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SAFETY REGULATIONS

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SECTION 1
FIRST AID AND MEDICAL TREATMENT

1.1 In cases where treatment by a doctor or hospital is required, first aid should be limited to stabilization of the injured, and preparation for or transportation to appropriate treatment facilities. In cases involving minor injuries, which do not require a doctors’ care, first aid should be administered on the job. A first aid report shall be filled out with copies forwarded immediately as indicated on the form.

1.2 If, after an injury, an employee feels the need for medical attention during work, transportation should be provided to the City’s designated medical provider or to the hospital, if an emergency. Contact the Safety Officer for further information.

1.3 If an employee does not seek medical treatment but the supervisor feels that such treatment is in the best interest of the City, the supervisor may require an employee to be examined by one of the City’s designated medical providers.

1.4 A first aid kit shall be maintained in each City building where employees normally work. In addition, an approved first aid kit shall be maintained in all licensed City vehicles.

1.5 Employees working regularly with contaminated water, wastewater, refuse collection or other activities determined to be hazardous may receive free immunization or booster shots determined to be necessary after review by the Safety Officer and medical provider.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 2
GENERAL SAFETY REGULATIONS

2.1 Employees shall be in a physical and mental condition to conduct normal working activities. The use of prescription medications shall be reported to your supervisor.

2.2 The possession or use of alcohol and illegal drugs while working or on City property is strictly prohibited.

2.3 Fighting or horseplay is strictly prohibited.

2.4 Smoking is permitted only in designated outside areas.

2.5 Personal protective equipment shall be worn at all times when required by your supervisor or by safety regulations.

2.6 Employee owned tools and equipment shall be kept in proper working condition at all times, including proper electrical grounding and guards in place.

2.7 Good housekeeping practices shall be maintained at all times in City work areas.

2.8 All employees should learn the location of the nearest fire extinguisher and first aid kit. Notify your supervisor immediately if any of this equipment is missing, or has been used.

2.9 Familiarize yourself with the proper use of fire extinguishers.

2.10 Report missing or damaged equipment immediately to your supervisor.

2.11 All equipment used during the work day shall be de-energized and secured at the end of the day.

2.12 Hazardous wastes such as waste oils, hydraulic fluids, cleaning fluids, etc., shall be disposed of in a proper manner. Contact your supervisor for proper disposal procedures.

2.13 All City speed limits and traffic signs shall be observed.

2.14 Report accidents immediately to your supervisor. Complete the necessary forms when reporting accidents including drug and alcohol tests that may be required.

2.15 Report any and all unsafe work situations to your supervisor.

2.16 In the event of an evacuation from a building, immediately contact your supervisor so that a personnel count may be conducted. Return to work areas only after receiving proper approval from your supervisor.
2.17 Use caution when lifting. Bend knees, and keep back straight. Leg muscles, not your back, should do the work. When lifting heavy loads, use lifting devices such as forklift, pallet truck, etc., or get help from other employees. Do not lift large objects in high winds. **DO NOT ATTEMPT TO LIFT LARGE/HEAVY LOADS BY YOURSELF.**

2.18 Do not interfere with other employees while they are using power tools, motorized equipment, or when they are working near electrical lines and equipment.

2.19 Use equipment with safeguards that are adequately designed and intended for normal operations.

2.20 Wrist watches, metal wrist bands, rings, or other jewelry shall not be worn while working near moving parts of machines or energized circuits.

2.21 Clean clothes are essential in preventing skin irritations. Clothing saturated with solvents or other materials contacting the skin greatly increase the possibility of a skin irritation. Clothing saturated or impregnated with flammable liquids, corrosive substances, toxic materials, irritants, or oxidizing agents shall be removed and shall not be worn until properly cleaned. It is recommended that employees working in areas of high contamination keep an extra set of work clothes on the job.

2.22 Children in the Workplace. To promote safety, the following shall be adhered to with regard to having children in the workplace.

No employees performing hazardous operations shall have their child/children accompany them in the workplace at the time they are performing the hazardous operation. This applies to those employees whose jobs consist of or could consist of hazardous operations. This includes, but is not restricted to:

A. Heavy equipment operations including backhoes, motor graders and front end loaders.
B. The use of any equipment having only one seat.
C. Operating in or around any trenching or excavation, or any confined space.
D. Welding operations.
E. Any area requiring work zone protection.
F. Any area where fall protection systems are required.

It shall be the responsibility of the supervisor to deny a request, or to ensure that the employee requesting to have children on the job with them is not performing any hazardous operations while the child is with the employee.

In the past, a waiver has been required when children are in the workplace. This procedure will be continued, but will not apply to employees performing hazardous operations.
2.23 Line Locates. State law requires that two days before any excavations or digging of any kind is done, a line locate shall be completed. The supervisor of the department doing the digging shall call the Utilities Notification Center at 811 and request a locate for those utilities we do not locate ourselves.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 3
FIRE FIGHTING EQUIPMENT

3.1 Use fire extinguishers for emergencies only, unless otherwise approved for training purposes. If used for training, make sure that extinguishers are recharged.

3.2 Keep fire routes free from obstructions.

3.3 Report all fires immediately to your supervisor and call 9-1-1, if necessary.

3.4 Fire fighting equipment will not be used for routine maintenance or operations work.

3.5 Personnel shall be trained in the proper use of fire extinguishers by their supervisor.

3.6 Keep fire equipment and exits free from obstructions.

3.7 Safety Committee Representatives shall inspect expiration dates on fire extinguishers as part of their annual facility inspection.

3.8 Durango Fire Protection District shall inspect buildings at their discretion for presence of fire hazards, and review emergency evacuation routes and procedures.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 4
PERSONAL PROTECTIVE EQUIPMENT

4.1 Personnel shall wear personal protective equipment that is consistent with the type of work conducted. This may include, but is not limited to, eye protection, hand protection, head protection, skin protection, hearing protection or respiratory protection. Employees shall use appropriate Safety Data Sheets, and contact your supervisor to determine what personal protective equipment is required.

4.2 Approved clothing (including City issued shirts, blue jeans, soft caps, etc.) appropriate for the work being done shall be worn and maintained in good repair. Loose sleeves, tails, ties, lapels, cuffs, or other loose clothing, which can become entangled, shall not be worn around moving machinery parts. Working without shirts shall not be permitted. City personnel engaged in construction or maintenance shall not wear shorts on the job.

4.3 Any employee not using the personal protective equipment provided by the City, who is injured on the job and whose injury was caused by failure to use prescribed personal protective equipment, shall forfeit 50% of his/her workers’ compensation benefits, pursuant to the Colorado Worker’s Compensation Act, section 8-42-112.

4.4 Employees will wear hearing protection when working in areas marked with appropriate warning signs or upon instructions to do so by their supervisor.

4.5 Welders and their assistants shall wear approved eye protection during cutting, welding or brazing operations.

4.6 In the event respirators are necessary, the work needing to be completed will be contracted out. Contact the Safety Officer for further information.

4.7 Employees working in elevated work locations (greater than 10 feet) shall wear safety harness and lanyards.

4.8 Safety vests or clothing, bright orange or yellow in color, shall be worn by all personnel while working on or near traveled right-of-ways.

4.9 Footwear shall be of substantial construction. The use of steel or composite toed shoes shall be required as work conditions warrant.

4.10 Gloves shall be worn while collecting refuse or as directed by supervisor.

4.11 All personal protective equipment shall be kept clean, in good repair, and ready for use.
4.12 Safety Helmets.

A. Police officers shall wear appropriate safety helmets as specified by their departments, when engaged in designated emergency activities.

B. Employees operating motorcycles or two-wheeled motor scooters shall wear a safety helmet approved for motorcycle use by the Department of Transportation.

C. Where required, hard hats shall be mandatory for all City personnel engaged in construction, maintenance, or inspections where protection from impact or penetration from falling objects may occur, excepting the following:

1. when in City buildings, unless the area has been designated as a “hard hat” area.

2. during lunch or coffee breaks on a construction site, provided no construction activity is going on, or

3. when in the enclosed cab of a vehicle.

D. All employees and visitors are required to wear a hard hat when entering any other area designated as a “hard hat” area. The supervisor is responsible for seeing that visitors are wearing proper head protection and shall keep extra hard hats available for this purpose.

E. All hard hats shall meet or exceed performance requirements of ANSI standard Z89.1-2014 (American National Safety Institute). The City shall furnish an approved hard hat to any employee required to wear one on a regular basis.

F. Hard hats shall be adjusted to provide maximum protection, in accordance with the manufacturer’s instructions. No holes, metal attachments, or alterations of any kind other than those specifically designed for use with the hard hat may be used. Approved attachments include face shields, welding masks or ear protection and are available on an as-needed basis from the City Service Center warehouse. Damaged hard hats must be exchanged at the City Service Center warehouse.

4.13 Eye Protection

A. Appropriate protective eye equipment such as safety glasses, goggles, or face shields meeting or exceeding performance requirements of ANSI standard Z87.1 shall be worn by all employees during, but not limited to, the following circumstances:

1. while sandblasting, spray painting, or operating any power tool
2. while engaged in mowing operations, unless in an enclosed cab
3. while operating jackhammers or other air-operated equipment
4. while performing any welding, metal cutting or grinding
5. while operating high pressure spray or steam cleaning equipment where there is a probability of contaminants present
6. when working in heavy dust
7. in any area designated as an “eye hazard” area
8. in any other situation where hazards to the eyes or face may be encountered, and
9. at such other times as required by the supervisor.

4.14 Foot Protection

A. All employees who are working in an environment that requires foot protection in the form of approved hard-toe shoes, shall furnish them at their own cost as a condition of employment; however, full-time employees are eligible for the full benefits of the Safety Shoe Replacement Program as defined in the Loss Control Manual.

B. Employees engaged in construction or maintenance work shall not wear tennis shoes, cloth or soft type shoes, suede shoes or boots, or slippers.

C. Metal instep protectors shall be worn by all employees when operating jackhammers or similar power-operated cutting or tamping tools. The City shall provide these protectors.

4.15 Hand Protection

A. Approved gloves shall be worn by all employees engaged in welding operations and in other areas where danger of hand injury exists from hot or burning materials, sharp metal or rough edges. Welding gloves may be assigned to an individual or be kept with the welding equipment. The City shall provide one (1) new pair of gloves when damaged or worn out gloves are returned to the City Service Center warehouse.

B. Employees working with refuse collection, concrete, weed killer, dangerous chemicals, or similar materials shall wear approved rubber gloves provided by the City.
4.16 Safety Garments

Orange or yellow vests, or other approved garments, shall be worn by all employees who work on or near the public right-of-way. Employees shall wear reflectorized warning vests when the work shift extends into the dusk or dark hours. Police officers shall wear reflectorized vests when on traffic control assignments.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 5
VEHICLE OPERATION AND MAINTENANCE

For purposes of this section, the terms vehicle and equipment are considered to be synonymous.

5.1 All vehicle accidents, no matter how slight, shall be reported immediately to the employee’s supervisor and to the law enforcement department having jurisdiction. Follow the reporting instructions in Chapter 3 of the Loss Control Manual. Excepting emergency vehicles or emergency calls, do not move the vehicle until the accident investigation has been completed (unless the vehicle is causing a serious traffic hazard).

5.2 City vehicles must be operated in strict accordance with state and local laws. No work or errand is of sufficient importance to warrant violations of traffic laws or safe driving practices.

5.3 Any employee driving a City vehicle must have a valid Colorado operator’s license of the appropriate class in their possession.

5.4 State and federal laws make it mandatory for certain classes of drivers to successfully pass written and practical commercial driver’s license (CDL) tests as well as specified drug and alcohol testing. Employees shall be required to meet these state and federal mandates and have a driver’s license of the class required for the type of vehicle they are driving.

Drug and alcohol testing for pre-employment, accident involving death, random, follow-up and return to duty, shall be managed by the Risk Manager’s office with the results being reported directly to Human Resources as needed.

5.5 An employee’s privilege to drive City vehicles will be suspended with:

A. the loss of the required Colorado Driver’s License through the accumulation of points:
   12 points in any 12 consecutive months OR
   18 points in any 24 consecutive months

B. an excessive number of on-the-job vehicle accidents, or

C. cancellation of an employee’s coverage under City insurance.

D. loss of CDL for the following:
   Disqualifying Offenses
   Convictions while operating a CDL of any of the following:
   1) Alcohol or drug-related offenses
      a. BAC of 0.04% or more
      b. driving under the influence as prescribed by state law
2) Leaving the scene of an accident
3) Convicted of a felony involving the use of a CDL vehicle
4) The use of a CMV in the commission of a felony involving the manufacturing, distribution or dispensing of a controlled substance under the Controlled Substance Act. (Loss of CDL for LIFE.)

Penalties for conviction of any of items 1 through 3 above:
- First conviction – you will lose your CDL for ONE year
- First conviction, while transporting hazardous materials in quantities that require placarding under Dot regulations – you will lose your CDL for a period of THREE years.
- Second conviction – you will lose your CDL for LIFE.

Serious Violations
Convictions while operating a CDL vehicle of:
1) Excessive speeding of 15 MPH or more over the posted limit
2) Reckless driving
3) Improper or erratic lane changes
4) Following the vehicle ahead too closely
5) A violation, in connection with a fatal accident

Penalties for conviction of the above offenses:
- If you are convicted of any TWO of these offenses within THREE years, you lose your CDL for 60 days.
- If you are convicted of any THREE of these offenses within THREE years, you lose your CDL for 120 days.

If an employee’s job description requires driving as a regular part of the job, the employee may be transferred or demoted to a vacant position that does not require driving and will be subject to appropriate disciplinary action, as contained in the City of Durango Personnel Regulations.

5.6 An employee may not drive or operate City vehicles unless specifically authorized to do so.

5.7 The vehicle cab and passenger compartment shall be kept free from objects that could cause injury in case of a collision or sudden stop. Pay particular attention to the dashboard, seat, rear window ledge, and floor.

5.8 All licensed City vehicles shall be supplied with safety equipment as required by state law.

5.9 Employees who operate a City vehicle with a CDL shall perform a documented pre-trip, mid-shift and post-trip inspection that covers: tires; wheels and rims; brakes; steering system; suspension system; exhaust system; emergency equipment and cargo; and all other areas, as required by the Commercial Motor Vehicle Safety Act.
5.10 Each driver is responsible for ensuring that the vehicle is in proper condition for safe operation. The driver shall report all problems to the Fleet Maintenance Supervisor on the form provided. In case of major defects posing a serious safety hazard, the vehicle should:

A. be tagged with a red “danger” notice

B. have the keys removed, and

C. not be operated until inspected and approved for operation by the Fleet Maintenance Supervisor.

If questions remain as to whether the vehicle is safe to operate, a determination shall be made by the Fleet Maintenance Supervisor.

If any employee takes control of a vehicle or piece of equipment and later claims unknown damage or damage that would have been readily visible during a walk-around, that employee may be held responsible for the damage to that vehicle.

5.11 Do not load a vehicle above the gross weight limit for the vehicle.

5.12 Vehicles should be driven in a manner that will create a favorable impression on the public. Greater than ordinary courtesy and consideration of other drivers and pedestrians shall be given.

5.13 All doors, end gate enclosures, and detachable equipment must be made secure before driving. Before moving any vehicle, the driver must determine that no person, object or vehicle is in its path.

5.14 No driver may leave a vehicle unattended without first shutting off the engine, removing the keys, engaging the gears, setting the emergency brake and turning the wheels in the appropriate manner to direct the vehicle toward the curb and/or chocking the wheels. Non-motorized vehicles shall also be parked in a safe manner.

5.15 In below-freezing temperatures, during snow removal operations, or for Transit vehicles during dwell time, vehicles may be left running, provided that plows and buckets are lowered, and that either the wheels are chocked or the emergency brake is set. Approved wheel chocks shall be used on any vehicle left running if the emergency brake cannot be safely set in the winter and the operator is not present.

5.16 When parked on a street, the boarding of persons and handling of materials should be done from the curb side of the vehicle when at all possible.

5.17 Only as many persons as will not interfere with the driver (in no case more than three), may occupy the front seat of any City vehicle. Passengers in City vehicles must be seated in such a manner so that no part of their person projects beyond the body lines of
the vehicle. Employee drivers shall not permit more employees to ride on seats than the number for which the seats were constructed.

5.18 Drivers shall not permit anyone to ride on running boards, fenders, or any other part of the vehicle not designated for passenger use. Passengers shall not ride in the bed of any truck. No one may get on or off of a City vehicle until it has come to a complete stop.

5.19 All persons riding on fire apparatus (Airport) shall be seated and secured to the vehicle by seat belts or safety harnesses when the vehicle is in motion. Riding on tailsteps or in any other exposed positions shall be specifically prohibited. Standing while riding shall be specifically prohibited (NFPA).

5.20 All City employees, unless otherwise exempted by law, shall adhere to the provisions of the law while operating a City vehicle. State law requires that the operator of a vehicle, as well as any front seat passengers, wear seat belts once the vehicle is in motion. This policy does not apply in those instances where the City vehicle is not equipped with appropriate seat belts. Employees found to be in violation may be subject to disciplinary action.

5.21 Securely fastened safety tow chains are required when pulling any trailer. The required lighting and braking system must be properly connected and in working order. No one is permitted to ride on or in the trailer.

5.22 During the course of daily operation, City vehicles may become immobilized in mud or snow. If this occurs, the driver shall notify their supervisor before attempting removal so a determination may be made as to the method of removal. If the supervisor deems it necessary, he will contact the Fleet Maintenance Supervisor. Should the operator assume responsibility for the removal process, the operator could be held responsible for any damage incurred to the vehicle.

5.23 During inclement weather the employee’s supervisor will make the determination as to the chaining of vehicles.

5.24 Personnel operating motorized equipment will be adequately trained in its use and operation. Equipment operation should not be assigned to an untrained junior member of a crew until that person has been checked and given a basic training class.

5.25 All employees operating lift trucks shall maintain proof of training.

5.26 Lift trucks will be manned at all times when running and the forks lowered to ground level when not in use.

5.27 Pedestrians will be given right-of-way in all cases.

5.28 Equipment operators shall obey all speed limit and warning signs, drive their equipment at reasonable and proper speeds with due regard for weather and traffic conditions,
intersections, and type of equipment driven.

5.29 Tank trucks, semi-trucks or the like will be chocked, braked and the engine turned off during loading or unloading operations unless otherwise required for specific equipment operation.

5.30 All safety and emergency equipment will be in proper working order on vehicles or moving equipment that is currently in use.

5.31 Vehicles shall meet all Department of Transportation requirements before they are to be used. Deficiencies must be reported immediately to your supervisor.

5.32 Before proceeding, employee drivers shall make certain that all loads are properly secured and that employees are so placed as to preclude being exposed to hazards from shifting loads or falls from the sides or end of the vehicle. All loads should be checked to prevent spill-off due to overloading.

5.33 Employees will not ride in buckets, Hi-Ranger lift baskets, forks (of lift trucks), etc. not designed to transport personnel while the vehicle is in motion.

5.34 The driver shall inspect his or her footwear before driving a vehicle and see that his or her footwear is free of mud, excessive water, oil or grease, to prevent a slippery contact with brake and clutch pedals.

5.35 Vehicles shall not be operated with dirty or damaged windshields and mirrors, inadequate brakes, faulty steering gear, horn or lights.

5.36 Brakes and other safety systems shall be tested by the operator before leaving on the first trip of the day and any deficiencies noted and corrected. When required, DOT inspection logs shall be properly filled out and kept in the vehicle.

5.37 The severe application of brakes, especially booster brakes, shall be avoided except in an emergency. The operator must at all times have the vehicle under control so as to be able to bring it to a complete stop within the assured clear distance ahead.

5.38 No vehicle shall be driven on a downgrade with gears in neutral or clutch disengaged.

5.39 All tools and equipment shall be properly guarded, stowed, and securely fastened when transported. All doors of cabinets and lockers must be latched before moving a truck.

5.40 All trucks, except those equipped with closed circuit camera systems shall have someone directing during backing. See “Section 6, Vehicle Backing” for specifics.

5.41 The vehicle hood shall be secure at all times when it is raised. When it has been lowered into position, it shall be checked to determine that it is completely latched.
5.42 When operating any vehicle equipped with a hydraulic attachment, the attachment shall be lowered to the ground whenever the vehicle is parked and the operator is out of the vehicle.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 6
VEHICLE BACKING OPERATIONS

Driving trucks and buses, in general, is a challenge to any professional driver; but backing is the toughest and most hazardous driving operation. Backing accidents are the source of some of the most costly and heartbreaking accidents in the workplace. City employees, consequently, should use extra care and precaution in backing. The best alternative is not having to back up at all. By planning ahead you can often avoid backing by more strategic parking of your vehicle.

6.1 Four major backing precautions:

A. Before you start backing, make sure you can see where you are going. See that the way is clear. Get out and inspect the area immediately behind your vehicle.

B. After seeing that the way is clear, then back very slowly. Never back in a hurry.

C. Alert other drivers or pedestrians who may be in, or about to cross, your path of travel by blowing your horn. Be careful. They may not understand your intentions.

D. If you have a spotter or helper working on your crew, always have the spotter direct you in the backing-up operation. Only one person, however, should be giving the backing signals.

6.2 Spotter’s position.

A. The spotter’s body must face in the direction of the driver at all times when signaling.

B. The spotter must be in a position where the driver can see him directly or in either of the rear view mirrors.

C. The spotter must be on the ground in a position that gives him an unobstructed view of the ground over which the truck is about to be moved.

D. Wherever possible, the spotter should station himself at the point where the backing maneuver is to end, so that he avoids the hazard of walking backward over surfaces he does not see.

E. The spotter must position himself to observe the most immediate hazard to the truck. This may require stopping the truck and changing positions one or more times.
6.3 Suggested backing signals by spotter or helper.

A. Stop -- Raise the right hand above the shoulder with open palm facing the driver.

B. Back -- With the right hand raised above the head, with the palm of the hand turned inward, roll the arm and hand in a slow, circular motion counter-clockwise (toward the body).

C. Go forward – Raise the right hand above the shoulder and with the index finger pointing ahead, repeatedly move the hand in a forward motion.

D. Move to the right – Raise the right hand above the shoulder and with the thumb pointing to the right, make the repeated motions to the right.

E. Move to the left – Raise your right hand above the shoulder and with the index finger extended to the left, make repeated motions to the left with your hand.

Note: Even though there is someone directing, drivers are not relieved of their responsibility. It is still up to them to see that the backing operation is done safely.

6.4 Summary

A. Don’t be in a hurry to back your vehicle. Back only when necessary. If there is any other way of driving to your objective, do it rather than backing. Plan, or help management to plan, your route to eliminate all unnecessary backing.

B. Prior to backing, check the path of your truck to make sure the way is clear. If you can’t see where you are going, get out and look. Check all clearances, on the right side, left side, front, back, and top of your truck. Do this as often as is necessary to do a safe job of backing.

C. Back your vehicle slowly and cautiously. Make sure you have absolute control of your vehicle at all times.

D. Use a spotter, or the back-up camera system on your truck to guide you in your backing operation. Be sure your spotter understands how to give the necessary signals. Keep him in your view at all times.

Final Note: Equipment operators should remember that bad weather can reduce visibility, or cause a road surface that is slippery from rain, snow, or ice, presenting a greater hazard in backing operations.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 7
MATERIAL HANDLING AND STORAGE

7.1 Store and stack material so that the load is stable. Floors and platforms supporting loads must be properly constructed to support the loads.

7.2 When moving material with lift trucks, make sure the load is balanced and stable.

7.3 Do not exceed load carrying capacity of vehicles being used.

7.4 Store and stack material in approved locations. Make sure all aisle widths conform to uniform Fire Codes and uniform Building Codes.

7.5 Keep aisles, stairways, exits, fire equipment, water heaters, boilers, electric panels and switch boxes well marked.

7.6 Do not store materials where exits, firefighting equipment, emergency equipment, ladders, walkways or roadways may be obstructed.

7.7 Do not store materials near sources of combustion or electrical equipment.

7.8 Maintain a clear view when moving loads.

7.9 Sharp or pointed articles shall be stored to prevent contact with the sharp edges and points. Remove nails, exposed wire and other hazards associated with packing devices after materials have been stored.

7.10 All flammables shall be stored in flammable liquid storage cabinets.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 8
HOUSEKEEPING

8.1 Keep all work areas orderly and clean.
8.2 Keep aisles and passageways clear and accessible.
8.3 Clean up all spills and/or leaks.
8.4 Place rags and other materials in approved containers.
8.5 At the end of the work day or upon completion of a job, remove all tools and excess materials and barricade the area if necessary.
8.6 Maintain all storage areas in a clean and organized manner. Remove all packing material after products have been adequately stored.
8.7 Report any safety hazards or areas needing repair to your supervisor.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 9
HAND TOOLS

9.1 Select the proper tool for the job.

9.2 Use tools that are in good repair. Replace any damaged tools immediately.

9.3 Powered electrical tools are required to have a grounding plug or be double insulated. **All tools must have a “dead man” switch.**

9.4 Tools should be inspected before each use.

9.5 Secure tools when transporting them in vehicles.

9.6 Return tools to their proper place when you are done using them.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 10  
POWER TOOLS

10.1 Carefully read instructions before using power tools.

10.2 Ground all tools before using them, and do not alter three prong grounding plugs.

10.3 Use the correct tool for the job.

10.4 Do not disconnect tools by pulling on the cord.

10.5 Do not use equipment with frayed or damaged cords.

10.6 Avoid using power tools in wet situations whenever possible.

10.7 Do not change bits, blades, etc. when the tool is energized. Unplug the tool before making changes.

10.8 Do not operate power tools without guards.

10.9 Wear eye protection when using power tools.

10.10 Fuses and other overcurrent protection shall be maintained in all circuits. Circuits on which power tools are used shall not exceed 20 amperes rating unless otherwise approved in the City-County Electrical Code.

10.11 Extension cords shall not be used as a substitute for fixed wiring of a structure or building. Electrical outlets should be installed where needed.

10.12 Do not leave the cords of portable electric tools where cars or trucks can run over them.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 11  
LADDERS

11.1 Ladders shall be in good repair and used in their intended manner.

11.2 Wooden ladder rungs shall not be painted.

11.3 Ladders shall be placed so that the base is one (1) foot out for every four (4) feet of height.

11.4 Ladders shall be properly secured and equipped with shoes at the bottom to prevent slippage.

11.5 Always climb and descend facing the ladder. Ladders are not to be used as scaffolds.

11.6 Only one (1) person shall work on a ladder at a time.

11.7 Metal ladders shall not be used near electrical lines, electrical cabinets or energized equipment.

11.8 Modified ladders shall be approved by your supervisor before they are to be used.

11.9 Benches, boxes and other materials shall not be used in place of a ladder.

11.10 Damaged ladders shall be repaired or discarded.

11.11 Ladders shall be inspected prior to each use, and repaired or taken out of service if not up to standards.

11.12 Ladders should not be placed in front of doors unless the doors can be secured.

11.13 Materials should not be carried by hand when ascending and descending a ladder.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 12
SCAFFOLDS

12.1 All scaffolding shall be constructed of approved materials in an approved manner, per OSHA Standard 1926.451.

12.2 Scaffolding shall be equipped with toeboards and guardrails in locations greater than ten (10) feet.

12.3 Safety harnesses and lanyards shall be used if scaffolding cannot be provided with guardrails.

12.4 Scaffolding shall be equipped with a ladder to facilitate access.

12.5 Scaffold boards shall not be painted.

12.6 Mobile scaffolds shall not be moved while personnel are located on them.

12.7 Metal scaffolds shall not be used in or near electrical lines or equipment.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 13
BARRICADES AND WORK AREA PROTECTION

13.1 Working in traffic exposes employees to extreme danger. Construction and maintenance work on streets and roadways can result in hazards to workers, motorists, and citizens alike. Since the risk of injury or death in such work is significant, certain safeguards must be instituted to minimize the risks.


All City work zone set-ups must conform to the MUTCD. Published by the Federal Highway Administration, the MUTCD is the standard manual for signs, barricades, lights, and warning devices used to protect work areas under construction in the roadway. Supervisors are responsible for assuring that employees doing job site set-ups are trained in its provisions. Failure to protect a work zone according to MUTCD specifications leaves the City open to liability claims. (Copies of the Manual can be obtained by contacting your supervisor.)

13.3 Planning

Before undertaking any construction, planning must be done. With minor jobs such planning may be minimal. Larger projects may require considerable planning efforts. At a minimum, consideration must be given to the hazards that passing motorists may pose to workers, and the hazards that the construction may pose to passing motorists. (Also, does the work pose any risks to pedestrians or by-standers?) How much of the roadway will need to be blocked off? Where should work vehicles and equipment be placed? Will the construction be left open at night? Will flaggers be necessary? Will visibility be a problem to motorists? In answering such questions, by referring to the MUTCD, potential risks can be identified and appropriate steps can be taken to control risks.

13.4 Training

Training is essential if employees are to be expected to set up a work zone in conformance with the MUTCD, and to work safely within the work zone. Supervisors should assure that they and their workers receive proper training through at least one of several sources available, including the Colorado Contractors Association, the American Traffic Safety Services Association, and CIRSA, the risk sharing pool for Colorado municipalities.
13.5 Personal Protective Equipment for Work Areas

A. Safety vests or clothing bright orange or yellow in color and approved hard hats or soft caps shall be worn by all personnel while working on or near traveled right-of-ways.

B. Vests should be equipped with reflective tape that is visible at night.

C. A hard hat should be worn whenever there is exposure from overhead work to impact, or from falling or flying objects, or to electrical shock and burns. Hats should be of a color that enhances visibility, and may be equipped with reflective tape for enhanced night visibility.

D. Other personal protective equipment may be required depending on the type of work being done. Workers should be as visible as possible to motorists, especially if work is required at night.

13.6 Protection of the Public

A. Work areas should be properly protected for safety of the public. Signs and barricades shall be erected in such a way as to warn of the existence of a hazard, and prevent or minimize entry into hazardous areas.

B. Barricades with warning tape, signs, flags, cones or other approved devices must be erected to restrict access in an area where hazards to traffic or pedestrians may exist. This could include a subsurface or overhead hazard.

C. Excavations, open manholes, or the like shall be adequately barricaded.

D. Warning lights may be installed, or visible barricades erected if openings are left overnight.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 14
WORKING OVERHEAD

14.1 When working overhead, employees shall take precautions to protect personnel working below. Loose materials, tools and the like must not be left in places where they can be knocked, blown or vibrated off-balance and fall.

14.2 Employees shall rope off or barricade the area below the overhead work to prevent access to non-working personnel.

14.3 Employees shall not drop or throw material, tools or supplies from overhead work areas.

14.4 Employees shall use a tag line to lift heavy or awkward loads.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 15
CRANES, HOISTS, ETC.

15.1 Employees shall inspect the hoist or crane before work begins.

15.2 Employees shall inspect chains, chokers, etc., before securing the load.

15.3 Employees shall fasten chains, chokers, etc. securely to the load.

15.4 Employees shall use tag lines for heavy or awkward loads.

15.5 Employees shall keep all personnel away from the area below the boom or load.

15.6 Employees shall barricade beneath the swing radius of the boom.

15.7 Only one person shall give directions to the equipment operator.

15.8 When equipment is left unattended, its block and load shall be secured and the equipment de-energized.

15.9 Personnel shall be adequately trained in the use of hoists, cranes, etc.

15.10 Repair and/or maintenance of chains, chokers, hoists, etc. shall be conducted by a qualified individual.

15.11 Personnel shall not be lifted or lowered with a crane unless proper equipment is utilized. Contact your supervisor for additional instructions.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 16
MANUAL LIFTING

16.1 Inspect the path that must be traveled when lifting or carrying heavy loads. Where possible, remove obstacles from path.

16.2 Back support belts will be made available to employees.

16.3 Use powered equipment whenever possible to avoid unnecessary back strain.

16.4 When lifting heavy materials, use the following procedures:
   A. Separate and place both feet close to the object to be lifted.
   B. Bend knees and squat down to the object to be lifted.
   C. Grip the object with the palms of the hands.
   D. Position arms and elbows close to the body.
   E. Draw the chin towards the chest to straighten the back and lift with the back in a vertical position.
   F. When shifting a load, turn the feet but do not twist the trunk.

16.5 When two or more individuals are lifting a load, communicate with each other to coordinate the lift so that an injury does not result.

16.6 Employees should not manually lift any object or load in excess of 80 pounds.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 17
COMPRESSED GAS CYLINDERS

17.1 Employees shall store all cylinders in upright and fastened positions. (Except 1 ton cylinders designed for horizontal storage.)

17.2 Employees shall place the protective cap on cylinders when they are not being used.

17.3 Employees shall keep stored oxygen cylinders at least twenty (20) feet from acetylene cylinders and other flammables.

17.4 Employees shall always check the label or stencil on the cylinder to make certain you have the proper gas.

17.5 Employees shall never use oil or grease as a lubricant on valves or attachments of oxygen cylinders.

17.6 Do not store cylinders next to heat sources.

17.7 Employees shall always transport cylinders in a secured, upright manner.

17.8 Employees shall tag or label all cylinders that are empty and remove them from the workplace.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 18
LOCK, TAG AND TRY

18.1 Review the specific Lock, Tag and Try Procedure of the particular location before beginning work and follow the procedures in place.

18.2 All voltages shall be handled properly and safely.

18.3 Only qualified individuals will work on live or energized equipment.

18.4 When working on live equipment, work on only one (1) wire at a time and insulate all conductors that may come in contact with the live circuit.

18.5 Adequate personal protective equipment must be used when working on live circuits.

18.6 Use nonconductive ladders and hard hats when working near energized circuits.

18.7 Treat all electrical equipment as though it was live.

18.8 Shut off power before removing guards from motor-driven equipment.

18.9 Keep the work area as dry as possible.

18.10 Fuses shall be replaced with fuses of the same capacity as the ones removed.

18.11 Finger rings, bracelets or metal watch bands shall not be worn when working with electrical equipment.

18.12 When opening disconnects, wear proper eye protection to shield the eyes from the flash or sparks.

18.13 When opening disconnects, wear approved hand protection, such as linesman gloves.

18.14 After repairs, replace cover plates on lighting and power cabinets or electrical enclosures.

18.15 Restrict the number of people in the work area.

18.16 Inspect all electrical extension cords for signs of wear.

18.17 Extension cords shall not be used as permanent wiring in any situation.

18.18 Ground all electrical power tools.

18.19 Only qualified individuals shall be allowed to repair electrical equipment.

18.20 Do not pull on the cord to disconnect equipment.
18.21 All portable equipment shall be grounded by means of a three wire cord and polarized plug or wire leading from the frame of a machine to a good return ground. Grounding plugs shall not be altered.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 19
WELDING, CUTTING OR BRAZING

19.1 Inspect the area to assure that flammable or combustible materials are not present.

19.2 Inspect the equipment to be worked on before the work begins. Drums, barrels or small containers shall be thoroughly cleaned before work begins.

19.3 All storage tanks or vessels must be clean, gas free, and blinded before the work begins. Mechanical ventilation shall be provided in any space less than 10 cubic feet per welder or any other confined space where natural cross ventilation is restricted. Ventilation shall be at a rate of at least 2,000 cubic feet per minute.

19.4 When working inside a vessel, welding gasses which are not in current use shall be turned off both at the nozzles and the cylinders to prevent leakage and gas buildup.

19.5 Test the area for flammable or combustible materials before re-entering after taking any breaks.

19.6 Test the area for flammable or combustible materials at the beginning of each shift if work is going on continuously.

19.7 A firewatch shall be assigned to all cutting or welding operations that are conducted outdoors or in the vicinity of any flammables.

19.8 A fire extinguisher shall be made readily available during all cutting or welding operations. The firewatch and employees doing welding or cutting shall be familiar with the operation of a fire extinguisher.

19.9 Report any fire that results during a cutting or welding operation.

19.10 Welding shields shall be used if work is conducted in a high activity area, for protection of passersby. When working in welding areas, employee shall avoid looking at an electric arc without eye protection. Serious eye injury could result.

19.11 Personnel will wear appropriate eye and skin protection, including gloves, and approved helmet or goggles for the type of operation performed.

19.12 Welding and/or cutting cylinders will be operated in a standing position, with cylinders properly secured.

19.13 Keep grease and oil away from oxygen cylinders. Never let grease or oil, even on your hands, get near oxygen cylinder controls; the combination forms a highly explosive mixture.
19.14 Open valves on welding and/or cutting cylinders slowly. Before connecting a regulator to a cylinder valve, the valve should be opened slightly and closed immediately. (This is termed “cracking” and is done to purge the valve of dust or dirt that might enter the regulator.) Stand to one side of the outlet, not in front of it, when cracking the valve. Open acetylene valves no more than ¾ of a turn.

19.15 When an oxygen cylinder is in use, valves shall always be opened completely. Valves shall be turned “OFF” when not in use.

19.16 Replace caps and properly store empty welding and/or cutting cylinders. Oxygen cylinders in storage shall be separated from fuel gas cylinders (and other combustibles) by at least 20 feet or separated by a 30 minute fire resistive barrier of at least 5 feet high.

19.17 Practice good housekeeping techniques at all times in welding and cutting areas.

19.18 Properly ventilate any welding area. Check ventilation equipment hourly to make sure air flow is adequate.

19.19 Use acetylene only at pressures below 15 pounds per square inch. At higher pressures the gas is unstable and may explode.

19.20 Do not repair oxygen or acetylene hoses. They must be replaced.

19.21 Never strike an arc on, or tap an electrode against, a cylinder.

19.22 Always use a spark lighter to light a torch. Never use matches. Never wave a butane lighter in or close to a welding area.

19.23 Never use oxygen to dust off clothing and the work area. Use fuel gases only for intended purposes.

19.24 All arc welding ground connections shall be mechanically strong and adequate for the required current.

19.25 When not in use, electrode holders shall be placed so that they cannot make electrical contact with persons, objects, fuel or compressed gas tanks.

19.26 Cables with splices within 10 feet of electrodes are prohibited from being used.

19.27 Cables with damaged insulation or exposed bare conductors shall be replaced.

19.28 The welder shall not coil or loop the electrode cable around parts of his body.

19.29 Do not leave welding rod stubs on the ground or floor where they may cause an accident.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 20
CONFINED SPACE SAFETY REGULATIONS

20.1 Review the specific Confined Space Program of the department or facility before beginning work and follow the procedures in place.

20.2 Any vessel entered shall be properly blinded and/or isolated before beginning work.

20.3 The vessel will be clean, gas free and contain adequate oxygen concentration before entry is permitted.

20.4 An Entry Permit shall be issued before anyone enters a permit-required confined space.

20.5 A Confined Space Attendant shall be assigned to the work area. The attendant will be adequately trained in the duties of a Confined Space Attendant as defined in OSHA regulations.

20.6 A Confined Space Attendant shall not leave the area when personnel are working inside a confined space.

20.7 The potential hazards of a confined space will be determined prior to entering the confined space.

20.8 All personnel entering the confined space will be adequately trained.

20.9 Personnel entering the confined space will be briefed by their supervisor as to the risks of the operation.

20.10 The confined space atmosphere shall be monitored continually. The area should also be re-tested after breaks or lunch periods.

20.11 Do not enter a confined space unless you are properly attired to do so.

20.12 Contact a supervisor if assistance is required. Never enter a confined space when unsure of the hazards.

20.13 Rescue involving a confined space shall not be attempted unless the rescuers are qualified and properly trained and equipped for confined space rescue.

20.14 Do not attempt rescue without appropriate personal protective equipment.

20.15 Immediately report any confined space incident and/or accident to your supervisor.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 21
CITY-WIDE HAZARD COMMUNICATION REGULATIONS

21.1 Review the Hazard Communication Program of the department or facility before working with any chemicals. Check safety data sheets of chemicals prior to use.

21.2 Wear appropriate personal protective equipment as recommended by safety data sheets when working with chemicals.

21.3 All personnel working with chemicals shall be adequately informed of the potential hazards of the chemicals they are using.

21.4 Report all injuries or accidents immediately.

21.5 Clean up all minor spills.

21.6 Evacuate and cordon-off the area, call 9-1-1, and contact your supervisor if a major spill of hazardous materials should result. DO NOT attempt to clean up hazardous materials spill alone.

21.7 Properly store chemicals in such a way that chemical incidents do not result.

21.8 Properly label all containers containing flammable, poisonous, toxic, or otherwise dangerous materials.

21.9 Store insecticides, pesticides, herbicides, flammables, and strong acids in storage that is locked from public access.

21.10 Post signs informing personnel that hazardous chemicals are located in cabinets, lockers, closets, etc.

21.11 Recreation Center swimming pool employees and Waste Water Treatment employees are the only employees City wide who have any respirator “type” equipment available to them, see their specific standard operation procedures for more information.

21.12 Only approved solvents will be used to clean parts and materials.

21.13 Gasoline, kerosene, and other potentially dangerous materials will not be used as cleaning solvents.

21.14 Employees shall wear, as a minimum, gloves and goggles when working with cleaning solvents.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 22  
HEARING CONSERVATION

22.1 Certain areas may be identified as “High Noise Areas” by the Risk Manager. Personnel working in these areas will be required to wear approved hearing protection.

22.2 When requested by supervisors, employees shall wear approved hearing protectors even if the area is not marked. Employees who are concerned about noise levels should request that hearing protection be provided.

22.3 Personnel will be adequately trained in the use of hearing protection and will be familiar with the hazards related to elevated noise levels.

22.4 Hearing protection will be made available to anyone working in areas where elevated noise levels exist.

22.5 Personnel routinely exposed to elevated noise levels above 80 decibels should wear hearing protection. Personnel exposed to noise levels above 90 decibels are required to wear hearing protection.

22.6 To facilitate hearing conservation and safety for emergency vehicle operators, sirens shall be mounted in the grill or front of the engine compartment of all emergency vehicles. Sirens and air horns shall not be mounted on the top of the passenger compartment. When testing sirens in the shop, all employees inside at that time shall be warned.

22.7 Remember – people do not get accustomed to loud noises – THEY LOSE THEIR HEARING.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 23
OCCUPATIONAL HEALTH AND SAFETY

23.1 The following health hazards may exist in various facilities and/or locations:
A. Asbestos
B. Noise
C. Respirable dust
D. Silica
E. Welding fumes
F. Chlorine
G. Flammable products
H. Hazardous chemicals

23.2 Supervisors will make their employees aware of any potential hazards before work begins.

23.3 Noise signs shall be posted in areas where hearing protection is required.

23.4 If working in areas where the presence of respirable dust, silica and hazardous chemicals may exist, contractors using the proper PPE shall be contacted to complete the work.

23.5 Welders will be adequately trained in the risks associated with welding fumes.

23.6 Adequate ventilation will be provided during welding operations.

23.7 Inspect the work area for the presence of flammable materials before work begins. Locate the nearest fire extinguisher.

23.8 Report all accidents and/or injuries to your supervisor as soon as possible.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 24
FUEL DISPENSING SAFETY

24.1 Good housekeeping shall be maintained in the entire service area.

24.2 Gasoline dispensing pumps shall be properly labeled.

24.3 Should a fire occur at the unit while the nozzle is still in the tank, shut off the pump. Do not remove the nozzle until the fire has been put out.

24.4 Report unsafe gasoline nozzle (i.e., faulty automatic shut-off).

24.5 Smoking is not permitted in any fuel dispensing area.

24.6 Stand in a safe position at the pump. Do not cross in front of a moving vehicle.

24.7 Before delivering gasoline into the fuel tank, make certain the engine is off.

24.8 Good metallic contact shall be made between the nozzle and tank before filling the tank. Use particular care when topping off, so as to avoid spillage of gasoline. Never fill gas containers on the plastic bed liner of a pick-up truck.

24.9 Always replace fuel tank cap immediately after delivery.

24.10 Be sure hose nozzle is hung securely on the pump after delivery.

24.11 Keep pump hose exactly placed within island limits so it will not catch on bumpers or fenders.

24.12 Keep hose, nozzles, and connections in good condition.

24.13 Report immediately any leakage near the gasoline pump. Do not use the pump until the leak is fixed.

24.14 Fuel spillage should be reported immediately. If the spill is large enough to create a risk of the fuel reaching drains, immediate measures should be taken to stop the flow of the fuel. Dumping sand or floor dry, available in the shed by the fuel island, on and in the way of the flow is recommended. Failure to report a spill that you are involved in or observe will be grounds for disciplinary action up to and including dismissal.

24.15 Remove clothing that is wet with gasoline immediately and be sure that it is cleaned before it is worn again. Do not go near a heater or open flame wearing gasoline soaked clothing. When the skin has been wet with gasoline, wash the affected part thoroughly
with soap and water to prevent skin inflammation.

24.16 Deliver gasoline into fuel tanks of properly labeled containers only. Never deliver gasoline into glass bottles, open containers, or food, drug, or cosmetic containers. The Federal Hazardous Substances Labeling Act requires that any container that is filled with gasoline, kerosene or other hazardous substances must be labeled in an approved manner. (In private service stations, if the container does not have such a label, the dealer must apply one before filling it.)

24.17 Employees shall not siphon gas with a hose or tube, particularly where the mouth is used to create suction.

24.18 The location of the fuel shut-off switch is clearly marked, and all employees should know where it is and how to use it. Vehicles shall never be parked in front of it.

24.19 Automatic Nozzles
   A. Use only automatic nozzles that have been approved by Underwriters Laboratories, Inc. and the Fire Department.
   B. In situations where the nozzle cannot be secured to prevent it from falling out, remain by the nozzle and fill the tank on manual control.
   C. Observe the nozzle frequently while gasoline is being delivered so any mechanical failure will be noticed immediately. (Employees shall stay within reach of the nozzle when fueling is taking place.) If the automated portion has been removed, never place a rock or the gas cap under the handle to keep the fuel flowing into the tank.
   D. Check the automatic nozzle regularly and keep it in good repair.

24.20 Receiving and Storing Gasoline
   A. Fill pipes of underground tanks shall be plainly marked by color code, tags, or other methods on the installation to show the contents of the tank. Always take precautions to prevent the mixing of products as a result of delivery into the wrong tank.
   B. Keep fill caps tight between deliveries to keep water or dirt from entering. The use of grease on threads will aid in keeping fill caps watertight.
   C. Gauge tanks with calibrated sticks in gallons or inches, before ordering, and again before receiving deliveries to be sure the quantity being delivered will not overflow. Be sure also that the correct tank chart is used.
D. Clear fill pipe areas of parked cars prior to the time of delivery of gasoline. Do not allow parking in those areas where it will interfere with absentee deliveries. A car parked near or over a fill pipe may be a serious fire hazard.

E. Make sure that gasoline vapor discharged from vent pipes does not enter buildings. Do not strike matches or permit other sources of ignition near vent openings. (It is especially important when tanks are being filled because an equal volume of flammable vapor is being discharged into the air through the vents.)

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 25
OFFICE SAFETY

25.1 Practice good housekeeping at all times in office areas.

25.2 Keep cords and other wiring covered so they do not become tripping hazards. Do not overload outlets by connecting too many items.

25.3 Keep equipment in good repair.

25.4 Do not block stairs, steps or doorways.

25.5 Clean up all spills immediately.

25.6 Use the proper ladder or stool for reaching high places. Do not stand on chairs or furniture.

25.7 Portable electric heaters shall be approved by supervisors before their use in City buildings.

25.8 Follow proper lifting techniques when carrying large or awkward materials.

25.9 Practice sound electrical safety techniques when working with computers, typewriters, photocopiers, etc.

25.10 Report unsafe situations to your supervisor immediately.

25.11 Report accidents and injuries immediately to your supervisor.

25.12 Do not store food in desks, cabinets or other similar areas.

25.13 Know the Evacuation Plan for your particular office area.

25.14 Know the location of the nearest fire extinguisher, fire alarm, and first aid kit.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 26
TREE TRIMMING OPERATIONS

26.1 Tools and Equipment

A. All tools and equipment shall be properly maintained.

B. Proper care of safety lines shall be taken at all times.
   1. Safety lines shall be protected against wetting or dampness. Should they become wet, dry completely before storing.
   2. Safety lines and hand lines shall be kept in a clean box by themselves. Do not store lines and tools together.
   3. All ropes and lines shall be kept coiled when not in use and hung in a clean, dry, dark, well ventilated area.

C. Chipper blades shall be kept sharp. (Dull blades cause extra strain on the engine and may cause chippings to clog in the chute.)

26.2 Fuels

A. Fuels shall be dispensed and stored safely.

B. Shut off gasoline powered equipment before fueling and wipe away spills before starting it.

C. Fuels shall be stored in approved flammable liquid containers only.

D. Fuel containers shall never be stored or carried in crew compartments.

26.3 Personal Protective Equipment

A. Appropriate personal protective equipment shall be used and properly maintained.

B. Safety goggles or face shield and hearing protection shall be worn when feeding a chipper.

C. All personal protective equipment should be clean and sanitary.

D. First aid kits shall be carried on all trucks and kept well supplied.
26.4 Work Area Protection

Traffic cones, barricades, high level warning devices, etc., shall be properly placed in the street and/or sidewalk after the truck stops at the work location. Flashing warning signals should be observed for a few minutes to assure they are working correctly. (See section on barricades and work area protection for further guidance.)

26.5 Tree Trimming Operation – General Rules

A. Industry wide safety procedures shall be observed when working around trees.

B. Never leave a saw or any other machine running unattended.

C. Safety goggles or a face shield and hearing protection shall be worn when feeding the chipper. No loose clothing or gloves with holes shall be worn when chipping or stump grinding.

See your individual Department or Division operations manual or supervisor for detailed information.
SECTION 27
TRENCHING AND EXCAVATIONS

This section applies to all open excavations made in the earth’s surface. Excavations are defined to include trenches.

A. DEFINITIONS

1. **Benching:** A method of protecting employees from cave-ins by excavating the sides of an excavation to form one or a series of horizontal levels or steps.

2. **Competent Person:** One who is capable of identifying predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees and who has authorization to take prompt corrective measures to eliminate them. Specific competent person training is required.

3. **Excavation:** Any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal.

4. **Hazardous Atmosphere:** An atmosphere which by reason of being explosive, flammable, poisonous, corrosive, oxidizing, irritating, oxygen deficient, toxic or otherwise harmful, may cause death, illness or injury.

5. **Protective System:** A method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of adjacent structures. Protective systems include support systems, and sloping and benching systems that provide the necessary protection.

6. **Shoring:** A structure such as a metal hydraulic, mechanical or timber shoring system that supports the sides of an excavation and which is designed to prevent cave-ins.

7. **Sloping:** A method of protecting employees from cave-ins by excavating to form sides of an excavation that are inclined away from the excavation so as to prevent cave-ins. The angle of incline required to prevent a cave-in varies with such factors as the type of soil, environmental conditions and application of surface loads.

8. **Shield:** A structure that is able to withstand the forces imposed on it by a cave-in and thereby protecting employees within the structure. Shields can be permanent or can be portable and moved along as work progresses.

B. GENERAL REQUIREMENTS

1. **Surface Encumbrances:** All surface encumbrances that are located so as to create a hazard to employees shall be removed or supported as necessary.
2. **Underground Installations:** Line locates shall be done two days before work is scheduled to begin. The department that is going to perform the excavation shall contact the Utilities Notification Center at 811 and request a locate for those utilities we do not locate ourselves. Notifications shall be logged by date, time and person contacted.

3. **Access and Egress:** A stairway, ladder, ramp or other safe means of access and egress shall be located in any trench or excavation that is 4 feet or more in depth so as to require no more than 25 feet of lateral travel for employees.

4. **Hazardous Atmospheres:** Adequate precautions shall be taken to prevent employee exposure to atmospheres containing less than 19.5% oxygen and other hazardous atmospheres.

5. **Employee Protection:** Employees shall be protected from cave-ins, excavated or other materials, or equipment that could pose a hazard by falling or rolling into excavations that are 4 feet deep or deeper. Protection shall be provided by placing and keeping such materials or equipment at least 2 feet from the edge of the excavations, or by the use of restraining devices that are sufficient to prevent cave-ins, materials or equipment from falling or rolling into excavations, or by a combination of both, if necessary.

6. **Inspections:** Daily inspections of excavations, the adjacent areas, and protective systems shall be made by a competent person for evidence of a situation that could result in possible cave-ins; indications of failure of protective systems; hazardous atmospheres; or other hazards. An inspection shall be conducted prior to the start of work, and as needed throughout the shift. If any of the above hazards are found, the employees shall be removed from the area until such time as the necessary precautions have been taken to ensure their safety.

7. **Sloping and Benching Design:** The slopes and configurations of sloping and benching systems shall be selected by a competent person who will base his decisions on the following factors: weather conditions; depth of cut; water content in soil; type of soil; traffic; vibration from equipment and others. All excavations shall have a shoring system or proper angle of slope or be benched if an employee may be subject to the dangers of moving ground.

8. Never leave a person unattended in a trench or excavation. Always have another person at the edge, viewing the person in the trench or excavation.

9. All personnel involved in these operations shall wear the proper personal protective equipment. Those exposed to vehicular traffic shall wear warning vests.

*See your individual Department or Division operations manual or supervisor for detailed information.*
SECTION 28
LIQUEFIED PETROLEUM CYLINDERS AND VEHICLES

This section applies to equipment using LP Gas as a fuel for internal combustion engines or cylinders used for service equipment.

28.1 City employees shall not smoke while on or near any piece of equipment using LP Gas cylinders.

28.2 Avoid skin contact with liquid because of the possibility of freeze burn. Use propane resistant gloves when working with propane cylinder connectors. Always use full face mask and wear a long-sleeve shirt or jacket.

28.3 Cylinders in storage shall be located to eliminate exposure to excessive temperature fluctuations, physical damage, or tampering.

28.4 Cylinders in storage shall be secured in such a manner to eliminate the possibility of them being knocked over.

28.5 Cylinders stored in buildings shall not be located near exits, stairways, or in areas normally used or intended to be used for the safe egress of occupants.

28.6 Cylinder valves shall be protected by screw-on type caps or collars, which shall be securely in place on all stored cylinders regardless of whether they are full, partially full, or empty. Cylinder outlet valves shall be closed and plugged, or capped.

28.7 Cylinders and their appurtenances shall be determined to be leak-free before being loaded into vehicles. Cylinders in the vehicle shall be fastened securely in a position to eliminate the possibility of movement, tipping or physical damage.

28.8 Cylinder storage and use locations shall be provided with at least one approved portable fire extinguisher, having a minimum capacity of 18 lb. dry chemical with ABC rating.

28.9 Garaging of Vehicles and Service Equipment. The cylinder shutoff valve shall be closed on all service equipment and any lines or hoses shall be vented prior to the piece of equipment being returned to storage. In vehicles using LP Gas as an engine fuel, the cylinder shutoff valve shall be closed whenever the vehicle is parked for the night or left unattended for an extended length of time.

28.10 Vehicles using LP Gas shall not be parked near sources of heat, open flame or similar sources of ignition or near inadequately ventilated pits.
28.11 All LP Gas cylinders shall be inspected before recharging and examined again before reuse.

28.12 Once per year, all City-owned cylinders shall be inspected by a qualified person who shall determine that the cylinder is re-certified for use. It shall be the responsibility of the department using the cylinder to rotate the cylinder through the warehouse for re-certification on a yearly basis.

28.13 Warehouse personnel will permanently mark on each cylinder the date of last certification. Use of cylinders not certified in the last 12 months is prohibited.

See your individual Department or Division operations manual or supervisor for detailed information.