

ACCIDENT INVESTIGATION

The purpose of an investigation is to find the cause of an accident and prevent further occurrences, not to fix the blame. An unbiased approach is necessary to obtain objective findings.

I. ACCIDENT INVESTIGATION PROCEDURES

An accident investigation is the most important single tool for identifying the cause(s) of any accident. Accident investigations are after-the-fact attempts to determine why something went wrong. They are a systematic approach to establish relevant facts and interpretation regarding how and why an accident or injury occurred.

The accident facts revealed by a thorough accident investigation have both an immediate and a delayed value. The immediate value is in their usefulness in planning and implementing corrective action designed to prevent recurrence of the same or a similar accident. The delayed value lies in the cumulative knowledge of safety hazards and its use for prevention of future accidents.

Further, through the maintenance of accident and injury statistics and records, the Company intends to gather information and data necessary in determining accident causes and sources so as to formulate and/or revise policies and procedures for effective loss control.

Accident Investigation Procedures:

- A. The accident investigation will be conducted by the injured employee's immediate Supervisor. However, if the immediate Supervisor is not available then the Safety Director and/or a member of the Safety Committee or Management may conduct the accident investigation.
- B. If an incident occurs during working hours, an Incident Notification Form and Accident Investigation Form must be completed along with a State of California Employer's Report of Occupational Injury or Illness and Employee's Claim for Worker's Compensation Benefits. All three forms must be turned in to the Safety Director.
- C. All accidents will be investigated regardless of whether or not an injury resulted; non-injury accidents are considered near misses and provide valuable statistical information.
- D. Investigate the accident as soon after the occurrence as circumstances permit; the first concern of course is the treatment of the injured employee.
- E. Any accident, injury, or illness will be investigated by utilizing the Accident, Injury, and Illness Investigation Form along with the Analysis of Factors Contributing to Cause of Accident Form.
- F. The immediate Supervisor will review all accident investigations and recommendations generated to prevent recurrence and forward relevant forms to the Safety Director for processing.

INCIDENT NOTIFICATION

This form must be completed when an employee has been involved in an accident during work hours that might require medical treatment.

DATE OF INCIDENT _____

EMPLOYEE'S NAME _____
(print)

EXPLANATION OF INCIDENT:

_____ I do feel that medical treatment is necessary at this time.
Initial

_____ I do not feel that medical treatment is necessary at this time.
Initial

Employee's Signature _____ Date _____

Supervisor's Signature _____ Date _____

**ACCIDENT, INJURY & ILLNESS
INVESTIGATION FORM**

Company Name: _____

Person(s) Conducting Investigation: _____

Title(s): _____

Date of Accident/Injury/Illness: _____

Name(s) of Affected Employee(s): (1) _____

(2) _____ (3) _____

Nature of Accident/Injury/Illness: _____

Part(s) of Body Affected: _____

What Workplace Condition, Work Practice, or Protective Equipment Contributed to the Incident: _____

Was a Code of Safe Practice Violated? _____ If so, Which One? _____

What Corrective Actions will Prevent Another Occurrence? _____

Was the Unsafe Condition, Practice, or Protective Equipment Problem Corrected Immediately? _____

If No, What Has Been Done to Ensure Correction? _____

Until Corrected, What Actions Have Been Taken to Prevent Recurrence? _____

Will the Inspection Checklist for the Area Require Modification to Prevent Recurrence? _____

If so, What Will Be Added? _____

Signature of Investigator _____ Date _____

Person Responsible for
Corrective Actions _____

ULTIMATE INTERNET ACCESS, INC.

DAILY JOB SAFETY INSPECTION

GENERAL CONTRACTOR

JOB NAME AND NUMBER

WEEK

Check (X) if no correction needed; (O) for not applicable; and (C) for correction

	Mon	Tues	Wed	Thur	Fri	Sat
1. State and OSHA Postings/Regulations, Safety Manual, SDS, Heat Illness						
2. Permits						
3. Tailgate Meetings with Sub-Contractors Foreman - Weekly						
4. Collecting Weekly Tailgate Topics, Minutes, and Signatures from Sub-Contractors						
5. Trenches and Excavation						
6. Personal Protective Equipment						
7. Walkways, Runways, and Aisles						
8. Exits						
9. Ladders						
10. Housekeeping						
11. Guardrails						
12. Illumination/Lighting						
13. Sanitation Facilities						
14. Tools						
15. Electrical						
16. Drinking Water, Cups, and Refuse Containers						
17. First Aid Kit						
18. Scaffolding						
19. Fall Protection						
20. Overhead Hazards						
21. Material Handling						
22. Fire Extinguishers						

Those marked for correction have been corrected with the following exceptions:

Notes:

Date of Abatement for items not corrected (list # and date):

Superintendent/Foreman Signature

ULTIMATE INTERNET ACCESS, INC.

DAILY JOB SAFETY INSPECTION

SUB-CONTRACTOR

JOB NAME AND NUMBER

WEEK

Check (X) if no correction needed; (O) for not applicable; and (C) for correction

	Mon	Tues	Wed	Thur	Fri	Sat
1. State and OSHA Postings/Regulations, Safety Manual, SDS, Heat Illness						
2. Permits						
3. Tailgate Meetings with Sub-Contractors Foreman - Weekly						
4. Collecting Weekly Tailgate Topics, Minutes, and Signatures from Sub-Contractors						
5. Trenches and Excavation						
6. Personal Protective Equipment						
7. Walkways, Runways, and Aisles						
8. Exits						
9. Ladders						
10. Housekeeping						
11. Guardrails						
12. Illumination/Lighting						
13. Sanitation Facilities						
14. Tools						
15. Electrical						
16. Drinking Water, Cups, and Refuse Containers						
17. First Aid Kit						
18. Scaffolding						
19. Fall Protection						
20. Overhead Hazards						
21. Material Handling						
22. Fire Extinguishers						

Those marked for correction have been corrected with the following exceptions:

Notes:

Date of Abatement for items not corrected (list # and date):

ULTIMATE INTERNET ACCESS, INC.

Fall Protection Program

This Fall Protection Program has been implemented to protect our workers from the serious hazard of falls. All violations of this Fall Protection Program may be grounds for written violation or termination.

Our company will determine if the walking/working surfaces, on which its employees are to work, have the strength and structural integrity to support employees safely. Employees will be allowed to work on those surfaces only when the surfaces have the requisite strength and structural integrity.

Unprotected Sides and Edges

Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge, which is 7 ½ feet or more above a lower level, will be protected from falling by the use of a fall protection system (guardrail system, safety net system, or a personal fall restraint / arrest system).

Leading Edges

Each employee who is constructing a leading edge, 7 ½ feet or more above a lower level, will be protected from falling by a fall protection system. Exception: When we can demonstrate that it is infeasible or creates a greater hazard to use these systems, we will develop and implement a fall protection plan.

Each employee on a walking/working surface, 7 ½ feet or more above a lower level, where leading edges are under construction, but who is not engaged in the leading edge work, will be protected from falling by a fall protection system. A warning line may be set up per OSHA standards at least 6 feet back from the leading edge. However, no one may go beyond the warning line unless a fall protection system is in place.

Fall Protection Trigger Height Exceptions

The following work is allowed the following exceptions to trigger heights noted below. Note: The trigger heights have limited application and must be reviewed prior to beginning work to understand when they do not apply.

Work	Trigger Height
Structural Wood Framing	15 feet
Panelized Roof Systems	15 feet
Residential Tract Roofing	15 feet
General Roofing	20 feet
Steel Erection Work – Connecting Only	30 feet
Steel Erection Work – Except Connecting	15 feet
Metal Decking Work	15 feet

Hoist Areas

Each employee in a hoist area, exposed to a fall distance of 7 ½ feet or more, must be protected by a fall protection system. If guardrail systems, or portions thereof, are removed to facilitate the hoisting operation, each employee will be protected from fall hazards by another fall protection system.

Formwork and Reinforcing Steel

Each employee on the face of formwork or reinforcing steel will be protected from falling 6 feet or more to lower levels by a personal fall restraint / arrest system or a safety net system. Positioning devices must be used in conjunction with a fall arrest system.

Holes/Floor Openings

Each employee on a walking/working surface will be protected from tripping in or stepping into or through holes 12 inches by 12 inches or greater (including skylights) by covers. The covers will be secured in place to prevent accidental movement or displacement, and clearly labeled "Opening - Do Not Remove" (a pressure sensitized, painted or stenciled, sign with legible letters not less than 1 inch high). The cover must be able to support 400 pounds or two times the maximum weight of whatever may be placed on any one square foot of the cover at any time, whichever is greater. Alternatively, a guardrail system may be used.

Each employee on a walking/working surface will be protected from objects falling through holes (including skylights) by covers. Skylights will be protected by an approved skylight screen, cover, or guardrail system.

Ramps, Runways, and Other Walkways

Each employee on ramps, runways, and other walkways 7 ½ feet or more above a lower level will be protected from falling by guardrail systems or another approved fall protection system.

Wall Openings

Wall openings that are greater than 30 inches high and 18 inches wide will be protected with guardrails. (Exception: Guardrails are not required where the outside bottom edge of the wall opening is less than 4 feet above lower levels or where the inside bottom edge of the wall opening is 36 inches or more above the walking/working surface).

Ladder Openings

When a ladder is used for access to an interior upper level, the ladder opening must be protected with off-set guardrails or guardrails with a swinging gate.

Walking/Working Surface Not Otherwise Addressed

Each employee on a walking/working surface 7 ½ feet or more above lower levels will be protected from falling by a fall protection system.

FALL PROTECTION SYSTEMS

Guardrail Systems

Guardrail systems and their use will comply with the following provisions:

- Top edge height of top rails, or equivalent guardrail system members, will be 42 - 45 inches above the walking/working level.
- Mid-rails, screens, mesh, intermediate vertical members, or equivalent intermediate structural members, will be installed approximately half way between the top edge of the guardrail system and the walking/working surface when there is no wall or parapet wall at least 21 inches high.
- Screens and mesh, when used, will extend from the top rail to the walking/working level and along the entire opening between top rail supports.
- Intermediate members, when used between posts, will be not more than 19 inches apart.
- Other structural members (such as additional mid-rails and architectural panels) will be installed such that there are no openings in the guardrail system that are more than 19 inches wide.
- Guardrail systems will be capable of withstanding, without failure, a force of at least 200 pounds applied within 2 inches of the top edge, in any outward or downward direction, at any point along the top edge.
- When the 200 pound load is applied in a downward direction, the top edge of the guardrail will not deflect to a height less than 42 inches above the walking/working level.
- Mid-rails, screens, mesh, intermediate vertical members, solid panels, and equivalent structural members will be capable of withstanding, without failure, a force of at least 150 pounds applied in any downward or outward direction at any point along the mid-rail or other member.
- Guardrail systems will be so surfaced as to prevent injury to an employee from punctures or lacerations, and to prevent snagging of clothing.
- The ends of all top rails and mid-rails will not overhang the terminal posts, except where such overhang does not constitute a projection hazard.
- Steel banding and plastic banding will not be used as top rails or mid-rails.
- Top rails and mid-rails will be at least ¼ inch nominal diameter or thickness to prevent cuts and lacerations. If wire rope is used for top rails, it will be flagged at not more than 6 foot intervals with high visibility material.
- When guardrail systems are used at hoisting areas, a chain, gate, or removable guardrail section will be placed across the access opening between guardrail sections when hoisting operations are not taking place.
- When guardrail systems are used at holes, they will be erected on all unprotected sides or edges of the hole.
- When guardrail systems are used around holes used for the passage of materials, the hole will have not more than two sides provided with removable guardrail sections to allow the passage of materials. When the hole is not in use, it will be closed with a cover, or a guardrail system will be provided along all unprotected sides or edges.
- When guardrail systems are used around holes which are used as points of access (such as ladder ways), they will be provided with a gate, or be so offset that a person cannot walk directly into the hole.
- Guardrail systems used on ramps and runways will be erected along each unprotected side or edge.

Safety Net Systems

Safety net systems and their use will comply with the following provisions:

- Safety nets will be installed as close as practicable under the walking/working surface on which employees are working, but in no case more than 30 feet below such level. When nets are used on bridges, the potential fall area from the walking/working surface to the net will be unobstructed.
- Safety nets will extend outward from the outermost projection of the work surface as follows:

Vertical distance from working level to horizontal plane of net	Minimum required horizontal distance of outer edge of net from the edge of the working surface
Up to 5 feet	8 feet
More than 5 feet up to 10 feet	10 feet
More than 10 feet	13 feet

- Safety nets will be installed with sufficient clearance under them to prevent contact with the surface or structures below when subjected to an impact force equal to the drop test.
- Safety nets and their installations will be capable of absorbing an impact force equal to that produced by the drop test.
- Defective nets will not be used. Safety nets will be inspected at least once a week for wear, damage, and other deterioration. Defective components will be removed from service. Safety nets will also be inspected after any occurrence, which could affect the integrity of the safety net system.
- Materials, scrap pieces, equipment, and tools which have fallen into the safety net will be removed as soon as possible from the net and at least before the next work shift.
- The maximum size of each safety net mesh opening will not exceed 36 square inches nor be longer than 6 inches on any side; and the opening, measured center-to-center of mesh ropes or webbing, will not be longer than 6 inches. All mesh crossings will be secured to prevent enlargement of the mesh opening.
- Each safety net (or section of it) will have a border rope for webbing with a minimum breaking strength of 5,000 pounds.
- Connections between safety net panels will be as strong as integral net components and will be spaced not more than 6 inches apart.

Personal Fall Arrest Systems

Personal fall arrest systems and their use will comply with the provisions set forth below:

- Connectors will be drop forged, pressed or formed steel, or made of equivalent materials.
- Connectors will have a corrosion resistant finish, and all surfaces and edges will be smooth to prevent damage to interfacing parts of the system.
- D-Rings and snap hooks will have a minimum tensile strength of 5,000 pounds.
- D-Rings and snap hooks will be proof tested to a minimum tensile load of 3,600 pounds without cracking, breaking, or taking permanent deformation.
- Snap hooks will be sized, to be compatible with the member to which they are connected, to prevent unintentional disengagement of the snap hook by depression of the snap hook keeper by the connected member, or will be a locking type snap hook designed and used to prevent disengagement of the snap hook by the contact of the snap hook keeper by the connected member.
- Unless the snap hook is a locking type and designed for the following connections, snap hooks will not be engaged:
 - Directly to webbing, rope, or wire rope
 - To each other
 - To a D-ring to which another snap hook or other connector is attached
 - To a horizontal lifeline
 - To any object which is incompatibly shaped or dimensioned in relation to the snap hook such that unintentional disengagement could occur by the connected object being able to depress the snap hook keeper and release itself
- On suspended scaffolds or similar work platforms with horizontal lifelines, which may become vertical lifelines, the devices used to connect to a horizontal lifeline will be capable of locking in both directions on the lifeline.
- Horizontal lifelines will be designed, installed, and used, under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of at least two.
- Lanyards and vertical lifelines will have a minimum breaking strength of 5,000 pounds.
- Lifelines will be protected against being cut or abraded.
- Self-retracting lifelines and lanyards which automatically limit freefall distance to 2 feet or less will sustain a minimum tensile load of 3,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.
- Self-retracting lifelines and lanyards which do not limit free fall distance to 2 feet or less, rip-stitch lanyards, and tearing and deforming lanyards will sustain a minimum tensile load of 5,000 pounds applied to the device with the lifeline or lanyard in the fully extended position.
- Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body belts and body harnesses will be made from synthetic fibers.
- Anchorages used for attachment of personal fall arrest equipment will be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per employee attached, or will be designed, installed, and used as follows:
 - As part of a complete personal fall arrest system which maintains a safety factor of at least two;
 - Under the supervision of a qualified person.

- Personal fall arrest systems, when stopping a fall, will:
 - Limit maximum arresting force on an employee to 1,800 pounds when used with a body harness.
 - Be rigged such that an employee can neither free fall more than 6 feet, nor contact any lower level
 - Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet,
 - Have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet, or the free fall distance permitted by the system, whichever is less.
- The attachment point of the body harness will be located in the center of the wearer's back, near shoulder level.
- Body harnesses and components will be used only for employee protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.
- Personal fall arrest systems and components subjected to impact loading will be immediately removed from service and will not be used again for employee protection until inspected and determined by a competent person to be undamaged and suitable for reuse.
- When a personal fall arrest system is used, we will provide for prompt rescue of employees in the event of a fall.
- Personal fall arrest systems will be inspected prior to each use for wear, damage, and other deterioration and defective components will be removed from service. They will also be inspected at least twice a year by a designated competent person according to the manufacturer's recommendations. The competent person inspections are to be documented.
- Personal fall arrest systems will not be attached to guardrail systems, nor will they be attached to hoists, except as specified.
- When a personal fall arrest system is used at hoist areas, it will be rigged to allow the movement of the employee only as far as the edge of the walking/working surface.

Positioning Device Systems

Positioning device systems and their use will conform to the following provisions:

- Positioning devices will be rigged such that an employee cannot free fall more than 2 feet.
- Positioning devices will be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 pounds, whichever is greater.
- Connectors will be drop forged, pressed or formed steel, or made of equivalent materials.
- Connectors will have a corrosion resistant finish, and all surfaces and edges will be smooth to prevent damage to interfacing parts of this system.
- Connecting assemblies will have a minimum tensile strength of 5,000 pounds.
- D-rings and snap hooks will be proof tested to a minimum tensile load of 3,600 pounds without cracking, breaking, or taking permanent deformation.
- Snap hooks will be sized, to be compatible with the member to which they are connected, to prevent unintentional disengagement of the snap hook by depression of the snap hook keeper by the connected member, or will be a locking type snap hook designed and used to prevent disengagement of the snap hook by the contact of the snap hook keeper by the connected member.
- Unless the snap hook is a locking type and designed for the following connections, snap hooks will not be engaged:
 - Directly to webbing, rope, or wire rope
 - To each other
 - To a D-Ring to which another snap hook or other connector is attached
 - To a horizontal lifeline
 - To any object which is incompatibly shaped or dimensioned in relation to the snap hook such that unintentional disengagement could occur by the connected object being able to depress the snap hook keeper and release itself
- Positioning device systems will be inspected prior to each use for wear, damage, and other deterioration and defective components will be removed from service.
- Body belts, harnesses, and components will be used only for employee protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.

Personal Fall Restraint Systems

Personal Fall Restraint Systems are designed to prevent the wearer from reaching the edge or danger area and thus prevent them from falling. Anchorage points used for fall restraint shall be capable of supporting at least four times the intended load.

Warning Line Systems

Warning line systems and their use will comply with the following provisions:

- The warning line will be erected around all sides of the roof work area.
- Points of access, materials handling areas, storage areas, and hoisting areas will be connected to the work area by an access path formed by two warning lines.
- When the path to a point of access is not in use, a rope, wire, chain, or other barricade, equivalent in strength and height to the warning line, will be placed across the path at the point where the path intersects the warning line erected around the work area, or the path will be offset such that a person cannot walk directly into the work area.
- Warning lines will consist of ropes, wires, or chains.
- Supporting stanchions erected as follows:
 - The rope, wire, or chain will be flagged at not more than 6-foot intervals with high visibility material.
 - The rope, wire, or chain will be rigged and supported in such a way that its lowest point (including sag) is no less than 34 inches from the walking/working surface and its highest point is no more than 39 inches from the walking/working surface.
- After being erected, with the rope, wire, or chain attached, stanchions will be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof, or platform edge;
- The rope, wire, or chain will have a minimum tensile strength of 500 pounds, and after being attached to the stanchions, will be capable of supporting, without breaking, the loads applied to the stanchions as prescribed in the previous bullet point; and
- The line will be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.
- No employee will be allowed in the area between a roof edge and a warning line unless the employee is performing roofing work in that area.
- Mechanical equipment on roofs will be used or stored only in areas where employees are protected by a warning line system, guardrail system, or personal fall arrest system.

Controlled Access Zones

Controlled access zones and their use will conform to the following provisions:

- When used to control access to areas where leading edge and other operations are taking place, the controlled access zone will be defined by a control line or by any other means that restricts access.
- When control lines are used, they will be erected not less than 6 feet nor more than 25 feet from the unprotected or leading edge, except when erecting precast concrete members.
- When erecting precast concrete members:
 - The control line will be erected not less than 6 feet nor more than 60 feet or half the length of the member being erected, whichever is less, from the leading edge.
 - The control line will extend along the entire length of the unprotected or leading edge and will be approximately parallel to the unprotected or leading edge.
 - The control line will be connected on each side to a guardrail system or wall.
- When used to control access to areas where overhand bricklaying and related work are taking place:
 - The controlled access zone will be defined by a control line erected not less than 10 feet nor more than 15 feet from the working edge.
 - The control line will extend for a distance sufficient for the controlled access zone to enclose all employees performing overhand bricklaying and related work at the working edge and will be approximately parallel to the working edge.
 - Additional control lines will be erected at each end to enclose the controlled access zone.
 - Only employees engaged in overhand bricklaying or related work will be permitted in the controlled access zone.
- Control lines will consist of ropes, wires, tapes, or equivalent materials, and supporting stanchions as follows:
 - Each line will be flagged or otherwise clearly marked at not more than 6 feet intervals with high visibility material.
 - Each line will be rigged and supported in such a way that its lowest point (including sag) is not less than 39 inches from the walking/working surface and its highest point is not more than 45 inches (50 inches when overhand bricklaying operations are being performed) from the walking/working surface.
 - Each line will have a minimum breaking strength of 200 pounds.
- On floors and roofs where guardrail systems are not in place prior to the beginning of overhand bricklaying operations, controlled access zones will be enlarged, as necessary, to enclose all points of access, material handling areas, and storage areas.
- On floors and roofs where guardrail systems are in place, but need to be removed to allow overhand bricklaying work or leading edge work to take place, only that portion of the guardrail necessary to accomplish that day's work will be removed.

Protection from Falling Objects

Falling object protection will comply with the following provisions:

- Toe boards, when used as falling object protection, will be erected along the edge of the overhead walking/working surface for a distance sufficient to protect employees below.
- Toe boards will be capable of withstanding, without failure, a force of at least 50 pounds applied in any downward or outward direction at any point along the toe board.
- Toe boards will be a minimum of 3½ inches in vertical height from their top edge to the level of the walking/working surface. They will have not more than ¼ inch clearance above the walking/working surface. They will be solid or have openings not over 1 inch in greatest dimension.
- Where tools, equipment, or materials are piled higher than the top edge of a toe board, paneling or screening will be erected from the walking/working surface or toe board to the top of a guardrail system's top rail or mid-rail, for a distance sufficient to protect employees below.
- Guardrail systems, when used as falling object protection, will have all openings small enough to prevent passage of potential falling objects.
- During the performance of overhand bricklaying and related work:
 - No materials or equipment, except masonry and mortar, will be stored within 4 feet of the working edge.
 - Excess mortar, broken or scattered masonry units, and all other materials and debris will be kept clear from the work area by removal at regular intervals.
- During the performance of roofing work, materials which are piled, grouped, or stacked near a roof edge will be stable and self-supporting.
- Canopies, when used as falling object protection, will be strong enough to prevent collapse and to prevent penetration by objects that may fall onto the canopy.

Working with an Aerial Device

Any employee working in an aerial device will use a fall restraint system and be required to tie off to the manufacturer's designated anchor point. They are to be tied off 100 percent of the time.

Fall Protection Plan

This option is available only to employees engaged in leading edge work, precast concrete erection work, or residential construction work who can demonstrate that it is unfeasible or it creates a greater hazard to use conventional fall protection equipment. The fall protection plan must conform to the following provisions:

- The fall protection plan will be prepared by a qualified person and developed specifically for the site where the leading edge work, precast concrete work, or residential construction work is being performed and the plan must be maintained up to date.
- A qualified person will approve any changes to the fall protection plan.
- A copy of the fall protection plan with all approved changes will be maintained at the job site.
- The implementation of the fall protection plan will be under the supervision of a competent person.
- The fall protection plan will document the reasons why the use of conventional fall protection systems (guardrails systems, personal fall arrest systems, or safety nets systems) are infeasible or why their use would create a greater hazard.
- The fall protection plan will include a written discussion of other measures that will be taken to reduce or eliminate the fall hazard for workers who cannot be provided with protection from the conventional fall protection systems.
- The fall protection plan will identify each location where conventional fall protection methods cannot be used. These locations will then be classified as controlled access zones.
- Where no other alternative measure has been implemented, a safety monitoring system will be implemented.
- The fall protection plan must include a statement, which provides the name or other method of identification for each employee who is designated to work in controlled access zones. No other employees may enter controlled access zones.
- In the event an employee falls, or some other related serious incident occurs (e.g., a near miss), the employer will investigate the circumstances of the fall, or other incident, to determine if the fall protection plan needs to be changed (e.g., new practices, procedures, or trainings) and will implement those changes to prevent similar types of falls or incidents.

Training Program

A training program will be provided for each employee who might be exposed to fall hazards. The program will enable each employee to recognize the hazards of falling and will train each employee in the procedures to be followed in order to minimize these hazards.

We will assure that each employee has been trained, as necessary, by a competent person qualified in the following areas:

- The nature of fall hazards in the work area
- The correct procedures for erecting, maintaining, disassembling, and inspecting the fall protection systems to be used
- The use and operation of guardrail systems, personal fall arrest systems, safety net systems, warning line systems, safety monitoring systems, controlled access zones, and other protection to be used
- The role of each employee in the safety monitoring system when this system is used
- The limitations on the use of mechanical equipment during the performance of roofing work on low sloped roofs
- The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection
- The role of employees in fall protection plans
- The standards contained in the Cal/OSHA regulations pertaining to fall protection

Certification of Training

We will verify compliance with the above section by preparing a written certification record. The written certification record will contain the name, or other identity, of the employee trained, the date of the training, and the signature of the person who conducted the training or the signature of the supervisor. If our company relies on training conducted by another employer or if the training was completed prior to the effective date of this section, the certification record will indicate the date our company determined the prior training was adequate rather than the date of actual training. The latest training certification will be maintained.

Retraining

When the supervisor has reason to believe that any affected employee who has already been trained does not have the understanding and skill required by the above paragraph, we will retrain each such employee. Circumstances where retraining is required include, but are not limited to, situations where:

- Changes in the workplace render previous training obsolete
- Changes in the types of fall protection equipment to be used render previous training obsolete
- Inadequacies in an affected employee's knowledge or use of fall protection systems or equipment indicate that the employee has not retained the requisite understanding or skill

**Title 8 of California Code of Regulations (T8 CCR)
Fall Protection in Construction:**

1541	Fall protection in excavation work
1610.7	Fall protection in cranes and derricks in construction
1620	Design and construction of guard rails
1669	General fall protection
1670	Personal fall arrest systems, personal fall restraint systems and positioning devices
1671	Safety nets
1671.1	Fall protection plan
1671.2	Controlled access zones and safety monitoring systems
1710	Fall protection for erection of steel structures
1712	Fall protection for work around reinforcing steel and other similar projections
1716.1	Fall protection in structural wood framing systems
1716.2	Fall protection in wood and light gage steel frame construction in residential/light commercial work
1724	Fall protection in general roofing operations
1730	Fall protection in roofing operations
1731	Fall protection for roofing work on new tract homes with roof slopes 3:12 or greater

(Additional regulations also apply to fall protection. Refer to T8 CCR for the complete requirements.)

EXCAVATION, TRENCHING AND SHORING POLICY AND PROCEDURE

1. **GENERAL:** An excavation, as defined by OSHA 29 CFR 1926.650, means any man-made cut, cavity, trench, or depression in an earth surface, formed by earth removal. All excavation work performed by Ultimate Internet Access, Inc. as the Contractor or Sub-Contractor, shall conform to the guidelines of this policy, the above referenced OSHA standards. If the client's procedures and policies meet or exceed this document, the client policy and procedures shall be used. **THIS POLICY AND PROCEDURE IS LIMITED TO EXCAVATIONS OF LESS THAN 20 FEET IN DEPTH. EXCAVATIONS THAT EXCEED 20 FEET REQUIRE SHORING SYSTEMS DESIGNED BY A QUALIFIED PROFESSIONAL ENGINEER.**

2. DEFINITIONS:

Accepted Engineering Practices are those requirements that are compatible with standards of practice required by a registered professional engineer.

Aluminum Hydraulic Shoring is a pre-engineered shoring system comprised aluminum hydraulic cylinders (cross braces) use in conjunction with vertical rails (uprights) or horizontal rails (whalers). The system is designed specifically to support the side walls of an excavation and prevent cave-ins.

Bell-Bottom Pier Hole is a type of shaft or footing excavation, the bottom is made larger than the cross section above to form a belled shape.

Benching is a method of protecting employees from cave-ins by excavating the sides to form one or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between the levels.

Cave-in means the separation of a mass of soil or rock material from the side of the excavation or the loss of soil from under a trench shield or support system, and its sudden movement into the excavation by falling or sliding in a quantity that may be sufficient to entrap, bury or injure and immobilize a person.

Competent Person is one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous or dangerous to employees. A Competent Person has the ability and authority to take prompt corrective measures to eliminate the previously mentioned conditions.

Cross Braces are the horizontal members of a shoring system installed perpendicular to the sides of the excavation, the ends of which bear against either uprights or wales.

Faces or sides are the vertical or inclined earth surfaces formed as a result of the excavation.

Failure is the breakage, displacement or permanent deformation of a structural member or connection that would reduce its structural integrity and its support capabilities.

Hazardous atmosphere is an atmosphere that may be harmful, cause death, illness or injury by being explosive, poisonous, flammable, corrosive, oxidizing, irritating or toxic.

Kickout is the accidental release or failure of a cross brace.

Protective system is a method of protecting employees from cave-ins materials that could roll or fall into the excavation face, collapse of adjacent structures. They include support systems, sloping and benching systems, shield systems and other systems which provide the necessary protection.

Ramp means an inclined walking or working surface used to gain access to one point from another and is constructed from earth or structural materials like wood or steel.

Registered Professional Engineer is a professional engineer registered in the state where the work is to be performed.

Sheeting are the members of a shoring system that retain the earth in position and are supported by other members of the shoring system.

Shield (Trench Box, Trench Shield) is a structure that is able to withstand the forces of a cave-in. Shields can be permanent structures that can be designed to be portable and moved along as the work progresses, pre-manufactured, or job built in accordance with 1926.652(c)(3).

Shoring (Shoring System) is a structure such as a metal hydraulic, mechanical or timber shoring system that supports the sides of an excavation and is designed to prevent cave-ins.

Sloping (Sloping System) excavation to form sides of an excavation that are inclined away from the bottom of the excavation. The angle of incline required to prevent a cave-in varies with differences in factors such as the soil type, environmental conditions of exposure and application of surcharge loads.

Stable Rock is a solid mineral material that can be excavated with vertical sides and shall remain intact while exposed. (see the standard for methods of converting unstable rock to stable rock.)

Structural Ramp is a ramp made of steel or wood and usually used for vehicle access. Soil or rock ramps are not considered structural.

Support System is a structure such as underpinning, bracing or shoring which provides support to an adjacent structure, underground installation or the sides of an excavation.

Tabulated Data are tables and charts approved by a registered professional engineer and used to design and construct a protective system.

Trenches are a narrow excavation, in relation to length, made below the surface of the ground. Generally, the depth is greater than the width, but the width of a trench measured at the bottom is not greater than 15 feet. If forms or other structures are installed or constructed in an excavation and reduce the dimension from the structure to the side to 15 feet or less the excavation is considered a trench.

Uprights are vertical members of a trench shoring system placed in contact with the earth and usually positioned so that individual members do not come in contact with each other. Uprights in contact with each other are sheeting.

Wales are horizontal members of a shoring system placed parallel to the excavation face whose sides bear against the vertical members of the shoring system or earth.

Confined Space for the purpose of the excavation standard is defined as one:

- I. Having limited access and egress.
- II. Which could produce or contain a hazardous atmosphere.
- III. Is not designed for continuous human occupancy.
- IV. Is not deeper than 4 feet.

3. PRE-EXCAVATION CHECKS:

- A. Hidden obstructions or hazards may be identified by obtaining and checking site plans identifying underground pipes or utilities in the area of the excavation.
- B. Care should be used as these plans and records may not be up-to-date or accurate.
- C. Check the area for previously disturbed ground.
 - I. Excavations in previously disturbed ground may require additional bracing and shoring.
 - II. Previously disturbed ground near a new excavation may also require use of bracing and shoring in the new excavation.

4. SHORING USE: (Workers kneeling in a trench less than 5 feet can still be exposed to the hazards of cave-ins or hazardous environments.)

- A. All trenches over 5 feet in depth shall be shored, sloped, or shield provided to protect workers.
- B. Excavations shallower than 5 feet shall also be sloped or shored if they are in unstable soil.
- C. The depth of an excavation shall be measured at its greatest vertical dimension.
- D. Spoil piles, located close to the edge of an excavation shall affect the vertical depth.

5. SLOPING: There are three methods of sloping a trench to protect workers.

- A. **Sloping** is cutting back the trench walls to the proper angle of repose. (Refer to Table B-1 of 29 CFR 1926 subpart F)
- B. **Angles of repose** are dependent upon soil classification, water condition, previous soil disturbances, etc.
 - I. The proper angle should be independently determined by a competent person for each site and if conditions require, each trench at the same site.
 - II. Where the excavation has water conditions, silty material, loose boulders, and areas where erosion, deep frost action, and slide planes appear, the angle of repose shall be flattened.
- C. Slope at 34 degrees or 1 to 1½.

6. SHORING OF THE TRENCHES: Trench shoring is installed to resist or replace the force on the excavation face.

- A. **Shoring of a trench** may be accomplished with the use of wood timbers, screw jacks, hydraulic rams or combinations of all of these methods.
- B. **Timbers** shall be in sound condition and free of major defects. They shall be equal to the grade size specified. Workers shall be alert for the warning signs of splintering or separating wood fibers. **FAILURE OF THE SHORING IS EMINENT WHEN THESE SIGNS ARE DETECTED AND WORKERS MUST EVACUATE THE EXCAVATION.**
- C. **Steel shoring** components provide little warning before failure and workers shall check and be alert for bent or damaged members.
- D. **Pressure Gauges**, cylinders and rails shall all be in good condition if hydraulic shoring is used. Signs of fluid leakage shall be detected and repaired.

7. **TRENCH SHORING METHODS:** The type of shoring to be use is determined by the soil type and soil conditions. Ground water and water intrusion can weaken the soil face and add weight, adding additional force on the shores. If the excavation is below the water line, the shoring should be driven below the bottom of the surface of the trench to prevent undermining.
- A. **Tight sheeting** shall be provided where seepage occurs. The excavation should be kept dry 24 hours per day to avoid the possibility of saturation and possible failure of the excavation wall.
 - B. **Shoring in Hard Compact Soil** is commonly accomplished by open sheeting or "skip shoring".
 - I. Struts shall be placed in a true horizontal position and square to the sides of the trench at a maximum vertical spacing not to exceed OSHA 29 CFR 1926 Subpart B Tables C1.1-C1.3, C2.1-C2.3, D1.1-D1.3 or the manufacturer's tabulated data.
 - II. The ends shall be secured to prevent slippage or kickouts.
 - III. The lateral spacing between struts shall no exceed OSHA Tables C1.1 to C1.3, C2.1-C2.3, D1.1-D1.3 or manufactures tabulated data or a professional engineer's specification.
 - IV. Struts shall be inspected daily for movement or decreased bearing pressure. Repairs, replacement or reinstatement shall be accomplished before workers are allowed into the excavation OR around the upper edges.
 - C. **Shoring in loose unstable soil** can be considerably greater than is stable soil, due to the pressure exerted on shoring.
 - I. Increased strut size and or decreased strut spacing is required.
 - II. Very Loose soil shall require closed sheeting with tight edge-to-edge contact.
 - III. Wood or locking steel sheeting may be used when joints shall be watertight.

8. **MANDATORY SHORING PROTECTION:**

- A. All workers working in a trench with a depth that exceeds 5 feet shall be protected by a shoring system or shield.
- B. The placement of shores shall be accomplished prior to any worker entering the trench.
- C. All shoring systems used in an excavation below 20 feet in depth shall be designed by a registered professional engineer.
- D. In trenches or excavations where a hazardous condition may exist, the space shall be treated as a permit required confined space and confined space requirements shall be followed.
- E. All workers in the excavation or trench shall be provided with personal protective equipment as specified in this manual, OSHA and client standards.

9. **INSTALLATION OF SHORING SYSTEMS:** All installation should be in a top down method.

- A. Struts shall be in a true horizontal position with the ends secured to prevent slippage or sliding.
- B. The uppermost shores shall be placed first.
- C. If possible, the workers should not be in the trench when the shores are lowered.
- D. To prevent slough off and greater risk of cave-in, the shoring work should follow the trenching and excavation work as closely as possible.

10. REMOVAL OF SHORING SYSTEMS: Removal of shoring should be in a bottom to up method. Hydraulic shoring, however, may be removed from above.

- A. Workers removing shoring shall remain in a protected zone.
- B. Premature removal of shoring shall expose workers to an unnecessary hazard.
- C. Timber or steel jacks are usually removed while inside the trench.
- D. Before removal, some force shall replace the force exerted by the shores against the trench face., e.g., bottom and intermediate struts should not be removed until they have been effectively replaced by backfill.

11. HAZARDS AFFECTING TRENCH SAFETY:

- A. Weather conditions can affect the water content of the soil through excess water from rain or melting ice and snow. Water can liquefy firm soil and increase pressure on the shores.
- B. Freezing of the ground and quick thaw can undermine a shoring system and cause failure.
- C. Soils can change properties from exposure to the air. Air exposure can turn hard, solid soil to soft, slippery soil.
- D. Vibrations from machinery, roadways, railroad tracks, explosives, flares, etc., shall cause increased loads on a shoring system and extra sheeting and shoring may be needed.
- E. The location of the Spoil Bank may also affect the pressure on a shoring. **Spoil Piles should be kept no closer than 2 feet from the trench and distances increased when site conditions warrant.**
- F. The edges of all open trenches shall be protected. Barricades shall be erected to prevent accidental entry, and if possible, bumpers should be provided to prevent equipment from falling into the excavation.
- G. All tools, equipment and supplies shall be kept back from the excavation edge to prevent accidental slippage into the site.
- H. Hydrocarbon vapors are heavier than air. In locations where hydrocarbon vapors may be present, atmospheric monitoring and confined space procedure are required.
- I. All welding and cutting torches shall be shut down at the source when workers depart the excavation or trench.

12. EXCAVATION EQUIPMENT:

- A. Excavation equipment shall be operated by trained and qualified personnel only.
- B. Workers in the excavation shall not place themselves below a load being lifted overhead.
- C. Equipment shall be shut down when the operator dismounts the equipment.
- D. Refueling of equipment shall not take place in the immediate vicinity of the site.
- E. A knowledgeable signal person shall be in place when equipment operators cannot see the bottom of the excavation.

13. DAILY INSPECTIONS OF THE EXCAVATION AND SHORING:

- A. Daily inspections of the excavation and shoring equipment shall be made by a competent person and documented.
- B. Should an unsafe condition be discovered, work shall stop immediately in the affected area and corrective action taken.
- C. Inspections shall also be accomplished after rainstorms, snowstorms or any other occurrence which may alter the condition and hazard of the site.

14. COMPETENT PERSONS: The Contractor is responsible for the designation of a Competent Person at excavation sites. Ultimate Internet Access, Inc. reserves the right to review the qualifications of any client or Sub-Contractor furnished Competent Person.

15. ACCESS AND EGRESS: A means of access and egress (usually ladders) shall be provided within 25 feet of every worker.

- A. Ladders shall be in good condition, extend 3 feet over the top of the trench and be secured in such a manner as to prevent movement while in use.
- B. Access and egress shall be provided for all excavations in excess of 4 feet in depth.
- C. Walkways, runways and sidewalks shall be kept clear of excavated material or other obstructions.
- D. No sidewalk, ramp walkway, etc, shall be undermined unless properly shored.

CHECKLIST FOR TRENCH/EXCAVATION (SHAFT/EARTHWORK 5 FEET OR MORE IN DEPTH)

1. Obtain permit from the Division of Occupational Safety and Health District Office (DOSH).
2. The permit must be available for inspection at the jobsite.
3. Job notification must be given to the nearest District Office of DOSH prior to digging.
4. Determine and locate underground utilities by calling 1-800-422-4133 (USA) and company must be notified within 48 hours.
5. A Qualified Person must supervise the trench or excavation at all times.
6. Remove trees, poles, boulders, and similar objects that may be hazardous to workers.
7. The Qualified Person shall assess the job site from possible moving ground, also after rainstorm, earthquake, or other events prior to the employees' exposure to the excavation.
8. Workers shall be protected by shoring, sloping, benching, casing or other equivalent alternative methods. Protective devices or materials which are utilized shall conform with the type of soil present at the jobsite. (see T-8 CCR 1540-1547).
9. Spoils/dirt shall be kept 2 feet from the edge of the trench/excavation. Check for cracked and sloughing around and above the excavation area. 1540 (e)(1).
10. Provide a convenient way for workers to enter and leave the excavation, ladders shall be a minimum 25 feet from one another. 1540 (g)(1).
11. If crossing is placed above trench/excavation, a standard guardrail shall be installed when the depth of the excavation is 7 ½ feet or more.
12. Do not excavate beneath the base of an adjacent foundation, retaining wall or other structure so as to undermine such structure. Support undermined sidewalk and adjoining structures if these conditions exist.
13. Do not use an existing wall or structure as a retaining wall until it will safely support the expected load. This must be determined by the qualified personnel.
14. Protective barrier, barricade, caution sign shall be provided at the excavation on remote area, or area where the employee works so they may not fall into the excavation.
15. Backfill temporary well, pits, and shafts immediately upon completion of the operation.
16. Shoring and sloping shall comply with the State of California Code of Regulations. The shoring design of an excavation/trench with a depth of 20 feet or more shall be prepared by a Registered Civil Engineer in the State of California.
17. Employees shall wear an appropriate type of steel-toed boots or shoes at the jobsite.
18. Hard hats shall be worn at the construction site.
19. Ladders/ramps used as access in the excavation shall be free of defects.
20. Employer shall read, understand and follow the Construction Safety Orders, Rules and Regulations prescribed by Title 8 California Code of Regulations.

“CODE OF SAFE PRACTICES FOR TRENCH/EXCAVATION/SHAFT”

1. Obtain permit from the Division of Occupational Safety and Health District office if the depth is 5 feet or deeper.
2. A copy of the permit must be available at the jobsite.
3. Job notification must be given to the nearest District Office of DOSH prior to digging (for annual permit holder).
4. Determine and locate underground utilities by calling (USA) 1-800-422-4133 within 48 hours.
5. A Competent Person must supervise the trench/excavation/shaft at all times.
6. Remove trees, poles, boulders and/or similar objects that may be hazardous to the employees.
7. The Competent Person shall assess the job site from possible moving ground, also after rainstorm, earthquake, or other events prior to the employees' exposure to the trench/excavation/shaft.
8. Workers shall be protected by shoring, sloping, benching, casing or other equivalent alternative methods. Protective devices or materials that are utilized shall conform with the type of soil present at the jobsite.
9. Spoil/dirt shall be kept 2 feet from the edge of the trench/excavation. Check for cracks and sloughing around and above the excavation area.
10. Provide a convenient way for workers to enter and leave the trench/excavation. A ladder, ramp or other safe means of egress shall be in trench/excavations that are 4 feet or deeper so as to require no more than 25 feet of lateral travel for employees.
11. Where employees or equipment are required or permitted to cross over excavation deeper than 6 feet and wider than 30 inches, walkways or bridges with standard guardrails shall be provided.
12. Do not excavate beneath the base of an adjacent foundation, retaining wall or other structure so as to undermine such structure. Support undermined sidewalk and adjoining structures if these conditions exist.
13. Do not use an existing wall or structure as a retaining wall until it will safely support the expected load. This must be determined by a Competent Person.
14. Protective barriers, barricades, and/or caution signs shall be provided at the trench/excavation in remote area, or area where the employee could fall into the trench/excavation.
15. Backfill temporary wells, pits, and shafts immediately upon completion of the operation.
16. Shoring, sloping, benching or any other equivalent protective method shall comply with Title 8, California Code of Regulations. The protective method shall be designed by a Registered Civil Engineer in the State of California, if the trench/excavation is deeper than 20 feet.
17. Employees shall wear an appropriate type of safety shoes/work boots at the jobsite. (Big NO for tennis shoes at the jobsite.)
18. Head protection shall be provided at the construction site.
19. Ladders/ramps used as an access to the trench/excavation/shaft shall be free of any defects.
20. Employer shall read, understand and comply with the Construction Safety Orders, Rules and Regulations prescribed by Title 8, California Code of Regulations.

ULTIMATE INTERNET ACCESS, INC.

Assured Grounding Conductor Program

Title 8 2405.4 and CFR1926.4000

Scope:

The Assured Grounding Conductor Program is to be implemented on all construction sites covering all 120-volt, AC, single-phase, cord sets, and receptacles that are not a part of permanent wiring. Exception: This program will not be required on any construction site where ground fault circuit interrupters are in use with all 120-volt, AC, Single-phase, 15 and 20-ampere that are not a part of permanent wiring.

Purpose:

To avoid injury due to electrical hazards.

Implementation:

This written program, including the specific procedures adopted as noted in the program, shall be available at the job site. The qualified person responsible for the Assured Grounding Conductor program is John Burke-Zuber.

Guidelines for inspection program:

- A. Maintain a copy of the inspections for cords, equipment and receptacles at both Ultimate Internet Access, Inc.'s office and the construction site.
- B. Inspect all cords, receptacles, and equipment for damage prior to use each day.
- C. Tagout on any damaged equipment, cords or receptacles that are defective with a red tag that is signed. Label "DANGER DO NOT USE" and remove from site back to Ultimate Internet Access, Inc.'s yard.
- D. Equipment, cords, and receptacles shall be tested upon initial use, after repair, after any incident where it is reasonable to think damage may have occurred and every 90 days.
- E. Indicate the equipment, cords and the receptacles that have been tested by a color tagging system.
 1. Winter - blue tape (January, February, March).
 2. Spring - green tape (April, May, June).
 3. Summer - red tape (July, August, September).
 4. Fall - yellow tape (October, November, December).

Criteria for Inspections:

1. Visual inspection for damage.
2. An approved continuity tester.
3. Electrically continuous.
4. Each receptacle and attachment cap or plug shall be tested for correct attachment of the equipment grounding conductor. The equipment grounding conductor shall be connected to its proper terminal.

Exception: Double insulated tools or other similar equipment are not required to be grounded.

Logging Inspections:

1. Date inspected.
2. Item inspected - identify equipment, cords, and receptacles by number (use serial # if applicable).
3. Result of test (pass/fail/discarded).
4. Color code tape applied.
5. Name of person who conducted test.

Log Form:

1. Program log available in the office and in the field for affected employees.

WELDING AND CUTTING SAFETY PROCEDURES

The greatest hazard of welding and burning operations is the possibility of eye injuries. Ultra-violet radiation is generated during these operations. After exposure to excessive ultra-violet radiation, eyes may develop sharp pains and/or become red and irritated. Without proper protection, it is possible to damage eyes permanently.

The following are recommended shades of lenses for various welding and burning operations:

<u>OPERATION</u>	<u>SHADE NUMBER</u>
Soldering	2
Torch Brazing	3 or 4
Light Cutting up to one inch	3 or 4
Medium Cutting, one to six inches	4 or 5
Heavy Cutting, six inches and over	5 or 6
Gas Welding (light) up to 1/8 inch	4 or 5
Gas Welding (medium) up to 1/8 to 1/2 inch	5 or 6
Gas Welding (heavy) 1/2 inch and over	6 or 8
Shielded Metal-Arc Welding, 1/16 to 5/32 inch electrodes	10
Inert-Gas Metal-Arc Welding (non-ferrous) 1/16 to 5/32 inch electrodes	11
Inert-Gas Metal-Arc Welding (ferrous) 1/16 to 5/32 inch electrodes	12
Shielded Metal-Arc Welding 3/16 to 1/4 inch electrodes	12
Shielded Metal-Arc Welding 5/16 to 3/8 electrodes	14
Carbon-Arc Welding	14

It must be remembered that some plated and/or painted metals can give off harmful fumes or vapors when subjected to the high temperatures of welding or burning. These fumes or vapors could cause a health problem if breathed for too long. Welding and burning should be performed in a well-ventilated area or if working outside, position yourself "up-wind" from the point of operation. Respiratory Protection may be required - ask your Supervisor if you have any questions.

When chipping slag, be sure to wear eye protection!

In all welding and burning operations be sure the necessary fire protection and measures are taken.

Do not store oxygen and acetylene bottles in the same area and protect them from physical damage.

Specialists in welding and cutting must not only protect themselves from injury but must also assume a certain responsibility for their helper, their co-worker in other trades, and in some instances, the public. Accident records indicate that others near arc welding operations are injured more often than the operator.

Also, there is the ever-present chance of fire. Fires caused from welding and cutting cost hundreds of thousands of dollars annually. You just can't substitute oxygen for air to produce artificial ventilation. Air is usually supplied by a forced draft to all such operations.

There is no good reason at all for taking a chance by welding or cutting in a confined area that does not have proper ventilation. Remember that oxygen does not burn, but it does support combustion. Do proper testing of atmosphere in confined space areas.

Responsibility for safety in welding and cutting goes all the way up and down the line from Superintendent, Foreman and Operator. Everyone concerned should do their share in making these operations safe.

Accident records indicate that certain conditions and acts caused most cutting and welding accidents. Precautions for preventing welding and cutting accidents are:

1. Before you start to weld or cut in confined spaces, be sure there is proper ventilation. Follow all confined space requirements.
2. Keep a proper type fire extinguisher within reach at all times.
3. Use only a wrench of the proper size on cylinder apparatus and keep all connections right.
4. Keep oil away from oxygen valves.
5. Inspect all work areas and place required shields and welding blankets before welding or cutting; see that there are no explosives, dangerous gases or flammable materials nearby.
6. Never stand on wet floors or touch other ground when changing electrodes.
7. Don't allow anyone to stand too near the work or stare at the arc.
8. Keep your job area clean. Get rid of rubbish.
9. Be sure that floor gratings are covered with no cracks through which sparks can drop to lower levels.
10. Whenever possible, do your work out-of-doors.
11. Take extra precautions and use the proper respirator when working on or around metals like lead and cadmium that give off highly dangerous fumes. Follow all respiratory requirements.
12. See that your helper is as well equipped as you are.
13. Don't start work in an area that is full of dust.
14. Inspect your equipment before you start work.
15. Have only qualified persons repair or adjust equipment.
16. Oxygen and acetylene bottles should be secured at all times.
17. Request a fire watch if a burning hazard exists.
18. All parts of the body should be protected from radiant energy, sparks, and molten metal splashes. Clothing made from wool, or wool blends, is generally better than cotton. Some cutting operation such as inert-gas metal arc welding will cause exposed cotton clothing to rapidly deteriorate. Leather capes, jackets, leggings, and aprons provide additional protection especially in vertical, overhead operations. Use of dark clothing will help reduce reflected light.

Perhaps one of the most important things for you to remember as an operator is that you can't expect others to follow safe practices unless you set the example. All safety infractions are subject to written violations and/or termination.

Accidents resulting from cutting and welding are preventable. Most of them can be eliminated by inspection of an area before starting to work and using properly maintained equipment and proper training.

SANITATION PLAN

Ultimate Internet Access, Inc. will ensure that the Cal/OSHA Code of Regulations §1526 (Toilets at Construction Jobsites) and §1527 (Washing Facilities) are followed as outlined:

Toilets at Construction Jobsites

Ultimate Internet Access, Inc. will ensure that a minimum of one separate toilet and washing facility will be provided for every 20 employees or fraction thereof of each gender. Such facilities may include both toilets and urinals provided that the number of toilets shall not be less than one half of the minimum required number of facilities.

Exception: Where there are less than 5 employees, separate toilet facilities for each gender are not required provided the toilet facilities can be locked from the inside and contain at least one toilet.

Toilet facilities shall be kept clean, maintained in good working order, designed and maintained in a manner that will assure privacy, and provided with an adequate supply of toilet paper.

Washing Facilities

Ultimate Internet Access, Inc. will ensure the following washing facility standards are met:

- Be maintained in a clean and sanitary condition;
- Have an adequate supply of water for effective washing;
- Have a readily available supply of soap or other suitable cleansing agent;
- Have a readily available supply of single-use towels or a warm-air blower;
- Be located and arranged so that any time a toilet is used, the user can readily wash; and
- When provided in association with a non-water carriage toilet facility in accordance with Section 1526(c),
 - Provide a sign or equivalent method of notice indicating that the water is intended for washing; and
 - Be located outside of the toilet facility and not attached to it.

Exception: Where there are less than 5 employees, and only one toilet facility is provided, the required washing facility may be located inside of the toilet facility.