

## **SUBCONTRACT AGREEMENT**

**THIS SUBCONTRACT AGREEMENT** (Agreement) is made as of , between ELEVEN WESTERN BUILDERS INC., a California Corporation (Contractor) whose license number is 439908, and (Subcontractor) whose license number is \_\_\_\_\_, who agree as follows:

1. **FACT RECITALS.** This Agreement is made with reference to the following facts:
  - a. **Prime Contract.** Contractor has previously entered into a contract, referred to as the Prime Contract, dated , with (Owner) for the construction of the (Project), which contract includes the work to be done under this Agreement. The parties to this contract hereby agree to incorporate the terms and conditions of the Prime Contract herein by this reference, with the same force and effect as if it was set forth in full. Subcontractor and its subcontractors are bound by all terms of the Prime Contract as they relate in any way, directly or in directly, to the work covered by this subcontract. Subcontractor agrees to be bound to Contractor in the same manner and to the same extent as Contractor is bound to Owner under the Prime Contract, except to the extent the terms of the Prime Contract conflict with the terms of the subcontract, in which case the Subcontract will supersede the Prime Contract. Upon written request by subcontractor, Contractor shall provide to subcontractor, at subcontractor's expense, one copy of all portions of the Prime Contract in the Contractors possession. However, neither this article nor any other shall obligate Contractor to obtain for subcontractor copies of any portion of the Prime Contract not in the possession of Contractor, and subcontractor shall not be excused from performance of its work because it does not have such documents. Upon written request by its subcontractors and suppliers, subcontractor similarly shall make one copy of applicable portions of the subcontract documents available to its subcontractors and suppliers. Nothing shall prohibit subcontractor from obtaining a copy of the executed Prime Contract from Contractor at any time after the subcontract is executed. Nothing in the subcontract shall be construed to create a contractual relationship between persons or entities other than Contractor and subcontractor.
  
2. **SCOPE OF WORK.** The labor and materials to be furnished and the work to be done by Subcontractor under this Agreement are as follows: Complete as per the contract documents, plans and specifications in accordance with the project schedule and fully in compliance with all codes, ordinances and governing authorities. (herinafter the (work)).

3. PERFORMANCE OF WORK. Subcontractor shall furnish all supervision, materials, supplies, and equipment, except as otherwise provided, and perform all labor required for the completion of the work in accordance with all provisions of the Prime Contract and of the specifications, plans, and addenda referred to therein, all of which are made a part of this agreement, and to the satisfaction of Owner and Contractor. Prior to commencement of any construction, Subcontractor agrees to provide Contractor, in writing, the name of one or more “designated foreman” who must physically be present at any and all times that the Subcontractor is working on-site at the Project. Subcontractor expressly warrants that all work shall be executed in a sound and workmanlike manner in conformance with the highest standards within the industry and warrants that all materials used by Subcontractor to complete the work are merchantable, free from any patent or latent defect, fit for their intended use, and equal in quality to the best of their kind. Upon request by Contractor, and with-in forty-eight (48) hours of said request, Subcontractor shall provide the Contractor written certification that all materials procured by the Subcontractor for the Project, and/or delivered to the Project for use by the Subcontractor, strictly conform to all requirements contained within the contract documents, including but not limited to the Prime Contract, the specifications, the plans, and addenda referred to therein, approved submittals, as well as all codes, ordinances, and all governing authorities. Further, upon reasonable request by Contractor, Subcontractor agrees to provide Contractor a reasonable opportunity to inspect its work, to include photo-documentation, at any time during the construction of the Project.

One set of plans and specifications will be furnished to Subcontractor without cost. Additional sets may be procured at rates established by Owner, to be available at Contractor's office.

4. COMPENSATION. Contractor, for the full, complete, and faithful performance of this Agreement, agrees to pay Subcontractor as full compensation: \_

5. SCHEDULE OF WORK. Subcontractor may provide Contractor with scheduling information it proposes for its work. If the information is provided ten (10) days before Contractor is required to submit the schedule to Owner or to proceed with the work, Contractor will consult with subcontractor regarding such information and, if possible, incorporate the same into the schedule to Owner. Contractor shall prepare the schedule for performance of the contract and Subcontractor (Progress Schedule) and may revise and update the Progress Schedule as work progresses. It shall be Subcontractors obligation to conform to the Progress Schedule, as updated by Contractor.

6. COMPLETION. Time is of the essence in this Agreement. Subcontractor agrees to commence the work to be performed hereunder within forty-eight (48) hours of receipt of Notice to Commence from Contractor, and to complete the work to be performed hereunder in accordance with Contractors Progress Schedule, which shall be subject to modifications by Contractor throughout the course of the work, which schedule, including all subsequent

modifications thereto, is incorporated herein by this reference and made a part hereof. Subcontractor shall employ sufficient crews and work sufficient hours or shifts so as not to hinder or delay the actual progress of Contractor or other Subcontractors and, in any event, shall complete the several portions and whole of the work at such times as will enable Contractor to fully comply with the terms of the Original Prime Contract. In agreeing to complete this work in accordance with Contractors Progress Schedule and any subsequent modifications thereto, Subcontractor has taken into consideration and made allowances for all delays or hindrances which may be incurred in its performance hereunder, whether growing out of delays in securing materials or workers, minor changes, alterations or otherwise. Subcontractor shall further participate in all Pre-Construction Meetings and Inspections, Initial Phase/First Work-in-Place Inspections, and Follow-up/Daily Inspections reasonably requested by Contractor. Subcontractor shall coordinate the work to be done hereunder with that of Contractor, other Subcontractors and other Contractors in a manner that will facilitate the efficient completion of the entire work. Contractor shall have complete control of the premises on which the work hereunder is to be performed and shall have the right to decide the time and order in which the various portions of the work shall be done and priority of the work of other Subcontractors and all matters concerning the timely, orderly conduct of the work of the Subcontractor.

In case of delay in performance of Subcontractor not caused by Subcontractor, Subcontractors remedy shall be limited to an extension of time to complete the required work and neither Owner nor Contractor shall be liable for damages, whether ordinary, incidental or consequential, as a result of any said delay.

If the Prime Contract requires Contractor to pay to Owner liquidated damages in the event of a delay in the completion of the project, then subcontractor shall be responsible to Contractor for any liquidated damages assessed to Contractor by Owner arising out of the or relating to subcontractors work.

**7. REIMBURSEMENT FOR DAMAGES OR COST.** Subcontractor shall reimburse Contractor for any actual damages or costs incurred by reason of Subcontractors failure to prosecute the work diligently, including any liquidated damages assessed by Owner pursuant to Prime Contract.

**8. PROGRESS OF WORK.** If, in the judgment of Contractor, the work of Subcontractor is not proceeding in accordance with Sections 3, 5, 6, 9 and/or 35 hereof, or Subcontractor has breached any provision of this Agreement, Contractor may, after giving forty-eight (48) hours notice to Subcontractor of the same, proceed to have the work done in the manner most expedient to Contractor including, but not limited to, the supplementation of Subcontractors work force, the termination and replacement of Subcontractors work force or both, as Contractor deems appropriate, and charge the cost, including any incidental expenses and those additional costs set out in this Agreement, to Subcontractor. Contractor shall be entitled to take possession of and use any materials, tools, equipment, plans, permits and diagrams on the job site or intended for the work and use the same for the performance of the work. Subcontractor waives any claim, demand or cause of action, against Contractor for the

loss of use, misuse, abuse, or conversion of the tools, materials, equipment, plans, permits, or diagrams, taken or used by Contractor in accordance with this Section. In the event Contractor is required to complete the work of Subcontractor in accordance with the provisions of this Agreement, Subcontractor agrees to reimburse Contractor for all costs and expenses plus an additional twenty percent (20%) of costs and expenses as overhead. Contractor's decision to implement, or not implement any portion of a Non-conformance Tracking Procedure during this Project shall not constitute any modification or waiver of any of the terms of this Section. Contractor shall always retain the full rights and remedies afforded under this Section, and those Sections incorporated by reference therein.

9. DELIVERY OF WARRANTIES. Upon the billing of seventy-five percent (75%) completion of the work, Subcontractor shall deliver all necessary warranties and guarantees associated with said work as required under this Agreement and at law. In the event that Subcontractors work is supplemented or terminated pursuant to Sections 8 and/or 22 above, Contractor shall have the right to obtain any and all warranties and guarantees associated with Subcontractors scope of work as necessary to complete the Prime Agreement and Subcontractor shall be fully responsible for any costs and expense incurred by the Contractor in obtaining said warranties and guarantees.

10. PERMITS. Subcontractor shall obtain and pay for all permits, passes, clearances, licenses, franchises, and other instruments and processes required in the performance of Subcontractors work.

11. PAYMENT AND PERFORMANCE BOND. Subcontractor shall furnish N/A percent (N/A %) payment and performance bond acceptable to Contractor prior to performing any work under this Agreement.

12. INDEMNITY. With the exception that the following provisions shall in no event be construed to require indemnification by Subcontractor in excess of that permitted under law, Subcontractor shall defend, indemnify, and save harmless Contractor, Owner, and their agents, servants, employees, subsidiaries, affiliates, officers, invitees, and their respective heirs, partners and their respective partners, parents, parent affiliated companies, assigns and successors-in-interest (collectively, "Indemnified Parties"), from any and all claims, demands, causes of action, liens, fines, levies, back charges, damages, costs, expenses, losses or liabilities, in law or in equity, of every kind and nature whatsoever, including any expenses for attorneys fees and defense costs, expert or consultant fees, awards, court costs, penalties, fines, judgments or administrative orders, and all incidental or consequential damages resulting to Contractor and/or Owner ("Claims") whether arising out of or in any manner related to or connected with: (i) the performance of the work that is the subject of this Agreement, or any subsequent modification thereto; (ii) breach of the obligations of Contractor under the Agreement including, but not limited to, violations of or a failure to comply with any safety order, rule or regulation; (iii) any and all liens, stop notices and charges of every type, nature, kind or description that may at any time be filed or claimed against the Project, or any portion thereof, or Contractor, Owner, or the construction lender(s), as a consequence of acts or omissions of Contractor. Owner, other

subcontractor, or any of their respective agents, servants, employees, or representatives, or any or all of them; (iv) any other act or omission with respect to the work that is the subject of this Agreement, or any subsequent modification thereto, by Subcontractor, its sub-subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts they may be liable, attributable to death, bodily injury, sickness, disease or injury to or destruction of tangible property, or loss of use thereof, (v) any Claim by or any act of omission of any employee of Subcontractor, any of its sub-subcontractors, anyone employed directly or indirectly by any of them or for them or for whose acts they may be liable, including, without limitation, any workers' compensation claims, equal opportunity claims, unemployment claims, withholding claims or social security claims, (vi) breach of any warranty provided by Subcontractor (vii) Claims for unpaid wages, union benefits and related types of payment obligations connected with the Project (including claims that might be presented by virtue of a collective bargaining agreement) (viii) Claims for Subcontractor's failure to purchase or maintain insurance as required by this Agreement or (ix) any combination of (i) through (vii) above.

Subcontractor shall indemnify, defend, protect and hold harmless the Indemnified Parties regardless of any active or passive negligence or strict liability of the Indemnified Parties or third parties, and regardless of any fault of Subcontractor, the Indemnified Parties or third parties; provided, however, such indemnity obligations shall not apply to the extent (and only to the extent) it is finally determined by a court of competent jurisdiction (a "Final Determination") that the claim arises out of the active negligence or willful misconduct of Contractor or other contractor or subcontractor who is responsible to Contractor or the Claim is for defects in design furnished by Contractor or other contractor or subcontractor who is responsible to the Indemnified Party or to the extent the Claim does not arise out of the scope of work of Subcontractor pursuant to this Agreement, or any subsequent modification thereto.

Subcontractor shall either (i) defend the Claim with legal counsel qualified pursuant to California Rules of Professional Conduct Rule 3-110 and with no conflicts pursuant to California Rules of Professional Conduct Rule 3-310(C); or (ii) pay within 30 days of receipt of an invoice from such Indemnified Party a reasonably allocated share of such Indemnified Party's defence fees and costs on an ongoing basis during the pendency of the Claim subject to reallocation upon resolution of such claim, in which case the Indemnified Parties shall be entitled to select the attorneys and experts engaged to defend the Indemnified Parties. In the event of a dispute between the Indemnified Parties and Subcontractor arising out of Subcontractor's allocated share under this Section, such dispute shall be resolved in accordance with the dispute resolution provisions of Section 43. The obligations of Subcontractor to defend the Indemnified Parties related to any Claim shall be effective immediately after such claim is tendered to Subcontractor by the Indemnified Parties regardless of whether Subcontractor is a party to the claim. Within the time allotted by statute from the receipt of the tender, Subcontractor must provide written notice to the Indemnified Parties that it will satisfy its defense obligation and its election as to how it will do so.

The duty to defend is separate and independent from the duty to indemnify and from Subcontractor's insurance obligations. Except as set forth above, the defense and indemnity

obligations shall not be limited by the insurance requirements set forth in this Agreement.

Subcontractor's obligations under this section shall survive the expiration or earlier termination of this Agreement until the later of: (i) such time as a Final Determination is made that any Claim (including but not limited to "claims of construction defects") is fully and finally barred as to the Indemnified Parties by all applicable statutes of limitation, or (ii) such date as any Claim for which indemnification may be claimed is fully and finally resolved and, if applicable, any compromise thereof or judgment or award thereon is paid in full by Subcontractor for any amounts paid in compromise thereof or upon a judgment or award thereon and in defense of any such claim or action, including but not limited to actual attorneys' fees. This survival of obligations shall include, without limitation, Claims against Indemnified Parties for which the statute of limitations is tolled or extended by estoppel or operation of law, because of repairs made to the Project or other facts, regardless of participation or consent thereto by Subcontractor.

13. INSURANCE. Subcontractor shall take out and furnish satisfactory proof, by Certificate and specific policy endorsements, that Subcontractor has procured insurance coverage with insurance carrier(s) satisfactory to Owner and Contractor and in such form as shall be satisfactory to Owner and Contractor. Such liability insurance shall protect Owner and Contractor against loss, including death by any person or persons, except as covered by Workers Compensation Insurance, resulting directly or indirectly from the performance or execution of the work specified in this Agreement or any contract thereunder. On all such policies of insurance the Owner and Contractor shall be named as Additional Insured. Subcontractor shall furnish Certificates of Insurance and policy endorsements to Contractor before commencing work hereunder. Subcontractor will maintain the following types of insurance, coverage, limits of liability, and other requirements, throughout the life of the project, including all warranty periods and the costs of this is included in the Agreement price.

a. Comprehensive General Liability Insurance. Subcontractor shall furnish a Certificate of Insurance showing evidence of Commercial General Liability coverage on ISO Form CG0001, or its equivalent, which includes Contractual Liability covering the Subcontractors obligations under this Agreement, as well as coverage on all of Contractors equipment owned, hired or used in the performance of the work, with limits not less than:

- (1) 2,000,000 General Aggregate;
- (2) 1,000,000 products - Completed Operations Aggregate;
- (3) 1,000,000 Personal Injury Liability; and
- (4) 1,000,000 each occurrence (combined single limit for bodily injury and property damage).

The above-referenced Commercial General Liability coverage shall include:

- (1) A per project general aggregate endorsement;
- (2) Explosion, collapse and underground coverage; and
- (3) Subsidence/earth movement coverage.

The required insurance certificate, as identified above, must have the CG2010(11/85) endorsement attached naming the following as additional insureds:

- (1) Eleven Western Builders, Inc.;
- (2) Project owner, as identified in Section 1, above; and
- (3) Any other person or entity required by the Contractor or Owner to be named as an additional insured.

The Additional Insured Endorsement must be attached to the Certificate and state that this insurance is primary to any other insurance. Endorsements, which limit or exclude coverage, will need to be attached to the certificate.

b. Automobile Liability Insurance. Subcontractor shall supply a certificate of insurance showing commercial Automobile Liability Coverage, including Contractual Liability, covering all motor vehicles owned, hired or used in the performance of the work, with limits not less than:

(1) One Million Dollars each occurrence (combined single limit for bodily injury and property damage:

c. Excess Liability Insurance, Umbrella Form. Subcontractor shall supply a Certificate of Insurance showing evidence of Umbrella or Excess liability coverage with the following limits:

- One Million Dollars each occurrence; and
- One Million Dollars aggregate.

d. Workers Compensation and Occupational Disease Insurance. Subcontractor shall supply a Certificate of Insurance showing Workers Compensation Employees liability coverage, with limits not less than:

- One Million Dollars each/accident (bodily injury by accident);
- One Million Dollars/disease - policy limit (bodily injury by disease); and
- One Million Dollars/disease - each employee (bodily injury by disease).

A waiver of subrogation endorsement (WC 04 03 06) shall be attached in favor of Contractor and the project owner identified in Section 1, above.

e. PROFESSIONAL LIABILITY. If Subcontractor is a licensed architect, engineer or designer; provides architecture, engineering or design services or retains any said services, a Certificate of Insurance shall be supplied showing errors and omissions coverage in an amount not less than One Million Dollars per occurrence.

14. Subcontractor is to include the provisions of Section 13 in all third party contracts, and is to require those third party Contractors to furnish insurance certificates, which evidence their compliance with that Section. Subcontractor agrees to provide Contractor with copies of third party Contractor insurance certificates or otherwise verify to the Contractor that the appropriate insurance certificates have been received prior to the commencement of work under said third party contract.

15. All insurance policies identified in Section 13 shall contain a provision that the coverage's afforded thereunder shall not be canceled or not renewed, nor restrictive modifications added, unless at least thirty (30) calendar days prior written notice has been given to the Contractor.

16. In the event Contractor receives written notice from the insurer that the insurance of Subcontractor has been canceled, and Contractor has not received certificates verifying that Subcontractor has procured new or substitute insurance as specified herein, then it is agreed that Contractor may, but is not obligated to, procure such insurance and charge all premiums plus a reasonable sum of overhead to Subcontractors account, all of which sums may be deducted from any amounts due Subcontractor.

17. All insurance policies identified in Section 13 shall (i) provide that coverage afforded to Contractor is primary and any other insurance in force for Contractor will be excess and will not contribute to the primary policies; and (ii) be written by insurance companies with an A.M. Bests rating of A VII and be admitted in California. Any deviation from the requirements set forth in this Section must be approved in writing by Contractor.

18. All certificates must be in the office of Contractor prior to any work being commenced on the project. Failure to supply the required insurance coverage will cause removal of the Subcontractor from the job site and withholding of any payments.

19. The carrying of the insurance described above shall in no way be interpreted as relieving the Subcontractor of responsibility or liability under this Agreement or otherwise.

20. The Subcontractor shall maintain completed operations liability insurance for ten years after acceptance of the subcontract work, substantial completion of the Project, or to the time required by the subcontract documents, whichever is longer. The Subcontractor shall furnish the Contractor evidence of such insurance at the time of completion of the subcontract



work.

21. PAYMENT. Partial payments for work performed under this Agreement will be made by Contractor within days after being paid therefore by Owner and will equal the value of the work done by Subcontractor according to Owners estimate at applicable unit prices or percentage of total completion, whichever is applicable, less the sum of previous payments and less a percentage equal to the percentage retained by Owner; except that Contractor may withhold, offset against, or on account of subsequently discovered evidence nullify the whole or part of any payment to Subcontractor, in an amount sufficient: (a) to defend, satisfy and discharge any claim that Subcontractor (or anyone providing any of the work hereunder) has failed to make payment for labor, services, materials, equipment, taxes or other items or obligations furnished to or incurred in connection with such work or any other work on the project; (b) to remedy any defective work; (c) to complete the work if Contractor determines the unpaid balance of the contract price herein is at anytime insufficient to pay for the cost of the work then unperformed herein; (d) to reimburse Contractor for any back charges incurred as a result of any act or omission by Subcontractor (or anyone providing any of the work hereunder) and to pay damage to another subcontractor; (e) to protect and secure Contractor from possible consequences of any other default or indebtedness by Subcontractor; or (f) to secure Contractor with respect to any breach or default under any other obligation (whether or not liquidated) of Subcontractor or Subcontractors affiliates, parent company or subsidiaries. To the extent Owner is delinquent in paying amounts to Contractor, Subcontractor agrees that Contractor shall be entitled to exhaust all remedies available to Contractor to collect amounts due from Owner before Contractor shall be obligated to pay amounts due hereunder to Subcontractor and that the same is reasonable under the circumstances.

Prior to Contractor making its first payment to Subcontractor under this Agreement, Subcontractor shall provide all required Submittal documents (as hereinafter defined) to Contractor. In the event required Submittal documents are not received in a timely manner, Contractor shall procure all necessary Submittal documents, in which case, Subcontractor shall be required to perform the work per the Submittal documents procured by Contractor. All costs associated with the procurement of the Submittal documents by Contractor shall be deducted from amounts due to Subcontractor under this Agreement. As used herein, the term Submittal documents shall have the same meaning as defined in the project manual and/or project specifications.

Subcontractor agrees to furnish, if and when required by Contractor, payroll affidavits, receipts, vouchers, releases of claims for labor and material, and agrees to furnish same from its Subcontractors, suppliers and/or material men performing work or furnishing materials under this Agreement, all in form satisfactory to Contractor, and it is agreed that no payment hereunder shall be made, except at Contractors option, until and unless such documents have been furnished. Contractor, at its option, may make any payment due hereunder by check made payable jointly to Subcontractor and any of its Subcontractors, suppliers and/or material men who have performed work or furnished materials under this Agreement.

On completion of the Prime Contract and payment therefore in full by Owner, Subcontractor will be paid the remaining amount due Subcontractor under this Agreement. All prior partial payments shall be subject to correction in the final payment.

Estimates and calculations made by Owner, or Owners architect or engineer, as to the amount of work done by Subcontractor, shall be final and binding on the parties and shall conclusively establish the amount of work done by Subcontractor. All statements for which payment is requested by Subcontractor shall be in the office of Contractor on or before the last day of the contract pay period for work done the preceding month.

## 22. EXTRA WORK AND CHANGES IN THE WORK.

a. Change Orders. The Work to be performed under this Agreement may be modified by changes required by the Owner, Architect, or Contractor, and Subcontractor's compensation amount set forth in Section 4 of this Agreement shall be adjusted by written Change Order in accordance with this Agreement. Subcontractor shall be bound by any alterations, additions, or deletions made by Owner to the Prime Contract specifications or plans, or in the amount or character of the work or any part thereof, to the same extent that Contractor is bound thereby. Subcontractor is bound to the terms of the Prime Contract relating to changes, changed conditions, extra work, Owner furnished property, and disputes, and shall give to Contractor immediate written notice of any such asserted change, changed condition, extra or disputed claim, to the end that Contractor may timely comply with any notice requirements of the Prime Contract relating thereto. Contractor is not an insurer or guarantor of the work, or any part thereof; of the performance by Owner of the Prime Contract; or of plans and specifications furnished by Owner.

b. No Claim Without Change Order. No alterations, additions or deletions shall be made to the Work as shown or described in this Agreement except on the written order from Contractor's Project Manager and/or an officer of Contractor; and when so made, the value of the alteration, addition or deletion shall be computed and determined in accordance with this Agreement, subject to the written approval and acceptance by the Contractor, and the amount so determined shall be added or deducted from Subcontractor's compensation amount set forth in Section 4 of this Agreement. Subcontractor shall have no claim for additional work or changed work unless such work has been done in pursuance of a written order from Contractor's Project Manager and/or an officer of Contractor. Any extra work performed without such written order from Contractor's Project Manager and/or an officer of Contractor will be at Subcontractor's sole expense. If Subcontractor shall make any unauthorized change in work, or perform any unauthorized extra work which affects the scope of the work or the expense of the other trades, Subcontractor shall be liable for all costs and expenses incurred by Contractor as the result thereof.

c. Notice of Proposed Changes. For changes in the Work that increase or decrease Subcontractor's compensation amount set forth in Section 4 of this Agreement or affect

construction time, Subcontractor shall notify Contractor of the scope of any change in cost or time within three (3) days after receipt of the proposed change and shall submit the actual Change Order Request within five (5) days after receipt of the proposed change. In the event that Contractor provides Subcontractor with a written order from Contractor's Project Manager and/or an officer of Contractor to proceed with an alteration, addition, or deletion to the Work with approved pricing, Subcontractor shall promptly proceed with said work. In the event that Contractor provides Subcontractor with a written order from Contractor's Project Manager and/or an officer of Contractor to proceed with an alteration, addition, or deletion to the Work absent pricing, Subcontractor shall promptly proceed with said work and submit the actual Change Order Request within five (5) days after receipt of Contractor's written order regarding the change.

d. Change Order Request. Subcontractor's Change Order Request shall consist of the detailed cost estimate outlining the changes in the Work and detailed documentation justifying proposed changes in time, including supporting back-up documentation as required by Contractor. This estimate shall be computed in accordance with accepted estimating procedures and in accordance with the terms of this Agreement, and the costs for labor and materials shall be in accordance with appropriate provisions of this Agreement. As far as practicable, unit prices and any other feasible formula for use in the determination of cost changes in the Work shall be used. If the subcontract is on a unit price, any quantities and amounts mentioned are approximate only and may increase or decrease at the same unit price unless the Prime Contract warrants or guarantees such quantities and amounts.

e. Extra Compensation. Subcontractor waives any claim against Contractor for compensation or equitable adjustment for such claims, changed conditions, or extra work, except to the extent the claim is allowed to Contractor by Owner as provided. Contractor will pay to Subcontractor, from any such extra compensations or equitable adjustment received from Owner with respect to subcontract work, as and when received from Owner, the actual costs of the extra labor or materials of Subcontractor allowed plus % ( Percent) for overhead and/or profit allowed, but in no event to exceed the sum received by Contractor from Owner. Further, any extra work performed without such written order from Contractor's Project Manager and/or an officer of Contractor will be at Subcontractor's sole expense.

f. Disputed Request. If Owner, Architect, or Contractor disputes the validity or amount of a Change Order Request submitted by Subcontractor, but Contractor provides Subcontractor a written order from Contractor's Project Manager and/or an officer of Contractor to proceed with the Work pending resolution of the dispute, Subcontractor shall promptly commence such disputed work and expeditiously complete it. If the parties cannot agree on the compensation or time extensions, Subcontractor shall nevertheless proceed with such extra work, and the question of entitlement or amount of compensation and/or extensions of time shall be submitted to the process for handling disagreements over Construction Change Directives, as proscribed in the Prime Contract.

g. Cooperation. Contractor shall cooperate with Subcontractor in submitting Change

Order Requests to Owner for alterations, additions, or deletions of the Work, but this shall not be interpreted as an attempt to create any direct contractual relationship between Subcontractor and Owner or to permit Subcontractor to engage in direct negotiations with Owner. Any extra work performed without written order from Contractor, regardless of Owner's direction, will be at Subcontractor's sole expense.

h. Work Orders from Contractor. With respect to any extra work ordered by Contractor for its own convenience and not related to a change, changed condition, or extra work under the Prime Contract, Subcontractor shall make no claim therefore unless the work shall have been fully agreed on in writing by Contractor's Project Manager and/or an officer of Contractor prior to the performance of such extra work. Any such extra work performed without such written order from Contractor's Project Manager and/or an officer of Contractor will be at Subcontractor's sole expense. For changes in the Work that increase or decrease Subcontractor's compensation amount set forth in Section 4 of this Agreement or affect construction time, Subcontractor shall notify Contractor of the scope of any change in cost or time within three (3) days after receipt of the proposed change and shall submit the actual Change Order Request within five (5) days after receipt of the proposed change. In all events, Subcontractor shall submit any claim it has for such extra work no later than five (5) days from commencement of its work, with time being expressly of the essence. Such claim shall set forth the extra work to be done pursuant to the Work Order, the compensation thereof, and any extension of time necessarily occasioned thereby. Contractor may order extra work without invalidating this Agreement. If the parties cannot agree on the compensation or time extensions, Subcontractor shall nevertheless proceed with such extra work, and the question of entitlement or amount of compensation and/or extensions of time shall be submitted to the dispute resolution procedures provided below in this Agreement.

i. Cost. No change or extra work directed by Contractor shall invalidate any bond or bonds to be furnished by Subcontractor.

23. TERMINATION OF AGREEMENT. In the event the Prime Contract is terminated prior to its completion, Subcontractor shall be entitled only to payment for the work actually completed by it on a pro-rata basis, unless Contractor itself receives additional compensation or damages on account of such termination; in which event, Subcontractor shall be entitled to such proportion of the additional compensation or damages actually received as is equitable under all of the circumstances. Nothing herein contained shall require Contractor to make any claim for

such additional compensation or damages in the event of termination before completion, and it is specifically agreed that the failure of Contractor to prosecute any such claim shall not entitle Subcontractor to any claim for additional compensation or damages against Contractor.

Notwithstanding the preceding paragraph, Contractor reserves the absolute right to terminate this Agreement. In the event of termination without cause, Subcontractor shall be entitled to payment only as follows:

- a. Cost of the work actually completed in conformity with this Agreement; plus
- b. Other costs actually incurred by Subcontractor; plus
- c. Twenty percent (20%) of costs referred to in subparagraph a. above for overhead and profit.

There shall be deducted from such sums as provided in this Section the amount of any payments made to Subcontractor prior to the date of termination of this Agreement. Subcontractor shall not be entitled to any claim, or claim of lien, against Contractor for any additional compensation or damages in the event of such termination and payment.

In the event this Agreement is terminated for cause, Subcontractor shall not be entitled to receive any further payment until the work undertaken by Contractor in the Prime Contract is completely finished. At that time, if the amounts earned but not paid Subcontractor before said termination exceed the expenses incurred by Contractor in finishing Subcontractors work, any excess shall be promptly paid to Subcontractor the amount by which said sum exceeds the expense; but, if such expense exceeds said amount, Subcontractor shall promptly pay Contractor the amount by which the expense exceeds said sum. The expense incurred by Contractor, as just referred to, shall include Contractors expense for furnishing materials, for finishing the work, for attorneys fees, and any damages incurred by Contractor by reason of Subcontractors default, plus twenty percent (20%) as overhead.

24. ASSIGNMENT. Subcontractor may not assign this Agreement or any part hereof or any estimate or payment hereunder without Contractors prior written consent, which may be given or withheld in Contractors sole discretion.

25. SUBCONTRACT APPROVAL AND RENEGOTIATION. This Agreement is subject to approval by Owner, but shall be effective in absence of specific written disapproval by Owner. This Agreement is subject to applicable current codes and statutes regarding renegotiations.

26. PAYROLLS. Payrolls and affidavits covering all labor performed by Subcontractor on this Agreement will be submitted directly to Contractor at the address provided below in this Agreement.

It is required that weekly payrolls and affidavits of Subcontractor be submitted in the format described in the Prime Contract specifications within days after the normal weekly payday.

Payrolls must set out accurately and completely, the name, exact occupation, hourly wage rate, hourly overtime wage rate, hours worked each day, total regular and total premium time hours worked each week, gross pay, deductions (listed separately and clearly identified), and net amount paid to each employee. A letter requesting permission for all deductions must be submitted to Contractor prior to first payroll. An affidavit must accompany each payroll describing all deductions taken on each weekly payroll.

27. SECOND TIER SUBCONTRACTORS. Subcontractor shall not sublet the work to be performed under this Agreement either in whole or in part without the written consent of Contractor. All subcontracts under this Agreement shall be subject to the provisions of the Prime Contract and this Agreement but shall create no contractual relationship with Contractor. All payroll regulations and requirements will apply to Subcontractors under this Agreement.

28. ENGINEERING. Subcontractor shall furnish all layout and engineering in connection with Subcontractors work, unless specifically provided for otherwise, conforming with the initial lines and grades established in the Prime Contract. Subcontractor shall be responsible for all shop drawings, and As Built drawings if required under the Prime Contract.

29. TEMPORARY UTILITIES. Utilities of the nature normally mobilized by Contractor (water, power, telephone, storage space, etc.) will be made available for Subcontractors use for a nominal fee, contingent on overall job requirements and needs of others. If Contractor has facilities available for board and lodging of employees, the facilities will be made available to Subcontractors employees, when space is available, at the rate established for the project. Contractor will not, however, guarantee availability of facilities unless specifically provided for otherwise.

30. LABOR RELATIONS. Subcontractor shall comply with, observe, and be bound by all terms and provisions of any collective bargaining Agreements executed by Contractor or on Contractors behalf. If any portion of Subcontractors work is further subcontracted, such further Subcontractor shall be bound by and observe terms and provisions of such collective bargaining Agreements to the same extent as is required of Subcontractor. An expressed provision imposing such obligation on the further Subcontractor shall be included in any such further subcontract.

Subcontractor will indemnify Contractor from and against any liability, claim, or loss, damage or cause of action resulting in any way, directly or indirectly, from its failure to comply with the requirements of this Section, under the specific terms and conditions set forth in Section 12 herein.

31. EQUAL OPPORTUNITY. During the performance of this Agreement, Subcontractor agrees not to discriminate against any employee because of race, color, creed, or national origin.

32. SPECIAL PROVISIONS. Subcontractor shall comply with all federal, state, territorial, and local codes and statutes of the area involved and shall indemnify Contractor against any claims or liens as a result of acts or omissions on the part of Subcontractor with respect to any noncompliance, under the specific terms and conditions set forth in Section 12 herein.

33. PUBLIC PROTECTION. Subcontractor shall provide, erect, and maintain proper warning signals, signs, lights, barricades, and fences on and along the line of the work and shall take all other necessary precautions for the protection of the work and safety of the public. Subcontractor shall indemnify Contractor from any liability for damage to the work, or for injury or damage to persons or property occurring on or about the project work area or in connection therewith, pursuant to the terms and conditions set forth in Section 12 herein.

34. COOPERATION. Subcontractor shall cooperate fully with other Subcontractors employed on the work and shall so plan and conduct the work to be performed as not to interfere with their operations. Contractor will not be responsible for any delays or interference resulting from the acts or operations of other Subcontractors, suppliers, or organizations.

35. EXAMINATION OF SITE DRAWINGS, SPECIFICATIONS, AND OTHER DOCUMENTS. Subcontractor represents that it has visited the location of the project and has fully acquainted itself with conditions as they exist, or has had full opportunity to do so, and has satisfied itself that it fully understands the facilities, difficulties and restrictions attending the performance of Subcontractors work. Subcontractor further represents that it has thoroughly examined the plans, specifications, and any addenda or other documents, all of which have been made part of this Subcontract, pursuant to Section 3 hereof, or has had full opportunity to do so. Subcontractor agrees that any failure to receive or examine any form, instrument, drawing, or other document, or any failure to visit the site and acquaint itself with conditions there existing, shall not be asserted to relieve Subcontractor from any obligation under this Agreement. Subcontractor agrees that where the specifications to any part of the project require a given result to be produced, that the specifications and plans are adequate and that it is competent to produce the required result. Subcontractor shall present any and all questions regarding the plans or specifications to Contractor via a written Request for Information (RFI) form. Subcontractor agrees not to make any claim for any extra because of alleged impossibilities in the production of the specified results or because of inadequate or improper plans, drawings, or specifications and that where ever a result is required by this Agreement, Subcontractor will furnish any and all extras and make any changes needed to produce to the satisfaction of the Contractor the result required. Unless Contractor expressly certifies information respecting the site of the project as correct and accurate, any information respecting the site of the project shall be deemed to have been furnished to Subcontractor without warranty or representation either as to its completeness or accuracy and Contractor shall have no liability therefor so long as such information was furnished to Subcontractor in good faith.

36. SAFETY. Subcontractor shall cooperate with Contractor and Owner in efforts to

prevent injuries to any workers employed in carrying on operations covered by this Agreement and to adopt and place in effect any and all safety requirements of Contractor or Owner implemented at the site to promote safety and safe working conditions, including, but not limited to, the requirements set forth in Contractor's written Code of Safe Practices which is hereby incorporated herein in full by this reference. Subcontractor, by signing this Agreement, hereby acknowledges receipt of the Code of Safe Practices referenced above prior to commencing its work under this Agreement. Should Subcontractor consistently fail to adhere to the requirements of that Code or any other safety requirement implemented by Contractor and Owner while working on the site, fail to maintain Subcontractor's equipment in safe operating condition and/or should Subcontractor's operation be characterized by abnormally frequent injuries to workers, then, at the option of Contractor, after the first such offense, may fine Subcontractor \$250.00 for said first offense by back charging that fine to the contract price pursuant to Section 22 of this Agreement. Upon the second offense, Contractor may, at its option, fine Subcontractor up to \$1,000.00, to be back charged against the contract price under that same protocol. After 3 or more violations of this provision, this Agreement, on forty-eight (48) hours written notice to Subcontractor, may be terminated as per the terms of Sections 8 herein. Additionally, Subcontractor shall defend, indemnify and hold Owner and Contractor harmless for any safety violations, fines, levies and the like which may arise out of Subcontractor's work under the terms and conditions set forth in Section 12 of this Agreement.

37. GUARANTEE. Subcontractor agrees to warrant and guarantee all subcontract workmanship and materials for such period as is required of Contractor by Owner, and shall deliver any required warranties or guarantees to Contractor at the completion of the Project, as per Section 9 herein.

38. CLEAN-UP. On completion of any unit of the work, and on final completion thereof, Subcontractor shall clean up all refuse and rubbish around or alongside the site caused by Subcontractor, and remove promptly all excess materials, tools, structures, and the like, that may have been brought on the premises or erected by Subcontractor. In the event of the failure of Subcontractor to do so, Contractor, after giving reasonable notice, may clean up the premises at the cost and expense of Subcontractor. In the event of the failure of the subcontract to do so, Contractor, after giving written twenty-four (24) notice, may clean up the Project at a rate of not less than \$55.00 per hour, all at the cost and expense of the Subcontractor. Notwithstanding any of the foregoing to the contrary, ON NOT LESS THAN A DAILY BASIS, Subcontractor shall clean up all refuse and rubbish around or alongside the site caused by Subcontractor.

39. RESPONSIBILITY FOR OTHER CRAFTS. Subcontractor shall assume full responsibility for defective work of others, if it accepts said work, or materials, and proceeds with its phase of the work without written notification to Contractor.

40. CORRECTION OF WORK AFTER COMPLETION. If, within one year of occupancy or completion, whichever occurs last, any work by Subcontractor is found to be defective, Subcontractor shall correct it at Subcontractor's expense promptly after receipt of written notice from Contractor to do so. Subcontractor shall respond to Contractor



acknowledging receipt of the warranty notice within forty-eight (48) hours of receipt of the Contractor's warranty notice. Should Subcontractor fail to correct said work within two (2) weeks of notice, Contractor may repair or replace said defect and charge Subcontractor for the reasonable amount of said repair or replacement.

Subcontractor shall be bound to Contractor to the same extent that Contractor is bound to Owner, the one-year requirement of correction to the contrary notwithstanding, for any claim, liability, loss, damage, cost, cost expense, including reasonable attorneys fees, awards, fines or judgments arising by reason of all work which is covered by this Agreement or any amendment thereto. The terms and conditions of this provision do not supplant or waive any of Contractor's legal rights or remedies as against Subcontractor arising out of all work which is covered by this Agreement or any amendments thereto.

41. NOTICES. Any notice from one party to another shall be delivered either personally, via facsimile or by United States mail, postage fully prepaid, addressed as follows:

Contractor:

Eleven Western Builders, Inc.  
2862 Executive Place  
Escondido, CA 92029-1524  
Fax No. (760) 796-6360

Subcontractor:

Any notice being delivered within the continental United States shall be deemed delivered upon (a) personal service, or (b) transmission via facsimile (with the original thereof to be immediately sent via mail, postage prepaid), or (c) forty-eight (48) hours after the time of deposit in the mail, as the case may be. In the event any party changes its address, such change of address shall be communicated to the other party in the manner set forth in this numbered paragraph.

42. AMENDMENT. This Agreement shall be amended only by a writing signed by the parties. If such a written amendment is entered into, such written amendment shall modify only the provisions of this Agreement specifically modified and shall be deemed to incorporate by reference, unchanged, all remaining provisions of this Agreement.

43. ARBITRATION. If the Prime Contract identified in Section 1.a, above calls for arbitration, then any claim or dispute arising out of or relating to the contract or the work, identified in Section 2 of the contract, shall be subject to arbitration under the terms and

conditions set forth in the prime contract, which are, as the parties have agreed in Section 1.a, fully incorporated into this agreement. Further, if an arbitration concerning, relating to or arising out of Subcontractors work is commenced between Owner and Contractor, Subcontractor will, on demand of Contractor, become a party to such arbitration proceedings and shall submit to any award that may be rendered therein.

44. ATTORNEYS FEES. In the event any party shall be required to commence any action or proceeding against the other party by reason of any breach or claimed breach of any provision of this Agreement, to commence any action or proceeding in any way connected with this Agreement, or to seek a judicial declaration of rights under this Agreement, the party prevailing in such action or proceeding shall be entitled to recover from the other party, or to be reimbursed, the prevailing party's actual attorneys fees and costs including, but not limited to, expert witness fees, witness fees, and any and all other fees and costs, whether or not the proceeding or action proceeds to judgment.

45. CONSTRUCTION. Whenever used in this Agreement as the context requires, the singular number shall include the plural, the plural number shall include the singular, the masculine gender shall include the feminine and neuter, the feminine gender shall include the masculine and neuter, and the neuter gender shall include the masculine and feminine.

46. HEADINGS AND CAPTIONS. The headings and captions at the beginning of various paragraphs and subparagraphs of this Agreement shall not be construed to be a substantive part of this Agreement and shall not in any way define, limit, expand or affect any provision of this Agreement.

47. FURTHER ACTS. Each party shall perform any further acts and sign and deliver any further documents that are reasonably necessary to carry out the provisions of this Agreement.

48. GOVERNING LAW. This Agreement shall be governed under the laws of the State of California and jurisdiction shall lie in San Diego County, California.

49. ENTIRE AGREEMENT. This Agreement contains the entire understanding between the parties and supersedes any prior or contemporaneous written or oral agreements between the parties. There are no representations, warranties, agreements, arrangements, or understandings, oral or written, between the parties relating to the subject matter of this Agreement.

50. COUNTERPARTS. This Agreement may be signed in one (1) or more counterparts, each of which shall constitute an original but all of which together shall be one (1) and the same document.

51. STATE LICENSE BOARD. CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS STATE LICENSE BOARD WHICH HAS JURISDICTION TO INVESTIGATE COMPLAINTS AGAINST CONTRACTORS IF A COMPLAINT IS FILED WITHIN THREE YEARS OF THE DATE OF

THE ALLEGED VIOLATION. ANY QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS STATE LICENSE BOARD, P.O. BOX 26000, SACRAMENTO, CALIFORNIA 95826.

Contractor:

Subcontractor:

ELEVEN WESTERN BUILDERS, INC.,  
a California corporation

By: \_\_\_\_\_

By: \_\_\_\_\_

Its: \_\_\_\_\_

Its: \_\_\_\_\_

Attachment A

13) INSURANCE. Subcontractor shall take out and furnish satisfactory proof, by Certificate and specific policy endorsements, that Subcontractor has procured insurance coverage with insurance carrier(s) satisfactory to Owner and Contractor and in such form as shall be satisfactory to Owner and Contractor. Such liability insurance shall protect Owner and Contractor against loss, including death by any person or persons, except as covered by Workers Compensation Insurance, resulting directly or indirectly from the performance or execution of the work specified in this Agreement or any contract thereunder. On all such policies of insurance the Owner and Contractor shall be named as Additional Insured. Subcontractor shall furnish Certificates of Insurance and policy endorsements to Contractor before commencing work hereunder. Subcontractor will maintain the following types of insurance, coverage, limits of liability, and other requirements, throughout the life of the project, including all warranty periods and the costs of this is included in the Agreement price.

- a. Comprehensive General Liability Insurance. Subcontractor shall furnish a Certificate of Insurance showing evidence of Commercial General Liability coverage on ISO Form CG0001, or its equivalent, which includes Contractual Liability covering the Subcontractors obligations under this Agreement, as well as coverage on all of Contractors equipment owned, hired or used in the performance of the work, with limits not less than:
- (1) 2,000,000 General Aggregate;
  - (2) 1,000,000 products - Completed Operations Aggregate;
  - (3) 1,000,000 Personal Injury Liability; and
  - (4) 1,000,000 each occurrence (combined single limit for bodily injury and property damage).

The above-referenced Commercial General Liability coverage shall include:

- (1) A per project general aggregate endorsement;
- (2) Explosion, collapse and underground coverage; and
- (3) Subsidence/earth movement coverage.

The required insurance certificate, as identified above, must have the CG2010(11/85) endorsement attached naming the following as additional insureds:

- (1) Eleven Western Builders, Inc.;
- (2) Project owner, as identified in Section 1, above; and
- (3) Any other person or entity required by the Contractor or Owner to be named as an additional insured.

The Additional Insured Endorsement must be attached to the Certificate and state that this insurance is primary to any other insurance. Endorsements, which limit or exclude coverage, will need to be attached to the certificate.

- b. Automobile Liability Insurance. Subcontractor shall supply a certificate of insurance showing commercial Automobile Liability Coverage, including Contractual Liability, covering all motor vehicles owned, hired or used in the performance of the work, with limits not less than:

- (1) One Million Dollars each occurrence (combined single limit for bodily injury and property damage);

- c. Excess Liability Insurance, Umbrella Form. Subcontractor shall supply a Certificate of Insurance showing evidence of Umbrella or Excess liability coverage with the following limits:

- One Million Dollars each occurrence; and
- One Million Dollars aggregate.

- d. Workers Compensation and Occupational Disease Insurance. Subcontractor shall supply a Certificate of Insurance showing Workers Compensation Employees liability coverage, with limits not less than:

- One Million Dollars each/accident (bodily injury by accident);
- One Million Dollars/disease - policy limit (bodily injury by disease); and
- One Million Dollars/disease - each employee (bodily injury by disease).

A waiver of subrogation endorsement (WC 04 03 06) shall be attached in favor of Contractor and the project owner identified in Section 1, above.

- e. PROFESSIONAL LIABILITY. If Subcontractor is a licensed architect, engineer or designer; provides architecture, engineering or design services or retains any said services, a Certificate of Insurance shall be supplied showing errors and omissions coverage in an amount not less than One Million Dollars per occurrence.
- 14) Subcontractor is to include the provisions of Section 13 in all third party contracts, and is to require those third party Contractors to furnish insurance certificates, which evidence their compliance with that Section. Subcontractor agrees to provide Contractor with copies of third party Contractor insurance certificates or otherwise verify to the Contractor that the appropriate insurance certificates have been received prior to the commencement of work under said third party contract.
  - 15) All insurance policies identified in Section 13 shall contain a provision that the coverage's afforded thereunder shall not be canceled or not renewed, nor restrictive modifications added, unless at least thirty (30) calendar days prior written notice has been given to the Contractor.
  - 16) In the event Contractor receives written notice from the insurer that the insurance of Subcontractor has been canceled, and Contractor has not received certificates verifying that Subcontractor has procured new or substitute insurance as specified herein, then it is agreed that Contractor may, but is not obligated to, procure such insurance and charge all premiums plus a reasonable sum of overhead to Subcontractors account, all of which sums may be deducted from any amounts due Subcontractor.
  - 17) All insurance policies identified in Section 13 shall (i) provide that coverage afforded to Contractor is primary and any other insurance in force for Contractor will be excess and will not contribute to the primary policies; and (ii) be written by insurance companies with an A.M. Best's rating of A VII and be admitted in California. Any deviation from the requirements set forth in this Section must be approved in writing by Contractor.
  - 18) All certificates must be in the office of Contractor prior to any work being commenced on the project. Failure to supply the required insurance coverage will cause removal of the Subcontractor from the job site and withholding of any payments.
  - 19) The carrying of the insurance described above shall in no way be interpreted as relieving the Subcontractor of responsibility or liability under this Agreement or otherwise.
  - 20) The Subcontractor shall maintain completed operations liability insurance for ten years after acceptance of the subcontract work, substantial completion of the Project, or to the time required by the subcontract documents, whichever is longer. The Subcontractor shall furnish the Contractor evidence of such insurance at the time of completion of the subcontract work.



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	
	INSURER(S) AFFORDING COVERAGE	NAIC #
INSURED	INSURER A :	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
	INSURER F :	

**COVERAGES**

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	<b>GENERAL LIABILITY</b>						EACH OCCURRENCE \$
	<input type="checkbox"/> COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$
	<input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR						MED EXP (Any one person) \$
							PERSONAL & ADV INJURY \$
							GENERAL AGGREGATE \$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG \$
	<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						\$
	<b>AUTOMOBILE LIABILITY</b>						COMBINED SINGLE LIMIT (Ea accident) \$
	<input type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$
	<input type="checkbox"/> ALL OWNED AUTOS						BODILY INJURY (Per accident) \$
	<input type="checkbox"/> HIRED AUTOS						PROPERTY DAMAGE (Per accident) \$
	<input type="checkbox"/> SCHEDULED AUTOS						\$
	<input type="checkbox"/> NON-OWNED AUTOS						
	<b>UMBRELLA LIAB</b>						EACH OCCURRENCE \$
	<input type="checkbox"/> OCCUR						AGGREGATE \$
	<b>EXCESS LIAB</b>						\$
	<input type="checkbox"/> CLAIMS-MADE						
	DED						
	RETENTION \$						
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b>						WC STATU-TORY LIMITS
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/MEMBER EXCLUDED? (Mandatory in NH)						OTH-ER
	If yes, describe under DESCRIPTION OF OPERATIONS below	<input type="checkbox"/> Y / <input type="checkbox"/> N	<input type="checkbox"/> N / <input type="checkbox"/> A				E.L. EACH ACCIDENT \$
							E.L. DISEASE - EA EMPLOYEE \$
							E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

**CERTIFICATE HOLDER****CANCELLATION**

	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

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**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**ADDITIONAL INSURED – OWNERS, LESSEES OR  
CONTRACTORS – SCHEDULED PERSON OR  
ORGANIZATION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

**SCHEDULE**

<p><b>Name of Person or Organization:</b></p>
---

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

**A. Section II – Who Is An Insured** is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of your ongoing operations performed for that insured.

**B.** With respect to the insurance afforded to these additional insureds, the following exclusion is added:

**2. Exclusions**

This insurance does not apply to "bodily injury" or "property damage" occurring after:

- (1) All work, including materials, parts or equipment furnished in connection with such work, on the project (other than service, maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the site of the covered operations has been completed; or
- (2) That portion of "your work" out of which the injury or damage arises has been put to its intended use by any person or organization other than another contractor or subcontractor engaged in performing operations for a principal as a part of the same project.

Attachment B



**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – (FORM B)**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART.

**SCHEDULE**

**Name of Person or Organization:**

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" for that insured by or for you.

Attachment B



**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**ADDITIONAL INSURED – OWNERS, LESSEES OR  
CONTRACTORS – COMPLETED OPERATIONS**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

**SCHEDULE**

<b>Name of Person or Organization:</b>
<b>Location And Description of Completed Operations:</b>
<b>Additional Premium:</b>

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

**Section II – Who Is An Insured** is amended to include as an insured the person or organization shown in the Schedule, but only with respect to liability arising out of "your work" at the location designated and described in the schedule of this endorsement performed for that insured and included in the "products-completed operations hazard".

Attachment B



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**WAIVER OF OUR RIGHT TO RECOVER FROM OTHERS ENDORSEMENT-CALIFORNIA**

We have the right to recover our payments from anyone liable for an injury covered by this policy. We will not enforce our right against the person or organization named in the Schedule. (This agreement applies only to the extent that you perform work under a written contract that requires you to obtain this agreement from us.)

You must maintain payroll records accurately segregating the remuneration of your employees while engaged in the work described in the Schedule.

The additional premium for this endorsement shall be \_\_\_\_% of the California workers' compensation premium otherwise due on such remuneration.

Person or Organization	Schedule	Job Description
<p>Attachment B</p>		

## **IX. CODE OF SAFE PRACTICES**

- Never walk past an unsafe condition or act without correcting it.
- Report unsafe equipment, hazardous conditions, and unsafe acts to your foreman or superintendent.
- Do not take shortcuts. Use ladders, ramps, and stairways.
- Toilets and other sanitary facilities as needed are provided for you on the jobsite. Do your part to keep them clean for the next person.
- Be considerate of the welfare of fellow employees. Do not distract their attention or engage in horseplay.
- Familiarize yourself with the jobsite emergency procedure.
- No one is permitted to work on this project under the influence of illegal drugs; alcohol; prescription medication that could affect safety; or other substances that could influence their reflexes, reaction to situations, or thought process.
- Please notify your immediate supervisor if you are allergic to insects, are diabetic, have epilepsy, or other problems that could lead to an emergency situation. (This information will be held confidential except on a need to know basis to help protect your well-being.)
- All parking will be acceptable only in assigned staging areas. Loading and unloading are allowed to take place at the entry areas during the loading process only.
- All personnel are required to attend a brief safety meeting each Tuesday. This meeting will cover a relevant topic each week and will take ten to fifteen minutes.

### **FALL PROTECTION**

#### **Duty to have Fall Protection**

All workers must be protected from the hazard of falls whenever work is being completed at heights of 6 feet or greater. This rule, at minimum, applies to the following conditions:

- Walking and working surfaces
- Unprotected sides and edges
- Hoist areas
- Holes
- Formwork and reinforcing steel
- Ramps, runways, and other walkways
- Excavation and trenching
- Dangerous or large pieces of equipment
- Overhand bricklaying and related work
- Roofing Work (Low Slope Roof)

- Steep Roofs
- Precast concrete erection
- Wall openings
- Floor openings
  - Leading edge
  - Scaffolding erection/dismantle
  - Any additional circumstance that may be deemed necessary by EWBI.

### **Fall Protection Systems**

Anytime a potential fall hazard of 6 feet or more exists, a suitable fall protection system must be provided to protect the worker. Examples of suitable systems include the following:

- Guardrail Systems
- Catch Deck Systems
- Safety Net Systems
- Positioning Device Systems
- Personal Fall Protection (Arrest)
- Warning Line System
- Safety Monitoring System (for roofing work only)
- Controlled Access Zone

### **Skylight Fall Protection Policy**

#### New Projects

- The Project Manager shall ensure that the skylight curbs are purchased with OSHA/NIOSH approved fall protection installed in the curb.
- The Project Manager shall contract with the structural steel subcontractor to install the skylight curbs at the same time as decking is installed. If building a wood structure, contract shall be with the rough framing subcontractor.
- The Project Superintendent shall ensure that the deck opening is cut and the skylight curbs are set simultaneously. The Superintendent shall also ensure that fall protection is used per OSHA requirements.
- The Project Superintendent shall ensure that the skylight lenses are installed as soon as roofing is complete for added protection.

#### Remodel Projects

- The Project Superintendent shall ensure that the roof opening will be covered, secured and marked immediately after removal of the skylight, with no less than 3/4" plywood, if skylights are to be demolished and not replaced or are to be relocated.
- The Project Manager shall ensure that the demolition subcontractor is contracted to cover, secure and mark all roof openings until they are reframed and filled.
- The Project Superintendent shall ensure that all roof openings are covered, secured and marked at all times, except when being worked on.
- The Project Superintendent shall ensure the proper use of fall protection equipment when roof openings are being worked on or demolished.
- The Project Manager shall ensure that the skylight curbs are purchased with OSHA/NIOSH approved fall protection installed in the curb.

- The Project Manager shall contract with the structural steel subcontractor to install the skylight curbs at the same time as decking is installed. If building a wood structure, contract shall be with the rough framing subcontractor.
- The Project Superintendent shall ensure that the deck opening is cut and the skylight curbs are set simultaneously. The Superintendent shall also ensure that fall protection is used per OSHA requirements.
- The Project Superintendent shall ensure that the skylight lenses are installed as soon as roofing is complete for added protection.

### **Falling Object Protection Systems**

Anytime a potential hazard of falling objects exists, suitable systems must be provided to protect workers. Examples of suitable fall object protection systems include the following:

- Covers
- Toe boards
- Screens
- Guardrail Systems
- Barricades
- Canopies

### **Personal Protection**

Personal fall protection equipment is designed to control the fall of a worker and minimize the injury once a worker has fallen. Personal fall protection equipment consists of the following components:

- Full body harness
- Shock absorbing lanyard or retractable
- Tie off point (anchorage)
- Training

### **Specific Requirements**

- Safety harnesses are the only acceptable means of personal fall protection equipment permitted on any EWBI project; the use of body belts is not permitted except for positioning systems only.
- Each subcontractor and tiered subcontractor is responsible for providing and requiring the use of safety harnesses, lifelines, and lanyards when workers are exposed to a fall of 6 feet or greater.
- All lanyards must be equipped with double locking snap hooks.

### **Floor & Wall Openings and Guard Rail Systems**

- To control conditions where there is a danger of workers or materials falling through floor, roof, perimeter edges, or wall openings, such openings shall be covered/protected, secured, and marked with a warning sign (i.e., DANGER HOLE, DO NOT REMOVE).
- All protection systems are to be maintained at all times. Any violation that is not rectified immediately will result in removal of the responsible supervisor. Further violations will result in termination for cause of the responsible subcontractor's

contract.

### **Floor Openings**

Floor opening covers shall be capable of supporting the maximum intended floor load and installed to prevent accidental displacement. Covers should be distinctively marked and anchored. For purposes of covering, a floor opening is defined as any opening from 2" up to 16 square feet. All others must be protected with top and intermediate rail and toe board.

### **Rail Systems**

Standard Railing: A standard railing should consist of a top rail, intermediate/mid-rail, toe board, and posts:

- The top rail should be approximately 42 inches from the upper surface of the rail to the floor, platform, or ramp level. The top rail should have a smooth surface throughout its length and be made of at least 2-inch by 4-inch stock, 3/8-inch double clamped wire rope or its equivalent. It should be secured to withstand a 200-pound, horizontal force with minimum deflection.
- The mid-rail should be halfway between the top rail and the floor, runway, platform, or ramp. The ends of the rail should not overhang the terminal posts except when it does not constitute a projection hazard. The mid-rail sill should be made of at least 1-inch by 6-inch stock or its equivalent.
- The toe board should have a 4-inch minimum height and should be securely fastened in place with no more than 1/4 inch clearance above the floor level.
- Posts (verticals) should be spaced so as not to exceed 8 feet on center.

### **Guard Rail Openings**

- Work that requires the opening of guardrails or the removal of hole covers shall be approved in advance by the EWBI Superintendent.
- Particular attention shall be given to the alternate means of fall protection required to safely perform the work and protect other workers in the vicinity of the fall exposure.
- Those who remove the rail, are responsible for replacing it in a manner meeting or exceeding local, state or federal practices, whichever may be more stringent.

### **Fall Protection Training**

Subcontractors and all tier subcontractors must provide fall protection training to their workers before exposing them to the hazards of working from heights. Documentation of training must be forwarded to EWBI upon request. Training must include, at a minimum:

- The nature of the fall hazards in the work area.
- The correct procedure for erecting, maintaining, disassembling and inspecting the fall protection systems to be used (the installation of personal fall protection systems cannot in themselves create a fall hazard exposure to the worker installing the system).
- The use and operations of guardrail systems, personal fall protection equipment, safety net systems, warning line systems, safety monitoring, controlled access zones and any

- other methods of protection to be used.
- The role of each worker in the safety monitoring system when this system is approved for use.
- The limitations on the use of mechanical equipment during the performance of roofing work on low-sloped roof.
- The correct procedures for the handling and storage of equipment and materials and the erection of overhead protection.
- The role of workers in fall protection plans.

## **LIFTING**

Proper lifting techniques are your best defense in avoiding back injuries. The following guidelines must be followed by all personnel within our organization.

- Get help either from another person or from equipment for heavy loads or materials that are awkward to pick up.
- Never jerk to lift, push, or pull an object. Gradually apply more pressure on the load.
- The following rules for safe lifting must also be followed.
  - Place your feet about shoulder width apart.
  - Straddle or get as close as possible to any load you are getting ready to pick up.
  - Bend your knees while keeping your back as straight as possible. Never bend from the waist.
  - Get a firm hold on the object.
  - Lift with your legs – not your back.
  - Keep your back straight – if you must turn with the load, move your feet do not twist your back.

## **PERSONAL PROTECTIVE EQUIPMENT**

Personal protective equipment (PPE) is equipment provided for you, in most cases, by the company and is intended to help protect you from physical harm. The following rules are to be followed as a minimum for use of PPE.

- All employees, visitors, and vendors must wear an OSHA approved hard hat with the bill facing forward in construction areas. (“Bump caps” are not permitted.)
  - Do not drill holes in hard hats.
  - Do not alter the suspension in hard hats.
  - Do not carry things in hard hats between the outer shell and the harness. (You will need this area for your head if something hits the hard hat.)
  - Welders shall wear hard hats with attachments for welding hoods. (Use of a welding hood shall permit the wearing of a hard hat with the bill facing to the rear.)

- ☑ Sturdy work boots at least six (6) inches high in good condition shall be worn at all times while in the work areas. Tennis shoes are not to be worn on any job-site (Safety toe boots are recommended.)
- ☑ Hard toe rubber boots are required for working in wet concrete and pooled water areas.
- ☑ Do not wear loose or baggy clothing. Full-length pants and shirt with at least a four-inch sleeve in addition to other required PPE shall be considered the minimum. (Shorts and tank tops or other shirts that do not have sleeves at least four (4) inches long are not allowed.)
- ☑ Work during times when it is dark, in the street, on underground utilities, or when heavy equipment is being operated shall require wearing of high visibility vests with reflective tape sewn in. (Coveralls with reflective material may be required for flaggers and others working in or near heavy traffic or earthmoving equipment).
- ☑ Areas where there is excessive dust, fumes, chemical particulate or chemical vapor may require the use of dust masks (N95) or respirators. No one is to work in a questionable area or wear a respirator without medical evaluation, onsite training, and fit testing. If you have questions about the need for a respirator, ask your foreman or superintendent.
- ☑ Hearing protection is required in high noise areas. If you cannot hear normal conversation over surrounding noise, you probably need hearing protection. Earplugs are provided in most cases. If you are unable to wear earplugs, tell your foreman. Earmuffs will be provided.
- ☑ Full body harnesses and shock absorbing lanyards are required for all work that places your feet seven and one half (7-1/2) feet higher than the surrounding area.
- ☑ Gloves are required when your hands are exposed to sharp edges, splinters, chemicals (including wet concrete), excessive heat, sparks, or possible biological hazards. Use rubber/vinyl gloves for wet materials.
- ☑ Safety glasses are to be worn at all times while in the work areas. Specific activities will require additional eye protection.
  - Tight fitting mono-goggles are required for windy conditions, handling chemicals, or blowing materials.
  - Full-face shields are required in addition to safety glasses for chain saw use, using a blowpipe, grinding, or other high hazard activities where your face and neck need protection. Full-face shields may be plastic or approved wire mesh.
  - Approved tight fitting burning goggles shall be worn for all torch work.

## **FIRST AID**

Facilities have been set up to provide first aid in the event that minor injuries occur.



- Report all injuries to your supervisor/superintendent immediately, no matter how minor. Treatment will be given and the injury recorded. Late reports of injury may be cause to question the validity of the injury in the event that further medical treatment is needed.
- If you require medical treatment on your own or after hours for a work-related injury or illness, you must notify your supervisor/superintendent immediately. Arrangements will be made for you to go to an insurance company approved facility. You may be required to receive further evaluation from company specified medical personnel.
- Prior to returning to work after an injury or illness requiring a doctor's treatment, you must present a "Return to Work" slip from the doctor to EWBI's Management staff. All work restrictions noted must be adhered to.
- If you have a physical handicap, such as diabetes, impaired eyesight or hearing, back trouble, hernia, aversion to heights, or if you are on medication, tell your supervisor. (You will not be expected to do a job that might result in injury to yourself or others. A note from your treating doctor may be required)
- Drugs, tranquilizers, and insulin must not be taken on the job unless authorized in writing by your personal physician.
- Never move an injured or seriously ill person unless necessary to prevent further injury. First aid should not be administered by non-designated employees except in case if severe bleeding or if someone stops breathing. Emergency steps for notifying first aid are posted in the jobsite trailer or appropriate posting location.
- Change clothes immediately if wet concrete gets on areas next to your skin. Report any concrete burns immediately to the Superintendent/Safety Department.
- First Aid/CPR classes will be provided periodically by the company. Employees who are not required to be first aid trained may attend, as room permits, free of charge and on their own time.
- All projects are responsible to have and maintain a fully stocked OSHA approved First Aid Kit. This shall include all Subcontractors working on these projects.

## HOUSEKEEPING

Good housekeeping is one of the most important aspects of a safe job. It is important that all work areas be kept clean. Keep trash and debris out of walkways, and stairways. Pick up materials and trash and put them in a pile out of the way or in trash receptacles. Rocks and other materials cause trip hazards – keep them clear of your area.

- Do not leave exposed nails in lumber. Lumber that is to be reused must have nails pulled as soon as they are exposed. Other nails must be bent over or pulled.
- Do not create tripping hazards on stairs, scaffold platforms, walkways, and work areas by leaving loose materials, tools, or debris in these areas.
- Cords and hoses must be tied to the side when they are placed on stairways.
- String cords and leads overhead when possible. Use “trees” with arms to keep them out of walkways. Remove cords and hoses when they are no longer needed.
- Wipe up spilled liquids immediately. If you cannot clean the spill, barricade the area and notify your foreman/superintendent so proper clean up can be arranged.
- Stay alert for trash, syringes, etc. that may be thrown into our work areas by others. Notify your foreman of any syringes or other potential disease or infection causing materials in the work area.
- Storage containers are to be placed only in designated locations. If the location has been paved, plywood must be placed under the wheels to avoid damage. The immediate area around your storage container must be kept clean and free from debris at all times. Each container must have a trash can for meal debris.

## **FIRE PROTECTION AND PREVENTION**

Our projects are sometimes located very close to houses, schools, businesses, and other places near the right of way. It is important that we are conscientious neighbors and do not cause them concern by unnecessary fires.

In case of a fire, make sure that all personnel are safe then use water hoses, fire extinguishers, or other appropriate materials (dirt) to contain the fire until the fire department arrives. Report all fires immediately to 9-1-1 and your supervisor/superintendent.

- Be familiar with the location of and how to use all fire-fighting equipment in your work area.
- At least one 2A (5 lb) rated fire extinguisher is required for every 3,000 square feet of protected space and must be within a 75 feet reach. Fire extinguishers must also be easily accessible and conspicuously placed with no obstructions.
- Inspect fire extinguishers as you walk past them. Notify your foreman/superintendent of any signs of tampering or discharge. He/she will arrange to have faulty fire extinguishers replaced.
- Only approved solvents may be used for cleaning and degreasing. The use of gasoline, fuels, and similar flammable products for this purpose is forbidden.

- Keep your work area neat.
- Keep a fire watch for activities or areas where fire hazards are severe. (Welding/ burning/ grinding near combustible materials, and insulation).
- Use shields to prevent sparks from welding, torch work, grinding or similar work from causing fires.
- All projects are responsible to have available at all times a fire extinguisher at both the storage area and at the location of any “hot work”.
- Keep a fire extinguisher close when you are welding, torch burning, or grinding.
- Flammable and combustible liquids must be handled and properly stored only in approved, properly labeled safety cans. (Safety cans must be metal, have spring-loaded lids, have a manufacturer’s screen in good condition, and be leak free.)
- Permanent fueling stations must be properly positioned (50’) away from occupied structures. “No smoking and flammable” signs must be posted along with an approved fire extinguisher.
- Place oily rags in approved metal containers with lids.
- Do not attempt any work involving a source of ignition near a pit, sewer, drain, manhole, trench, or enclosed space where flammable gasses may be present. Wait until tests have been made with an approved combustible gas sniffer and the area has been declared safe for such work.
- Only properly functioning and maintained torches may be used on the project. Torch hoses must have flashback prevention devices installed between the hose and regulators on all compressed gas bottles.
- Compressed gas bottles shall be stored and transported upright. Acetylene bottles that have been laid down for any reason for any amount of time shall be tagged out of service for at least sixteen (16) hours after they are up-righted.
- Keep electrical sources and oil away from compressed gas bottles.
- No open fire is authorized on any project.
- No smoking is allowed on any project.

## GAS WELDING AND BURNING

In addition to rules above in Fire Prevention and Protection, specific rules must also be followed for safe gas welding and burning. They are as follow:

- ☑ When transporting gas cylinders:
  - Secure them on a cradle, sling board, or pallet. (Choker slings or other methods are not permitted.)
  - Secure the cylinders in a vertical position with the valve protective cap in place.
- ☑ Unless cylinders are firmly secured on a special carrier (oxygen-acetylene cart) intended for this purpose, remove regulators and put valve protection caps in place before cylinders are moved, even for short distances.
- ☑ Tie off cylinders to keep them from being knocked over while in use or storage. (Remember even an empty gas cylinder can break your leg if it falls over.)
- ☑ Open the cylinder valve ONLY when work is being performed. Close the valve when the cylinder is not in use.
- ☑ Keep gas cylinders in an upright position at all times, except when the cylinders are being moved or carried by hand.
- ☑ Keep gas cylinders away from the actual welding or cutting operation so that the sparks, hot slag, or flame will not reach them. (When this is impractical, use fire resistant shields to keep sparks and heat away from them.)
- ☑ Do not place cylinders where they can become part of an electrical circuit.
- ☑ Separate stored oxygen cylinders from stored fuel cylinders by a minimum of twenty (20) feet or have a firewall at least five (5) feet high between the cylinders
- ☑ Keep fuel gas cylinders with valve end up when they are in use. Do not place them in a location where they would be subject to open flame, hot metal, or other sources of artificial heat.
- ☑ “Crack” the valve (open and close slightly and quickly) on cylinders before hooking up gauges to clean any debris from the threads. Stand to the side – not in front of the opening and make sure others are in the clear. Do not crack fuel gas valves where the gas could get to a source of ignition.
- ☑ Never use torch hoses that are defective or where their condition is questionable.
- ☑ Keep all hoses, cables, and other equipment clear of passageways, ladders, and stairs.

- Inspect torches, hoses, gauges, and connections each day for leaks, faulty valves, or other defects.
- Never use defective torches, hoses, or gauges. Cylinders with defective valves shall not be used. Flashback protectors are required at the gauge end of all torch hoses.
- Never use the torch head as a hammer.
- Light torches by friction lighters only and not by matches or from hot work.
- Be sure that all oxygen and fuel gas pressure regulators, including their related gauges are in proper working order.
- Keep oxygen cylinders and fittings away from oil or grease. Oil or grease on threads of oxygen bottles may lead to an explosion.
- Never take compressed gas bottles into a confined space. Hoses going into confined spaces shall be removed from gas bottles when they are not actually in use and when not being attended.
- Only properly functioning and maintained torches may be used on the Project.

## **ARC WELDING AND CUTTING**

- Use only manual electrode holders specifically designed for arc welding and cutting. Do not place electrodes against a cylinder to strike an arc.
- Be sure leads are in good condition. Do not use them if they are defective or in need of repair. Only proper ends and connectors shall be used.
- All ground connections shall be inspected to be sure that they are mechanically strong and electronically adequate for the required current.
- Shield all arc welding and cutting operations with non-combustible or flameproof screens when possible.
- Stay alert for possible onlookers in residential areas. Children may be a special concern because they may want to watch the arc. Shields are essential in residential areas.
- Only authorized and properly trained personnel shall be permitted to perform production rail welding.

## HAND TOOLS

- Use tools only for the manufacturer's intended purpose.
- Keep your hand tools in top condition – clean, sharp, oiled, dressed, and free from abuse.
- Remove worn or damaged tools from the work area.
- Do not strike two hardened steel surfaces together. (I.e., two hammers or hammers and hardened steel shafts, bearings etc.)
- Do not use carpenters hammers where a ball peen type should be used.
- Only pry bars are to be used for pry bars. Do not use any other tool as a pry bar. “Cheater” pipes are not allowed.

## POWER HAND TOOLS

- Do not wedge, block, or remove saw guards.
- Always disconnect the power source or stop the engine on hand tools before changing blades or making other adjustments.
- All grinders with wheels larger than two (2) inches shall have the guard in place before and during use.
- Always check the rpm rating on grinding wheels against the rpm rating on the tool. Do not use wheels in tools where the tool has a higher rpm rating.
- Face shields in addition to safety glasses are required for all grinding operations. Always lean forward and tap the face shield before raising it. Small particles may be near the hinge and fall into your eyes if you do not.
- Always use shields for grinding operations that are near vegetation or other combustible materials. Have at least thirty-feet (30') of cleared area.
- Body parts are not worktables. All work with power tools requires the material be supported on sawhorses or other suitable platforms. Never attempt to saw down the side of your leg, off the side of your foot or while trying to hold material with one hand.

## PNEUMATIC (AIR) TOOLS

- Always use whip-checks at all temporary hose connections.

- ☑ Toe protectors or hard toe boots are required for all work with pavement breakers, compactors, and similar tools where foot hazards are present.
- ☑ Inspect hoses for obvious holes or worn areas before hooking them up to tools. Never use a hose that is severely worn or that has a leak.
- ☑ Hearing protection is required while using pneumatic tools.
- ☑ Always shut the air off and bleed the pressure from hoses before doing any maintenance on the tool or attempting to remove hoses.

## **FUEL POWERED TOOLS**

- ☑ Always shut off the engine while fueling the tool. No smoking or other spark making activity is permitted while fuel tools or other equipment.
- ☑ Fuel powered tools shall not be used inside buildings or enclosed areas unless approved for such use by the EWBI Superintendent. A laminated tag must be attached to the tool as required by OSHA.
- ☑ **Chainsaw** use requires face shields (plastic or screen), safety glasses under the shield and approved chaps.
- ☑ Do not wear loose or baggy clothing while using power tools. Wearing of jewelry is discouraged.
- ☑ Check with your foreman if you are not sure of the required precautions to be used for each type tool you are going to use.

## **POWDER ACTUATED TOOLS**

- ☑ Powder actuated tools may be used only by those personnel who have current training certification on the specific tool to be used. The tool manufacturer's representative shall provide certification training. Certifications cards must be kept on the person using the tool, and must be kept current.
- ☑ Safety glasses are required when anyone is using a powder-actuated tool. This requirement is also for anyone in the near vicinity to the powder actuated tool use.
- ☑ Spent cartridges and clips are to be kept picked up and properly disposed of (secured tool case). Clips shall be checked for unfired cartridges and the unfired cartridges removed before the clips are disposed of.

## MOBILE EQUIPMENT AND VEHICLES

- Seat belt use is required for all mobile equipment at all times the wheel or tracks are turning. This includes excavator and backhoe operators while digging. The driver of passenger type vehicles is responsible to ensure that all passengers adhere to this rule.
- Stay on prescribed haul roads. Equipment traveling on public streets is required to have a rotating (flashing) beacon and orange triangle mounted on the rear. Slow moving equipment must have an escort vehicle following.
- Daily inspection sheets must be completed each shift by the operator. A walk around inspection is required at the start of shift or when first getting on the equipment. Defects that affect safe operation must be repaired before use.
- A walk-around inspection is required to ensure that no one is near the equipment when it has been idle for an extended period, at the end of the lunch period and at the start of shift.
- All raised equipment must be lowered to the ground and the engine shut off before leaving the operator's seat. Never leave a vehicle unattended, with the motor running. Take the keys with you in public areas.
- The engine must be shut off while refueling. No smoking or other hot work is to take place during refueling.
- Vehicle rules apply to all vehicles driven on Project property.
- Wheel chocks are required on all trucks 1-½ ton or larger and other equipment when it is parked.
- No one is permitted to ride in the back of trucks or pickups.
- Vehicles without back alarms are required to honk the horn twice prior to backing.
- No one is permitted to ride the fenders or any other area except seats designed for passengers.
- Backing of scrapers and other large equipment requires signaling by a flag person.
- Drivers must remain in clear view of any operator loading or unloading a truck. The operator is required to stop all operations if he/she cannot see the driver in a safe place.

## LADDERS

Improperly used ladders can present one of the major hazards in construction work.



- Do not carry materials up or down a ladder. Use a hand line.
- Always move the ladder to avoid over-reaching.
- Stepladders may not be used by leaning against an object or wall they must be fully opened to permit the spreader to lock.
- Never stand or work from the top two (2) rungs of a stepladder.
- Only industrial-type heavy-duty (Class I-A) ladders shall be used on the Project.
- Broken or damaged ladders must not be used. Tag, repair, or destroy them immediately. Ladders to be repaired must be tagged with a tag, "Do Not Use."
- Do not splice two short ladders to make a longer one.
- All straight ladders must be tied off at the top. One person must steady the ladder until another person can climb and secure it.
- Ladders must not be leaned against anything that can move.
- The base of the ladder must be set back to a safe distance. This distance is usually about  $\frac{1}{4}$  the height of the ladder. Thus, a twelve (12) foot ladder would be set back about three (3) feet at the base.
- Ladders used for access to a floor or platform must extend at least three (3) feet above the landing unless there is a secure grab rail extending at least three (3) feet above the landing.
- The area around the base of ladders and the ladder must be kept free of trip hazards like cords, hoses, rubble, etc.
- Ladders that project into doorways, passageways or where they could be hit by other people or equipment must be barricaded from all directions of travel. Both sides of doors must be marked against passage.
- You must face the ladder at all time when climbing or descending. This includes equipment operators mounting and dismounting equipment.
- Straight ladders must be equipped with non-slip "safety feet."
- Unless designed for two people, only one person is permitted on a ladder at one time.
- People working from ladders where their feet are six (6) feet or higher above the surrounding area must be tied off.

- Wooden ladders may not be painted.
- Always use the three-point rule when climbing or descending ladders. One hand and both feet or both hands and one foot. Sliding down railed ladders or stairs is prohibited.
- Extension ladders must overlap at least three rungs. Latches must be checked to ensure they are securely caught and the rope tied to prevent slippage.
- Check with the Project Superintendent before using any ladders longer than twenty (20) feet.
- Job made ladders must be approved by the Director of Safety before they are used.
- Double cleat ladders shall not be longer than twenty-four (24) feet.

## SCAFFOLDS

- Every scaffold must be built under direction of a Competent Person.
- No scaffold may be used until it has been tagged to show that it is complete.
- Ladders, top rails, mid-rails, and toe boards are required on all scaffolds. Climbing the end braces is not allowed unless the scaffold was specifically designed as such.
- Upright support braces for railings shall not be more than eight (8) feet apart.
- All cross braces and pins must be in place for any scaffold to be tagged complete. (Special circumstances may permit a different configuration upon written authorization from the manufacturer.)
- Rolling scaffolds must have all the wheel brakes locked before people are allowed to climb onto it. No one is allowed to ride a rolling scaffold when it is being moved.
- Scaffolds may be loaded only according to the manufacturer's recommendations and with a four to one (4:1) safety factor.
- Keep scaffolds clean. Do not allow accumulations of trash, used materials, or other trip hazards.
- Scaffold decking should be across the full width. Special circumstances may permit decking to be only twenty (20) inches wide. Partial decking requires railing with top-rail, mid-rail, and toe boards installed at the edge of the deck.

- Scaffold deck planks must overlap each other by at least six (6) inches.
- Unsupported overhang of scaffold planks shall not be more than eighteen (18) inches unless the other end is firmly tied down and the unsupported section is barricaded off.
- Ends of scaffolds must be barricaded (at least a 2x4 nailed across the open end).
- All scaffolds shall require a mudsill at least 2"x10"x10" unless the manufacturer recommends greater base dimensions. (1 1/8" plywood may be substituted for 2" material.)
- Barrels, boxes, brick, and other unstable materials shall not be used as work platforms.
- Scaffolds shall be secured to the building or other stable area when the height of the scaffold is three (3) times the least base width.
- Suspended scaffolds shall not be used on the Project without written authorization from the Director of Safety.

## EXCAVATIONS

- No person shall enter an excavation until it has been inspected by a listed competent person. (The Director of Safety maintains the list.)
- No excavation shall be started until a complete U.S.A. survey has been completed and utilities have been clearly marked.
- Hand digging for the last two (2) feet is required until buried utilities have been located. Care shall be exercised to prevent damage to utilities with equipment.
- Excavation walls must be carefully watched any time there is nearby vibration from traffic, equipment, or compaction equipment. Stability of the walls may change rapidly from vibration.
- Ladders or structured ramps shall be used for access to all excavations deeper than three and one-half (3 1/2) feet.
- Ladders shall be within twenty-five (25) feet of every person working in an excavation.
- Ladders shall be "tied off" at the top. Stakes used to support ladders shall be protected with rebar covers.
- Use a hand line to place material and tools into excavations. Never carry materials while climbing ladders and do not throw materials into or out of excavations.

- Personnel shall stay out of the reach of excavators to avoid being struck by the bucket.
- No one is permitted beneath any suspended or elevated load.
- Shoring, when used instead of sloping, shall be as the manufacturer recommends, as outlined by Cal-OSHA, or designed by a Registered Professional Engineer.
- The Competent Person is required to inspect excavations after every rain or earthquake to ensure that conditions have not deteriorated.
- Excavations must be barricaded or flagged to warn people of the hazard. This is especially important when leaving the area for the day.
- Loose materials must be piled at least two (2) feet back from the edge of the excavation. More distance may be required to permit personnel to walk in the area.

#### HOISTING AND RIGGING

- Only domestic rigging shall be permitted on the Project. Manufacturer's name must be imprinted on hooks, shackles, synthetic slings (tag), chain slings (tag and links), and wire rope slings (tag). Rigging without tags must be taken out of service and turned over to the Project Superintendent for evaluation.
- Rigging operations must be planned, supervised, and performed by personnel who are competent in rigging practices.
- Never use hoisting equipment beyond its capacity. You must know the weight of the load you are hoisting. If you do not know, use the weight indicator on a crane to assure you are within the capacity of the equipment.
- Never stand under a suspended load.
- Never allow or signal a load over people.
- Softeners must be used between the rigging and any sharp or right angle edges. (Wire rope rigging should never be tightened on any corner narrower than twenty-five (25) times the diameter of the rigging.)
- Inspect cranes and other hoisting devices to ensure stable footing for outrigger pads. Never set up on makeshift footing or over utilities that are near the surface unless enough footing has been set to spread the load.

- ☑ Nearly all hoisted loads require a tag line. Hoisting suspended loads without a tag line requires authorization from the Superintendent and the Director of Safety. No “Hands On” the load until it is below shoulder height.
- ☑ Visually inspect all rigging before and after use. Tag and immediately remove defective items from the work area to be repaired or destroyed.

#### Rigging Defects/Wire Rope

- Broken wire
- Bad kinks
- Inner core protrusion
- Signs of burns
- Crushed wires
- Severe rust
- Hand tucked and wire rope clip eyes are not permitted for hoisting

#### Rigging Defects/Nylon

- Cuts or stretched to expose colored thread
- Severe abrasion
- Missing or distorted manufacturers’ rating tag. (If you cannot read the tag, you cannot use the sling.)
- Broken or worn stitching
- Signs of burns (chemical or thermal)

#### Rigging Defects/Polyester (round)

- Cuts, nicks, or tears to expose the inner core
- Signs of burns (chemical or thermal)
- Missing or distorted manufacturer’s rating tag (If you cannot read the tag, you cannot use the sling.)

#### Rigging Defects/Hooks and Shackles

- Deep cuts
- Stretched, bent or twisted
- Worn more than 10% of original diameter

#### Rigging Defects/Chain

- Missing or distorted manufacturer’s tag
- Cuts
- Stretched links
- Severe wear
- Signs of burns

- Hoisting during high wind (25 mph) conditions requires written authorization from the Director of Safety.
- All hooks require a safety latch. Sorting hooks may be used only with written authorization from the Director of Safety. Locking hooks are required for hoisting to tunnel locations.
- No more than one (1) eye shall be permitted in the hook. Multiple slings must be fitted into an eye or shackle. The eye or shackle shall then be placed over the hook.
- Do not drag slings from under loads. Place the load on dunnage or pre-dig a low spot under materials that must be set flat on the ground.
- The operator must be in the seat at the controls whenever a load is hoisted or is suspended.
- Chains used for hoisting must be certified by the manufacturer, have a tag affixed to state capacity, length, manufacturer's name, and size of the links.
- Hooks must be attached to chain slings by positive means other than cotter pin or other keepers that could shear under load.

## **CRANES AND HOISTING EQUIPMENT**

- Cranes and hoists, exceeding 3 tons rated capacity, shall not be used without a current annual certificate of examination and testing issued by an accredited crane examiner (proof of inspections are required).
- Cranes or hoisting equipment shall be operated only by qualified and designated personnel. A written test must be taken and successfully completed before personnel are allowed to operate a crane or other hoisting equipment (proof of training is required).
- Crane operators shall make a visual inspection of their equipment prior to its first operation on any work shift. A written inspection by a qualified person is required every 750 operating hours or every 3 months whichever comes first. Documentation must be available at the site for review.
- Rated load capacities and recommended operating speeds, special hazard warnings, or instructions, shall be conspicuously posted on all equipment; they shall be visible to the operator from his/her control station, and an accessible fire extinguisher of 10ABC rating, shall be available at all operator stations or cabs of equipment. Crane operations position shall be kept clear of loose tools or material.

- Loads shall be attached to the hook by means of slings or other suitable rigging to insure the safe handling of the load (refer to safe rigging section). Hook or ball painted white or yellow may be visible in poor visibility situations.
- A signaler (only one) using the uniform hand signals, shall be used to direct the operator when the point of operation is not in direct view of the operator, unless a radio or other positive means of communication is used.
- The operator shall respond to signals from only one person. The operator shall not follow any signal that is not understood, but shall always obey a stop signal.
- The operator shall be responsible for the operations and load under his/her control at all times. Whenever there are doubts about the safety of movement, the operator shall stop operations until safety is assured.
- A warning signal, such as a horn, shall be sounded to alert personnel to proximity of moving loads. Loads should not be passed over personnel, and personnel should not be permitted to work in the area directly under a suspended load.
- Concrete buckets - No employee shall be permitted to work under concrete buckets while the buckets are elevated. To the extent practical, elevated concrete buckets shall be routed so that no employees, or the fewest number of employees, are exposed to the hazards associated with falling concrete buckets. (Employees shall keep out from under suspended loads at all times.)
- Cranes shall not be operated or loads handled in such a manner that any machine part or load will come within ten feet of electrical lines carrying 50,000 volts or less. Greater distances are required for lines carrying over 50,000 volts. Post warning sign in plain view of operator.
- No person shall be permitted to ride on loads, slings, hooks, buckets or other such load handling attachments.
- Only qualified and authorized personnel shall conduct all repairs, adjustments, modifications, rigging assembly or dismantling.
- Rotating cranes shall be barricaded or other positive means shall be taken to prevent personnel from entering the area between the rotating machine deck, and any stationary machine parts or outside obstructions.
- A critical lift checklist (available from Director of Safety) will be completed anytime:
  - 2 cranes are used to make a lift
  - When a lift is within 90% of the load chart
  - Or any unusual conditions are encountered

- ☑ Crane suspended work platforms will only be used if there is no other safe means to reach the work area. The Contractor will complete a Jobsite Safety Analyze (JSA). The JSA will be completed by appropriate parties and reviewed by Director of Safety, General Superintendent, and Superintendent.
- ☑ Any overhead wire shall be considered to be energized unless and until the person owning such line or operating officials of the electrical utility supplying the line assures that it is **NOT ENERGIZED** and it has been visibly grounded at the work site.
- ☑ Operations adjacent to overhead lines are prohibited unless at least one of the following conditions is satisfied.
  - Power has been shut off and positive means taken to prevent the lines from being energized. Visible grounding is required.
  - The operation, erection, handling, or transportation of tools, machinery, materials, structures, scaffolds, or the moving of any house or other building, or any other activity where any parts of the above or any part of an employee's body will come closer than the minimum clearances from energized overhead lines as set forth in Table 1 shall be prohibited.

Operation of boom-type equipment shall conform to the minimum, clearances set forth in Table 2, except in transit where the boom is lowered and there is no load attached, in which case the distances specified in Table 1 shall apply.

<b>TABLE 1</b>	
General clearances required from energized overhead high-voltage conductors.	
Nominal Voltage (Phase to Phase)	Minimum Required Clearance (Feet)
600 – 50,000	6
Over 50,000 – 345,000	10
Over 345,000 – 750,000	16
Over 750,000 – 1,000,000	20

<b>TABLE 2</b>	
Boom-type lifting or hoisting equipment clearances required form energized overhead high-voltage lines.	
Nominal Voltage (Phase to Phase)	Minimum Required Clearance (Feet)
600 – 50,000	10
Over 50,000 – 75,000	11
Over 75,000 – 125,000	13



Over 125,000 – 175,000	15
Over 175,000 – 250,000	17
Over 250,000 – 370,000	21
Over 370,000 – 550,000	27
Over 550,000 – 1,000,000	42

- Work activity that could affect or be affected by overhead lines shall not be initiated until coordinated with the local and appropriate utility officials.
- Overhead transmission and distribution lines shall be carried on tower or poles, which provide safe clearances over roadways, structures, vehicles and for the operation of construction equipment.

## RIGGING

No lifting or hoisting operation can be safe unless properly rigged. The following policies are provided to help insure that operations involving hoisting and the application of ropes, slings, chains and accessories are done safely. For further information, consult the **California, Title 8, Construction Safety Orders** – Article 9 Derricks, Cranes, Boom Type (Sections 1581-1589); Article 14 Construction Hoists (Sections 1604-1605.21); Article 15 Hoisting (Sections 1610-1616); **California, Title 8, General Industry Safety Orders** – Group 13 Cranes and Other Hoisting Equipment (Sections 4884-5049); **Cal-OSHA Regulations (Standards-29CFR)** – Subpart N 1910.179-1910.181, 1910.184 (Cranes, Derricks, Slings); Subpart R 1926.753 (Hoisting/ Rigging); Subpart N 1926.550, 1926.552, 1926.556 (Hoists, Material Hoists, Aerial Lifts); Subpart H 1926.251 (Rigging equipment for material handling); Subpart CC 1926.1412-14, 1926.1422 (Wire Rope Insp./ Installation, Signaling).

## Responsibilities

- Planning: Major rigging operations must be planned and supervised by Competent Personnel to ensure that the best methods and most suitable equipment and tackle are employed. This should be the superintendent or foreman in charge.
- Supply and Care of Rigging Equipment: Subcontractor foreman must ensure:
  - Proper rigging equipment is available.
  - Inspect all rigging before use and periodic documented inspections are required
  - Correct load ratings are available for the material and equipment used for rigging.
  - Rigging material and equipment are maintained in proper working condition.
- Rigging Operation: The supervisor of the hoisting operation should be responsible for:
  - Proper rigging of the load
  - Supervision of the rigging crew
  - Ensuring that the rigging material and equipment have the necessary capacity for the

- job and are in safe condition
- Ensuring correct assembly of rigging material or equipment as required during the operation, such as the correct installation of lifting bolts.
  - Safety of the rigging crew and other personnel as they are affected by the rigging operation

## General Rigging Procedures and Precautions

- Know the safe working load of the equipment and tackle being used. NEVER exceed this limit.
- Determine the weight of the load before rigging it.
- Examine all hardware, equipment, tackle and slings before use and destroy defective components.
- If you think equipment or rigging is unsafe, report it to your supervisor immediately. Do not use it until deemed safe.
- Never carry out rigging or hoisting operations if weather creates a hazard to personnel, equipment, property, or the public. Rated hoisting capacities should be de-rated when winds exceed 20 mph.
- Whenever the temperature is below freezing (32 degrees F), extreme caution must be exercised to ensure that no part of the hoist or crane structure or rigging is shock loaded or impacted as brittle fracture of the steel can result.
- The most repeated killer of riggers and those persons handling loads is electrocution caused by the contact of the boom, load line, or load of a crane with electric power lines. Observe distance limitations and other precautions whenever working around energized power line. Crane and other boom type equipment must have high voltage warning signs posted in view of operator.
- The load must always be kept below the boom point or upper load block. Side loading reduces stability and introduces stresses for which the equipment is not designed. Rapid swinging also reduces stability. Observe all of these precautions.
- Remember, you must take into account the weight of hook blocks, hooks, slings, equalizer beams, material handling equipment, etc., in determining the maximum allowable load you can handle.

## LOCKOUT/TAGOUT

- ☑ The Lockout/Tag out requirements are to protect **YOU** from injury from hazardous energy sources. These may be electrical, pneumatic (air), hydraulic (fluid) or mechanical. (This includes mechanics working on vehicles or equipment.)
- ☑ Notify your foreman when a Lockout/Tagout is necessary. The foreman will determine, with assistance from the safety department, the type needed.
- ☑ “DANGER” tags are used to warn others that the operation of a switch, valve, or piece of equipment could result in injury if inadvertently started or the energy source turned on.
- ☑ Never attempt to operate equipment or try switches, valves, buttons, etc. that have someone else’s tag attached.
- ☑ **Do’s**
  - Place your lock on the box personally – do not have someone else do it.
  - Have a lock and have your name on it if you normally do work that requires a lockout.
  - Have authorized electrical personnel lock and tag all electrical switches.
  - Remove your lock at the end of your shift. (If a system needs to stay locked out for an extended period, a supervisory lockout/tagout will be used.
  - Verify after locking and tagging and before starting work to make sure the equipment will not operate.
- ☑ **Don’t**
  - Remove someone else’s tag or operate a valve, switch, or device that has another person’s DANGER tag attached.
  - Use lockout locks for anything other than Lockout/Tag out.

## ELECTRICAL

It takes very little electrical current to cause death, less than 1/10 of an ampere. 110-volts are sufficient to cause death. The following precautions have been implemented to protect you from electrical shock.

All electrical hand tools must be grounded or be double insulated. Electrical grounds on tools must be confirmed by testing at least once every three (3) months. All “temporary” cords must be inspected and tested at least every three months.

- ☑ All 120-volt cords, except when they are, plugged into permanent wiring of a completed building, must be protected by a Ground Fault Circuit Interrupter (GFCI) type breaker or attachment.
- ☑ Electrical repairs, except plug attachment by a qualified person, shall be made by trained electricians.

- ☑ Cords shall not be spliced except by trained electricians. Proper insulation and connections must be used.
- ☑ Cuts or tears in the insulation of cords may not be taped. They shall be repaired using shrink-wrap or similar repair materials authorized by a trained and authorized electrician.
- ☑ Temporary lighting must have guards over the bulbs. Empty light sockets are not allowed. Sockets that do not have light bulbs in them must be sufficiently taped to prevent someone from accidentally coming in contact with live parts.
- ☑ Only trained and authorized electricians are permitted to remove covers from panels or work on live circuits. Work on live circuits must be authorized in writing by the electrician's superintendent, Director of Safety, and Superintendent.

## **FORKLIFTS**

- Forklifts must be inspected each day prior to use to determine that they are in safe working condition (refer to Forklift Inspection form at the end of this Appendix or use manufacturer's inspection guidelines)
- Forklifts will be operated in accordance with manufacturer's recommendations.

### **Forklift Training Requirements**

Employees operating forklifts must be trained by a person qualified to recognize the hazards associated with aerial lifts and to understand the procedures to control or minimize those hazards. The training must comply with OSHA guidelines.

**Operators must be trained on the equipment they will be operating or competency verified by a qualified person prior to vehicle operation (refer to Forklift Operator Proficiency Evaluation form at the end of this Appendix).**

- Current certification must be maintained.
- Certification will be revoked and refresher training provided and/or operator proficiency verified before commencement of operation when:
  - The operator is observed to operate the vehicle in an unsafe manner.
  - The operator is involved in an accident or near miss incident.
  - The operator is assigned to drive a different type vehicle
  - Conditions in the workplace change that could affect safe operation.

### **Aerial Lifts**

Lifts shall be inspected each day prior to use to verify they are in safe working condition. (Refer to Scissor/Boom Lift Inspection form or use manufacturer's inspection guidelines.)

- Only authorized persons shall operate an aerial lift, and must be trained on the

- equipment they will be operating. Current certification must be maintained.
- Always stand on the floor of the basket, do not sit, or climb on the edge of the basket or use planks, ladders, or other devices for a work position.
  - A body harness should be worn and a shock-absorbing lanyard attached to the boom or basket when working from an aerial lift. Tying off to an adjacent pole, structure, or equipment is not permitted.
  - Boom and basket load limits specified by the manufacture should not be exceeded.
  - The brakes should be locked and when outriggers are used, they should be positioned on pads or a solid surface. Wheel chocks must be used before using an aerial lift on an incline provided they can be safely installed.
  - An aerial lift truck should not be driven when the boom is elevated with personnel in the basket.
  - Aerial lifts should have both platform (upper) and lower controls. Upper controls should be in or beside the platform within easy reach of the operator. Lower controls should provide for overriding the upper controls. Controls should be plainly marked as to their function. Lower level controls should not be operated unless permission has been obtained from the employee in the lift, except in case of emergency.
  - Lifts must be thoroughly inspected to determine if they require two hands or a hand and a foot to operate. Any lift that does not meet these conditions must immediately be removed from service and either returned, replaced, or modified to meet this requirement.
  - A spotter may be needed when there is a potential for operator injury due to physical contact with facility systems or structures or in congested areas. Spotters may also be needed when there is a potential for damage to sensitive facility systems or structures.

### **Scissor Lifts**

- Lifts shall be inspected each day prior to use to determine that they are in safe working condition (refer to Scissor/Boom Lift Inspection form at the end of this Appendix or use manufacturer's inspection guidelines).
- Only authorized persons shall operate a scissor lift, and must be trained on the equipment they will be operating (proof of training is required).
- Lifts shall be operated in accordance with manufacturer's recommendations.
- Lifts must be thoroughly inspected to determine if they require two hands or a hand and a foot to operate. Any lift that does not meet these conditions must immediately be removed from service and either returned, replaced, or modified to meet this requirement. If the requirement cannot be met for a two-hand controlled scissor lift, and a lift is unavailable to meet this requirement, a spotter will be needed for all equipment movement (other than incidental movement where there is no potential for operator injury due to physical contact with facility systems or structures).

Note: A spotter may be needed when there is a potential for operator injury due to physical contact with facility systems or structures and in congested areas. Spotters may also be needed when there is a potential for damage to sensitive facility systems or structures.

All equipment operators (scissor/boom lift, forklift etc.) must be properly trained in the safe operation of their specific equipment. Each operator must carry a current training card to be presented prior to the start of work.

## **PRE-CAST CONCRETE**

Pre-cast concrete units, structures, and tilt-up wall panels must be adequately supported to prevent overturning and to prevent collapse until permanent connections are completed.

- Review “Cranes and Hoisting Equipment” Section
- Tools and strand devices shall be kept clean and in good repair.
- Lifting inserts that are embedded or attached to concrete members, other than tilt up, shall be capable of supporting at least four times the maximum intended load applied to them. Lifting devices for other pre-cast members must be capable of supporting five times the load. Only those employees essential to the operation will be allowed in the immediate vicinity of pre-cast lifting or tilt-up.
- Vacuum lifting devices must be applied only to smooth clean surfaces. An automatic cutoff must be provided to prevent loss of suction in the event of failure of the compressor power source, tank, lines, or other attachments.
- Panels must be securely and adequately braced in final positions, and bracing shall remain in place until sufficient support is provided by portions of the final structure. Standing vertical panels shall be braced to withstand 10 lbs. /sq. ft. wind load during construction, and are to be protected against possible impact by moving vehicles or equipment.
- An erection plan and procedure must be prepared by a Civil Engineer registered in the state of California and kept available at the job site. Field Modifications must to be approved by the responsible Engineer and added to the plan and procedure kept at the job site. Concrete erection stresses, lift point attachments and locations in tilted up concrete panels shall be designed by a currently Registered Engineer. Plans shall be available at the site.

## **ASBESTOS GENERAL SAFETY PROCEDURES**

Every person on earth has probably been exposed to asbestos because it is so widely used and is a naturally occurring substance. However, the health risks associated with asbestos are directly related to the amount and frequency of exposure. Decreasing exposure to asbestos will decrease the health risks associated with it. This can be done by following safe work practices and taking proper precautions.

The health risks associated with exposure to asbestos occur when it is disturbed and releases fibers into the air. To reduce exposure, it is important to know where asbestos is located and to minimize activities that will release fibers into the air. The potential for a particular form of asbestos to release fibers will depend on several factors including the degree of friability, wear, age, and location.

Exposure to asbestos fibers can be hazardous. The following general precautions will reduce exposure and lower the risk of asbestos related health problems:

- ☑ Drilling, sawing, or using nails on asbestos materials can release asbestos fibers and should be avoided.
- ☑ Floor tiles, ceiling tiles, or adhesives that contain asbestos should never be sanded.
- ☑ Use care not to damage asbestos when moving furniture, ladders, or any other object.
- ☑ Know where asbestos is located in your work area. Use common sense when working around products that contain asbestos. Avoid touching or disturbing asbestos materials on walls, ceilings, pipes, ducts, or boilers.
- ☑ All asbestos containing materials should be checked periodically for damage or deterioration. Report any damage, change in condition, or loose asbestos containing material to a supervisor.
- ☑ All removal or repair work involving asbestos must be done by specially trained personnel. OSHA and EPA regulations are very specific about work practices and equipment required to work safely with asbestos. These requirements may include proper respirators, special enclosures, training, exposure monitoring, long-term record keeping, and medical surveillance.
- ☑ Asbestos should always be handled wet to help prevent fibers from being released. If asbestos is soaked with water or a mixture of water and liquid detergent before it is handled, the fibers are too heavy to remain suspended in the air.
- ☑ In the presence of asbestos dust above the Permissible Exposure Limit (PEL), the use of a respirator approved for asbestos work is required. A dust mask is not acceptable because asbestos fibers will pass through it. The Director of Safety must approve the use of respirators.
- ☑ Dusting, sweeping, or vacuuming dry asbestos with a standard vacuum cleaner will put the fibers back into the air. A vacuum cleaner with a special high efficiency filter (HEPA) must be used to vacuum asbestos dust.
- ☑ If a HEPA vacuum is not used cleanups must be done with a wet cloth or mop. The only exception to this would be if the moisture presents an additional hazard such as around electricity.
- ☑ Asbestos waste, including all clean up materials, must be sealed in a double 6-mil plastic asbestos bag and properly labeled before being disposed in an EPA approved landfill.

Remember, the mere presence of asbestos itself does not create a health hazard unless the material is disturbed and releases fibers to the atmosphere. Protect yourself and others by being aware of where asbestos is located, the dangers involved, and using common sense when working around Asbestos Containing Materials (ACM).

## Asbestos Floor Tiles

The following procedures should be used when caring for asbestos containing floor tiles.

- Sanding of asbestos containing floor tiles is prohibited.
- Stripping of finishes shall be conducted using wet methods and low abrasion pads at speeds lower than 300 rpm. Do not perform dry stripping or over strip the floor.
- When high speed buffing is done, ensure that there is adequate sealer and finish on the floor. Always keep the machine moving.
- Do not remove or attempt to repair loose floor tiles. Improperly removed asbestos containing floor tiles could result in the release of high levels of asbestos.
- Report loose floor tiles to supervision immediately. Avoid running the machine over loose tiles.

## Asbestos Fiber Releases

Special procedures are needed to reduce the spread of asbestos fibers after a release of fibers has occurred, such as the partial collapse of an ACM ceiling or wall. Depending on the severity of the release, an asbestos contractor may be needed to conduct the cleanup operation. If fibers are released through an incident, personnel should take the following steps to reduce asbestos exposure to occupants until trained asbestos personnel arrive:

- Prevent access to the contaminated area if possible.
- Shut and lock doors.
- Report the damaged ACM to supervision.
- Remain in the area to direct asbestos personnel to the site.
- Do not attempt to clean up a release.

On occasion potentially large releases of asbestos fibers will occur. When this happens, supervision should be notified immediately. Supervision will notify the Director of Safety, who will conduct an evaluation of the release and determine what actions should be taken. A minor release episode is defined as three square or linear feet or less of friable ACM. A licensed asbestos contractor will be called to clean up releases.

## Summary

The following key points should be remembered:



- Inhalation of asbestos fibers can cause asbestosis, lung cancer, and mesothelioma. These health effects were noted primarily in workers exposed routinely to very high levels of asbestos on their jobs.
- The health effects from exposure to low-level amounts of asbestos fibers are not as well understood. Therefore, custodial/maintenance workers should exercise caution when working around ACM and try to minimize exposures.
- Three naturally occurring asbestos minerals, chrysotile, amosite, and crocidolite, are commonly used in building products.
- Asbestos became a popular commercial product because of its strength, heat resistance, corrosion resistance, and thermal insulation properties.
- ACM is regulated by EPA, OSHA, the Consumer Product Safety Commission, and individual state and local agencies.
- Friable ACM can be found in about 700,000 public and commercial buildings. Many areas where asbestos is found are not accessible to the general public.
- Some common uses of asbestos included pipe/boiler insulation, spray-applied fireproofing, floor and ceiling tile, and cement pipe/sheeting.
- Positive identification of asbestos requires laboratory analysis. Information on labels or visual examination is not sufficient.
- Intact, undisturbed materials generally do not pose a health risk. Asbestos may become hazardous when damaged, disturbed, or deteriorated over time and release fibers into the air.
- If you smoke and work around asbestos, your risks for developing asbestos related disease dramatically increase.
- Report all releases and damaged ACM to supervision. Do not attempt to clean up asbestos spills.
- Contractors are required to follow strict OSHA and EPA regulations when removing asbestos. Construction debris may be present after the contractor has left. This material will be free of asbestos.
- Always consult the Asbestos Management Plan (available in construction documents) to determine where ACM is located in your work area.

# Attachment C