IMPLEMENTING A COMPREHENSIVE SAFE DRIVING PROGRAM
CIRSA

Safe Driving Manual

Table of Contents

1. Introduction

2. Sample Motor Vehicle Records Review Policy

3. Safe Driver Training Courses

4. Field Driver Observation Procedures and Forms

5. Seat Belt Monitoring Checklist

6. Cellphone Safety

7. Vehicle Inspection and Maintenance Forms

8. Vehicle Accident Review Policy

9. Loss and Hazard Alerts

10. Roundabout Safety
1. Introduction:

Motor vehicle accidents are the leading cause of workplace deaths among CIRSA member employees. Every one of these fatal vehicle accidents was preventable. Vehicle accidents are also the most frequent and costly type of pool-wide claims. Most of them are also preventable. The purpose of this handbook is to provide information that member entities can use to reduce the number and cost of preventable vehicle accidents involving their drivers. To achieve this goal, a comprehensive vehicle safety program needs to be established.

The CIRSA produced video entitled Implementing a Comprehensive Safe Driving Program accompanies this handbook. Section 3 includes a description of this video.

An effective vehicle safety program begins with a commitment to hiring and retaining safe drivers. Prior to hiring any employee into a driving position, a Motor Vehicle Record (MVR) check should be done to determine if the prospective employee has an acceptable driving record. Applicants with a history of moving violations or serious infractions, such as DUI’s, should be screened out. Entities should establish criteria for evaluating MVRs and deciding whether applicants meet minimum requirements. In addition, existing employees’ MVRs should be checked at least annually to determine whether they have a valid license and have incurred any serious or repeated driving infractions. Section 2 of this handbook contains a sample Motor Vehicle Records Review Policy.

All employees who operate entity vehicles need to be part of a continuous driver education and training program. Most people pick up poor driving behaviors over time, and unless there is an ongoing driver education program that identifies and corrects these at-risk behaviors, they may eventually result in a vehicle accident. Section 3 contains a listing of some safe driver courses that CIRSA offers to members, including online courses, videos and other specialty training courses. Contact the CIRSA Loss Control department for more information regarding these training programs.

New and younger employees sustain a higher frequency of vehicle accidents. They may be unskilled or unfamiliar with the types of vehicles and equipment that they are required to operate. Before turning them loose with an entity vehicle, they should receive classroom safety training. In addition, supervisors should ride along and evaluate new employees’ driving skills. Section 4 of this document contains sample Field Driver Observation Procedures and Forms that may be used to evaluate employees’ driving skills. Employees who have had preventable on-the-job vehicle accidents should also receive a field observation. In addition, any current employee who is observed or reported to be engaging in at-risk behavior while driving on the job should go through a field observation.
The effectiveness of seat belts in reducing the severity of injuries to those involved in vehicle collisions is well documented. But a significant percentage of people fail to use their seatbelts, even though it is a state law (see Section 5). Every entity should establish a seat belt policy and periodically check to determine whether employees who operate entity vehicles are wearing their seat belts. **Section 5** contains a sample **Seat Belt Monitoring Checklist** that entities can use to monitor compliance. Seat belt usage should be verified periodically throughout the year in different areas, including parking lot entrances and other work sites. Employees who wear their belts should receive positive reinforcement, such as a small token of appreciation. Those who do not wear their seat belts should be coached and appropriately evaluated and/or disciplined for repeated safety rule violations.

Driver distractions are a major cause of vehicle collisions. The use of **cellphones** while driving is an obvious distraction. In addition to awareness training on this subject, every entity should establish a policy on the use of cellphones and other mobile communication devices while operating an entity vehicle. Colorado state law (see attached) limits the use of cellphones, including texting, while operating a vehicle. Entity policies should be at least as restrictive as state law. Sample cellphone policies are included in **Section 6**. Restrictive policies should also be established for use of computers in police and other entity vehicles.

Maintaining entity vehicles in safe operating condition is key factor in preventing accidents. Each entity should implement a comprehensive vehicle inspection and maintenance program. This includes conducting pre-trip and post trip inspections. In some cases, this is required by law. Sophisticated software programs are available to help manage fleet maintenance programs. Sample **inspection and maintenance forms** are included in **Section 7**.

Despite your best efforts, employees may be involved in motor vehicle accidents. When accidents do occur, they need to be promptly reported and investigated. Accident reporting procedures should be established and reviewed with all employees. Thorough investigations should be conducted to determine whether an accident was preventable. **Section 8** includes a **Sample Vehicle Accident Review Policy**. Employees involved in preventable accidents should receive the appropriate counseling and a field driver evaluation. Disciplinary action may be warranted for serious or repeated offenses.

CIRSA has published **Loss Alerts and Hazard Alerts** involving serious public entity vehicle accidents. **Section 9** contains a compilation of vehicle alerts that have been issued over the years. They may be copied and distributed to applicable employees to create awareness of various vehicle loss exposures.

Many entities are installing **roundabouts** in their communities to help with traffic flow and prevent accidents. **Section 10** includes information regarding the design and use of roundabouts. Publishing and communicating safety guidelines to the community prior to the opening of roundabouts may alleviate some of the confusion about proper navigation as well as help prevent accidents.
An effective vehicle safety program takes time and effort but the benefits in terms of reducing injuries and vehicle damage will more than pay for your investment in the program. By committing to a comprehensive vehicle safety program, you will help keep your employees safe.
City (Town) of __________

Motor Vehicle Records Review Policy

Effective Date: (enter month, day and year)

I. Purpose:

The purpose of this policy is to establish procedures and standards for the review of employees who drive motor vehicles on entity business.

II. Responsibilities:

The __________ Department shall administer this policy.

III. Prospective Employees:

Each prospective employee must have a valid Colorado driver’s license of the appropriate type, if one is required for the position. Each such prospective employee must provide at his or her own expense a current Motor Vehicle Record (MVR) that is no older than 30 days.

The _____ Department will evaluate the prospective employee’s MVR prior to hiring. No person shall be hired into a position requiring a driver’s license unless the person’s MVR meets the criteria listed in Section V below.

IV. Current Employees:

Each current employee must have a valid Colorado driver’s license of the appropriate type if one is required for the position. The _____ Department will obtain at least annually at the entity’s expense a copy of the MVR for each such employee.

MVRs for current employees may also be requested and reviewed in the following situations:

- After an on-the-job collision determined to be preventable by the Department.
- If a complaint is received regarding the employee’s driving while on entity business.
- If an employee transfers to a position requiring a valid Colorado driver’s license (or into a position requiring a different type of driver’s license than required for the current position).

V. Evaluating MVRs and Driving Records:

The following criteria will be used when evaluating MVR’s and driving records.

**Clear MVR** – No minor convictions or preventable collisions in the last 3 years and no major violations/convictions in the last 5 years.
Acceptable MVR –
- No major violations/convictions in the last 5 years; OR
- 2 minor convictions in the last 3 years; OR
- 1 preventable collision and 1 minor conviction in the last 3 years.

Marginal MVR –
- 3 minor violations/convictions in the last 3 years; OR
- 2 preventable collisions in the last 3 years; OR
- Any combination of minor convictions and preventable collisions totaling 3 in the last 3 years.

Unacceptable MVR –
- 1 or more major violations/convictions in the last 3 years; OR
- 4 or more minor convictions in the last 3 years; OR
- 3 or more preventable collisions in the last 3 years; OR
- Any combination of minor convictions and preventable collisions totaling 4 or more in the last 3 years.

Major and minor convictions are listed below. The entity’s Vehicle Accident Review Policy will be used to determine the preventability of motor vehicle accidents for current employees.

**Major Violations/Convictions include, but are not limited to the following:**
- Driving under the influence of alcohol or drugs (DUI) or while ability is impaired (DWAI)
- Reckless driving
- Racing/speed contests
- Speeding 20 mph or more over the posted speed limit
- Leaving the scene of an accident
- Failure to report an accident
- Making a false accident report
- Vehicular homicide or manslaughter
- Attempting to elude a police officer
- Driving while license is suspended, revoked or restricted
- Driving an entity vehicle that has been locked/tagged out

**Minor Convictions include, but are not limited to the following:**
- Speeding less than 20 mph over the posted speed limit
- Running a stop sign or red light
- Improper turn
- Passing across a double yellow line
- Failure to yield
- Following too close
- Failure to wear a seatbelt
- Careless driving
- Failure to possess a valid Colorado driver’s license
- Failure to provide proof of insurance if operating their personal vehicle
- Motor vehicle equipment violations
- Operating a defective or unsafe vehicle
- Failure to stop for a school bus with its red flashers activated
VI. Corrective Action for Marginal and Unacceptable Driving Records:

- When an employee’s MVR falls into the unacceptable category, corrective action up to and including termination of employment will be taken.

- When an employee’s MVR falls into the marginal category, corrective action, including but not limited to the following, will be taken:
  o Attending a defensive driver training program.
  o Participating in a documented ride-along evaluation.
  o Other actions as deemed appropriate.

VIII. Driver’s License Suspensions, Revocations or Restrictions:

It is the employee’s responsibility to notify the supervisor immediately if the employee’s driver’s license is suspended, revoked or restricted for any reason. Failure to do so may be grounds for corrective action, up to and including termination of employment.

[add other provisions as the entity deems appropriate]

7/09
The following courses are available free of charge on CIRSA’s Online University. Contact the CIRSA Loss Control Department for more information, including registration instructions.

Course Code: DV78
Catalog: Driver Safety
Category: Defensive Driving
SubCategory: Defensive Driving
Length: 90 Minutes
Language: English

There are nearly six million motor vehicle crashes each year in the U.S. and experts estimate that up to 90% of them are preventable. This course, intended for experienced drivers, covers the risks inherent in driving and offers concrete tips on how to reduce the likelihood of a collision. The course covers vehicle protection systems, rules of the road, how to deal effectively with hazardous conditions, and making safe choices.

Course Code: CI15
Catalog: Driver Safety
Category: Defensive Driving
SubCategory: Defensive Driving
Length: 20 Minutes
Language: English

This course covers the basic ingredients for a lifetime of safe driving.

Course Code: WI09
Catalog: Driver Safety
Category: Defensive Driving
SubCategory: General
Length: 60 Minutes
Language: English

This course covers safe driving techniques in adverse winter weather conditions. Topics include defensive driving, accident prevention methods, the impact of drinking and driving, vehicle safety measures, vehicle maintenance, winter weather patterns and associated hazards, personal safety considerations, and actions to take for breakdowns or accidents.
Aproximadamente 6 millones de choques ocurren cada año en Los Estados Unidos. Los expertos estiman que el 90% de los mismos son prevenibles. Este curso, diseñado para choferes con experiencia, cubre los riesgos relacionados con el conducir un vehículo. También ofrece estrategias de cómo reducir las probabilidades de un choque. El curso también cubre los siguientes temas: sistemas de protección, las reglas del camino, como conducir efectivamente en condiciones peligrosas y como tomar decisiones seguras.
DRIVING SAFETY

0001 A BETTER WAY – SMITH SYSTEM VIDEO
This 23-minute video covers the Smith System of safe driving and can be used for safety meetings or refresher training of drivers. Also included in the video are five keys to safe backing. This may be helpful where backing accidents have been a problem (or before they become a problem).

0002 BACKING AND CHILD SAFETY
This nine-minute video explains the common causes and solutions to backing accidents. Using helpers as spotters, backing without spotters, mirrors, cone of invisibility, spotter signals, residential backing and more is discussed.

0003 COMMERCIAL DRIVER’S LICENSE (CDL) EXAM PROGRAM
Produced by the Pennsylvania Department of Transportation, this three-videotape series helps prepare the driver for taking the commercial driver’s license exam. It tracks closely with the Colorado manual and has excellent components on safety and defensive driving, as well as other segments of this seven-part exam. It is professionally produced and comprehensive, with each tape being approximately 75 minutes.

0004 THE NEW ROOM TO LIVE
This 33-minute video is a powerful testimonial by a retired state trooper, to the value and importance of wearing seat belts. In addition, the proper use of air bags and automatic seat belts are covered.

0005 SNOW PLOW SAFETY
This 23-minute video is ideal for training newly hired snowplow operators and as a refresher for experienced operators. Topics addressed include equipment inspection, positioning of the truck, scanning, mirror use and defensive driving techniques. Also included in the video is a series of preventability analysis diagrams for self-study or group discussion.

0006* COACHING THE EXPERIENCED DRIVER II (CED II)
This 3½-hour video-based defensive driving program, designed for the adult driver, features all-new footage and graphics. The 32-page driver response book includes a new self-appraisal and all-new situation analysis. The leader’s guide, in easel format, offers new material to support the presentation, including an operational written test. New topics have been added including: vehicle inspection; safety belt and air bag systems; alcohol; other drugs and driving; driving in commercial/retail areas and more. Collision-prevention techniques are covered including: cushion of safety; scanning; vehicle positioning; safe backing; parking procedures and handling blind spots. The cost for the employee handbook is $1.50 per person.

0007 WHY SKID? MODERN WINTER DRIVING TECHNIQUES
This 20-minute video and information booklet on safety tips for winter driving is produced by the Bridgestone Winter Driving School in Steamboat Springs. They include topics on grip value; center of gravity; acceleration; weight transfer; over-steer and under-steer when turning; braking and hand position on the wheel for better control.

0008 DRIVING SAFELY
This is a self-contained program designed for entities to use as an alternative Defensive Driving Class. The program is comprised of an 18-minute video, which reviews safe driving concepts and an Instructor’s Guide to assist your own in-house facilitator. The Instructor’s Guide includes:

• Short lesson plan with opening remarks
• Video and facilitator discussion ideas
• Closing comments
• Three-page participant’s handout
• Participant’s quiz

*QUALIFIED INSTRUCTOR RECOMMENDED - Contact CIRSA Loss Control Department for Assistance
0009 MOTOR MANIA
This seven-minute video featuring Disney characters takes a light-hearted look at a serious safety consideration. This animated cartoon video explores a variety of driving techniques and negative driving attitudes that can lead to aggressive driving and accidents. Viewers learn the importance of keeping a cool head while behind the wheel and ways to deal with the inevitable aggression caused by stressful driving situations.

0010* COACHING THE EMERGENCY VEHICLE OPERATOR: FIRE II (CEVO-FIRE II)
This six hour, video-based defensive driving program is the updated version of CEVO-Fire. This program can be expanded to eight hours if the court cases portion is included. This is a five-part video and includes seven overhead transparencies. An instructor manual is included along with student workbooks, which cost $8.50, per person. The workbooks include a test, which is scored through the National Safety Council. The student workbook has been updated and revised; although content remains basically the same as the workbook from CEVO-Fire.

0011* COACHING THE EMERGENCY VEHICLE OPERATOR: POLICE II (CEVO- POLICE II)
This one-hour, video-based defensive driving program is designed for police officers. This program supplements the track driving and provides an updated version of the CEVO-Police program. CIRSA staff or police department training personnel may instruct this program. An instructor’s guide, overhead transparencies and student workbooks are included. The student workbooks are $8.50 each and include a 50-question exam, which is scored through the National Safety Council.

0012 SAFE WINTER DRIVING CONSIDERATIONS
This 21-minute video zeros in on safety tips and techniques for handling winter driving hazards. It discusses pre-season preparation, pre-trip procedures and on-the-road issues. Be proactive, not just reactive. This video offers defensive driving information for entity employees; it is also an annual refresher training before the first snowfall.

0013* COACHING THE BACKHOE OPERATOR (CBO)
This is a 21-minute video, which includes an instructor’s guide and student workbooks. The student workbooks are $1.50 each.

0014 BLINDFOLD EFFECT: DRIVING SAFELY
This is a 20-minute BNA Communications video production. This video reviews concentration, distractions, anticipating problems, adjusting for situations, and assuming nothing. Other topics include intersections, backing, and following too closely. Three accidents are reviewed, and time is allowed for group discussion.

0015 ABS AND SIR: HOW THEY WORK FOR YOU
This 28-minute video has two sections. In the first segment, Rick Johnson describes the operation of the anti-lock brake system and how you can take advantage of this capability. The second segment produced by the American Coalition for Traffic Safety features “Mort the Traffic Guy” as he learns about air bags, how they work and how you can take precautions to minimize the chances of injury in an accident.

0016 DON’T LET UP – ABS
The AAA Foundation produced this nine-minute video for Traffic Safety and General Motors. It contains footage of high school drivers in simulated emergency conditions. These situations involve stopping with two wheels on a slippery surface and two wheels on dry pavement, steering and braking on wet pavement, and steering and braking on a dry surface. The key concepts of each situation are reviewed. A discussion booklet is included.

*QUALIFIED INSTRUCTOR RECOMMENDED - Contact CIRSA Loss Control Department for Assistance
0017 OFF-ROAD DRIVING (ORD) – A COACHING PROGRAM (DEFENSIVE DRIVING COURSE)
FLI Learning Systems produced this two-and-a-half-hour program. It is designed for drivers of off-road pas-
senger cars, vans, trucks, and four-wheel drive vehicles. Topics include driving too fast for conditions, select-
ing a “safe” off-road parking location, vehicle inspection, properly securing equipment, transitions between
paved and unpaved surfaces, limits of driving two-wheeled and four-wheeled vehicles, backing precautions,
defensive driving skills, off-road techniques and off-road vehicle characteristics. A student response book
includes exercises, self-appraisal, and coaching points. A 30-question test may be administered.

0018* COACHING THE MAINTENANCE VEHICLE OPERATOR II (CMVO II)
This program is an updated version of CMVO with 12 new overhead transparencies. It is newly designed, but
the new student workbooks include the same information as the previous student workbooks. The previous
workbook may be used with this new program. This program also includes a 20-question exam, Certificate of
Training, and two maintenance vehicle checklists for use after the training. Cost for the employee handbook is
$1.50 per person.

0019 BOBCAT TRAINING KIT – SKID STEER LOADER OPERATOR TRAINING COURSE
This 75-minute video is a complete program for a trainer to use as in-house training for employees who oper-
ate the Bobcat Skid Steer Loader. The program consists of a video that explains inspection, safety elements,
operator safety and maintenance, and demonstrates the various attachments that can be obtained for a Bobcat.
The course consists of an Administrator’s (Instructor’s) Guide, optional student workbook, a steer loader safety
manual, and an optional student certificate and wallet card.

0020* COACHING THE VAN DRIVER II (CVD II)
Many organizations mistakenly assume that van driving is no different than driving a personal car, and they
expect their employees (or volunteers) to assume van-driving responsibilities without any training. The fact is
that most commercial vans are very different from passenger cars — they are bigger, heavier, have larger blind
spots, and require longer following and stopping distances. Training drivers to compensate for these differenc-
es can help keep them on the road and on the job. This four-hour program is a comprehensive training program
that meets that need and is geared toward professional and volunteer van drivers. This new program features
a video presentation, new Leader’s Guide and Response Book, and a set of transparencies. Topics addressed
include: van characteristics; pre-trip inspection; safety belts; cushion of safety; scanning; blind spots and city,
highway and rural driving and backing. An optional Transporting Cargo segment addresses specific situations
such as familiarity with the route, cargo placement, double-parking, and deliveries. An optional Transporting
Passengers segment addresses critical safety points concerning safe stopping points, pick-up and drop-off pro-
cedures and safety belt use. In addition to the video, this program includes six transparencies that present key
instructional points for group discussion. It includes a leader’s guide segmented into four teaching sessions,
which offers step-by-step instructions for presenting the course, and includes a written test and class registra-
tion form. Student workbooks are available for $1.50 per person.

0021* COACHING THE EMERGENCY VEHICLE OPERATOR: AMBULANCE II (CEVO-
AMBULANCE II)
This four-hour video-based program is a new version of CEVO-Ambulance. This program includes a new
video, workbooks and overhead transparencies. The program is designed to be interactive with instructor and
students. This new program is recommended for all personnel who operate ambulances or medical first-re-
sponse vehicles, whether for ambulance service or as part of a fire department. A qualified instructor is neces-
sary. Student workbooks are available for $8.50 per person; the workbook includes a 50-question exam and
certificate of completion.

*QUALIFIED INSTRUCTOR RECOMMENDED - Contact CIRSA Loss Control Department for Assistance
This is the new and updated version of Coaching the Van Driver – Self-Instruction. Don’t make the mistake of assuming your drivers can automatically handle a vehicle that may be larger, heavier and have more blind spots than a personal car. Those driving a van must be trained in defensive driving techniques that relate specifically to vans. This two-and-a-half-hour comprehensive training program meets that need. This training program is geared towards experienced and novice van drivers. The self-instruction version of Coaching the Van Driver is ideal for organizations that have difficulty assembling drivers in one-location and/or experience high driver turnover rates. This program includes coverage of the following topics and more: pre-trip inspection; van characteristics; safety belts; driving skills and techniques; scanning; cushion of safety; following distance; blind spots; total stopping distance; backing; safety at intersections and transporting passengers and cargo. Student workbooks are available for $8.00 per person. The student workbook includes a Self-Appraisal, Driving Environment Analyses, and a 30-question computer-scored test (returned to Top Driver-FLI for scoring). Test results and a certificate of completion are returned to the individual.

0023 WINTER DRIVING
When old man winter comes to town, motor vehicle accidents increase dramatically. Icy roads, cold temperatures, and snow dramatically change everyone’s driving environment. Stunt drivers demonstrate safe driving techniques during inclement weather conditions. Keep employees safe and reduce winter driving incidents with this program.
The 12-minute video includes:
• Following and stopping distance
• Breaking and skid control
• Driving on inclines
• Braking safely
• Parking lots and potential hazards
• Vehicle maintenance and inspection

0024 HAZARD PERCEPTION CHALLENGE II
This 60-minute video, with trainer’s guide, is an interactive program that will challenge and sharpen your drivers' hazard perception skills, helping them to think faster and avoid hazards. This program can be used as stand-alone training, or as part of the Coaching the Maintenance Vehicle Operator program.

0025 SAFELY CLEARING INTERSECTIONS – CODE 3
Proper maneuvering through an intersection while responding to a Code 3 emergency is imperative in the safety of all persons on the road. Learn how to handle this delicate situation the right way. This eight-minute video discusses the correct use of sirens when responding to an emergency, why an air horn should not be used in these situations, how to proceed through an intersection, and what officers need to be aware of when clearing an intersection. Case histories of real-life experiences where officers are involved in crashes are documented in this video, reinforcing the importance of safely clearing intersections.

0026 DEFENSIVE DRIVING COURSE – BEHIND THE WHEEL: ONE-ON-ONE COACHING
This program is the “next step” beyond classroom driver training. The video presentation and accompanying administrator’s guide teach managers, supervisors and driver safety specialists how to set up and conduct an on-the-road driver performance and coaching session, including how to develop a rapport with the trainee, how to spot clues that might signal a driving problem, and how to conduct a driving audit/evaluation. This program may also be used as a refresher for all drivers, to evaluate and “coach” problem drivers, or to screen potential driving problems in new hires. The program emphasizes a solid management commitment to safe driving. An individual “Coaching Report – Driver Checklist” is available for $1.00 each.

*QUALIFIED INSTRUCTOR RECOMMENDED - Contact CIRSA Loss Control Department for Assistance
0027 SNOWPLOW SAFETY: PARKING LOTS
This 19-minute video focuses on specific safety issues regarding the plowing of parking lots. The video can be used for self-directed or classroom study, and is ideal for pre- and in-season training. Topics addressed include: pre-season site preparation; equipment inspection; scanning for hazards (lighting fixtures, curved areas, raised utility covers, changes in pavement, etc.); clearing entrances and exits; working with other snow removal equipment; where to locate plowed snow; and special considerations for plowing 24-hour operations such as convenience stores, hospitals, etc.

0028* COACHING THE EMERGENCY VEHICLE OPERATOR: AMBULANCE 3 DVD
Based on valuable input from participants, instructors, and loss prevention professionals, a revised and updated CEVO 3: Ambulance course is available. Operators will appreciate CEVO 3’s non-lecture, participant intensive educational approach, and instructors will appreciate the programs flexible and easy to use format. The 6-hour course is divided into five sessions, which can be presented in a day or spread out over multiple days.

0029 DEFENSIVE DRIVING: A SUPERVISORS GUIDE DVD
This short film helps to improve the effectiveness in monitoring employees driving. Supervisors will learn how to observe behaviors and correct unsafe driving practices of their employees.

0030 CAR PHONE SAFETY
This 15-minute video is designed to train individuals to use car phones in a safe and efficient manner. Topics covered include: placing, receiving and ending calls; maintaining concentration while driving; defensive driving tips; dealing with emergencies and other subjects. Written handouts include the CIRSA Safety Stops 6, 17-21, 60, 64 & 73.)

0031 SAFE DRIVING (SERIES)
This is a 35-minute video produced by J.J. Keller and Associates in conjunction with Northland Insurance Company. This video reviews safe driving practices for the tractor-trailer driver. It contains six segments reviewing the topics of speed and space management, lane changes, entrance and exit ramps, intersections, speed management, and driving techniques.

0032 ROAD RAGE: HOW TO PROTECT YOURSELF
This 15-minute FLI Learning System production covers the rationale for keeping cool, calm and controlled in today’s stressful and potentially dangerous driving environment. It highlights common situations that can trigger conflicts between drivers, such as tailgating, cutting in and out of traffic, driving too slowly, running red lights, forcing a merge at the last minute, getting stuck behind double-parked cars, making hand gestures, attempting to “get even” with another driver, etc. It offers practical tips for building a “Road Rage Defense” including how to keep one’s own anger in check and how to avoid becoming a victim of other driver’s “road rage.”

0033 SEAT BELTS – A LIFESAVING HABIT
Driving is the riskiest thing most people do; and the best protection in an automobile is the seat belt. This 20-minute video reviews:
• Surprising accident statistics
• Forces involved in collisions
• Nine typical excuses for avoiding seat belts and reasons the excuses are invalid
• Child safety seats: the importance of using them, types available, inexpensive sources

0034 DON’T MEET BY ACCIDENT: A GUIDE TO SAFE DRIVING
This 21-minute video was produced by CIRSA. This video outlines the common elements of accidents and keys to preventing them in the future. Topics include backing; rear-end collisions; intersection accidents; driving in adverse weather conditions and proper accident response. “Don’t Meet By Accident: A Guide to Safe Driving Instructor’s Manual” accompanies the video.

*QUALIFIED INSTRUCTOR RECOMMENDED - Contact CIRSA Loss Control Department for Assistance
0035 DEFENSIVE DRIVING TECHNIQUES
Follow two drivers in the U.S. Safety Driving Rally as they demonstrate that aggressive driving is not only dangerous, but it rarely saves much time.
This 16-minute video discusses the following:
• Basic premises of defensive driving
• Dangers of dawdling and fatigued drivers
• Most common poor driving condition – darkness
• Utilizing a “cushion of space” and the two-second rule

0036 DISTRACTED DRIVING
Each year more than 40,000 people are killed in motor vehicle crashes and over three million injured. This 18-minute video provides training on the risks associated with distracted driving by discussing the five major types of distractions: cell phones and other gadgets; children; aggressive drivers; drowsiness; and traveling away from home.

0037 VEHICLE INSPECTIONS
J.J. Keller produced this 15-minute video. It has an accompanying Instructor’s Guide, which takes an individual through the CDL checklist materials, utilizing an 18-wheeler tractor-trailer combination. This program may be used independently from the trainee workbooks (extra cost) as a stand-alone training topic. The training could be conducted in approximately one hour using this material. This is overview material, not intended for in-depth training. This training program is recommended for employees who drive large rigs and have a CDL.

0038 BACKING, PARKING, AND INTERSECTIONS DVD
Thirty percent of all accidents are backing related. Reduce those accidents and their associated claims. This helpful guide can provide you with tips for avoiding these types of accidents.

0039 SAFE DRIVING – REAL LIFE
This is a 15-minute Coastal video production. This video teaches your employees that attitude is the key to safe driving. Zany host Tim Wright helps employees maneuver through the speed bumps in this creative and fast-paced program. It includes employee handbooks, pocket references and a leader’s guide. Topics include road rage, drinking and driving, proper vehicle maintenance, and car jacking.

0040 DEFENSIVE DRIVING FOR GOVERNMENT EMPLOYEES
Every 12 minutes in the United States, someone dies in a car accident. Every 14 seconds someone suffers a disabling injury. That is nearly 43,000 deaths and countless more major injuries every year on our roads. For government employees, motor vehicle accidents are the leading cause of death on the job. This 19-minute video program looks at techniques to help prevent accidents from happening, and in the case of unavoidable accidents, to help lessen their severity.
• What is defensive driving?
• Respect for the vehicle
• Your responsibility as a driver
• Proper/safe driving techniques
• Seat belts
• Driving in poor weather
• Speeding, right-of-way, passing, tailgating
• Distractions and road rage

0041 BACKING AND PARKING FOR CARS AND LIGHT TRUCKS
Backing accounts for 30 percent of all accidents. Backing and parking accidents are preventable. This 23-minute video discusses the following:
• Recognizing moving and fixed hazards
• Controlling your rear blind spot
• Safest type of parking space
• Backing vs. pulling into a space
**0042 COACHING THE TRANSIT BUS OPERATOR (CTBO)**
This four-hour defensive driving course is for drivers already trained in the basics of handling a bus. This course is not designed to replace the “hands-on” training necessary to maneuver a bus; rather, it applies these driving maneuvers to actual driving situations. An instructor manual is included along with student workbooks, which cost $1.50 per person.

**0043 SMART DRIVING – AN ACCIDENT PREVENTION TRAINING PROGRAM FOR BUS OPERATORS**
San Diego Transit produced this CD-ROM operator-training program. It is an effective and versatile training program for both new and experienced operators. It delivers a focused accident prevention message with a “customer service” twist. Once the program has been fully implemented in your entity, you can expect to see:
- A reduction in accident rates
- An increase in instructor productivity
- Positive reviews from operators using the program

This program includes an Installation Disc, a Program Disc, an Installation and User’s Guide, an Instructor’s Plan and Student Manual. The Instructor’s Plan and Student Manual are provided on the CD-ROM in Microsoft Word 97 format. This allows the documents to be customized and printed for internal use. The Instructor’s Plan outlines suggested applications for the program and includes sample lesson plans and exercises. The Student Manual summarizes and reinforces the information contained on the CD-ROM.

Smart Driving includes three main modules:
- The Bus – which includes the circle check, brake tests, seat and mirror adjustments
- The Driver – covering the physical, emotional and mental aspects of driving as well as defining the common defensive driving characteristics
- Defensive Driving – exploring basic and advanced maneuvers such as making service stops, defensive actions and driving in difficult conditions

The Defensive Driving module allows you to link the program to PowerPoint slide presentations covering issues specific to your entity. These customized presentations are powerful tools for addressing problem areas or particular accidents with your operators. Step-by-step instructions for developing these PowerPoint slide presentations are provided in the Installation Manual Flexible Applications. The three stand-alone modules allow an instructor the flexibility to use the program in a variety of ways.

**0044 WORKING SAFELY WITH SNOWPLOWS AND OTHER SNOW REMOVAL VEHICLES- DVD**
This 18 minute DVD reviews vehicle preparation, pre-trip inspections, safe operation, different road surfaces, steering, braking, sharing the road, and emergency items. It also discusses knowing the area and dry runs, weather hazards, visibility, and breakdown procedures. Activities after plowing the route are also reviewed.

**0045 DRIVEN TO DISTRACTION- DVD**
This groundbreaking program illustrates just how dangerous distracted driving can be. The main character is the embodiment of the various distractions that accompany drivers. Watch as he gleefully plots and plans to take attention from the road. The impact of this program is powerful and memorable.

**0046 SAFE WINTER DRIVING- DVD**
Winter driving presents special hazards, including rain, snow and ice. If drivers follow the special safety techniques in this program, they can avoid the risks. Basic emergency equipment, rain, snow and ice, the skid, and stopped and stranded are all topics covered in this film. 17 minutes.

*QUALIFIED INSTRUCTOR RECOMMENDED - Contact CIRSA Loss Control Department for Assistance
047 DEFENSIVE DRIVING FOR GOVERNMENT EMPLOYEES - DVD
Every 12 minutes someone in the US dies in a car crash, and every 14 seconds someone is severely injured. That’s 43,000 deaths and accidents per year. For government employees, motor vehicle accidents are the leading cause of death on the job, but many accidents could be prevented with defensive driving. This program looks at the techniques that can help drivers avoid accidents and lessen their severity if they occur. You will be taught respect for the vehicle, your responsibility as a driver, proper/safe driving techniques, driving in poor weather, speeding, right of way, passing, tailgating, and distractions and road rage. 18 minutes.

NEW 048* COACHING THE EMERGENCY VEHICLE OPERATOR: FIRE III DVD
Based on valuable input from participants, instructors and loss prevention professionals; a revised and updated CEVO 3: Fire course is now available. As with the original program, operators will appreciate CEVO 3’s non-lecture, participant-intensive educational approach, and instructors will appreciate the program’s flexible and easy-to-use format. The 6 hour course is divided into five sessions, which can be presented in one day or spread out over multiple days. What’s new:
* New and updated Response Book situation analysis
* “Coaching Reminder Points” completion statements in the Response Book
* All new discussion scenarios based on common collision situations
* All new video including apparatus inspections, a balance of small town and rural locations with large urban locations and in-cab video of actual collisions.
* Operator learning teams used to promote discussion among participants

NEW 049 IMPLEMENTING A COMPREHENSIVE SAFE DRIVING PROGRAM
Vehicle accidents are the most frequent and costly types of claims of the most public entities. In order to prevent and reduce the number of vehicle accidents, a comprehensive safe driving program needs to be implemented. This video covers the key elements of a safe driver program including motor vehicle records checks, driver training, conducting field observations, seat belt monitoring, vehicle inspections and maintenance and use of cell phones. An accompanying manual includes sample policies and procedures, vehicle inspection and field evaluation forms, seat belt monitoring checklists, and other useful training and resource materials.

5047* COACHING THE LIFT TRUCK OPERATOR / PEDESTRIAN (CLTO)
This program is designed for novice and experienced lift truck operators. Utilizing the highly acclaimed “coaching” method of non-lecture teaching, this course encourages participants to observe, analyze and discuss recommended safety practices. The operator video is a comprehensive video for operators that address pre-start safety inspection, lift truck design considerations, and safety procedures for picking up, moving with and setting down a load. The course also includes a pedestrian video presentation for in-plant personnel who do not operate lift trucks, but do work in lift truck areas. The program’s format allows for flexibility in presentation and local job site customized to cover specific policies. This 4½-hour-training program consists of an instructor’s manual, overhead transparencies and two videos. Student workbooks are optional and available for $4.00 each.

5064* COACHING THE UTILITY TRUCK DRIVER II (CUTD II)
This is an upgraded version of the original. The program consists of a 75-minute video, facilitator's guide and student workbooks with Certificates of Training. The student workbook includes a 20-question T/F exam to measure learning. Total running time for the program is three to fours with additional materials pertinent to entity needs. A qualified operator/trainer may use this in-house or you may contact a CIRSA Loss Control Representative to schedule training for your entity. Cost of the student workbook is $1.50 per person.

5086 D-SERIES MOTOR GRADER SAFETY, MAINTENANCE AND OPERATION – DVD
This 39-minute DVD is designed as a supplement to the operator's manual. This DVD discusses safety features and is divided into three sections: the pre-start walk-around and daily service; the operator's station with its controls and safety systems and safety tips when operating a loader.

*QUALIFIED INSTRUCTOR RECOMMENDED - Contact CIRSA Loss Control Department for Assistant
6002  LETN – PURSUIT / DEFENSIVE DRIVING TECHNIQUES
For police officers only, this video is part of our LETN series mentioned in the Police section of this catalog. This program includes actual footage of a live pursuit.

6058  ALERT – PURSUIT AND DEFENSIVE DRIVING
This 25-minute video explores the do’s and don’ts of both pursuit and defensive driving. It speaks strongly to the liability considerations a department must be aware of when putting a vehicle on the street. Bill Wright, a nationally known law enforcement driver-training specialist, also offers simple driving tips. It includes a training guide, program overview, test questions and answers.

6123  IN THE LINE OF DUTY – AGGRESSIVE DRIVING / ROAD RAGE
This 46-minute video features innovative programs for dealing with road rage and aggressive driving. The video highlights the pioneering approaches of the Illinois State Police, which will be of utmost interest to all law enforcement dealing with this growing national problem.
Field Driver Observation Procedures

Listed below are guidelines for conducting field driver observations. Each entity should establish their own procedures and conduct driver observations accordingly.

1. Schedule the evaluation. Make sure the employee knows when and where to report. You should allow between 15-30 minutes for each driver. To save time, you may include more than one driver at a time in the vehicle.

2. Gather the evaluation form and make sure the appropriate vehicle is available on the day of the evaluation. Arrange for the type of vehicle the employee will be driving on the job. If the employee will be driving a pickup truck, arrange for a pickup. If they will be driving a snowplow, arrange for a snowplow.

3. Plan your route to include areas where the employee normally drives. Include suburbs, freeways, rural roads and city streets as appropriate.

4. Take some time to explain the purpose of the evaluation. Let the employee know that you will observe their driving skills and offer safe driving tips. Put them at ease and let them know you are there to offer constructive feedback on their driving abilities.

5. As you conduct the evaluation, review each item on the checklist and comment as appropriate. Review any specific hazards of the route. Encourage the employee to point out any hazards they observe along the way.

6. Be quick to provide positive feedback to the employee for their safe behaviors.

7. If they perform an at-risk behavior, point it out when it is safe to do so. If you observe an employee about to make a dangerous maneuver, provide an immediate warning and instruction. Coach them on improving their driving skills and provide safe driving tips.

8. After the driver evaluation, summarize the positive behaviors you observed. Then review any at-risk driving behaviors and what the employee needs to do to improve. Thank them for participating and make sure you both sign and date the evaluation form.

9. If significant problems or behaviors are noted, the employee may need additional training and a follow up field evaluation.

10. Keep evaluations on file and refer to them before conducting future ones.
1. Pre-Trip Inspection
   a. Check general condition approaching unit.
   b. Look for leakage of coolants, fuel, or lubricants.
   c. Check around unit - tires, lights, and brakes.
   d. Test brake action and parking brake.
   e. Check horn, windshield wipers, mirrors, fire extinguisher.

2. Placing Vehicle in Operation
   a. Buckled seat belt.
   b. Start engine without difficulty - allow proper warm-up.
   c. Maintain proper engine speed (rpm) while driving.
   d. Start unit in motion smoothly.
   e. Test service brakes.
   f. Good posture and grip on steering wheel.
   g. Understand the use of proper headlight beams and dim lights when following other traffic.

3. Backing and Parking
   a. Get out and check before backing.
   b. Look back as well as using mirrors.
   c. Control speed and direction properly when backing.
   d. Do not hit nearby vehicles or stationary objects.
   e. Park proper distance from curb.
   f. Check traffic conditions and signals when pulling out from parked position.
   g. Use emergency warning signs if required.
   h. Set parking brake. Shut off motor.

4. Operating in Traffic, Passing, and Turning
   a. Use turn signal and get into proper lane to turn well in advance.
   b. Check traffic conditions and turn only when the intersection is clear.
   c. Complete turn properly and do not impede traffic.
   d. Obey traffic signals and stop signs.
   e. Adjust speed, approaching intersection to be prepared to stop if necessary.
   f. Pass with sufficient clear space ahead.
   g. Signal the change of lanes when passing.
   h. Allow enough room when returning to the right lane.
   i. Slow down for rough roads. Allow faster traffic to pass.

5. Slowing and Stopping
   a. Use brakes properly and stop smoothly. No sudden stops.
   b. Stop clear of pedestrian walks.

6. Miscellaneous
   a. Check instruments regularly while driving.
   b. Consistently be alert and attentive.

---

DRIVER EVALUATION FORM

Driver Name: __________________________________ Department: ________________________________
Type of Equipment Driven: ________________________________________________________________

Place a checkmark (√) if the driver’s performance is satisfactory. Mark an “x” if the driver’s performance is unsatisfactory. Explain unsatisfactory items under remarks. If the road test is completed successfully, then give the operator a Certification of Road Test pocket card and send this form and a copy of a Certification of Road Test pocket card to Risk Management.
**Light Vehicle Commentary Drive**

<table>
<thead>
<tr>
<th>Name</th>
<th>Entity</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vehicle Type</td>
<td>Road Condition</td>
<td>Time</td>
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<tr>
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<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Search</th>
<th>Excellent (5)</th>
<th>Good (4)</th>
<th>Needs Improvement</th>
<th>Execute</th>
<th>Excellent (5)</th>
<th>Good (4)</th>
<th>Needs Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eye Lead Time</td>
<td></td>
<td></td>
<td></td>
<td>Hand Position</td>
<td></td>
<td></td>
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<tr>
<td>Eye Movement</td>
<td></td>
<td></td>
<td></td>
<td>Lane Position</td>
<td></td>
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<tr>
<td>Mirror Check</td>
<td></td>
<td></td>
<td></td>
<td>Acceleration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Head Checks</td>
<td></td>
<td></td>
<td></td>
<td>Deceleration</td>
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<table>
<thead>
<tr>
<th>Interpret</th>
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<tbody>
<tr>
<td>Hazard Recognition</td>
<td>Potential</td>
<td>Braking</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Actual</td>
<td>Stopping Position</td>
<td></td>
</tr>
<tr>
<td>Early Recognition</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Time</th>
<th>Intersections</th>
<th>Controlled</th>
<th>Uncontrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Following Distance</td>
<td>Timing of Lights</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check Start</td>
<td>Stale Green</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Vehicle Inspection |                           |                           |                  |
|                    | Tires                  | Horn                     | Windows          |
|                    | Belts                   | Gauges                   | Wipers           |
|                    | Oil                     | Hoses                    | Mirrors          |
|                    | Water                   | Cables                   | Lights           |
|                    |                           | Point of No Return       |                  |
|                    |                           | Merging                  |                  |
|                    |                           | Communication            |                  |
|                    |                           | Totals                   | Subtotal         |
|                    |                           |                          | Total            |

Comments

Driver Signature  | Instructor Name/Initials  | Date |
-------------------|---------------------------|------|
## Supervisor’s Report – Light Duty Driver Observation

**Driver:** ________________________  **Date of Observation:** ________________________

<table>
<thead>
<tr>
<th>Area of Interest</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Completed Pre-Trip Inspection (Documented)</strong></td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td><strong>Approach to Vehicle</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Checks for evidence of leaks on ground</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>Vehicle Damage observed</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>Exterior Condition observed</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
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</tbody>
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<table>
<thead>
<tr>
<th>Vehicle Interior</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Seat adjusted</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>Mirrors adjusted</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>Trash/Debris noted and cleaned</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>All glass cleaned (as needed)</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Trunk/Storage</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Fire Extinguisher checked (charged/tag/bracket)</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>Fire Aid Kit (inspected and restocked)</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>Jack and Spare Tire</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
<td></td>
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<table>
<thead>
<tr>
<th>Driver Activities</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Seat belt(s) adjusted</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>Seat belt(s) used</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>Correct use of turn signals</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>&gt; Checks mirrors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&gt; Checks blinds spots</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anticipates traffic problems and reacts correctly</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>Maintains safe following distance</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td><strong>Notes:</strong></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Page 2. Supervisor Check List (Light Duty)

Maintains proper lane usage (   ) (   ) (   )
Approaches intersections with caution (   ) (   ) (   )
Safely clears intersections (   ) (   ) (   )
   Notes:

Maintains appropriate speed control (   ) (   ) (   )
   Notes:

Applies proper braking (   ) (   ) (   )
   Notes:

Parallel Parking:
  > Checks traffic (   ) (   ) (   )
  > Properly position vehicle at parking spot (   ) (   ) (   )
  > Correct and precise maneuvers into parking spot (   ) (   ) (   )
  > When leaving, safely merges into traffic (   ) (   ) (   )
   Notes:

End of Drive Parking:
   Maintains safe speed into lot (   ) (   ) (   )
   Selects parking spot and enters safely (   ) (   ) (   )
   Turns off ignition and removes key (   ) (   ) (   )
   Secures/Locks Vehicle (   ) (   ) (   )
   Notes:

Completes Post-Trip Report as needed (   ) (   ) (   )
   Notes:

Supervisor Observations:

Driver Name and License:
   Pass_____ Fail______ Supervisor Name and Title ____________________________
Supervisor’s Report - CDL Operator Observation

Driver: ___________________________  Date of Observation:  ___________________________

<table>
<thead>
<tr>
<th>Area of Interest</th>
<th>Yes</th>
<th>No</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Vehicle Approach.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Checks for leakage under vehicle</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>Vehicle Damage observed</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>Exterior Condition observed</td>
<td>(   )</td>
<td>(   )</td>
<td>(   )</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

| Checks under hood and crankcase                        |     |    |     |
| All fluids and belts checked                          | (   ) | (   ) | (   ) |
| Fan, compressor, general engine space                  | (   ) | (   ) | (   ) |
| Notes:                                                |     |    |     |

| **Vehicle Start**                                      |     |    |     |
| Set idle at fast warm up                              | (   ) | (   ) | (   ) |
| Any abnormal engine noise                             | (   ) | (   ) | (   ) |
| Check all gauge readings                              | (   ) | (   ) | (   ) |
| Note: If low air pressure, “Low Air” warning          | (   ) | (   ) | (   ) |
| sounds if > 60 pounds                                  |     |    |     |
| If operable Anti-Lock, warning light checked           | (   ) | (   ) | (   ) |
| Notes:                                                |     |    |     |

| **Emergency Equipment**                                |     |    |     |
| Horns, windshield wipers, 4-way flashers              | (   ) | (   ) | (   ) |
| Steering wheel action                                  | (   ) | (   ) | (   ) |
| Headlights and running lights                          | (   ) | (   ) | (   ) |
| Emergency Triangles / Flares / Warning Signs           | (   ) | (   ) | (   ) |
| Spare Tire, Jack and Chains inspected                  | (   ) | (   ) | (   ) |
| Notes:                                                |     |    |     |

| **Tire and Wheels**                                     |     |    |     |
| Tire tread wear and depth, air pressure                | (   ) | (   ) | (   ) |
| Wheels checked for hairline cracks                     | (   ) | (   ) | (   ) |
| Lugs tight. Leaks around hubs                          | (   ) | (   ) | (   ) |
| Notes:                                                |     |    |     |
## Front, Sides and Rear of Tractor/Trailer

<table>
<thead>
<tr>
<th>Item</th>
<th>Left</th>
<th>Right</th>
<th>Front</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mirrors clean and no cracks</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>Running lights and reflectors</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>Check for any thrown lubricants</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
<td></td>
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</tbody>
</table>

## Trailer Attachments

<table>
<thead>
<tr>
<th>Item</th>
<th>Left</th>
<th>Right</th>
<th>Front</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brake and light lines. No cracks or breaks</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>All connections are secure</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>Lines secured to prevent entangling or chafing</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>Notes:</td>
<td></td>
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</table>

## Re-Enter Cab Activities

<table>
<thead>
<tr>
<th>Item</th>
<th>Left</th>
<th>Right</th>
<th>Front</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continue to check/monitor gauges</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>Note: Air pressure should be at maximum</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check parking brake</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>Fire Extinguisher checked and secured</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>First Aid Kit checked and secured</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>Seat and seat belts adjusted</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>Mirrors adjusted and clean</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>Trash and debris noted and cleaned</td>
<td>(</td>
<td>(</td>
<td>(</td>
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<tr>
<td>All Glass is clean</td>
<td>(</td>
<td>(</td>
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<tr>
<td>Notes:</td>
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</table>

## With Fully Charged System, check air brakes as follows;

<table>
<thead>
<tr>
<th>Item</th>
<th>Left</th>
<th>Right</th>
<th>Front</th>
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</thead>
<tbody>
<tr>
<td>Ensure trailer air supply is “IN” and trailer air</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>brakes are charged</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pull out Trailer Air Supply Valve to check manual trailer</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>brakes application</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduce air pressure by rapid application and’ release of</td>
<td>(</td>
<td>(</td>
<td>(</td>
</tr>
<tr>
<td>treadle valve. “Low Air” warning should operate when</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>primary needle reaches 60 psi. Brakes should apply</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>automatically when secondary needle reaches between 45</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>and 20 psi.</td>
<td></td>
<td></td>
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<tr>
<td>Notes:</td>
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<td></td>
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</tbody>
</table>
Page 3. Supervisor Check List (CDL Operator)

**Recharge trailer air system to check for leaks.**
With engine idling, apply treadle valve and hold for one minute. After initial drop of 5-10 psi, air pressure should not drop more than 4 psi. If audible leaks or rapid pressure drop are noted, repairs must be made prior to departure.

Notes: ________________________________

**Prior to Leaving Yard / Shop:**
Note: Tire checks required every 2 hours or every 100 miles when carrying placarded hazardous materials. (Ask the question).

- Seat Belt fastened
- Any placards and load papers checked

Notes: ________________________________

**Jack and Spare Tire**

Notes: ________________________________

**Driver Activities**

- Seat belt(s) adjusted
- Seat belt(s) used
- Correct use of turn signals
  - Checks mirrors
  - Checks blinds spots
- Anticipates traffic problems and reacts correctly
- Maintains safe following distance

Notes: ________________________________

- Maintains proper lane usage
- Judges and Appropriately makes turning movements
- Approaches intersections with caution
- Safely clears intersections

Notes: ________________________________

- Maintains appropriate speed control

Notes: ________________________________
Applies proper braking

Notes:

Parking Procedures:

> Checks traffic
> Properly position vehicle at parking spot
> Correct and precise maneuvers into parking spot
> When leaving, safely merges into traffic

Notes:

End of Drive Parking:

Maintains safe speed into lot
Selects parking spot and enters safely
Turns off ignition and removes key
Sets Parking Brake / Chalks Wheels
Secures/Locks Vehicle

Notes:

Completes Post-Trip Report as needed

Notes:

Supervisor Observations:

Driver Name and License:

Pass Fail Supervisor Name and Title
### Seat Belt Monitoring Checklist
(when vehicle is in motion or traffic only)

<table>
<thead>
<tr>
<th>Observation Date</th>
<th>Observation Time</th>
<th>Observer's Name</th>
<th>Vehicle Type/Color</th>
<th>Vehicle # and/or Department</th>
<th>Driver's Name</th>
<th>Wearing Seat Belt?</th>
<th>Passenger's Name</th>
<th>Wearing Seat Belt?</th>
</tr>
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</table>

**Suggestions on when observations could be made:**
1) At the beginning of a shift as employees leave the facility, 2) Randomly during a shift, in the field, or 3) At the end of a shift as employees return to the facility.

* Employees observed wearing their seat belt should receive positive feedback and recognition.
* Employees observed not wearing their seat belt should receive immediate feedback, if possible, but no later than the end of their shift. Feedback should address the entity’s concern for their health and safety, and to ensure that the employee clearly understands the entity’s policy related to the use of seat belts anytime a vehicle is in motion or in traffic.

The focus of the observation process should be to reward and recognize safe behavior and to address at risk behavior before an accident or injury takes place.
42-4-237. Safety belt systems - mandatory use - exemptions - penalty. (1) As used in this section:

(a) "Motor vehicle" means a self-propelled vehicle intended primarily for use and operation on the public highways, including passenger cars, station wagons, vans, taxicabs, ambulances, motor homes, and pickups. The term does not include motorcycles, low-power scooters, passenger buses, school buses, and farm tractors and implements of husbandry designed primarily or exclusively for use in agricultural operations.

(b) "Safety belt system" means a system utilizing a lap belt, a shoulder belt, or any other belt or combination of belts installed in a motor vehicle to restrain drivers and passengers, which system conforms to federal motor vehicle safety standards.

(2) Unless exempted pursuant to subsection (3) of this section, every driver of and every front seat passenger in a motor vehicle equipped with a safety belt system shall wear a fastened safety belt while the motor vehicle is being operated on a street or highway in this state.

(3) Except as provided in section 42-2-105.5, the requirement of subsection (2) of this section shall not apply to:

(a) A child required by section 42-4-236 to be restrained by a child restraint system;

(b) A member of an ambulance team, other than the driver, while involved in patient care;

(c) A peace officer as described in section 16-2.5-101, C.R.S., while performing official duties so long as the performance of said duties is in accordance with rules and regulations applicable to said officer which are at least as restrictive as subsection (2) of this section and which only provide exceptions necessary to protect the officer;

(d) A person with a physically or psychologically disabling condition whose physical or psychological disability prevents appropriate restraint by a safety belt system if such person possesses a written statement by a physician certifying the condition, as well as stating the reason why such restraint is inappropriate;

(e) A person driving or riding in a motor vehicle not equipped with a safety belt system due to the fact that federal law does not require such vehicle to be equipped with a safety belt system;
(f) A rural letter carrier of the United States postal service while performing duties as a rural letter carrier; and

(g) A person operating a motor vehicle which does not meet the definition of "commercial vehicle" as that term is defined in section 42-4-235 (1) (a) for commercial or residential delivery or pickup service; except that such person shall be required to wear a fastened safety belt during the time period prior to the first delivery or pickup of the day and during the time period following the last delivery or pickup of the day.

(4) (a) Except as otherwise provided in paragraph (b) of this subsection (4), any person who operates a motor vehicle while such person or any passenger is in violation of the requirement of subsection (2) of this section commits a class B traffic infraction. Penalties collected pursuant to this subsection (4) shall be transmitted to the appropriate authority pursuant to the provisions of section 42-1-217 (1) (e) and (2).

(b) A minor driver under eighteen years of age who violates this section shall be punished in accordance with section 42-2-105.5 (5) (b).

(5) No driver in a motor vehicle shall be cited for a violation of subsection (2) of this section unless such driver was stopped by a law enforcement officer for an alleged violation of articles 1 to 4 of this title other than a violation of this section.

(6) Testimony at a trial for a violation charged pursuant to subsection (4) of this section may include:

(a) Testimony by a law enforcement officer that the officer observed the person charged operating a motor vehicle while said operator or any passenger was in violation of the requirement of subsection (2) of this section; or

(b) Evidence that the driver removed the safety belts or knowingly drove a vehicle from which the safety belts had been removed.

(7) Evidence of failure to comply with the requirement of subsection (2) of this section shall be admissible to mitigate damages with respect to any person who was involved in a motor vehicle accident and who seeks in any subsequent litigation to recover damages for injuries resulting from the accident. Such mitigation shall be limited to awards for pain and suffering and shall not be used for limiting recovery of economic loss and medical payments.

(8) The office of transportation safety in the department of transportation shall continue its program for public information and education concerning the benefits of wearing safety belts and shall include within such program the requirements and penalty of this section.
42-4-239. Misuse of mobile communication devices - definitions. (1) As used in this section, unless the context otherwise requires:
(a) "Emergency" means a situation in which a person:
(I) Has reason to fear for such person's life or safety, or believes that a criminal act may be perpetrated against such person or another person requiring the use of a mobile communication device while the car is moving; or
(II) Reports a fire, a traffic accident in which one or more injuries are apparent, a serious road hazard, a medical or hazardous materials emergency, or a person who is driving in a reckless, careless, or otherwise unsafe manner.
(b) "Mobile communication device" means a cellular telephone or other device that enables a person in a motor vehicle to transmit and receive audio signals to and from a person or audio recording device located outside the motor vehicle.
(2) No person who holds a temporary instruction permit or a minor's instruction permit pursuant to section 42-2-106 shall use a mobile communication device while operating a motor vehicle. This section shall not apply to a person who is using the mobile communication device:
(a) To contact a public safety entity;
(b) While the vehicle is lawfully parked; or
(c) During an emergency.
(3) Any person who operates a motor vehicle in violation of subsection (2) of this section commits a class A traffic infraction as defined in section 42-4-1701 (3).
(4) An operator of a motor vehicle shall not be cited for a violation of subsection (2) of this section unless such operator was stopped by a law enforcement officer for an alleged violation of articles 1 to 4 of this title other than a violation of this section.
Editor's note: This version of this section is effective until December 1, 2009.

42-4-239. Misuse of a wireless telephone - definitions - penalty - preemption. (1) As used in this section, unless the context otherwise requires:
(a) "Emergency" means a situation in which a person:
(I) Has reason to fear for such person's life or safety or believes that a criminal act may be perpetrated against such person or another person, requiring the use of a wireless telephone while the car is moving; or
(II) Reports a fire, a traffic accident in which one or more injuries are apparent, a serious road hazard, a medical or hazardous materials emergency, or a person who is driving in a reckless, careless, or otherwise unsafe manner.

(b) "Operating a motor vehicle" means driving a motor vehicle on a public highway, but "operating a motor vehicle" shall not mean maintaining the instruments of control while the motor vehicle is at rest in a shoulder lane or lawfully parked.

(c) "Use" means talking on or listening to a wireless telephone or engaging the wireless telephone for text messaging or other similar forms of manual data entry or transmission.

(d) "Wireless telephone" means a telephone that operates without a physical, wireline connection to the provider's equipment. The term includes, without limitation, cellular and mobile telephones.

2. A person under eighteen years of age shall not use a wireless telephone while operating a motor vehicle.

3. A person eighteen years of age or older shall not use a wireless telephone for the purpose of engaging in text messaging or other similar forms of manual data entry or transmission while operating a motor vehicle.

4. Subsection (2) or (3) of this section shall not apply to a person who is using the wireless telephone:
   (a) To contact a public safety entity; or
   (b) During an emergency.

5. (a) A person who operates a motor vehicle in violation of subsection (2) or (3) of this section commits a class A traffic infraction as defined in section 42-4-1701(3), and the court or the department of revenue shall assess a fine of fifty dollars.

   (b) A second or subsequent violation of subsection (2) or (3) of this section shall be a class A traffic infraction as defined in section 42-4-1701(3), and the court or the department of revenue shall assess a fine of one hundred dollars.

6. (a) An operator of a motor vehicle shall not be cited for a violation of subsection (2) of this section unless the operator was under eighteen years of age and a law enforcement officer saw the operator use, as defined in paragraph (c) of subsection (1) of this section, a wireless telephone.

   (b) An operator of a motor vehicle shall not be cited for a violation of subsection (3) of this section unless the operator was eighteen years of age or older and a law enforcement officer saw the operator use a wireless telephone for the purpose of engaging in text messaging or other similar forms of manual data entry or transmission.

7. The provisions of this section shall not be construed to authorize the seizure and forfeiture of a wireless telephone, unless otherwise provided by law.

8. This section does not restrict operation of an amateur radio station by a person who holds a valid amateur radio operator license issued by the federal communications commission.

9. The general assembly finds and declares that use of wireless telephones in motor vehicles is a matter of statewide concern.
Editor's note: This version of this section is effective December 1, 2009.
SUBJECT: NSC Safe Driving & Staff Cell Phone Staff Policy

National Safety Council
Motor Vehicle Safety Staff Policies

The National Safety Council is a global leader in motor vehicle safety. This reputation has been earned through our leadership in Defensive Driving, our advocacy for transportation and highway safety, and our commitment to establishing and following best practices that make driving safer.

As employees of NSC, we must embrace safe driving practices and hold ourselves to a higher safety standard while driving or riding in motor vehicles. Safe driving practices include adherence to all traffic laws, using safety belts and maintaining focus by limiting distractions, including those caused by the use of cell phones and other mobile electronic devices.

Since the NSC originated the concept of defensive driving more than 40 years ago, studies have consistently shown that graduates of defensive driving courses are safer drivers. As a result, we are requiring that NSC employees successfully complete an NSC Defensive Driving Course (DDC) every three years. In addition, we will be offering our on-line DDC to employees' family members free of charge.

Of increasing concern to the National Safety Council and other traffic safety advocates is the proliferation of mobile electronics. Numerous studies have demonstrated how the use of cell phones and other wireless devices while driving pose a significant safety risk to motorists, their passengers and others on the road. In fact, scientific studies have shown that cell phone use while driving increases the risk of being in a crash 4 to 5 times.

Other studies have compared the risk of slower reaction times caused by cell phone use to those of driving with a blood alcohol concentration of .08, which would constitute a drunk driving violation in all 50 states. Researchers have also found that hands-free devices do not remove this risk because they do not reduce the distraction associated with a cell phone conversation. Studies show that the level of attention blindness during a cell phone conversation is the same with hand-held and hands-free devices.

Accordingly, the attached policy requires that NSC employees refrain from taking these life-threatening risks while on the job.

In addition, NSC employees are encouraged to adopt safe driving practices whenever behind the wheel, and to extend the encouragement of safe driving practices to family members and friends.

When driving, NSC employees are encouraged to:
• Turn off wireless phones or other devices before starting the car. If a call must be made while on the road, signal your intentions to pull over, pull off to a safe place, put the vehicle in "Park," and then make the call.

• Modify your voice mail greeting to indicate that you are unavailable to answer calls or return messages while driving.

• If appropriate, inform your clients, associates and business partners of this NSC policy as an explanation of why calls may not be returned immediately.

• Do not make any adjustments to a Global Positioning System (GPS) or other navigation devices while driving. If you must adjust a GPS, pull over to a safe place and put the vehicle in "Park."
CITY OF GRAND JUNCTION

Cellular Phone Use Policy in City Vehicles

Distracted drivers are more likely to make a driving error or react too slowly. As more City drivers are using cellular phones, it is important that they be used safely and courteously. Currently, there is no law or City policy against using a cellular phone while driving, but you could be charged with dangerous or careless driving if you cause an accident while using one, and cellular phone use is frequently cited by other drivers as an annoyance or hazard because distracted cell phone users often behave more erratically. It is important both for safety and for the image of City drivers that common sense and courtesy be followed in using Cellular phones while in City of Grand Junction vehicles.

Guidelines for Cellular Phone Use in Vehicles:

- Whenever possible, use your cellular phone when parked, or have a passenger use the phone.
- If your position requires frequent cell phone use in a vehicle, you should have voice mail service and hands-free equipment for your phone, and use both to avoid distractions.
- If your phone rings when you are driving – especially during hazardous conditions -- let your cellular voice mail service take the call and listen to the message later when you are parked, or pull over before answering, if traffic conditions permit.
- Make sure the phone is easy to see and reach: Place your cellular phone in your vehicle where you can grab it without removing your eyes from the road.

- Suspend conversations during hazardous driving conditions or situations.
- Let the person you are speaking to know you are driving and that the call may need to be suspended at any time.
- Do not take notes or look up phone numbers while driving. As a driver, your first responsibility is to pay attention to the road. Common sense dictates you do not read, look up an address or attempt to write or take notes while driving.

- Attempt to dial and place all calls when you are not moving.
- When possible, plan your calls before you begin your trip, or call when your vehicle is parked at a stop sign or red light. If you absolutely need to dial while driving, assess the traffic and dial only a few numbers at a time.
- Learn and use the pre-programmed number dial features of your phone. Practice using this feature for commonly dialed numbers before driving so you are familiar with the procedures.

- Do not engage in stressful or emotional conversations while driving. A stressful or emotional phone conversation while driving is distracting and potentially dangerous. If necessary, suspend the phone conversation.

- Use your cellular phone to call for help or to help others in emergencies. Your cellular phone lets you be a "good Samaritan" in the community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 911 and give the exact location and information to fire, police or ambulance personnel.
Cell Phone Safety

Cell phones, when used prudently, can be a real benefit. However, if misused when driving, they can lead to serious or fatal accidents. Follow these safety tips for using cellular phones while in a vehicle.

- Safe driving is your first priority. Always buckle up, keep your hands on the wheel and focus on the road.
- Mount your cell phone in a position where it is easy to see and reach.
- Use a hands-free microphone while driving.
- Use speed-dialing features to program in frequently called numbers.
- When dialing manually without the speed-dialing feature, dial only when stopped. If you can’t stop or pull over, dial a few digits, then survey traffic before completing the call.
- Never take notes while driving.
- If you are in heavy traffic or weather conditions are poor, let an incoming call go to voice mail.
- Shut up and drive. Limit the time of the call to essential business then end the call.
DAILY VEHICLE INSPECTION SHEET

Driver _______________________________ Date __________________________
Vehicle _____________________________ Mileage ___________________

The items on this inspection sheet should be checked daily. A separate sheet should be filled out for each vehicle driven. These forms are due daily. Place an X by any item that needs attention. Place a check mark by the rest. Any discrepancies should be detailed on the bottom of this sheet.

_____ Visual Inspection for Exterior Damage/leaks under vehicle
_____ Check inside Engine compartment for leaks/loose items
_____ Oil Level
_____ Washer Fluid Level
_____ Coolant Level
_____ Power Steering Fluid Level
_____ Start Engine and check Transmission Fluid Level (Fluid should be hot)
_____ Check Tires for wear and pressure
_____ Check Horn
_____ Check Heater/Defroster
_____ Check Windshield Wipers/Washers
_____ Check Highlight/Signal lights/4way flashes/Tail lights/Backup lights/Horn
_____ Check Interior lights
_____ Check Mirrors for damage and adjustments
_____ Check Fuel Level
_____ Check First Aide Kit (on board and full)
_____ Check Fire Extinguisher (on board/gauge showing charged, proper seal & pin)
_____ As you drive, continually check for any strange smells, sounds, vibrations, or anything that does not feel right.

*Form to be completed and turned in to the Fleet Manager DAILY.

The following discrepancies were noted:_____________________________________

______________________________________________________________

______________________________________________________________

______________________________________________________________

Driver’s Signature: _________________________________________________

Corrective action taken: ____________________________________________

______________________________________________________________
VEHICLE MAINTENANCE

A. INTRODUCTION

Vehicle Maintenance, when performed on a scheduled basis, can provide many benefits including accident reduction, less down time, reduction in costly repairs, and improved driver morale. Vehicle condition can stimulate good customer and public relations, as well as portray a good company image.

B. CONTENT

Vehicle maintenance is necessary for the safe operation of a fleet. Most vehicle maintenance programs include two major areas, which are:

1. Pre-trip/post-trip inspections.
2. Preventative maintenance.

1. Pre-Trip / Post-Trip Inspections

Drivers should perform scheduled, documented pre-trip and post-trip vehicle inspections. It should be the driver's responsibility to complete these inspections. The inspection should include a means for identifying any condition that could affect the safe operation of the vehicle. If any conditions exist that would make the safe operation of the vehicle questionable, the vehicle must be taken out of service immediately. After returning at the end of a day or shift, a post-trip inspection should be made to identify any defective conditions that may have developed during the shift. This will allow for the repair of the vehicle prior to the start of the next day, and help to reduce the vehicle's down time. The inspection form should be sent to the vehicle maintenance file, and a copy should be given directly to the person in charge of making sure all repairs are completed. This should be done when the inspection shows a repair or maintenance item that needs to be completed. The Inspection Form should facilitate a procedure for a "mechanic sign-off", and his/her copy of the form should be directed to the vehicle maintenance file.

2. Preventative Maintenance

Preventative Maintenance attempts to anticipate problems and to plan for their correction before they become serious. The groundwork of a good Preventative Maintenance Program usually starts with the manufacturer's recommendations concerning necessary maintenance and the time and mileage when it should be performed. These recommendations should be considered minimum requirements and can be modified by the actual needs of the fleet. A Preventative Maintenance Program is normally performed on a mileage or time basis. Typical maintenance includes lube, oil filter, tightening, tune-ups, brake inspections, tire rotation, replacement of hoses, etc.

The Preventative Maintenance Program should provide for:

a. A means of identifying individual vehicles when preventative maintenance is needed.

b. A record of all maintenance and repairs completed, which is dated and kept in each individual vehicle file.

The Preventative Maintenance Program should be reported on and reviewed as part of the housing authority's inspection program.
# DRIVER'S INSPECTION REPORT

Ξ CHECK DEFECTS ONLY • • • EXPLAIN UNDER REMARKS

---

**LOCATION/DEPARTMENT:** 
**DATE:**

**VEHICLE DESCRIPTION:**
- **YEAR:** ______  
- **MAKE:** __________  
- **MODEL:** ______________

**SERIAL NO.:** ____________________  
**MILEAGE:** __________

## GENERAL CONDITION

- [ ] Cab/Doors/Windows
- [ ] Body/Doors
- [ ] _______ Oil Leak _______
- [ ] _______ Grease Leak ______
- [ ] Coolant Leak
- [ ] Fuel Leak
- [ ] ___ Other __________

__________ (Identify)

## ENGINE COMPARTMENT

- [ ] Oil Level
- [ ] Coolant Level
- [ ] ___ Belts __________
- [ ] ___ Other __________

__________ (Identify)

**INTERIOR**

- [ ] Gauges/Warning Indicators
- [ ] Windshield Wipers/Washers
- [ ] Horn
- [ ] Heater/Defroster
- [ ] Mirrors
- [ ] Steering
- [ ] Clutch
- [ ] Service Brakes
- [ ] Parking Brake
- [ ] Emergency Brakes
- [ ] Caution Triangles/Flares
- [ ] Fire Extinguisher
- [ ] Other Safety Equipment
- [ ] Other __________
- [ ] Spare Fuses
- [ ] Seat Belts

__________ (Identify)

**EXTERIOR**

- [ ] Lights
- [ ] Reflectors
- [ ] Suspension
- [ ] Tires
- [ ] Wheels/Rims/Lugs
- [ ] Battery
- [ ] Exhaust
- [ ] Brakes
- [ ] Air Filter
- [ ] Spare Tire
- [ ] Dents
- [ ] Other Coupling
- [ ] Tie-Downs
- [ ] Rear-End Protection
- [ ] __________

## REMARKS:

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

---

**REPORTING DRIVER:** ____________________  
**DATE:** __________

**REVIEWING DRIVER:** ____________________  
**DATE:** __________

**MAINTENANCE ACTION:**
- [ ] REPAIRS MADE
- [ ] NO REPAIRS NEEDED

**WORK ORDER / PURCHASE ORDER NO.:** _________________

**REPAIRED BY:** ____________________

**LOCATION:** ____________________

**SHOP REMARKS:** ____________________

---

Vehicle maintenance form and drivers inspection report.doc
VEHICLE MAINTENANCE LOG
INSTRUCTIONS

This vehicle maintenance log has been developed for the convenience of District campuses. This maintenance log was developed from research of the automotive industry's generally accepted maintenance schedule. Individual campuses and/or departments may wish to add to the form to meet their individual needs. The department and individual responsible for the campus vehicles will also be responsible for maintaining a folder for both the "Vehicle Maintenance Log (or equivalent)," "Vehicle Check Out Form" and the "Pre-Trip Safety Check List" in their respective office.

INSTRUCTIONS:

1. Vehicle #: This is the number commonly referred to as the "decal number" or the "bar code number" used for inventory of District property.

2. Year, Make & Model: An example would be: "88 Ford F150 Pickup.

3. VIN #: Is the "vehicle identification number" found on a metal plate just below the driver's side windshield or inside the doorframe of the driver's door.

4. Date: Is the date that the vehicle was checked or work was done on the vehicle.

5. Mileage: Mileage at the time the vehicle is checked or work is done on the vehicle.

6. Work Ticket #: The number on the form provided by the outside vendor doing work on the vehicle or the form used to record details of maintenance done by the given department responsible for the vehicle.

7. Cost: Expenses incurred from work done on the vehicle.

MAINTENANCE ITEMS (Suggested Maintenance Schedule – Manufacturer's Maintenance Schedule may vary.)
(Place and "X" under each item checked or work done to the vehicle. Enter comments or details of work done on work ticket.)

- Tire Inspections: Condition & Air Pressure (Including Spare) (Also check for Tire Jack) every 2 weeks; Inspect the tread on the tire using a tire gauge and visual inspections. (If the tire tread is 3/16 of an inch or less the vehicle should not be driven until the tire is replaced) Check the PSI or air pressure in the tires using an air gauge.
- Oil Level every 2 weeks; Check the oil dipstick in the vehicle every two weeks. If oil is not at the full mark add the appropriate amount.
- Brake fluid level every 2 weeks; Check the brake fluid reservoir. If fluid is outside the minimum or maximum line have the brake system checked by a qualified mechanic.
- Radiator Fluid level every 2 weeks; Check the radiator fluid level every two weeks. If fluid is not at the full mark add the appropriate amount. Also check the heat and cold resistance of the anti-freeze using an anti-freeze tester.
- Transmission fluid every 2 weeks; Check the transmission fluid dipstick. Add transmission fluid as needed.
- Brake lights every two weeks; Check brake lights. If brake light is out replace bulb or fuse as needed.
- Turn signals every 2 weeks; Check signal lights. If signal light is out replace bulb or fuse as needed.
- Emergency Flashers every 2 weeks; Check emergency flashers. If flasher is out replace bulb or fuse as needed.
- Head lights every 2 weeks; Check high and low beams on headlights. Replace lamps as needed.
- Battery fluid level every month; Check water level in battery. If water level is low add distilled water as needed.
- Power steering fluid every month; Check fluid level. If fluid level is low add power steering fluid as needed.
- Wiper blade inspection each month; Check wiper blades on windshield. Replace if worn or damaged.
- HVAC checked each month; Check both heater and a/c each month. Repair work as needed.
- Brakes inspected every 6 months; Have the brakes inspected by a qualified mechanic. Repair work as needed.
- Oil changes every 3,000 to 5,000 miles or 6 months; Have engine oil and oil filter replaced on a regular schedule.
- Tires Rotated every 7,000 miles; Rotate tires on a regular schedule.
- Belts and Hoses every 10,000 miles or yearly; Check belts and hoses. Replace worn or damaged belts and/or hoses as needed.
- CV Boots Inspected every 15,000 miles; Check CV Boots. Replace worn or damaged CV Boots as needed.
- Shocks and/or Struts every 15,000 miles; Check Shocks and/or Struts. Replace as needed.
- Air Filter, replace every 20,000 miles; Replace air filter.
- Auto Transmission fluid every 25,000; Replace auto transmission fluid.
- Steering/Wheels Alignment every 30,000; Check alignment. Adjust alignment as needed.
- Tune-up every 30,000; Standard engine tune-up.
- Timing belt replaced every 65,000 miles; Replace timing belt.
- State Inspection every year; State Vehicle Inspection.
- Anti-freeze flushed every 2 years; Complete flush of cooling system.

12/01/01
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- **Work Ticket #:**
- **Cost:**

- **Mileage:**

- **Vehicle Maintenance Log**
  - Anti-brake Flush every 2 yr
  - Service Inspection yearly
  - Timing belt replaced 66,000
  - Tune-up every 30,000
  - Steering Wheel Align 30,000
  - Air Trans. Fluid every 25,000
  - Shocks and/or Struts 15,000
  - CV Joints Inspect every 15,000
  - Brakes Inspect every 6 months
  - HVAC check each month
  - Wiper Inspect each month
  - Power Steering Fluid check
  - Brake Fluid check each month
  - Head Lights every 2 weeks
  - E. F. Flows every 2 weeks
  - Trans. Fluid every 2 weeks
  - Radiator Fluid every 2 weeks
  - Brake Fluid level every 2 weeks
  - Oil Level every 2 weeks
  - Tire Insps & Psi every 2 weeks
### VAN INSPECTION CHECKLIST

<table>
<thead>
<tr>
<th>SITE:</th>
<th>DATE:</th>
<th>VAN #</th>
<th>DRIVER (sign):</th>
</tr>
</thead>
</table>

Before leaving the designated parking location, check the following:

<table>
<thead>
<tr>
<th>Lights</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Head lights</td>
<td>□ 1 □ 2 □ 3</td>
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<tr>
<td>• Tail lights</td>
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<tr>
<td>• Turn signals</td>
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<tr>
<td>• Brake lights</td>
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<tr>
<td>• Back-up lights</td>
<td>□ 1 □ 2 □ 3</td>
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<table>
<thead>
<tr>
<th>Tires</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
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<table>
<thead>
<tr>
<th>Windshield Wipers</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
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<table>
<thead>
<tr>
<th>Fluid levels</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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<tr>
<td>• Oil</td>
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<td>• Water</td>
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### Mirrors

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<tr>
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<th>TUESDAY</th>
<th>WEDNESDAY</th>
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### Interior gauges

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
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### Emergency equipment

<table>
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<tr>
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<th>WEDNESDAY</th>
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### Horn

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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### Brakes

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
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</table>

### Fuel level

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ full</td>
<td>□ full</td>
<td>□ full</td>
<td>□ full</td>
<td>□ full</td>
</tr>
<tr>
<td>□ less than 3/4 full</td>
<td>□ less than 3/4 full</td>
<td>□ less than 3/4 full</td>
<td>□ less than 3/4 full</td>
<td>□ less than 3/4 full</td>
</tr>
</tbody>
</table>

### Interior of vehicle clean?

<table>
<thead>
<tr>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
<tr>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
</tr>
</tbody>
</table>

Before parking vehicle at its designated parking location these items must be checked:

<table>
<thead>
<tr>
<th>Fuel level</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ full</td>
<td>□ full</td>
<td>□ full</td>
<td>□ full</td>
<td>□ full</td>
<td>□ full</td>
</tr>
<tr>
<td>□ less than 3/4 full</td>
<td>□ less than 3/4 full</td>
<td>□ less than 3/4 full</td>
<td>□ less than 3/4 full</td>
<td>□ less than 3/4 full</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tires OK</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interior of vehicle is clean (vacuum cleaner available at office)</th>
<th>MONDAY</th>
<th>TUESDAY</th>
<th>WEDNESDAY</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
<tr>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
<td>yes</td>
<td>no</td>
</tr>
</tbody>
</table>

KEY: 1=Good; 2=Fair; 3=Repair/Replace
**PRE AND POST TRIP VAN INSPECTION CHECKLIST**

Date: __________ Van: _____ Mileage: ________ Driver (sign): ______________________________

Before operating the vehicle, please check the following items on both sides of this paper.

<table>
<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Emergency Items**

- Is a fully stocked first aid kit present?
- Is a fully charged fire extinguisher present and readily accessible?

**Interior**

- Are all seat belts easily accessible and in good working order?
- Are all seats securely fastened to the vehicle floorboard?
- Do dash instruments, gauges and lights function properly?
- Do window cranks, door handles, air vents or accessories function properly?
- Are there cracks in any of the windows, especially the windshield?
- Do washers and wipers function properly?
- Do the heater and defroster work properly?
- Does the air conditioner work?
- Is there evidence of damage to the interior?

**Tires and Suspension**

- Are tires, including the spare properly inflated?
- Are tires wearing unevenly across the face of the tread?
- Are there any splits, cuts, bruises or bulges in the sidewalls or tread?
- Are wheel lug nuts tight?
- Does the spare tire have at least 4/32 tread across the face?
- Do drive tires have at least 4/32 tread?
- Do other tires have at least 2/32 tread?
- Does the vehicle lean to one side or the other when unloaded?
<table>
<thead>
<tr>
<th></th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Engine Compartment</strong></td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the battery in good condition?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Are battery terminals free of corrosion?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the radiator and heater hoses in good condition?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the radiator fluid level sufficient?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the engine dirty or covered with oil or grease?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the oil at within the correct level?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Has the oil been recently changed?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the washer fluid level full?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the brake fluid level proper?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Does the engine start correctly?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Does the engine idle rough, race, or make an unusual noise?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Is there noticeable exhaust smoke, noise, smell or leaks?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Is the transmission working properly?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Are any fluid leaks under the vehicle?</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**Safety**

- Do brakes bring the van to a safe stop without pulling to one side or grabbing?
- Does the parking brake hold?
- Do headlights function properly?
- Do taillights work properly?
- Do brake lights work properly?
- Do emergency flashers function properly?
- Do turn signals work properly?
- Do backup lights work?
- Does the horn work?
- Are exterior mirrors clean, properly adjusted, and not cracked?

**Exterior Damage**

- Is there evidence of an accident? (Make a thorough walk around of the van looking top to bottom.)

**Special Notes or Concerns**
Sample Vehicle Accident Review Policy

PURPOSE

This policy is designed to determine and enforce the responsibility for safe driving of anyone authorized to operate a City vehicle who may be involved in a vehicular accident. It is not enough to ascertain that such drivers were not involved in any violation of traffic law or regulation. The driver must drive defensively at all times so that he/she commits no driving errors and makes reasonable allowance for the driving mistakes of others and adverse driving conditions.

If the driver of a City vehicle is involved in a vehicular accident, then a determination must be made as to whether or not the accident was preventable by the City driver. If the accident was preventable, then corrective action needs to be instituted with the driver so as to help insure future preventability of similar accidents.

PROCEDURE

A three-member Accident Review Committee shall be appointed by the City Manager to review each accident. Within 30 days after the occurrence of a vehicle accident involving a City vehicle, the Accident Review Committee shall meet to determine if the accident was preventable.

The Accident Review Committee shall review all accident and police reports, interview appropriate people including the driver and passengers, and determine if the accident was preventable according to established preventability guidelines.

The Accident Review Committee shall prepare a report to the City Manager which indicates whether the accident was preventable or not. The committee may also recommend corrective action to help prevent a future accident.

The City Manager will review the committee’s report and in conjunction with the supervisor of the employee involved in the accident, determine the appropriate corrective action. Corrective action may include, but is not limited to, counseling, enrollment in a defensive driving class, suspension of driving activities, or disciplinary action up to and including discharge.
Preventability Guidelines

A Defensive Driver is one who commits no driving errors and makes allowances for the lack of skill or improper driving practices of the other drivers. The defensive driver adjusts driving activities to compensate for unusual weather, road, and traffic conditions, and is not coerced into an accident by the unsafe actions of pedestrians and other drivers. By being alert to accident-inducing situations, the defensive driver recognizes the need for preventative action in advance and takes the necessary precaution to prevent the accident. A Defensive Driver knows when it is necessary to slow down, stop, or yield the right-of-way to avoid involvement.

A driver should not confuse preventability with chargeability. Preventability is what the driver should have done to avoid all accidents, with very few exceptions, in spite of weather, road, and traffic conditions, and regardless of the other driver’s action. Chargeability is the action taken by law enforcement agencies, and normally determines the blame for the accident. Accidents may be preventable if:

a. Driver was not operating at a speed consistent with the existing conditions of the road, weather and traffic.
b. Driver failed to control speed to be able to stop within assured clear distance.
c. Driver misjudged available clearance.
d. Driver failed to yield right-of-way to avoid accident.
e. Driver was in violation of any applicable traffic laws or ordinances.

Alleys, Driveways, and Street Entrances

Accidents involving traffic originating from alleys, driveways, street entrances, and other special intersecting locations should be carefully analyzed to determine what measures the driver might have taken to avoid the occurrence.

Accident may be preventable if:

a. Driver failed to signal when pulling out from curb.
b. Driver failed to check traffic before pulling out from curb.
c. Driver failed to look back to check traffic if in a position where mirrors did not show traffic conditions.
d. Driver attempted to pull out in a manner which forced other vehicle to change speed or direction.
e. Driver failed to yield right-of-way to approaching traffic.
Backing

Almost all backing accidents are preventable. A driver is not relieved of the responsibility to back safely, even when a second person is acting as a guide in the maneuver.

An accident may be preventable if:

a. Driver backed up when backing could have been avoided by better planning of the route.
b. Driver backed into traffic stream when such backing could have been avoided.
c. Driver failed to get out of vehicle and check proposed path of backward travel.
d. Driver depended solely on mirrors when it was practicable to look back.
e. Driver relied solely on a guide to help with the backing.

Fixed Object

Collisions with fixed objects may be preventable. They usually involve failure to check or properly judge clearances. Unfamiliar streets or new traffic situations on regularly traveled routes are not, in themselves, valid reasons for excusing a driver who is involved in an accident. The driver must be constantly on the lookout for such conditions and make the necessary allowances.

An accident may be preventable if:

a. Driver was not entirely in the proper lane of travel.
b. Driver did not check or properly judge clearances.

Front-End Collisions

Regardless of the abrupt or unexpected stop of the vehicle ahead, the driver can prevent front-end collisions by maintaining a safe following distance at all times. This includes being prepared for possible obstructions on the highway or streets, either in plain view or hidden by the crest of a hill or the curve of a roadway.

An accident may be preventable if:

a. Driver failed to maintain safe following distance and have the vehicle under control.
b. Driver failed to keep track of traffic conditions and note slowdown.
c. Driver misjudged rate of overtaking.
d. Driver came too close before pulling out to pass.
e. Driver failed to wait for car ahead to move into the clear before starting up.
**Grade Crossings**

Collisions with trains occurring at grade crossings, in traffic, or on private property are the responsibility of the driver to prevent.

An accident may be preventable if:

a. Driver attempted to cross tracks directly ahead of train.
b. Driver ran into side of train.c. Driver stopped or parked on or too close to tracks.

**Intersections**

It is the responsibility of the driver to approach, enter, and cross intersections while being prepared to avoid accidents that might occur through the action of other drivers. Complex traffic movement, blind intersections, or failure of the “other driver” to conform to law or traffic control devices will not automatically discharge an accident as “not preventable”. The failure to take precautionary measures prior to entering an intersection should be studied in determining preventability.

An accident may be preventable if:

a. Driver failed to check cross-traffic and wait for it to clear before entering intersection.
b. Driver pulled out from side street in the face of oncoming traffic.

**Mechanical Failure**

Any accident caused by mechanical failure that reasonably could have been detected by the driver, but went unheeded, may be judged preventable. It is the driver’s responsibility to report unsafe vehicle conditions for repairs and to obtain immediate repairs where continued operation might result in an accident.

An accident caused by mechanical failure that results from abusive driving should be considered preventable.

It also may be preventable if defect was of a type which the driver should have detected during the normal operation of the vehicle.

**Miscellaneous**

Projecting loads, loose objects falling from the vehicle, loose tarpaulins or chains, doors swinging open, etc., resulting in damage may be preventable if the driver failed to secure them on the vehicle.
Non-Collisions

Many accidents, such as overturning or running off the road, may result from emergency action by the driver to avoid being involved in a collision. Examination of the driving behavior prior to the incident may reveal speed too fast for conditions, or other factors. The driver’s actions prior to involvement should be examined for possible errors or lack of defensive driving practice. Most single vehicle accidents are preventable.

An accident also may be preventable if the driver did not adjust driving to conditions.

Opposing Vehicles

It is extremely important to check the action of the driver when involved in a head-on or sideswipe accident with a vehicle approaching from the opposite direction. Exact location of vehicles, prior to and at the point of impact, must be carefully verified. Even though an opposing vehicle enters the driver’s traffic lane, it may be possible for the driver to avoid the collision. For example, if the opposing vehicle was in a passing maneuver and the driver failed to slow down, stop, or move to the right to allow the vehicle to re-enter their lane, the driver failed to take action to prevent the occurrence.

An accident also may be preventable if:

a. Driver was not entirely in the proper lane of travel.
b. Driver did not pull to the right and slow down and stop for a vehicle encroaching on the driver’s lane of travel when such action could have been taken without additional danger.

Parking

Unconventional parking locations, including double parking, etc. may constitute evidence for judging an accident preventable.

Roll-away accidents from a parked position may be classified preventable unless there is mechanical failure. This includes failure to properly block wheels, set the emergency brake or to turn wheels toward the curb to prevent vehicle movement.

Passenger Accidents

Passenger accidents in any type of vehicle may be preventable when they are caused by faulty operation of the vehicle. Even though the incident did not involve a collision, it may be considered preventable when the driver stops, turns, or accelerates abruptly. Emergency action by the driver to avoid a collision that results in passenger injury should be checked to determine if proper driving prior to the emergency would have eliminated the need for the evasive maneuver.
Passengers and drivers must use seat belts at all times.

**Passing**

Failure to pass safely indicates faulty judgment and the possible failure to consider one or more of the important factors a driver must observe before attempting the maneuver.

An accident also may be preventable if:

a. Driver passed where view of road ahead was obstructed by hill, curve, vegetation, traffic, adverse weather conditions, etc.
b. Driver attempted to pass in the face of closely approaching traffic.
c. Driver failed to signal change of lanes.
d. Driver pulled out in front of other traffic overtaking from rear.
e. Driver cut-in short returning to right lane.

**Pedestrians**

Traffic regulations and court decisions generally favor the pedestrian hit by a moving vehicle. An unusual route of a pedestrian at mid-block or from between parked vehicles does not necessarily relieve a driver from taking precautions to prevent such accidents. Whether speed limits are posted or the area is placarded with warning signs, speed too fast for conditions may be involved. School zones, shopping areas, residential streets, and other areas with special pedestrian traffic should be traveled at speeds appropriate to the particular situation. Bicycles, motor scooters, and similar equipment are often operated by young and inexperienced operators.

**Rear-end Collisions**

Investigation often discloses that drivers risk being struck from behind by failing to maintain a margin of safety in the following distance. Rear-end collisions preceded by an abrupt stop at a grade crossing, when a traffic signal changes, or when the driver fails to signal a turn at an intersection, could be preventable. Failure to signal intentions or to slow down gradually could be considered preventable.

An accident also may be preventable if:

a. Driver made sudden stop to park, load, or unload.
b. Vehicle was improperly parked.

**Turning**

Turning movements, like passing maneuvers, require the most exacting care by a driver. Failure to signal, to properly position the vehicle for the turn, to check the rearview mirrors, to check pedestrian lanes, or to take any other defensive action should be considered. Sudden turns by other drivers should be carefully examined. You may find
that the driver failed to take precautionary action from tip-offs from the other vehicle immediately preceding the incident.

Weather

Adverse weather conditions are not normally an excuse for being involved in an accident. Rain, snow, fog, sleet, or icy pavement increases the hazards of driving. Failure to adjust driving to the prevailing weather conditions could be cause for deciding an accident preventable. Failure to use safety devices such as tire chains, snow tires, etc., provided by the City could be cause for a preventable decision when it is reasonable to expect the driver to use such devices.
Vehicle Collisions with Wildlife

Each year, there is an average of 2,600 wildlife-vehicle collisions in Colorado. During a recent 10-year period, twenty-nine people were killed, thousands injured, and vehicle damages exceeded $50,000,000. Deer and elk are the animals most often struck, although there have been reports of collisions with bears, mountain lions, badgers, moose, and lynx. From 2000-2008, CIRSA members have reported 56 vehicle-animal collisions costing over $200,000.

According to CDOT, the roads where vehicle-animal collisions occur most often in Colorado are as follows:

1. Interstate 70 at Floyd Hill
2. U.S. 285, Morrison
3. U.S. 36, Boulder to Lyons
4. Colorado 93, Golden to Boulder
5. U.S. 160, Durango to Pagosa Springs and Durango to Mancos
6. U.S. 550, Montrose to Ouray
7. Interstate 25, Castle Rock to Larkspur
8. Colorado 82 and Colorado 133, Glenwood Springs to Marble turnoff

The number of animal collisions on I-70 between mile marker 116-260 (Glenwood Springs to Genesee) has more than doubled (from 111-223) between 2000 and 2008.

Collisions with wildlife can occur any month of the year, but October and November are the most common months. Most collisions occur at dawn and dusk when animals are more active.

Drivers can reduce the possibility of vehicle-animal collisions by practicing the following safety tips:

1. Stay alert for animals near roadways, especially at dawn and dusk during the fall season. Heed the warnings provided by wildlife warning signs.
2. Scan ahead and both sides of the road for animal movement or shining eyes. Many animals travel in groups, so where there is one animal, there may be more.
3. Reduce your speed to increase your reaction time. Anticipate unpredictable behavior from wildlife.
4. Brake, don’t swerve. Serious or fatal injuries have occurred when drivers lose control of their vehicles and run off the side of the road.
5. Use your high beams when it is safe to do so. Keep your headlights clean and properly aligned.
6. If you have a collision with an animal, pull off to the side, and turn on your hazard lights. Do not approach a wounded animal; they can be very dangerous. Call 911, and report the accident to local law enforcement. Report the incident to your supervisor and risk manager.
7. Always wear your seatbelt!
Survive Winter Driving

Public entity employees will encounter numerous situations unique to Colorado driving each winter. Whether it involves mountain, plains, rural or urban driving, prepare yourself and your vehicle to avoid collisions resulting from icy, windswept or snow packed roads. Each year we experience preventable collisions and injuries due to limited visibility, inadequate following and braking distance, distractions, and vehicles not in top condition for the elements.

Recent examples include:

A police officer was responding to a traffic accident and lost control of his vehicle on black ice on a major freeway off ramp and slid into a concrete bridge support.

A snow plow operator was going too fast for conditions and slid through an intersection against the red light and struck a passenger vehicle that was proceeding through on a green light. The passenger vehicle was struck broadside, and the driver sustained serious injuries.

An office employee was running late to get to work in the morning and failed to clean off her windshield for adequate visibility. Traversing a four-way stop intersection, she failed to see a vehicle approaching from her right and the two vehicles collided in the intersection.

Conditions that contribute to these collisions include:

- Not anticipating potentially hazardous road conditions.
- Not leaving enough braking distance to stop in time at a red light.
- Not allowing enough time to reach your destination when traffic conditions and weather dictate the need.
- Not adequately preparing the vehicle for winter driving.

Recommendations to avoid being victimized by winter driving perils include:

- Start with a vehicle in tip-top condition: check tires for adequate tread and proper inflation, windshield wipers, washer fluid, coolant, battery and belts.
- Allow more time and more stopping distance when traveling
- Clean off all windows, mirrors, headlights, turn signals and brake lights of snow and ice.
- Keep snow from blowing up on the windshield or sliding off the roof by cleaning the hood and roof of accumulated snow.

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**Survive Winter Driving (cont.)**

- Start out slowly to obtain proper tire grip without spinning the wheels. Allow for smooth braking with plenty of clearance to the vehicle ahead.
- Slow down. Don’t tailgate. Don’t brake suddenly on inclines or curves.
- Anticipate “black ice” on bridges, overpasses, and in shaded areas.
- Pay attention to weather reports, including wind chill factors and temperature extremes.
- Plan your route and always make others aware of your travel plans.

**Understand Vehicle Dynamics**

**Weight Transfer** occurs whenever the vehicle is subjected to heavy acceleration, hard braking, oversteering and understeering.

**Loss of control** and panic may occur when you experience any of the following: wheel lockup (let off the brakes), over-rotation (slow wheel spin to regain grip) or under-rotation (pump the brakes to regain grip).

**To Prevent Skids**, steer smoothly and avoid any abrupt or sudden changes in your direction of travel. Should your vehicle lose traction (grip) and start to skid, remove your foot from the accelerator or brake pedal. To correct a skid, don’t panic. Steer in the direction you want to go to regain control.

**Braking on Ice and Snow.** If your vehicle is not equipped with an Anti-Lock Braking System (ABS), tap the brakes and release just prior to wheel lockup. Continue doing this until the vehicle is stopped or is back under control. If equipped with ABS, simply push down on the brake and hold it. ABS also offers a certain amount of steering control while the brakes are being continually applied.

**Preparation includes the driver as well.** Carry emergency supplies with you in case you find yourself stranded or in an emergency situation: Water • Nonperishable high energy foods • Flashlight (w/ extra batteries) • Flares or reflectors l Jumper cables • Matches and candles • Tire chains • Shovel • Snow brush and scraper • Layered clothing w/ gloves and snow boots • Travel AM/FM radio • Weather channel radio • Blankets or sleeping bags • First aid kit • Fire Extinguisher • Fully charged cell phone

**Adjust your speed for weather and traffic conditions**

**and**

**Always Buckle Up!**
Roll-over Fatality: Roller/Compactor

A municipal employee was killed when the compactor he was operating rolled over and crushed him. The employee was compacting road base near the edge of the road, traveling downhill and lateral to the slope. The grade was greater than 5%. The compactor was at the edge of the road when it appeared that the rear wheels of the compactor may have started to slough off the embankment. The operator tried to back up in order to compensate, but the weight of the drum roller pulled the compactor downhill causing the compactor to tip over the side of the embankment.

It appeared that the operator tried to jump out of the cab while the compactor was tipping over. Unfortunately, the operator was only able to jump partially out of the cab and was pinned and crushed by the steel top of the cab’s roof (rollover canopy). It is possible that if the operator stayed inside the cab with the seatbelt fastened, the fatality may not have happened.

A National Institute for Occupational Safety and Health (NIOSH) study identified at least 70 deaths involving roller/compactors from 1992-2001. A review of these case studies suggests two common causes of injury: (1) machine rollovers and (2) being struck by the moving machine. Check out the NIOSH study at the following website:
http://www.cdc.gov/elsosh/docs/d0600/d000656/d000656.html

Workers who operate or work around roller/compactors are at risk of serious injury from an equipment rollover or being struck by the machine or its components. NIOSH recommends that injuries and deaths be prevented through wider use of Rollover Protective Structures (ROPS) and seat belts on roller/compactors, employee training, establishing and adhering to safety plans and safe work practices, and using appropriate personal protective equipment.

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Roll-over Fatality (cont.)

The following safeguards are recommended for operators of roller/compactors and other employees working in the vicinity:

- Minimize the presence of workers on foot near machinery.
- Provide all workers on-site with training in site-specific safety procedures and in hazards they may encounter at the site.
- Use barriers to separate workers, pedestrians, and vehicles from moving equipment.
- Continually evaluate safety plans to address changing conditions at the worksite.
- Provide appropriate personal protective equipment (PPE) such as high-visibility reflective vests and hard hats, and ensure that workers use and maintain them.
- Use machinery equipped with ROPS and seatbelts. Monitor seatbelt usage. Replace seatbelts if they are damaged, worn, or too small.
- Contact equipment manufacturers or equipment dealers to determine whether approved retrofit ROPS and seatbelts are available for machinery without these safety features.
- Ensure that machines are not operated on grades steeper than those specified by the manufacturer.
- Establish a documented maintenance program for all machinery.
- Replace worn or damaged warning labels on machinery.
- Ensure that operator’s manuals are present on all machinery or available to the operator.
- Make sure that all the manufacturer’s safety features are operational.
- Ensure that all site workers comply with all applicable requirements of machine warning labels and operator manuals.
Worker Injured After Falling Out Of Skid Steer Bucket

A public works employee was injured after he and the load fell out of the bucket of a skid steer. A supervisor instructed two workers to use the skid steer to move large pieces of concrete to form a walking path. The load was too heavy and awkward to stay on the equipment; therefore, one of the workers stood on top of the concrete in the bucket as a counterbalance to keep it in place. The concrete far outweighed the employee who was standing on top of it. While traveling, the concrete slab flipped out of the bucket, throwing the worker off, with the slab landing on top of his body. The other worker, who was driving the skid steer, ran to help his coworker by using a crowbar to lift the slab. While attempting to lift the slab, he injured his back in the rescue.

It is fortunate that the crushing injuries were not more severe. It is unfortunate that this incident happened at all. What could have prevented this incident?

• The two workers felt that it was unsafe to use the skid steer for this task, but they did not want to disobey their supervisor. If they had brought their concerns to the attention of the supervisor, an alternate method might have been found. Work towards a safety culture in your entity that empowers employees to make decisions about safe work practices.

• Another department located a few miles down the road had larger and more appropriate pieces of heavy equipment, such as a backhoe or front end loader. In an effort to get the task done quickly and without bothering the other department, the supervisor instructed the workers to use the equipment they had on site. The other department’s employees would have gladly brought the heavy equipment down the road. They simply needed to be asked and allowed to schedule it in their work load. Don’t take shortcuts where safety is concerned. The small amount of time and effort to bring over the appropriate equipment could have averted the accident.

• Following the manufacturer’s instructions or industry best practices, people should not be permitted to ride in the buckets or use them as a work platform.

For additional skid steer safety information, please visit:

NIOSH Alert:
http://www.cdc.gov/NIOSH/skidalt.html

National Ag Safety Database:
http://www.cdc.gov/nasd/
Search for bulletins and a 15-minute training guide.
Snow Plow Accident Prevention Strategy

With the increased number of snow days and snow accumulations over the last two winters, some Property/Casualty pool members have experienced an increased number of snow plow accidents. To help reduce this trend, a formal snow plow accident prevention strategy is needed. The following is a list of suggestions that you can use to develop your program before next winter:

1) Utilize the National Weather Service and your Police Department for up-to-date weather forecasting and reporting information. Police personnel and other field employees should be encouraged to advise of potentially hazardous road conditions as soon as possible, but should NOT direct plowing operations.

2) Have adequate supplies (de-icer and/or sand) and spare parts for vehicle and spreaders on hand prior to the season.

3) Ensure vehicles and spreaders are in top mechanical condition and that drivers complete both documented pre/post trip inspections so that safety issues can be addressed in a timely manner.

4) Calibrate spreaders prior to the first snowfall.

5) Implement a policy for when plowing should begin (e.g. when snow accumulation reaches 2-3 inches in depth).

6) Develop safety checklists to assist plow drivers, before leaving the yard/shop, on the road, proper material application, etc.

7) Designate primary, secondary and tertiary (residential) routes. Install signs that inform the public where they cannot park when plowing is necessary. Drive and inspect all streets and roads prior to the snowy season. If plows are not to be taken into certain areas due to inadequate clearances or other hazards, ensure this is communicated.

8) Ensure drivers have received both classroom and adequate hands-on training for the type of vehicle they will be using.

9) Ensure drivers are mentally and physically up to the rigors of the task. Drivers need adequate rest breaks to eat, drink, and use the restroom. Employees shouldn’t be operating a snowplow if illness or medication affects their fitness or alertness. Each driver has a responsibility to notify their supervisor if they are too fatigued, ill, or affected by medications to be driving safely.

10) Have a plan in place to handle emergency situations (municipal and non-municipal roadways). Driveways and roadways in front of fire stations and EMS should be routinely checked and maintained.

11) Have a phased plan for plowing streets, i.e. one lane each direction “passable”, widening out of the already passable lanes, etc.

12) Every effort should be made not to plow snow onto sidewalks. If this does occur, there should be a process in place to get the sidewalks re-opened as soon as possible.

13) If snow accumulations become too much to plow, a plan should be in place and equipment available to remove and dump snow in a predetermined, well-lit, safe area that allows for easy entrance and exit.

14) Do not plow private property, unless it is an emergency situation requested by the police, fire or EMS.

15) Have a zero tolerance policy for backing. Allow backing ONLY when it is absolutely NECESSARY and then use extreme care by securing the vehicle, getting out to check clearances, or requesting a spotter-helper.

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**Snow Plow Accident Prevention Strategy (cont.)**

16) Drivers should be instructed never to drive into an area they are not positive they can exit. Narrow roads and tight cul-de-sacs should be identified prior to the plowing season and listed on a bulletin board and/or map in the driver break/check-in/out area.

17) If a plow makes contact with another party’s property or person, the plow driver should stop immediately, and a supervisor should be contacted.

18) When an accident involving other vehicle(s) is witnessed, police dispatch should be notified as soon as possible. Drivers should report the extent of injuries and property damage and exact location of accident.

19) The use of a personal cell phone while the plow is moving should be prohibited.

20) Driver shifts should never exceed what is dictated by the Federal Motor Carrier Regulations. Supervisor must take into account hours their drivers may have driven prior to coming to work.

21) At the end of the shift, a post-trip inspection should be completed, the truck fueled and the interior cleaned out. If another snow storm is not forecast in the next 48 hours, material should be emptied to the proper location and the truck washed.

22) Provide incentives for those drivers who are not involved in PREVENTABLE accidents. Hitting fixed objects, backing accidents, and being ticketed as the result of an accident are all examples of preventable collisions. Your accident review policy should indicate the criteria for determining preventable collisions.

23) Hold drivers accountable for preventable accidents and take the necessary action to prevent recurrence. Set up an action plan with the driver to address any deficiencies.

24) Always reward safe behavior. If there are situations that inadvertently encourage unsafe behavior, correct them. Managers and drivers should be involved in this continuous improvement process.

The City of Golden has had their Safety Award Program in place for the last two winters and has experienced a decrease in snow plow collisions. Their Snow/Ice Plan has been in place for 18 years and is updated annually. To see their plan go to their website @ cityofgolden.net/departments/public works/streets/snow&ice plan.
Working Safely on Lake Ice

Public Works employees were clearing snow from the surface of a frozen lake for an upcoming event when the driver of a 2+ ton vehicle drove into a slushy spot. The front tires broke through the ice. The driver was able to safely exit the vehicle. The Public Works employees tried to retrieve the disabled vehicle without success, and the vehicle sank to the bottom of the lake. After several hours of hazardous work by local fire department personnel, including divers and Public Works personnel, the vehicle was dragged out by a commercial tow truck. Thankfully, no injuries occurred, but the vehicle was damaged.

This incident occurred despite the fact that ice thickness and air temperature measurements were recorded and routine procedures were followed.

The following steps should be taken to prevent such incidents from happening:


These procedures should address the following issues at a minimum:

a. Safe work practices while on the ice, personal protective equipment (PPE), communication and rescue equipment needed by personnel.
b. A buddy system for working on the ice.
c. The when, where and how of taking accurate ice thickness and temperature readings.
d. Assigning responsibility for taking readings and determining whether or not it is safe to work on the ice.
e. Ice thickness and permitted loading, for both moving and stationary loads.
f. The types and colors of ice and what they signify.
g. Operating equipment, whether walk-behind or riding, on the ice.
h. Early, mid and late season operations.
i. How adverse weather conditions affect the ice, when activity on the ice should be stopped, and when it can be resumed.
j. Emergency rescue, equipment retrieval, reporting and follow-up.
k. Communicating with the public regarding what activities are allowed on the ice and when, with an enforcement mechanism for any restrictions on those activities.
l. Other entities working on or using the ice on your lake.

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Working Safely on Lake Ice (continued)

2) Formal documented training is needed for all personnel who will be working on the ice, taking critical ice and temperature measurements, and/or making decisions about activities allowed on the ice. Include emergency rescue and equipment retrieval, if these activities will be your staff’s responsibility. The training should be conducted annually or more frequently if problems become apparent.

3) If an outside agency will be providing emergency rescue and equipment retrieval services, develop an inter-agency agreement that spells out each party’s responsibilities.

4) If another entity or group will be conducting activities on your lake, a contract needs to be created with insurance, indemnification and hold harmless language that protects the interests of your entity and personnel. Certificates of insurance that show your entity has been included as an additional insured need to be obtained with adequate limits of coverage for the exposure.

5) When an incident occurs, even close calls/near misses, a thorough investigation should take place as soon as possible, but before activities on the ice resumes. Determine causal factors for the incident and what corrective actions need to take place to prevent reoccurrence. If needed, outside expertise should be obtained.

6) If you don’t currently allow your frozen lakes to be used for ice skating, here are some considerations:

- Do your personnel have the training, time, and resources to take on the work of maintaining the lake, monitoring conditions, and ensuring its safe use by the public?

- Are weather conditions such that the safe condition of the lake can be maintained?

- Keep in mind that your entity does NOT have governmental immunity for a dangerous condition of a public facility located in a park or recreation area maintained by your entity. Thus, if you choose to allow ice skating, and take on the responsibility for maintaining the ice surface, you must do so in a safe and responsible manner in order to avoid injuries and the resulting liability.

- Do you have the code provisions, rules, or regulations that will allow you to maintain order and safety on the ice? Do you have the personnel available for enforcement?

If you need assistance with developing any of the above or reviewing procedures and/or contracts/agreements, contact your CIRSA Loss Control Representative.
Preventing Backing Collisions

Facts:

Since the inception of CIRSA in 1982, our most frequent cause of Property/Casualty (PC) claims has been motor vehicle collisions. No other claim category comes close. Motor vehicle collisions accounted for 32% of our total PC claims and backing collisions are the most frequent type of those motor vehicle collisions. That’s the bad news. The good news is that backing collisions are preventable!

Prevention Tips:

The following tips can greatly reduce the frequency and severity of backing collisions:

1) AVOID BACKING! Back only when it is absolutely necessary. Use pull-through parking or parallel parking when it is available. Actively look for alternatives to backing. This may take a little preplanning and forethought throughout the day.

If you MUST back:

2) Scan the area for any potential hazards when arriving.
3) Ensure mirrors are clean and adjusted to give the widest possible rear view.
4) Tap the horn twice just prior backing to notify others in the area that your vehicle is backing.
5) Roll down the driver’s window so that any warnings can be heard, i.e. honking horn, etc. STOP IMMEDIATELY if you hear a warning.
6) Back immediately after scanning the area for hazards. If backing is delayed, the environment may change, i.e. a vehicle could pull up behind you.
7) Keep the backing distance to a minimum.
8) Back at creep/idle speed and cover the brake.
9) Back to the driver’s side of the vehicle. This gives you a much better picture of where the vehicle is going. You should continually scan the mirrors, look over your left shoulder and check the swing out of the right front fender as you back.
10) If you are unsure of the clearance around or above the vehicle, secure the vehicle properly by placing the transmission in park or gear, turn the engine off, set the emergency brake, and remove the keys from the ignition. Then exit the vehicle and look around to ensure the backing path is clear. Check behind, to both sides, and above the vehicle.
11) Use a helper when one is available. Ensure the helper is comfortable with assisting with backing. Agree on hand signals before backing and roll down the driver’s side window so the helper can be heard. Have the helper stand so that they can be seen in the driver’s side mirror. STOP IMMEDIATELY if the helper can not be seen. Remember, even with a helper, the driver is totally responsible for the movement of the vehicle and anything it may contact.

Funds not spent to pay for backing collisions could be used in positive ways within your entity!
Preventing Equipment and Hauling Incidents

Facts:

The hauling of equipment, transporting debris, and use of trailers for hauling items has caused many claims. In one incident, at approximately 7:00 a.m. on a summer day, an equipment operator was on his way to the work site with a dump truck pulling a Low Boy trailer. It was loaded with a Hamm HD 75 asphalt roller weighing approximately 7,350 pounds. While turning a curve, a chain broke and the roller slid off the trailer onto its side in the middle of the street. Fortunately, there were no other vehicles or citizens involved, or more serious consequences could have resulted. The city safety committee determined the chain was not the appropriate size nor had it been inspected for wear. Also, additional chains were needed to safely secure the roller.

Other issues to consider include:

1. When selecting chains for trailers, are the correct sizes ordered? Who determines the specifications?
2. How many chains are required to adequately secure the load?
3. Have employees been properly trained in the correct methods of inspection and securing equipment?

Other types of claims that have occurred when transporting items include:

1. Blocks of wood falling from trailers and striking windshields.
2. Tree limbs extending beyond the vehicle sides and striking other vehicles.
3. A sign falling out of a vehicle and breaking a windshield.
4. A window and frame that was piled on top of trash in a truck falling off and causing other vehicle damage.
5. A trailer breaking loose from the truck hitch.

Tips to Avoid Hauling Incidents:

1. Thoroughly train drivers/operators in safe procedures regarding inspection, loading, unloading and transporting equipment and materials. Employees from many different departments use trailers on at least an occasional basis. Don’t assume everyone knows how to operate a vehicle with a trailer.
2. All operators should perform a detailed inspection of the truck and trailer. This includes the trailer hitch, safety chain, taillight wiring harness, tires, lug nuts, and trailer lights. Correct all deficiencies.
3. Clean the chains and binders, then inspect them for twists or bends, nicks or gouges, excessive wear, stretch, distorted or damaged master links, and damaged couplings or attachments, especially the throat spread of the hook opening. Damaged chains or hooks should be replaced.
4. Determine the proper equipment anchor points and tarp connection places to secure the load. The load should be covered in a manner that prevents it from blowing, dripping, shifting, leaking or otherwise escaping from the vehicle. No item should extend beyond the left fender or more than 6 inches beyond the line of the right fender.
5. Inspect for loose rocks, compacted soil or other items on the trailer or truck that could fall off and strike other vehicles or persons.
Preventing Police U-Turn Crashes

Facts:

Unsafe, and sometimes illegal, U-turns by police officers are resulting in an increased number of injuries to officers and citizens and damaged vehicles.

In one crash, a police officer was making a U-turn on a city street for convenience when another vehicle coming from behind broad-sided him. The officer did not signal his intentions, glanced in his side view mirror, and proceeded to make the turn when the collision occurred. The officer and passenger in the other vehicle were transferred to the hospital for medical treatment. Both vehicles received extensive damage.

In another collision, a police officer was making a U-turn to pursue a traffic violator. He turned on his overhead lights but failed to look for oncoming vehicles and was struck on the side of his vehicle. Fortunately, nobody was seriously injured, but repair costs to both vehicles exceeded $20,000.

Tips to Avoid U-Turn Crashes:

Police vehicles must obey the same rules of the road as required by all drivers, except when operating as an emergency vehicle per state law (C.R.S. 42-4-108). Lights and/or sirens must be activated when operating as an emergency vehicle. Department policy and procedures regarding vehicle operations, emergency response and pursuits must also be followed.

When executing a U-turn, use the following safety precautions:

1. U-turns are a potentially high risk maneuver and should be avoided whenever possible.

2. If it is necessary to make a U-turn, find a safe place to make the turn, taking into account traffic density, road conditions, and other factors.

3. For maximum safety, pull to the right side of the road and come to a complete stop. Check all mirrors and blind spots for oncoming traffic and pedestrians.

4. Use your turn signal to indicate your intentions. Activate lights and/or sirens if required to warn other motorists. Make sure oncoming traffic has yielded the right-of-way before you make the turn.

5. Smoothly complete the U-turn and proceed with your response.

Failing to arrive at your destination because of a traffic accident doesn’t do anybody any good. Do your part to prevent U-turn vehicle collisions.
Rollover of Two Fire Trucks

Facts:

Icy roads during emergency response contributed to two accidents involving fire trucks with total incurred losses estimated at over $600,000. The first incident involved a 1998 American La France Telesquirt responding to a fire call around 2:00 p.m. during a snowstorm. While driving down a hill at approximately 20-25 miles per hour, the vehicle operator braked, lost steering control, crossed the center line, and collided with a pickup truck. The fire truck continued across the oncoming lane of traffic, slid into a curb, rolled onto its left side and down an embankment.

The second accident involved a 1995 International fire truck. The crew was responding to a house fire during a snowstorm around 5:00 p.m. They were driving approximately 40-45 miles per hour, crested a small hill and saw another vehicle in their lane. The fire truck operator swerved to avoid hitting the other car, crossed the center line, lost control, and slid down an embankment. The vehicle rolled once before landing on its wheels.

Fortunately, serious injuries were averted in both accidents because the drivers and crews were wearing their seatbelts. However, both fire apparatus were deemed total losses.

Prevention Tips:

1. Train fire apparatus operators on safe vehicle operations. Both classroom and field training should be conducted.
2. Review the operator’s manual to determine if there are special instructions for driving on icy, snow-packed, or slick roads. Incorporate these instructions into the training.
3. Adjust vehicle speed to weather conditions. Consider the weight and handling characteristics of the fire apparatus and how they affect maneuverability and the extra stopping distances required when traveling on icy roads.
4. Increase scanning distances to anticipate slow-moving, stopped, or out-of-control vehicles when roads are icy.
5. Where feasible, consider using more stable fire apparatus when responding to emergency calls during inclement weather.
6. Focus on the safe arrival of the crew. Continue to emphasize the importance of seatbelts.
7. Consider anti-lock brakes when purchasing new fire apparatus.
Unattended and Rollaway Vehicle Accidents

Facts:

Injuries and property damage from unattended/rollaway vehicles can be substantial. Two recent claims are described below.

An employee was reading meters. This task required him to get in and out of his truck repeatedly. The employee went to read a meter on a house located on a hill. The employee left the truck running, put the vehicle in neutral, set the emergency brake, and started walking towards the house to read the meter. As he was heading towards the house, he realized that he forgot his meter reader and went back to the truck to retrieve it. After opening the truck door, he reached inside the cab to grab the reader when he heard something snap, which was the sound of the emergency brake disengaging. The vehicle started to roll. The door caught the employee, knocking him down and under the vehicle’s front tires, crushing his leg, knee, pelvis and ribs. The truck continued down the road and hit a small tree before it came to a stop. The employee was able to use his radio to call for emergency assistance, which arrived within a couple of minutes. The employee sustained serious injuries, but eventually returned to work. The emergency brake was inspected and was not defective.

In a similar incident in another city, a meter reader left a truck unattended and an eight-year old child hopped in to the front seat, took off down the road, and damaged a row of mailboxes before the vehicle came to a stop. Fortunately, nobody was injured.

Preventative Action:

1. Procedures should be established whereby if a vehicle is parked on an incline, the wheels should be turned into the curb when facing downhill and away from the curb when facing uphill. If no curb is present, then the wheels should be chocked.

2. Before exiting the vehicle, the emergency brake should be set, the transmission put in park (low or reverse in standard transmissions), and the engine turned off.

3. The employee should lock the doors and take the keys with him/her when exiting the vehicle.

These procedures should be reviewed with applicable employees and their behaviors observed to ensure that the procedures are being followed.
Truck Runs Over Employee

Facts:

An employee was reading meters and this task requires him to get in and out of his truck fairly often. The truck is one-ton 1987 GMC pickup with a standard transmission. The employee went to read a meter on a house located on a hill. The employee left the truck running, put the vehicle in neutral, set the emergency brake, and started walking towards the house to read the meter. As he was heading towards the house, he realized that he forgot his meter reader and went back to the truck to retrieve it. After opening the truck door, he reached inside the cab to grab the reader when he heard something snap, which was the sound of the emergency brake disengaging. The vehicle started to roll. The door caught the employee, knocking him down and under the vehicle's front tires crushing his leg, knee, pelvis and ribs. The truck continued down the road and hit a small tree and before it came to a stop. The employee was able to use his radio to call for emergency assistance, which arrived within a couple of minutes. The employee sustained serious injuries, but eventually returned to work.

Corrective Action:

The emergency brake was inspected and was found not to be defective. It is presumed that the employee jarred the brake and disengaged it, or it was not properly set before he exited the truck. The town has taken the following actions to prevent a similar accident from occurring.

1. New procedures have been established. If a vehicle is parked on an incline or if there is a potential for rolling, the wheels are to be turned into the curb. If no curb is present, then the wheels must be chalked. Also, before exiting the truck, the emergency brake must be set, the transmission put in gear (low or reverse), and the engine turned off.

2. The town is considering having all standard transmission vehicles changed to automatic transmissions to lower the probability that the vehicle will roll when parked on an incline.
Magnesium Chloride - A Few Words of Warning

Facts:

An employee was driving on a two-lane road during the morning rush hour approaching a major controlled intersection. Traffic was heavy in both directions but moving at approximately 30 mph. A snowstorm was in the forecast to arrive the next day, and Magnesium Chloride was already present on the road from a previous application. The temperature was slightly above freezing, and it was foggy. The employee was paying attention to the traffic conditions and was following at what he thought should have been a safe following distance, allowing two seconds following distance from the vehicle ahead. Unexpectedly, the vehicle ahead applied its brakes hard and was coming to a stop. The employee immediately noticed the action of the vehicle ahead, applied his brakes hard, and his vehicle began to slide as if on ice. After sliding what seemed to be a considerable distance, his vehicle rear ended the vehicle ahead and pushed that vehicle into another vehicle, which was stopped. All three vehicles received damage, but all the drivers were wearing their seat belts, and thankfully, no one was injured. It is suspected that Magnesium Chloride, combined with specific weather conditions, had reduced the traction between the vehicle’s tires and the road surface, and the employee had not allowed adequate following distance for the road conditions. Magnesium Chloride is an anti-icing/de-icing chemical that is present in differing percentages in products applied to roads throughout Colorado. When applied in the right quality and at the right time, it can improve road conditions/traction during icy and snowy weather. But according to one scientific study, depending on temperature and relative humidity and what product is used, there can be a short-lived reduction in the co-efficient of friction (traction) that can be as high as 29%. This can happen when the anti-icing/de-icing chemical transitions from a solid to a liquid state or vice versa. Regardless, this was a preventable vehicle collision, and the employee was cited for following too closely.

Prevention Tips:

By following these tips you should be able to reduce the likelihood of a similar vehicle collision when driving on road surfaces covered with Magnesium Chloride:

1) First, you must be aware of when Magnesium Chloride may be present by scanning the road well ahead. A road may have Magnesium Chloride on it if it looks uniformly dark and damp when it should be dry, either right before or after a snowstorm, or when the humidity is high and temperatures are just above freezing.

2) Treat the road surface as if it is icy or snowy when the above conditions are present, reduce your speed, and allow an additional one-second (a total of three seconds) of following distance.

3) If possible, leave yourself an out (in this case, a safe, smooth lane change). If an out isn’t available, add an additional one-second (a total of four seconds) of following distance.

By following the above tips, you should be able to avoid rapid/harsh application of the brake or abrupt steering maneuvers, which could cause your vehicle to lose traction and skid or slide.
Car Door Opens into Passing Bus

Facts:

An employee was parking his car along a curb on a busy city street. After pulling into the parking spot, he opened up the car door about four inches. While opening the door, he noticed a bus passing the vehicle so he decided to wait to exit the vehicle. The draft from the bus caught the car door and pulled it towards the bus. The employee was unable to keep a grip on the door and the door struck the side of the bus. Fortunately, the employee was not injured but the car door was severely damaged. The bus received minor scatches on its right side. The police officer investigating the accident ticketed the employee for opening a door into traffic.

Lessons Learned From the Incident:

1. The draft or vacuum from a passing bus, truck or other large vehicle may be significant. Do not open the door even an inch if such a vehicle is passing. Doors can easily be “sucked” in towards the passing vehicle.

2. Always check your side and rear view mirrors prior to opening the door. If vehicles are approaching, wait until they pass before opening the door.

3. Avoid parking along busy city streets if possible. It’s better to park on a side street or in a parking lot rather than risk the conflicts of curbside parking. It may take a little extra time to look for a safer parking spot but the little extra time could prevent a collision or injury.
Riding In The Back of Pickup Trucks

Facts:

A seasonal employee in another pool was seriously injured when he fell out of the back of a moving pickup truck. He was being transported from one work site to another at a community park. When the truck turned a corner, he fell out and sustained a massive head injury resulting in irreversible brain damage.

A similar injury happened to a CIRSA member employee several years ago. This employee was riding on the tailgate of a pickup truck as it was traveling at a slow rate of speed at a wastewater plant. He fell off the truck, hit his head on the pavement and suffered a serious head injury.

Although it is readily acknowledged that this method of transporting personnel is unsafe, it remains a common practice with some entities. Listed below are recommended actions that entities with pickup trucks, dump trucks or similar vehicles should take to prevent similar occurrences.

Preventative Actions:

1. Establish a written policy or rule prohibiting the transport of employees, volunteers or citizens anywhere except in the cab or passenger compartment of an entity vehicle. Riding in the back of a pickup truck, dump truck or similar vehicle should be strictly prohibited. Review the policy or rule with applicable employees.

2. A written seatbelt policy should also be established that requires seatbelt usage in all entity vehicles equipped with seatbelts. This is a CIRSA Loss Control Standard.

3. Periodically observe conformance with your policy regarding the transportation of employees and seatbelt usage. Provide positive feedback to those employees complying with the policy. If employees are observed riding in the back of pickup truck or driving without seatbelts, determine why the at-risk behavior is taking place. Take corrective action such as retraining, policy review, or even disciplinary action for those employees who repeatedly violate the policy.
Roundabout Design: Safety and Capacity
Background Paper
July 25, 2004

Introduction

According to the May 13, 2000 Insurance Institute for Highway Safety (IIHS) Status Report, roundabouts have been shown to reduce crashes at intersections. Research cited in the IIHS June 28, 2001 Status Report found that by reducing the number of motorists required to stop before entering an intersection, roundabouts also decreased delays. Public opinion surveys cited in the 2001 Status Report found that in three U.S. cities, initial public opposition to roundabouts under consideration diminished and support for roundabouts grew within a few months after the installation of the roundabouts.

At first, communities say, "We don't want roundabouts here. We don't need them just because England or France has them." But after the roundabouts are in, communities like them because they work (Eugene Russell, Status Report, July 28, 2001).

Background

Circular intersections were common throughout Europe and America in the early 1900's, but they fell out of favor when traffic congestion and intersection crashes increased in the 1950's. Most roundabouts were replaced by traffic signals (Taekratok 1998). Americans' affinity for technical solutions may explain the shift to signalized intersections; however, many American highway engineers are now coming "full circle," and are beginning to use roundabouts to reduce crashes and increase capacity (Ourston and Hall 1995). The construction of the first roundabouts of the type discussed in the remainder of this paper began in the United Kingdom in 1956. The first such modern roundabout in the United States was constructed in 1990 (Ourston and Hall 1997), and today, there are more than 800 such roundabouts in the U.S (Roundabouts USA).

Roundabouts, like rotaries and traffic circles, can serve to replace standard signalized or unsignalized intersections with circular intersections; however, modern roundabouts are designed differently and operate differently from older circular intersections, and as such, are associated with different advantages and disadvantages than are other types of circular intersections. For this reason, it is important to understand the differences between roundabouts and other types of circular intersections, which will be referred to hereafter as "traffic circles."

Important design characteristics differentiating roundabouts from traffic circles are discussed in detail in the Federal Highway Administration's Roundabouts: An Informational Guide. In order for a circular intersection to be considered a modern
roundabout, it must have the following features, which differentiate modern roundabouts from other traffic circles:

Traffic Control
- In roundabouts, traffic entering the roundabout yields to traffic in the roundabout, and there is no control of vehicles in the roundabout. Vehicles circulating the roundabout have right-of-way.
- In contrast, traffic circles may use stop control, or even no control, at some or all entries, and may require traffic inside of the circle to yield to traffic entering the circle.

Pedestrian Access
- In roundabouts, pedestrian access is limited to crossing the legs of the roundabout, behind the yield line.
- In contrast, in traffic circles, pedestrians may be allowed to cross the circle and access the central island.

Parking
- No parking is allowed within the roundabout or at its entries.
- Some traffic circles allow parking within the circle or at the entries.

Direction of Circulation
- In roundabouts, vehicles necessarily circulate counterclockwise and pass to the right of the center island.
- Some traffic circles allow left-turning vehicles to pass to the left of the center island.

The design characteristics of roundabouts afford them several advantages over both standard intersections and other types of traffic circles. The Federal Highway Administration considers the following to be elements of good roundabout design, which afford well-designed roundabouts several advantages over poorly designed roundabouts, traffic circles, and other types of intersections:

Speeds
- Properly designed roundabouts achieve speed reduction, generally below 20 – 30 mph, by requiring drivers to circulate in paths of sufficiently small radius.
- Deflection of the paths of entering vehicles, achieved through roadway alignment and the use of raised splitter islands, physically prohibits entry tangential to the circular roadway, which forces drivers to slow down in order to enter, and promotes consistency between the speeds of vehicles in the roundabout and the vehicles entering the roundabout.
- Some traffic circles are designed to allow much higher speed entry and driving, especially by means of tangential entries (i.e., entries with no roadway deflection). Older rotaries, in particular, tended to allow tangential entry, and also have larger diameters, allowing higher speeds.
Capacity

- Vehicles entering a circular intersection require larger gaps in order to enter higher speed traffic. Thus, traffic may enter roundabouts, which emphasize speed reduction, sooner, whereas a longer queue may develop as drivers await sufficiently large gaps to enter higher speed traffic in other types of traffic circles.
- Entering traffic at traffic circles with stop control, rather than yield control, must await even larger gaps, to allow adequate time to accelerate from the stop line to the speed of the circulating traffic.

Vehicle-Vehicle Conflict

- Roundabouts have fewer conflict points than intersections. As illustrated in the figure below, a standard four-legged intersection of two two-lane roads has 32 potential conflict points, whereas a roundabout constructed at the same intersection would only have 8 conflict points.
- Collisions tend to be less severe between vehicles traveling at low relative speeds (i.e. traveling in the same direction at similar speeds) than at high relative speeds (i.e. head-on or right angle crashes at intersections, or crashes between vehicles traveling in the same direction at greatly differing speeds in traffic circles). The roundabout eliminates the possibility of head-on and right angle crashes, and also decreases the relative speeds between vehicles.

![Diagram showing comparison of vehicle-vehicle conflict points for four-legged intersection and roundabout.](image)

Figure 1. Comparison of vehicle-vehicle conflict points for four-legged intersection and roundabout (Robinson, Rodegerdtas, Scarborough et al. 2000).
Pedestrian-Vehicle Conflict

- All but the smallest, lowest speed roundabouts (called "mini-roundabouts") provide a raised splitter island separating traffic entering and exiting a given leg of the roundabout. This enables pedestrians to cross only one direction of traffic at a time, by stopping on the splitter island if necessary. (hmm... the FHWA manually really does cite this as an advantage of roundabouts with splitter islands, but after having seen that video, I'm not sure if this is such a bright idea).
- At standard intersections, pedestrians must cross traffic coming from multiple directions, increasing their exposure to motorists violating red lights or turning left and crossing their paths.

Calming Effects

- Roundabouts can serve to decrease aggressive driving, in that roundabouts provide no red light to try to "beat," or opportunity to race away from the stop line after the signal finally turns green.

Studies of Safety

Several studies to date have examined the safety implications of replacing standard intersections with roundabouts in the United States, Europe, and Australia. No studies were found claiming that roundabouts are more dangerous than signalized intersections, and most claimed that constructing roundabouts carried at least some safety benefits for at least some road users.

There was disagreement regarding which group of road users enjoyed the greatest safety benefits of converting intersections to roundabouts. Hyden and Varhelyi (2000) found that replacing intersections with roundabouts carried a "very significant risk reduction" for bicyclists and pedestrians, but not for cars, whereas studies cited by Robinson et al. (2000) claimed that crash reductions were most pronounced for motor vehicles, and smaller for pedestrians.

Ourston and Hall (1997) reported slightly fewer crashes after converting intersections to roundabouts; however, the results were not found to be statistically significant (perhaps due to the size of the sample, not necessarily the magnitude of the effect). In a study by the Insurance Institute for Highway Safety, roundabouts were associated with large reductions in crashes and injuries (Persaud et al. 2000, Status Report, May 13, 2000).

Studies cited by Robinson, Rodegerdts, Scarborough et al. (2000) found roundabouts to be associated with mean crash reductions of:

- 41 – 61 percent in Australia,
- 36 percent in Germany,
- 47 percent in the Netherlands,
- 37 percent in the U.S.,

and reductions in injury crashes of:
• 45 – 87 percent in Australia,
• 57 – 78 percent in France,
• 25 – 39 percent in the United Kingdom,
• 51 percent in the U.S.

In interpreting these data, the authors note that the crash reductions cited were generally for sites where roundabouts were deliberately installed for the purpose of replacing intersections known to be problematic, and thus may be higher than the benefits that would be expected if all intersections were to be replaced by roundabouts.

**Discussion**

Roundabouts can be installed to replace standard signalized or unsignalized intersections. They offer the important advantage of eliminating head-on and right angle crashes that can occur at ordinary intersections, and when they are installed to replace problem intersections, several studies from the U.S., Europe, and Australia confirm that roundabouts tend to decrease overall crashes in general and injury crashes in particular. When discussing the impact of roundabouts on safety and on traffic flow, it is important to acknowledge the differences between modern roundabouts and other types of circular intersections that do not possess the same design characteristics and do not operate in the same way.

In addition to safety benefits, roundabouts are generally thought to improve traffic flow, especially at non-peak hours. However, design is critically important (Brilon and Vandehey 1998; Myers 1994), and there are entire books devoted to the topic. Human behavior is also an important consideration. Traffic flow in roundabouts is more variable than for signalized intersections (Brilon and Vandehey 1998), because there is more room for driver discretion. For instance, drivers can wreak havoc if they don’t all play by the same rules, such as yield-at-entry. Indeed, Brilon and Vandehey (1998) discuss “roundabout culture.” They claim that there are shared rules for roundabout behavior, and that the rules are different in different countries.

One potential drawback of roundabouts is the lack of cues afforded to visually impaired pedestrians at intersections. At signalized intersections, visually impaired pedestrians can hear traffic stopping and starting, know that eventually there will be a red traffic signal phase that will allow them to cross, and in some cases, may have access to pedestrian push-buttons for further assistance. At roundabouts, entries are yield controlled, so there will not be audible starting and stopping of traffic, and there will not be any traffic signal to require all traffic to stop for a prolonged period of time. To make the situation even more challenging for the visually impaired, cars exiting the roundabout are not required to yield to pedestrians, and cars exiting the roundabout sound much like cars circulating the roundabout (Kirschbaum et al. 2001). Furthermore, the large turning radii at the corners might make it difficult for pedestrians to identify the roundabout at all. The U.S. Access Board recommended to the Federal Highway Administration that pedestrian signals be added to roundabouts; however, both the cost
of installing signals and the loss of mobility for motorists if traditionally yield controlled roundabouts become signalized are concerns (Safe Pedestrians and a Walkable America 2002).

In conclusion, existing studies on modern roundabouts imply that there may be some benefits to be realized by replacing intersections, especially intersections known for crashes and/or congestion, with roundabouts, and furthermore, that these benefits may increase once American drivers gain experience driving in roundabouts. The difficulties that roundabouts pose for visually impaired pedestrians need to be considered when planning to replace a specific intersection with a roundabout, and possible improvements to roundabout design that could aid visually impaired pedestrians without paralyzing motorists warrant additional research.

References


Hyden C, Varhelyi A. The effects on safety, time consumption and environment of large scale use of roundabouts in an urban area: a case study, Accident Analysis & Prevention 2000;32:11-23.


Taekratok T. Modern Roundabouts for Oregon, Oregon Department of Transportation Research Unit, Salem, OR, #98-SRS-522, June 1998.
Vehicle Instructions

Turning Right (exiting at the first exit around the roundabout):

1. Unless posted otherwise, use only the right lane if there are multiple approach lanes.
2. Use your right–turn signal.
3. Reduce your speed.
4. Keep to the right of the splitter island.
5. Watch for cyclists and allow them to enter the roadway in front of you.
6. Watch for and yield to pedestrians in the crosswalk or waiting to cross.
7. Move up to the yield line and wait for an acceptable gap in traffic.
   Do not enter next to someone already in the roundabout, as that vehicle may be exiting at the next exit.
8. Within the roundabout, do not stop except to avoid a collision; you have the right–of–way over entering traffic. Always keep to the right of the central island and travel in a counterclockwise direction.
9. Keep to the outside of the circulatory roadway within the roundabout and continue to use your right–turn signal through your exit. Maintain a slow speed.
10. Watch for and yield to pedestrians in the crosswalk or waiting to cross.

Driving Straight Through (i.e., exiting halfway around the roundabout):

1. Unless posted otherwise, use either lane if there are two approach lanes.
   Do not use any turn signals on approach.
2. Reduce your speed.
3. Keep to the right of the splitter island.
4. Watch for cyclists and allow them to enter the roadway in front of you.
5. Watch for and yield to pedestrians in the crosswalk or waiting to cross.
6. Move up to the yield line and wait for an acceptable gap in traffic. Do not enter next to someone already in the roundabout, as that vehicle may be exiting at the next exit.
7. Within the roundabout, do not stop except to avoid a collision; you have the right–of–way over entering traffic. Always keep to the right of the central island and travel in a counterclockwise direction.
central island and travel in a counterclockwise direction.

8. Maintain your position relative to other vehicles. Stay to the inside if you entered from the left lane, or stay to the outside if you entered from the right lane.

9. Do not overtake other vehicles or cyclists when in the roundabout.

10. When you have passed the last exit before the one you want, use your right-turn signal and continue to use your right-turn signal through your exit. Maintain a slow speed.

11. When exiting from the inside lane, watch out for leading or adjacent vehicles on the outside that continue to circulate around the roundabout.

12. Watch for and yield to pedestrians in the crosswalk or waiting to cross.

**Top of Page**

**Turning Left or making a U-Turn** (i.e., exiting more than halfway around the roundabout):

1. Unless posted otherwise, use one of the left-hand lanes if there are two approach lanes. Use your left-turn signal.

2. Reduce your speed.

3. Keep to the right of the splitter island.

4. Watch for cyclists and allow them to enter the roadway in front of you.

5. Watch for and yield to pedestrians in the crosswalk or waiting to cross.

6. Move up to the yield line and wait for an acceptable gap in traffic. Do not enter next to someone already in the roundabout, as that vehicle may be exiting at the next exit.

7. Within the roundabout, do not stop except to avoid a collision; you have the right-of-way over entering traffic. Always keep to the right of the central island and travel in a counterclockwise direction.

8. Maintain your position relative to other vehicles. Stay to the inside. Do not change lanes until you are ready to exit.

9. Do not overtake other vehicles or cyclists when in the roundabout.

10. When you have passed the last exit before the one you want, use your right-turn signal and continue to use your right-turn signal through your exit. Maintain a slow speed.

11. Watch out for leading or adjacent vehicles on the outside that continue to circulate around the roundabout.

12. Watch for and yield to pedestrians in the crosswalk or waiting to cross.

**Questions about roundabouts?**
Contact Traffic Engineering at (480) 312-7696
or email roundabouts@scottsdaleaz.gov
Bicycle Instructions

Well–designed, low–speed, single–lane roundabouts should not present much difficulty to bicyclists. On the approach to the entry, signal your intentions and merge into traffic. It is generally safest for bicyclists to claim the lane. Keep in mind that drivers should be traveling at about 15 to 20 miles per hour, close to the speed you ride your bicycle.

Roundabouts give cyclists two options:

1. **Ride like a vehicle:**
   If you are comfortable riding in traffic, ride on the circulatory roadway of the roundabout like a vehicle. Obey all of the same driving instructions as for vehicles. Watch out for vehicles crossing your path to leave or join the roundabout. Watch out for large vehicles on the roundabout as they need more space to maneuver.

2. **Walk like a pedestrian:**
   If you are uncomfortable riding in traffic and no special separate facility is provided, dismount and exit the approach lane before the splitter island on the approach, and move to the sidewalk. Once on the sidewalk, walk your bicycle like a pedestrian.

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Pedestrian Instructions

In Arizona, pedestrians have the right–of–way within crosswalks at any intersections, including roundabouts. However, pedestrians must not suddenly leave a curb or other safe waiting place and walk into the path of a vehicle if it is so close that it is an immediate hazard.

1. Walk around the perimeter of the roundabout. Do not cross the circulatory roadway to the central island.
2. Use the crosswalks on the legs of the roundabout. If there is no crosswalk marked on a leg of the roundabout, cross the leg about one vehicle–length away from the circulatory roadway of the roundabout.
3. Look and listen for approaching traffic. Choose a safe time to cross from the curb ramp to the median opening. Although you have the right–of–way, if approaching vehicles are present, it is best to first satisfy yourself that vehicles have recognized your presence and right to cross. When crossing an entry or exit with more than one lane, be sure that conflicting vehicles in adjacent lanes are coming to a complete stop before proceeding.
4. Use the splitter island. It allows you to cross one direction of traffic at a time.

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