Vehicle Towing Safety Manual
(Revised January 15, 2013)
1. Scope ................................................................. 3
2. Statement of Purpose ................................................................. 3
3. Driver Qualification Standards ......................................................... 3
4. Skills Test ........................................................................ 3
5. Requirements ................................................................... 4
6. Vehicle Maintenance File ............................................................... 4
7. Vehicle Operator Responsibilities ...................................................... 4
8. Impaired Driving ................................................................ 4
9. Cell Phones .................................................................... 5
10. Use Of Personal Vehicles ............................................................. 5
11. Introduction To Towing ................................................................. 5
12. Trailer Towing Components ......................................................... 5
13. Trailer Loading .................................................................. 7
14. Pre-Trip Safety Inspection ............................................................. 8
15. Before You Hook Up ................................................................ 10
16. Hooking Up ..................................................................... 10
17. Unhooking ....................................................................... 11
18. Electric Brakes ................................................................ 12
19. Towing Safely ..................................................................... 12
20. Basic Trailering Safety Practices .................................................... 12
21. Do’s And Don’ts To Think About .................................................... 16
1. **Scope**
These guidelines provide standard trailer towing procedures for 12Stone Church Volunteer Workers, Church Staff, and other persons that may assist in trailering vehicles. These guidelines are not designed to take the place of the vehicle owner safety manuals but provide a better sense of understanding how to safely operate a vehicle while towing a trailer.

2. **Statement of Purpose**
These guidelines outline the measures to be taken to reduce risks and to provide an accident free environment for our employees, volunteers and other persons that may assist in trailering vehicles. You are our biggest asset, and this manual was created to keep you safe. This manual serves as a guide to ensure you can safely operate a trailered vehicle. This safety manual and skills test does not serve as a driving instruction school.

Employees, volunteers, and other persons whose responsibilities include operating, driving, or towing a 12Stone® Church vehicle are responsible for following all of the guidelines set forth in this Safety Manual. These responsibilities include:

- Safe operation of vehicles and for the safety of passengers and cargo
- Having a valid driver's license in their possession
- Inspecting the vehicle, which they are about to drive, in accordance with established policies
- Reporting any vehicle accidents

3. **Driver Qualification Standards**
This safety manual and skills test will establish qualification standards for new employees and existing employees, volunteers and others that have driving duties. To enforce these standards, 12Stone Church has implemented the following driver qualification requirements.

- **Driver Age Requirements** All drivers must be a minimum of 21 years of age.
- **Read and successfully pass all written questions pertaining to this safety manual, and demonstrate the ability to safely operate a trailered vehicle.**
- **12Stone Church will obtain a legible copy of the license of all driver applicants. A review of the license will be conducted though the Georgia Department of Drivers Services for point’s violations and to be certain it is valid, and has not expired.**

4. **Skills Test**
There are 4 required tests you will need to pass:

- **General knowledge test** – All questions are taken from this study guide.
- **Pre-trip inspection test**
  - You will be tested to see if you know whether your vehicle is safe to drive.
  - You will be asked to do a pre-trip inspection of your vehicle and explain to the examiner what you would inspect and why.
- **Basic Vehicle Control** – You will be tested on your skill to control the vehicle. You will be asked to move forward, backward, and turn in a defined area. These areas may be marked with cones. You will be instructed as to how each control test is to be done.
- **On-road Test** – You will be tested on your skill to safely drive your vehicle in a variety of traffic situations. These may include left and right turns, intersections, and curves, up and down grades, multi-lane highways and stopping.
5. Requirements

In an effort to monitor the safe driving habits of our employees who drive for company business, a Motor Vehicle Record Check policy has been established. Driving is a significant safety exposure for our employees, volunteers, and other persons, and a serious liability exposure for our Church. When you operate a 12Stone Church vehicle on the roadway, any citations that arise from your actions, including accidents are your responsibility. Injuries and/or physical damage you cause due to your negligence could result in legal action against you. 12Stone Church carries insurance to protect the church and its assets. The driver is responsible for their actions.

Therefore minimum standards for acceptable Motor Vehicle Records (MVR) have been established for use in evaluating driving records for current and prospective driving employees and volunteers.

6. Vehicle Maintenance File

A complete record on each vehicle in the fleet will be kept. It will include basic vehicle information and information indicating the nature and due date of any inspection and maintenance operations to be performed on the vehicle, and a record of any inspections, repairs and maintenance performed on the vehicle in question, including dates performed and specifics on the nature of the operations.

7. Vehicle Operator Responsibilities

The driver is responsible for checking the safety and general condition of the vehicle, including gas, oil, and other fluid levels, lights, and brakes. Supervisors will furnish vehicles with inspection checklists. If there is something wrong with the vehicle, which may affect safety, repairs will be made before use.

- **Vehicle Abuse** No employee will use a vehicle or equipment for any purpose for which it was not designed, operate it beyond its designed limits, operate it in areas or locations for which it was not designed, or cause damage through neglect, misuse, improper driving techniques, or improper handling.
- **Transporting Employees** - in 12Stone Church vehicles. No more than two employees will ride in the front seat and no more 5 people total in a crew cab vehicle. Each position will be equipped with a seat belt, and each person will use the seat belt provided. No employee will be authorized to ride or work from the bed or rear of a vehicle while it is in motion.
- **Traffic Laws** – Employees will adhere to all traffic laws and regulations when operating 12Stone Church vehicles. An employee will at all times operate 12Stone vehicles in such a manner as to avoid injury to persons or damage to property.
- **Unauthorized Use of Vehicles** – 12Stone vehicles are to be used for 12Stone Church business only. Persons found using 12Stone vehicles for their personal errands may be subject to disciplinary action.

8. Impaired Driving

It shall be strictly prohibited to operate a 12Stone Church vehicle under the influence of alcohol or drugs. Driving under the influence of drugs, including prescription medications, can also bring DUI charges.

**Prescription Medications That Can Affect Driving:**

- Anti-anxiety medications such as Xanax
- Barbiturates such as Secobarbital, Seconal and Phenobarbital
- Allergy medicines such as antihistamines
- Pain medications such as OxyContin and Avinza
- Tranquilizers such as Valium
- Sleep medications such as Ambien
- Cough syrups containing codeine
• Stimulants/amphetamines such as Dexedrine and Adderall
• ADHD drugs such as Ritalin and Concerta

Be sure to look at the warnings on your prescription drug bottles. Many of these warning labels advise not to drive or use heavy machinery. Even if your prescription does not have a warning label, caution is suggested. If a prescribed medication impairs your ability to drive, don’t drive.

9. Cell Phones
All employees, volunteers, and other persons (drivers) who may operate a 12Stone® Church vehicle are prohibited from using hand-held mobile phones while behind the wheel. All drivers are expected to follow applicable state laws or regulations regarding the use of cell phones or PDA’s at all times. Drivers whose job responsibilities include regular or occasional driving are expected to refrain from using their phone to text, receive or place calls, surf the web, email or instant message or to take pictures or video while driving. Use of a cell phone or PDA while driving is not required by 12Stone Church. Safety must come before all other concerns. Drivers who are charged with traffic violations resulting from the use of their phone or PDA while driving will be solely responsible for all liabilities that result from such actions.

As with any policy, management staff is expected to serve as role models for proper compliance with the provisions above and are encouraged to regularly remind employees of their responsibilities in complying with this policy. Violations of this policy will be subject to the highest forms of discipline, including termination. Regardless of the circumstances, including slow or stopped traffic, drivers are required to pull into a rest area or parking lot and safely stop the vehicle before placing or accepting a call or use hands-free operations, refrain from discussion of complicated or emotional matters and keep their eyes on the road. Special care should be taken in situations where there is traffic, inclement weather or the driver is driving in an unfamiliar area.

10. Use of Personal Vehicles
12Stone® Church Executive Staff will identify and authorize those employees or volunteers who are required, as part of their normal job duties to use their personal vehicle to conduct 12Stone® Church business. The employee’s or volunteer’s own insurance policy is the primary coverage; therefore, 12stone Church will not be responsible for any claims that arise out of any motor vehicle accident that the employee or volunteer or other person is involved while operating their personal vehicle.

11. Introduction to Towing
Towing a trailer need not be a stressful driving situation, even though several aspects of your normal driving experience may change. Your vehicle becomes heavier, slower, and doesn’t generally stop as well. It seems like other drivers rush around you, won’t let you change lanes, and worst of all, they’ll pull right in front of you and hit the brakes. Common sense is your best friend when it comes to safe trailering, and overconfidence is your worst enemy.

When driving on the roadways, it is state law that all occupants be properly seat-belted inside the vehicle. It is also a 12Stone policy. Never allow passengers to ride either on or inside a trailer.

12. Trailer Towing Components
The first things to learn about trailer towing are the names of the various components and parts used to connect the vehicle and the trailer. There’s a whole range of terms devoted to towing, and you need to know the correct names to make proper hookups. The following definitions will be used throughout this manual.
Your tow vehicle is the truck, van, or SUV you use to pull your trailer.

The receiver connects to your tow vehicle.

The Ball Mount connects to the receiver.

The Hitch Ball is bolted to the Ball Mount.
The Trailer Tongue extends from the trailer and the Safety Chains connect to the Hitch

The Coupler connects to the hitch ball. Here the photo shows the coupler with a standard coupler lock inserted into the latch. This should be used when storing the trailer in an unsecure environment.

The coupler latch safety pin will always be used when transporting a trailer.

Electric brake-a-way assembly. The safety hook attaches to the receiver (If so equipped)

13. **Trailer Loading**

The storage capacity in trailer offers any number of possibilities for improper weight distribution. The way you load your supplies can have a major impact on how the vehicle handles, as well as on the durability of your tires. The results of overloading can be serious. Passenger safety is at stake. Problems such as tire failure and/or poor handling can leave the driver with inadequate ability to control the vehicle during emergency maneuvers.

The way you load the trailer can determine how easy you can tow it. One of the main causes of trailer sway is not having a large enough percentage of trailer tongue weight compared to gross trailer weight. To help prevent the trailer from swaying back and forth, a few things can be done. Try placing heavier cargo in the front of the trailer, ahead of the trailer’s axle. At least 60 percent of the weight should be placed in front of the axle. Also center the cargo left-to-right and use tie-downs to keep the load from sliding.
Trailer Sway can also lead to a loss of vehicle control. When starting out with a new load on a trailer, make sure it will not sway by gradually increasing your speed in intervals until highway speed is reached. If the trailer does begin to sway, try adjusting the cargo and equipment accordingly and then repeat the test.

Never overload a trailer. The content weight must never exceed the GVWR. The maximum weight our trailers can carry is indicated on the inside of the trailer doors.

14. Pre-Trip Safety Inspection

Safety is the most important reason you inspect your vehicle. A problem located during an inspection can save you problems later. 12Stone® Church is committed to following an aggressive daily inspection program. All driver’s vehicles are to be inspected every day they are operated regardless of previous use, whether first time hookup or same day operation from another driver. Each driver must be satisfied that his/her assigned vehicle is in proper working condition prior to operating. Each driver must also be satisfied that any cargo is properly distributed and secured. The driver shall not drive the vehicle until the defects are handled appropriately. When a driver reports safety related problems or vehicle damage, the vehicle inspection report should be submitted to his/her Supervisor. The Supervisor will sign the report indicating that repairs have been made (or are not required to be made). The original inspection report and certification of repairs will be retained in the Vehicle Maintenance File.

It is incumbent upon you to report safety issues.

- Fuel – Make sure your tow vehicle has enough fuel. It is much easier to gas up your tow vehicle without a trailer attached.
- Trailer Wiring – Always make sure the turn signals, brake lights, taillights, and electric brakes are working on the trailer prior to each use.

- Trailer Couplers – The inside of the coupler should be clean and slightly lubricated with grease. This will help prevent binding during turning and help any moving parts inside the coupler move smoother. Apply grease to the hitch ball when necessary.
- Safety Chains – Always connect the trailer’s safety chains securely to the trailer hitch or tow vehicle by crossing them underneath the coupler. The safety chains should only be long enough to allow for tight turns.

- Have two chains crisscrossing under the trailer tongue connecting the trailer to the bumper or the receiver on your towing vehicle. Attachment devices (like trailer hooks) at the end of the chains should be sturdy and solidly in place. Crossing the chains under the tongue will allow them to form a net that catches the trailer’s tongue in case it breaks loose and falls to the roadway. The chains must be short enough to keep the trailer from drifting but with enough
slack to allow the towing vehicle to turn with ease. They also shouldn’t be allowed to drag on the ground.

- Purpose of Hitch Safety Chains – In May 2007, a small trailer became unhitched from the Lincoln Navigator towing it on Maryland’s Chesapeake Bay Bridge. The trailer flew backwards; causing a seven-vehicle crash that killed three people. The Navigator had hitch safety chains, but investigators said they weren’t installed properly and that the trailer didn’t have a safety pin. This is an example of the kind of damage a trailer can do when it’s not properly secured with hitch safety chains. If the trailer coupling separates from the ball mount, or the ball disconnects from the hitch, the chains will keep the trailer from drifting down the road during towing. They are designed to keep your vehicle and trailer attached long enough for you to safely come to a stop and properly reattach them.

Whether you’re towing short distances or going cross-country, it’s important to always use safety chains. Hitch safety chains are used more as an insurance policy.

- **Trailer Tires** – Check tire inflation and tread wear often. Fill the tires to match manufacturer’s guidelines. The proper tire pressure is the “Max Tire Pressure” stated on the sidewall of the tire. Tires with too much or too little air pressure can cause the trailer to sway. It’s just as important, if not more so, to closely monitor your tires when towing -- aside from worrying about the tow vehicle itself, you also have to keep in mind the extra sets of wheels belonging to the towed vehicle. Proper tire inflation will help you stop safely when you apply the brakes.

Problems to look for:
- Too much or too little air pressure
- (Check air with tire pressure gauge if necessary)
- Bad wear. You need at least 4/32-inch tread depth in every major groove on tires. No fabric or cord should show through the tread or sidewall
- Cuts or other damage
- Tread separation
- Tires that come in contact with fender

- **Electric Brakes**

  - Trailers equipped with electric brakes have a device that applies the brakes if the trailer becomes disconnected from the tow vehicle. This system is called a “Brake-A-Way”. The system connects to the truck with a small cable that pulls a lever to engage the trailer-mounted brake unit if the trailer becomes separated from your tow vehicle. If your trailer has this feature, use it every time you tow. While driving, your trailer brakes are designed to work in synchronization with your tow vehicle brakes.

  - If equipped verify that the brakes on the tow vehicle and trailer are operating correctly. To check the trailer brakes, activate the brake controller in the tow vehicle and have your helper listen near the wheels of the trailer. There should be a buzzing or clicking noise coming from that area. This indicates that power is being applied to the trailer’s electric brakes.

- **License Plate** – Must be present, clean and secured.

- **Cargo** – Properly packed according to weight, braced, fastened and tied down. Rear doors securely closed, latched and/or locked.

- **Mirrors** -- Clean, check and adjust your side mirrors to make sure you have good visibility around your trailer. The towing vehicle must have properly adjusted tow mirrors that exceed the width of
the trailer. Drivers should have a clear and unobstructed view from both mirrors of the right and left rear of the trailer you are towing, when the vehicle and trailer are in straight line.

**Report any problems that may affect safety immediately to your supervisor so that the vehicle and/or trailer can be taken out of service if necessary. Do not operate the vehicle and/or trailer until such repairs can be made.**

15. **Before You Hook Up**

The towing vehicle must be properly rated to tow the trailer (e.g. the Sugarloaf trailer must be pulled by the white GMC 3/4 ton pickup truck [or equivalent]. This information can be obtained from the tow vehicle owner's manual.

16. **Hooking Up**

**Backing Up With a Helper** - Try to have a good helper to spot for you while you back up to your trailer. The difference between a good helper and a bad helper is simply whether the helper knows how to pass information to the driver. Before you attempt to back up with a helper, establish what signals you expect to see. Chances are good that you can't hear spoken or even shouted words, especially if you're backing up in a diesel truck. So you want to be sure that you've got your sign language in order.

Have the helper stand on the driver's side of the trailer, about even with the trailer tongue. Make sure you can see the helper clearly in the side view mirror. The best signs do not involve which way to turn the steering wheel, but rather for the helper to indicate to bring the rear end of the tow vehicle "towards me" or "away from me." Remember, you'll be seeing the mirror image, so you want the directions to be easy to understand.

When you're lined up, have the helper give you some clues about how far you need to go. These can be exaggerated and it's best to err on the side of safety. Trailer tongues have speared countless license plates while the "helper" was still indicating a foot to go! Take it slowly and inch backwards for the last foot or two.

**Backing Up Alone** - Backing up your tow vehicle to the trailer without a spotter is a challenge for beginners. You have to get everything lined up very closely to get the trailer coupler onto the ball. However, there are a few handy tricks you can use. The easiest trick is to bring the trailer to your vehicle, if its light enough and you have a good surface to push the trailer around. But for heavier trailers, locate an object in your rear window (i.e.: bright tape on the tow vehicle tailgate) in line with your hitch to help them line up. When you are lined up and getting close - about a foot away - it's time to stop and take a look.

First, make sure to crank up your trailer jack so that the trailer coupler is high enough off the ground that your tow ball will not hit the coupler. For the last foot of distance, if you don't have someone watching to tell you when you're on the ball, just estimate the distance you need to move and leave your driver's door open while you back up. It's easier to gauge small distances if you watch the ground.

**Are You On The Ball?**  When you finally have your trailer ball under the trailer coupler, you'll need to use the trailer jack to lower the coupler onto the ball. Make sure the coupler is in the loose position and that the clamp in the coupler has dropped open. These parts can tend to stick, especially if they haven't been lubricated or used in a while. If your coupler clamp has not released, the coupler will come down on the ball and it will look like it has covered the ball correctly, but nothing except gravity is holding it on the hitch! This is a major cause of breakaway accidents, so it pays to make sure. You should be able to feel the clamp around the bottom of the ball when the coupler is connected. If the clamp release doesn't come down correctly, that's a big clue that you're not really on the ball.

**Hooking Up Procedure - Weight Carrying Hitch** - When you're on the ball, you need to make sure you connect up every part of your hitch. Be sure your hitch ball and coupler are an exact match and fit.
**Step 1:** Make sure that your coupler clamp lock is down and the release latch has hooked securely. Install a coupler safety pin or coupler lock. At minimum, make sure you use a coupler pin to keep the coupler lever from accidentally popping open. Completely stow the trailer tongue jack.

**Step 2:** Check the hitch pin that holds your ball mount in the hitch receiver. You need a hitch pin clip in good condition or use a hitch pin lock to hold the ball mount in place.

**Step 3:** Attach your safety chains, crossing them under the trailer coupler. This helps to ensure that the coupler falls onto the crossed chains in the event of a breakaway.

**Step 4:** Connect your trailer light wiring to your vehicle's connector and check all of your lights, including the brake lights.

**Step 5:** Be sure to attach the electric brake safety hook to the trailer hitch (if equipped). If the trailer ever "breaks away" this will automatically activate the trailer brake. Without this, a breakaway will leave you with absolutely no control over the vehicle you formerly were towing. Once a trailer separates from the tow vehicle, unless it's equipped with a functional breakaway kit, the trailer will continue moving forward until it either loses momentum and slows down or hits something else.

**Step 6:** Be sure to check your mirrors before your trip. Clean, check and adjust your side and rear-view mirrors to make sure you have good visibility around your trailer.

17. **Unhooking**

**Step 1:** Move the trailer and vehicle to a level surface. You want to find a place where the trailer is neither slanting uphill nor downhill and that it isn't leaning to the right or the left. An uneven surface is a prescription for disaster. If the trailer is on an uneven surface it can shift or roll during the unhitching procedure.

**Step 2:** Chock the wheels. This keeps the trailer from rolling or shifting while you remove it from the hitch. It is best to place a chock both in front and behind the tires. Make sure the chocks are securely under the wheels.

**Step 3:** Disconnect the wires and chains between the tongue of the trailer and the tow vehicle. There will be two chains, one for each side, holding the trailer to the bumper of the vehicle in case it comes unhooked from the hitch ball during transit. The lights on the trailer connect to the vehicle through an electrical connector. There also may be a breakaway cable that will alert the driver if the trailer breaks free of the vehicle. Wrap the connections around the tongue of the trailer once they have been unhooked.

**Step 4:** Remove the cotter pin from the latch on the trailer that holds the hitch ball in place. This latch can be locked shut to prevent unhooking or hooking up to a vehicle by placing a padlock on the lever. This will allow you to complete the removal of the trailer from the vehicle. Raise the lever on the latch.

**Step 5:** Lower the jack on the tongue of the trailer until it rests on the ground. Slowly begin to lift the trailer off the bumper. As the weight lifts from the vehicle, you will notice the bumper rising up. Once the trailer releases the ball of the hitch and is resting above the ball, pull the trailer away from the vehicle.

**Step 6:** Secure the trailer by locking the jack and ball latch closed. Leave the chocks in place and add chocks to the front and back of the other tire. The final safety precaution is to place a few blocks under the tongue of the trailer in case the jack gives way.
18. **Electric Brakes**

*If the trailer is equipped with electric trailer brakes, your tow vehicle must be equipped with an electric brake control.*

An electric brake controller installed in your tow vehicle applies the trailer brakes automatically when the tow vehicle’s brakes have been applied. Most brake controllers will apply only the amount of braking needed, depending on speed, the amount of pressure applied to the brake pedal and the rate of deceleration. If your electric brake controller is not adjusted properly, the trailer brakes may grab, skid or not work at all.

**Instructions to properly adjust your trailer’s electric brake:**

**Step 1:** Connect the trailer to the tow vehicle. Plug in the trailer's electrical connection to the receptacle near the trailer hitch on the rear of the tow vehicle.

**Step 2:** Before entering the street test your brakes by activating the brake controller in the tow vehicle while moving forward and have your helper listen near the wheels of the trailer. There should be a buzzing or clicking noise coming from that area. This indicates that power is being applied to the trailer's electric brakes. If no helper is available apply the trailer brakes using the brake controller installed in the tow vehicle and you should feel the trailer and tow vehicle slow and stop. Do this test on pavement. Do not test brakes on a loose surface like gravel.

**Step 3:** Keep the engine running. Turn the power control knob on the brake controller to its mid-point setting.

**Step 4:** Drive the rig up to a speed of approximately 25 mph and release the accelerator.

**Step 5:** Slide the manual control lever on the front of the brake controller all the way over to its maximum limit.

**Step 6:** Note the braking action of the trailer. If the trailer wheels locked up or skidded on the pavement, turn the power lever down to the next setting. If trailer braking was not sufficient to slow down the entire rig, turn up the power knob to its next setting.

**Step 7:** Repeat the driving and braking test and make adjustments as necessary. Continue to make adjustments until trailer wheel-skid has been eliminated and there are sufficient trailer brakes to slow the entire rig down noticeably.

**Step 8:** Test-drive the rig again and use the tow vehicle's brake pedal to slow or stop the rig. Make further fine-tune adjustments to the power knob on the brake controller, if necessary, until you are comfortable that the trailer brakes are doing their share of slowing and stopping the rig without grabbing or skidding.

19. **Towing Safely**

Safety should always be your main concern when you’re pulling a trailer. Because no matter how easy and comfortable the process, the fact is that you’re towing rig weighs more and doesn’t dodge or stop as easily as other cars on the road. If you observe some simple safety rules and practices, you can greatly reduce the likelihood of accidents and handle many emergency-driving situations like a pro.

20. **Basic Trailering Safety Practices**

**Backing up your trailer**—Because you cannot see everything behind your vehicle backing is always dangerous. Avoid backing whenever possible. When you park try and park so that you will only be required to pull forward when you leave. When you have to back up, here are a few simple safety rules.
• Look at your path – Get out and look around your vehicle
• Back Slowly - Always back as slowly as possible
• Back and turn towards the driver’s side whenever possible. (For better visibility)
• Use a helper

**Be extra careful changing lanes** - Changing lanes is a challenge, especially if traffic in the new lane is moving much faster or slower than you. You simply cannot accelerate quickly to match traffic, and no one likes to be cut off. Make sure you've got wide enough trailering mirrors installed to give you a clear view of the lane next your tow vehicle and the full length of your trailer. Unthinking drivers will often “park” next to your trailer and hang there for miles.

**Be patient with slower vehicles** - Passing a slower car should be a rare occurrence when you're towing. You have to allow many times the distance normally required to pass another vehicle. Passing on a two-lane road should almost never happen - you should be passing only vehicles that cannot maintain at least 50% of the posted speed. Better to wait for a turnout and hope the slower traffic uses it!

**Be gracious with faster vehicles** - The best way to get down the road safely is to be extra courteous to faster traffic. Use turnouts whenever possible, and when a passing lane comes along, don’t speed up to race passing traffic, but rather slow down just a bit to help people get past you in an efficient manner. Your stress level will be reduced and you’ll contribute to a courteous culture on the road. Above all, be solid and predictable when someone is passing you. Avoid sudden acceleration, braking, or maneuvers.

**Don’t pull in where you can’t see out** - It's easy to get stuck with a trailer. You might pull into a small parking lot and have to perform a complicated backup maneuver to get out. Better to park across the street or on the road where you can see your way through. When parked, always apply the parking brake.

**Be safe with a trailer lock** - Trailer theft is a serious problem. Enclosed equipment trailers are often stolen and pillaged for their contents. Use a coupler lock when parked in unsecured areas so that no one can hook up your trailer and haul it away. Don’t forget to lock the trailer doors!

**Take the long view** - Since it takes longer to go, stop, change lanes, and turn with a trailer, keep your eyes up and look ahead farther than you normally do. You can see many problems developing a long ways away. Look past the car ahead of you.

**Watch traffic flow** - You can frequently identify the drivers who may cause problems long before they can make trouble for you. Look for the driver who’s weaving through traffic, or who pulls in right in front of a faster car. Keep an eye out for the driver who can’t stay in a lane because he's too busy with his cell phone, or the 18-wheeler that’s about to lose a smoking tire. Give all potential problems plenty of room, and you can usually do that with just a small speed adjustment.

**Keep an eye out for sway** - If an 18-wheeler blows by you like you’re chained to a bridge, especially on a downhill grade, your trailer is likely to be blown around a bit. If you’re not careful, your trailer can start swinging like a pendulum. The answer is to simply ride the brakes very gently. If that doesn't work, input a little trailer brake with the brake controller. Just press the button and your trailer will snap right back in behind your tow vehicle.

**Handling Tire Blowouts** - Even if you buy quality tires, you can experience a flat. By far, the most dangerous flat is on the rear axle of your tow vehicle. A flat front tire will make your steering feel heavy and unresponsive, but you can slow down and pull off. A flat on your trailer will pull your car around a little, but you can still slow down and pull off easily.

A flat on the rear of your tow vehicle, however, can make your tow vehicle difficult to steer predictably, and getting off the gas abruptly can make the situation worse. If you get a blowout in your back tires, gently ease
off the gas and apply some trailer brake with the controller and find a place to brake gently and pull off. Smoothness and gentle pedal work will get you to the shoulder safely.

**Towing in Bad Weather** - Safe towing in bad weather requires the same common sense for dry daytime towing, and even more of it. High winds will blow your trailer around. Of course, rain and snow further reduce your traction and greatly increase your stopping time and distance. The key to good foul weather towing is patience and smooth, gentle driving.

**Cornering and Curves** – When a trailered vehicle goes around a corner, the rear wheels follow a different path than the front wheels. This is called off tracking. Longer vehicles will off-track more. Steer the front end wide enough around a corner so the rear end does not run over the curb, pedestrians, etc. However, keep the rear of your vehicle close to the curb.

This will stop other drivers from passing you on the right. If you cannot complete your turn without entering another traffic lane, turn wide as you complete the turn. This is better than swinging wide to the left before starting the turn because it will keep other drivers from passing you on the right.

**When You Have to Stop** - Part of smooth towing is smooth stopping. At least 70% of a good stop is in the equipment. Your good sense makes up the balance. Don’t ask your vehicle for a full-force stop every time! Allow more distance for stopping, remember you are carrying more weight and it will take longer to slow down. If you have an electric trailer brake controller and excessive sway occurs, activate the trailer brake controller by hand. Do not attempt to control trailer sway by applying the tow vehicle brakes; this will generally make the sway worse. Always control your speed whether the trailer is fully loaded or empty. Allow lots of following distance and look far ahead, so you can brake early. Don’t be caught by surprise and have to make a “panic” stop.

**Stopping Distance** – Perception Distance + Reaction Distance + Braking Distance = Total Stopping Distance

**Perception distance.** The distance your vehicle travels, in ideal conditions; from the time your eyes see a hazard until your brain recognizes it. Keep in mind certain mental and physical conditions can affect your perception distance. It can be affected greatly depending on visibility and the hazard itself. The average perception time for an alert driver is 1¾ seconds. At 55 mph this accounts for 142 feet traveled.

**Reaction distance.** The distance you will continue to travel, in ideal conditions; before you physically hit the brakes, in response to a hazard seen ahead. The average driver has a reaction time of ¾ second to 1 second. At 55 mph this accounts for 61 feet.

**Braking distance.** The distance your vehicle will travel, in ideal conditions; while you are braking. At 55 mph on dry pavement with good brakes, it can take about 216 feet.

**Total stopping distance.** The total minimum distance your vehicle has traveled, in ideal conditions, with everything considered, including perception distance, reaction distance and braking distance, until you can bring your vehicle to a complete stop. At 55 mph your vehicle will travel a minimum of 419 feet.

**The Effect of Speed on Stopping Distance.** The faster you drive, the greater the impact or striking power of your vehicle. When you double your speed from 20 to 40 mph the impact is 4 times greater. The braking distance is also 4 times longer. Triple the speed from 20 to 60 mph and the impact and braking distance is 9 times greater. High speeds greatly increase the severity of crashes and stopping distances. By slowing down, you can reduce braking distance.

**Matching Speed to the Road Surface.** You can’t steer or brake a vehicle unless you have traction. Traction is friction between the tires and the road. There are some road conditions that reduce traction and call for lower speeds.
Slippery Surfaces. It will take longer to stop, and it will be harder to turn without skidding, when the road is slippery. Wet roads can double stopping distance. You must drive slower to be able to stop in the same distance as on a dry road. Reduce speed by about one-third. Watch your speedometer, and don't allow your speed to creep up as you drive through long sections of road. Decrease your speed for adverse weather or road conditions.

The Need for Space Ahead. You need space ahead in case you must suddenly stop. According to most accident reports, the vehicle that trailering vehicles strike most often is the one in front of them. The most frequent cause is following too closely. Remember, if the vehicle ahead of you is smaller than yours, it can probably stop faster than you can.

Stay to the Right. – Heavy vehicles are often tailgated when they can’t keep up with the speed of traffic. This often happens when you're going uphill. If a heavy load is slowing you down, stay in the right lane if you can.

Backing up a Trailer - Put your hand at the bottom of the steering wheel at the 6 o’clock position. To turn left, move your hand left. To turn right, move your hand right. Back up slowly. Because mirrors cannot provide all of the visibility due to blind spots it is a good idea to have a ground guide to direct you. Be sure to have this person stand to the side of the vehicle when directing you for backing for their own safety. Use slight movements of the steering wheel to adjust direction. Do not over exaggerate movements, as this will cause a larger movement of the trailer. If you have difficulty, pull forward and realign the tow vehicle and trailer and start again. The shorter the distance from your hitch to the trailer wheels, the harder it is to back up in a straight and predictable way. Short trailers swing around with the slightest steering input! Long trailers are comparatively easy to back up.

Caution – Before you back into an area, get out of your vehicle and check for canopies or overhanging objects such as branches or electric wires.

Parking – On flat surfaces apply your parking brake, shift into park and release the brake. Try to avoid parking on grades. If possible, have someone outside to guide you as you park. Once stopped, but before shifting into park, have someone place blocks on the downhill side of the trailer wheels. Apply the parking brake, shift into park, and then remove your foot from the brake pedal. Following these parking steps is important to make sure your vehicle does not become locked into park because of extra load on the transmission. For manual transmissions, apply the parking brake and then turn the vehicle off in either first or reverse gear. When uncoupling a trailer, place blocks at the front and rear of the trailer tires to ensure that the trailer does not roll away when the coupling is released. An unbalanced load may cause the tongue to
suddenly rotate upward; therefore, before un-coupling, place jack stands under the rear of the trailer to prevent any injury.

**Acceleration and Passing** - When passing a slower vehicle or changing lanes, signal well in advance and make sure you allow extra distance to clear the vehicle before you pull back into the lane. Pass on level terrain with plenty of clearance. Avoid passing on steep upgrades or downgrades. Pass only in posted areas. When passing on narrow roads, be careful not to go onto a soft shoulder. This could cause your trailer to jackknife or for you to lose control of your vehicle.

**Weather** - Pay caution when the roads are wet from rain or snow. Reduce speed for safety. If there is any doubt of black ice on the road or ice at all on the road – avoid driving for your own safety.

*Be extra cautious of potholes and other large bumps. Riding over one can damage the tow vehicle, trailer hitch and/or trailer. When pulling a trailer take your time and be careful. Staying cautious and aware is the best way to ensure a safe trip while towing – so... slow down!*

21. **Do's And Don'ts To Think About**

**Do's - Good Towing Practice**

- Observe all speed limits
- Allow greater following and stopping distances
- Gradually reduce speed
- Steady the steering wheel - sudden turns can cause more sway
- Always use your parking break while parked

**Don'ts - NOT Good Towing Practice**

- Do Not slam on the brakes if possible
- Do Not attempt to steer out of a sway situation
- Do Not become complacent about towing on the highway