the unique needs of each individual
- repeatedly tested and threatened with the shame of bad grades and failure

Even though there are many talented teachers who make learning interesting and rewarding, it is not uncommon for people to leave school discouraged about learning. Nonetheless, adults are goal oriented. They can reawaken their interest in learning if motivated to do so.

Researcher Malcolm Knowles identified the characteristics of adult learners. He
found that adults are:

- self-directed
- conditioned by life experience
- problem-centered
- motivated by self-interest

Therefore, if adults recognize that a learning activity is relevant and will benefit them in tangible ways, they will set aside their resistance to learning. Over time they may even re-awaken their intrinsic joy of learning.

So, how do we provide relevant education? We make certain that what we teach helps our students further their personal and professional goals.
PRINCIPLE THREE: CREATE A SAFE LEARNING ENVIRONMENT

Adults are conditioned by life experience. Each adult comes to class with a unique set of skills and experiences, with a defined personality, and with an attitude toward learning. Your task is to help each adult learner feel comfortable and safe in the learning environment so that they are willing and able to learn something new or to change an existing behavior. It is especially important that they are neither shamed nor blamed. If they are, they will perceive this as a threat, and will either fight, flee, or freeze. If they fight with you, you will probably lose the battle and the respect of the class. If they flee, they will lose an important training opportunity that may be necessary for their career. If they freeze, they are, at that point, incapable of learning.

To understand why freezing prevents learning, we need some basic information about how the human brain functions.

The Human Brain
The brain is obviously complex, with many parts and layers not labeled in the drawing. What we see are the three most prominent parts of the brain: the cerebral cortex (also called the cerebrum), the cerebellum, and the medulla oblongata.

The cerebrum is the largest part of the human brain. It is the only region of the brain that can reason and learn abstract information like mathematics or traffic laws. It also contains our emotional brain, tucked in at the base of the cerebrum. The emotional brain is often called the limbic brain, and it governs all of our emotional responses.

The cerebellum governs voluntary muscular movement and coordination. Driving habits, for example, are governed by the cerebellum.

The medulla oblongata regulates physical functions like digestion and respiration.

The cerebrum is the part of the brain that makes us human. The cerebellum and medulla oblongata are considered more primitive than the cerebrum because we share those parts of the brain with all mammals and reptiles.

As long as we feel safe, the whole brain functions as a system. We are able to learn, think, write, play music, do math, and experience human emotions tempered by reason, even while we are doing something physical like driving, running, or playing sports.

Unfortunately, the higher functions of the brain shut down when we experience danger and the urge to fight, flee, or freeze. Then only primitive parts of the brain remain active. This is one reason why students in violent inner-city schools often do poorly in school. Learning cannot occur when people are chronically afraid.

Of the three possible responses to danger, fighting and fleeing allow us to take action to protect ourselves from danger. When we can’t fight or flee, our only remaining option is to freeze. Sometimes we have the option to fight or run, but we freeze out of sheer terror.

One of the best examples of this phenomenon occurs on the battlefield. Researchers have found that, because of freezing, only a fraction of soldiers on the frontlines can be counted on to aim and pull the trigger!

A threat that causes severe freezing can lead to post-traumatic stress disorder (PTSD), common among veterans. Students who are chronically bullied or
develop a condition called complex post-traumatic stress disorder, which develops over a period of time. PTSD is a severely disabling condition that can affect every aspect of one’s life.

Some people have traumatic memories from school, even if those memories never diagnosed at PTSD. Those memories can make us hypersensitive to the learning environment. Therefore a teacher must create a safe learning environment and take great care to never violate that trust throughout the educational process. This means that individuals must feel physically and emotionally secure. It is especially important that they not be shamed or ever made to feel stupid for making a mistake or asking a question. This is, of course, particularly important if the student has a learning disability.

One way to avoid shaming a student is to make certain the curriculum matches the student’s ability to learn. At its most basic level this means not giving written assignments or handing out written materials to individuals who can’t read or write well enough to complete the exercises. But there is more. We need to develop teaching tools that appeal to different learning intelligences.

Learning Intelligences

According to the initial research of Harvard psychologist, Howard Gardner, people learn in at least seven different ways. Those seven ways are:

1. Logical-mathematical (math/science aptitude)
2. Musical
3. Bodily-kinesthetic (athletic ability)
4. Linguistic (language skills)
5. Spatial (mechanical and/or visual arts aptitude)
6. Interpersonal (ability to socialize)
7. Intrapersonal (knowledge of oneself)

Later Dr. Gardner added two more intelligences: Natural (innate understanding of nature) and Spiritual (innate understanding of the spiritual realm).
Everyone has a unique mixture of these intelligences. Some people do not learn language or math easily, but they may have excellent mechanical, interpersonal, or athletic intelligence. They can’t read well or compute complex math problems, but they can maneuver a large vehicle skillfully, understand its maintenance needs, and always have a kind word for their passengers. Our society values linguistic and math intelligences above the others, but the truth is we are smart in different ways, and one intelligence is intrinsically no more valuable than another.

Your task is to present information in ways that complement different learning abilities. Doing so provides a safe learning environment where everyone has the best chance to succeed.
PRINCIPLE FOUR: USE A VARIETY OF TEACHING METHODS

*If you tell me, I forget.*
*If you show me, I remember.*
*If you involve me, I understand.*

- Chinese Proverb

People love variety and they want to be actively involved in learning. Therefore it is necessary to use a variety of teaching methods, with a strong emphasis on student involvement.

The six recommended teaching methods are:

1. DEMONSTRATION
2. SIMULATION
3. ANECDOTES & SCENARIOS
4. SMALL GROUP DISCUSSION
5. INTERACTIVE LECTURE
6. AUDIO/VISUAL

Each method is described below in some detail to help you understand how to incorporate them into your curriculum.

**Method 1: Demonstration**

This is the most common teaching method used in driver instruction. You demonstrate to a new employee such things as the pre-trip vehicle inspection, boarding passengers, and basic vehicle operation.

The key to effective demonstration is thoroughness, pacing, and practice. You must be certain to cover every important point, leaving nothing out. Be sure to proceed at the learner’s optimal pace. (If the demonstration is too quick, important information will be missed. If too slow, the learner may become bored and distracted.) Once the demonstration is finished, insist that the new employee practice the new skills to proficiency. Check with the student periodically to make sure that the techniques are being practiced in the right way. The only way to learn a new skill is: PRACTICE, PRACTICE, PRACTICE.


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**Method 2: Simulation**

A simulation is an exercise that duplicates, as closely as possible, the appearance, form, or effects of real life. Simulation is also referred to as "role playing".

You are encouraged to duplicate the simulations you experience during the ITC. However, be cautious if you intend to devise your own simulations. Simulations can backfire if they are not designed properly.

**Method 3: Anecdotes & Scenarios**

An anecdote describes a real-life situation that sheds light on the instructional material. Anecdotes are effective because they are essentially a story, and people not only love stories, they are more attentive when stories are told. A good anecdote is simple, stylish, and straightforward, never long-winded, confusing, boring, or insulting.

Scenarios convey information and test knowledge. Teachers describe a real-life scenario to the class. Students are asked to tell how they would respond to that scenario. Their answers indicate how well they are prepared to handle their duties.

**Method 4: Small Group Discussion**

Informal discussion occurs in most classrooms. However, small group discussion is a particular method of teaching used with groups of, say, 6 to 12 people. Small group discussions occur most frequently at safety meetings, but may be appropriate in other settings as well.

One of the best ways to stimulate discussion at a safety meeting is to ask an open-ended question. For example, ask the group the following question: "Describe your most important safe driving habit." Or ask: "What do you believe is the most dangerous intersection in town?" These questions cannot be answered yes or no. Differences of opinion invite lively discussion and an opportunity for drivers to share their valuable expertise with each other.

To facilitate group discussion, one must understand the principles of group dynamics.

**Forming, Storming, Norming and Performing**

All group dynamics occur in four stages. These stages are called Forming, Storming, Norming, and Performing.

**Forming:** In this initial stage, a number of people come together for a
common purpose such as a safety meeting. They begin as a collection of individuals with unrelated concerns and priorities. They may be uninterested in participating in the safety meeting and may actively resist any attempt at involvement. The facilitator helps by creating a safe environment, addressing legitimate personal concerns (like someone planning to leave early), and presenting a relevant agenda that the participants find interesting.

**Storming:** When the participants recognize the value in the session, each individual will try to fit into the group. Individual issues and concerns will be raised such as disagreements with portions of the agenda or with statements made by other participants. These issues must be openly addressed and resolved before the group can develop further. Though many people are uncomfortable with conflict, the facilitator must not suppress the storming stage or the group will never learn to work together. The mark of a good teacher is one who skillfully navigates through the storming stage.

**Norming:** When the individual issues are resolved, members are able to work together to establish the ground rules for group participation. Sometimes these are formal agreements, but often it is as simple as a feeling—an unspoken agreement that everyone will participate and no one will undermine the process.

**Performing:** In the final stage, the group functions as a unit and the members work together productively. Group goals are now achieved. In a safety meeting, this would be the time when everyone is sharing easily and openly with each other and a great deal of valuable learning occurs.

**Method 5: Interactive Lecture**

We are all familiar with classroom lecture, where the teacher talks and students listen. While this teaching method has value in specific circumstances, it does not promote involvement. Therefore we do not recommend straight lecture. If you are required to teach classes, we suggest you employ the *interactive* lecture method instead, which does promote involvement. Here are the important guidelines for presenting an interactive lecture:

- Prepare thoroughly and know your subject well. Use cue cards or notes if you need them, but do not ever read your presentation. You'll lose your audience if you do.
- Speak loudly, slowly, and clearly so that everyone in the room can understand you. If your voice is muffled or you rush your words you will lose your audience.

- Avoid turning your back to the audience. Whenever possible, write on the blackboard or flipchart before the class assembles.

- Use visual aids.

- Don’t create or allow distractions. Remember, most people will prefer to focus on the distractions. (One of Johnny Carson’s most memorable monologues had nothing to do with what he said and everything to do with the fact that his fly was unzipped!) One of the worst distractions is to talk about one subject while information on another subject appears on the blackboard, flipchart, or overhead projector. People’s attention will wander to the other subject.

- Use body motion to focus and keep attention. People concentrate for 10 to 15 seconds and then their minds wander. You must continually bring them back to the subject. Move back and forth around the room. Make a statement and then move across the room in front of an individual and ask that person, “How do you feel about it?” (Do not point your finger; use your whole hand.) Another way to refocus attention is to tell a story.

- Pay careful attention to the group dynamics. Encourage participation but keep control of the lesson plan.

- Have fun. Interactive lecture should be fun and instructive.

Interactive lecture is a two-way street. Students are encouraged to ask questions and make comments and suggestions. It is generally open-ended and quite lively. Seeking participation in the form of questions and comments is an acquired skill. Here are the guidelines:

- Inform the participants that you encourage and expect questions.

- Respond positively to the first question asked. Students will be observing you closely to determine how serious you are about entertaining questions.

- Watch non-verbal behavior. You can often detect a desire to ask a question
or challenge a point from facial expressions and body language without waiting for someone to interject or raise their hand.

- Remind the group that there are no stupid questions. If one person is wondering about something, chances are someone else is too.

- Repeat or rephrase a question to clarify your understanding of it, and to ensure that all other students heard it.

- Pause after calling for questions. Five or ten seconds may seem like a long time, but the pressure is equally high on the group.

- Never ask if there are any questions immediately before scheduled coffee breaks, mealtime, or dismissal time. The higher priority of these events will either inhibit questioning or make the questioner very unpopular.

- Don’t imply that you are rushed for time, but (reluctantly) could answer one or two questions. It will be very clear that you prefer none.

One of the risks in interactive lecture is that you might lose control of the class. Your worst fears may materialize with disruptive or dominating students. Therefore you must learn how to deal effectively with the disruptive students while still maintaining the spirit of interaction.

Before talking about disruptive students, we need to make an important distinction: An individual who is constructively wrestling with the issues in the storming stage of group dynamics is NOT a disruptive student. While their actions may be temporarily disruptive, this individual is actually helping the whole group work through the stages of group dynamics.

That said, here are some examples of typical disruptions and suggestions for managing them well.

**Too talkative.** Cut across his or her talk with a summarizing statement and direct a question to someone else. If they persist, ask another student for their opinion.

**Too Helpful.** Even the right answer can keep others from participating. Thank them and direct a question to someone else.
Angry. Recognize legitimate objections. Agree with them if this helps defuse the emotion. If all else fails, ask them to hold onto that feeling and talk to them privately during the break.

Talking about the wrong subject. Re-focus the discussion on the topic. Say something like, “That is interesting, but we have to move on.”

Not comprehending. Check with others to see if they are also lost. If so, make the necessary adjustments in the curriculum. If not, provide special teaching outside of class for the struggling individual.

Side conversations. 1) Pause and let others listen to the conversation. Walk over to them and stand right by them. They will stop talking when they realize attention has been focused on them. 2) Draw them back into your discussion by asking them a direct question related to the topic.

Dominating. Individuals who try to control the discussion will disturb others in the class. Ask others their opinion about the topic at hand. This shifts the focus away from the dominator and/or allows others to attempt to quiet this person down. ABOVE ALL, DO NOT GET INTO AN OPEN POWER STRUGGLE. It is better to take the individual aside and tell them how they will have to behave to remain in the class.

Method 6: Audio/Visual Presentations
People often expect to be taught with visual aids. Therefore, PowerPoint presentations, overheads, slides, flipcharts, DVD’s and videos are useful tools in the classroom.

Here are some suggestions about using audio/visual aids:

- Videos, PowerPoint presentations, and overheads must be high quality. Prepare overheads carefully, making sure they are easy to read at a distance.

- Don’t put all your material on an overhead or a PowerPoint presentation and then read it to the class. Nothing is more deadly boring. Slides should introduce the topic or provide an outline, upon which you elaborate.

- Choose videos and DVD’s that are relevant to your teaching goals and those that hold the viewer’s attention. We live in a media age where everyone is a critic. If a video or DVD doesn’t measure up it will be ignored or ridiculed. To be effective, they must be RELEVANT, INNOVATIVE, VISUALLY PLEASING, AND MEMORABLE. The three best applications are:
1. Interactive videos and DVD's where the action stops periodically to involve the participants in problem-solving and/or discussion;

2. Those that depict highly charged real-life circumstances that drivers can relate to;

3. Those that use humor to make an important point.

Our lending library is an excellent resource for audio/visual presentations.
PRINCIPLE FIVE: EVALUATE CONSTRUCTIVELY

As a driver instructor, you will be asked to judge your students' competencies. When you sign off on their training, you must weigh all the facts and ask yourself, "Is this a safe driver?" Your appraisal must be done objectively. You cannot allow personal likes and dislikes to influence the appraisal process. If they need additional training or you notice other problems having to do with attitude or behavior, you must point this out and give them an opportunity to correct the problems.

Always be tactful when pointing out areas that need improvement and be sure to give praise when the driver demonstrates competency. Criticism without praise will seem punitive.

As awkward as it may be, there will be times when there is nothing to praise. In such cases, be honest. Don't make things up because you feel badly for the person. We deal with life and death circumstances in professional driving. We can't afford to let sentimentality influence our judgment.

Nonetheless, students are in a vulnerable position when being evaluated. You can either build their self-confidence or destroy it by how you evaluate their efforts. So you need to be professional, but considerate and kind at the same time. Even if there is nothing positive to say, you can still be professional and kind. Let the individual know that you care about them as a person, but that you must be honest about their performance.
PRINCIPLE SIX: BE SENSITIVE TO INDIVIDUAL CONCERNS AND RESPONSIVE TO FEEDBACK

You have two ears and one mouth. Use them in that proportion.
- Teacher’s adage

This wise adage tells us it is more important for a teacher to listen than to talk. Yet it seems that many teachers practice just the opposite. They spend most of their time talking, with very little emphasis on listening.

Why is this vital principle so often overlooked? Two reasons:

1. Listening and responding takes extra time, effort, and commitment.
2. It’s scary to listen to feedback; after all, you may hear criticism.

Nonetheless, listening to your students is the only way to succeed as a teacher. You must invest the time; you must take the risk. Anyone can stand up in front of a class and deliver rigid, pre-packaged information. A true teacher is open, flexible, and interested in crafting the content and presentation to fit the needs of the participants.

You can receive feedback either indirectly or directly. The indirect method is the process of picking up whatever information you can from conversations, body language, and innuendo during the class. It is a practice of paying careful attention and correctly interpreting subtle clues. The obvious shortcoming of this method is that you may miss clues or interpret them incorrectly.

If you think something is amiss, it is best to address the class directly and ask for their feedback. You can also take an individual aside and ask them if they understand the information or if they have any special needs. You don’t have to wait until the end of the seminar to ask for feedback. If you notice a simulation, for example, seemed to go poorly, ask for feedback and suggestions and then move on.

The most common (and least effective) way to get feedback is to give people a minute or so to complete a written evaluation at the end of the session. They are nicknamed Smile Sheets because they often elicit sunny, uncritical responses.

Think about the seminars and workshops you’ve attended. At the end, the
instructor breathlessly says, "Oh by the way, be sure to fill out your evaluations." The seminar is over; you're anxious to leave; and so you hastily check all the boxes marked good or excellent and run out the door.

Unless one has a real gripe, most people prefer to give positive comments because it takes the least amount of effort and it doesn't hurt anyone's feelings. Many trainers like written evaluations because they make them look good. It's easy to dismiss one or two criticisms when compared with all the positive comments. The problem here is that the instructor loses an opportunity to grow and improve.

Any instructor who really wants constructive criticism will find a way to get it. If there truly is no time or opportunity for more effective evaluations, then use the written evaluation method, but be sure to give enough time for people to really give thoughtful consideration at the end of the session. Let them know that you are particularly interested in knowing how they think you can improve your presentation.
# CHAPTER TWO
## PRINCIPLES OF DEFENSIVE DRIVING

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CHAPTER TWO
PRINCIPLES OF DEFENSIVE DRIVING

PRINCIPLE ONE: OBEY THE LAW

Teaching Notes:

1. Every year Americans are involved in 11 million vehicle accidents. Approximately 40,000 Americans die in these collisions. By 2006, nearly 3.5 million Americans have died in auto accidents since we began keeping records in 1899. To put that number in perspective, less than 1.5 million Americans died in the Revolutionary War, Civil War, World Wars I & II, Korean War, and the Vietnam War combined.

2. Many auto accidents occur because people break the law (speeding, running red lights, etc.)

3. To avoid collisions, professional drivers must be committed to the discipline of obeying the law whenever they operate a vehicle.

Exercise: Consequences of Breaking the Law
Ask the class:

- **What happens when we break the law?**
  The answers you are looking for are: 1) a ticket, 2) an accident causing property damage only, 3) an accident causing property damage and injury, or 4) an accident causing a fatality.

- **What is the most likely outcome?**
  The class will probably say a ticket or an accident of some sort. They may be surprised when you tell them the correct answer is: NOTHING!

- **What is the problem with NOTHING HAPPENING most of the time?**
  Explain that this creates negative reinforcement and complacency, and so we might get in the habit of breaking the law. We lose track of the fact that when we break the law we are actually playing Roadway Russian Roulette. Something bad will happen eventually.
CHAPTER TWO: PRINCIPLES OF DEFENSIVE DRIVING

PRINCIPLE TWO: WATCH OUT FOR OTHER DRIVERS

Teaching Notes:

1. **We all drive poorly some of the time.**
The Insurance Institute for Highway Safety recently conducted a study wherein a large group of drivers were asked to rate their skill and safety “compared to other drivers on the road.” Twenty-three percent of the respondents rated their attention to safe driving practices as *much better than average*, fifty-six percent said they were *better than average*, and twenty percent said they were *average*. None of the drivers surveyed said their driving skills were *below average*. Yet we all know there are bad drivers on the road. Who are those bad drivers? The truth is: we all drive poorly *some of the time*. Admitting this helps us understand why our roadways are so unpredictable and why we should always watch out for other drivers.

2. **Therefore we should be vigilant (but not paranoid).**
Some people will operate a vehicle regardless of their mental, emotional, or physical condition. We should therefore always remain vigilant to inconsistent and erratic behavior of other drivers.

Paranoia is an unfounded or exaggerated distrust of others. There are some dangerous people and situations on the roadway and there are millions of collisions each year in America. But if you think about the number of vehicle trips you have made in your lifetime, it is obvious that most of the time we get to our destination safely. Therefore good defensive drivers are vigilant—but not paranoid—about the driving environment.

*Exercise: Rate Your Driving*

Ask the following questions in your class and discuss the responses.

- **Do you consider yourself: 1) a better than average driver, 2) an average driver, or 3) a below average driver?**
  
  Rarely if ever will anyone in the class consider themselves a below-average driver. Discuss the fact that national surveys also indicate that few if any people consider themselves below average drivers.
- **Do you think there are poor drivers on the roadway?**
  Everyone will say, "Yes, there are poor drivers." Ask them to identify poor driving behaviors. Write a list on the blackboard or flip chart.

- **Ask if anyone in the class has ever done any of these behaviors?**
  Most people will admit they do some of those things from time to time. Make the point that we can all be poor drivers at times, which is why we must be vigilant on the roadway. You never know who may be having a bad day.
PRINCIPLE THREE: PAY ATTENTION TO HOW YOU FEEL

Teaching Notes:

1. **Accidents are unintended events.**
   Accidents may appear random, but we can take steps to reduce the likelihood of accidents occurring. The possible causes of accidents are:
   - anger
   - fatigue (sleep debt)
   - distractions by personal issues, the driving environment, passengers, or radios and cell phones
   - stress
   - being under the influence (of legal or illegal drugs)
   - illness

2. **Sleep debt**
   Short-term sleep debt is a serious concern for professional drivers. According to Dr. William Dement, M.D., Ph.D. of Stanford: *Accumulated lost sleep is like a monetary debt: It must be paid back.*

   No one knows the consequences of long-term sleep debt, but recent loss of sleep must be made up or we will be drowsy and ineffective. If, for example, we need seven hours of sleep each night and only get four hours for two nights in a row, we must make up those six hours of lost sleep to function at our best.

---

3. **Driving is a juggling act.**
We can only juggle so many things before there is a mishap. Accidents are more likely to occur as our level of awareness decreases and/or the level of complexity increases.

4. **If we are not fit enough to drive, it is our responsibility to either remedy the situation or take ourselves off the road until our condition improves.**

*Exercise: Juggling*
To demonstrate the complexity principle, throw one ball in the air and catch it. Then alternately throw one ball from each hand and catch them. Then try to juggle three balls. If you can’t juggle three balls, one ball will drop. If you can juggle three balls, add as many balls as you can until they start to drop, which is your threshold for complexity. This exercise demonstrates that, while we vary, each of us can only handle so many things at once. It also demonstrates that with training and practice we can increase our complexity threshold.

*Discussion: Sleep Debt*
Initiate a discussion about the consequences of sleep deprivation. Ask the class what they think caused the Exxon Valdez accident. (Some may remember the media reports that blamed the accident on the ship captain’s problem with alcohol.)

Then read the following quote from Dr. Dement’s book to point out that sleep debt was the actual cause:

> Out of the vast ocean of knowledge about sleep, there are a few facts that are so important that I will try to burn them into your brain forever. None is more important than the topic of sleep debt. If we can learn to understand sleep indebtedness and manage it, we can improve everyday life as well as avoid many injuries, horribly diminished lives, and premature deaths. (Pg. 51)

> In its final report, the National Transportation Safety Board (NTSB) found that sleep deprivation and sleep debt were direct causes of the Exxon Valdez accident. This stunning result got a brief mention in the back pages of the newspapers.
The report noted that on the March night when the Exxon Valdez steamed out of Valdez there were ice floes across part of the shipping lane, forcing the ship to turn to avoid them. The captain determined that this maneuver could be done safely if the ship was steered back to the main channel when it was abeam of a well-known landmark, Busby Island. With this plan established, he turned over command to the third mate and left the bridge. Although news reports linked much of what happened next to the captain’s alcohol consumption, the captain was off the bridge well before the accident. The direct cause of American’s worst oil spill was the behavior of the third mate, who had slept only 6 hours in the previous 48 and was severely sleep deprived.

As the Exxon Valdez passed Busby Island, the third mate ordered the helm to starboard, but he didn’t notice that the autopilot was still on and the ship did not turn. Instead it plowed farther out of the channel. Twice lookouts warned the third mate about the position of lights marking the reef, but he didn’t change or check his previous orders. His brain was not interpreting the danger in what they said. Finally he noticed that he was far outside the channel, turned off the autopilot, and tried hard to get the great ship pointed back to safety—too late. (Pg. 52-53)

Also read the following out loud about sleep debt being the cause of the space shuttle Challenger accident:

An even more dramatic tragedy was the explosion of the space shuttle Challenger. After a yearlong investigation, the Rogers Commission declared that in the absence of adequate data on O-ring function at low temperatures the decision to launch the rocket was an error. Those of us who saw this catastrophic event on television over and over and over know the ghastly consequences of that error. But not well known at all is the fact that the Human Factors Sub-committee attributed the error to the severe sleep deprivation of the NASA managers. This conclusion was only included in the committee’s final report, which only noted that top managers in such situations are generally the ones who sacrifice the most sleep. (p. 53)
PRINCIPLE FOUR: PRACTICE SAFE DRIVING HABITS

Teaching Notes:

1. Safe driving habits protect us even under adverse circumstances. Drivers should repeat the following nine behaviors until they are habits, meaning that they occur automatically.

   - Scanning
   - Visual Lead Time
   - Space Cushion
   - Four Second Rule
   - (IPDE) Identify, Predict, Decide, Execute
   - Smooth Acceleration & Deceleration
   - Safe Lane Changes
   - Safely Entering and Exiting Intersections
   - Safe Backing

2. Changing habits requires repetition.

*Exercise: Arms Folded*

To demonstrate the difficulty of changing a habit, ask the class to fold their arms, which they will do in their usual way. Then ask them to fold their arms the other way, which will feel awkward to them. Ask them how they could make the awkward way feel natural. The answer is: *time and practice.*

*Discussion: Safe Driving Habits*

Hand out the following description of the Safe Driving Habits (or the more detailed description in Chapter Four) and discuss each one.
SAFE DRIVING HABITS

Scanning
- Check all mirrors and the entire area around the vehicle every 5 seconds.
- Avoid Tunnel Vision or Highway Hypnosis by scanning the ever-changing Big Picture.

Visual Lead Time
- Aim high.
- Focus far enough ahead to notice and react to changing traffic patterns and potential hazards.

Space Cushion (also called the Safety Circle)
- Keep a boundary or safe distance between your vehicle and all other vehicles on the road: front, sides, and back.
- Always leave an out.

Four Second Rule
- Maintain at least four seconds of space between your vehicle and the vehicle ahead, regardless of the speed at which you are traveling.
- Determine four seconds of distance by observing the car ahead as it passes a fixed object—like a sign along the road. Then see how long it takes your vehicle to reach that sign. Count the seconds (one one-thousand, two one-thousand, etc.). If you pass the sign earlier than four seconds you are following too closely. In adverse conditions, like a rainstorm, increase your frontal space cushion to five or six seconds.
- Beware of staged accidents. Be watchful of any car ahead that is purposefully shrinking your space cushion.

IPDE (Identify, Predict, Decide, Execute)
- Identify potential hazards.
- Predict likely outcomes.
- Decide what actions to take to avoid a collision.
- Execute evasive maneuvers.
Smooth Acceleration and Deceleration

- Slow, smooth acceleration and deceleration saves wear and tear on tires and brakes. It also establishes a style of driving that is conducive to safety.
- Slow, smooth acceleration and deceleration is particularly important when transporting frail elderly and disabled passengers.

Safe Lane Changes

- Check blind spots in convex mirrors or with a head check.
- Signal your intention to change lanes well in advance of the maneuver (at least five seconds).
- Avoid driving in another driver’s blind spot.

Safely Entering and Exiting Intersections

- Take no intersection for granted. Drivers regularly run stop signs, turn improperly, or fail to yield the right-of-way.
- After a light turns green, wait a couple of seconds and look both ways before proceeding.

Safe Backing

- 40% of the pool’s accidents involve unsafe backing because of the rear blind spot in vans, buses, and trucks. (Yet drivers do not back up 40% of the time!)
- Drivers must determine that the area behind their vehicle is clear before backing by using a rear cross view mirror, a camera, an electronic sensor, or an assistant outside the vehicle.
- If none of the above is available, the driver must visually inspect the area behind the vehicle and then back up without delay. Conditions behind the vehicle can change rapidly.
CHAPTER TWO: PRINCIPLES OF DEFENSIVE DRIVING

ALCOHOL & DRUGS WORKSHEET

Answer the following questions.

Circle One

1. T F Most alcoholics are derelicts.
2. T F You can inherit a tendency toward alcoholism.
3. T F Few drunk drivers are “social drinkers.”
4. T F A “Kamikaze” or a “Long Island Iced-Tea” should be considered “one drink.”
5. T F Someone who drinks 5 shots of Tequila will be more intoxicated than someone who drinks 5 beers.
6. T F Marijuana and alcohol have a similar effect on a driver.
7. T F Marijuana can affect you many hours after you use it.
8. T F Marijuana cannot cause cancer.
9. T F Alcohol use can cause ulcers, cancer, and birth defects.
10. T F If arrested for DUI, you have a right to a lawyer and/or a doctor during your chemical test.
11. T F If your BAC is under .08 you can still be convicted of a DUI.
12. T F If you are taking prescription drugs you can’t be arrested for driving under their influence.
13. T F Cocaine counteracts much of the impairment a driver experiences under the influence of alcohol.
14. T F Many people take PCP (Angel Dust, KJ) by accident.
15. T F Methamphetamine (Meth or “Ice”) is less dangerous than other drugs because it is made from over-the-counter drugs like Sudafed and Contac.
16. T F The effects of depressants combined with alcohol are more dangerous than the effects of either alone.
17. T F Some drugs can be detected for up to 30 days following their use.
CHAPTER TWO: PRINCIPLES OF DEFENSIVE DRIVING

ANSWERS TO ALCOHOL & DRUGS QUIZ

Here are the answers to the quiz you just completed on drugs and alcohol. You may be surprised by some of the answers because they contradict popular belief. Many people are misinformed about the effects of drugs and alcohol on driving behavior. As a professional driver you must have precise knowledge about this important subject. Your job and your life may depend on it!

1. Most alcoholics are derelicts.
   Answer: FALSE.
   Less than 1% of alcoholics in America resides on skid row or is what we would call “homeless.” The average alcoholic in this country is a male, 30-45 years old, who owns a home, has a job, is married, and drinks beer.

2. You can inherit a tendency toward alcoholism.
   Answer: TRUE.
   A Harvard Medical School study released in the spring of 1987 shows that male or female children of alcoholics have a five times greater risk of being alcoholic, even if raised in a separate environment.

3. Few drunk drivers are “social drinkers.”
   Answer: FALSE.
   Nearly half of the over 300,000 Californians convicted every year of drunk driving will never be arrested again. They are average citizens and social drinkers who have learned a painful and expensive lesson.

4. A “Kamikaze” or a “Long Island Iced-Tea” should be considered one “drink.”
   Answer: FALSE.
   A drink should be considered one ounce of 80-proof liquor. This one-ounce has about the same amount of ethyl alcohol (the part of liquor that gets people intoxicated) as one 12 oz. beer or one 4 oz. glass of wine. A “Long Island Iced-Tea” has 4 to 5 (1 oz.) shots of 80 proof liquor in it. That one drink is like 4-5 “drinks.” The “Kamikaze” has about 2-1/2 shots in it so it is really 2-1/2 “drinks.”

5. Someone who drinks 5 shots of Tequila will be more intoxicated than someone who drinks 5 beers.
   Answer: FALSE.
If both drinkers weigh the same amount and drink the alcohol within the same period of time, the BAC will be equal. There is the same amount of alcohol in the 12 ounces of beer as there is in the 1 ounce of Tequila.

6. Marijuana and alcohol have a similar effect on a driver.
   Answer: TRUE.
   Marijuana, like alcohol, is a depressant which affects the brain's ability to process time and spatial relationships. This function is vital for a motorist. It also distorts the transmission of visual signals affecting depth perception.

7. Marijuana can affect you many hours after you use it.
   Answer: TRUE.
   In the fall of 1985, Stanford Medical School did a study on marijuana and its delayed affects. A group of commercial airline pilots were tested in a flight simulator to establish a "base score." Then they were given very small amounts of marijuana and re-tested 24 hours later. The best performer showed a 25% skill reduction and one pilot "crashed" the simulator.

8. Marijuana cannot cause cancer.
   Answer: FALSE.
   Many people think that this is true because THC (the active ingredient in marijuana) is used by some cancer patients to relieve the side affects of chemotherapy. It is used in tablet form because marijuana smoke is 20 times as carcinogenic as cigarette smoke.

9. Alcohol use can cause ulcers, cancer, and birth defects.
   Answer: TRUE.
   Health problems related to the use and abuse of alcohol are second only to the health problems related to cigarette smoking.

   When we drink, our heart rate increases to compensate for the dilation of the blood vessels caused by the presence of alcohol. Because of this increase in the heart rate, our blood pressure rises and alcohol may feel "stimulating" to the user. In fact, it acts as an anesthetic much like ether (to which it is closely related, i.e. ethanol alcohol). That is why we refer to intoxication as "feeling no pain." Many doctors will give no additional pain medication to accident victims who have been drinking. They fear that the combination of alcohol and another drug could magnify the effects of both (this effect is called "synergism," causing respiratory failure and/or death.
**Irritant:**
Alcohol causes chemical burns to unprotected cells. This is why it burns and stings when you pour it onto a cut. It would also cause damage in the stomach were there not a coating of mucus to protect you.

**Carcinogen:**
Alcohol is a documented cause of cancer of the liver, mouth, esophagus and stomach. It also can cause a condition similar to varicose veins in the esophagus. It is the most common cause of cirrhosis. The consumption of any alcohol during pregnancy is the leading cause of birth defects and mental retardation in newborns.

**Toxin:**
A BAC (blood alcohol content) of .50 means that only 1/2 of 1% of one’s blood volume is ethyl alcohol. This amount, however, is fatal, as respiratory failure will occur. A BAC of lower than .50 can kill if the drinker is sensitive to the effects of alcohol or the alcohol is combined with dangerous drugs.

10. **If arrested for DUI, you have a right to a lawyer and/or a doctor during your chemical test.**
   Answer: FALSE.

You do not have a right to a lawyer or doctor before the test. If you are arrested, you must take one of three chemical tests (blood, breath, or urine). If you refuse the test or fail to complete it, you will still be prosecuted and the arresting officer will immediately confiscate your driver’s license, serve you with notice of suspension, issue a temporary (30 day) permit to you, and send a report with the license to the DMV. The DMV will suspend your license for one or more years (depending on prior convictions) in addition to any penalty imposed by the court.

If you are convicted of drunk driving you must serve a mandatory prison term. In addition, the financial costs of a DUI are staggering. The fine will cost between $400 and $1,000. In addition, the CHP may impound your vehicle for up to 30 days at your expense. You must pay for towing, for bail, and your legal fees. In addition, your personal auto insurance will go up approximately $1,500 a year for 3 to 7 years! Second and third DUI convictions carry even more severe penalties. If your agency is insured by Nonprofits’ United, you will be uninsurable for three years, meaning you will probably lose your job.

The truth is, you should never, ever risk being convicted of drunk driving. If you have had too much to drink at a party have someone sober drive you home, call a
cab, or sleep there overnight. Do not, under any circumstances, get behind the wheel of car!

11. If your BAC is under .08 you can still be convicted of DUI.
   Answer: TRUE

   Alcohol affects all the organs of the body as soon as it is ingested and absorbed into the blood stream. Only one or two drinks impair your reaction time. Alcohol affects a driver's eyes dramatically since they are directly connected to the central nervous system, which is depressed by the effects of alcohol. Under the influence of alcohol, glare recovery (the ability to see again after being exposed to bright lights) is seven times slower. The muscles controlling eye focus weaken and the eyes "drift" toward one another resulting in a tendency toward double vision and diminished depth perception. The "cones" (color sensitive cells) in the retina are impaired in their ability to distinguish between red and green colors. These actions can have a dramatic impact upon a driver's ability to function properly.

   Since January 1, 1990, the law says that you are assumed to be under the influence of alcohol if your BAC is .08 or higher. (Though everyone responds differently to alcohol, an average 180-pound man might register .08 BAC by having more than 2 drinks in a two-hour period.) This is the "presumptive limit," which means that at this BAC level the judge and jury are required to presume that you are impaired and the arresting officer can get a conviction very easily. However, if your BAC is at least .05 and your driving is impaired, if other drugs are involved, or if there is an accident, you can be prosecuted. Operators of commercial vehicles will be considered to be under the influence of alcohol at a BAC of just .04. Conviction results in an automatic license suspension for one year. A second conviction results in a lifetime revocation of your driver's license in every state.

12. If you are taking prescription drugs, you cannot be arrested for driving under their influence.
   Answer: FALSE

   A driver can be arrested and prosecuted when a drug affects that driver's ability to operate a motor vehicle. It is irrelevant that the driver has a prescription.

13. Cocaine counteracts many of the effects of alcohol.
   Answer: FALSE

   Alcohol is a depressant, which affects the most complex areas of the brain first, decreasing one's ability to make sound judgments and exercise reason.
Cocaine is a stimulant and will give a false sense of well-being and cause users to overestimate their skills and underestimate their impairment. This drug can prevent the driver from feeling tired, not from being tired. The synergistic effect of cocaine mixed with alcohol can cause death by heart attack or stroke.

Similarly, drinking coffee, taking a cold shower, or exercising vigorously for a short while will not make one sober. One “sobers up” only when the alcohol is out of the blood stream.

14. **Many people take PCP (Angel Dust, KJ) by accident.**
   **Answer: TRUE**
PCP is one of the street names for phencyclidine. It is also called “Angel Dust” and “KJ.” It is a powder that can be smoked, swallowed, injected, snorted, or rubbed on the skin. It is added to other drugs sold on the street such as marijuana and cocaine. This is done to make the user think the drugs they have bought are more powerful. PCP causes an increase in body temperature, hallucinations, violent behavior, and incredible strength in the user.

15. **Methamphetamine (Meth or “Ice”) is less dangerous than other drugs because it is made from over-the-counter drugs like Sudafed and Contac.**
   **Answer: FALSE**
Meth is extremely dangerous and addictive. It is a potent central nervous system stimulant that affects all the physical functions associated with alertness and the fight or flight syndrome. As with all stimulants, Meth gives one an increased sense of alertness that can lead to panic attacks, agitation, as well as irrational and aggressive behavior. An overdose of Meth causes brain damage, paranoia, delusions, and hallucinations.

16. **The effects of other depressants such as Quaaludes, Valium, or Librium, combined with alcohol are more dangerous than either one alone.**
   **Answer: TRUE**
Synergism is the action of two agents working together to produce a result, which neither is capable of achieving alone. Drugs (any drugs) combined with alcohol are dangerous because the effect can cause the heart to fail or fibrillate. The combined effects of alcohol and depressants can cause sudden respiratory failure and death, even at low levels of alcohol consumption.
17. Some drugs can be detected for up to thirty days following their use.

Answer: TRUE

Daily users of drugs that are fat soluble, like marijuana, tend to store the drug in fat cells in the body. Even after use is terminated, some of the drugs are still being released from the fat cells for some time. Some guidelines for the amount of time drugs remain in the system (i.e. can be detected by tests) are: marijuana, 1-30 days (depending on the level of use); PCP, 8 days; Valium, 3 days; barbiturates, 1-21 days; amphetamines, 2 days; cocaine, 2-4 days. These are estimates based on average urine samples and may vary from individual to individual.
# CHAPTER THREE
## PASSENGER ASSISTANCE

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CHAPTER THREE
PASSENGER ASSISTANCE

OVERVIEW

This chapter contains four sections about transporting passengers in safety and comfort. The sections are:

Sensitivity Exercises
Passenger Relations
Transporting People with Disabilities
Passenger Assistance Techniques

Your use of this material (and how much of it you teach to your drivers) depends upon the passengers you transport. Any paratransit agency that transports the general public needs all of the material contained in this chapter. Others can pick and choose, depending on their need.

Copy and hand out sections in this chapter to drivers at safety meetings and training sessions. Some of the material is purely informational, like the Myths and Facts of Disabilities, and there is one written quiz. Much of it, however, is meant to supplement hands-on training, like information about boarding and deboarding passengers and the emergency evacuation exercise. Your students read the material and then participate in a demonstration or simulation exercise.

The sensitivity exercises we teach are wonderfully illustrative; they are simulations, and as such they have a powerful effect on the participants. They are so powerful, in fact, that it is very important for you to ensure a safe environment for the participants and to reassure the participants that they will be safe at all times during the exercise. Additionally, it is extremely important that participants are “debriefed” after the exercise so they have a chance to share their experiences and let go of any anxiety or resentment that may have occurred during the exercise.
SENSITIVITY EXERCISE: ROUGH RIDE

Location: A large parking lot.

Purpose: To help drivers relate to and understand the problems and fears passengers with disabilities face when being transported.

Equipment: 1 wheelchair; blindfolds (a partial blindfold with some visual orientation is preferred); and 1 lift-equipped bus.

Caution: Describe the exercise and ask each participant if they are physically and emotionally able to participate. Of particular concern are people with lower back pain and those with traumatic memories similar to the simulation. For example, a person may have frightening memories associated with confinement or helplessness.

Be careful not to be too rough. No one should get hurt or feel like they are being abused. For many people, just being pushed around blindfolded in a wheelchair is dramatic enough. You can add some spice to the exercise by pushing the wheelchair over rough ground or accelerating and decelerating in a jerky motion, but don’t overdo it. Remember, a little insensitivity goes a long way.

Instructions: Blindfold all participants. Instruct them to refrain from speaking during the exercise.

Push each blindfolded participant around the parking lot in a wheelchair to instill the feeling that they are no longer in control. Make sure you run over rocks, twigs, and rough terrain and walk briskly to show them what it is like when a driver is insensitive or inconsiderate.

Board the participants using the lift. Stop and start the lift a time or two. Transfer the participants from the wheelchair to the seats. Drive around the parking lot or out on the street for five to ten minutes. Make brisk stops, starts, and turns to help them understand the uneasiness of not knowing in advance when the bus will stop or turn. Turn the radio up very loud. Loud noises are particularly offensive to people with visual impairments. Before the exercise ends, drive safely and be courteous to the participants to demonstrate the difference considerate and inconsiderate treatment.

If you add other components to the exercise, such as deboarding the participants and letting them stand alone for a while outside the vehicle, make sure that you look out for their safety at all times. Do not leave them unattended at any time.
After completing the five to ten minutes of driving, deboard the passengers from the vehicle. Encourage discussion. Ask the group:

How long were they in the wheelchair?
What was it like not having anyone speak to them?
How did it feel to be treated inconsiderately?
What was it like riding the lift?
Were they afraid or angry?

This exercise may evoke intense emotions; most of us are not accustomed to being powerless and treated inconsiderately—not to mention being temporarily physically disabled.

Make certain everyone has an opportunity to express his or her feelings. Help them put their feelings into perspective. Remind them this was just an exercise. They were safe at all times. Tell them the point was to evoke in them empathy for the passengers they will transport.
SENSITIVITY EXERCISE: SMOOTH RIDE

Location: On the street, free from heavy traffic.

Purpose: Because many passengers have had spinal injuries and/or have conditions that cause them pain, it is essential that the driver learn to provide a smooth ride.

Equipment: One styrofoam or paper cup full of water.

Instructions: Place one cup full of water on a level surface inside the bus. Have the trainee drive in an area free of heavy traffic that has several stop signs, uncontrolled intersections, and curves. (You should also be observing driving habits and making notes of any problems to be discussed when this exercise is completed.)

At the end of the exercise, stop and discuss where, when, and why the water spilled.
SENSIVITY EXERCISE: VISUAL IMPAIRMENT

Location: A parking lot.

Purpose: Designed to help a driver understand the needs of visually impaired passengers and passengers who are ambulatory but need to use the lift to board.

Equipment: One partial blindfold; one lift-equipped bus.

Caution: The same cautions apply as with Transporting People in Wheelchairs.

Instructions: Tie the blindfold around the person’s eyes to impair his/her vision. Walk the individual around the parking lot to instill a sense of helplessness, having the individual hold your elbow while walking. Walk the person briskly around the parking lot making sharp turns and stopping abruptly. Also walk up curbs and steps. Next, have the individual step onto the lift to be boarded onto the bus. Ride up on the lift with the person (demonstrating how much trust the passenger must have in the driver).

If there is more than one person, let each one have a turn. After completing this exercise, hold a discussion regarding the feelings the individual(s) had while blindfolded, while using the lift, and while being escorted.
SENSITIVITY EXERCISE: COGNITIVE DISABILITIES

The following text is written backwards. Interpret what is written here and follow the directions as indicated. Write with the hand you don’t usually use. You have three minutes to complete the exercise.

etirW ruoy srewsna no rehtona eceip fo repap htiw eht dnah uoy t’nod yllausu esu.

1. etirW ruoy eman sdrawkcab raen eht mottob fo ruoy repap.

2. warD a elrci ni hcae renroc fo eht repap. nehT ekam a rats edisni hcae elrci.

3. ekaM eht srebmun 1 ot 21 sdrawkcab ni eht elddim fo eht repap.

4. warD owt senil rednu ruoy eman.

5. dloF ruoy repap ni flah dna neht dlof ti ecno niaga. nehT etirw ruoy eman dna sserdda no ti.
CHAPTER THREE: PASSENGER ASSISTANCE

DISABILITY QUIZ

Please select the best answer(s) in the following two questions:

1. The “Three C’s” of passenger relations are:
   □ a. Communication, Caring and Courtesy
   □ b. Communication, Courtesy and Common Sense
   □ c. Courtesy, Caring and Careful driving

2. Select the three “Golden Rules” for serving people with disabilities:
   □ a. Understand the difference between myths and facts about disabilities.
   □ b. Always treat disabled people very kindly.
   □ c. Learn what obstacles make mobility difficult for your passengers.
   □ d. Learn correct words to use when referring to people with disabilities.
   □ e. Disabled people deserve everyone’s pity and concern.

Please mark the following “T” (true) or “F” (false)

3. T  F  People with disabilities always need help.
4. T  F  When referring to a person with a disability, always refer to the person before the disability.
5. T  F  Mentally retarded people don’t usually understand what is being said to them.
6. T  F  Most people with disabilities do not experience chronic pain.
7. T  F  Although power chairs are usually run by batteries, they should not be called electric chairs.
8. T  F  People who were born with disabilities are said to have birth defects
9. T  F  AIDS is extremely contagious and face masks should be used by drivers at all times
10. T  F  If an Alzheimer’s patient says it is all right to leave them at their drop-off, even if no one is there, then it is all right.
11. T F People with amputations often may have trouble adequately cooling their body temperature.
12. T F Arthritis only afflicts the elderly.
13. T F People with mild mental retardation often work and function similarly to non-disabled peers.
14. T F Cerebral palsy always causes mental retardation.
15. T F Most seizures are mild and short in nature.
16. T F If a passenger has a grand mal seizure, you should put a stick in their mouth so they don’t bite or swallow their tongue.
17. T F Muscular dystrophy and multiple sclerosis both cause loss of muscle control, but no loss of cognitive ability.
18. T F Quadriplegia affects only the legs.
19. T F Stroke and severe head injury often cause the same functional losses.
20. T F People with temporary disabilities are usually better able to get around than people with permanent disabilities because they are stronger from using all their muscle groups.
21. T F Aging causes the majority of all visual impairment.
22. T F Speak in a loud clear voice to blind people so they will be sure to hear you.
23. T F When assisting someone who has a guide dog, do not assist on the side where the blind person is holding the dog’s harness.
24. T F When speaking to a person who is visually impaired, always be careful not to say anything insensitive like “see you later” or “did you see that TV show last night?”
25. T F Always assist people using canes on the side opposite the cane.
26. T F It can be difficult to recognize if someone is wearing a prosthetic device.
27. T F Wheelchair brakes should always be the primary stopping device.
28. T F Ventilators may be carried in a small “luggage cart” or attached directly to a wheelchair.
DISABILITY QUIZ ANSWERS

1. b
2. a, c, d
3. F
4. T
5. F
6. T
7. T
8. F
9. F
10. F
11. F
12. F
13. T
14. F
15. T
16. F
17. F
18. F
19. T
20. F
21. T
22. F
23. T
24. F
25. T
26. T
27. F
28. T
SECTION ONE: PASSENGER RELATIONS

The Three C’s

There are three things to remember when assisting passengers: 1) communication, 2) courtesy, and 3) common sense. Practice these three “C’s” from the moment that you pick up your first passenger in the morning to when you drop off your last passenger in the evening:

COMMUNICATION: Talk with your passengers. Find out what kind of special assistance they require.

COURTESY: Keep your passengers well informed and treat them with respect.

COMMON SENSE: Ask yourself, “How would I like to be treated in this situation?” and act accordingly.

Your passengers may have one or more physical disabilities. In fact, at least ten to fifteen percent of the general public has disabilities such as arthritis, cerebral palsy, epilepsy, hearing or visual impairments, mental retardation, or neurological disorders. Remember, their disability may limit certain activities or abilities, but it does not diminish them as a person.

All people respond best to drivers who demonstrate a pleasant, helpful attitude. You will always have the right attitude if you treat all passengers as valued customers.

Here are some important dos and don’ts with respect to passenger relations:
Do’s & Don’ts

Do:
- Be courteous.
- Control your temper.
- Make sure you understand a question or problem before commenting on it.
- Communicate clearly with primary and secondary caregivers.
- Seat those who cause trouble near you and within your vision.
- Be kind, but firm.
- Show an interest in the things that interest your passengers.
- Establish clear standards of acceptable behavior and enforce them consistently.

DON’T:
- Treat one passenger differently than another.
- Verbally abuse a passenger.
- Physically abuse a passenger.
- Fail to enforce safety policies.
- Hold grudges.
- Use bad language.
- Be too familiar with passengers (including inappropriate physical contact).
- Argue with passengers or caregivers.
- Make wisecracks.

Following these simple guidelines that involve common sense, kindness, and patience can ensure enjoyable and rewarding passenger relations.

The Golden Rules for Serving People with Disabilities
The following three rules or principles should guide all your interactions with disabled passengers. They are described in Sections Two, Three, and Four.

- Understand the difference between myths and facts regarding disabilities.
- Learn the correct words to use when referring to people with disabilities.
- Learn what obstacles make it difficult for your passengers to be mobile.
SECTION TWO: MYTHS VS. FACTS ABOUT DISABILITIES

Myth 1: People who have disabilities are extremely courageous.

Fact: People with disabilities are no braver than anyone else. As with all of us, the personalities and lifestyles of disabled persons differ.

Myth 2: A person who uses a wheelchair is “chronically ill,” “confined to a wheelchair,” or “wheelchair-bound.”

Fact: A wheelchair, like an automobile, is used to transport a person from one place to another.

Myth 3: All deaf people can read lips.

Fact: Although a few deaf people can read lips well enough to carry on a comfortable conversation, most do not have this skill. At best, only 25 to 40 percent of spoken words can be lip-read. For the sake of accuracy, many deaf people prefer to communicate with a pad and pencil if an interpreter is not available.

Myth 4: People who are blind acquire a sixth sense.

Fact: Although most people who are blind develop their remaining senses to a higher level than other people, they do not have a “sixth sense.”

Myth 5: People with disabilities are more comfortable being with “their own kind.”

Fact: Years of grouping people with disabilities in separate schools and institutions has caused people without disabilities to believe this myth. Today more people with disabilities are successfully living in the mainstream.
Myth 6: People with disabilities lead completely different lives than do people without disabilities.

Fact: People with disabilities go to school, get married, go to work, have families, do laundry, shop, laugh, cry, pay taxes, get angry, have prejudices, vote, and dream like anyone else.

Myth 7: People with disabilities always need help.

Fact: Many people with disabilities are independent and capable of giving help. From time to time, everyone needs some assistance to hold a door open or to carry a heavy package.
SECTION THREE: EFFECTIVE USE OF WORDS

Language plays a large role in forming attitudes and ideas. We can insult or hurt a person, often without meaning to, by using incorrect or insensitive language. Check the following list for terms to use (the bold-faced terms) and terms to avoid (the underlined terms) when referring to people with disabilities. Most people with disabilities prefer the term disability to handicap.

1. **Emphasize the individual** rather than the disability. For instance, say:
   a. Person who is blind rather than blind person.
   b. Person with a visual impairment rather than visually impaired person.
   c. Person who is deaf rather than deaf person.
   d. Person who is mentally retarded rather than mentally retarded person.
   e. Person who has cerebral palsy rather than cerebral palsied person.
   f. In addition, while the term disabled person is acceptable and widely used, person with a disability is the preferred term.

2. A disability is not a disease. Although an illness may cause a certain disability, such as diabetes causing blindness, a disability is not an illness and is not contagious. Most people with disabilities are as healthy as people without disabilities.

3. A congenital disability is a disability present from birth. It is not called a birth defect.

4. A person who does not speak or whose speech is difficult to understand is speech-impaired. A person with a speech impairment is not mute, dumb, or ignorant.

5. A person with a physical disability is not a cripple or an invalid. These
terms are derogatory and imply that a person cannot do anything.

6. People who have disabilities are not **afflicted** with anything. This term is negative and suggests that the person is suffering.

7. Avoid referring to people without disabilities as **normal**. This implies that people with disabilities are somehow **abnormal**.

8. Avoid referring to your **passengers** as **patients**. Hospitals and doctors have patients. Most people with disabilities are not in hospitals or regularly cared for by doctors. Rather, they are self-reliant members of the community.

9. Some people who have cerebral palsy or a spinal cord injury may experience uncontrollable muscle movements throughout their body. Do not call such a person **spastic**.

10. Avoid the word **suffering** when referring to people with disabilities. To say that someone **suffers** from a disability means that the person is in constant pain. The majority of people with disabilities are not in pain.

11. A disability does not make a person **unfortunate**. The term **unfortunate** implies that a person is unlucky, unsuccessful, or a social outcast. Whether or not luck had anything to do with becoming disabled, the term unfortunate is a put-down and should be avoided.

12. People with disabilities are not **victims**. Victims suffer from something over which they have no control. People with disabilities have as much control over their lives as do people without disabilities.

13. Avoid calling **motorized wheelchairs** **electric chairs**. People who use motorized wheelchairs are **not** being put to death!
SECTION FOUR: OBSTACLES TO MOBILITY

The transportation needs of people with disabilities are no different from the needs of people without disabilities. Just like you, people with disabilities need transportation for:

- work
- school
- doctor visits
- socialization
- shopping
- recreation

Unfortunately, people with disabilities face many obstacles in society when they seek transportation.

**Physical Barriers**

- Many vehicles lack ramps or lifts.
- Vehicle steps are often too high to reach.
- People with balance difficulties may not be able to use the bus because:
  - Overcrowded conditions inside the vehicle make it impossible to find a seat
  - Moveable handholds make it impossible to balance while standing in buses.

**Environmental Barriers**

- People using wheelchairs are unable to travel from one block to the next when there are no curb cuts.
- Bus and subway stations that have no ramps or elevators:
  - there may be no way to get inside the building
  - there may be no way to get from one level of the building to the next
- A parked car may prevent the bus driver from pulling up to the sidewalk to allow passengers using wheelchairs to board or exit the bus.
- There may not be a curb cut near the bus stop. This prevents the person using a wheelchair from rolling off the curb onto the bus lift or having exited the bus, to roll onto the curb.
**Attitudinal Barriers**

Attitudinal barriers make it harder for people with disabilities to be independent. Negative attitudes toward individuals with disabilities, that are ingrained in peoples’ minds and not easy to change, may include the following:

- Fear: thinking that a person’s disability is a contagious disease.
- Prejudice: feeling that people with disabilities “aren’t as good” as people without disabilities.
- Discrimination: not hiring people with disabilities even though they are qualified to do the job, or not renting apartments to people with disabilities even though they can pay the rent.

What can you do to break down attitudinal barriers?

- Be open-minded.
- Get to know someone who has a disability.
- Educate yourself about disabilities.
CHAPTER THREE: PASSENGER ASSISTANCE

SECTION FIVE: DISABILITIES OVERVIEW
(Disabilities are listed in alphabetical order.)

This section reviews disabilities that might directly affect a person’s mobility. An individual may have one or more of the disabilities listed below and some of your passengers will have disabilities other than those included in this section. You can learn about these disabilities by communicating with your passengers and asking how their disability affects their transportation needs.

NOTE: After a description of each disability there is a statement about how the disability affects passenger assistance needs.

AIDS (Acquired Immune Deficiency Syndrome)
AIDS is an infectious viral disease that attacks the body’s built-in “security system” or immune system, leaving the person unprotected and susceptible to serious, often fatal, infections.

You can get AIDS by having unsafe sex with someone who has the virus. You also can get AIDS by sharing unsterile needles with someone who has the virus.

You do not get AIDS by touching or being near someone who has AIDS. You cannot get AIDS from the air as in catching the flu. You cannot get AIDS from touching door knobs, dishes, drinking glasses, telephones, toilet seats, shared cigarettes, swimming pools, kisses, handshakes, or hugs.

PASSENGER ASSISTANCE NEEDS
People with AIDS may also have symptoms that require the use of assistive devices. Their symptoms may range from feeling tired and weak to feeling pain throughout the body. However, it may not be obvious to you that a person has AIDS.

According to CAL/OSHA, it is perfectly legal for a dispatcher to inquire if someone has a communicable disease (such as AIDS or hepatitis). But they cannot be forced to disclose this information and some people prefer not to. If
they do inform you or your dispatcher that they have AIDS, you must keep the information confidential. Failure to protect the confidentiality of a person with AIDS can result in lawsuits and fines.

Regardless of whether or not an individual is known to have a communicable disease such as AIDS, proper safety precautions should be observed to protect against the possibility of infection from a communicable disease in the event of a bodily fluid spill.

**Alzheimer’s Disease**

Alzheimer's Disease affects mental function. It progresses slowly and may cause the following disabilities:
- memory loss
- confusion
- an inability to make decisions
- speech and mobility impairments
- inability to recognize even family members
- loss of basic and learned skills
- loss of the ability to live independently.

**Passenger Assistance Needs**

People with Alzheimer's disease may not remember that they have reserved a trip, where the entrance to their destination is located, or who is to receive them at the end of their trip. Therefore, they will often travel with an escort who will provide whatever assistance is required. NEVER LEAVE THE PERSON UNATTENDED AT THE DROP OFF POINT.

Speak slowly, clearly, and simply to the person and remember that even then the person may not understand what is being said or asked of them.

Give the passenger extra time to do what is needed. Help them fasten their seat belt. Do not get upset if they behave in an unusual fashion or say things that seem inappropriate.

**Amputation**

An amputation is the surgical removal of any limb(s) or part of a limb from the body.
There are several causes of amputation including congenital causes (born without part or all of a limb), diseases, accidents, and tumors.

People with amputations may wear a prosthetic device such as an artificial arm or leg.

**Passenger Assistance Needs**
People with leg amputations may find it difficult to climb the steps of the vehicle, keep their balance, and stand for long periods of time.

Passengers who have little or no arm function may need assistance in handling their fare or identification card.

The main way the body cools down is by releasing heat through the skin. A person with a major amputation loses skin surface area and has trouble staying cool. Take steps to ensure that the passenger does not become overheated if your vehicle breaks down or the air conditioner does not work.

Take special care of older people with amputations. They may also have additional concerns such as a heart condition, making them more susceptible to heat stroke or exhaustion.

**Arthritis**
Arthritis is an inflammation of one or more joints. Arthritis affects muscles, ligaments, tendons, joints, or other body parts.

Common forms of arthritis are:

1. **Rheumatoid Arthritis**
   This is the most common form of arthritis and is seen in every age group. It may cause fatigue and stiffness in knee, elbow, hand, or foot joints.

2. **Juvenile Arthritis**
   This form of rheumatoid arthritis is seen in younger people. It may be a mild or serious condition, and symptoms may vary from day to day.

3. **Osteoarthritis**
This form of arthritis is seen most often in older people who have arthritis. Osteoarthritis frequently causes a person’s bones to disintegrate over time requiring the use of personal assistive devices such as canes, crutches, or wheelchairs.

**Passenger Assistance Needs**
Arthritic pain may occur in all stages of transit including when the person is boarding, exiting, or sitting inside the vehicle (especially when the ride is bumpy). Try to place a person with arthritis in a seat midway between the front and rear axles of the vehicle. This area receives less bounce and offers a smoother ride than any other seat.

When assisting someone with arthritis, hold the person’s arm lightly. A tight grip of the hand may be very painful to a person with arthritis.

People with arthritis may experience pain in approaching, boarding, and exiting the vehicle. Allow extra time for these actions. Be patient with a person experiencing chronic (constant) pain.

**Breathing Disabilities**
Asthma, cystic fibrosis, and emphysema are examples of breathing disabilities. People with a heart condition may also experience breathing disabilities.

**Passenger Assistance Needs**
Movements, such as walking to and from the vehicle or climbing steps, may cause shortness of breath, wheezing, or light-headedness. Passengers with breathing disability should not be rushed.

Keep vehicle windows closed as dust, pollen, and exhaust fumes can further impair breathing.

Be certain to enforce the NO SMOKING rule.

**Developmental Disabilities**
Developmental disabilities are disabilities that occur before the age of 18 and affect a person’s physical or mental development.
There are four developmental disabilities. They are: cerebral palsy, mental retardation, epilepsy, and autism.

**Cerebral Palsy**

Cerebral palsy is a term applied to a group of disabling conditions that affect movement and result from damage to the central nervous system at birth or in early childhood.

People who have cerebral palsy may experience uncontrollable muscle movements throughout the body.

Cerebral palsy may affect the vocal tract and make the person's speech difficult to understand.

Because some people who have cerebral palsy have speech impairments, they are often considered retarded. **Cerebral palsy and mental retardation are not related.**

**Passenger Assistance Needs**

- People who have cerebral palsy may appear drunk (they are not), and may have the following difficulties when using transportation:
  - stagger when walking and/or have difficulty keeping their balance
  - have poor coordination. (Their legs, arms, and head may move about randomly.)

Since cerebral palsy may affect a wide range of functions, it is difficult to recommend more than a few general assistance techniques. Communication is very important since each person's needs vary depending on the disability. Give the person extra time to board the vehicle, asking what, if any, assistance is needed.

When talking to a person who has cerebral palsy and a speech impediment, make eye contact and ask the person to repeat comments, if necessary. Give the person extra time when speaking and do not finish their sentences.

**Mental Retardation**

People who are mentally retarded are just like everyone else except that they learn more slowly. They are no more dangerous or violent than any other segment of
the population. In fact, people who are mentally retarded may be more likely than other people to seek friendship.

Mental retardation is not a disease. It is a developmental lag that usually becomes apparent during childhood. There are four categories of mental retardation:
- mild
- moderate
- severe
- profound

Most people who are mentally retarded are mildly retarded and function similarly in many respects to their peers without mental retardation.

**Passenger Assistance Needs**

Some people who are mentally retarded have physical disabilities that may affect their mobility. While each individual’s mobility impairment may differ, a person with severe or profound mental retardation usually will travel with an assistant.

When speaking with a person who is mentally retarded, use simple and short sentences. Make instructions concrete. Repeating yourself is often useful.

Treat an adult who is mentally retarded as an adult (not as a child). Speak in your regular tone of voice. This is more than a matter of dignity; it helps the person to learn or maintain adult behaviors.

In some cases, a person who is mentally retarded may seem to react to situations in an unusual way or may appear to be ignoring you. Remember that a slow response or no response does not necessarily mean that the person is being rude to you. A person who is mentally retarded may simply be slow to respond.

**Elderly**

Older persons are not disabled because they are old. However, the aging process may result in one or more of the following conditions:
- heart disease
- high blood pressure
- arteriosclerosis (a thickening and hardening of arterial walls that interferes with blood circulation)
- diabetes
- stroke
arthritis
- pain
- impaired vision
- impaired hearing

**Passenger Assistance Needs**

BE PATIENT - Any of these conditions may reduce physical strength and stamina. Make certain that elderly passengers' seat belts are properly fastened and that they do not unfasten their seat belts until the vehicle has come to a complete stop. Provide assistance as they board and deboard, making sure they do not feel rushed. (See Section Seven, Boarding and Deboarding Ambulatory Passengers for more details.)

**Epilepsy**

Epilepsy is not a disease. It is a disability involving seizures.

A seizure may be an uncontrollable staring spell, a series of behaviors that seem inappropriate, or a whole body spasm with loss of consciousness. A seizure may last from a few seconds to several minutes.

Most seizures are controlled through medication. Seizures that do occur are usually brief and infrequent.

**Passenger Assistance Needs**

Rapid stops, frequent starts and stops, bumpy roads, motion sickness, and very hot weather may cause seizures.

There are three types of seizures that you may encounter when transporting people with epilepsy:

- Grand Mal Seizure (also called Tonic Clonic Seizure)
- Complex Partial Seizure (also called Psychomotor Seizure or Temporal Lobe Seizure)
- Petit Mal Seizure (also called Absence Seizure).

**Grand Mal Seizure**

This seizure is the most dramatic. On the average, it lasts only one to three minutes, but such a seizure can last much longer. The individual loses consciousness and the body stiffens, then jerks on one or both sides. Lips and
CHAPTER THREE: PASSENGER ASSISTANCE

fingernails may turn blue due to breathing difficulty. The person may bite the inside of the mouth or the tongue.

When a passenger has a Grand Mal Seizure:
- Pull off the road when it is safe to do so.
- Do not put your finger or anything else in the person’s mouth.
- Protect the person from injury and clear the area of sharp objects. Help the person lie down unless he or she is secured by the seat belt. Place a coat or other padding under the person’s head or between the head and vehicle if the person is seated with the seat belt secured.
- Turn the person’s head to one side to permit saliva to flow and clear the airway for breathing.
- Remove the person’s glasses and loosen his or her collar or other tight clothing when it is possible to do so.
- **Do not try to restrain or stop the seizure**—you will be unable to do so.
- Do not provide any medical treatment.
- Keep other passengers calm.
- Write down your observations of what happened before, during, and after the seizure and report the length of the seizure.
- Let the dispatcher know what is happening as soon as possible and wait for direction and assistance.
- If the person is injured or has seizures lasting for more than ten minutes, have the dispatcher call for medical assistance.
- After the seizure, the person may awaken confused and tired. Do not offer the person food or drink.
- Treat the person calmly. In a matter of fact way, let the person know that he or she has had a seizure and that everything is all right.

**Complex Partial Seizure**
The Complex Partial Seizure usually lasts about four minutes, but may last as long as fifteen minutes. The person does not lose consciousness but loses awareness of his or her behavior and surroundings and may not be able to answer questions. The individual may stare, appear to be dreaming, pick at clothing, lie down, walk about aimlessly, make lip smacking or chewing motions, or appear to be drunk.

When a passenger has a Complex Partial Seizure:
- Protect the person from injury, guiding the individual away from sharp objects.
- Do not try to restrain or “awaken” the person— you will be unable to do so.
- Keep other passengers calm.
In case of injury or extreme unusual behavior, call the dispatcher for medical assistance.

- After the seizure, the person may be confused and should not be left alone until fully alert.
- If no attention is required, proceed to your destination.

If an independent adult has had a seizure, tell the person that you have observed a seizure. If a child or supervised adult has had a seizure, report the incident to the parent or caretaker.

**Petit Mal Seizure**
The Petit Mal Seizure lasts only a few seconds. There is a brief blank or pause in the person's awareness. Eyelids may flutter, eyes may roll up, and finger or mouth muscles may twitch. Petit Mal Seizures are more common in children than in adults. No intervention is necessary.

**Hearing Impairments And Deafness**
Hearing impairment is a term that covers a wide range of hearing loss:

- A person with a partial hearing loss has a mild to moderate reduction in hearing ability.
- A person who is deaf is unable to hear and understand speech.

Some people who are deaf or severely hearing impaired may not communicate by speaking. To communicate, they may use sign language, lip reading, pencil and paper, a letter board, finger spelling, body language, facial expressions, or a combination of the above depending upon their personality, education, degree of hearing loss, and age when the hearing loss occurred.

Communication is the major barrier facing a person with a hearing impairment. Some people who are deaf may make sounds from their throat when communicating. These sounds should not be misinterpreted as signs of anger or drunkenness.

**Passenger Assistance Needs**
Many of the sounds a hearing person uses for orientation such as traffic patterns, doors opening and closing, brakes being applied, or verbal announcements of destination points, are not heard by people who have hearing impairments. People who are deaf rely upon their eyes to obtain information. Therefore, it is important
to provide the following assistance when transporting a passenger who is hearing impaired:

- Get the person’s attention before speaking. A tap on the shoulder or a wave is appropriate.
- Look directly at the person and speak at your regular speed. If requested, speak slowly but without exaggeration since this will distort lip movements.
- If an interpreter is present, look at the person who is deaf, not the interpreter. Try to maintain eye contact.
- Provide a clear view of your mouth. Waving your hands or holding something in front of your lips makes lip reading impossible.
- Use sign language only if you are qualified to do so. Otherwise you may give incorrect information. Feel free to use body language and facial expressions.
- Be flexible. Try not to get frustrated when someone does not understand you. If the person does not understand a word, try using another word rather than repeating yourself.

If you are having trouble understanding someone’s speech, ask the person to repeat what was said. If that does not work, carry a pad of paper and pencil or have the person communicate in another way (such as with a letter board).

Unless you are asked to raise your voice, speak in your regular tone. Do not shout. Hearing aids make sounds louder, they do not make them clearer.

When talking with a person who is deaf, try not to stand in front of a bright light (a sunny window, headlights). The person will have difficulty seeing your face.

People who are deaf may wish to be seated near the front of the vehicle to communicate with you and to see the destination before exiting.

**Hidden Disabilities**

When you cannot see that a person is disabled, the disability is called “hidden.”

Some hidden disabilities include kidney failure, breathing disabilities, heart conditions, loss of balance, AIDS, cancer, diabetes, and epilepsy.
CHAPTER THREE: PASSENGER ASSISTANCE

PASSENGER ASSISTANCE NEEDS
Even though these disabilities are not visual, they may impair the person's ability to use public transportation. By communicating with the passenger, attempt to identify and respond to their needs appropriately.

Muscle Control Loss
A number of conditions may make it difficult or impossible for people to control their muscles. Two examples of such conditions are muscular dystrophy and multiple sclerosis.

Muscular Dystrophy
Muscular dystrophy refers to a group of conditions that cause wasting and progressive weakness of the muscles that control body movement. The large muscle groups around the shoulders, trunk, and hips are affected most. The symptoms of muscular dystrophy usually appear between birth and adolescence.

PASSENGER ASSISTANCE NEEDS
Many people with muscular dystrophy become unable to walk as their symptoms progress.

Multiple Sclerosis
Multiple sclerosis is a disease in which the nerves in the brain and spinal cord are scarred, sometimes blocking the flow of the brain's signals to the rest of the body. Symptoms of multiple sclerosis vary depending upon where the scarred patches are located. While intelligence is not affected, symptoms might include:

- visual impairments
- speech impairments
- partial or complete paralysis of any part of the body
- memory loss
- poor coordination
- fatigue

PASSENGER ASSISTANCE NEEDS
Multiple sclerosis tends to worsen over time, but people may experience long periods of time when they have no symptoms. The episodes do not occur very often and may be only mildly disabling for some persons. For others, the disease progresses more quickly and may require the use of an assistive device such as a cane, brace(s), crutches, or a wheelchair.
Polio
Polio was a common disease before vaccines were made available to the public in 1955. It is a virus that attacks the nerves that send messages to the muscles and limbs, resulting in partial or complete paralysis.

PASSENGER ASSISTANCE NEEDS
Many people who contracted polio use assistive devices such as leg braces, crutches, or wheelchairs.

Spinal Cord Injury
A spinal cord injury may result from the following:
- an accident, such as diving.
- a congenital disability (a disability present at birth) such as spina bifida, which is an incomplete closure of the spine. People with spina bifida may have loss of movement or loss of sensation from the point of injury down.

Types of spinal cord injury include:
- hemiplegia - paralysis on one side of the body (if the left side of the brain is damaged, the right side of the body will be affected and vice versa)
  - hemiplegia may result in a mild lack of coordination, loss of sensation, or paralysis
  - People with right hemiplegia may have difficulty speaking. They may know what to say and not be able to say it, or may have the ability to respond, but not be able to understand the question
- paraplegia - paralysis from the waist down
- quadriplegia - paralysis from the neck down

PASSENGER ASSISTANCE NEEDS
Many people who have spinal cord injuries use assistive devices such as leg braces, crutches, or wheelchairs.

Assist people with paralysis on the unaffected side. For instance, if a person is paralyzed on the left side, assist on the person’s right side.

Stroke
A stroke is a disruption in the blood supply to the brain. A stroke may cause damage to the brain and loss of both physical and mental functions. While most strokes occur in people over age 55, they can occur in any age group including
young adults and children. Severe head injuries can cause functional losses similar to losses caused by stroke.

Some physical effects of stroke include the following:
- aphasia - difficulty in understanding and using language
- memory loss and confusion - often occurs immediately after a stroke and usually improves within a few days
- muscle control loss – inability to perform coordinated movements
- of one side of the body (hemiplegia), and often accompanied by a loss of feeling in the affected areas

**Passenger Assistance Needs**
The physical effects of a stroke may be mild or severe, temporary or permanent depending upon the location and length of time that the blood supply is cut off. The effect on transportation needs depends upon the severity of the physical effects of the stroke.

**Temporary Disabilities Including Wounds, Breaks, And Strains**
Some passengers will have temporary (short-term), disabilities. Because they are not used to having a disability, they may be far less able to move around than people who have been disabled for a longer period of time.

**Visual Impairment And Blindness**
There is a wide range of visual impairments. Some people may be able to see that there is a bus at the curb, but not able to read the destination sign. Other people can read a newspaper, but cannot recognize objects a few feet away from them. Most people with visual impairments have some vision even if it is only to sense light and dark. A visual impairment may be present at birth or may be caused by a disease such as diabetes. Aging causes 70% of all visual impairments.

The word “blind” refers to people who are totally without sight. The term “legally blind” refers to a person who can see at 20 feet what someone with 20/20 vision can see at 200 feet.

People who are blind or have visual impairments may be taught to travel by mobility specialists. People who are blind may tap a cane to identify changes in the terrain or use a trained guide dog or sighted guide for assistance. People with
visual impairments who have received proper travel training often live independently.

**Passenger Assistance Needs**

For people with visual impairments who have not received travel training, or even for those who have, there will be times when assistance may be needed due to the following:

- poor lighting in areas.
- lack of familiarity with a new area.
- inability to read signs.
- bad weather conditions. For example, rain may make the ground slippery and soften the sounds of the cane and footsteps. Raindrops on an open umbrella often cause an echo. Snow is more hazardous because it masks ordinary sounds and covers familiar landmarks.

Passengers who are blind need to be talked through, as well as walked through, the boarding and exiting process.

Speak directly to the person in your regular tone of voice; remember that blindness does not affect someone’s hearing. Don’t be afraid to use everyday expressions related to vision, such as “see you later.” People who have visual impairments use them, too.

After you have introduced yourself, inform your passenger of the approximate distance and location of the van.

When guiding your passenger, walk slightly ahead, allowing the person to grasp your upper arm or elbow and follow. Identify obstacles as you approach them and communicate changes in the regularity of the environment (different heights of steps; changes from hard to soft surfaces; or slight slopes). Call out maneuvers to be made such as going up steps located approximately 20 feet ahead. If you are unsure of how to direct a person who is blind, say something like, “I’d be happy to give you directions. How should I describe things?”

Drop your lead arm back when you and your passenger are walking through narrow areas such as between parked cars. Be sure to tell your passenger what you are doing.
If the passenger has a guide dog, ask "What is the best way to get your guide dog onto the vehicle?" before assisting the passenger onto the vehicle. Also:
- Never take the person's arm that is holding the harness.
- Guide dogs are strictly trained and attuned to their masters. Some people who are blind prefer that others not pet their dogs.
- Never pet a guide dog when it is working (when the harness is on).

When the passenger reaches the top of the steps, tell him or her which seats are empty. Walk ahead of the passenger, again offering your forearm as a guide. This assistance is especially important if wheelchair passengers are secured in the front position(s).

When seating the passenger, place the person's hand on the back or arm of the seat. Place the passenger's hands on the safety belt and ask the person to "buckle up."

Tell the passenger when you have reached the destination. Talk the person down the stairs, offer your forearm and walk the person to the destination's entrance.
SECTION SIX: PERSONAL ASSISTIVE DEVICES
(Listed in alphabetical order.)

This section contains descriptions of assistive devices that may be used by passengers with disabilities.

Braces
Braces provide extra support for a weak or injured body part. Most leg braces fall into one of two categories: an ankle brace that supports the ankle but does not extend above the knee, or a long leg brace that supports the ankle and knee and usually extends close to the hip. A long leg brace generally will be worn with the knee locked to support the wearer when standing and walking; the wearer usually will unlock the knee brace when sitting.

Braces may be made out of steel, plastic, or a combination of the two. Steel leg braces may weigh up to several pounds each. Braces also may be used to support an injured or weak back, neck, or arm.

PASSSENGER ASSISTANCE NEEDS
When seating someone wearing a leg brace, allow ample room for the person to stretch out his or her legs while sitting.

Canes
Canes aid in walking and help with balance. People who have an impairment on one side, such as a painful or weak hip, commonly use them. In such cases, the cane will be used on the opposite side of the impairment. For example, if a person has a painful left hip, the cane will be used on the right side.

An individual with a more serious impairment may use a quad (four-footed) cane, which allows more weight to be placed on a wider base of support.

PASSSENGER ASSISTANCE NEEDS
A person using a cane will most likely need very little assistance. If assistance is required, however, you should aid them on the side opposite the cane. Ask before
offering assistance because the individual may be using a cane for balance. Stairs may be difficult to climb, and icy conditions will pose problems.

When the passenger is seated, the cane should be tucked away to avoid becoming an obstacle to other passengers or a danger in the event of a sudden stop. Most white canes fold. If the white cane does not fold, speak to the passenger before moving or storing it.

**Crutches**
Crutches provide good stability when one or both legs are impaired. There are several kinds of crutches. Two of the most common crutches are the forearm and the axillary crutch.

- The **forearm (or loftstrand) crutch** is used most often by people with a permanent disability and ample strength in the arms and torso.
- The **axillary crutch** is the most common crutch used. It extends into the armpit and provides stability for the body. Both temporarily disabled people (who have broken a leg or sprained an ankle) and permanently disabled people may use this type of crutch.

**Passenger Assistance Needs**
People who use crutches may find it especially difficult to walk on ice and snow. Be sure to ask if extra assistance is needed.

**Hearing Aids**
Hearing aids can assist some people with hearing impairments the same way that glasses help some people with weak eyesight. People with profound deafness, however, do not benefit from hearing aids. A person who uses a hearing aid does not necessarily hear speech; the aid may be used to hear cues from the environment such as sirens or horns.

**Passenger Assistance Needs**
Determine the level of hearing impairment and adjust one’s speech accordingly.

**Prosthetic Devices**
A prosthetic device is an artificial limb that replaces and functions like the missing limb. Because a prosthetic device is usually worn under clothing, it may not be seen.
Because prosthetic devices can be uncomfortable, some people with a missing limb prefer not to wear a prosthetic device some or all of the time.

**Passenger Assistance Needs**

A person wearing an arm prosthesis may take a little longer handling money. A person wearing a properly fitting artificial leg below one or both knees will not have much difficulty walking. However, a person wearing an artificial leg just above the knee may need to use the handrails and be slower in climbing steps. Persons wearing prosthetic devices at the mid-thigh or higher may require assistance when walking up and down steps.

The ability to walk easily on artificial legs will diminish with age. An older person who has had an amputation will walk slower and work harder while climbing steps or ramps. Be sure to provide ample legroom when seating a person with a leg prosthesis.

**Slings**

Slings are worn to support a weak or injured arm. Someone who has had a stroke may wear a sling to reduce pain and to protect the shoulder joint. A person walking with an arm in a sling may lose his or her sense of balance.

**Passenger Assistance Needs**

If asked to help, assist on the side opposite the sling.

**Walkers**

People who require added stability for walking use a walker. Its four legs provide a large base or support. Most walkers are collapsible and can be folded up easily while the person is riding in a vehicle.

**Passenger Assistance Needs**

Due to their design, walkers do not fit on stairs. If the person cannot board the vehicle using the steps and handrails, use the lift, board the passenger using a boarding manual wheelchair (if available), and store the walker.
Wheelchairs

People who are unable to walk, or who can walk for only limited distances, may use a wheelchair for mobility. Wheelchairs come in different styles and fit an individual's body size and personal needs.

There are three types of wheelchairs:

**Manual Wheelchair (Standard Folding)**
This wheelchair has two large rear wheels and two small front wheels (casters). Almost all wheelchairs have a brake lever on each side to lock the large wheels. This wheelchair offers good mobility, is lightweight, and can be folded. People will propel the chair using their arms or legs.

**Motorized Wheelchair**
This wheelchair is powered by a battery and operated via a control box. The battery and motor make the motorized wheelchair much heavier than a manual wheelchair. A motorized wheelchair can transport the person quickly and handle rough terrain fairly well. This type of chair is used by people with limited or no arm strength and cannot be folded. The person moves the chair using a control that can be operated in many ways, such as with a hand or chin.

**Three-wheeled Scooter**
The scooter is much narrower than the standard wheelchair models and is frequently used by people with very limited walking endurance. At the base, it is approximately 18 inches wide and 36 inches long. People with complete paralysis in the upper body and/or legs do not use it because it lacks upper body support. The three-wheeled scooter has front-wheel drive and is steered with bicycle-type handlebars and a control box. Some people prefer the three-wheeled scooter to the manual and motorized wheelchairs due to its appearance and the ability to swivel its seat underneath a desk or table. It cannot be folded.
CHAPTER THREE: PASSENGER ASSISTANCE

PASSENGER ASSISTANCE NEEDS
The following are some general safety rules to follow when assisting a passenger using a wheelchair:

- Talk directly to the person using the wheelchair, even if the person has an escort.
- In extended conversations with a person using a wheelchair, bend your knees and talk at the person’s eye level.
- Be sure that the wheelchair’s handgrips are secure on the push handles and that the armrests are locked in place.
- Treat the wheelchair as if it has no brakes. Wheelchair brakes should not be used as a stopping device for the following reasons:
  - The brakes may fail.
  - The brake lever may need adjustment.
  - Tires may be worn down.
  - In the case of inflatable tires, tire pressure may be low.
- Don’t rush; push at your regular walking speed.
- Judge distances by the front of the footrests rather than by the front of the seat or armrests.
- Watch that your passenger’s feet and hands do not get caught in the wheels.
- Be careful not to handle the wheelchair in a rough manner since you might injure your passenger. In addition, a damaged wheelchair may prevent your passenger from leaving home until it is repaired.

You will often need to tip a wheelchair in order to avoid objects, go up and down curbs, or move the chair over rough terrain. To do so, tip the wheelchair backward to the balance point—the point at which the wheelchair is stabilized and can be moved easily on its rear wheels. The balance point will vary according to the weight and height of the person in the wheelchair, the size and type of chair, and your height, arm length, and stride.

To tip the wheelchair:

- Grab the handle grips firmly.
- Stand with one foot ahead of the other.
- Place the forward foot on the tip bar and press down.
- Pull the handle grips toward you until the weight of the chair is resting on the palms of your hands and the wheelchair is balanced on its back wheels.
- Remove your foot from the tip bar.

To return the wheelchair to all four wheels:

- Place your foot on the tip bar.
Ease the wheelchair forward until the front wheels (casters) are touching the ground.

Do not drop the chair. You could cause the occupant to fall out of the chair and/or damage the chair itself.

Any obstacle such as a crack, ridge, bump, pothole, or stone can stop the wheelchair's casters from turning. This will abruptly stop the chair from moving and may throw the occupant forward or out of the chair. Be on the alert for obstacles; if you cannot avoid them, follow these procedures:

- Push the casters up to the obstacle at a 90-degree angle; stop when the casters touch the obstacle.
- Tilt the chair slightly, using the tip bar, until the casters clear the obstacle.
- Set the wheelchair down gently and see that the back wheels roll over the obstacle at the same time.

At times, you will be unable to park your vehicle next to a "curb cut." A curb cut is the cutout portion of a sidewalk that gives people using wheelchairs or pushing wheeled objects, such as strollers, access to the road. If you do not have access to a curb cut, you must assist your passenger over a curb using the following instructions:

- Approach the curb at a 90-degree angle.
- Tilt the wheelchair backward to the balance point. Roll the wheelchair forward to the curb, making sure that the casters are higher than the curb.
- Check that the rear wheels touch the curb at the same time. Lower the casters onto the curb.
- Lift-roll-push the rear wheels over the curb. The lift-roll-push is a single movement, using a smooth continuous force. Use good body mechanics by bending your knees, keeping your back straight, and if necessary, leaning on the back of the chair for added strength. (Do not push your knee into the back of the wheelchair seat; this could injure your passenger).

Going Down a Curb:

- Back the wheelchair’s rear wheels to the curb at a 90-degree angle.
- Roll the rear wheels down over the edge of the curb.
- Tip the wheelchair back to the balance position to clear the casters from the curb.
- Staying in the balance position, back the wheelchair away from the curb.
- Once the footrests have cleared the curb, gently lower the casters to the ground.
Many wheelchair users will be able to go up and down ramps or hills without assistance. If the ramp or hill is steep or longer than 30 feet, however, the following assistance techniques may be needed:

- If necessary, tilt back the wheelchair to ensure that the footrests do not bump into the base of the ramp.
- Push forward on the handles; lean into the wheelchair keeping your knees slightly bent.
- Keep the wheelchair upright.
- Ensure firm footing, keeping feet a shoulder’s length apart for good balance.
- Watch for slippery surfaces.

Going down a permanent ramp (alongside a building):

- Keep the wheelchair upright.
- Control your speed down the ramp, hold back on the handles, and maintain sure footing.
- If necessary, tilt back the wheelchair to ensure that the footrests do not bump into the base of the ramp.

**Ventilators**

Ventilators assist people with breathing disabilities.

A ventilator looks like a small overnight suitcase and is usually strapped to a wheelchair or located underneath or behind the seat. The ventilator is an integral part of the wheelchair and should never be removed.

People who can walk may push the ventilator in a cart; the ventilator is too heavy to carry.

Depending upon the person’s needs, a ventilator may be used some or all of the time.

Air flows into the mouth through a plastic hose that comes out of the ventilator. The hose is either hand-held or propped up to fit inside the person’s mouth. People who have had a tracheotomy (an operation leaving a hole in the front of the neck) may have the hose connected directly to their throat.

People who use a ventilator usually travel with a companion.
CHAPTER THREE: PASSENGER ASSISTANCE

PASSenger Assistance Needs

Never rush any of your passengers, especially those with breathing disabilities.

If the ventilator’s alarm goes off, it means that the person is not getting any air. Pull to the side of the road and stop. Ask what assistance, if any, is needed. Many times the tube will just need to go back into the person’s mouth. Wait until the person tells you that it is okay to continue driving.

Visual Impairment Aids

People who are blind generally use sighted guides, guide dogs, or a variety of models of long or prescription canes for mobility. Some people who are blind use a white wooden cane. The choice of assistive devices is personal based on the needs, lifestyle, age, and capabilities of the individual. Canes provide detailed information about the environment but no protection from over-hanging obstacles, whereas guide dogs allow a faster travel speed but require care and feeding.

The Sighted Guide

At one time or another, every person who is blind gets around with a sighted guide’s assistance. Traveling with another person may provide some people who are blind with the mobility they want or need. When using a sighted guide, the person who is blind usually walks about half a step behind the guide and firmly holds the guide’s arm just above the elbow, so they can then follow the guide’s movements easily. Some people prefer to walk alongside, rather than behind, a sighted guide.

The Guide Dog

Guide dogs provide speedy travel and companionship. They may be male or female and usually are German Shepherds, Boxers, Golden and Labrador Retrievers, or Collies, breeds noted for their intelligence, training potential, and good disposition.

The guide dog is intensively trained before being matched with a person who is blind. The dog is taught to respond to such basic commands as “sit,” “left,” “right,” and “forward,” and to maneuver among pedestrians and traffic, over curbs, and through revolving doors. The guide dog protects its master from low-hanging objects. Most importantly, the dog learns “intelligent disobedience” which is refusing a “forward” command when there is an imminent danger such as an approaching car.
The dog wears a U-shaped harness, a leash, and a choke collar. The person who is blind walks to the right of the dog, holding the center of the harness and the leash in the left hand. Whenever the dog is on duty, the master follows its lead through the movement of the harness. At other times, the leash holds the dog alone.

Although the image of a person who is blind with a guide dog is a very familiar one, only about one percent of the blind population actually uses a guide dog.

**The Long Cane**

The long cane is an aluminum or fiberglass shaft approximately one-half inch wide. The long cane is the most popular assistive device for people with visual impairments because it is easy to use.

The basic technique of cane travel involves the back and forth movement of the cane in front of the body. This helps the cane user know where to place the next footstep.

Some people prefer the shorter collapsible, folding, or telescopic canes made of aluminum, fiberglass, or wood. Although canes may be made to fit a person’s tastes or needs, the techniques for using them are the same.
SECTION SEVEN: PASSENGER ASSISTANCE TECHNIQUES

Teaching Notes
This section contains the various forms of physical assistance for boarding and deboarding passengers, including emergency evacuation techniques and an emergency evacuation exercise.

Teach drivers to board and deboard wheelchairs with the use of written materials (included in this book), demonstrations, and simulations (have the trainees be both the “driver” and “passenger” in practice sessions to learn these skills).

Hand out these sections to your drivers so they can study the boarding and deboarding sequences and requirements. Discuss the information with them and then have them practice the procedures to proficiency.

The Resource section at the end of your binder includes a message to your passengers telling them about the dangers of three-wheeled scooters. If you transport three-wheeled scooters, reprint these pages on your agency’s letterhead and distribute.
VEHICLE FIRE EVACUATION EXERCISE

Location: A large parking lot.

Purpose: To teach drivers the challenges of evacuating passengers in 90 seconds when the vehicle is on fire. 90 seconds is the limit because a bus or van will be engulfed in toxic smoke within 90 seconds.

Equipment: 1 lift-equipped bus with a variety of assistive devices.

Instructions: This exercise is completed with a group of drivers assigned as passengers, and one assigned as a driver. Assign each passenger a disability or physical/emotional role to play. For example, you may want to blindfold one or more passengers so they are visually impaired. One might not hear well. One or more might need to use a cane or walker. Some might play the roles of seniors or children. One or two passengers can play the role of an anxious or even hysterical person. One or more might be developmentally disabled. Be creative in assigning the roles, but ask each one to play their role believably in a true-to-life way.

The driver is informed that as the exercise begins with the recognition that there is a vehicle fire requiring evacuation of all passengers. The driver then has 90 seconds to inform the passengers that there is a fire and get everyone safely off the bus. He or she can only help people walk off the bus. Though in real life a driver may have to drag physically disabled people off the bus, or drop them out a window to save their lives, this exercise does not include those techniques because of the possibility of injury.

Most people want to get off a burning bus and will cooperate with the driver’s efforts. However, in real life some people may stumble, or have difficulty moving quickly, or may not understand what is happening. Those with anxiety or trauma-related conditions may freeze and resist leaving the bus at all.

The instructor gives the instructions, preps the passengers, times the exercise, and then leads a debriefing session to talk about what happened during this exercise and what else might happen in an actual vehicle fire.
Chapter Three: Passenger Assistance

Environmental Concerns Inside Your Vehicle:

You can do several things to make your vehicle comfortable for your passengers.

1. **Refrain from smoking.**
The dangers of second-hand smoke are now well documented. No one should be forced to breathe second-hand smoke. There are other safety hazards associated with smoking while driving, so no professional driver should smoke and drive at the same time. Passengers should also refrain from smoking in commercial vehicles.

2. **Provide proper heating.**
Maintain even heating in your vehicle during the colder months of the year. Become familiar with the warmest and least drafty area of the vehicle. The passengers who are most likely to be sensitive to drafts are the elderly and those with arthritis or breathing disabilities. Let your passengers know where the warmest, coolest, and least drafty seats are located so that they can choose where to sit most comfortably. The proper maintenance of weather stripping around windows will help minimize draftiness and maximize insulation.

3. **Provide proper cooling.**
Apply the same considerations to cooling as you do to heating. Become familiar with the cooler areas of the vehicle. Some passengers, such as people who have had amputations, will have difficulty releasing body heat and should be seated in the cooler areas of the vehicle. Other passengers may prefer sitting in the warmer areas of the vehicle.

Notice that the rear of an air-conditioned vehicle can be significantly warmer than the front. While you may be comfortable up front, the back seats may be too warm. Also, be aware that a full passenger load will cause the interior temperature of your vehicle to rise due to body heat. Consequently, there will be a need for more cooling and ventilation with a full vehicle than with an empty one. To improve air circulation within the vehicle, increase the fan speed.

Alert passengers to the characteristics of the vehicle’s cooling system so they can select the area which best meets their immediate needs.
CHAPTER THREE: PASSENGER ASSISTANCE

4. PROVIDE PROPER VENTILATION.
Good vehicle ventilation is necessary to minimize discomfort for those passengers sensitive to dust, exhaust fumes, and other irritants. As a general rule, do not keep windows open unless all of the passengers agree. To foster positive passenger relations, keep the vehicle’s ventilation system working at all times.

5. KEEP YOUR VEHICLE CLEAN.
As a matter of safety, keep the interior of your vehicle clean and free of debris such as candy wrappers and soda cans. Litter can pose hazards underfoot or under assistive devices such as canes or crutches. Strongly urge that your passengers not eat or drink on the vehicle.

All on-board equipment (such as securement devices) and passengers’ belongings should be stored. This will prevent them from becoming a hazard to foot traffic or from coming loose and injuring someone in the event of sudden stops.

Environmental Concerns: Outside Your Vehicle
The outside environment may pose many challenges for you, your passengers, and your time schedule. No matter how late you may be running for a scheduled pick-up or drop-off, NEVER DRIVE OVER THE SPEED LIMIT OR RUSH YOUR PASSENGERS. Doing so might threaten the safety of you, your passengers, and your vehicle. Call your dispatcher if you face any delays. He or she will provide you with the appropriate action to take.

1. CHOOSE THE TERRAIN CAREFULLY.
The physical environment will pose many challenges to you when you are driving and providing passenger assistance. For instance, rough streets will cause your vehicle to bump and bounce. Potholes, bumps, and construction areas can cause passenger discomfort. Find the smoothest routes possible. Hills may make it difficult to find level areas for stopping when picking up or dropping off passengers. Whenever possible, find the most level spots for stopping. When the ground is rough or covered with litter, slippery leaves, or glass, find an alternate route, walk slowly, and offer your assistance.

2. DEALING WITH MULTIPLE ENTRANCES
Apartment complexes with multiple entrances may also cause delays. If you are confused as to a particular pickup point, call your dispatcher. Ask your passenger where the appropriate drop-off point is located.
3. **Driving in Traffic**
Heavy traffic, in addition to rough terrain, will cause delays. In addition, the exhaust fumes and horn-honking accompanying heavy traffic may cause passenger discomfort. Call your dispatcher to determine possible alternate routes.

4. **Driving in Bad Weather**
Bad weather poses several challenges for passenger assistance. Maintaining secure footing is the most critical factor when providing assistance. Be alert for ice, snow, water, and mud. Inform your passengers of slick spots and offer assistance. Wet or icy surfaces reduce friction between shoes, crutches, or walker tips, and the ground. These conditions also present a loss of traction for wheelchairs.

If your vehicle has a grab rail that is exposed to the weather, have a clean rag handy to wipe it off. It is also a good idea to wipe the accumulated dirt and perspiration off the rail from time to time.

Weather extremes also necessitate protecting your passengers from the elements. Ensure that your passengers are shaded from the sun and protected from rain, wind, or snow.

High temperatures may pose problems for people with amputations and for people with breathing disabilities. People with amputations who have lost a large portion of skin surface area may find it difficult to release body heat (through perspiration). Do not leave these passengers outside for too long on a hot, muggy day.

Low temperatures pose the greatest problem for passengers having muscle control losses, spinal cord injuries, or arthritis. Low temperatures also may affect passengers with limited bladder control. Try to see that these passengers are properly insulated against the cold.

Wind, carrying dust and pollens, may pose difficulties for persons with breathing disabilities. Winds at high speeds may make it difficult for persons using canes, crutches, and braces to maintain their balance. Winds with periodic gusts may pose the most challenges. Be prepared to provide assistance.
Bad weather may lead to fallen telephone lines and closed streets. Maintain close contact with your dispatcher for passenger cancellations and delayed or suspended service.

**Boarding And Deboarding Passengers On Lifts**

Lifts are potentially hazardous equipment. It is vitally important that drivers follow the recommended procedures **each time** a lift is operated. Safe habits from which one never deviates are the best defense against accidents. What follows are the proper methods—in the correct order—for boarding and deboarding passengers on lifts.

**Boarding Passengers In Manual Wheelchairs**

- Turn off the engine, place the transmission in park and set the emergency brake. (New vans require that the engine be left on. Follow whatever procedure is necessary to deploy the interlock.)
- Remove the lift cover. (Lift covers are no longer required on vans and buses if all passengers wear seat belts.)
- A lap belt should be fastened around the passenger and behind the wheelchair to secure the passenger in the wheelchair. Always apply lap belts low and snug at occupant’s pelvic zone to prevent passenger from sliding out from underneath the belt.
- Assume full control of the wheelchair.
- All passengers are to be loaded facing out from the van. Back the wheelchair to the end of the platform and pull it up and on the lift. The front casters must be totally on the platform and free of the roll stop so that it flips up into place. (Note: The safest way to board a passenger on a lift is facing out. However, the ADA requires you to board facing rearward if the passenger requests it. You can deny the request if you will be unable to maneuver the chair into the securement area or if rearward boarding presents an overriding safety concern—i.e. a direct threat.)
- The brakes should be applied as soon as the passenger is on the lift to prevent the wheelchair from rolling as the lift is raised up.
- We recommend that the driver ride up on the lift with the passenger and then pull the individual into the vehicle. After applying the lap belt, the wheelchair is backed onto the lift. The brakes are set and the roll stop is checked to be sure it flipped up into place. Then the driver holds on to a wheelchair grip with one hand and operates the lift with the other. When the lift is fully raised, the driver releases one brake at a time while holding
on to the wheelchair with the other hand and then pulls the passenger into
the van.

NOTES:
• Leaving the passenger unattended on the lift while the driver boards the
vehicle is extremely hazardous and is therefore never allowed.
• Sometimes a lift is defective and is no longer parallel to the ground
when unfolded. In this case the lift should be taken out of service and
repaired prior to any attempt to board passengers.

DEBOARDING PASSENGERS IN MANUAL WHEELCHAIRS
Deboard a passenger by reversing the loading procedure. Never, for any reason,
leave the individual unattended on the lift.

NOTE:
Before leaving the vicinity of the van to escort a passenger to their
destination, the lift should be raised up and closed to an angle or closed
completely. This prevents unattended passengers—some of whom may be
disoriented or unstable—from inadvertently attempting to exit via the lift.
If no other passengers are going to be deboarded, always close the lift
completely before escorting the individual to their destination. This
prevents inadvertently driving off with the lift in the down position after
returning to the vehicle (a fairly common driver error).

BOARDING PASSENGERS IN MOTORIZED WHEELCHAIRS
Extra caution is needed when loading an electrically powered chair on a lift
platform. The power sources must be disengaged during loading operation. If the
chair's power is left on, a passenger's involuntary arm movement might engage
the throttle and cause the wheelchair to drive forward, even while the brakes are
applied. Therefore, always observe the following procedures when loading a
power chair:
• Fasten a lap belt.
• After backing the chair onto the platform, turn the power switch on the
control box to the OFF position or ask the passenger to do so.
• It is recommended that the driver is to remain on the ground with one hand
operating the lift control and one hand on the wheelchair.
• Set the brakes; be certain the roll stop is up; raise the lift.
• Push the chair into the bus. If the passenger is competent, reconnect power
and have the passenger drive the chair into the bus.
- Close the lift or change the angle to prevent passengers from exiting through the open door.
- Push the chair into the desired position or have the passenger drive it into position. Turn the power off and secure the chair.
- If the boarding is done manually, do not engage the belts or turn the power on again until the chair and the lift’s platform are back on the ground. Otherwise, reconnect the power so the passenger can drive onto the lift, and then reverse the boarding procedure.

![Image of lift and bus with a person in a wheelchair]

**NOTES:**

- If a passenger in a motorized wheelchair does inadvertently cause the chair to drive forward while on the lift, it is unlikely that the roll stop will prevent the chair from driving off the lift. Few, if any, drivers are strong enough to prevent the chair from driving off the lift, and there is no time to reach over and pull back the throttle. However, there is a method of stopping the wheelchair before it plunges off the lift. The driver pulls sharply on one of the wheelchair arm rests at the front of the chair. Jerking the front of the chair at an angle causes it to run harmlessly into the side of the lift. When it stops against the side of the lift the power can be disengaged. The lift can then be safely lowered.
- Policies on boarding and deboarding vary from agency to agency. While we recommend riding on the lift with passengers in manual wheelchairs and standing next to the lift for passengers in motorized wheelchairs, **follow your agency’s policies on these matters.**


Wheelchair Securement

According to the ADA, wheelchairs must be secured with a forward facing (or rear-facing), four point securement. Forward facing is the safest method and should be used at all times. If the passenger is secured rearward, a padded stanchion or barrier must be installed directly in back of the seated individual.

The Q-Straint securement system (see photo) is currently the preferred securement method. It is an efficient, user-friendly system.

Q-Straint securement devices snap into place and are tightened with great ease.

Some agencies, however, still use the strap and track system. The webbed strap system permits a lot of flexibility. Almost any chair can be secured this way.

The webbed straps have two types of tightening buckles:
  - one consists of a cam buckle with teeth that bite into the webbing;
  - the other consists of ratchets that are used to tighten the chair once all straps have been attached.

Either type of buckle may be used at either end of wheelchair, however buckles must not be mix-matched. When fully hooked up, all straps should be very taut. (ADA says no more than 2" of movement in any direction, but we think the straps should be much tighter than that!) Straps present a hazard to ambulatory passengers and must be removed from the floor and safely stored when not in use.

Remove as follows:
  - Grasp the clip at the track with your index finger on the end lever.
  - Lift the lever and slide the clip toward the lever's end.
  - Lift the opposite end of the clip out of the slot, then the lever end.
To install the clip, reverse the procedure.
- Double-check the clip’s position to be sure it is seated securely.

Generally the webbed straps have a D-ring and a hook on each end. The D-ring end is wrapped around a section of the wheelchair’s frame and coupled back into the hook. Webbed straps are attached to wheelchairs around the tubular framing. They should not be attached to anything other than the actual frame of the chair—neither the footrest nor the wheels. Always try to maintain a 45° angle to the floor with each strap. Don’t bend a strap around any portion of the chair.

The attachment points for wheelchairs are as follows:
- Rear—Wrap each strap end around the vertical frame tube just above the axle. Pull down and back on the frame.
- Front—Wrap the strap end around a section of the vertical frame tube (but not around the footrest tubing). The subsequent pull of the frame is forward, out and down.

If forward-facing:
- Set the chair midway between the tracks in the floor.
- Lock the brakes.
- Attach the rear straps, then the front.
- Tighten all four straps using the ratchets.
Securing Three-Wheeled Scooters

Currently there is no safe way to secure a three-wheeled scooter. A federal study published in October 1995, *Tri-Wheeled Scooters Transported on Buses and Vans: Assessment of Securement and Restraint Issues*, states the following:

Based on extensive review of research, test reports and the “expert opinion” of the technical community, the author confirms the following securement and restraint related issues for tri-wheeled scooters as actual or potential problems:

- inaccessible attachment points
- inadequate strength of attachment points
- proliferation of scooter models incompatible with securement systems
- inability to restrain the battery in a crash
- spillage of battery fluid, unless the scooter battery is of the dry or gel-type
- shearing or fracture of seat pedestal
- in a frontal crash, the head hits the pedestal or the back severely bends backwards
- rollover or tipping instability inherent in tri-wheel scooter design

Therefore, we recommend that persons using scooters transfer to a seat. If the passenger refuses to transfer, you must secure the scooter as best you can. Many people who use three-wheeled scooters will be able to transfer without assistance. If assistance is needed, exercise caution. (See Section Seven, Lifting & Body Mechanics)
Boarding And Deboarding Ambulatory Passengers

Many of your passengers will not use wheelchairs. However, they may still require assistance boarding and deboarding the vehicle. Unassisted passenger falls are one of the most common injury accidents in the paratransit industry. You can prevent these falls by being attentive to passenger boarding and deboarding, and by making certain that passengers keep their seat belts buckled prior to the vehicle coming to a complete stop.

Assisting Passengers While Walking
If requested, walk closely beside the passenger, arm-in-arm. Ask the passenger if they would like to place their hand on top of yours (palm down). This allows you to provide assistance if they are weak or not stable.

Boarding The Vehicle Using Steps
- Assist the passenger to the vehicle entrance (ask the passenger if you are needed to hold an arm, carry packages, or handle the fare).
- Open the vehicle door and tell the passenger how many steps there are (if the person is visually impaired or blind).
- If the passenger cannot reach the first step, assist the person onto the step stool.
- Encourage the passenger to use the grab rails.
- Stay about one foot behind while the passenger climbs the steps.
- Be prepared to give support if the passenger falls backwards.
- Walk to the passenger’s preferred seat.
- If requested, offer the passenger assistance in sitting down.
- Ensure that the passenger’s seat belt is fastened.

Deboarding The Vehicle Using Steps
- Make sure the passenger’s seat belt is unfastened.
- If requested, help the passenger stand.
- Walk with the passenger to the front door, open the door, and walk down the steps ahead of the passenger.
- Stand at the bottom of the steps facing the passenger, with your feet a shoulder’s width apart. In this position, you will be able to support a passenger who stumbles.
- After the passenger has exited the vehicle, offer an arm for support and walk the passenger to the front entrance of the destination.
BOARDING AMBULATORY PASSENGERS ON A LIFT
ADA requires operators to allow ambulatory individuals to ride up on a lift if they request it. The driver is encouraged to provide the passenger with a manual wheelchair in which to ride. If the passenger refuses, the next safest method is for the driver to ride up with the passenger on the lift. It is necessary for the driver to ride on the lift if an individual is unstable or there is no firm handrail to hold onto. The driver steadies the passenger with one hand while operating the lift with the other. If the passenger’s knees buckle, or they lose their balance, the driver can steady them or guide them safely to the floor of the lift or van.

Lifting And Body Mechanics
You may be asked to lift a passenger’s parcels (up to 50 pounds) or other objects such as assistive devices. When lifting, follow these tips to protect your back from injury:

1. Carry the weight as close as possible to your body’s center of gravity (the pelvic region). This will give you a strong base of support, improved balance, and will take less muscular effort. Stand with your feet apart, knees slightly bent, and one foot forward. Keep your head up and your back straight. Lower your hips by bending your knees rather than arching your back.

2. Get close to what you plan to lift. Bear weight on your forearms rather than on your hands.

3. Do not attempt to lift with your back alone. Lift with your legs by keeping them in a position to supply most of the force needed for lifting.

4. When lifting, do not rotate your spine. To turn, shift the position of your feet. Support your body against a stationary object whenever possible.

5. Know your limits. Do not attempt to lift alone if you have any doubt about your ability to do so safely.

6. Whenever possible, push or pull an object instead of lifting it since this method requires less muscular effort.

NOTE: Wear non-skid shoes to prevent yourself from slipping.
Bodily Fluid Spills And Biohazards Kit

Although most of us think of AIDS when we think of biohazards, all spills of bodily fluids (blood, urine, etc.) should be treated with care, regardless of what we know about the rider's disability. Your vehicle should be equipped with a biohazard kit. The following is a complete list of the ingredients of a biohazard kit:

- Disposable latex gloves
- Paper towels
- Chlorine bleach (a diluted solution of at least 5% bleach). Bleach kills the HIV virus, but it can also damage vehicle seat coverings if used full strength.
- Red plastic trash bag—or red tape applied to any color bag (red denotes hazardous materials)
- Solidifying powder may be used, if desired, to turn a liquid spill into a gummy spill. ( Anything that absorbs liquid will do: sawdust or kitty litter, for example.)
- Alcohol hand wipes may be used to clean hands after the removal of the latex gloves and some kits include them; while this is a good general health procedure, it is not necessary for HIV purposes.
- Black plastic trash bag into which the Red or Red striped bag is placed. If the exterior of the orange bag is contaminated by the bodily fluid spill, the black bag should be used. Otherwise it is an additional precaution that is optional.
Procedures for Bodily Fluid Spill

- Put on a new pair of latex gloves.
- Contain the spill as best as possible with the paper towels and/or the solidifying powder.
- Clean up the spill with the paper towels, and the dustpan and brush, if necessary. The pan and brush will be especially useful should the solidifying powder be used.
- Clean the area of the spill with a chlorine bleach solution, and wipe the area with paper towels and fresh solidifying powder. Be careful cleaning seat coverings, as full strength chlorine can cause damage.
- Place all of the items used to clean the spill into the orange plastic trash bag. If the dustpan and brush were used, they should be disposed of, or they can be cleaned with the chlorine bleach solution before reuse.
- While holding the red plastic bag in one hand, remove the other latex glove and place it in the red bag.
- Using your gloved hand, seal the red plastic bag with a twist-tie, and place it in the second red plastic bag, or the other bag with red tape.
- Remove the remaining glove and place it inside the second bag and seal that bag.
- Clean your hands with the alcohol wipes. This is not necessary to prevent HIV transmittal, but is a good general health care procedure.
- Upon returning to the garage or other fleet facility, place the plastic bags into a separate disposal container. These containers must be red in color or be marked with red stripping and have a sealable lid.
- Have the disposal container emptied by an appropriate medical hazard disposal organization for proper destruction.
- Arrangements should be made with a local hospital or health clinic for the disposal of the red and/or red in black bag. Use the proper disposal methods that these facilities have in place, rather than trying to develop your own. Under no circumstances should a used biohazard bag be thrown into the regular garbage!
Emergency Evacuation Procedures

The following are simple yet effective procedures with which to deal with most circumstances where passenger evacuation is required.

**QUICK CHECK**

- Check your vehicle for fire. (Fire is a common result of an accident). If smoke is detected, either under the dash or the hood, EVACUATE THE VEHICLE.
- Know the difference between the smell of burning oil or plastic (which indicates the presence of fire) and the steam that is created from a broken radiator hose.
- Evacuate the bus only if an impending danger exists.

**GENERAL INSTRUCTIONS IN THE EVENT OF AN EVACUATION**

- Notify your dispatcher of your emergency, asking that 911 be called.
- Calmly inform your passengers of the emergency and the need to evacuate.
- Reassure your passengers.
- Give clear instructions as you evacuate the vehicle.
- Check the vehicle’s interior to be sure all passengers have escaped.
- Move your passengers to a safe location away from the vehicle.
- Secure your passengers and then protect the vehicle by using the warning reflectors.

**EVACUATING AMBULATORY PASSENGERS**

- Locate the best exits.
- Deboard those who can walk off the vehicle.
- Use the “body drag” or “fireman’s carry” method for injured or disabled passengers.
- Put someone in charge of the evacuated group.
- In most cases, help will be available from citizens at the scene.

**LIFT EVACUATION FOR PASSENGERS WHO USE WHEELCHAIRS**

- The lift sequence:
  - open the outer doors
  - unfold the lift platform
  - deboard the passenger
  - lower the lift platform to the ground where the passenger can properly leave the lift and the vehicle.
- Motorized wheelchairs require the complete lift sequence.
Manual wheelchairs may require the complete sequence.
- Obese passengers in manual wheelchairs may require the complete lift sequence depending on the emergency.
- Manual wheelchairs may use the “step method” of evacuation when speed is of the essence.

**The Step Method**
The lift is unfolded and lowered to one-half the distance from the floor of the vehicle to the ground. The driver moves the manual wheelchair user to the open doorway of the vehicle. The driver tilts the chair back using the foot pegs on the lower back of the chair and balances the passenger. The driver then uses his legs to lower the passenger carefully to the lift platform in one motion. This action is followed by the same procedure from the lift platform to the ground. This method is very quick and is used only in an emergency.

**Evacuating Passengers When the Lift Is Disabled or Unsafe**
- Identify and select the best exits, considering the situation and your options.
- If the stairway is clear, remove passenger from the wheelchair and use the stairway. Use the “body drag” or “fireman’s carry” method to evacuate the passenger.
- If the emergency door is clear, use the appropriate evacuation method.
- If the emergency windows are your only option, select either method.
- If passersby are enlisted for help, give them clear instructions on how to best assist you.

**Protecting Passengers After Evacuation**
- Protect your passengers at all times.
- Keep them as comfortable and warm as possible.
- Always lead your passengers upwind from the vehicle in case of fire.
- Protect yourself and your company from fraudulent claims or excessive liability by following company policies regarding evacuation procedures and dealing with any media at the scene.

**Real Life Incident**
The following photos show one of our member’s vehicles that burned entirely in a fire. The driver was traveling north on highway 101. He smelled smoke coming from underneath the dashboard. He immediately got off on a nearby exit, jumped out of the bus, ran to the front of the bus, and called dispatch. Then he turned around and saw the bus completely engulfed in flames. He estimated that
approximately 3 minutes expired since he first smelled smoke. Fortunately he carried no passengers and no one was hurt, though the vehicle was destroyed completely, as you can see.

The investigation found that the wiring harness in the steering column was improperly installed so that wires rubbed together until they sparked a fire.

Facts About Vehicle Fires
1. Most injuries and deaths occur because drivers are unfamiliar with the exits and the evacuation options available to them.

2. According to the Transportation Safety Institute, it takes six (6) minutes for a forty (40) foot bus to become totally engulfed in flames.

3. According to the same source, a twenty (20) foot paratransit vehicle will be blackened out due to smoke in approximately ninety (90) seconds and completely engulfed in flames in three (3) minutes.

4. Most vehicle fires are electrical in nature. ALWAYS TURN OFF THE IGNITION SWITCH FIRST. It may stop the source of the fire.

5. In most cases, where there is a suspected fire, discharging a fire extinguisher at the dashboard will not be effective at all.

6. If the emergency response unit has not yet arrived, you may attempt to check the source of smoke on vehicle only after you have evacuated and secured all passengers.
7. Oxygen fuels fire! **DO NOT OPEN THE HOOD IF THERE IS EXCESSIVE HEAT.**

8. If fire is suspected, open all doors and windows to ventilate the smoke.

9. Most deaths occur due to smoke inhalation, rather than as a direct result of the fire itself.

10. When the fire is out, do not restart the vehicle or turn on the ignition until a supervisor or a qualified mechanic gives permission.
# CHAPTER FOUR
BEHIND THE WHEEL

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CHAPTER FOUR
BEHIND THE WHEEL

OFF-ROAD EXERCISES

Teaching Notes
Off-road exercises are a way for drivers to improve their basic driving skills without having to cope with the complex factors of the roadway. In off-road instruction, drivers learn how to properly adjust and use their mirrors and perform a pre-trip vehicle inspection. They also learn how to smoothly accelerate and decelerate, how to back up, park, and turn properly.

Vehicle Selection
It is important to select the right vehicle for each off-road session. Beyond the obvious considerations such as choosing a vehicle in good mechanical condition, having proper mirrors for backing exercises, or the right lift for a passenger boarding and deboarding exercise, the vehicle should be comparable to the one the individual drives daily. In addition, drivers should receive instruction in every vehicle they drive.

Site Selection
There should not be any hazards in the area. The ideal location is a large area that is isolated from heavy traffic and overhead obstructions, such as: a large parking lot, a fairground, an abandoned airfield, a deserted subdivision, an industrial park, or a little used country road.

Driver Positioning
Proper position in the driver’s seat is important for safe operation and to reduce driver fatigue.

- Sitting in the driver’s seat with the seatbelt on, ask the individual to place both hands on the steering wheel in a position that allows complete control of the steering wheel. The best hand position is 9 and 3. A slight bend in the elbows allows the arms to relax and gives the driver optimum control of the vehicle.

- Proper seat adjustment will improve the driver’s control of the vehicle. Have the individual place their right foot on the brake pedal and depress it. If the leg must be stretched to accomplish this, the driver’s seat may be too high and needs to be lowered, or most commonly, the seat may be too far back and should be adjusted forward.
Check for proper back support. The driver’s back should be firmly against the seat back to provide support, reduce fatigue, and ensure control of the vehicle.

**Mirror Use**

Correct mirror use is extremely important. Proper mirror use will enable the driver to:

- See children and/or adults around the vehicle.
- See vehicles and objects around the vehicle.
- Eliminate blind spots.

The following mirrors eliminate the blind spots for the driver on the front, sides, and rear of the vehicle:

1. **Right Side**
   A convex mirror the same size as the standard cross view mirror (8”) should be mounted on the bracket below the flat mirror on the right side of the bus. This mirror should be adjusted so the right side of the vehicle can be viewed. This mirror is essential when loading and unloading passengers, preparing and making right turns, and when changing lanes to the right.

2. **Left Side**
   A convex mirror no smaller than 4” should be mounted on the mounting bracket just above or just below the flat mirror. This mirror should be adjusted so the area from the left front wheel rearward can be viewed. This mirror is essential in preparing for and making left turns and lane changes to the left.

3. **Front of the Bus**
   Two convex mirrors the same size as the standard 8” cross view mirror should be added. One is placed on the right front corner, adjusted so the entire right side of the vehicle can be viewed. The other is placed on the left front corner, adjusted so the entire left side of the vehicle can be viewed. These mirrors clear the blind spots around the front wheels as well as both sides of the bus. They are useful when loading and unloading passengers, preparing and making turns, and making lane changes to the right and left.

4. **Back of the Bus**
   A rear cross view mirror, camera or electronic sensor should be mounted on the upper left rear of the vehicle to view the back area. If a rear cross view mirror is
mounted, the driver’s side mirror must be at least 7 1/2 wide by 10 inches tall to view rear mirror.

**Driver Vision and Mirror Adjustment**

Have the individual sit in the driver’s seat with the seat properly adjusted and view all mirrors.

1. **Inside Flat Mirror**

   Adjust the inside mirror to view the top of the rear window in the top of the mirror. This adjustment provides the driver with a view of all the passengers in the vehicle including the upper portion of the passengers seated directly behind the driver.

2. **Front and Rear Cross View Mirrors**

   These mirrors should be adjusted so the entire area in front and rear of the vehicle can be viewed, including the front and rear bumpers.

3. **Side Mirrors with Additional Convex**

   - The proper adjustment for the flat outside mirrors are made using the following criteria: (26709 VC).
     - The driver must be able to see 200 feet to the rear of the bus.
     - One inch of the flat mirror closest to the vehicle body provides a view of the side of the bus.
     - The driver should be able to see the left or right rear tires touching the ground.
   - Using the flat mirror in conjunction with the convex, the entire area to the rear of the mirror on the side of the vehicle should be in clear view. This is particularly important to see passengers or other objects near the vehicle.

   **NOTE:** When the right flat mirror is adjusted to view the right rear wheels, you may need to instruct the driver to lower their head in order to see 200 feet to the rear of the bus. In some vehicles, because of the body and mirror design, the right flat mirror usually cannot be adjusted so the driver can view the right rear tires touching the ground and 200 feet to the rear of the vehicle at the same time.

4. **Mirror Adjustments in Cars and Minivans**

   Cars and minivans without an added convex mirror have should adjust their side mirrors slightly outward to eliminate the side blind spots. To make these adjustments, the driver leans to the left and adjusts the left mirror to see the side of the vehicle, and then leans to the right and adjusts the right side mirror in the same...
way. Sitting upright, the driver no longer sees the side of the vehicle in the mirrors. The driver will, however, see an approaching car as it drives up alongside the vehicle. It stays in view until it reaches the front door of the vehicle, whereupon the driver sees the car in their peripheral vision. The approaching car is never out of sight and the blind spot is thereby eliminated.

This adjustment seems awkward at first, but is readily accepted with practice.

**DOCUMENTATION**

All teaching should be documented in a driver’s file. Documentation serves a number of purposes. Among these are:

- verifying a driver’s record for evaluation purposes
- safeguarding against claims of negligence in the event of a post-accident lawsuit
- ensuring that each driver completes the full curriculum
- verifying that a driver is eligible to operate a particular vehicle
- counting as in-service hours towards special certificates

**OFF-ROAD EXERCISES**

The following are a number of off-road exercises including the proper use of the rear cross view mirror, pre-trip vehicle inspection, and a series of skills exercises from the DMV’s Employer Testing Program manual.
## Off-Road Exercises: Checklist/Scoresheet

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Comments: ____________________________________________________________

Instructor’s Signature: ____________________________________________
OFF-ROAD EXERCISE: PRE-TRIP VEHICLE INSPECTION

Each driver is responsible to complete a daily inspection prior to operating the vehicle. Your task is to teach how to perform a vehicle inspection and explain the importance of each item inspected.

What follows is a description of all items to be inspected and in their proper sequence. Some items have explanatory notes. This sequence varies slightly from what the DMV Employer Test Program. Driver’s who need to pass the Class B licensing test need to learn the DMV sequence. Others need to learn the sequence required by their agency. The Resource section contains an inspection form that your agency can adopt.

UNDER THE HOOD

- Anti-freeze/coolant
- Oil
- Windshield Washer Fluid
- Large Radiator Hose
- Small Heater Hose
- Drive Belts (Alternator, A/C, Fan)
- Battery Cable

OUTSIDE OF BUS

- Fluid leaks
- Tires, Wheels, Lug Nuts, Rims
  - Check tires for proper inflation and tread depth (4/32 inch minimum in the front and 2/32 minimum in the back), bumps, cuts, cracked, or cut valve stems. Check wheels for cracks and signs of oil leakage. Check that lug nuts are present, tight, and free of rust.
- Springs & Shock Absorbers
  - Check for loose, broken, or leaking shocks.
- Mirrors
  - Visually check for damaged or loose mirrors.
- Window Glass
- Body & Roof Panels, Paint & Signs
INSIDE OF BUS

- Parking Brake
  - Pedal goes no more than 3/4 ways to the floor. Set brake and drive forward and backward to see if brake holds.

- Gauges, Interior Lights, and Turn Signals
  - Check illumination and condition of lenses on dome, step, dash and map lights. Dome lights are required to provide sufficient lighting when passengers are boarding or exiting the bus during hours of darkness.

- Heater, Defroster, and A/C
- Windshield Wipers
- Horn
- Radio
- Steering Wheel Travel
  - Check steering wheel for excessive play.
- Fire Extinguisher Seal, Pressure, Date Tag
- Handrails, Seats, and Seat Belts
- Emergency Windows Open
- Rear Door Opens
- First Aid Kit
- Bio-Hazard Kit (See Chapter 6 for list of contents)
- Emergency Reflectors (3)
- Wheelchair Lap Belts (1 per w/c station)
- Tied owns (4 per w/c station)
  - Check for frayed straps. Check hook and rings, track end fittings, cam buckles and ratchet buckles.
- Wheelchair Tie down track
  - Check for cleanliness and wear.

LIFT

- Mounting Bolts & Welds
  - They should be tight.

- Lift Sequence
  - Stand on the lift as it is cycled. Make sure the lift is not sloped at an angle as you stand on it.

- Anti-roll Barrier
  - Must lock into place.

- Operating Instructions
  - Make sure they are legible.

- Interlock System
  - Make sure it is functioning properly.
CHAPTER FOUR: BEHIND THE WHEEL

HYDRAULIC BRAKE SYSTEMS WITH VACUUM BOOSTER

1. Start engine and build vacuum to maximum, shut engine off. Check vacuum loss for one minute. (No more than a 3-inch drop allowed.) Tap gauge occasionally to unstick. (STATIC TEST)

2. Apply service brake all the way down and hold. Check vacuum loss for one minute. (No more than a 3-inch drop allowed.) Tap gauge occasionally to unstick. (APPLIED TEST)

3. Turn on ignition (DON'T START ENGINE); apply service brake to reduce vacuum. Note the point where the low vacuum warning devices actuate. (MINIMUM 8 INCHES MERCURY ALLOWED.)

4. Continue to reduce vacuum to 0; hold brake pedal all the way down and re-start engine. As soon as the engine is running, the brake pedal should drop down just a little. (This indicates that the vacuum booster is working.) Should your vacuum booster fail, your primary backup system will be your hydraulic side of your brakes; however, should you have a complete hydraulic failure, your primary backup system will be your parking brake.

ALL OTHER HYDRAULIC BRAKE SYSTEMS WITH POWER BRAKE BOOSTERS
Due to the variety and design of hydraulic power brake systems and the operation of the warning devices, etc., the fleet operation should use the original equipment manufacturers (O.E.M.) brake inspection information as a guide in developing an effective brake inspection procedure for a particular vehicle. The (O.E.M.) information can be found in the vehicle's owners manual or can be obtained from the chassis manufacturer.
OFF-ROAD EXERCISE: REAR CROSS VIEW MIRRORS

The procedure for teaching the proper use of the rear cross view mirror is as follows:

1. Tell the driver how the mirror is to be used. It is only to be used to identify if there are any objects behind the vehicle before backing and periodically during backing. (If objects are seen in the mirror, the driver should get out and inspect the area.)

2. Tell the driver how the mirror is not to be used. It is not to be used as a guide in precision backing. The highly convex shape of the mirror does not give the driver adequate spatial relationships or depth perception.

3. Demonstrate the mirror’s usage. With the driver sitting in the driver’s seat, walk around behind the van and ask the individual to identify you in the rear cross view mirror. This begins the process of the driver learning to identify images seen in the mirror. Most drivers become comfortable with the rear cross view mirror within two or three weeks of regular usage.
OFF-ROAD EXERCISE: SMOOTH ACCELERATION AND DECELERATION

This exercise demonstrates how carefully one must press on the accelerator and brake in order to achieve smooth acceleration and deceleration.

The brakes on the vehicle must be properly adjusted before beginning this instruction. Note that hydraulic brakes are particularly sensitive.

**Step One**
Have the driver practice smooth braking two or three times.

**Step Two**
Place a Styrofoam or paper cup full of water on the floor of the bus (in a flat-bottom plastic container to avoid spilling water on the floor of the van). Ask the driver to go forward and then stop without spilling any water.

Have the individual practice this exercise until they can do it without any spillage.
OFF-ROAD EXERCISE: FORWARD STOP

SET UP: The area required will be approximately a 100 foot long by 20 foot wide lane. The actual lane the vehicle will travel is 12 feet wide. Depending on whether you have an on or off-site test facility, use cones, painted lines, or tape. Place your markings at equal intervals on the outside boundaries of the lane. At the end of the lane, place four cones (preferably tall stanchions for better visibility) where the stop line will be marked. Two cones will be 12 feet apart and on the same line; two more cones will be placed 20 feet apart. Mark two lines parallel to the stop line. One line should be a foot away from the stop line and the other 3 feet away from the stop line on both sides of the line. The driver will begin this test with the front of his or her vehicle at the opening lane driving towards the stop line.

Note: Examiner must be outside of the vehicle during scoring.

OBJECTIVE: The driver will drive down the 12 foot wide lane and stop when he or she estimates the bumper of the vehicle is even with the stop line. The driver can make only one stop.

SCORING: Improvement needed - stops 1 - 3 feet short of or beyond the marker. Poor - stops more than 3 feet short of or behind marker.
OFF-ROAD EXERCISE: STRAIGHT LINE BACKING

SET UP: Use the same skills area set up as for the Forward Stop. The applicant should begin the test with the back of the vehicle past the stop line.

Note: Examiner must be outside of the vehicle during scoring.

OBJECTIVE: To drive in reverse between the 12 foot wide lane without going outside of the cones or lines. The driver should keep the vehicle as straight as possible using the proper caution.

SCORING: Improvement needed - 1 to 2 feet off course. Drives forward to straighten one time. Poor - 3 to 4 feet off course. Drives forward to straighten out two times. Fail - Cannot back up. Backs over marker or any wheel over curb. Drives forward to straighten out three times.
OFF-ROAD EXERCISE: MEASURED RIGHT TURN

SET UP: A 40 foot wide, 90 degree right turn lane is required. Cones should be placed in a formation to create a lane with a right turn. The most important cone or stanchion will be the one placed at the apex of the turn. Mark two lines at 1 and 3 foot increments from the apex.

Note: Examiner must be outside of the vehicle.

OBJECTIVE: To make a right turn around a corner, with the back axles of the vehicle as close to the designated cone as possible, without striking it.

SCORING: Improvement needed - Wheel 1 - 3 feet from cone/marker. Poor - Wheel 3 feet or over from cone or marker. Bumps cone or marker.
OFF-ROAD EXERCISE: ALLEY DOCK

SET UP: The alley dock consists of an area 12 feet wide by 20 feet deep. A minimum of 50 feet to 70 feet should be sufficient for most vehicles to clear the front of the dock. Try to mark some lines or other visible boundaries from cone to cone. Maneuvers should not be done on the driver’s blind side. The vehicle is to be initially positioned at an 80 to 90 degree angle to the alley.

Note: Examiner must be out of the vehicle during scoring.

OBJECTIVE: To dock a single vehicle from about a 90 degree angle without touching any of the cones or stanchions while staying within the boundaries.

SCORING: Improvement needed - Brushes marker and/or curb, or goes over the boundary lines. Makes 2 pullups. Poor - Bumps marker and/or curb. Makes 3 pullups. Fail - Backs over marker or any wheel over curb. Makes 4 pullups. Cannot complete alley dock.
OFF-ROAD EXERCISE: GRADUAL CROSSOVER BACKING

SET UP: No cones or stanchions are required for this test. A straight line (wide enough to be plainly visible to the driver) about 3 - 4 times the vehicle length should be sufficient.

Note: Examiner must be outside the vehicle when scoring.

OBJECTIVE: To slowly crossover a straight line in reverse. Start parallel on one side and end parallel on the opposite side.

SCORING: Note: A partial pullup is not allowed. Driver must go back to original starting position for crossover backing. Improvement needed - makes 2 pullups. 1 and up to 3 feet beyond the equal distance marker. Poor - Makes 3 pullups. 3 and up to 6 feet behind the equal distance marker. Fail - Makes 4 pullups. Beyond 6 feet of the equal distance marker.
OFF-ROAD EXERCISE: SERPENTINE BACKING

SET UP: An area of approximately 75 feet x 270 feet is required because the vehicles drive in reverse in a serpentine manner around a row of three cones placed an equal distance apart. The distance between the cones should measure vehicle length plus 1/2 of the vehicle length. Example: A tractor-trailer combination with a total length of 60 feet will require cone placement 90 feet apart.

Note: Examiner must be outside of vehicle when scoring.

OBJECTIVE: To maneuver the vehicle in reverse around three cones. Moving to opposite side (left to right/right to left) of each cone in a serpentine manner without striking any of the cones and staying within the boundaries. One pullup is allowed.

SCORING: Improvement needed - Brushes marker and/or curb. Makes 2 pullups. Poor - Bumps marker and/or curb. Makes 3 to 4 pullups. Fail - Backs over marker or any wheel over curb. Makes 5 pullups. Cannot complete maneuver.
OFF-ROAD EXERCISE: PARALLEL PARKING

Set up: It is preferable to place this skill test next to a curb to make it as realistic as possible. The space provided for the vehicle to be parked depends on the length of the vehicle itself. The dimensions required are 12 feet wide by vehicle length plus 10 feet. Example: For a 40 foot bus, the space between cones on opposite ends will measure 50 feet. Place cones at the front and back of the 12 feet wide area.

Note: Examiner must be outside of the vehicle when scoring.

OBJECTIVE: To parallel park in a designated area without striking any boundaries. The driver is required to position the vehicle or trailer inside the parking area. One correction (pullup) is allowed.

SCORING: Improvement needed - Brushes marker and/or curb. Makes 2 pullups. Poor - Bumps marker and/or curb. Makes 3 to 4 pullups. Fail - Backs over marker or any wheel over curb. Makes 5 pullups. Cannot complete maneuver.
ON-ROAD EXERCISES: COMMENTARY DRIVING

Begin commentary driving by providing the commentary yourself—talking the driver through each step, telling them to start the vehicle and begin to move slowly into traffic and directing them through the routes as you go. Point out hazards along the roadway and remind the driver to practice the Safe Driving Techniques.

Then ask the driver to provide the commentary. Make notes during the exercise to share with the driver at the end of the exercise.

Here is an example of commentary driving as a driver might speak it:

*I'm going up Third Street. Scanning up ahead (visual lead time) I see a bicyclist entering the space cushion on my right. I have identified the cyclist and can predict from his behavior that he is traveling safely and represents no hazard. However, just to be cautious I am slowing down slightly, giving him as much room as I can without encroaching into the oncoming lane. Before I slow down I quickly look to make sure no one is tailgating so as not to cause a rear end accident.*

*Now I see the light turning yellow up ahead so I am beginning to slow down further—decelerating smoothly so I don't come to an abrupt or jerky stop. I'm now stopping safely in front of the crosswalk.*

*The light is green and I'm scanning both directions just to be sure that no one is running a red light before I proceed into the intersection . . .*
ON-ROAD EXERCISES: SITE SELECTION

RURAL SITE SELECTION
The rural lesson should include, but not be limited to, the following characteristics:

- a series of left turns
- a series of right turns
- yield and stop intersections
- intersections with obstructed vision
- limited vehicle, pedestrian, bicycle interaction
- a variety of traffic signs and pavement markings
- a straight road segment on which to practice speed control
- curves and hills at low and moderate speeds
- uncontrolled intersections

RESIDENTIAL SITE SELECTION
The residential site should take into account the following characteristics:

- an area that is relatively free of children
- signal controlled intersections
- moderate cross traffic at a number of intersections
- obstructions to visibility
- stop on a hill
- an intersection with turn lanes
- areas or intersections with sharp turns
THE URBAN SITE SELECTION

The urban lesson should include, but not be limited to, the following characteristics:
- transition area between residential and urban areas
- lane changing
- enter, merge and exit areas on freeway
- passing on freeway
- complex urban intersections
- bridge travel
- lane selection areas

NOTES ON URBAN DRIVING

Unlike rural and residential environments, the urban environment presents constant and dramatic changes. This lesson should progress from a residential area at the start...to a transition area...to an urban expressway.

1. **Avoid periods of high traffic density when introducing a new driver to urban traffic.**
Later on the driver can encounter peak hour driving conditions.

2. **Give all directions clearly and well in advance of each maneuver.**
Changing lanes and other maneuvers in urban traffic can be dangerous. The instructor should be a calming influence and provide clear direction.

3. **Be particularly vigilant about scanning and visual lead time.**
If you notice drivers are overwhelmed by perceptual overload (and therefore decreasing their visual lead time), remind them to scan continually and increase their lead time. However, if the situation is unsafe because the driver can't handle the complexity, re-route the vehicle to a less complex environment, explain the problem, and start over again. Spend time in residential areas before returning to an urban environment.
CHAPTER FOUR: BEHIND THE WHEEL

DRIVING SKILLS

Teaching Notes
There are four parts in the Driving Skills section. Please provide copies of these sections to your drivers and use this information to guide Behind the Wheel training.

PART ONE of this section describes the nine Safe Driving Habits in detail.

PART TWO describes additional driving skills that are helpful for professional drivers.

PART THREE describes how to safely operate a vehicle in adverse driving conditions.

PART FOUR describes the correct actions to take in road emergencies.
PART ONE: SAFE DRIVING HABITS

Scanning

Scanning is the most important factor in safe driving. It is the practice of constantly moving your eyes: checking each mirror every 10 to 15 seconds and continually checking traffic patterns ahead of the vehicle (both close up and far away), behind the vehicle, and to the sides of the vehicle.

You should never stare ahead as if hypnotized or watching TV because an entire traffic picture can change instantly. Moving your eyes enhances peripheral (side) vision and increases your awareness of the whole driving environment.

Visual Lead Time

Visual lead time in a city should be 12 seconds (528 feet at 30 MPH, or approximately one city block). On the freeway, visual lead time should increase to 20 or 30 seconds. By maintaining adequate visual lead time you can choose a realistic plan of travel and make speed or position adjustments well in advance of developing problems.

Sensory overload continually challenges drivers in urban environments. Our natural—but dangerous—tendency is to shorten visual lead time. Unfortunately, shortened visual lead time creates greater risk by limiting awareness of developing traffic patterns. Therefore, make every effort to maintain proper visual lead time.

Space Cushion

The space cushion is a circle of safety around the vehicle that helps prevent collisions. Unlike visual lead time, the space cushion involves what is happening directly around your vehicle. Maintaining a boundary around your vehicle gives room to maneuver or escape should evasive action be necessary. When you cannot maintain a space cushion in one direction, be certain to leave an out in another direction. If someone is following too closely, change lanes and let them pass. If someone is hugging the side of your vehicle, let them move ahead of you and so on.

It may become necessary to simplify some situations when faced with more than one hazard in your space cushion. For example, while driving on a narrow two-lane road you might identify a pedestrian walking on your side of the road and a
truck approaching in the oncoming lane. By adjusting the speed of your vehicle, you can avoid meeting the oncoming truck and passing the pedestrian at the same time. Making the situation less complex minimizes the potential for an accident.

**Four Second Rule**

Controlling the space cushion to the front of your vehicle involves always maintaining at least four seconds of space between your vehicle and the vehicle in front of you, regardless of the speed at which you are traveling.

Determine four seconds of distance by observing the car ahead as it passes a fixed object—like a sign along the road. Then see how long it takes you to reach that sign. Count the seconds, one one-thousand, two one-thousand etc. If you pass the sign earlier than four seconds, you are following too closely. In adverse conditions, like a rainstorm, increase your frontal space cushion to five or six seconds.

Be watchful of any car ahead that is purposefully shrinking your space cushion. There are many reasons why they may be slowing down:

- They may have spotted a highway patrol car and decided to suddenly slow down.
- They may be responding to a road hazard you can’t see like a small animal on the road.
- Or they may be attempting to stage an accident in order to unlawfully collect a large settlement.

Whatever the reason, respond immediately to loss of frontal space cushion by increasing your distance to four seconds. Four seconds of distance will give you enough time to stop safely, even if the car in front of you suddenly stops for no apparent reason.

**IPDE (Identify, Predict, Decide, Execute)**

IPDE works hand in hand with scanning. As you scan the road, clues will be *Identified* which represent potential hazards. Very rapidly you must correctly interpret the significance of the relevant clues and *Predict* likely outcomes. Then you must *Decide* what action to take to avoid a collision and *Execute* evasive maneuvers.

There are many actions you can take to avoid an accident. These include changing speed, changing lanes, honking your horn, flashing headlights, pumping the brake
pedal as a warning to cars behind you, and avoiding positioning your vehicle in another driver’s blind spot. You also may need to stop suddenly, but sudden stops should be your last recourse doing so increases the likelihood of a rear end collision.

Collisions happen suddenly, which is why a driver must be attentively scanning the roadway for relevant clues at all times. Because IPDE involves split second judgment, professional drivers must be certain that they are well rested, not physically ill, and not under the influence of any mind-altering substance when operating a vehicle.

**Smooth Acceleration and Deceleration**
Smooth acceleration and deceleration is vitally important if you transport elderly and disabled passengers. Rapid, jerky acceleration and deceleration may cause passenger falls and injuries, especially if passengers are unable to brace against sudden acceleration or deceleration.

Slow, smooth acceleration and deceleration promotes safe driving and saves wear and tear on your tires and brakes.

**Safe Lane Changes**
The risk of lane-change collisions increases when drivers:
- fail to check the side blind spots
- sneak in between two cars without sufficient space between them.
  (Accidents occur if the vehicle ahead suddenly slows down, or the vehicle behind suddenly speeds up.)

Take the following precautions when changing lanes:
- Check your mirrors and/or turn your head to see if other vehicles are about to enter your lane.
- Signal your intention to change lanes well in advance of the maneuver (at least 5 seconds)
- Just before changing lanes, accelerate to the new lane’s traffic speed, assuming there is sufficient space ahead to do so.
- Adjust your speed (and space cushion) to the new lane.
Safely Entering And Exiting Intersections

When approaching an intersection with the intent to pass through it, slow down and prepare to stop if the traffic light is changing from green to yellow. Slow down in sufficient time to avoid stopping in the crosswalk.

Take no intersection for granted. Drivers regularly run stop signs, turn improperly, or fail to yield the right-of-way. To be safe, wait 3 seconds before proceeding after a light turns green. Look both ways, then proceed.

Carefully observe the behavior of pedestrians as you approach an intersection. Pedestrian behavior is often unpredictable.

If making a turn, warn other drivers well in advance with your turn signal. Be certain you have a sufficient gap in the traffic before completing the turn.

Learn to judge gaps in traffic. This is critically important at intersections that have no signs or that have only yield or stop signs.

From a stopped position, it usually takes about four seconds to cross a street that is 24 to 30 feet wide. This means you need at least a five to six second gap in traffic from both directions in order to cross. For vehicles moving at 30 MPH, a time gap of six seconds equals about half a block. Determine the six second gap in the same way you determine the four second space cushion in front of your moving vehicle. After a while you’ll learn to approximate six seconds based on the speed of traffic.

To safely make a right turn at an intersection, you will need a longer time gap than to just cross the intersection. From a full stop, it takes about six seconds to turn right and get your vehicle’s speed up to 30 MPH (and even longer with large buses). To be safe, you need a gap of at least seven to eight seconds between you and a vehicle coming from the left, which allows you to keep an adequate space cushion.

A left turn is more dangerous than a right turn because you are faced with two hazards. Vehicles are moving toward you from the left and from the right. You must turn into the far lane while speeding up. You’ll need about nine seconds to complete the turn if traffic is flowing at 30 MPH.

To turn left onto a highway where traffic is moving at 55 MPH, you will need a gap of thirteen or fourteen seconds. To turn right onto a highway you need eleven seconds or more.
One of the most effective defensive driving techniques for safely negotiating intersections and turns is to watch the eyes of the other drivers or pedestrians, if possible. You can tell whether or not they have seen you—and to some extent you can predict their behavior—by paying attention to their eyes.

**Safe Backing**

Backing accidents cause serious injury, property damage, and fatalities. Drivers of vans, buses and many trucks cannot see directly behind their vehicle with their rear view or side view mirrors or even by turning their head and looking out the window. Therefore, here is what must be done to avoid backing accidents.

If you have a rear cross view mirror, electronic sensor, or camera mounted on the back of your vehicle, use it every time you back up. If you do not have a rear assistive device, get out of your seat and look behind the van. **Either walk inside the van to the back and look out the back window or walk outside and look.** If available, ask a responsible adult to stand behind the van and check the area for you while you back up.

If you have to get out of your seat and walk to the back of the vehicle either inside or outside, there is a period of time between your looking behind the van and returning to your seat to back up. **Keep that interval as short as possible.**
PART TWO: ADDITIONAL DRIVING SKILLS
(Listed in alphabetical order.)

Alleys
The speed limit in alleys is 15 mph. Be aware of clearances, both vertical and lateral.

Bridges And Tunnels
1. Slow down for better control.
2. Remain in right lane to provide clearance from oncoming traffic.
3. Look for signs regarding: lane availability and usage, clearance, load limit, speed limit, and passing restrictions.
4. Remove sunglasses before entering tunnel.
5. Turn lights on in tunnel if necessary.
6. Turn off lights upon leaving tunnel during daylight hours (unless daylight headlights are required by law).
7. Be cautious about windy conditions when you come out of a tunnel.

Curves
1. BUS POSITIONING:
   ▪ For tight right curves keep the left front wheel close to the centerline. This allows the rear wheels to remain on the road surface.
   ▪ For tight left curves keep the front wheels close to the outside edge of the road. This allows the rear wheels to remain on the proper side of the road.

2. APPROACH CURVES AT SPEEDS THAT WILL ENABLE CURVE TO BE NEGOTIATED SAFELY.
   ▪ Observe roadway ahead for signs indicating maximum safe entering speed.
   ▪ Reduce speed, if necessary, to posted limit.
3. **When entering and driving through curve:**
   - Maintain adequate visual lead time.
   - Maintain a position within the lane (do not change or “cut across” lanes).
   - Maintain speed throughout a curve by keeping light pressure on accelerator.
   - Reduce speed by releasing accelerator and applying brakes lightly if speed is too great for the rate of curvature or visibility is restricted.
   - Accelerate slightly during curve if entry speed proves to be slower than necessary.

**Cyclists And Animals**

1. **Cyclists:**
   - Leave plenty of room for cyclists.
   - When approaching cyclists, give a short beep on horn at least 200 feet prior to passing to warn them that you are near.
   - Watch for cyclists at night as they may not have proper lighting.

2. **Animals:**
   - Watch for animals on or along roadway.
   - Slow down when entering animal crossing zones or when noting animals on or along roadway.
   - If animal enters roadway, check mirrors and prepare to stop or maneuver if traffic permits. Hit animal if stopping or maneuvering would jeopardize own safety or that of passengers, other motorists or pedestrians.

**Freeway Driving**

1. **On ramp:**
   - Enter on ramp.
   - Activate appropriate turn signal.
   - Scan mirrors, visual checks.
   - Avoid entering the freeway at a sharp angle.
   - Adjust to freeway speed in the acceleration lane.
• Move carefully into the freeway lane in the merging area.

2. ACCELERATION LANE:
• Check freeway traffic with quick glances into rear view mirrors and over shoulder to find a gap in the through lane.
• Select a gap in traffic and begin to adjust speed at the top of the ramp or as soon as you can see traffic in the freeway through lanes.
• Signal until you have entered the through lane.
• Small adjustments in speed may be necessary in the merging area to blend smoothly with freeway traffic.

3. HELPING OTHER DRIVERS ENTER AND EXIT:
• Adjust your speed.
• Move into the next lane if it is clear.

4. CHOOSING SPEED:
• Drive no faster than the legal speed.
• Reduce speed based on visibility, traffic, and road conditions.
• Speeds that are either significantly slower or faster than the flow of traffic will increase the risk of collisions. Choose the speed used by most drivers (not to exceed the posted speed limit or maximum speed allowed by law).

5. CHANGING LANES:
• Check for adequate space cushion from the vehicle ahead.
• Make sure that a vehicle ahead or in another lane is not about to change lanes and the vehicle behind your vehicle is not about to pass.
• Before moving to another lane, check all mirrors, glance over shoulder to check the blind spot.
• Signal your movements for five (5) seconds in advance of the lane change, avoiding sudden or unexpected moves that could startle drivers near you.
• Gradually steer into the next lane.
• Accelerate to the new lane’s traffic speed just before changing lanes.
• Avoid reducing speed during the lane change.
• Immediately establish your space cushion after entering the new lane.
**Hills**

- Select far right lane or auxiliary climbing lane (if available).

- Maintain constant speed on upgrades

- When approaching crest on a narrow roadway, keep far to the right.

- Slow down slightly when approaching crest to compensate for limited sight distance for an anticipated increase in speed upon reaching crest.

- Look for signs indicating length and/or gradient of downgrade.

- Shift into lower gear before beginning a long and/or steep downgrade.

- Maintain constant speed on downgrades.

- When making turns over the crest of a hill or around a curve, activate the turn signal while the bus is still visible to motorists following the bus.

**Managing Speed**

The posted speed limit is not necessarily the safest speed at which to travel—it is merely the highest speed at which you may legally travel. Speed has to be adjusted to conditions such as road surface, shape of the road, how far you can see, and traffic conditions. The rule about visibility and speed is that you should always be able to stop within the distance you can see ahead.

**Parked Vehicles**

1. **HAZARDS:**
   - spaces between parked vehicles through which pedestrians and animals may dart into street
   - a parked vehicle that may suddenly move into the path of your vehicle
   - occupants of parked vehicle who may suddenly open doors

2. **CLUES THAT A STATIONARY VEHICLE MIGHT MOVE:**
   - exhaust fumes coming from vehicle
   - back up lights on
   - brake lights on
• front wheels turned toward traffic lane
• driver looking back over shoulder
• turn signal flashing

3. **DEFENSIVE DRIVING PROCEDURES:**
   • maintain reasonable speed
   • maintain lane position leaving reasonable clearance between bus and parked vehicles
   • be ready to stop or change lanes if necessary

**Passing**
When you start to pass a vehicle in front of you, any oncoming vehicle should be far enough away that it seems to be standing still. If the road is flat and straight, vehicles coming toward you will seem to be standing still when they are 1/2 mile or more from you.

Here are rules for safe passing:

1. **PASSING ON LEFT IS PERMITTED:**
   • when overtaking other traffic moving in same direction where passing is allowed and safe
   • when the right half of road is blocked. (Yield to on-coming traffic.)
   • when using a street with two or more lanes for one-way traffic and there is slower traffic in the right lane.

2. **PASSING ON LEFT IS PROHIBITED:**
   • when approaching the crest of a hill on a two-way roadway or a curve in the highway where the driver’s view is obstructed
   • when the view is obstructed upon approaching within 100 feet of any bridge, viaduct, or tunnel
   • when there is on-coming traffic close enough to be dangerous
   • when there is a solid yellow line in your lane
   • when there is a no passing sign

9. **PASSING ON RIGHT IS PERMITTED:**
   • When the vehicle being overtaken is making a left turn.
   • When two or more lanes of traffic are moving in the same direction.

10. **PASSING ON RIGHT IS PROHIBITED:**
    • When passing movement causes vehicle to drive off of pavement or main traveled portion of the roadway.
Railroad Grade Crossings

1. **Observe the following procedures for required stops (VC 22452):**
   - Stop the vehicle not less than 15 nor more than 50 feet from the nearest rail of the track.
   - Align the vehicle parallel and as close as possible to the appropriate edge of the highway. *(22502 VC: Every vehicle parked upon a roadway where there are adjacent curbs shall be stopped or parked with the right-hand wheels parallel to and within 18 inches of the right-hand curb. **Exception:** Upon a one-way roadway, vehicles may be stopped or parked with the left hand wheels parallel to and within 18 inches of the left-hand curb. This exception shall not apply upon the roadways of a divided highway.)*
   - Prevent vehicle rollback by applying the service brake or parking brake.
   - Listen for approaching trains by shutting off noisy equipment and quieting the passengers.
   - Proceed only when the tracks are safe to cross.

2. **Multi-Track Crossing:**
   - A railroad cross buck sign is used at the crossing itself. A sign below the cross buck tells if there is more than one track within the crossing.
   - Make the required stop at the first track, and when safe, proceed across additional tracks.
   - If the vehicle stalls on track with a train close by, evacuation of the vehicle must be immediate. Evacuate passengers away and in the direction of the approaching train to avoid being hit by flying wreckage.

3. **Stops not required at a Railroad crossing:**
   - The tracks run along and upon the roadway within a business or residence district.
   - Where a traffic officer or an official traffic control signal directs traffic to proceed.

4. **All crossings that were exempt prior to 1-1-78 will remain exempt.**
   The signs are black background with yellow border and lettering. A bus need not stop where an exempt sign of the old design is posted. These signs are subject to review to see if any change in status should be made.

SECTION 22452(b)(2) for the phrase “Official Traffic Control Signal” as follows:

The official traffic control signal referred to in this subsection is defined in Vehicle Code Section 445. For clarification, this signal is a “stop and go” signal commonly known as a “traffic light.” It directs only movements of traffic at or through an intersection of two or more roadways. “Official traffic control signal” does not mean a railroad grade crossing warning device, i.e., “wigwag” or alternating flashing red lights.

Therefore, the vehicles specified in Vehicle Code Section 22452(a) are only exempt from stopping at a railroad grade crossing that runs through an intersection of two or more roadways where traffic is controlled by an official traffic control signal.

Most of the confusion in applying this exemption has arisen over railroad grade crossings that are outside, but within 200 feet, of a signal-controlled intersection. Most of these crossings are controlled by railroad crossing warning devices designed to preempt the official traffic control signal at the nearby intersection when a train approaches. This is not the type of crossing exempted pursuant to VC 22452(c)(2).

Stopping To Board and Deboard Passengers

1. WHEN APPROACHING PASSENGER BOARDING ZONES:
   - Monitor the flow of traffic.
   - Approach at a cautious speed.
   - Use appropriate turn signals.
   - Scan all mirrors.
   - Be aware of people around the vehicle.

2. DO A FULL MIRROR COUNT ONCE THE BOARDING OR DEBOARDING IS FINISHED:
   - right side mirrors for any children, adults, animals, etc. close to the vehicle
   - inside rear view mirror for movement in the vehicle
   - front and rear cross view mirrors
   - left side mirror for a final evaluation of traffic

3. ACTIVATE TURN SIGNAL.
Prior to moving the vehicle recheck the right side mirror to be positive the area is clear and it is safe to move.


**Yielding Right-Of-Way**

1. **AT INTERSECTIONS:**
   - Yield to any vehicle that is already in the intersection.
   - Yield to vehicle on right when reaching an intersection at the same time as another vehicle.
   - When approaching a yield sign, slow down to a reasonable speed and yield right-of-way to any vehicle in the intersection and to approaching traffic.
   - When approaching a stop intersection, stop and yield right-of-way to any vehicle in the intersection and to approaching traffic.
   - When merging onto a main highway, with or without signs, yield to any vehicle close enough to be an immediate danger.
   - When making a left turn, yield right-of-way to on-coming traffic.

2. **AT STOPS:**
   - Yield right-of-way when entering a highway from an alley, private road, or driveway.
   - When turning on red light.

3. **WITH EMERGENCY VEHICLES:**
   - Pull as far as possible to the right and stop when emergency vehicles are sounding a siren and flashing warning lights.

4. **WITH PEDESTRIANS.**
   - After coming to a complete stop at a stop sign, give right-of-way to pedestrians crossing street.
   - After a traffic light turns green, yield to pedestrians still crossing street.
   - When pedestrians are crossing street at crosswalk, slow down or stop before reaching crosswalk.
   - Yield to pedestrians when turning at intersection or when entering alley or driveway.

4. **YIELD TO FUNERAL PROCESSIONS.**

5. **PULL OVER TO ALLOW FIVE OR MORE FOLLOWING VEHICLES TO PASS.**
PART THREE: ADVERSE DRIVING CONDITIONS

Teaching Notes
Though not all agencies operate vehicles after dark, nightfall is the only adverse driving condition that is easily incorporated into a training curriculum. Unlike nightfall, you cannot plan for other adverse conditions. Therefore you must rely on classroom instruction and videos to teach this important subject. Perhaps we will one day have computer simulators for drivers—like flight simulators for pilots—but for now, here are your options:

- Provide the information in this section to drivers and discuss it with them.

- Hold supplemental sessions whenever adverse conditions cause accidents or near-accidents. Drivers will see the relevance of this information after they have trouble caused by adverse conditions.

- Hold safety meetings on adverse driving conditions prior to the onset of winter each year.
ADVERSE CONDITIONS
(Listed in alphabetical order.)

Rain, snow, fog, sleet or icy pavements have never caused an accident. These conditions increase the hazards of driving, but they don’t actually cause accidents. Failure to adjust driving to the prevailing conditions is what causes accidents. Your duty, as a professional driver, is to recognize adverse conditions and adjust appropriately.

The following discussion will help you learn how to drive safely in adverse conditions. If you’re unsure about weather and/or road conditions, dial 511 to get the latest updates.

Dust
High winds and sand and dust storms create severe hazards for buses. In addition to causing a sudden force on the vehicle, visibility decreases instantly. Encountering a dust or sand storm you should:
  ▪ Close any open windows.
  ▪ Maintain a firm grip on the steering wheel.
  ▪ Follow procedures outlined for driving in smoke.

Fog And Mist
Some areas of the state are in extremely heavy fog belts at certain times. Do the following in fog and mist:
  ▪ Start windshield wipers and the defrosters.
  ▪ Lower speed.
  ▪ Turn headlights on low beams.
  ▪ In extremely dense fog, pull well off the roadway, stop, and turn off all lights.
Hydroplaning

Hydroplaning is created when there is enough water on the road and the speed is fast enough to create a wedge of water under the tires that leads to a loss of vehicle control.

The following factors contribute to hydroplaning:

1. **Water**
   It doesn’t take much. Although hydroplaning is more likely to occur on roads covered with half an inch or more of water, it can happen with less.

2. **Speed**
   Below 30 mph, a tire should disperse water under and around it, and maintain contact with the road. Above 20 mph partial hydroplaning can occur. Above 55 mph, the tire may lose contact with the road, causing total hydroplaning.

3. **Tires**
   Worn or under-inflated tires invite hydroplaning and will do so on less water and at lower speeds. Good treads channel the water through the groves without lifting the wheel.

4. **Weight**
   The lighter the vehicle the greater the chance of hydroplaning.

5. **Weight Distribution**
   Excess weight concentrated in the rear of the vehicle tends to tilt up the front of the vehicle, much like the bow of a speedboat.

The following procedures should be followed when hydroplaning conditions are present:

1. **Be Alert for Hydroplaning Conditions.**
   As we just mentioned, hydroplaning can occur with minimum moisture: dew, fog or the first few raindrops.

2. **If the Steering Begins to Feel Unstable, Your Tires Are Losing Traction with the Road Surface.**
Ease off the accelerator and do not apply the brakes.

3. **FOLLOW THE TRACKS OF THE CAR AHEAD.**
   Their tires will clear away the water for yours. But don’t tailgate or you might collide. When hydroplaning conditions are present, you should increase your following distance.

4. **IF YOU ANTICIPATE THOSE CONDITIONS, INCREASE YOUR TIRE PRESSURES.**
   But don’t exceed the recommended maximum pressure.

5. **ONE OF THEIR PRIMARY FUNCTIONS OF TREADS IS TO DISSIPATE WATER AND ELIMINATE SKIDDING.**
   Worn tires lower the speed required for hydroplaning. Check your tread depth and, if necessary, replace your tires.

*Mud*

*If a bus gets stuck in mud the following procedures may be helpful in freeing the vehicle:*
- Have the front wheels pointed straight ahead.
- Try “rocking” the bus by alternately putting it into reverse and low.

*Night Driving*

Most freeways and business districts are well lit, whereas rural roadways are not. Speed should be adjusted for adequate reaction time.

1. **Mirrors:**
   - Mirror adjustment is critical because darkness reduces our sight.
   - Convex mirrors are helpful, but objects are harder to distinguish at night.
   - Depth perception is limited when using the flat mirrors at night.
   - Glare of other headlights and interior lights limit our ability to perceive distances. Night blindness occurs when there is too much light for driver to adjust to the darkness.
   - It is difficult to identify other vehicles and their speed of travel in rear view mirrors.

2. **Driving in rain:**
   - Reduces visibility even more at night.
   - Water on the pavement reflects the headlights into the air instead of ahead on the road. Use low beams in rainy conditions.
- Roadway markings are difficult to see. It is hard to differentiate the shoulder from the roadway.
- Water on windshield reduces vision.
- Foggy windows reduce vision. Keep defrosters on.

3. **FOG, DUST, AND SMOKE THAT REDUCES VISIBILITY TO ZERO:**
   - Signal first and then drive completely off the main traveled portion of the roadway and stop.
   - If it is safe to do so, place red warning triangles behind your vehicle.
   - Turn your lights off. Otherwise cars behind you might see you and think you are still traveling on the roadway.
   - Watch for disabled vehicles. There is a dangerous tendency to "hone in" on the taillights ahead and follow them without recognizing the vehicle speed or whether, in fact, the vehicle is disabled off the road.

4. **SAFETY PROCEDURES FOR NIGHT OPERATION:**
   - Keep windshield clean inside and outside.
   - Keep mirrors clean and adjusted properly.
   - Reduce speed. Vehicle speed must be adjusted to stop within the distance illuminated in the headlights.
   - Increase following distance

5. **HEADLIGHTS:**
   - Use low beams when the vehicle is 500 feet from an on-coming vehicle.
   - Following another vehicle, switch to low beams within 300 feet.
   - Use high beams only in open country when other vehicles are not near.

**Rain**

1. **THE FIRST RAIN—AFTER AN EXTENDED DRY SPELL—IS USUALLY THE MOST DANGEROUS.**
   This is because the water mixes with accumulations of dust and oil to form a very slippery road surface. Roads remain slippery until enough rain falls to wash away the mixture.

2. **RAIN REDUCES VISIBILITY.**
   Road spray from other vehicles can coat one's windshield with dirt and oil. Heavy rains can partially obscure road signs, traffic signals, the edge of the road, pavement markings, and pedestrians.
3. **Avoid driving through large areas of standing water.**
   Driving through deep water causes brakes to get wet, which reduces braking capacity. If your brakes do get wet, when you clear the water, apply light pressure to the brakes while keeping pressure on the accelerator (keeping an eye the traffic behind you). The heat created by friction dries the brakes.

4. **Suggested procedures in wet conditions:**
   - Replace windshield wiper blades as soon as they show signs of streaking or missing areas on the windshield.
   - Slow down and allow extra following distance.
   - Replace tires with worn tread.
   - Adjust mirrors properly.

**Skid Control**
Skidding occurs when tires lose their grip on the road. This happens in one of three ways.

1. **Over braking**
   Applying the brakes too hard and locking up the wheels.

2. **Over steering**
   Turning the wheels more sharply than the vehicle can turn.

3. **Over acceleration**
   Supplying too much power to the wheels, causing them to spin.

**To control a skid:**
- The bus is going straight. The back end of the bus skids to the left. The bus is now moving forward on an angle. Do not brake. Use accelerator to maintain power to rear wheels.
- Steer left, in the direction of the skid.
Wheel Off The Road

Accidents result when right wheels run off the pavement onto a soft or low shoulder. Jerking the bus back onto the road can be deadly. The tires hang up momentarily on the edge of the pavement. When the wheel is turned more, the bus suddenly swerves across the roadway into opposing traffic or goes into a broadside skid. The following are suggested procedures for returning a vehicle safely to the pavement:

- Decelerate and straddle the edge of the road.
- Keep a firm grip on the wheel and don’t brake until the speed of the bus is reduced.
- Ease back onto the road after the bus has slowed considerably.

Wind

The sides of buses act as a sail. Strong wind makes control of the vehicle more difficult. When your vehicle is passing or being passed by another vehicle, the suction or change of pressure caused by this movement can push your bus from side to side. Reduce speed and keep firm control of the steering wheel.

Winter Driving

Prepare for winter driving in the fall. Tune your engine and check your exhaust system, brakes, tires, heater, and defroster. The radiator must have the proper coolant to protect against low temperatures. Winter driving kits composed of de-icer, starting fluid, chain links, wire, a pair of pliers, flares, ice scraper, and flashlight can aid the driver in winter driving.

1. **Driving on snow:**
   Chains increase stopping ability as well as traction on ice and snow. When starting, accelerate slowly and steadily to avoid spinning the wheels. Establish and maintain greater distance than usual from other vehicles and allow for ample stopping time.

2. **Driving on ice:**
   - Black ice often looks like wet pavement. Look for shaded areas that may still be icy.
   - Tunnels, bridges and overpasses freeze first, and usually remain icy longer than other portions of the road.
- Avoid braking to prevent spinning or locking of the wheels. Approach curves slowly; drive at speeds lower than posted; make smooth turns.

3. **Tire Chains:**
Tire chains should be on board at all times in snow country. The following procedures should be used to apply chains:
- Be sure the chains are the correct size for the tires.
- Learn how to “chain up” before winter conditions arrive.
- When tires are changed, recheck the chains to ensure they fit properly.
- Obey road signs regarding use of chains.
- Maximum speed limit is 25 miles per hour when tire chains are on vehicles.
PART FOUR: ROAD EMERGENCIES

It is very difficult to prepare for road emergencies. The best teaching for emergencies involves simulations of actual emergencies. Since we can only simulate some emergencies (like vehicle evacuation), the best we can do is describe the other kinds of road emergencies you might encounter along with appropriate responses to each situation.

This section is divided into three parts. The first part lists road emergencies and suggests appropriate responses to them. The second part describes the equipment to use in various emergencies. The third part describes post-accident procedures. We hope that you will study this information carefully so that you have a clear idea of how to respond to road emergencies.

UNEXPECTED HAZARDS

(Listed in alphabetical order.)

Avoid the tendency to slam on the brakes when confronted with a roadway hazard. Slamming on the brakes may cause you to lose control of your vehicle. Look instead for a safe escape route.

Here are examples of unexpected hazards and some suggested procedures to follow:

Accelerator Sticks
Braking is not recommended if the accelerator sticks because brakes will overheat. Instead:

- Shift the transmission into neutral.
- Push the accelerator hard two or three times or attempt to pull it up with your foot.
- If the vehicle does not slow down, try braking, even slowly using the emergency brake with caution, and then pull to the side of the road.

Brake Loss, Hydraulics With A Vacuum Booster

- Downshift transmission to help slow vehicle.
- Apply service brake gradually.
**Headlights Fail**

- Hit the dimmer switch repeatedly.
- Activate the four-way hazard lights.
- Reduce speed, brake and steer out of traffic lanes.
- Stop the bus and set warning reflectors (if at night).
- Check fuses, replace if possible or report the breakdown.

**Mechanical Breakdown**

- Activate emergency hazard flashers, and, if at night, place reflectors in the appropriate position.
- Call your office if you have a radio or cell phone. Otherwise, ask two different passing motorists to notify dispatch of vehicle location and mechanical failure.
- Keep passengers on the vehicle unless it is on the roadway or in a hazardous position. Evacuate if necessary. (See emergency evacuation procedures.)
- The relief vehicle should stop in line with and as close as possible to the rear of the disabled vehicle.
- Drivers of both vehicles activate their hazard lights prior to transferring passengers from one vehicle to the other.

**Sudden Loss Of Visibility**

Loss of visibility is most likely to occur by the hood flying up. If this happens:

- Use windows and mirrors to help keep your sense of direction
- Apply brakes moderately.
- Activate turn signal.
- Steer out of traffic lane and stop.

**Tire Blowout**

- Apply brakes lightly. Avoid using the emergency brake. It might cause the vehicle to pull severely in the direction of the deflated tire.
- Keep a firm grip on the steering wheel.
- Immediately press down on the accelerator.
- Steer the vehicle in the opposite direction of the deflated tire, as necessary.
- When you have stabilized the vehicle; slowly let off of the accelerator; bring the vehicle to a smooth stop; and turn on hazard lights.
• Evacuate the bus if necessary.

**Windshield Wipers Fail**
• Look out side windows to keep sight of the road.
• Apply brakes gradually.
• Signal your lane changes.
• Pull over as far as possible.
• Stop the bus.

**EMERGENCY EQUIPMENT**

**Emergency Hazard Flashers**
Activate the flashers whenever your vehicle is disabled upon the roadway. If you need immediate help, hazard warning lights may be flashed in a repeating series of short and long flashes.

**Emergency Reflectors**
(Excerpted from the California Commercial Driver Handbook, 2007)

When you pull off the road and stop, be sure to turn on the four-way flashers. This is very important at night. Do not trust the taillights to give warning. Drivers have crashed into the rear of a parked truck because they thought it was moving.

If you must stop on the road or the shoulder of a road, put out your reflective triangles within ten minutes. Place your warning devices at the following locations:

1. On a two-lane road with traffic in both directions or on an undivided highway, place warning devices within ten feet of the front or rear corners to mark the location of the vehicle and 100 feet behind and ahead of the vehicle, on the shoulder or in the lane in which you stopped.

2. On the traffic side of the vehicle, within ten feet of the front or rear corners, to mark the location of the vehicle.

3. About 100 feet behind and ahead of the vehicle, on the shoulder or in the lane you are in.
4. Back beyond any hill, curve, or other obstruction that prevents other drivers from seeing the vehicle within 500 feet.

5. If you must stop on or by a one-way or divided highway, place warning devices 10 feet, 100 feet, and 200 feet toward the approaching traffic.

**Fire Extinguisher Use**

Read the instructions before you need to use your fire extinguisher. Although there are many different types of fire extinguishers, all of them operate in a similar manner. It is highly recommended by fire prevention experts that you get hands-on training before operating a fire extinguisher. Most local fire departments offer this service.

Use the PASS acronym as a quick reference (it is a good idea to print this reference and pin it next to your fire extinguisher):

```
P    A    S    S
```

1. **Pull the Pin at the Top of the Extinguisher.**
The pin releases a locking mechanism and will allow you to discharge the extinguisher.

2. **Aim at the Base of the Fire, Not the Flames.**
This is important. To put out the fire, you must extinguish the fuel. A typical fire extinguisher contains 10 seconds of extinguishing power...less if it has already been partially discharged.

3. **Squeeze the Lever Slowly.**
This will release the extinguishing agent in the extinguisher. The discharge will stop if the handle is released.

4. **Sweep from side to side.**

Using a sweeping motion, move the fire extinguisher back and forth until the fire is completely out. Operate the extinguisher from a safe distance, several feet away, and then move toward the fire once it starts to diminish.

Once the fire is out, don't walk away! Watch the area for a few minutes in case it re-ignites. Recharge the extinguisher immediately after use.

**Other Emergency Equipment**

Every vehicle must have a first aid kit. We also recommend that every vehicle be equipped with a bio-hazard kit for cleaning up bodily fluid spills, protecting you and your passengers from exposure to communicable disease. In addition, we recommend that every vehicle be equipped with a sharp folding knife to be used to cut wheelchair straps and seat belts in emergency evacuations.

**ACCIDENT PROCEDURES**

Events happen quickly after an accident. Study the following information carefully to understand how to respond after an accident. Also, make sure you know where the post-accident kit is on board your vehicle. Be sure it contains an accident report form, at least five Courtesy Cards, and a sharp pencil.

After an accident:

1. **Evaluate the scene to take appropriate action.**
2. **Secure the vehicle before leaving the driver's seat.**
3. **Apply first aid to passengers if necessary.**
4. **Keep passengers on the vehicle unless safety hazards warrant evacuation.**
5. **Notify dispatch**
Or request assistance of passing motorist to notify dispatch and/or the state highway patrol or local police and emergency services.

7. **PROTECT THE SCENE FROM FURTHER DAMAGE BY:**
   - checking for fire
   - activating emergency hazard flashers and placing reflectors in designated locations (if accident occurs at night)

8. **EXCHANGE INFORMATION.**
   Drivers in an accident are required to give their names, addresses, drivers license numbers and vehicle registration information to others involved in the accident. In addition, you should record the type and make of vehicle, the number of persons in the vehicle, the damage to the vehicle or property, and the other driver’s insurance carrier and policy number. Write this information on the envelope which contains your accident report form—later transferring it to the report form inside the envelope.

9. **PASS OUT THE COURTESY CARDS INSIDE THE ENVELOPE TO EACH PASSENGER AND ANY POSSIBLE WITNESS OUTSIDE THE VEHICLE.**

   Note the passengers’ seating locations to help determine if the passenger had an unobstructed view of the occurrence.

   Ask those who witnessed the accident to fill out a card. Avoid using the word *witness* because it suggests testifying in court and may make some people hesitant to cooperate.

   Each Courtesy Card is printed in English on one side and Spanish on the other. (If there is a shortage of Courtesy Cards, please use any available paper to note the same information as requested on the cards.) Collect all cards prior to the individuals leaving the scene, checking them for completeness and legibility.

   After collecting the cards, print the vehicle I.D. number or license plate number and the date of loss on the upper right corner of each card. Doing so prevents the cards from being misplaced or attached to another Accident Report Packet.

10. **FACTS RELATING TO THE ACCIDENT SHOULD BE DISCUSSED ONLY WITH INVESTIGATING OFFICERS OR OPERATIONS OFFICIALS.**
    **NEVER ADMIT FAULT TO THE OTHER DRIVER, EVEN IF YOU THINK YOU WERE CLEARLY AT FAULT.**
RECOVERY FROM TRAUMATIC ACCIDENTS

What is trauma? *Trauma is any event that breaks the body's stimulus barrier, leading to overwhelming feelings of helplessness.* \(^1\) Severe trauma can cause post-traumatic stress disorder (PTSD), a disabling anxiety condition.

Why do some people end up with PTSD and some people go through a traumatic event with no ill after-effects? It depends upon how well we process the event after it occurs. PTSD results when we freeze in terror or shock and we don’t find a way to release the emotions and energy of the event. Traumatic memories are so severe that drivers with PTSD may be unable to continue driving professionally.

You can tell if it is likely that a driver has PTSD by the following symptoms:
1. They don’t feel safe when driving
2. They feel disoriented or hyper-vigilant when driving.
3. They experience flashbacks and/or panic attacks.
4. They may continually visualize the accident recurring in the future, and may even experience a similar accident again.
5. They may experience a wide range of personal problems, including eating disorders, alcohol and drug abuse, personality disorders, marital problems, and so on.

What can you do to help a driver after a traumatic accident?

1. Help them take the time they need to quietly recover after the accident.
2. Don’t ask them to re-tell the details of the accident unless it is absolutely necessary for legal purposes.
3. Make every attempt to help them get the professional help they need. Suggest they read *Crash Course: A Self-Healing Guide to Auto Accident Trauma & Recovery.*

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October 8, 2007

Dear Trainers,

Below you will find a list of resources to help you keep informed of the latest news, updates and laws that have changed or about to. You may use this information in your safety meetings. This information will help keep your agency safe and legal.

Department of Motor Vehicles
www.dmv.ca.gov

California Highway Patrol
www.chp.ca.gov/

California Department of Education
www.cde.ca.gov/

Find Legal Codes
www.legalinfo.ca.gov

National Highway Transportation Safety Administration
www.nhtsa.gov

OSHA
www.osha.gov

Kids and Cars
www.kidsandcars.org

Thanks for keeping it safe!

Eileen Wagner,
Certified Safety Instructor
AN URGENT MESSAGE TO OWNERS OF THREE-WHEELED SCOOTERS

Three-wheeled scooters are popular these days. There are, however, risks associated with transporting a person on a three-wheeled scooter. We ask you to carefully weigh those risks if you own a three-wheeled scooter and need transportation.

The federal government published a study in 1995 entitled Tri-Wheeled Scooters Transported on Buses and Vans: Assessment of Securement and Restraint Issues. The report lists the following safety hazards associated with three-wheeled scooters:

- Inaccessible attachment points
- Inadequate strength of attachment points
- Proliferation of scooter models incompatible with securement systems
- Inability to restrain the battery in a crash
- Spillage of battery fluid, unless the scooter battery is of the dry or gel-type
- Shearing or fracture of the seat pedestal
- In a front crash, the passenger’s head hits the pedestal or the back severely bends backwards
- Rollover or tipping instability inherent in tri-wheel scooter design

The report states that scooter manufacturers are well aware of these hazards, which is why most scooter manufacturers issue disclaimers against the transportability of scooters on buses or vans. It also states that:

Within both the technical community and the transit system community, there is consensus that the occupant of the tri-wheeled scooter should transfer to a bus or van seat for maximum occupant protection.

You must make a decision about how you wish to be transported. Are you willing to risk major injury to ride stop your three-wheeled scooter? If not, we strongly encourage you to transfer to a safe seat when you ride in our vehicles.
Sighted guide techniques are an easy and efficient way to provide meaningful help to a blind person. Although many blind people are adept at traveling with a cane or dog guide, many appreciate assistance in an unfamiliar environment. Even the most proficient travelers will utilize sighted guides on occasion to become acquainted with a new area, to cross a street or to maneuver around obstacles.

These techniques will help make assisting a blind person easy and comfortable, but they will not make you proficient. Actual sighted guide training still is recommended.

Making Contact

When approaching a blind person, introduce yourself and ask whether he would like assistance. Verbally offer your arm and brush it against his.

Grasp

The blind person usually will grasp your arm just above the elbow with her fingers on the inside near your waist and her thumb on the outside. The blind person's grasp must be firm enough to be maintained while walking, yet not so tight as to cause you discomfort. If the grip is too tight, say so. This technique allows you flexibility and freedom of motion with both hands.

The standard grasp often is too high for children to reach, so have them grasp your wrist or hold your hand. This will be more comfortable for both of you.
**Stance**

Hold your arm relaxed, yet steady, at your side. The blind person's arm will be at a 90-degree angle and held close to his side. He should proceed by your side and one half-step behind you. The blind person will follow your movements, so do not steer him.

**Support Grasp**

Blind people who are frail, or who have balance problems, often find that the standard grasp does not provide them with adequate support or information. Therefore, rather than holding your arm above the elbow, a blind person may link his arm with yours. This will decrease the amount of space between the two of you and will give added support. In order to accommodate a blind person's unsteadiness and your proximity to each other, you may need to slow your walking pace.

**Taking a Seat**

Approach chairs from the front. Tell the blind person that he is at a chair and slowly bring him up to it until his knees or shin touch the seat.

Place your hand on the back of the chair and let him follow your arm down to locate the chair's back with the hand he has been using to grasp your arm.

Allow the blind person to seat himself. Do not physically assist him or move the chair, unless you are asked to do so.
**Narrow Area**

When approaching a crowded or narrow area, such as a doorway, you should move your forearm and hand so that they rest against the lower portion of your back, with your elbow bent at a 90-degree angle and your palm facing outward.

The blind person will take this cue and move directly behind you at an arm’s length, still maintaining a firm grip. You should take smaller steps and walk slower as you proceed through the narrow area.

For added comfort you can have the blind person move her grasp from above your elbow to your wrist.

After walking through the narrow area, return your arm to the guide position and walk normally.

**Doors**

When approaching a door, assume the narrow space stance and tell the blind person in which direction the door opens. This information will allow the blind person to assist you by holding the door as he passes through. Do not attempt to turn around to hold the door open. This is awkward and diverts your attention.

**Stairs**

Tell the person you are guiding that you are approaching stairs about six feet before reaching the first step. Approach the stairs directly and in such a way that the blind person’s free hand is closest to the rail. Mention whether the stairs go up or down. Pause to allow the blind person to locate the first step and the railing. Always remain
one step ahead and proceed as you would normally, remaining to the right-hand side
of the stairs in order to avoid collisions with others. Pause at each landing to allow the
blind person to stand beside you and to cue him that there are no more steps, until
you begin to move again. Tell the blind person when you have reached the top or
bottom of the stairs.

What to do now

Sighted guide techniques are easy to learn and use. With proper training, you
will be able to guide a visually impaired person in need of assistance.

Anyone interested in formal sighted guide training can contact Braille Institute
to register for an Introduction to Blindness Seminar. The seminars are offered free of
charge and are conducted by orientation

and mobility specialists who explain various aspects of being blind and give hands-on
training in sighted guide techniques.

Braille Institute
741 North Vermont Avenue
Los Angeles, California 90029
(213) 663-1111
Why accidents happen

The vast majority of accidents happen because workers fail to perform properly, not because they lack equipment or knowledge.

- **Knowledge deficit**: 2%
- **Equipment deficit**: 6%
- **Performance deficit**: 92%

Source: Liberty Mutual Insurance Cos.
Fig. 1
Wheelchair or Mobility Aid Envelope

Fig. 2
Toe Clearance Under a Seat
Safety Restraints Policy

We, the board of (name of agency) in keeping with Safety for our (passengers, clients, et al) do hereby adopt the following policy to assure the up most safety of those we provide service for, as well as our employees.

This policy is to insure that no accidents, or incidents, will be the result of not properly securing a (passenger, client). The policies and procedures adopted by (name of agency) is deemed to be the safest to insure the (passenger, clients) safety while being transported in a moving vehicle.

Policy

The vehicle operator of (name of agency) has the authority to refuse a ride, if the (passenger, client) refuses to allow the operator to secure them according to the safety policies and practices of (name of agency). The vehicle operator will advise dispatch of the ride denial, which will be documented.

Adopted at a duly held meeting of the board on (date) by a unanimous vote of the Board of Directors.
CHAPTER 6 - OPERATIONAL PROCEDURES

6.A Mobility Device Securement
   All passenger mobility devices (wheelchairs, scooters, etc.) must be secured to floor of
   Telecare vehicle before passenger and/or mobility device will be transported. This policy is for the
   safety of all passengers.

6.B Passenger Transfers/Lifting
   Telecare staff are not allowed to physically transfer any passenger at anytime nor to lift
   anything over thirty (30) pounds in weight.

6.C Backing Up Telecare Vehicles
   When operating a Telecare vehicle, backing up the vehicle shall be avoided unless
   absolutely necessary in order to ensure the safety of Telecare staff, passengers, and vehicles. If
   backing up a vehicle is necessary, driver must be aware of objects and areas behind vehicle and will
   physically get out of vehicle to check for potentially dangerous situations prior to backing up.
# BEHIND THE WHEEL EVALUATION

**Driver's Name** | **Date** | **Vehicle** | **Examiner**
--- | --- | --- | ---

## Off-Road Skills Tests

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<tr>
<td>Pullups</td>
<td></td>
</tr>
<tr>
<td><strong>Measured Right Turn</strong></td>
<td></td>
</tr>
<tr>
<td>Turns Too Wide</td>
<td></td>
</tr>
<tr>
<td>Turns Too Sharp</td>
<td></td>
</tr>
<tr>
<td><strong>Parallel Parking</strong></td>
<td></td>
</tr>
<tr>
<td>Strikes Marker/Curb</td>
<td></td>
</tr>
<tr>
<td>Control of Vehicle/Trailer</td>
<td></td>
</tr>
<tr>
<td><strong>Serpentine Backing</strong></td>
<td></td>
</tr>
<tr>
<td>Strikes Marker/Curb</td>
<td></td>
</tr>
<tr>
<td>Control of Vehicle/Trailer</td>
<td></td>
</tr>
</tbody>
</table>

## On-Road Driving Skills

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equipment Use</strong></td>
<td></td>
</tr>
<tr>
<td>Signaling</td>
<td></td>
</tr>
<tr>
<td>Lights, Heater, Defroster, etc.</td>
<td></td>
</tr>
<tr>
<td>Smooth Acceleration</td>
<td></td>
</tr>
<tr>
<td>Smooth Deceleration</td>
<td></td>
</tr>
<tr>
<td>Steering Position</td>
<td></td>
</tr>
</tbody>
</table>

## Remarks

(use back)
# DAILY VEHICLE MAINTENANCE CHECKLIST

<table>
<thead>
<tr>
<th>Under Hood</th>
<th>Good Condition</th>
<th>Needs Attention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anti-freeze/Coolant</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Windshield Washer Fluid</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large Radiator Hose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small Heater Hose</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drive Belts (Alternator, A/C, Fan)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Battery Cable</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outside of Bus</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lights—Headlights, Taillights, Turn Signals, Clearance</td>
<td></td>
</tr>
<tr>
<td>Lights, Brake Lights, Backup Lights, &amp; Reflectors</td>
<td></td>
</tr>
<tr>
<td>Visual Checks for Fluid Leaks</td>
<td></td>
</tr>
<tr>
<td>Tires, Wheels, Lug Nuts, Rims</td>
<td></td>
</tr>
<tr>
<td>Springs &amp; Shock Absorbers</td>
<td></td>
</tr>
<tr>
<td>Mirrors</td>
<td></td>
</tr>
<tr>
<td>Window Glass</td>
<td></td>
</tr>
<tr>
<td>Body of Roof Panels, Paint, &amp; Signs</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inside of Bus</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Brake (no more than 3/4 way to floor)</td>
<td></td>
</tr>
<tr>
<td>Gauges, Interior Lights &amp; Turn Signals</td>
<td></td>
</tr>
<tr>
<td>Heater, Defroster, &amp; A/C</td>
<td></td>
</tr>
<tr>
<td>Windshield Wipers</td>
<td></td>
</tr>
<tr>
<td>Horn</td>
<td></td>
</tr>
<tr>
<td>Radio</td>
<td></td>
</tr>
<tr>
<td>Steering Wheel Travel</td>
<td></td>
</tr>
<tr>
<td>Fire Extinguisher Seal, Pressure, Date Tag</td>
<td></td>
</tr>
<tr>
<td>Handrails, Seats, &amp; Seat Belts</td>
<td></td>
</tr>
<tr>
<td>Emergency Windows Open</td>
<td></td>
</tr>
<tr>
<td>Rear Door Opens</td>
<td></td>
</tr>
<tr>
<td>First Aid Kit</td>
<td></td>
</tr>
<tr>
<td>Bio-Hazard Kit</td>
<td></td>
</tr>
<tr>
<td>Emergency Reflectors (3)</td>
<td></td>
</tr>
<tr>
<td>Wheelchair Lap Belts (1 per wheelchair station)</td>
<td></td>
</tr>
<tr>
<td>Tiedowns (4 per wheelchair station)</td>
<td></td>
</tr>
<tr>
<td>Wheelchair Tiedown Track</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Lift</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mounting Bolts &amp; Welds—Should be Tight</td>
<td></td>
</tr>
<tr>
<td>Lift sequence (Stand on Lift)</td>
<td></td>
</tr>
<tr>
<td>Anti-Roll Barrier (Must Lock)</td>
<td></td>
</tr>
<tr>
<td>Operating Instructions</td>
<td></td>
</tr>
<tr>
<td>Interlock System</td>
<td></td>
</tr>
</tbody>
</table>
Description of Mechanical Problems:

| Work Scheduled | Date |
| Work Order Written | Date |
| Parts on Order, Due on... | Date |
| Scheduled Out of Service on | Date |
| Scheduled Out of Service on | Date |
| Notified Office of Progress | Date |

Maintenance Center Action:

| Work Scheduled | Date |
| Work Order Written | Date |
| Parts on Order, Due on... | Date |
| Scheduled Out of Service on | Date |
| Scheduled Out of Service on | Date |
| Notified Office of Progress | Date |

Description of Mechanical Work Done:

Mechanic's Signature: Date

Operations Office Action:

| Performs Repairs Immediately | Date |
| Coordinate with Office Regarding Repairs | Date |
| Other | Date |

Signature Authorizing Repairs Date